

Apponomics



The Insider's Guide to a
Billion Dollar App Business

By Peggy Anne Salz
In Partnership with InMobi

"Apponomics: The Insider's Guide to a Billion Dollar App Industry" is a very useful contribution to helping folks understand how to address this complex topic. It's refreshing to see such a balanced view presented; it's neither "an easy way to make your millions" nor doom laden. It tells the simple truth that success in this market is elusive, but with careful preparation you will maximize your chances."

— **Jo Rabin**, *Director, Mobile Monday London*

"Making a great app is only half of the battle, then it comes user acquisition and monetization—not always an easy feat in this rapidly changing global market. "Apponomics: The Insider's Guide to a Billion Dollar App Industry" is full of best practices and tips from industry experts that will help any app developer improve their chances of success in this complex business."

—**Dave Westin**, *Co-founder, Mobile UA Fellowship*

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INTRODUCTION

Move into the mobile app fast-lane

It's no longer a secret that creating apps has become a serious source of income for thousands of app developers across the world. And while developing apps has become a profession for many, not all developers have mastered the final step: How to grow the user base and make money?

The voracious speed at which the app industry continues to evolve, and the scores of products, tools and platforms available to build and monetize apps, can often overwhelm an app developer who is attempting to build a sustainable business.

At InMobi, our customers range from large developer studios that make hundreds of millions of dollars annually, to much smaller app developers who fight for survival with minimal marketing resources.

We have aided in building global success stories among this diverse group of app developers and have played a pivotal role in guiding them through their journey to become successful “appreneurs,” including expansion from West to East, or the opposite direction, and entering key international markets like China and the U.S.

InMobi solutions address the app developer's needs across the entire app lifecycle, including app discovery & distribution, user acquisition, monetization, engagement, and retention. Our finely tuned best practices, deliver real value at every phase of the app lifecycle.

We have created this book to share our six years of insights on the app business, complete with real world case studies, developer interviews, and in-depth research to produce a practical guide that can help you, the developer, navigate the complexities of the app world.

This book is an advanced guide to user acquisition and monetization, providing tips, tricks, and practical advice to turn your app into a global business.

We hope you find this book useful and that your app finds the success it deserves!

Naveen Tewari
Founder & CEO, InMobi

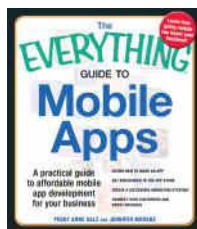
Helping you navigate some tough terrain

Apponomics: The Insider's Guide to a Billion-Dollar App Business is your roadmap to sustainable success, guiding you through the steps you need to follow to acquire quality users and make money from your mobile app.

Drawing from extensive market research and exclusive interviews with senior executives from companies across the ecosystem, this book is chock-full with lessons, learnings and best practices around targeting, acquiring and keeping loyal users.

From popular cross-platform tool providers to leading app data companies, and from regional app marketing gurus across China, Japan and Korea, to super-successful app companies that hit it big, this book uniquely gives you the inside track on everything you need to market and monetize your app.

It's both exciting and terrifying to think about the opportunities that lay ahead for your business. And it's no coincidence that developers everywhere are scrambling to produce a compelling app. My first mobile app book, *The Everything Guide to Mobile Apps: A Practical Guide to Affordable Mobile App Development for Your Business* (F+W Media Inc.), provided companies, marketers, brands and newbie app developers a crash course in the basics to help them on their first app adventure.



The new and advanced guide, researched and written in close collaboration with InMobi, takes all this to the next level. Bringing together exclusive interviews and in-depth market data, this book tells you what it takes to turn your app into a serious – and sustainable—business.

The market is massive, and the competition is tough. But the interviews and insights featured in *Apponomics: The Insider's Guide to a Billion Dollar App Business*, will equip you to meet the challenges head-on.

Strap yourself in. It's going to be a terrific ride!

Peggy Anne Salz
Chief Analyst & Founder, MobileGroove Media

Apponomics



01: App Market by Numbers

The App Economy is booming and opportunity is everywhere. But don't break out the champagne just yet. In order to conquer this market you need to understand it first. From market forecasts and user preferences, to app developer attitudes and opportunities just over the horizon, this section gives you a solid overview of the data and insights you need to make tough decisions about your app business.

Apps take off

The App Economy has arrived in full force — and every single one of us is a part of it. Already in 2013 we will have downloaded 70 billion mobile apps. That's 10x the number of people on the planet.

Research firm Gartner¹ is particularly bullish about the market outlook. It estimates the total number of mobile app downloads (both free and paid) will soar to 269 billion in 2017, up from 102 billion in 2013. That's a huge increase!

The best way to cash in on this opportunity is to be clear about where it is. This section will walk you through some of the hot market trends, revealing the top-selling app categories and uncovering the up and coming app genres where you might find your fortune.

But before you strike out on the journey it's important to have a clear understanding of the Developer Economy in which you play an important part. Drawing from app developer surveys and analysis (courtesy of the great folks over at VisionMobile) this section also helps you understand the market — and the competition.

Fortunately, the pie is big enough for everyone. Research shows every single app category reported significant growth in 2013.

But it's gaming apps that continue to break records and exceed expectations. On the InMobi network alone, games represented 64% of the total apps downloaded through the network.



This dovetails well with 'big picture' insights from the MEF, the global community for mobile content and commerce. It proclaimed that games continue to be the dominant app category despite headlines that suggest games are nearing saturation.

Based on data from app analytics company Distimo the joint report, *The Mobile App Ecosystem: Global trends in established and growth markets*², showcases the global trends across the Apple App Store and Google Play in 16 countries. It also features an analysis of download volumes and revenues by category in established markets (the U.S. and EU 5 countries), as well as growth markets including Korea, Brazil and South Africa.

Among the findings:

Source: InMobi

- Games is the dominant category with 36% of all downloads, and generates over 71% of all revenue across the Apple App Store globally. Google Play shows even higher levels of revenue generated from the Games category with 89% of all revenue coming from games.
- Other entertainment apps come second in popularity with 8% of all downloads, but only generate 2% of total revenues.
- While the social networking category is 6th measured in download volumes, it's a growing category and generates around 3% of total revenues.

The Popularity of “Games”

Apple App Store, September 2013



Source: Distimo/MEF

South Africa appears to be the exception, but not for long. Games is not yet the top app category in the Apple App Store there because Apple only made the decision in October 2013 to allow app developers to publish games in the South African Apple App Store. However, games are already the top category in the Google Play App Store, where they accounted for 76% of total revenue.



Where there is activity, there is opportunity. Use app market data to monitor the market and track the app categories users are downloading and enjoying most. This will help you detect (and take advantage) of subtle shifts in audience taste and trends, and identify the Blue Oceans³ where opportunity is untapped and the market is uncontested.

App opportunity in education

Games is clearly a category where you can make money with your app. But there's also a niche within the games category – the so-called 'educational games' category– that analysts say may be the next Big Thing.

The edugame app category is set to reach to US\$8.9 billion in 2017 up from US\$1.5 billion in 2012, according to market research firm Ambient Insight⁴. This growth is driven by the advance of smartphones, tablets and increasing interest – among young and old – in games-based learning and training.

From simulation programs delivered by apps to help workers do their jobs better, to apps that teach children outside the classroom, edugame apps are rising up the ranks.

In fact, learning apps now rank in the top 10 apps in many different countries, not just in Japan where the trend started. A great example is Norway's DragonBox, a math game teaching children algebra that has actually outsold Angry Birds⁵ in that country when it launched.

Ambient Insight expects the largest growth in mobile learning will be in Africa, where the App Economy is relatively new and quite diverse. Unlike other regions of the world where mobile operators have closed down their app stores, these alternative app stores are flourishing in Africa.

The newest addition is the storefront managed by MTN in Nigeria, which opened for business in July 2013. Meantime, Apple has opened app stores in 16 African countries in the last two years including Algeria, Angola, Ghana, Mozambique, Nigeria, Tanzania, and Zimbabwe. Not to be outdone Microsoft, Amazon and Blackberry have also opened app stores across the African continent.

Edugames are a global opportunity. But winning isn't just about targeting the markets where edugames are taking off. It's also about understanding the user segments where demand for these mobile apps exceeds supply.

In the U.S., for example, many game-based learning and edugame apps cater to children in the early grades. However, Ambient Insights⁶ data presented during the Serious Play Confer-

ence 2013 shows supply starts to taper off for children in middle school, an age bracket too advanced for apps that teach the basics, but not yet old enough for more sophisticated apps that instruct difficult subjects like physics and chemistry.

'Healthy' app markets

Global installations of sports and fitness apps, which are mainly used on smartphones, will grow to 248 million in 2017, up from 156 million in 2012, according to a new report from information and analytics provider IHS⁷.

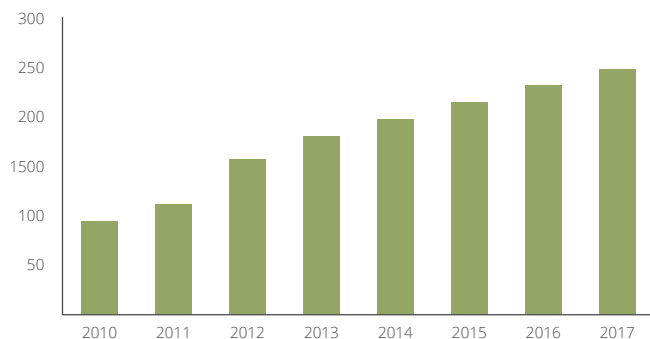
The data, which incorporates three major app categories: running, heart rate, and multi-sport and activity tracking, refers to downloads, not users.

"Inspired by watching our own baby girl, we noticed that there wasn't much in the way of education for toddlers to learn English. We quickly realized there was a large, untapped audience — people just like us — for a free app supported by advertising geared to parents and children. We created a simple app for kids to learn English ... and today our Baby Flash Cards app is viral and continues to rank among the top 100 to top 150 apps on iOS and on Android as well."

~Meeta Shah,
CEO, Eflashapps

Global Forecast of Installations of Sports & Fitness Mobile Apps

(in Millions of Units)



Source: IHS Inc. July 2013

The trend to fitness apps plays in favor of top names including Runtastic, Azumio, RunKeeper, Endomondo and MapMyFitness. But the report also sees opportunity for app developers whose apps interface with external sensors and monitors using wireless technology. Even better if the apps are designed to be able to share fitness information on social networks.

Case Study: EFlashApps



Some mobile apps are a matter of trial and error, developed based on a hunch about what we like or would likely appreciate. Others are a success because they have drawn on observations around our everyday behavior to empower us to reach our bigger goals.

The latter is true for EFlashApps, an app (and now app company) that got the idea in 2009 for its education app from real-life experience. The founders, husband and wife team Dishant and Meeta Shah, were raising their 18-month old daughter. Dishant, a radiologist, was in training with long hours away from his family. Meeta, an entrepreneur, became the stay-at-home mom. Around the same time, Dishant had given Meeta an iPhone as a gift, a device she also let her toddler play with to stay entertained.

Meeta noticed that there were loads of fun apps, but very little in the way of edutainment. “That was the inspiration for our first app, Baby Flash Cards,” Dishant recalls. The couple sourced talent to develop the app based on their idea of the user experience and benefit it should have, and four months later the app was released. “The concept was a simple app for very young children to learn English,” Meeta recalls. “We are both from India originally and English is our second language. I wanted this app to be available for any and every child in the world to be able to learn English and important language skills.” The only way to deliver an app to everyone was to make it ad-supported.

Today the company has grown from one app to nearly 50 across platforms including Android and Windows. The app has long gone viral and it maintains a spot in the top 100 to top 150 on the Apple and Android app stores. Monetization has also broadened out and the company works with several partners, including InMobi.

“Advertising is the right model for promoting and enabling education for people everywhere,” Dishant says. “Our mission was to make education free and we have achieved our goal.” To make the most of the model, the team have also kept advertising as simple as their app.

“Concentration is the key for learning, and that is what our apps focus on, so by having ads or interstitials pull up or



different variations in ads would break the concentration and interrupt the learning experience,” Meeta says. To make the best use of the real-estate ads are shown in the bottom third section of the screen. It’s also important that ad filters are optimized to ensure ads do not display inappropriate content and offers. “We have worked extensively with InMobi to disable click-to-call ads as well because that interrupts the experience.”



Meeta & Dishant have 3 top tips to share:

1. **Quality is table stakes.** No matter if you outreach to your audience, or make a great choice in monetization models, your app cannot be and stay a success if you don’t deliver an app that consistently delights your users. Keep the momentum as well. Meeta and Dishant, for example, are planning some “very exciting interactive apps” that combine education and games, as well as a YouTube channel with a twist on nursery rhymes (with an app in the works).
2. **Know your audience.** An educational app appeals to a large audience, ranging from parents and teachers, to schools and educational institutions. Listen to them and use their feedback to improve user acquisition for your app. A good app is one that has users coming back – again and again.
3. **Limit the number of ad networks:** Stick with 3-5 ad networks and constantly optimize your results by using their analytics to improve monetization and mediation. You don’t need to be a ‘numbers cruncher’ to see the value of using the data to assess your business. But don’t go overboard. Getting lost in the details may blind you to larger lucrative – trends – around your app.

“Sports and fitness apps have become an integral part in the daily lives of millions of mobile users, allowing them to use their smartphones to do everything from tracking running distances, to recording their strength training sessions, to monitoring their heart rates,” Shane Walker, senior manager for consumer & digital health research at IHS, said in a press statement. Most users of sports and fitness apps are interested in tracking distances and calories burned.

Media apps on the march

Successful apps are the ones that have staying power – and encourage us to download and use them often. Fortunately, it’s not an uphill battle. A raft of recent surveys show smartphone users are already making apps part of their daily routine.

The Adobe Digital Index⁸, which measures engagement on apps, reveals our growing fascination with media apps. While people increasingly depend on mobile financial apps, apps which they use an average of 9.2 times a month, media apps come in a close second.

People use media apps 6.9 times a month, but record much longer sessions than with other apps such as retail. On average sessions last 20 minutes and some media apps, such as digital magazine apps, have seen readership grow 3x in 2013 compared with 2012.

Only travel mobile apps record longer sessions (22 minutes). But while they may be a huge hit with road worriers and vacationers, these audience segments tend to use them less frequently than any other category of app.

App developer attitudes & choices

Making an app is a complex undertaking. Making your app business successful is also hard work. As we will show you later in this book, the decisions you make will largely depend on your category of app, target audience and monetization model.

But you shouldn’t just rely on your judgment. Knowing what other app developers think, do and recommend can also help you avoid pitfalls along the way.

The State of the Developer Nation⁹ is a great resource for insights into who your peers are and the choices they make. The research series from VisionMobile draws from a survey of 6,000+ respondents across 155 countries to provide the inside track on the latest trends in the mobile app ecosystem, including developers mindshare, platform choice and prioritization and revenue models.

Mindshare

App developers are also writing apps for more operating systems (an average of 2.9 operating systems, to be exact). This number is expected to grow as a new breed of mobile platforms, including BlackBerry 10, Firefox OS, Tizen, Ubuntu and Jolla rise up to capture app developer mindshare and challenge the Apple iOS/ Google Android duopoly.

Meanwhile, VisionMobile reminds us that Microsoft's Windows Phone may struggle in its efforts to convince app developers that it can compete head-on with iOS and Android. Nonetheless, it's gaining serious mindshare, with one third (35%) of app developers saying they plan to adopt a Windows Phone.

Which platform is right for you?

VisionMobile's research asked this very question and found that app developers make platform choices based on revenue potential, user reach and the speed and cost of development.

Among the findings:

- iOS is selected more frequently than average by app developers that value revenue potential (+12%), graphics (+7%), app discovery (+8%) and user reach (+10%).
- Android is selected as a primary platform more frequently by app developers that value open standards (+16%) but lags when it comes to app discovery (-4%).
- BlackBerry 10 is used more frequently than average as a primary platform by app developers who value developer community programs (+16%).
- Windows Phone is most popular with developers looking for the right development environment (+3%) and documentation (+2%).

Monetization

The Vision Mobile survey also found that there is no one single revenue model that is dominant across all platforms.

On Android and iOS it's a balanced mix. In total 30% of Android developers are attracted to in-app advertising, 19% to in-app purchases and 20% to freemium models. On iOS pay per download, the model preferred by 36%, ties with in-app purchases (35%).

The other platforms tell a different story. On Windows Phone, developers have a strong preference towards in-app advertising (43%) and pay-per download (40%) and relatively low usage of in-app purchases or freemium. BlackBerry 10 developers have a strong preference towards pay-per download (47%).

Developer population and personas

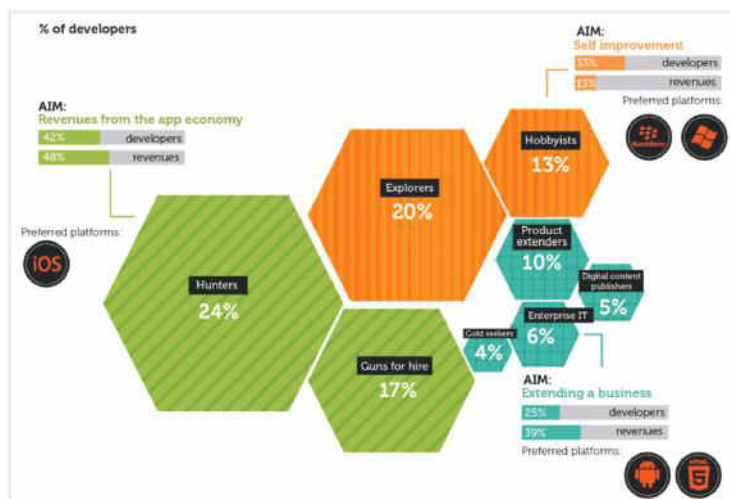
Smartphones have brought with them smarter – and more sophisticated – users. This shift creates opportunities for app developers everywhere on the planet with cool ideas and the capabilities to deliver compelling, high-quality apps. So, how many app developers are there worldwide? And how many are dead serious about their app business?

VisionMobile estimates the global mobile developer population will have reached 2.3 million by the end of 2013. The figure varies significantly by region. Generally speaking, the mobile segment corresponds to 12.6% of the global developer population.

Building on earlier research work, VisionMobile has produced a unique model of eight developer segments - the Hobbyists, the Explorers, the Hunters, the Guns for Hire, the Product Extenders, the Digital Content Publishers, the Gold Seekers and the Enterprise IT developers.

The Eight Developer Segments that make up the App Economy

Developer segments, sizes, revenues and preferred platforms. Clusters shown based on common goals. Platforms reflect above average preference.



Source: Vision Mobile, Developer Segmentation Q3 2013

Making the connection between app developer persona and app business goals, produced some interesting insights:

- Explorers and Hobbyists, those seeking to learn, have fun and self-improve, make up 33% of the mobile developer population but only 13% of the app economy revenues. These segments prefer BlackBerry 10 and Windows Phone as a platform, as these are more often associated with experimentation and learning.

- Hunters and Guns for Hire, those seeking revenues from the app economy, make up 42% of the developer population and 48% of the app economy revenues. These segments prefer - more than average - iOS as a platform, and are attracted to the consistent revenue-generating opportunities the platform offers.
- Product Extenders, Enterprise IT developers, Digital Content Publishers and Gold Seekers, aiming at extending a business, make up 29% of the developer population and 39% of app economy revenues. These segments prefer Android and HTML5 as a platform, a choice no doubt influenced by the reach that these platforms offer across the entire smartphone and feature phone installed base.

VisionMobile also found that money is not the motivation for the majority of app developers surveyed. In fact, the majority (53%) of mobile developers are motivated by creativity or the sense of achievement.

- 40% of app developers do it for the fun of it
- 34% develop apps because they want to build a business
- 29% like the excitement of being in a fast-paced industry
- 28% are in the app business to make money
- 24% are spurred on by the competition and the desire to deliver a better product than market rivals

Other research¹⁰ suggests independent or 'indie' are the largest segment of app developers. Interestingly, this is also the segment that tends to focus most sharply on making entertainment apps, an app category that includes multimedia and games apps.

Criteria for the killer app

You're determined to make a killer app?

If you want to make a non-gaming app, then you may indeed only need to make one app, provided you focus your effort on adding incremental improvements to your app over time.

However, if you want to make a gaming app, then milestone research from the Mobile Innovation Group¹¹, a research collaboration between Stanford University, MIT, and INSEAD universities, suggests that your chances of success depend on many factors - not least of all the number of apps you produce.

Simply put, non-game developers are advised to focus their energy and resources on building one strong app. Focus is the key to success. For game developers, the probability of creating a killer app goes up the more apps they make. "Since they can't know which game is going to capture the imagination and interest of their users, the optimal strategy

is to make a lot of games and see which one sticks,” observes Pai-Ling Yin¹² of the Stanford Institute for Economic Policy Research at Stanford University.

It’s a conclusion she and her colleagues have arrived at after analyzing publicly available information, survey data, and interviews to examine how app developers innovate and compete. The goal is to come up with a set of best practices for mobile app developers and companies.

The most important finding concerns the optimal number of apps to create. As the research shows, the most successful game developers focus on creating many highly varied products and releasing them quickly. In contrast, developers of non-game apps are better off making one, good, basic app and fiddling with it to improve the user experience.

Take the example of two killer apps from two different ends of the spectrum: Instagram, the photo-sharing network that has 100+ million monthly active users, and Angry Birds, the mobile game franchise produced by Finland’s Rovio that counts more than 1 billion downloads. Instagram lets users take a picture, choose a filter to alter how it looks and then post it to Instagram, where it can be shared via Facebook, Twitter, and Tumblr. Angry Birds, the mobile game franchise, involves catapulting cartoon birds at fortresses designed by evil pigs.

What made them killer apps and highly addictive? Pai-Ling chalks it up to a numbers game.

The makers of Instagram—two 20-something Stanford grads—made one app and then focused their energies on adding small enhancements here and there to improve the overall user experience.

On the other hand, many are unaware that Rovio produced over 20 games for the iPhone and other mobile platforms before the release of their Angry Birds hit. “Investing this level of time and resources to produce a killer gaming app is less feasible in more novel categories where there are less resources and knowledge available to the developer,” Pai-Ling observes.

The research is the first to identify the conditions necessary to produce a killer app (starting with the category of app) and the challenges app developers face when they are forced to play a numbers game in an established market like Games.

New research from the Mobile Innovation Group identifies the connection between the distribution channels available to app developers and the success they achieve. It finds that developers who already have an existing customer relationship tend to more successfully reach users on both Android and iOS platforms, whereas developers who only have a mobile presence face high marketing costs to get noticed out of the clutter of apps available on one platform, let alone two.

Case Study: Touchten



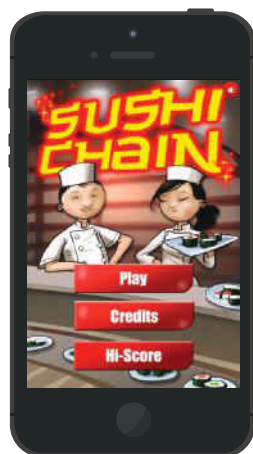
Generally speaking, indie developers have a long climb ahead of them before they reach the top of their game (no pun intended!). Not so for Anton Soeharyo, CEO & Co-founder of Touchten Games. In 2009 Anton, a native Indonesian with Chinese roots, was studying in Japan. His brother, today a partner in the venture, was enrolled in Michigan University in the U.S. Their father gave them US\$1,000 'pocket money' and the brothers brainstormed about how best to invest it.

At exactly the same time the world was discovering apps and excitement – and hype – about the novelty apps was high. The first out of the gates, iFart, a prank app that lets users select from a variety of flatulence, was an overnight sensation, staying in the top 10 until mid-January 2009, by which time it had sold more than 350,000 copies and generated more than \$10,000 a day for its creators. “I decided that, if a guy can make money from an app that made those sounds, then we could make even better apps and make money from them as well,” Anton recalled.

The brothers called in their cousin, the only one of the team with programming skills, and used their Dad’s gift to buy him a Mac Book Pro and some e-books about how to make iPhone gaming apps. After some trial and error, the team had a winner. The game called Sushi Chain— and associated keyword – filled a gap in the market. “I searched the key word Sushi in the App Store and there was no game, none at all, with the word ‘Sushi’.”

Sensing an opportunity the team released the game and monetized it using the freemium scheme that was popular at the time. The game went viral in countries including Thailand, Malaysia, Singapore and Indonesia. It then hit the U.S., where it took the number 8 spot.

Fast forward, and Touchten has caught the attention of a VC that was attracted by their entrepreneurial spirit and app business talents. With a much sharper focus on apps, the team has produced a total of 15 titles to dates and counts some 7.7 million unique installs across iOS. “As a company we have around 300,000 monthly active users.”



Advertising accounts for the lion's share of the revenues — a whopping 70-80% to be exact. Touchten is also exploring in-app purchases.

Looking back, Anton attributes Touchten's success to date to the determination to experiment and “not put all its eggs — or apps — into one basket.” Next to trial and error, targeting and user segmentation has also played a big role. “Casual games have a short lifecycle and appeal to a general audience. Targeting has helped us focus on the right audience for the right game.”

Anton's key learnings:

1. Coming from Asia to the world is tough, but worth the effort. Japan likes localized apps, so partner with an agent to get every detail right. China is like a bunch of countries rolled into one, so think hyper-local and partner with local players for distribution every step of the way.
2. Don't go with the herd. To borrow from comedian Bill Cosby: ‘I don't know the key to success, but the key to failure is to try to please everybody.’ Do your research before integrating SDKs and the same goes for monetization models. Find one or two models that work for your app — such as advertising and in-app purchases — and stick to them.
3. Words are cheap. When looking for an ad network partner, you want reach and response. That is, partners that are present in your target markets — and ones that answer questions fast. Everyone promises high ECPMs, so check your partner's track record among other app developers and on forums.



Tablets make their mark

While smartphones will continue to drive the majority of mobile downloads, tablets, such as Apple's iPad, should also be high on your radar. Analysts reckon tablets will yield as many as one in every four app installs by 2016. And that's a conservative estimate.

The impact of this shift is most significant in the U.S. market, where research firm eMarketer¹³ observes 2013 was the first year that the tablet became the preferred device for the vast majority of U.S. Internet users.

Simply put, tablets have become the way Americans want to access the Internet. And it doesn't stop there.

Tablets — equipped with larger screens that make them ideal for leisure activities like playing games, accessing social networks and watching videos — are also gaining ground as a primary means to consume content and entertainment, a trend largely driven by apps.

This development has prompted eMarketer to identify U.S. tablet gamers as the largest tablet content audience in its forecasts. It pegs the number of tablet gamers at 96.1 million in 2013, a figure set to reach 143 million in 2017.

Tablets will also emerge as a prime platform for consuming music content. By 2017, eMarketer believes 8 in 10 people who use tablets in the U.S., or just shy of half of all U.S. Internet users, will be tablet music listeners.

The uptick in tablet usage naturally leads to greater app engagement — and a greater inclination to consume advertising. According to the Adfonic Q3 2013 Global AdMetrics Report¹⁴, tablets have doubled their share of mobile ad impressions over the past year, growing from 14% in Q4 2012 to 28% in Q3 2013.

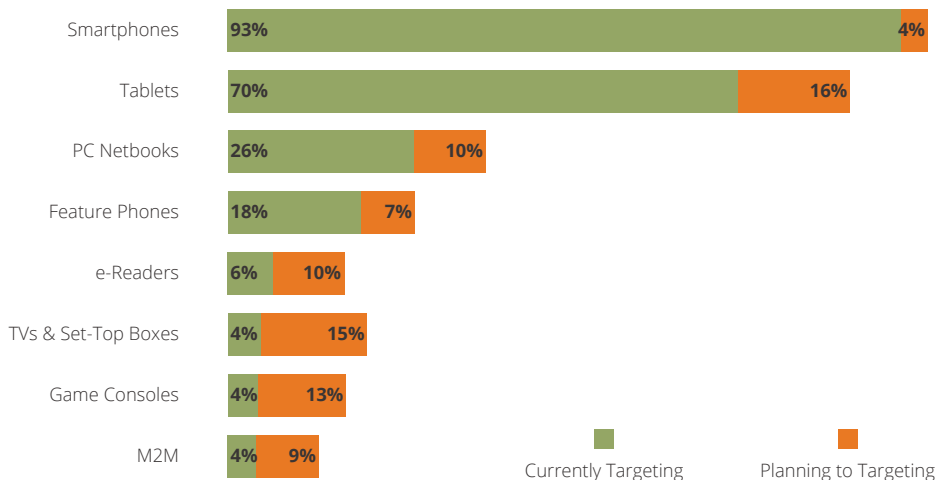
But users aren't only paying more attention to advertising on their tablets; they are also spending more money on apps.

Indeed, in-app purchases on tablets will contribute more than US\$3 billion to the mobile market in 2016, according to market research from Juniper Research¹⁵. That's 10x the US\$301 million total seen in 2012. Significantly, smartphones will still contribute more than double this, or around US\$6 billion, by 2016. The two largest smart device markets, China and North America, will account for around 86% of this spend.

Sensing a business opportunity app developers are gearing up to target the opportunity around apps for tablets and other platforms.

Tablets and TVs are prime targets for future development

% of respondents using and planning to use each screen type (n=4,946)



Source: Vision Mobile: Developer Economics Q3, 2013 - State of the Developer Nation

Clearly, the global mobile app market is alive and kicking. And the advance of tablet devices means even more opportunity for your app. To cash in on demand you'll need to be creative and experiment with monetization models to find the one that is right for your app business. (See Monetization, page 118.)

Connectivity breeds more apps

Five years ago independent consultant Chetan Sharma could read the writing on the wall. In Sizing Up The Global Mobile Apps Market, the first global analysis of what was at the time a fledgling App Economy, he predicted a "significant uptick in the apps for devices such as the iPad, telematics platforms in vehicles, digital cameras, navigation devices, picture frames, weight scales, and the list goes on and on."

Fast forward, and the advance of new platforms and devices such as the Pebble smartwatch, Google Glasses and countless number of smart TVs and cars coming on the market – gadgets that were still science fiction when Chetan wrote his report – herald a new era of app growth and innovation.

As Chetan saw it: Apps will someday be needed to entertain and amuse consumers, analyze data on the devices, connect users with content and friends and — ultimately —interconnect various end-points in the pervasive mobile ecosystem in a much more profound manner.

That day is dawning.

But there is a catch. While there is certainly no shortage of opportunities for app developers, there is increasing pressure on app developers to break down the technical and financial barriers of delivering apps quickly and across multiple Internet connected devices.

Cross-platform shortcuts

Significantly, today's app developers are not wedded to any single platform. This strategy allows them to increase reach, diversify revenue models and opportunities and spread their risk.

It also increases the importance of cross-platform tools, high-quality, pre-built, and vendor-supported app components. For app developers targeting multiple platforms cross-platform tools provide a way to reuse developer skills, share codebases, synchronize releases and reduce support costs.



Cross-platform tools can take the hassle out of making apps for many platforms. Leading providers include: Adobe (Flex), Appcelerator (Titanium), AppMobi, Bedrock (Metismo), Anscá (Corona), DragonRad, Kony, Marmalade, MoSync, Netbiscuits, Alcatel Lucent (OpenPlug), PhoneGap, RhoMobile, RunRev (Live-Code), Sencha Touch/jQTouch, Strobe/Sproutcore, Unity, Unreal, Worklight and Xamarin (MonoTouch/Droid).

More importantly, many cross-platform tool providers provide additional support to help app developers accelerate time-to-market, access third party content and increase in-app monetization.

Spotlight on Marmalade

London-based Marmalade Technologies is a software company whose core offering is a powerful, high performance, C++ cross-platform tool. The Marmalade SDK allows developers to code their games once but take them to a wide range of platforms and devices, from smartphones and tablets as you'd expect, to Smart TV's, desktop platforms, set-top boxes and new generation gaming systems such as GameStick and Ouya. The tool allows developers to create games on a PC for Mac platforms and the company also has a highly disruptive tool that enables iOS developers to target and maintain simultaneous updates on Android platforms – Marmalade Juice.

Founded 15 years ago, the company has developed its technology based on a deep understanding of the emerging mobile landscape coupled with a first-hand knowledge of the game development world. “Developers are still largely choosing to develop for the two dominant platforms but with Marmalade they have the choice to go further – if a game isn't succeeding in the way they'd expected, they can easily adapt their games for other platforms and audiences. And for developers that have started out as a single platform iOS developer, they still have the ability to unlock the revenue potential of their game onto Android, using Marmalade Juice” explains Marmalade CEO, Harvey Elliott.

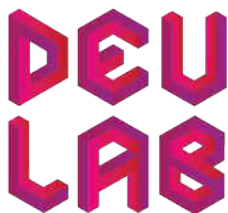
What makes Marmalade different, Harvey explains, “is that it gives developers of all sizes the freedom to make the choices that are right for them when they develop games – including their choice of IDEs (Integrated Developer Environment), middleware, engines and third party extensions, to name but a few. “Serious developers chose Marmalade because they know it is a way to make native code run on as many devices as possible – fast and in a way that's future-proofed.” Marmalade Technologies are guardians of a growing ecosystem of partners that believe in an open and flexible approach to game and app development. Partners such as InMobi, Flurry, Oink, Fortumo and Photon enable developers to pick a wide range of modules that will enhance and enrich their apps to give them the greatest chance of success on the platforms they choose.

The advance of cross-platform tools reduces barriers to entry, allowing developers from any background (hobbyist, professional, agency, enterprise) and any skill level to build mobile apps.

This paves the way for what David Helgason, CEO and co-founder of Unity Technologies, Inc., a cross-platform tools provider, calls the “democratization”¹⁶ of both app and game development. In his view these powerful, yet affordable and easy-to-use tools level the playing field.

More importantly, the way will be clear for all developers – everywhere on the planet– to make and market apps for a plethora of platforms, not just mobile.

Spotlight on Dev Lab



DevLab, based at IDEALondon in the heart of London's Tech City, provides testing, UX support and events for the startup and developer community. The aim of DevLab is to reduce cost barriers, increase innovation and help app developers deliver more successful products to market. It accomplishes all three together with its partner University College London (UCL).

The inspiration behind DevLab is linked to its founder Calypso Harland and her collective experience of working in tech and the people who drive it. “I feel that we can do a better job of supporting developers on their journey by giving them the right tools for the job.”

To achieve this DevLab has three main offerings directed at app developers in London's Tech City. The first is AppLab, a private app store, intended to be the world's largest ‘living lab’ for digital and media projects. App developers can launch an iOS or Android app to AppLab, skipping the lengthy app store approval process and get rapid feedback on user interactions across a large diverse group of users to determine how to enhance performance and user experience.

The second initiative, DEVICE, is an open device lab providing app developers access to a whole range of digital devices to eliminate the cost barriers developers face when delivering apps across multiple platforms and devices, and keep them informed of pre-market release devices which present new opportunities. DevLab will be extending its reach by offering access to devices for developers outside London, as well as launching a device rental program to serve London's digital agencies.

The third initiative is UXCam, a clever new tool delivering in-depth analytics to developers. The software tool takes the guesswork out of UX evaluation and testing and allows developers to see exactly how people are interacting with their app, simply by dropping a line of code into an app's build. This level of detailed analytics helps developers make data-driven decisions to create the best possible user experience.

DevLab also organizes workshops, talks and has kickstarted a new breed of hackathon called DevLab LIVE, connecting big brands and developers to solve real business problems. Challenge winners have the opportunity to work closely with brands following the event to further develop their proposition.

Find out how you can benefit – and get involved – by checking out <http://thedeveloperlab.com/>.



However, this new phase of growth and innovation will not only result in an avalanche of apps. (Already the Google Play and Apple App Store both have well over 1 million apps!) It will also make it harder for app developers to get noticed and – ultimately – make money from their apps. In fact, market research firm Gartner¹⁷ predicts that by 2018, only one in 10,000 consumer apps will be considered a financial success by its developers.

“We believe the mobile application industry is at a new dawn where developers will leverage cross-platform tools to drive new innovation and greater profitability.”

~ Harvey Elliott,
CEO, Marmalade Technologies Ltd

The next section dissects the ‘Discovery Dilemma’ all app developers face and highlights clever ways you can make sure your app stands out in the crowd.



The three things you need to know



1.

Every single app category reported significant growth in 2013. Gaming apps continue to break records and exceed expectations, but there is also opportunities in categories such as education and health & fitness.

2.

A research collaboration between MIT, Stanford University and INSEAD suggests your chance of creating a 'killer app' depends on your app category. The most successful game developers focus on creating many highly varied products and releasing them quickly. In contrast, developers of non-game apps are better off making one, good, basic app and fiddling with it to improve the user experience.

3.

No matter how many apps you make, harness cross-platform tools to take the hassle out of making apps for many platforms. It's a great way to reuse developer skills, share codebases, synchronize releases and reduce support costs. More importantly, many cross-platform tool providers provide additional support to help app developers accelerate time-to-market, access third party content and increase in-app monetization.

Sections of this chapter were contributed to by:

Andreas Pappas from VisionMobile, Harvey Elliott from Marmalade Technologies Ltd; Pai-Ling Yin, Stanford Institute for Economic Policy Research; Meeta & Dishant Shah, EFlashApps

Apponomics

02: Your Attention, Please

So you've just created the most amazing new app. Now comes the hard part: How in this oversaturated market – with nearly one million (!) apps each in the iTunes App store and Google Play store – do you stand out from the crowd? The first and biggest challenge, especially for a newbie app developer, is getting discovered. This chapter will walk you through the basics of app discovery and brief you on what you need to boost profile, drive downloads and rise up in the rankings – even across alternative Android app stores – all without spending a penny. From social media marketing tips and tricks, to new solutions that allow you to customize, curate and monetize your own app collections, this section will arm you to drive big results on a small budget.

Discovery dilemma

The avalanche of apps is creating serious bottlenecks in app discovery. Popular apps rise to the top ranking, while the others are lost in the heap. The burden is on your customer to have a pretty good idea of the app they want first; otherwise, it's tough to find it.


For consumers, there are simply too many apps and far too much fragmentation in the actual app categories. They don't only need to know the name of your app, they need to know how the app store provider will most likely categorize it. To understand the confusion, imagine your app user is a customer walking into a grocery store in search of a few items only to find all the aisles and category labels have been eliminated. Instead, there are a few piles on the floor, and it's up to the customer to dig and figure out where the clerks put items they need.

For app developers, the situation is far worse because smartphone owners can only be exposed to a handful of search results at a time. What's more research shows users tend to focus on top results anyway. All the other apps that don't surface in those first few pages are invisible to most users. This is obviously a nightmare scenario for developers, whose success depends on getting their apps found by consumers.

Granted, the major app stores do offer search capabilities. This is one huge reason why Apple acquired Chomp – which uses semantics, artificial intelligence and machine learning – to vastly improve app search. In practice, it allows users to input more descriptive terms, such as “puzzle games,” “kids games,” and “expense trackers” to find (and discover) apps that they would otherwise not know existed.

However, these app stores are commercially driven and search results are highly influenced by what the store wants the consumer to see, rather than being solely focused on providing relevant results. These stores are also structured differently, so even if a user knows your app, they might not succeed in finding it, since it is not where one would logically expect to find it in the first place.

To complicate matters, demand and supply side goals are out of synch. App developers want their content in the field of view of every potential customer; users want a clutter-free display of search results and they really only want what's relevant to them. Little wonder



“I’m all in favor of breaking the app store’s stranglehold on app distribution (and have been working with the team at AppStoreHQ to create alternative modes of app discovery for a while now), but blaming the app stores for poor discoverability is a little like blaming Google for not putting your site on the first page of results -- getting found is the responsibility of the publisher, and is as much a part of the entrepreneurial game as building a great product.”

~Chris DeVore,
‘mobile startup guy’ and
seed-stage investor ¹⁸

that Apple, for example, has removed the lists in the App Store that previously allowed quick browsing through apps. The way apps are presented among search results in the most recent version of the App Store only shows one app per page, ensuring that most apps exist in obscurity.

Thus, one of the greatest marketing challenges facing developers is getting discovered. Fortunately, there is a host of tools and services available for developers to tackle and win the Discovery Dilemma.

From app discovery apps and ASO (app store optimization) to new approaches to curation and cross-promotion, the next sections will walk you through the tools and technologies you can harness to make your app discoverable.

How hard is it to get discovered?

Today most users can only find apps from the top shelf. In 2012 app search company Xyo reported that a mere 10% of apps accounted for a whopping 90% of downloads. In 2013 Matthäus Krzykowski, Xyo Co-Founder, revealed that number dropped even further. Specifically, 5% of apps accounted for 92% of downloads.

Matthäus further reported that the app stores also have a certain bias towards specific app genres. “Take the Apple App Store for example. There it’s all games —above all Simulation and Management games, Role-Playing games, Racing games, Jump and Run game or War games. And most of the top titles are the same all year long with few [new app developers and new titles] able to break into these top shelves.”

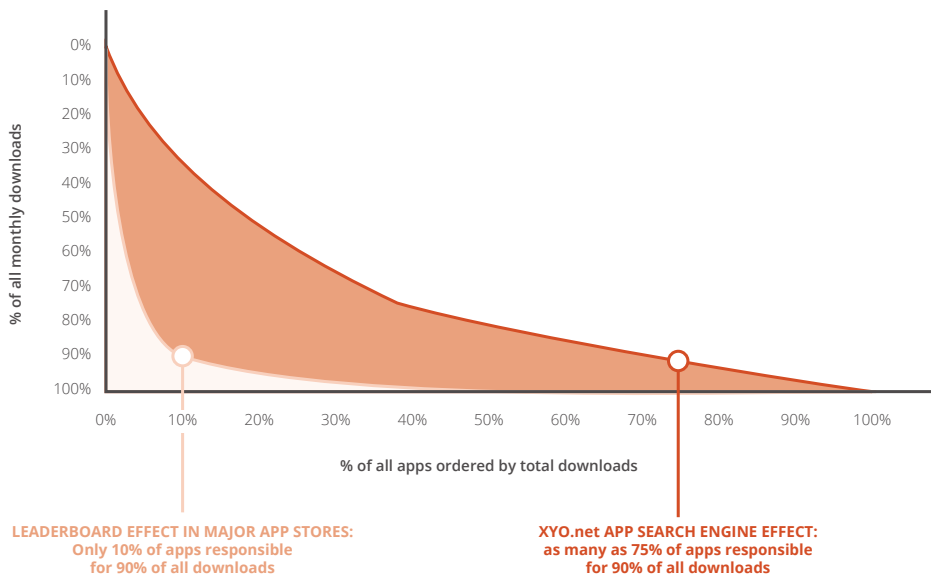
His observations are in line with a recent Distimo report¹⁹ that found only 2% of the top 250 publishers in the Apple App Store are “newcomers,” versus just 3% in the Android app store, Google Play.

Sensing an opportunity a new breed of app discovery platforms and app search engines are staking out their territory with technology and tools to help app developers get found and noticed.

Xyo, for example, is focused on serving the long tail of app developers. “We partner with operators, device makers or media portals who integrate our app search box into their services. Once you put an app search box in front of people, they really do search for all kinds of apps, not only those most people know from the top shelves,” Matthäus explains. Xyo has several such partnerships including one with handset maker Nokia to help Lumia users find the best Windows Phone apps that yields particularly impressive results.

In practice, users use the search engine to enter the name of an iOS or Android app they would like to have, and Xyo exposes a list of recommended Windows Phone counterparts that fit the

bill. “To attract consumers, the Windows Phone ecosystem needs lots of apps. To attract developers, the platform needs a large consumer footprint,” Matthäus says.



Source: Xyo

Recent results show that 75% of apps in its search engine get 90% of the downloads. This is because its app search engine is far less leaderboard-driven than the Apple and Google Play app stores. “So if you contrast our results with typical Apple App Store results, then with Xyo people find all kinds of apps and games and often many of the less-well known titles.”

Overall, the app industry is only beginning to grasp the issues around discovery. As Matthäus sees it, the innovation is just beginning to percolate at the fringe. In three years he reckons “how users will find and use apps will be significantly different from today.”

App discovery apps

App search engines are gaining traction, and so are other approaches that surface apps users are likely to appreciate — and download.

App discovery apps are dedicated mobile apps (often linked to a larger platform) designed from the ground up to help app users find other apps. These range from daily deals apps (also known

as ‘free app a day’ apps) to deal finder apps. But these categories are by no means fixed. The app discovery space is a continually evolving space, and the innovation is just starting.

Daily deal apps: These app companies negotiate deals with app developers in order to offer users a single deal per day. Users get a cheap or free apps and app developers see a boost in downloads, which, in turn, helps push their app up the charts. But this success does come at a small charge, with some app discovery app platforms asking developers to pay a one-off cost, while others work on a CPI basis.

Deal finders: These app companies are focused on helping users search across app stores for discounted apps. In practice, these platforms can alert users when an app aligned with their personal tastes and preferences is discounted. Some players, such as AppsFire, enhance this approach with features and functionality such as personalized recommendations and social sharing.

App discovery tools and platforms are gaining traction, and their providers are finding huge opportunity in the long tail of mobile apps. Expect the more generic daily deal and deal finder apps to make way for more specialized – and social-powered – app discovery platforms.

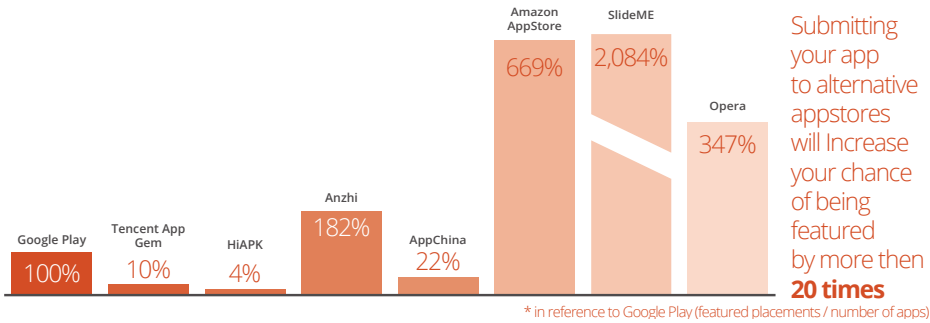
Alternative app stores

The goal of every app developer is to attract as many users as possible to their app. While the majority of app developers may view placement in Google Play as the best way to achieve mass market reach and distribution for their Android apps, an increasing number of developers are exploring – and enjoying – the benefits of alternative routes.

Why publish your app on multiple Android app stores? The easy answer is to increase the chances of monetizing or gaining exposure for your Android app. But there are other deeper reasons to expand your app distribution to alternative Android app stores. Alternative apps stores (compared to Google Play) often have unique benefits including superior app discovery features for discovering niche apps and install incentives like user discounts or free paid apps.

More importantly, the chances of your app being featured on an alternative Android app store are 20 times higher than on Google Play.

Change to Be Featured*



Submitting your app to alternative appstores will increase your chance of being featured by more than **20 times**

Source: One Platform Foundation 2013 ²⁰



Do you want to get more bang for your buck? Think about a multiple app store strategy in order to reach a larger market. Before you start decide what matters most to you—reach, buzz, support—and build a matrix of app stores that meet your requirements. But don't do this in a vacuum. A good way to understand the dynamics for each app store is to consult (directly, via blogs or forums) with other developers to learn about their experiences. This will help you weigh the benefits as you map out your app store distribution strategy.

Why limit yourself to Google Play where discovery continues to be the bottleneck? Leading OEMs including Samsung, Sony Ericsson, Huawei, ZTE and LG, as well as mobile operator groups such as Vodafone and Telefónica, have their own app stores across the world. What's more, social networking platform giants such as Facebook , LINE, DeNa and Gree are building the capabilities to become powerful app distribution alternatives.

Alternative app store choices

INDIES

amazon appstore

APPSOLUTELY EVERYTHING®

MOBANGO

Slide me

OPERATOR STORES

vodafone

Telefonica

OEMS

Samsung Apps

HUAWEI

LG

SOCIAL NETWORKS

f

GREE

DeNA.

Source: InMobi

There are hundreds of independent alternative app stores. From Yandex.Store, an alternative Android app store run by Russian Internet giant Yandex that in November 2013 released the news it had been chosen by Finnish mobile phone maker Jolla to be the default Android app store on all its smartphones around the world when they are available, to MiKandi, the “world’s first adult-only mobile app store” with over 4 million users, you’re sure to find a fit with your target demographic.

To start you on the journey, here’s a list of some of the top alternative app stores you should have top of mind.

Amazon App Store: The prime contender to the Google Play store opened up its doors in 2011 and counts around 100,000 apps in its marketplace mainly for Amazon Kindle devices. The store, which also accepts HTML5 Web apps, is available in more than 200 countries. If you happen to be publishing a paid app, Amazon features one paid app as a free download per day.

GetJar: GetJar is a huge alternative app store with 50+ million users and an interesting proposition for app developers who want to test out the freemium model for their paid apps. In practice GetJar offers premium apps to users for free to generate traffic and then monetizes that traffic with advertising dollars. App developers have access to virtual currency tie-ins and the option to target new users with different kinds of promotions.

LG Smart World: LG Smart World is an app store exclusive to LG phones, which ranks as the number three smartphone maker. It’s an OEM-based app store app developers shouldn’t ignore, especially since the vendor has picked up 5.1 percent global smartphone market share as of 3Q2013.

Mobango: This app store touts some major publishers and apps from the likes of Disney, Halfbrick, and Zeptolabs. It claims more than 100,000 apps, 40,000 developers, and more than 8 million users across all platforms.

Opera Mobile Store: The Opera Mobile Store, which opened its doors in 2011, is a browser-based app serving Android, Windows Phone, iOS, Symbian, Java, HTML5 and BlackBerry apps. It’s particularly popular among Android users, and claims 60+ million monthly visitors and a supply of 100,000 apps available to download across all platforms.

Samsung Apps Mobile: Samsung has a 30.4 percent global market share for smartphones, so it only follows that it’s app store is pumping impressive numbers. To maintain the momentum – and build trust – Samsung pays special attention to quality and has adopted a strict verification process that scrutinizes apps for malware and device-compatibility.

SlideMe Market: SlideMe Market has global reach and comes pre-installed in 140 OEMs. It offers free and premium apps in various categories and support for various payment options

including PayPal. Developers can set prices and choose to offer their apps for free. There is also a Slide ME ad network.

Soc.io: Part app store and part e-book store, Soc.io places among the smaller app stores. But it's clearly got the attention of major players and titles including Twitter, Cut the Rope, and Draw Something.



If you're still looking for more Android app distribution options or sources then here's a quick list. IMobile, Appia, App Brain, AppCentral, App City, Appitalism, Appoke, Appolicious, AppsLib, AppVisor, Aproov, Android Pit, Biskero, Djuzz, Handango, Handmark, Handster, Insyde Market, Kongregate, mJelly, Mobile9, NexVa, OpenAppMkt, PhoLoad, WAC, and ZeeWee. (Check out more of the leading players, listed in the appendix, courtesy of our friends at Mobyaffiliates.)

Distribution DIY

Clearly, there are many alternative Android app stores out there, and it's worth exploring them all if you're looking for global reach and additional installs for your mobile apps. It's a clever strategy to widen the net and offer your apps in as many places as possible, but it can also be hard work.

Distributing through alternative app stores comes with its share of challenges.

- **Marketing and management:** Each store has slightly different requirements ranging from dozens of different screen shots and marketing descriptions in different languages to age ratings, categories, pricing and submissions methods.
- **Bothersome bureaucracy:** A local presence remains the best route if you want to manage the everyday business and stay on top of local red tape. Whether its navigating the local tax codes or understanding withholding tax waivers, achieving distribution at scale requires you to mind all the details.
- **Limited resources:** Time is money. Sure you can scale up a team to do all of the above – but bear in mind your efforts will not yield an instant return. It takes a lot of time and focus, which means you may not have the bandwidth to focus on your real business: making great apps.

900 Million Android devices in the world; Expand your Android App's presence beyond Play Store

Why publish on alternate app stores?

Less competition, more chances of app discovery

Advanced users looking for alternate stores

Poor local/regional support restricts local audience to local app stores

Google Play not available everywhere on every device

Some apps only available on these stores



Challenges

Closed doors, no direct developer programs

Complex laws and agreements

Increased efforts to publish in such stores, low ROI

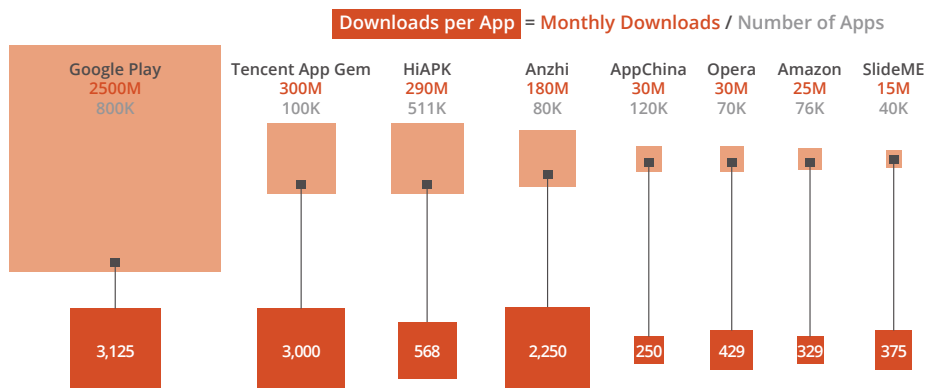
Tracking revenue across multiple channels is complex

Language and payment issues in local stores

Source: InMobi

There are huge benefits to featuring your app on a global scale. As this section has shown, the abundance of alternative Android app stores represents a significant opportunity, but it is also a bewildering market to navigate.

With regard to information about total monthly downloads and monthly downloads per app, only eight out of 30 appstores provide the necessary statistics in order to be able to compare them



Submitting your app to **alternative appstores** will increase expected downloads for your app by more than **200%** in reference to Google Play



Source: One Platform Foundation 2013 ²¹

So how do you cash in on the benefits?

Be smart. Seek out a trusted technology and business partner who can help manage this complexity through an intelligent platform that cross rationalizes submission needs and reduces the time and effort you must spend to distribute through these channels.

Be Selective: You have limited time and resources – fact. Ensure your partner can give you quality service and technology support at scale and pick when and where to use them. Just because you could publish yourself, doesn't mean you should !

Be Innovative: Your apps and games are where you make money and need to innovate. Replicating services and attempting to conquer complex publishing challenges will drain your energy and even revenues . Stay focused and true to the cause!

App Publish

This is where App Publish, an Android app store distribution platform from InMobi, can relieve many of the pain points around deploying an Android app globally.

The platform integrates the app distribution capabilities that InMobi gained through its acquisition of Metaflow Solutions, experts in mobile app management and distribution solutions, in July 2012.

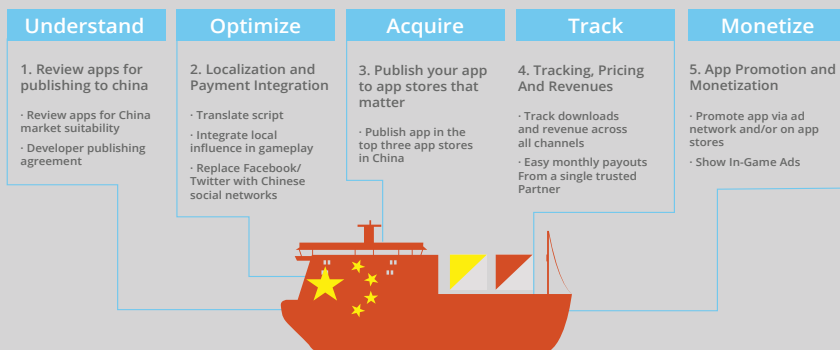
Specifically, the approach addresses the obstacles that app developers face in key markets such as China where 80% of all mobile download revenues comes from third party app stores.

The platform relies on proven intelligent technology to reduce the cost and effort to submit to multiple app stores. In just a few clicks, developers can launch their apps in up to 160 global app stores – and track their presence in each app store using a single dashboard. Payments and payouts are easy to collect, from a single reliable partner.

There are five key steps to the solution, which effectively cover the app lifecycle. Generally speaking, the platform allows app developers to upload their Android app, declare the attributes associated with it, add images and descriptions, select the app stores where they want to publish the app and submit.

In the case of China, where the app market is booming and the barriers to entry are high, InMobi's App Publish platform provides a much more customized approach. It starts with a review – together with the app developer –to identify the apps best suited for the Chinese market. (See Think Big, Go Global, page 183)

InMobi's 5-Step solution to Publishing in China



Under the full-service offering the app developer needs only to securely submit the source code and source assets for their mobile app. Following assessment and agreement by both parties, InMobi does the rest.

The app developer can expect distribution across key Chinese app stores, destinations that reach 350 million users and devices, within a 2-6 week period, depending on the complexity of the app, breadth of distribution and promotion, and the extent of localization needed. InMobi can also cast the net wider than these leading app stores to include other app storefronts if the title does well.

Overall, InMobi handles the payments, analytics and social SDK integration. The initial costs – from market analysis to localization to publishing – are picked up by InMobi as part of the support package.

InMobi also provides app developers taking their app to China with a DIY package (Developer Support Package). This package offers similar services but leaves it to the app developer's internal team to integrate InMobi's SDKs (combined social and billing). InMobi steps in to pitch the game on behalf of the developer and oversees final testing of the app across unique Chinese devices. Finally, InMobi does the publishing. In this scenario distribution can take 4-6 weeks.

3 SDKs for Payment, Tracking and Monetization



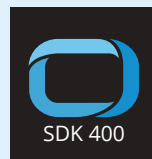
Seamless access to all Chinese app store payment services

	700 Million users
	The largest app store in China
	70% of mobile services market



Replace Facebook and Twitter with local social networks.

	500 Million users
	400+ million users



Unified SDK for app promotion through ads and user analytics.

- Maximize user acquisition through app promotion via ads with InMobi
- InMobi Analytics- Identify and incentivize to acquire high quality users.

The revenue share between the developer and InMobi is fixed. InMobi also offers an ad network app download boost and, in the case of the bigger Chinese App Stores, InMobi also can offer paid promotion on the main app Store real estate.



Selected freemium games for this program have experienced 5x the downloads in half the time with higher conversions to paying customers than in the rest of the world.

Simple to use:

According to Jayesh Easwaramony, Vice President, Business Development at InMobi App Publish, the platform is sharply focused on meeting mass demand from app developers for approaches that will allow them to compete in multiple channels in a simple, profitable and friction-less way. “We remove the need for the app developer to identify the ‘who’ and ‘where’ of where the opportunity is, so they can focus on making great apps and making money.”

What monetization models are successful? Jayesh observes that paid apps still do well in many of the app stores run by mobile operators. However, the situation is quite different in the newer third-party app stores, where advertising models are driving solid results. Freemium games in China and Korea, which use customer billing offered as a part of InMobi’s app publishing offer, are also seeing significantly high download volumes.

Actionable data:

But the *real* value of the App Publish platform may be the business intelligence it provides app developers. At one level, analytics services baked into the platform allow app developers to track the app store channels delivering the best results for their app. At the other end of the spectrum, they also provide invaluable insights into what flies – and what fails.

“There is a tremendously strong demand for Western content in these markets,” Jayesh observes. Especially in China, where six of the 10 top titles on the most popular app stores are from western app developers, App Publish allows developers to keep their finger on the pulse of local tastes and “take a call now on whether they develop subsequent versions of their app.”

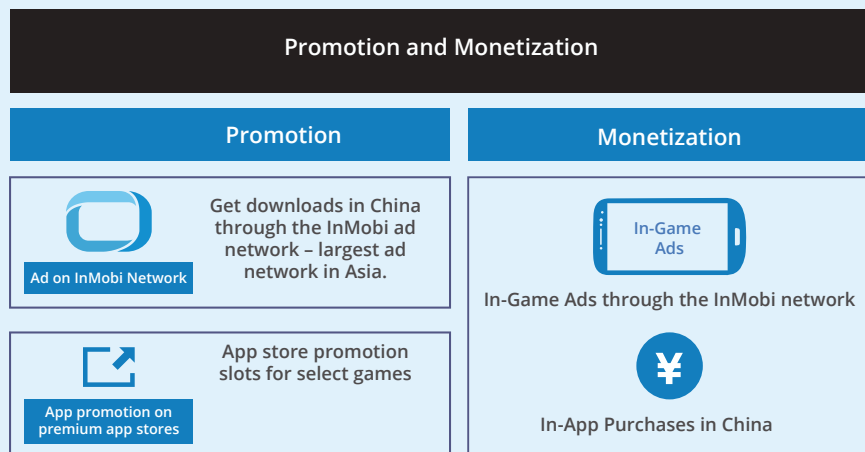
As Jayesh sees it: “It’s all about having access to the data about how your app is doing in different app stores around the world and tuning that data into meaningful action for your business – whether that’s embarking on a new version of your app, or a new app altogether.”

Enables experimentation:

But it's not just a great way to manage builds; it's also a way to experiment with monetization models and drive results. To date InMobi is seeing a huge appetite in the app developer community for approaches that ensure wider distribution for their apps.

Powerful promotion:

Finally, app developers benefit from established and personal relationships InMobi has with leading app stores and their editors. These ties allow InMobi to drive downloads in specific stores via the core ad network when and where it is profitable to do so.



Being featured or chosen as the ‘app of the week’ can be a huge boost to apps, and Jayesh has seen “between a 5x and 10x impact on downloads,” depending on the duration of the promotion and the app store. “App download campaigns within third-party app stores gives developers another channel to influence the downloads of their app and provides a bigger bang for their dollars because they are very often paying much less for the downloads in third-party app stores than they would if they did this through Google Play.”

“As we’re a small, independent developer, App Publish enables us to reach out to users around the world. It helps us focus our energies on creating compelling applications rather than having to deal with complex app store submission requirements.”

~ Matt Siedel
5C-Basic GmbH & Co. KG, an
early adopter of App Publish

Cross-promotion

Cross-promotion, which involves the practice of setting up apps that promote each other to their audiences, is another wonderful, free way to promote your app. In practice app developers advertise each other's apps via advertising placements within those apps. It's a perfect approach for app developers on a tight budget. And, although there's no real currency being exchanged between the app developers using this model, the app downloads this promotion strategy can drive could certainly be considered a form of currency.

Whether you're exchanging impressions, clicks, downloads, installs, or sales, the fundamental principle is the same. The key is to ensure that all participants are extracting a similar value to the value that they are contributing to the exchange.



Many app developers have huge audiences of users. Since users download and use many apps, cross promotion can make business sense. Be sure you swap your audience with a non-competitive app developer. And be aware of the pitfalls. It's hard to hard to know if you're getting equivalent value out of the swap.

There are a variety of options available for developers to implement cross-promotion:

1. Create direct deals with other game developers. Agree to use your game to send traffic to their game, in exchange for them sending traffic to yours. You will need to add a mediation layer, or a tracking mechanism. Or if you prefer, you can use a service like Chartboost.
2. Implement advertising in your existing games. If you have several existing games in the mobile market, partnering with an ad network like InMobi enables you to create House Ads and run them to promote your new game.
3. Utilize an in-game advertising service that offers in-network cross-promotion.

Cross-promotion works best when you have developed a string of games and can tap into an existing customer base of people who already love and play your games. In this scenario, where you have a captured audience, you capture their attention by running in-house ads for your latest games — effectively harnessing in-house ads and doing cross promotion on your own inventory.

Get the most out of cross-promotion

Use your space: Since cross promotion is really a form of advertising, you should take the time to figure out where you can (and want to) advertise your app. You can start by identifying all the ways you can present your app, and then decide what to push and where.

Make it worthwhile: Give players a reason to try your other games. Rewarding players increases their engagement in the game and leads to discovery of your new game. This approach to cross promotion has been shown to triple conversions and revenue.

Keep them coming: So you've been successful in getting a user to play your new game? Then don't lose the momentum. It's important to continue promoting new games in the future, a task that will be a lot easier if you help your users get used to moving from game to game in the first place. Consider integrating cross-promotional content on both ends in both apps to create a feeling of continuity and guide them on the journey.

Above all, it's absolutely imperative to understand which inventory you want to use to show house ads vs. inventory that you wish to monetize through an ad network or an ad exchange. For instance, to your premium users, you could show promotional house ads to sell virtual goods instead of showing an ad-network ad. You will realize that by effectively understanding the sections/ placements of your app where your ads perform well, you will be able to generate higher eCPMs.



Promote the apps without intruding on the user's experience. You can do this by making sure the promotions become a part of the overall experience. This not only greatly enhances the chances of getting a game discovered; it can even create deeper engagement with your app.

Benefits:

The benefits of cross-promotion are a no-brainer. App developers can target their customers with ads related to the apps they already know and love — and it costs nothing!

Keep in mind that cross promotion is a kind of barter that relies heavily on data analysis, funnel optimization and testing (and lots of it!). If the idea of cross promotion is sounding more and

more interesting, you can take advantage of it by either joining an existing platform or creating one yourself.

Want to get started?

It's simple.

Most ad networks allow app developers to cross promote and show house ads. In this scenario the networks provide their ad platform as a white label solution to allow developers to show ads to their users.

If you have apps and an audience, then take advantage of cross promotion to take your marketing for your new app to the next level. But be creative in your approach. If you want users of your earlier app to use your new app, encourage them to play both. If your app is a game, then let users earn levels in the old game if they take your new app out for a spin. Use levels as the lure and let your users get a feel for the new game in the process. This approach might turn your users into advocates.

Cross promotion is also a great way to enhance your customer analytics because it allows you to pinpoint your most enthusiastic users.

Make the effort to identify those users who have played for more than *x days and x minutes per day*, or completed a certain number of levels in your app, and you will have defined the segment of your users that is most likely to play — or even promote — your next new app. It's up to you to turn your app fans into app advocates.

In this scenario analytics allows you to focus your cross promotion efforts on the segment of app enthusiasts you know are most likely to convert. But don't be too limited in your targeting too early on. There's certainly no harm in promoting your new app to your entire user base.

Blockbuster app studios may have the in-house resources — and the eyeballs — to take a completely different route. Supported by staff and a direct sales team they may decide to strike deals with publishers who then promote their app to their own audience. Prime examples of this are Disney and EA. This approach, though effective, can tie up resources and also require the app studio to hire an agency to coordinate and manage the deals across publishers. If you have the audience and the perseverance, then go for it. If you lack either quality, then don't bother.

Case Study: Dolphin



Dolphin, the intuitive and flexible third-party browser, hit an amazing milestone in January 2014: 100 million downloads globally, growth that was largely fuelled by a smart strategy to tap opportunity in emerging markets such as Russia, India and Brazil, and focus on promising new areas of innovation related to the Internet of Things.

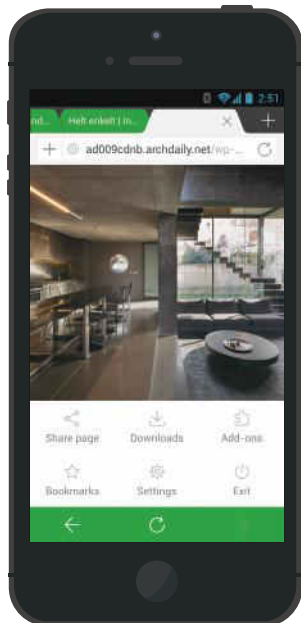
Indeed, the progress of the last months has been impressive and Edith Yeung, VP of International Business Development for Dolphin Browser, is confident the company will find new ways to integrate the browser technology into smart TVs, wearables, smart cars – the works!

But the real driver behind the phenomenal success of Dolphin's flexible browser is its careful attention to the individual.

From the start the company has put the user at the center of a larger strategy around making it possible for everyone everywhere to seek (and find) online experiences that are culturally appropriate and personalized to their tastes. "People engage differently with their apps and we had to take this into consideration," Edith explains. Paying attention to feedback has allowed Dolphin to understand – and anticipate – shifts in user requirements, improve the app and stay one step ahead in a competitive market.

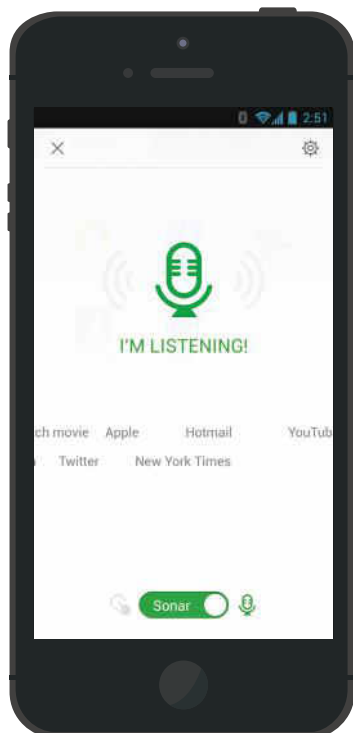
To build competitive edge Dolphin has partnered with popular search engines in international markets, partnerships that come in tandem with a newly updated browser for Android that has fresh content discovery and customization features adapted and localized to each country. The aim, Edith explains, is "to bring innovation and a more cohesive experience to mobile browsing." It's part of the company's wider mission to bring "culturalization in markets around the world by tailoring the experience offered by Dolphin Browser to the needs of each specific country."

This is important as users browse and search differently in each country. In China, for example, users tend to "like a lot of information and it all in plain



view.” This preference for an information-packed screen flies in the face of user requirements in other regions such as North America for a clutter-free, clean screen that tries to keep search simple.

By leveraging its insight and knowledge about these mobile-first markets, and truly listening to its users comments, Dolphin has created something that is not only customizable to the individual, but is customized for entire cultures. International versions are purposely designed to better serve users in “mobile-first” countries—where users do all of their browsing from a mobile phone. In addition, Dolphin has also made the experience personal – and hence more engaging – by updating its Android browser with the ability for users to choose from a variety of themes and colors for the browser, along with setting any existing picture the user has as a background.



The singular focus on the user extends to the company’s marketing and monetization strategy, which is all about showcasing complementary content and apps its users will likely appreciate.

The app is free to download, supported by a unique approach to cross-promotion. The company generates revenue by driving installs for other apps and app developers using real estate such as the browser’s “Speed Dial” page, where Dolphin displays a list of apps it recommends.

The decision not to show banner ads or push notifications for advertising, is based on the company’s conviction that ‘advertising’ should be useful to the individual and never a hard sell. To this end the apps are not merely recommended; they are curated.

“We do not recommend every single app that developers ask us to promote,” Edith explains. “We have built up a lot of trust over the years with our users and they expect us to guide them to what is right for them. The added-value is in the curation.” The approach has allowed Dolphin to make “good money” and empower an army of app advocates – its fiercely loyal users – to spread the word around the globe.

Enter AppGalleries

Cross promotion is becoming increasingly popular with app developers because it puts them in control. They alone choose their partners (or apps), decide the barter, make the deals and reap the benefits.

Clearly, this approach to cross promotion is powerful, particularly if you've already got established user base on one app and you're launching something new. But now there is a new approach from InMobi that allows app developers to do much more than show ads in their own apps. Now they can have a mini-app gallery, custom built and branded for their app.

In practice App Galleries enables both app developers and mobile web publishers with a lot of content related to apps (such as reviews) to create and host a white-labelled app store experience of handpicked, curated and sponsored apps.

And if you are not sure which apps to offer in your own branded app store, then AppGalleries asks you which categories you would like to showcase. Based on this input AppGalleries automatically allows auto-populating of the app storefront with mobile apps based on historic content of the app (or content the web publisher has showcased on their website/blog).

Better discoverability

According to Ryan Merket, Director of Product – App Galleries was designed from the ground up by his former company MMTG (which InMobi acquired in 2012) to address app developers' two biggest headaches:

- Discoverability: App users need a better way to discover the apps that are relevant to their interests and app developers (especially long tail developers) want to be discovered.
- Monetization: Both app developers and web publishers need better ways to monetize their apps and attract higher quality users.

Since high quality users are generally users who have found the apps they love, this solution is all about ensuring the entire app experience – including the advertising – is relevant and satisfying, Ryan explains. "It's all about empowering app developers and publishers to create their own mini 'app wall' of apps that are relevant to their audience,

increasing engagement of their mobile users, while monetizing with the InMobi pool of app download campaigns.”

Curation meets monetization

The sheer volume of apps is overwhelming. Millions of apps across a long tail of verticals and niches is great choice but it’s also app overload!

The information overload of the Web created the need for filters to organize information and contextualize content. It also spurred the rise of players like Huffington Post, that showed the way and also proved curation — not creation — was destined to be a billion-dollar business. Should you doubt the importance of the curator, then consider the views of Seth Godin²², one of the web’s best-known marketing wizards and visionaries.

As Seth sees it, the infoglut has created a powershift in favor of the curators. “If we live in a world where information drives what we do, the information we get becomes the most important thing. The person who chooses that information has power.”

Fast forward, and the abundance of mobile apps creates a new requirement for tools and approaches to bring order to the chaos. Curation is again the solution. Only this time users want more than filters; they want storefronts that will consistently expose them to apps they find interesting, cool and relevant to their passions.

“Curators tend to have a unique and consistent point of view — providing a reliable context for the content that they discover and organize,” Ryan observes. With this in mind AppGalleries is both a monetization and curation tool “because it’s all about getting the business value out of showcasing the apps that fans of that vertical or genre crave.”

Take outdoors enthusiasts. No doubt they would appreciate a one-stop app shop where they could check out apps that would enhance that experience. This could mean apps about backpacking, apps with trail guides, apps that allow users to star gaze, or retail apps that allow users to browse equipment and offers. At the end of the day, these are all apps that these users would love to have organized in one place. And this is precisely what AppGalleries allows. “Since it’s hard for outdoors enthusiasts to find relevant apps, it’s clear they will keep coming back to a well-curated selection of apps,” he says.

But increased customer loyalty is just one reward.

AppGalleries is about equipping app developers to make money and build community — at the same time. But no hard sell or interruptive ads here. AppGalleries harnesses truly native ads to deliver users ads that look like content.

Currently available in a full-screen, interstitial or a standalone format, this innovative ad format enables developers to deliver personalized, highly engaging and relevant ads — seamless ad experiences that naturally result in better monetization. Early tests of have seen an increase of up to 600% in app download conversion rates and eCPMs of up to US\$12 (compared to a typical US\$1-3 on mobile ads).

Even if you don't have an app you can run a personalized app store. Insert some simple Java code and let AppGalleries turn mobile app references in your posts into app promotions in your personal gallery. InMobi can also modify, automatically, the links in the actual posts so that subsequent links to apps go directly to the publisher's app store, rather than that of iTunes or Google Play.

AppGalleries allows you to replicate your app's branding and show a selection of sponsored, curated, and house ads for completely flexible monetization. Implement it as an App Wall with all sponsored ads and increase your eCPM by up to 30%. Or structure it as your user's best friend with a selection of the most relevant curated apps and improve user loyalty. Either way, it is a great way to improve the ad experience and give your user a selection of complementary apps to choose from.

App Store Optimization

Whether you widen your net to include alternative Android app stores or opt to cross promote apps in your own app (or cash in on approaches to turn your app into a full-fledged storefront), you must master App Store Optimization (ASO) in order to maximize your app visibility across the distribution channels you choose.

What is ASO?

In essence ASO builds on the foundations of search engine optimization and focuses on the tools and techniques to ensure relevant keywords and content will be picked up by app store search algorithms or hand-picked by app store editorial staff. Another side of ASO focuses on algorithmic optimization. These methods (often pricey) aim to boost app downloads to a level that will place your app among the most popular in a category so that it appears in the top app store listings for the category.

Here we will focus on what YOU can do (on a budget) to increase its visibility and increase search rankings. From choosing the right image and wording for your app description page to tips and tricks around keyword experimentation, this section will show you the best ways to take advantage of this easy and low-cost avenue to effective app promotion.

The business value of ASO

Basic ASO isn't the way to send your app rocketing up the charts, but it will give your app the visibility (to users searching for a relevant app) and result in a significant boost in downloads. Over at AppCodes, founder Tomasz Kolinko²³ reckons that app developers can expect a 500-2000 downloads a day increase on their free apps, purely from implementing ASO.

His personal experience, recounted in the blog excerpt below, speaks — literally — volumes about the ASO opportunity and the money app developers could be leaving on the table.

“As indie developers, we never had too much money to invest into the PR actions for our iOS apps. Like most beginning developers, we put our apps out there, and just hoped for the best. And of course, like most of the beginning developers, we earned almost nothing. Then, after half a year, we decided to take a look at the App Store SEO opportunities. I built a script, that checked how high in the app store is each one of our apps, for each key phrase. It looked more or less like this:

life+coaching

iPad - 5

iPhone - 5

life+coach

iPad - 9

iPhone - 12

goals+ebook

iPad - 1

iPhone - 1

goal+reminder

iPad - 1000

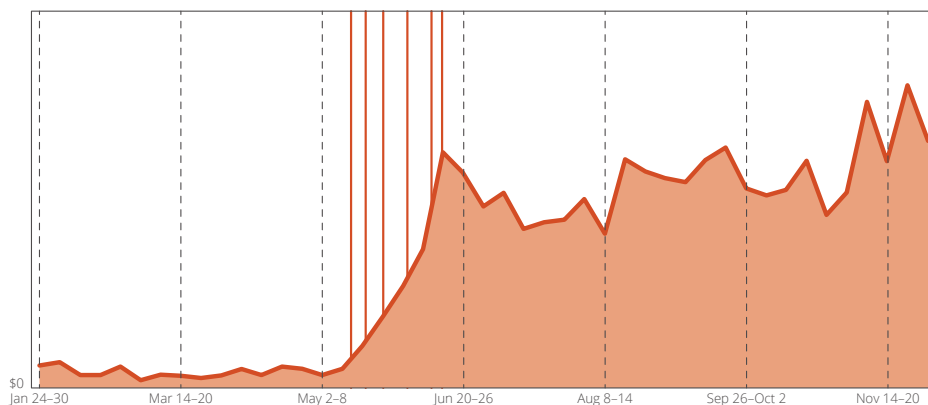
iPhone - 1000

Source: Tomasz Kolinko

“After the first run it became clear why we didn't have sales - our apps just didn't come up anywhere in the App Store search. The keywords, the 100 characters that Apple allows, were poorly chosen.

“We changed the keywords to some better ones. Still relevant to the app, but with less competition. We also changed the names of our apps to better reflect what they do (For example, instead of “Tete A Tete”, we now have “Love Letter Writer” :).”

The sales went through the roof.



Source: Tomasz Kolinko

Even more amazing was lack of effective tools to track Apple App Store SEO. In practice each app developer was forced to either test their position in the store by hand, or write their own tracking script. Fortunately, Tomasz saw the opportunity to help indie app developers and created a tool to help them plan better keywords and track what the competition is doing. Check it out at Appcodes.com, where you can also review a free series of Apple App Store ASO tutorials.

Keyword research

Getting started in ASO? One of the most important challenges you must master is knowing what keywords to target. Keep in mind this isn't website SEO and there are NO official figures from Apple's App Store or Google Play to guide you on keyword popularity and search volume. But there are ways around this dilemma that mean you won't have to run your app business blind.

Educated guess: Use Google Adwords keyword tool to get ideas on popular search phrases that are relevant to your app. Granted, this tool is based on Web search – not app store searches – but it can give you a good indication of the sort of keywords you should have top of mind as you identify the keywords best suited to your type of app.

Just do it: To narrow down the options just type some relevant search queries into the app store search bar and make a list of the keyword suggestions it serves up. If these are popular keywords driving volumes, then it's an important clue and should provide you with a basic shortlist of relevant keywords you might want to target.

Get help: A great resource is Priori Data, a company that provides tools to quantify the app economy. The company's products track global market movements, local country and category trends, and individual publisher and app performance in a single, intuitive interface. Priori Data has developed a series of algorithms which structure the app universe into hundreds of highly targeted subcategories. This capability principally helps app developers to understand demand, opportunities for growth, and the competitive landscape in the niche markets specific to their apps. Priori Data performs ongoing work with developers in evaluating keyword opportunities, prioritizing markets for promotion, and proving market size for investor discussions.



Write this one down: ASO is all about relevancy; there is no value to your app business if you optimize for high traffic volume keywords. You must choose keywords that are relevant to YOUR app.



"We see two core learnings in ASO. The first is relevance: there is no value to your app business by optimizing for high traffic keywords which are unrelated to your app. The second is context: not all keywords are created equal, and you should make trade-offs based on the underlying market size for your keyword and your relative position versus the competition."

*~Patrick Kane,
Founder & CEO, Priori Data*

Your keyword should be a term that a user will associate with your app. The right keywords for you will be the words that best describe your app. Is your app a Sudoku game? Then "Sudoku" is a keyword you definitely want to use.

If you still need some help, then keyword tools, such as MobileDevHQ's App Store Optimization tool and AppCodes are a great way to tell which keywords will be most frequently used between your app and your competitors' apps.

App title and relevancy

To optimize your app, start with the title. Make sure you have made relevant keywords part of the title. Balance creativity with common sense, and do your research. If your competitors have names too similar to yours, then it might be better for your business to target a less competitive key phrase that allows your app to stand out from the crowd.

Whatever you do, don't just stuff the title with keywords that are hot in the market. You could end up confusing your potential users and — worse — getting kicked out of the app store for trying to trick the system.

Relevancy also rules when you are populating the keyword field. More is better, so you should use variations on keywords and phrases (including singular and plural) that you researched. You only have 100 characters to play around with so don't waste space with irrelevant generic terms.



App stores differ. In the Apple App Store the description field has no impact on search rankings, so don't waste your time figuring out the relevant keywords. Instead, focus your effort on making sure your description is as interesting and engaging as possible to heighten user interest and — ultimately — drive downloads. The jury is out on what matters most to Google Play and whether keywords in the description field carry real weight. Play it safe and make sure your keywords are relevant just the same.

When optimizing your app, be sure everything about your app — title, description and keyword — reflect your brand and tell what your app does. This allows your app to be found by your brand name as well as the purpose of your app. Also take the same care to optimize the category of the app. Often, an app can fit into several categories, so if there is no single best fit, choose the category that best fits your app. Even better if the category contains the least number of competing apps.

App Icon

A picture says a thousand words and your app icon has to do the same. It's the first impression people will have of your app, so make sure the image communicates what your app is all about.

Don't scrimp here.

Indeed, one of the most important criteria for the “featured app” selection in iTunes App Store is the overall look and feel of your app. An Apple employee once said, “Why in the world would Apple ever feature an app in the store that didn't look brilliant? Good design is core to the Apple brand and is something that we evaluate carefully when selecting featured apps.²⁴” Clearly, making the effort (and investment) to create a professional and eye-catching image will pay dividends.

And don't do this in a vacuum. Look at other apps in your category on the app store. It's important to look at how your app icon will look in this storefront environment. Your app is on a virtual shelf, so create something that your users will notice as they browse by.

Making a powerful first impression

In such a crowded app marketplace, you have just seconds to get noticed. Mike Cohen VP & GM of InMobi's North America Performance Advertising team, urges app developers to make every moment count. Make sure your app icon, name, and description make a compelling first impression. "The goal of your landing page is to convert potential views into downloads. Once a user lands on your app store page, you have less than 3 seconds to captivate them, before they leave."

It's therefore important to have a detailed, well-written app store description. It should articulate the value proposition in the first sentence, so people can decide right away if they want to download it.

A good description is essential. Briefly explain what your app does and why it's useful, then add whatever else you think is important for your audience. Be sure to mention features and benefits, and add some quotes to show the community agrees with you.

High-resolution screen captures that demonstrate your app visually are also important. Be sure to carefully monitor customer feedback, and promptly address their comments, both positive and negative. Most users scan through the comments to get an idea of what others thought of your game, so it's important that those comments come from satisfied users that have had a positive experience with your app – and your customer service.



Keep in mind that your app's detail page in the app store is a very limited, non-rich, non-customized experience. Your web page should be the opposite: rich, enjoyable, and engaging. Also: adding a video ad to your app store page is a great way to further promote your app and give users an idea of what to expect, so there's no reason not to take advantage of this. Showcase your app to users by creating a catchy trailer that includes a few attractive screen shots with catchy descriptions.

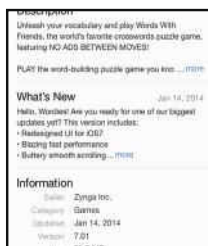
For example, the Words With Friends landing page (see next page) is clear, concise and easy to read. The top area is used for special messaging and promotions, a bulleted list explains key features, and links to their social media pages are provided along with high-quality screen captures. The app has a high rating and over 55,000 reviews.

Screen Captures:
High quality screen captures are essential. Words With Friends created a custom title page to use here.

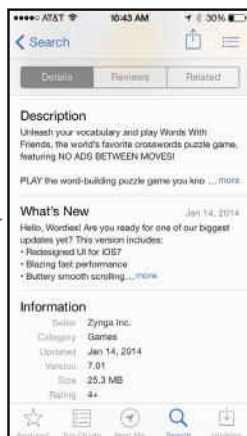


The Words with Friends App Store landing page is a great example for developers to follow.

Links to Social Media:
Specific accounts for each product is important. Users want to use this channel to get support, make suggestions and help promote the app.



Frequent Updates:
This helps demonstrate that the app is actively maintained. Buyers are wary of apps that are not well supported.



Cross Promotion:
Promote the free version in case a user is not interested in buying the paid version.



Source: InMobi

Sure, you have to think mobile-first when promoting your app. But don't forget the many users who may happen upon your app from a desktop PC. A lot of discovery still happens on the desktop, so you have to make sure that your app landing page displays a clear – and prominent – call-to-action.

But don't stop there. You also need to make sure you have a way for them to make the transition from their desktop to the phone where they can download your app. Creativity can help. Think outside the box and make use of all the channels at your disposal to clinch the deal.

InMobi's Ryan Merket suggests app developers harness SMS or QR codes to close the loop. In the case of text messaging, users can send the link to your app to their phone (from the desktop)

so they can download when they are on their own time, not at work or on the go. Companies like Twilio make this a breeze.

This is because Twilio enables app developers to use any Web language to embed voice, VoIP, picture or text messaging, alerts, and surveys into their apps, making their apps agile and flexible to meet their users' specific needs. There is no need to negotiate with operators, invest in hardware and software, or invest in infrastructure hosting.

Simply put, Twilio virtualizes the entire telecom infrastructure needed for communications in a cloud-based, global environment, and exposes the infrastructure to app developers through the Twilio software and cloud-based communications platform that enables the rapid build and deployment of powerful, flexible communications. In addition, Twilio's pay-as-you go pricing makes Twilio accessible for all app developers, from small businesses to large enterprises.

Here's some great examples of how app developers are powering their mobile apps to connect with users (on the channels people prefer, not the technology), encourage frequent use and – most importantly – keep customers coming back for more.

HomeJoy: This mobile app, which connects homeowners with cleaning services on demand, uses the Twilio platform to communicate with HomeJoy customers via phone calls and text messages. The volume includes hundreds of thousands of phone calls and millions of text messages, which the app handles easily.

Uber: This company, which operates a global network of town cars, needed to provide a mobile app experience that allowed users to request a town car pickup and follow up with updates on the estimated time of the pick up. Powered by Twilio, the Uber mobile app keeps the user continually informed of the estimated pickup time via text and even confirms when the town car arrives.

PayByPhone: This global company developed a Twilio app that allows drivers to pay parking meters via calls to a Twilio phone number or directly through the app, and drivers receive one-way SMS notifications when the parking meters' time is expiring. Drivers may then choose to add more minutes via a phone call or through the app, and save themselves from costly tickets.

"Apps are part of our connected lives," observes Lynda Smith, Twilio Chief Marketing Officer. "People use them to shop, engage with brands, transfer money and do banking. Developers work to make their apps great, but an app alone is often not enough to engage the consumer in the way they want to be engaged." Without additional channels of engagement, consumers defect and delete the app with increasing frequency.

But what if you could add text messaging to extend the app experience outside the app itself? Or add voice calling directly in the app so as not to force the user to first exit and enter a phone number on the keypad? Adding Twilio to your app allows you to create a more holistic, in-app experience.

“App users want to interact with companies via the channels they choose. And the channels will change depending on context,” Lynda notes. “If it’s a confirmation they need, then a text message may be ideal. If it’s a more complex interaction, then a phone call may be better.”

It’s all about fast and flexible communications and the many ways app developers can create apps to cater to users and drive frequent use and interaction.

Take control of app delivery

Text messaging is ubiquitous, universal and widely regarded as an effective way to communicate with your users²⁵. Use SMS to allow a call-to-action directly from your website that makes it a no-brainer for users to download the apps they want. Some companies are going a step further with platforms and approaches that make sure users get the app they want — even if they don’t know the first thing about device platforms or how to search for the app in the app store.

GET IT Mobile Inc., headquartered in California, provides app publishers a unified platform for delivering mobile apps from any online or offline marketing channel to any mobile device, regardless of operator, platform, app store or delivery method. Put simply, the company’s patent-pending GET IT solution is a little like a taxi cab, according to GET IT President Steve Gleitsmann. “Users can tell GET IT what app you want and we get you to the right spot in the app store.”

They simply click the GET IT button, and GET IT uses text messaging to send a download link to the user’s mobile phone. The company can also deliver the link to an email address, if the user prefers that method. The tracking technology in the background allows companies to see how many users are downloading the app and — more importantly — actually launching them.



“If you get someone in the heat of the moment, who sees your app advertisement and clicks on the advertisement, you want to get an app to that person’s device the moment you have their attention,” Steve says. Doing this via SMS means the delivery is almost instantaneous, which means the user gets the link to download the app in seconds, not minutes.

Solutions from companies like GET IT Mobile, ensure users download, not drop off. Against this backdrop, InMobi’s Ryan Merket stresses that app developers should think through the complete user journey. “When you send people to iTunes, especially on desktop where most people don’t have a way to sync their downloads to their phone, use SMS or QR code to remove the friction for users and encourage them to download your app.”

But before your users make the decision to download your app you have to have done your part to pique their interest. The next section will walk you through the many ways you can create ‘buzz’ around your app and turn occasional app users into dedicated app advocates.

Guerrilla marketing

With a little creativity, you can harness this low-cost and unconventional approach to marketing to spread the word about your mobile app and maximize your presence at any trade show or event to drive the point home.

But before you get started you need to get into the ‘guerrilla’ mindset. Here is a checklist of what you need to consider to craft an effective campaign that surprises and delights your potential users—and the press.

- Define your target segment of app users and make sure your campaign will resonate with them. As in any marketing campaign, the message must match your audience and deliver a clear call-to-action. Back in 2009²⁶ when RunKeeper, the fitness app billed as the “personal trainer in your pocket” was still an unknown, founder Jason Jacobs chose the perfect event to make a statement. He ran the Boston Marathon wearing an iPhone costume with the RunKeeper app printed on it. He also live-tweeted the race while he was still running. The campaign video received a good deal of buzz.
- Research relevant events, conferences or public gatherings where your audience is most likely to be present. Fish where the fish are. Be respectful of the community, and the environment, and don’t do anything that could harm either. Be careful not to repeat the mistake of startup Social Stay²⁷. It hired actors to portray Ninjas at the industry event-happening SXSW. The hooded assassins were too convincing, and a little too rowdy, and fears

of a terrorist attack spread. Frightened attendees called in the police and the campaign captured everyone's attention — for all the wrong reasons.

- Capture the moment, and the buzz. Planning will take time and resources, and be sure to dedicate equal, if not more time, to recording the event, editing the video and making sure everyone on the planet knows what you did. Most people won't see the campaign in person, so keep your digital records of your event (photo/video/blog) interesting and memorable.
- And yes, think completely out of the box.

A good example is Nutricia Baby Connection, an iPhone app from Nutricia, a Belgium-based nutrition company. It's Baby Connection iPhone app is aimed at getting the dad more involved in the pregnancy. In fact, Baby Connection comes in a 'mom' version and a 'dad' version and the app works best when users are in sync, using it as a couple.

The challenge: how do you get the average dad-to-be to download and use the app? The answer: make dads pregnant. Nutricia created an innovative publicity stunt²⁸ that let men experience pregnancy for themselves — pressing them into an 'empathy suit' to experience the discomfort of pregnancy. The suit featured a water pump for sudden weight gain, air compressors to restrict movement, as well as a random kick function and remote control heating. The company set up in public places, like shopping malls, and successfully recruited app fans among both the men and the media that stopped by.

Be part of the 'in-crowd'

If you can convince a celebrity to endorse your app — then do it! Spotify, the world's most popular music discovery app, knows the value of support from the 'stars'. Before it launched its app, and defined an entirely new category of app in the process, it turned to talent and influencers like Britney Spears and Ashton Kutcher. They tweeted their praise of the service. To keep the momentum going Spotify also partnered with influencer marketing service Klout to proactively recruit users who also happened to be music fans with a large following on Twitter.

But the cherry-on-top for many companies — including Spotify — is social media marketing. As this next section shows, baking social into your app and adopting a strategy to connect and communicate with your app users is essential if you want your app to become quickly viral.

Engagement marketing

Social media is the best way to create and cement deep ties with your app users. It's also an approach that is completely in tune with the way we live our lives in this connected world where

word of mouth advertising (WOM) travels swiftest and leaves the greatest impression. You can't pay for it, but you can enable it.

Before you make your move, make the proper match between your app business plan (what you want to achieve) and the steps you will employ to get you there. Define your objectives first. Ask yourself: why am I going to build a community around my app? Is it to get feedback on the app? Are you going to be launching further apps and want to be able to become a trusted developer? Are you going to be offering discounts or special offers that you want to communicate? Is it to provide support or networking? Before you start reaching out to your users, you need to understand the reasons why you want to do it.

It's also important to define your guidelines. A tight-knit community grows and flourishes when members understand their rights and responsibilities. You must create and communicate a policy early on that clearly identifies what community members can and can't do, as well as how violations of the policy will be handled.

Now that you have established your rules of engagement, get ready to focus on the ways you can empower your community to participate. It's all about helping your users to spread the word and — ultimately — become your active app advocates. It's up to you to give them the tools to share and show their emotional tie to your app.

How can app developers leverage marketing tactics to not only build a social presence, but also translate that into increased business? The quick answer: Bake social into your apps.

Reach a new audience (your user's circle of friends) by making it easy for people to tell their friends about your awesome content and invite them to check it out. It may be something as simple as a 'like' button hot-wired into your app. Or it could be something as dead-simple as an 'invite-a-friend' feature that allows people to do just that.



Provide an attractive incentive for people to join your app community. For example, you might allow members access via the app to special content, cool offers, or just the chance to connect with other members.

The main point is to give your users the tools and perks that will help them help YOU.

AppBooster, a newcomer startup headquartered in Sweden, offers a solution that enables a new kind of viral sharing — and one that doesn't even require users to have the app installed.

Here's how it works: Imagine you want to enable your app fans to share a playlist from your music app. It used to be that both sender and receiver had to have the right app installed in order to play the playlist. AppBooster delivers the app and content together which simplifies the process,

allowing the recipient to use the content even if they don't yet have the app. This experience encourages the recipient to download the app and — ultimately — recruit more app fans to join the crusade. This is a great way to boost viral sharing and build app use.

An app user who is happy and wants to share the app for free with a friend uses AppBooster's services to share it for a licensed time to a new person to try it out, explains Emma Hedlund, AppBooster CEO. Thus the benefits to app developers and their audiences can be huge.

"App developers struggle with discovery and creating communities, this is a way they can do both by making it easy for people to tell their friends about these apps and invite them to check it out for themselves," Emma says. "It's an approach to viral marketing that minimizes the long road of user acquisition and getting a new customer to use your app."

Dream team

Turn your top users into a street team for your app. But you have to identify your most active users first. Your analytics will help, and you can cross check using social media intelligence tools like Klout, PeerIndex and Little Bird to see just how vocal and influential your users are.

Once you've established who your best users are, the core users who use your app or play your game religiously, make them feel important. Some larger app studios sweeten their offer with gifts like virtual currency to incentivize sharing and tweets.

But making your offer social doesn't stop there. The next section will provide you with the basics to build and manage your own community, using social media marketing to create ties that bind by enabling frequent 'conversations'.

Ken Herron's Social Media Crash Course

Think "social media marketing" is just about posting on Facebook, Twitter, and LinkedIn? Think again! Ken Herron, a cool hunter for new ideas all around social media marketing and the #2 Chief Marketing Officer on Twitter worldwide as ranked by Social Media Marketing Magazine, points out that monitoring, analyzing, and participating in the discussions your target audience, existing app fans and your app category competitors are having everywhere on the Interwebs can be daunting, but it's also a must.

In his view, social media monitoring benefits from a “divide-and-conquer” approach. If you’re unable to delegate this task to others on the team, then stick to the Big Three:

1. Google Alerts for your app, your company’s name and any members of the team that are active in social media and represent your app business when they post, tweet and express themselves.
2. Facebook and Twitter alerts for your app, your company and your social- savvy team members. (This is even more important if you do not maintain an active presence on either social network).
3. Site-specific alerts for *every* social network on which you or your app have an active presence.

If you do have the luxury of a marketing team, think about dividing up the monitoring tasks by tool and network. Let your team members pick which social networks they want to monitor. Each social network has its own specific culture, so let your team members monitor the network(s) on which they are digital natives.

Now that you have made the commitment to social media, clearly articulate what it is you want to achieve. Grow app revenues? Identify and chat up potential app users? Prep the market for your next app release? Asking yourself these questions up-front will help you to identify the social analytics and intelligence you need.

Your goal is never to just “collect data” and keep your finger on the pulse. You also want to move the needle. To achieve this your goal is to have the actionable intelligence you need at your fingertips to make the best possible decisions for your app marketing.



Continually ask other app developers (and social media geeks) what works for them, and why. Make social media posts from online destinations like Mashable²⁹ part of your daily diet, and follow TweetSmarter³⁰ on Twitter. Finally, read the collection of #DearKen³¹ columns on MobileGroove.com for tips, tricks and helpful shortcuts. We are all learning how to thrive in a changed economy on MobileGroove.com with reduced resources. Learn what works for others and share what works (and doesn’t!) for you.

Engage at every stage

If you got this far, then you are serious about building your social media presence. It’s a huge and important undertaking. Here are some valuable tips and tricks to help you on your way.

Pre-launch

An important part of the app marketing is creating a community and getting in-touch with your potential app users. You can do this by targeting related forums, relevant Facebook groups, spreading the word on Twitter and so on. Once you know who your target audience is, start researching how you can get in-touch with them and raise their awareness to your new great app. Don't wait for your app release to start promoting it to your target audience.

Keep in mind that your users are a bit like your biz dev department. If they like your app, they will tell you. Encourage them to share their views and listen in to their comments and conversations and you may detect important feedback about what they like about your app (or don't like about it). Read between the lines, and tease out their hints regarding changes, features or customization they would like to see you work into the full-scale launch of your app, or the next release.

There's nothing like getting feedback from real people who are your potential customer base. It is important to go beyond the comfort zone of your friends and family, who will always say nice things about your app, to reach people who will be your potential customers and hear what they really think about your concept, your design, your content, business model, or whatever. You don't have to react to every single thing they say, but getting that feedback will help you work out exactly what you should be doing and how to reach certain market segments.

Marketing with Professional Help

It's easy to become overwhelmed with app marketing, especially when you step back and look at all the areas where you need expertise. User engagement, promotion, social media and the list goes on.

You may want to bring in professionals to help, in the form of an app marketing agency. It is a big decision — a marketing agency is going to cost you money (though it may be considerably less than you may think). Aaron Watkins, President of Appency, which was established in 2009 as the first app specific full service marketing agency by mobile industry veterans, has some helpful advice to get you started and make sure you get a good return.

Often times hiring an agency costs less than having a full time marketing professional on staff, and you have the added benefit of having an entire team on your side. Most of an agency's fee is to cover time — time spent writing your press, time spent on the phone calling reporters, time spent managing your social networks. "You hire an agency not because they are "magical" ways to make your app a success, but because they have marketing experience, the right relationships, the best tools, and entire teams of people to put behind the promotion of your app."

Simply put, marketing agencies are not magic places you can go to ensure your app will be successful. Their job is to work with you to give the app the best opportunities for success possible. To do this requires an investment — in both time and funds — to properly get the word out. Be wary of companies that say they can make you a success overnight, or are charging 'too little to be true'! Remember, you generally get what you pay for. At the very minimum if you are not able to commit at least US\$10,000 to your marketing budget, then Aaron warns an agency may not be the route for you. When you do spend the cash to hire an agency, you are getting experience, relationships, tools and manpower. This frees you up to focus on the app — and we all know how important that is!

Aaron recommends that you don't wait too long to make your decision. "You should expect to be reaching out to an agency months before the product is ready to launch, to ensure they have proper time to help you with the final stages and create a well thought out, well timed marketing plan."

Finally, beware of companies that put pricing and packages for marketing on their websites. "This is a sign of 'marketing in the box' where companies will do the same thing for every app and hope it works," Aaron says. "True marketing plans are customized to the app and the needs of the app developer, and are as diverse as the app store itself."

Post-launch

Social media is essential to encourage engagement with your users and you will also find it builds stickiness into your app long after you launch. You won't have to always lead with the conversation, but you do have to listen.

Social media has a lot of moving parts, six to be exact.

1. Actively listening to what your target audiences are saying to and about your app
2. Tracking and analyzing your target audiences' [often out of sync] social content and behaviors relative to your app and app business
3. Creating valuable, [hopefully] viral, content about your app and app business
4. Publishing this content *everywhere* your audiences choose to be (blogs, status updates, Pinterest, the works!)
5. Growing, cultivating, and managing social connections with your target audiences

6. Engaging and interacting with your target audiences in ways **they** think are valuable, actionable, respectful, [appropriate] outrageous, and entertaining

Each of these moving parts has its own unique function, but they are also tightly integrated and interdependent. The real power (and effectiveness) lies in the sum of the parts, and taking them as a whole.

Automating social media

There are a lot of great tools available to help you automate your social media activity. For example, Hootsuite (www.hootsuite.com) and Buffer (www.bufferapp.com) are social media management tools that enable you to schedule your Facebook and Twitter posts in advance.

If you get a bunch of great ideas for social media content, you can save them and space them out in Hootsuite so they publish once every day or two. Tools like Hootsuite are a great way to stay on a regular publishing schedule, giving your users a consistent flow of new content, while you maximize your time without having to log into Facebook every single day.

But don't think you can completely automate your social media. That's an approach that can turn off your audience completely — especially if you are only using social media to broadcast great things about your app.

Make sure your community gets value out of their involvement with your app and their interaction with you. Focus on building that value, and your community will become a huge supporter of your app.

Be Yourself

Share your passion for your app.

- Focus on building a community around your app through interactions that encourage engagement.
- Be generous to your audience (by thanking them for following you and by promptly responding to their feedback, questions and ideas).
- Make clear that your efforts are in service of creating better apps for your users.

Finally, make sure your communications channel is human, so that users know there's a real person behind it, not a bot.

Be you. Be real. Be authentic. Be transparent. Write about what moves you, not in marketing speak, but in your own words. Passion + content = success. App developers constantly struggle with differentiation. Fortunately, there is only one weird and wonderful you, so use it!

Which tasks should you always, sometimes, completely, never, or partially automate? Let's jump in!

1. Listening and Monitoring: Immediately automate as much as you can.

While there is nothing better than directly reading your target audience's social media posts, the reality is that it quickly becomes physically impossible to read *everything*, while balancing your daily workload to develop a great app. Thankfully, there are many free tools that can help you to effectively manage this gargantuan effort. A fast, easy, and free place to start is Google alerts.

2. Tracking and Analytics: Immediately automate as much as you can.

Unless you have unlimited time and resources never try to analyze the results from multiple social media accounts manually. While many of the same tools you use to listen can also be used to track and analyze, don't overlook the free (and freemium) analytics that come with most social media accounts. The analytics capabilities already "built into" each social media channel are often the easiest and cheapest way to track your marketing ROI, especially if you are only using a handful of channels.

3. Content Creation & Publication: Sometimes, but with caution.

This is where social media automation, under the right conditions (such as when you're speaking publicly at an event about your app) can work brilliantly. In this scenario it's great to have pre-written tweets summarizing each of your slide's content. Your tweets can be "magically" shared with the world and among your target audience. (And this post from TNW³² tells you how).

Don't 'sell' your app

Social media marketing can make your app viral. But there is a catch: You can't pitch your app outright.

What trips up app developers, especially those who excel at the "hard sell," is that you do not "sell" on social media the same way that you sell on your other channels. Posting "My app is great! Buy my app, now!" will fail to engage your audience and will likely get you flagged as a spammer.

Write this one down. To effectively use social media to promote your mobile app, you do not sell on social networks. Instead, you participate, you educate, you share, you inform, you geek out, you entertain, and you engage.

While it's valuable to post often [note that recommended frequency varies by social network], it's more important to post consistently. A social media network is not a "set it and forget it" marketing effort; it is a fireplace. While it can take time to build it to a roaring fire, the fire will "go out" very quickly when neglected.

Facebook engagement

With Facebook reaching 1.11 billion users worldwide as of May 2, 2013, you no doubt have a personal Facebook account. But you also need to create a fan page for your mobile app. To be clear: this is not a user account. You need to create a business page for your app. And don't just wait for your app fans to express how much they like your app. Encourage your users, while they are in the app, to 'like' your fan page. And grab their attention by baking the 'like' button into your UX.

Facebook is a huge reengagement tool. Post twice per day on your fan page and always end with a question to encourage more engagement. Ask your users things like 'hey did you get to level 6?' or 'what was the coolest part of level 6?' Keep in mind that user engagement with your fan page will also increase the chances other people read and share the conversations. A lively exchange on your fan page will result in status alerts, which in turn will trigger their friends to check out what the excitement is all about. It's a great way to generate buzz and create interest in your app in the process.

Social media marketing is changing, constantly. By the time you read this, Facebook will have made yet another change impacting what you need to do on your app page, the pundits will either be loving or hating Google+ (varies hourly), and there will be dozens and dozens of new free and freemium tools to help you get the most out of your app marketing on each and every social network.

Scaling social media

Your social media marketing is successful when it consistently achieves real, measurable results for your app or your app business. Success means you are effectively engaging your target audiences on all of the different social channels on which they are active. More importantly, you are also "giving back" to your online communities. Your buzz – whether it be in the form of likes on Facebook, followers on Twitter, or shares and replies on all of your different social platforms – benefits your app business.

But how do you crank up the volume knob on your social media?

Strategy-wise, you have two options. Option Number One – IF your app business happens to have unlimited financial and human capital resources (ha!), you can simply scale up your social media efforts by investing more people and more money. Option Number Two –Figure out how to achieve (not just do) more with less.

If you choose the latter, then you need to follow these four straightforward steps.

Step 1: Analyze the results of your current social marketing efforts.

Step 2: Do more of your high-ROI efforts.

Step 3: Do less of your low-ROI efforts.

Step 4: Do better at – optimize! – your high-ROI efforts, by investing in them to further boost their impact.

Before you start, pull together everything your app business is doing in a “social media marketing audit”. Please don’t jump out the nearest window if some (or even all) of the impact generated by your social media efforts has never been measured. Even successful app businesses can be weak at this.

It’s all about gaining visibility into the different social media activities across your entire app business, and then generating accurate analytics to reveal which of those efforts are meeting and exceeding your objectives, and which are not.

Based on the results of your social media audit, rank each effort – not by size or even impact on social influence – but by the measurable dollar impact each effort has on your business’ organization’s bottom line. Doing the math and making the tough decisions allows you to identify where your app business will reap the best possible return from an additional investment in time, people, and/or money.

If your goal is to grow your audience through social media marketing, (and who doesn’t want to achieve just that?), then avoid spreading yourself too thin. The only networks that really matter to you are the ones your users (and potential users) are on. For example, if your app is targeting cat lovers, you will want to participate on one of the many social networks, like Catster³³, dedicated to cat owners and cat lovers. Take the time to find out (or just ask in forums) the networks your users like to congregate.

And watch for new opportunity to promote your app, or at least claim your app’s name before someone else does. There are literally thousands of niche social networks popping up where you can build up a presence for your app and address an audience sure to appreciate it. Take Jelly, a newcomer micro social network (and app) built around asking questions and answering questions from other people. Its founder is Biz Stone, co-founder of Twitter – and indeed, it’s going to be one of the ones you need to watch in 2014.

Case Study: gamesGRABR



Gamers are tribes and gamesGRABR, which has been called the new Pinterest for games, understands this behavior and the requirement of this unique audience for a platform that will allow them to discover, collect and play the games they love, meet other gamers, and follow and discover games through other gamers with shared interests.

gamesGRABR, which is available on mobile, tablet and PC, has become that space.

“It’s a social network where users can discover games across any platform, collect and engage with other gamers and, most importantly, play, download and buy anything with just one click,” explains Tony Pearce, gamesGRABR CEO and Co-founder. The network is designed from the ground up to be much more than a destination where gamers can simply read reviews or ‘like’ games. This space allows gamers to find gaming content that they are interested in, build that into collections and show these collections to other gamers, who can then choose to explore and follow these collections.

Gamers can start by searching through thousands of games and see what other gamers are grabbing, they can then filter by platform, genre, or what is trending and most popular. Once they discover games, they can build collections. If gamers like what they see, then they can simply press the download, play or buy button. gamesGRABR generates its revenue from commissions and affiliate fees it receives from the sites its members used to download or play a game.

The company launched in June 2013 with over 50,000 games, all linked with affiliate deals, with merchants such as Amazon, Apple and Game. It also monetizes through advertising. In January 2014 gamesGRABR counted over 80,000 games on offer, including the games its members grab to include in their collections. It reports around 80,000 monthly uniques, a total traffic going by 50% month on month. Engagement is also significant, with 35% returning to update their collections and discover new games. “Members are spending about 4 minutes per session on the site, indicating a high level of interest and engagement,” Tony says.

Plans are in the pipeline to add price comparisons, user generated reviews, the ability to watch the latest video trailer of the game users are looking at and a variety of other features and functionality that will allow gamesGRABR to achieve its key objective: “to be the largest games retail and social network in the world.”



Tony says the company is working on providing its community access to a curated and quality collection of games. In practice, one click on an image will provide the user information about the app (the publisher, the genre, the date when the app was released, whether the game is multi-player or single player), as well as reviews about the game pulled from sources like Euro Gamer, IGN and Wikipedia. “We’re going to give users price comparisons and a video of the product instantly, as soon as they click on the game, accompanied by screenshots and recommendations on what’s trending and who else in the community has this game in their collections, making suggestions about who users should follow.”

Drawing on this deep interaction as gamers connect with the games and gamers they appreciate gamesGRABR will also have the insights it needs to deliver members stronger recommendations and relevant advertising. “We will be able to target advertising to users perfectly so there will be very clever adverts within their collection that don’t look like horrible banners,” Tony explains. “Effective advertising is native advertising and should be targeted to the type of games users like and the platforms they prefer.”

To encourage engagement plans are also underway to introduce incentives, likely in the form of perks and virtual currency, for users who have the games in their collections that drive interest and buzz. “There users could make money if their collections are really popular and list the games that members like.”

There is also the option for app companies and developers, not just individual gamers, to become gamesGRABR members. In this scenario they could also pay for placement in a ‘featured’ spot. “We’re taking in feeds from app stores and the like, so if a developer wants a top spot there will be a cost to be featured there,” Tony explains. Publishers are therefore encouraged to make their own collections and connect with gamers using the platform.



While social media can be great for communicating with your users, you will need to know the basics to get started. There are thousands of social networks, each one having its own 'personality,' culture, and etiquette. The biggest social networks are: Facebook, LinkedIn, Twitter, Pinterest, and Google+/YouTube. If you want to be seen as a thought leader on certain app topics, then LinkedIn and Quora are great places to build a presence. And don't forget the many blogs and forums where app enthusiasts exchange ideas and discuss new, cool apps.

Other media in the mix

Social media is key but don't ignore the more traditional channels and approaches. Generating coverage through news and posts is a great way to attract attention and capitalize on the buzz.

Media exposure can make the difference for your app. To get coverage you can start by writing a press release. Be sure to cover the 5Ws (who, what, where, when and why) and be clear. Bloggers and journalists won't take the time to decipher geeky jargon. Include exactly what your app does, who the target audience is, pricing information, release date, who you are and any other apps you've developed. Don't forget to provide links to your website, landing page and the app store where people can download your app.

Now that you have the attention of the press, you need to keep it with a steady stream of content — such as blog posts, infographics and guest column contributions on destinations such as PocketGamer — to ensure you stay 'in the news.' Don't just focus on industry news and media websites. Key companies in the app ecosystem, such as HasOffers, accept guest blogs.

And don't talk about your app; talk about your personal key learnings or significant app trends just over the horizon. If you have worthwhile (and exclusive) data on how your downloads have rocketed after tweaking a business model or adding a feature, then share it. The more places you publish (and more knowledge you share), the more well-known your app, your personal brand as a leading app developer and your overall app business will become.

Getting reviews

App marketplaces and ranking and review sites tend to follow the action. It's up to you start the party.

Reviews are the lifeblood of all the app stores. Without them, no one will take you seriously.

But getting your app reviewed can be a challenge because so many apps are released every day. Indeed, the pace of mobile app development dwarfs that of other media, with an estimated

15,000+ apps released each week. Mobile app review sites simply don't have the resources to keep up. However, the majority of review sites provide app submission forms, so use them and take your place in the queue.

How can you stand out in the crowd?

There's no sure-fire solution but it's important to make the reviewers job as easy as possible so that they'll be more inclined to review your app next.

First, be sure that you are contacting the right site – in the right way. More about these sites – and how to make sure you get reviewed – can be found over at Mobyaffiliates, so check it out! (www.mobyaffiliates.com).

Check for any recommended guidelines. Not all sites have guidelines, but some do and they expect app developers to adhere to them. Ignore the rules and you'll irritate the reviewers. Not a great way to start a relationship. Also make sure you are a fit with the website and readership. No point sending your camera app to a site that only reviews games.



Reviewers won't pay to download your app. So provide them a promo code or other ways of sending it to them free of cost.

Reviews are good for app awareness, but beware. A recent post in ArsTechnica³⁴ suggests that pay-to-review blogs promise more than they are prepared to deliver. Indeed, many of these sites don't appear to have a particularly active or engaged readership. This is critical since they are charging app developers for reviews they say can generate traffic. Obviously, the higher readership a site has, the more valuable the link you buy. So, it's definitely worth shopping around.

Networking

You're probably thinking, "What on earth does networking have to do with a book about mobile apps and how to make money?" But networking is essential to building the relationships that will raise your profile and generate enthusiasm around your app.

Put simply, networking is the practice of making contact and exchanging information with other people (be they individuals, companies, groups, or communities) who have interests in similar areas to you. In making those relationships, the goal is to create mutually beneficial relationships. The people you are networking with could be potential app users, commercial partners, investors, advocates, and more.



Investors, whether they are angel or VCs, are all attending mobile meet-ups these days. Mobile is the new black and where the investment money is headed. If you don't have a mobile strategy, you're unlikely to get investment for a digital business. And guess what? A lot of those VCs hang out at networking events, conferences, hack days, and tech meet-ups. If you need investment, those are good places to start to meet the right people.

But the trick is to know where to network and how.

If you live in a big city, there will be large selection of events and networking groups. These will vary from general business networking groups, where members meet very regularly and are committed to making introductions on behalf of each other, to more specialist tech-oriented or industry-sector meet-ups. Good places to find these are on LinkedIn, meetup.com, and Facebook.

- **The Application Developers Alliance (ADA)**³⁵: is a non-profit industry association dedicated to meeting the unique needs of developers as creators, innovators, and entrepreneurs. Alliance membership includes more than 30,000 individual developers and more than 150 companies. It's aim is simple: "to be the rising tide of the industry, to deliver essential resources, serve as a collective voice on policy issues, and act as the connective tissue in the app ecosystem."



The ADA supports app developers with DevsBuild (<http://devsbuild.it/>). This platform is a library of app strategy resources, including: the Alliance Monetization Tool, which allows developers to compare services to monetize apps and increase revenue, and white papers and reports on topics like cross-platform development, real-time bidding, monetization, and discoverability. It also organizes a string of events – including App Strategy Workshops, Innovation Academy workshops for startups, policy-focused events, and more – where you can learn to take your business to the next level.

- **Mobile Monday**: Mobile Monday (MoMo) is an open community platform of mobile industry visionaries, developers, and influential individuals fostering brand-neutral cooperation and cross-border, peer-to-peer business opportunities through live networking events to demo products, share ideas, and discuss trends from both local and global markets.



Look up your nearest MoMo chapter³⁶ and find out when their next meeting is. You could also look up relevant conferences you might be interested in attending and see what media and association partners they have. Those media outlets and associations will often have meet-ups or networking groups (on- or off-line) as part of their remit.

- **Wireless Industry Partnership (WIP):** This global organization started championing mobile developers back in the day when java only meant coffee. It's best known for hosting WIPJams, events around key events and tradeshow where developers could participate. More recently, WIP has released resources for app developers to get connected to the best information, tools and people.



Today, WIP still produces cool developer events like WIPJam@ MWC and @mHealth, droidcon London and Paris and The Parallel Universe Meetups; as well as hackathons and conferences for WIP Factory clients. In addition, it also hosts the largest listing of mobile developer events. The WIP community spans the globe, and brings together the developers WIP has met at its events, the developer programs it works with on a regular basis, and the greater community it has built through partnerships with associations, meetups and other activities. WIP events have become legendary. Check out the world tour dates at www.wip.org, and take part when it comes to your town.

Just remember that networking is about making friends and being human. It doesn't have to be hard. With a bit of simple preparation, it should be a fun thing to do and will enhance your app business at the same time.

Now that you know how to promote your app on a tight budget, the next section will show you how to achieve amazing results with paid advertising and promotion.



The three things you need to know



1.

Discovery is a huge dilemma for apps developers everywhere. Tackle the problem head-on app publish your app on multiple Android app stores to increase the chances of monetizing or gaining exposure for your Android app. But there are other deeper reasons to expand your app distribution. Alternative apps stores often have unique benefits including superior app discovery features for discovering niche apps and install incentives like user discounts or free paid apps.

2.

Cross-promotion works best when you have developed a string of games and can tap into an existing customer base of people who already love and play your games. In this scenario, where you have a captured audience, you capture their attention by running in-house ads for your latest games — effectively harnessing in-house ads and doing cross promotion on your own inventory. You must master App Store Optimization (ASO) in order to maximize your app visibility across the distribution channels you choose.

3.

Social media is the best way to create and cement deep ties with your app users and super-charge your distribution. It's also an approach that is completely in tune with the way we live our lives in this connected world where word of mouth advertising (WOM) travels swiftest and leaves the greatest impression. You can't pay for it, but you can enable it.

Sections of this chapter were contributed to by:

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Apponomics

03: Acquiring High Quality Users at Global Scale

Now that you've gone as far as you can on a minimal budget, it's time to think – and aim – BIG. This is the stage of your app business where paid marketing approaches can deliver significant dividends. But the revenues are just part of the picture. Get the essentials of effective advertising right (such as targeting and tracking) and you can acquire high quality users across the globe. From incentivized schemes that can help you get scale fast, to the smart mobile advertising strategies that will extend your reach and impact, this section maps your app lifecycle and equips you to make the tough choices every step of the way to ensure your app is a crowd-pleaser.

Paid promotion pays dividends

Creativity will take you only so far in the mobile app market. Many of the app successes to date have enjoyed a degree of chance on the road to their success. Some games have simply gone viral, spreading from player to player at breakneck speed to generate both significant buzz and revenues. Others have struck a chord with reviewers and bloggers who have a huge following. However, while social media is clearly a constant in our digitally connected world, it's not enough to make it – and stay – BIG.

If you are serious about your app business, then paid promotions are the 'next step' in a comprehensive strategy to achieve scale, volume and lasting success. But it's not all cut and dried. There are several approaches to consider – and a number of questions you need to ask yourself before taking the plunge.

No matter what you choose, keep in mind that an effective strategy is one that you tailor to your own app and objectives. Put simply, a winning approach is one that must be as unique as your app.

Fortunately, the returns are far greater than any risk involved. As Ed Laws, InMobi Vice President & General Manager, Performance Advertising, EMEA, notes: "There is a level of science and sophistication that exists in paid user acquisition on mobile that makes it relatively risk-free compared to other marketing channels." Tracking (which is covered in-depth in *Acquiring High Quality Users at Global Scale*, page 105) is key to success. "Working with the right tracking technologies means that the cost of campaigns and the return on investment can be matched and measured with a high level of accuracy, which overcomes a hurdle many marketers face when deploying budgets."

Incentivized vs. non-incentivized

To keep our discussion of paid promotions simple we separate the approaches into two groups:

- **Incentivized:** The incentivized model is all about app developers offering consumers something they value in exchange for paying attention to and downloading a mobile app.
- **Non-incentivized:** The non-incentivized model is the exact opposite. Users download or install apps because they want to – not because they have in any way been bribed to do so. Put simply, users are motivated to download the app because they are convinced it is genuinely worthwhile and valuable to them.

Incentivized promotions are already quite common on the Web, where entertainment properties such as Pandora and social games such as Zynga's FarmVille and CityVille have harnessed this

‘value-exchange’ approach to advertising. In this scenario users receive incentives, ranging from cash perks to redeemable points, for their interaction with content and communities.

In the app world incentive programs are similar. In practice these programs, typically used by app developers to promote their gaming apps, reward people, with premium in-game content including power-ups, for downloading their app.

Driving installs

Incentivized downloads are offered by app promotion networks, which help app developers generate new users by cross-promoting apps between different publishers. TapJoy and Fiksu’s FreeMyApps are examples of incentive programs, and can be a great way to get your app downloaded by a large number of users. Check out a list of some of the leading players, listed in the appendix, courtesy of our friends at (www.mobyaffiliates.com).


A typical incentivized app offer might be a reward of virtual currency within a mobile game for downloading a promoted app (sometimes the user also has to also achieve something within the promoted app to receive the reward). Or it could be a voucher-style reward, which allows a user to download a paid app for free or watch a mobile video in return for power ups.



If you’re a small indie app developer with a small budget and big ambitions (driving sheer volume), then incentivized promotion is an effective way to chalk up downloads—fast. In the early stages of your app this approach can drive the numbers you need to rise up in the rankings and reach a prominent position on a top downloads chart.

Later in this section we will explore just how much effort is required to grab your app a top spot in the top grossing ranks of the Apple App Store, and how incentivized installs can help you get to the top of your game – if your aim is to pump up the numbers.

Incentivized app installs can be purchased in high volume and low prices (compared to what it takes to run a non-incentivized



“Purchasing substantial numbers of incentivized downloads for a product launch may allow chart position to be reached easily, but it won’t contribute to long-term user base growth or deliver valuable data about product usage.”

~ Eric Seufert,
Mobile Dev Memo ³⁸

campaign. But, even at a reduced price, incentivized installs may not be profitable for your app business in the long-term.

While incentivized downloads do have an important place in your app lifecycle, the users you lured to download your app clearly are generally not going to be your strongest app advocates. The reason is simple: incentivized users downloaded your app because the reward was attractive, not because they have a strong intention to use (and enjoy) it.

Mike Cohen, VP & GM of InMobi's North America Performance Advertising team, offers some caution on the unintended consequences of incentivized downloads. "Apple and Google have been constantly tweaking their app store algorithms and the consensus is that uninstall rates and post-install engagement metrics are increasingly impacting chart rankings." While it is a known fact that users acquired via incentivized downloads have lower LTV, Mike says, "now these users can actually decrease your app store ranking by uninstalling your app or never using the app."

Therefore, expect your incentivized users to have a lower lifetime value (LTV) compared with real, organic users that downloaded your app because they liked it. In fact, incentivized users may simply download your app to get the reward, before hitting the delete button.

To complicate matters, incentivized downloads are also grabbing headlines —for many of the wrong reasons. For example, it has come to light that some download incentive schemes have allowed developers to essentially game the system, rewarding app developers who spend the most money by pushing their apps up the rankings to gain visibility.

There is also rising suspicion that some of these companies have created thousands of fake iTunes accounts to increase downloads for their app developer clients. While it hasn't been proven, the rumors alone have prompted Apple to crack down on incentivized downloads.

The bottom line: Incentivized promotions are regarded as a quick fix to get fast downloads, so be sure that is all you want. If you are serious about acquiring high quality users — users who are going to make you money by spending their money on in-app purchases or by clicking on advertising — then you should look to non-incentivized approaches such as mobile advertising and ad networks that specialize in delivering high quality users.

Incentivized or non-incentivized? Think it through.

The right answer depends on what your goals are, whether it is to drive a lot of installs at once, or acquire users for long-term monetization.



Incentivized schemes will allow any budding app developer to get their app noticed. What happens after that is down to how good (and targeted) your mobile ad campaign is!

Non-incentivized

With tens of thousands of titles fighting for screen time, getting close to your users, to understand what they want and then keeping them coming back for more, is what counts. As the mobile app economy grows and expands, so does the requirement for app developers to understand who their users are and what motivates them to use their apps.

The challenge and the opportunity is around understanding your audience with greater accuracy and higher degrees of granularity. This is where paid promotions comes in.

Mobile advertising wins on two counts:

- **Mobile ads are highly targetable and relevant.** As we will show in Chapter 7, enormous amounts of information around the device and the user are available, allowing you to develop and execute strategies to reach the right user with the right offer/information in the right context.
- **Mobile ads are actionable.** You are reaching people as they are actively making a decision related to your app, or at the moment potential users have indicated the intent to consider what you have to offer. This gives you an incredible opportunity to convert them.

Promoting your mobile app by advertising on ad networks and exchanges not only helps you achieve the scale you need to rise up the ranking. A well-executed campaign gives you full control over the process, allowing you to target the users that matter the most.

But mobile advertising doesn't only drive results. It delivers analytics about the users you reach and how they interact with your app, actionable insights you can use to build a sustainable app business.



Don't let your business run blind. Use mobile advertising – and the analytics it provides – to improve audience segmentation, refine promotional campaigns, test new approaches and benchmark against your rivals.

Mobile ad networks

At first glance, the mobile ad monetization landscape is a bewildering maze of companies and platforms, as this milestone infographic from Inneractive clearly shows.

“Today's mobile publishers are standing in the midst of this mess with endless options available, some great, most not, from all across the global monetization landscape,” Alon Golan writes in his blog over at Inneractive³⁹.



To keep it simple we group ad networks into two categories: Premium Networks and Everything Else.

Premium Networks: These networks, which are based on the CPM model, are preferred by the top brand advertisers, who are willing to shell out significant sums of money in order to display their ads on premium locations. Many of these networks offer direct sales and support a variety of targeting options. (Examples: Microsoft Mobile Advertising, Advertising.com.)

Everything else: These networks, both blind and semi-blind, are the largest by far, with the maximum amount of advertisers, publishers and impressions. This makes them a great way to get volume and valuable users for your app. In addition, these networks have segmented audiences, allowing app developers to choose from a variety of content channels where they can

display their ads to a target segment such as ‘auto enthusiasts’ or ‘sports fans’. However, these networks are also ‘blind’. In other words, the app developer cannot dictate which advertiser property (website/app) promotes which app. (Examples: InMobi, AdMob, Millennial Media.)

Finding a partner: In such a busy mobile landscape it’s important for app developers to select the right partners to develop and scale their mobile campaigns. It’s not a rush decision, so give it care. Here’s are some critical criteria you should consider first.

- **Geographical coverage and user reach:** Apps are a global market so aim high with your mobile app. Ensuring you have a partner with a presence in high-growth markets including China, Japan and Korea is becoming as important as having a footprint in Western markets like North America and Europe.
- **Feedback and support:** Mobile apps is a fast-moving space where you need rapid response. Make sure your partner offers time zone account management support. Efficient and accurate reporting tools are a must so you can keep a close eye on your app business – and all your campaigns – 24/7.
- **Advanced technology:** Paid promotion requires the right tools and techniques. Having a partner that not only offers – but also constantly improves and innovates – in areas such as user targeting, frequency capping and other campaign optimization capabilities is a must.
- **Integration:** Avoid partners that lack integration with third-party tracking solutions. Being able to track and enable download postback attribution are table stakes to properly measure (and thus optimize) the Lifetime Value (LTV) of your user base.
- **Services and consulting:** We’re all learning in the app space. Look for a partner that can guide you on important aspects of your app business and support you in choosing and building the right ad creatives to engage your target audience, or advise you on growth opportunities as you expand beyond your home market.

Finally, don’t limit yourself to just one partner. Choose 3-4 partners to cover the markets and areas of expertise (analytics, tracking, intelligence). This will ensure you achieve your user acquisition objectives in an efficient manner.






See Appendix page 265 for a pull out ‘Helpful Tips’ Sheet on “Ad Creative”

Variables to consider

The advertising strategy you adopt — and the success you ultimately achieve — will depend on a number of variables unique to your own app including: your business objectives, the category and nature of your app, your resources and, critically, the stage you have reached in your app's lifecycle.

Ask yourself: Are you preparing for a big launch where you need high volume and a high profile in the major app stores? Are you gearing up to retarget and thereby deepen your relationship with your most valuable users? Are you taking the plunge and sharpening your focus on expansion to lucrative markets such as China, Japan and Korea. Your answers are key in determining the right advertising approach to deliver the right results for your app business.

To get you started InMobi divides the universe of mobile apps into three categories:

1.  Games
2.  Social (includes entertainment, chat and news apps)
3.  Utility (everything else and includes utility apps that help users get stuff done)



If you have a gaming app, particularly if you have baked in features you can charge for (by asking your users to spend money or invest in virtual currency), then advertising is a great way to acquire users and monetize through in-app purchases. As this section will show, it's also important to strike a balance between the advertising (placement, frequency and 'look and feel') and the mechanics of your gameplay.



If social is your focus, then you likely want to be viral first, and then use advertising (across mobile as well as more traditional channels such as TV, online and print) to reach and maintain the scale, you need to stand out among the hundreds of social, messaging and chat apps jockeying for position. Once you acquire users for your app, you should explore creative ways to monetize them. Many chat apps achieve tremendous success with stickers and emoticons. Entertainment apps, on the other hand, report success with subscription models. Advertising should be relevant and never interruptive.



If your app helps people get stuff done, then you probably don't pursue a monetization model that revolves around recurring revenue from in-app purchases or additional

features. In this case, your key concern is to grow the amount of revenue you generate through advertising — and optimize advertising effectiveness.

How to make your social app a success

In 2013 all app categories saw significant growth, but it's social apps that have been leading the pack. As Mahak Sharma, InMobi Business Development Lead, Mobile Gaming, notes: "The last 16 months have been really exciting because, for the first time, this app category has moved up to take the number three position in terms of revenue generation." Within this category messaging apps and dating apps have "emerged as the clear winners."

Main drivers behind the explosive growth of social apps can be found in Asia, where market conditions have aligned to produce super-successful apps — monetized by games, stickers and other clever in-app purchasing approaches — including LINE and KakaoTalk. But Mahak is also bullish about the prospects for app developers with social apps, noting that the market is by no means saturated. "We have observed that for each segment and each country the social app that dominates is different, which means there's a lot of opportunity for all the app developers out there who are trying to find the niche segment that's going to pay off. There could be multiple winners co-existing and still making money at the same time."

Based on her experience helping app developers launch and succeed with social apps in markets around the globe, Mahak reveals her top tips.

Focus on LTV from the start: When you decide your user acquisition budget it is important to have a good idea of the LTV you expect and use this to guide your strategy. "You want to set in mind what is the maximum that you can spend and a lot of social app developers don't have their monetization strategy clear in their head and just launch their app." Once you are clear about your objectives and your budgets, plan your launch to get maximum impact and virality. Aim for a time when competition is not high to save some costs. "A date in the beginning of the quarter is much better than at the end of the year or end-quarter, because that's the period when many companies typically increase their marketing budgets."

Go your own way: Your app category is unique. What works for gaming apps, might not work for you. "You need to understand what works for apps that are similar to yours. And you need to have mobile analytics, as part of a larger LTV optimization platform, in place. "It's all about continuous optimization and continuous monitoring to know and ensure your app is going viral." Typically, it's the early user that you acquire that will have highest LTV. "Social apps tend to be very sticky, so if you can get an initial volume of user base, at critical volume, then you can sustain it, and you can then start monetizing these users."

Create effective buzz: Claim your social media accounts long before you launch your app to create initial interest in precisely the social circles that are brimming over with your potential users. “As you get closer to your app launch have a demo, and create a sneak preview of that app and a video that you can share on these forums and on your social media accounts.” It’s also a good idea to reach out to your friends and family, tap into your own network and drive email sign ups through your website or newsletter. “Social media is a very important technique for social apps, highly under leveraged. It can create a lot of buzz and it can reduce your paid user acquisition significantly if it is done smartly.” Once you have your first loyal app fans, give them reasons to engage with your app. Badges, stickers and virtual currency can all play a role, so pick and choose what works for your app and audience. And always take their feedback seriously.

Cool is King: Maximize your interactive experience. “Use as many mobile features as possible since this is only thing that differentiates your app from any other social portal, or any other social apps.” Localize the content and go for impact – as well as utility. “Cool is the new mantra when it comes to social apps.”

Syncing your strategy

Your advertising needs and goals will change as your app matures. At launch, you may simply want to drive downloads to capture a top-notch spot in the app store ranking. Months, even years, later, you may shift gears to focus on building a brand through advertising across several channels, including mobile. The strategy you follow will be as unique as your app.

But there are some rules to guide you.

We identify three key stages in the app lifecycle and provide you a blueprint (based on the category of your app) to follow as you architect a winning strategy to market your app.

Case Study: Storm 8



STORM8

Storm8 is the leading mobile social gaming network founded by a team of Facebook alumni who saw the huge potential of bringing social games to the mobile platform. The creators talk about their strategy to build and promote a mobile gaming network, rather than just deliver a 'cool' app.

Storm8 launched its first MMORPG games on Apple iOS in 2009 and by the end of that year, its roster of 9 (!) MMORPG games occupied the top 10 grossing games on the App Store. Today, Storm8 has a portfolio of more than 40 games on both Apple and Android platforms across 5 different game genres. Titles range from MMORPG games World War and iMobsters, to social casual games like Dragon Story and Bakery Story, to social arcade hits Bubble Mania and Jewel Mania, to social casino games like Bingo! and Slots. Its most recent foray into mid-core games is the title Kingdom Clash.

If that sounds like a lot of titles, it is! But this variety is at the center of the wider (and wildly successful) strategy to become a games network. “Through this strategy, Storm8 has developed a sustainable business that does not rely on only one game or game mechanic for revenue.”

As an example, the company had 6 titles in 3 genres in the App Store’s year-end top grossing list for 2012. Underpinning the longevity of its games, two of those titles have been in the market for more than two years. In the 12 months preceding September 2013, Storm8 had more games than any other mobile game developer in the West that reached the Top 25 Free Apps list on Apple’s App Store.

Today, Storm8’s games — all free-to-play and monetized by in-app purchases — have been downloaded more than 600 million times across more than 200 million devices worldwide. “This monetization model made gaming popular among mobile users and was the anchor to the expansion of the gaming industry as a whole.” On any given day, more than 10 million users play one of Storm8’s games.

Importantly, this model lowers the barrier for users to try out games. “Through this strategy, we are able to convert even non-gaming mobile users into gamers, thereby increasing its mobile game audience overall.” What’s more the model, “allows for efficient user monetization as the



process does not interfere with the user's gaming experience."

Being a pioneer in mobile social games has enabled Storm8 to build a strong network of targeted users. In addition to advertising, Storm8 increasingly uses the "power of our 200 million-strong user base" to cross promote many of its new game titles. It also partners with ad networks and social networks to acquire users.



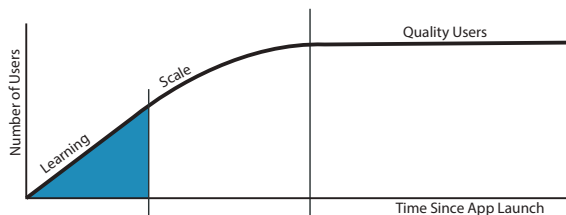
While it took Storm8 nearly 2 years to reach its first 100 million users, the company surpassed another 200 million users in about 7 months. What advice does it offer app developers eager to emulate this success?

1. Experiment and branch out: Storm8 has always taken a network approach to developing mobile games – that is developing many different games rather than focusing on just being a one-hit-wonder. "When the company conquered the App Store charts with its MMORPG games, the company made a strategic yet risky decision to expand into a completely new genre of social casual games." Instead of staying within its comfort zone and developing just another MMORPG, Storm8 decided to break new ground to attract a whole new audience. The company further expanded into the social arcade and social casino genres a couple of years later.
2. Aim for success, not funding: One of Storm8's key differentiators is also its decision not to woo VCs and take on outside funding. "Staying completely bootstrapped has allowed the company to focus on honing its products and take control of its destiny." The approach appears to deliver. Storm8 has been profitable for 18 consecutive quarters.
3. Acquire and engage your users: Storm8 has been able to sustain its user base through the years by creating truly engaging games that make players come back for more. These tactics include: delivering consistent content updates to provide new gaming experiences, hosting an open dialog with users via a community to solicit user feedback and enabling PVP (player vs. player) options that encourage interaction and competition among friends to extend game play.

Moving forward, Storm8 plans to continue to grow its mobile gaming network and expand its gaming portfolio by developing engaging mobile social games in new genres. Plans are also in progress to expand its international footprint.

Learning

Focus on User Acquisition: Learning



Developers first need to make consumers aware of their application. This is also a time for developers to test different strategies and creatives to learn what users react to as well as obtain some organic downloads.

Source: InMobi

In the Learning stage it's all about ensuring you release an app that has positive impact— both on your business and your audience. There's no sense spending time and effort on an app that doesn't have a chance of achieving either.

The Learning phase is also a good opportunity to test the waters before you take the plunge. Releasing it into a test market allows you to tweak the app and make iterative improvements in response to what your users say (and do). Collect data through this phase that ensures your budget and strategy are on the money.

“There are many campaign levers to consider and get right to ensure ROI positive user acquisition investments,” InMobi’s Ed Laws explains. “By carrying out a test campaign prior to scale, utilizing tracking technologies, you will be able to evaluate what works best in terms of audience and inventory, creative formats and messaging, geographical markets and many other aspects of your app strategy.”

Perhaps most importantly, your activities in the Learning phase will enable you to set the right cost you are willing to pay for a new user. “A test budget should start wide and then get refined as the good ingredients get identified,” Ed stresses. “And double down on what works well.” It’s also a good idea to have an analyst to evaluate important metrics from the test campaign such as clickthrough rate (CTR), Conversion Rate, Organic Uplift and post download ARPU. And don’t stop – even when you’re winning. “Learning should continue throughout the entire lifecycle of a campaign to enable ongoing optimization towards what works well.”



Use the Learning phase to test the waters for your app and assess your audience. Many app developers in this space kick off with an incentivized campaign for the first couple of weeks to drive download numbers and grab attention with their game. Mike Cohen, InMobi's VP & GM of North America Performance Advertising team, who helps app developers make the match between marketing and the maturity of their mobile app, observes that it's best to switch from incentivized to non-incentivized approaches, as well as campaigns on social networks like Facebook and LINE, a few weeks after launch to maintain momentum. This is also a good way to build loyalty among the users who have shown they genuinely enjoy the game. (Also see Ken Herron's Social Media Crash Course for tips and tricks, page 066.)



"The low inherent conversion rate of the freemium business model means that monetization can only be optimized by catering to the users that are most enthusiastic about the product. A global launch that hasn't been preceded by a soft launch is essentially executed without knowledge of the tendencies of the users that will become most engaged."

~Eric Seufert,
Mobile Dev Memo ⁴⁰



Fish where the fish are and use the Learning phase to advertise your social app across relevant social networks. Since your app thrives on viral sharing, avoid spending money on incentivized install campaigns and focus instead on ways to generate 'buzz' around your mobile app. Social media marketing and guerrilla marketing (see page 063) should be part of your marketing mix, along with advertising via more traditional channels (TV, online, print) to build your brand appeal. Non-incentivized mobile advertising will prove to be key to your lasting success – it's just not top of your agenda at this stage in the app lifecycle.



Similarly to app developers with social and entertainment apps, you are best advised to use the Learning phase to do just that: LEARN. It's all about learning more about your users and what they appreciate most about your app (so you can be sure your app – and all future iterations of it – deliver). Find the right audience for your app, and avoid incentivized campaigns that will muddy the data. Your mobile app succeeds if users integrate it into their lives, so you want to attract users who are serious about your app and eager to share it with their friends. Viral is the rule here. Advertising plays a role in later phases of your app – after you know your audience and after your app has gathered momentum.

Going social

With over 101 million daily active users in the U.S. alone who connect to Facebook on their mobile phones and tablets, Facebook offers an ad unit for promoting apps that not only appears directly in mobile news feeds, but also links directly to the app store.

It's common for app developers with gaming apps to launch on a social networking platform like Facebook to test the waters. It's an easy way to check whether there is audience for your game and can help you identify what it is about your game that users would be willing to pay for. But don't stop there. Use this feedback to architect and execute your mobile advertising campaign in later phases — and really reap the benefits.

Aiming for the top

In the Learning stage ranking is a key metric for app developers looking to get their gaming app into the app store Top Charts.

Before you start spending on incentivized campaigns to drive sheer numbers of downloads, do your math to figure out just how many downloads per day you'll need. The numbers are sketchy, but a June 2013 report from app analytics company Distimo sheds some light on the numbers you need to hit to grab a top spot in the top grossing ranks in Apple's App Store in the U.S.

As it turns out, it's a lot.

For an app in the U.S. App Store to reach the top 50 free chart, the app needs to be downloaded 23,000 times per day. Paid apps that reach the same spot need 950 downloads.

Recently, the mobile app marketing company TradeMob did a little of its own investigating. It found that the magic number for getting into the top 15 in the U.S. App Store was 60,000 downloads over a 24-hour period.

How many downloads needed to get to the top of the App Store?



To achieve a top 15 rank in the overall iOS charts in the US you need:



60,000 in **24**
downloads hours



For rank 16–25 **40,000**
downloads



But, **63% of developers** have had their app downloaded 50,000 times or less overall.

Source: *Trademob*

But these are only estimates.

It's tough to peg the precise number of downloads you will need to break into the top rankings, particularly if you are not focused on being a hit in the U.S. app stores. Here are few tips, courtesy of Neil Patel⁴¹, renowned entrepreneur and analytics expert.

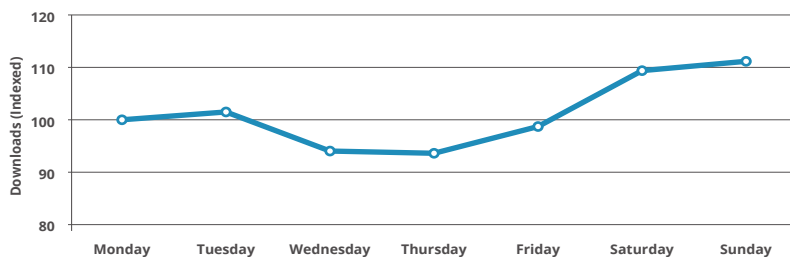
- To estimate your targeted download number, check on how many downloads/ratings/reviews the apps in your category's Top Charts have and how they change on a daily basis. If the app store doesn't offer a way to follow number of downloads, do your best to approximate.
- Use your app as a guide for what percentage of users also rate and review it, and approximate the other apps using this same percentage. As an example, if your app has 100 downloads and 5 ratings (5%) while your competitor has 10 ratings, you can assume that your competitor has around 200 downloads. You should be able to triangulate a reasonable estimate for the number of downloads per day needed to rise in the Top Charts.
- Predicting potential install volume in the future at a set price point is difficult to do with certainty. It's therefore important to overbook a product launch and ensure that some networks can be scaled up on short notice to make up for poorly performing channels. Overbooking installs by 10-20% may increase the launch's total budget if all networks deliver, but not securing surplus downloads can ultimately be far more costly.

Timing can be a boost to your app

Interestingly, Distimo research indicates it is easier to get into the top 10 chart on a Thursday than it is on any other day of the week. Sundays are the biggest day for app downloads, making it 11% harder to get into the top 10 ranks as the average day.

Downloads Generated By Applications With Rank 10

Apple App Store for iPhone U.S., Top Overall Free, May 2013, Average Per Weekday (Indexed, Monday = 100)



Source: Distimo

Read between the lines, and the report seems to say that, if you want your app to make it into the top ranks in the U.S. App Store, you should make it free to download, launch it on a Thursday, and aim to make sure you hit 23,000 downloads per day. No sweat! ;)

The high ranking an app receives by Sunday (perhaps because people are more relaxed on the weekends and more interested in exploring the wealth of apps at their fingertips) gives it significant exposure, which then carries momentum into Monday. Ranking will generally start to die down on Tuesday.

But there are always exceptions to the rule since, during the work or school day, people will impulsively download apps on the commute or during breaks.

What does it take to make the Top 25?

Clearly, ranking is a key metric to watch and, in the Apple App Store, it's also a metric that has undergone significant changes. Once sharply focused on keywords, the Apple ranking algorithm now takes into account a variety of other key factors including your installs, uninstalls and the number of users ratings your app receives.

Knowing this allows you to do more than monitor your ranking in the App Store – and InMobi shows ways you can improve it through smart marketing⁴².

- **Install Velocity:** The rate of app installs is the single biggest factor that influences your rank. Apple's ranking algorithm takes into account the weighted average of the install rate over the trailing 4-7 days with the highest weightage for the last day. This is an extremely important piece of information, so use it to make decisions and divide your campaign budgets. InMobi recommends that you increase your ad budgets just before the weekend. This is based on network data that reveals a 20%-25% jump in user engagement and downloads over this period. Also, it's wise to pump up your social buzz and cross promotion activities around the same time. The combined impact of higher mobile ad budgets, aggressive social marketing and the resulting rise in user engagement will multiply to improve your rank. And this tends to have a positive impact on the paid to organic ratio of downloads by two to five times.
- **Number of installs:** Divide your marketing budgets across countries and platforms based on the number of installs required to get into the top 25 for each market. InMobi teams analyzed the proportion of downloads required across key markets to break into the top 25. The following is the summary of the analysis conducted among 500 popular apps across gaming, social and business segments.

Indexed data comparing the number of downloads required in each market to reach the top 25 rank

Brazil	Canada	Sweden	Italy	Germany	Spain	Turkey	Mexico	Netherlands	India
.26	.28	.15	.27	.80	.18	.13	.20	.33	.05
China	Denmark	Russia	Korea	USA	Japan	Australia	UK	France	Austria
.23	.09	.06	.07	1.0	.25	.05	.32	.14	.03

Source: Inmobi

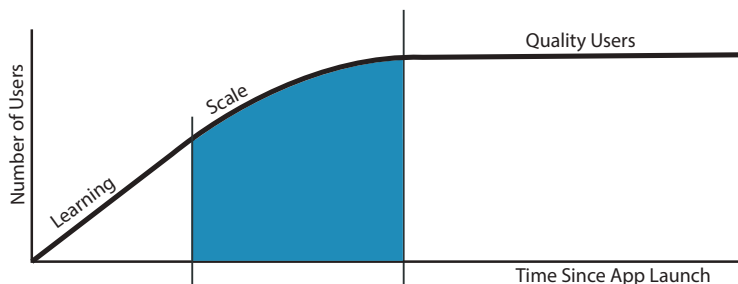
- **Uninstall Rate:** The uninstall rate can have an extreme and negative impact on your app store ranking. This is why you want to use the time leading up to your launch to work out all the bugs and connect with your community to be sure the app your release is one sure to please. You also want to make sure your ad campaign is targeted towards you attracting quality users who download your app because they genuinely like it – and not because they have been incentivized to do so. As we have shown in Chapter 3 (Acquiring High Quality Users at Global Scale, page 082), incentivized downloads may boost your numbers, but these users tend to be fickle, not loyal.
- **Ratings & Reviews:** The App Store algorithm factors in your user ratings to gauge user sentiment around your app. It's not clear what weight the algorithm gives to user ratings (since they can be easily manipulated), but it is clear that doing all you can to encourage good reviews and ratings on the app store can increase popularity of your app and – ultimately – drive organic installs for your app. So it's important to collect feedback and prompt users for ratings within your app – even if they decide to uninstall the app. Ensure that you take the feedback very seriously and act on it to improve your chances of satisfying your users, retaining your app fans and sustaining a top ranking in the App Store.



App developers with gaming apps naturally focus spend in the Learning phase toward driving incentivized downloads to rise up in the app store ranking. If you have a social or utility app, then you're likely not as focused on increasing numbers as you are on finding and understanding who your *real* audience is.

Scale

Focus on User Acquisition: Scale



Once past the initial phase, now is the time to grow rapidly. This can be done through a variety of advertising techniques such as boost and burst campaigns.

Source: *InMobi*

Congratulations! You have successfully launched your mobile app and followed the necessary steps to generate the initial interest (or buzz, if you have a social app) to get your app noticed. In the Scale phase of the app lifecycle your focus is on growing that momentum to build your audience – and your brand – based on all the insights you gleaned from the Learning phase.



Incentivized installs helped get you to the top of the app store, now you're spending on advertising to stay there. In the Scale phase it's about building out your edge over rivals and acquiring users who will use your app again and again.



You likely used a powerful mix of guerrilla marketing and social media marketing to rise above the noise. Now, a few months following your launch, it's time to turn your attention to paid advertising. But don't target too many markets. Select the markets where you can get scale and virality. If you have an entertainment app, be prepared to come up against different copyright issues in different countries as you release apps with content into highly regulated markets like Germany. Take a cue from popular entertainment apps like Spotify – a service which took years to be available in 65 countries due to local regulation and copyright concerns around music content – and be prepared to pace yourself.



Yours is the hardest app category to call. Paid advertising makes sense at this stage of your app lifecycle. The question is: when is your app really ready to scale? Unlike gaming

apps, the app lifecycle for utility apps can last years. One thing for sure: you should aggressively explore paid advertising options after you have identified an eager audience for your app.

Bursting to propel your app

If you have a gaming app — and you're on a limited advertising budget — you may want to start off with a burst campaign in order to drive large amounts of installs within a short campaign duration time (usually a couple of days).

Bursting is a tactic that involves focusing your marketing dollars in a very short time frame to get a big spike in downloads. This propels your app up the ranks, which brings in more organic downloads. But using up your budget for one glorious day at the top of the charts won't deliver best results: it takes a while for organics to kick in.

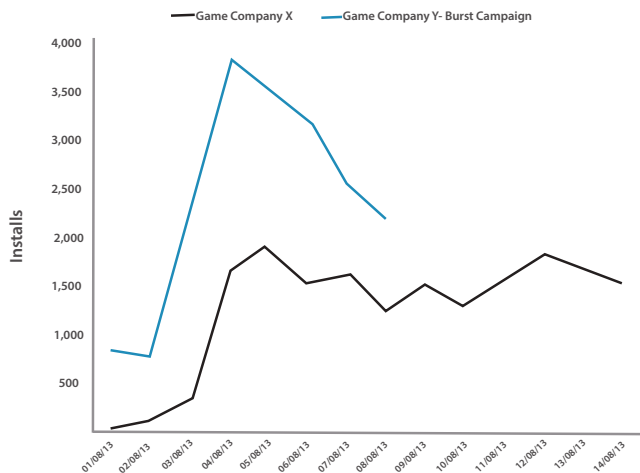
Therefore, a 'burst and sustain' approach, where the initial push is followed up with additional days of advertising to support the new rank, can deliver much more value.

Generally speaking, it makes good sense to start a burst campaign (aimed at driving installs) over a weekend since that is when traffic is higher compared to mobile use during the week. It's also a good idea to extend the campaign for a few days into the week to test and compare if the weekend is the best time for you to reach your target audience.

What difference does it make? A review of the results from two campaigns run by two different games companies on the InMobi network speaks — literally — volumes.

Burst vs Sustained

User Acquisition + Scale



Source: InMobi

Sample comparison of campaign results between developers who ran burst campaigns vs. developers who ran sustained campaigns

As the graph shows, the game developer who ran a burst campaign achieved a higher number of installs within a shorter period of time, compared to the other developer who ran a sustained campaign over a longer duration.

Since time is money, the “rate” at which downloads/installs are achieved is a critical factor in your strategy at the Scale stage of your app lifecycle.

The higher the rate, the higher your chances of hitting and keeping a top-notch spot in the app store ranking long after your initial launch period. What’s more, a high ranking in the app store allows you to get more organic downloads. Thus, the effective cost of a download from a burst campaign decreases and the number of organic users increases. It’s a good deal all around.



One of the best ways to scale is to run a burst paid ad campaign to drive rapid downloads. Once your ad campaign begins, you’ll see an increase in the number of downloads and users of your app.

Keeping out the competition



If you want to run a campaign with the pure objective of achieving scale (and topping the app store charts in the process), then a buyout is likely the right strategy for you.

Buyouts — also known as network takeovers — are a great way to block out competition. When and why would you use a buyout? Many games studios do this during the holiday season to ensure their app is number one in the app charts at the same time new and first-time smartphone owners are looking for mobile gaming apps to download and enjoy.



See Appendix page 272 for a pull out ‘Helpful Tips’ Sheet on “How much can it cost?”



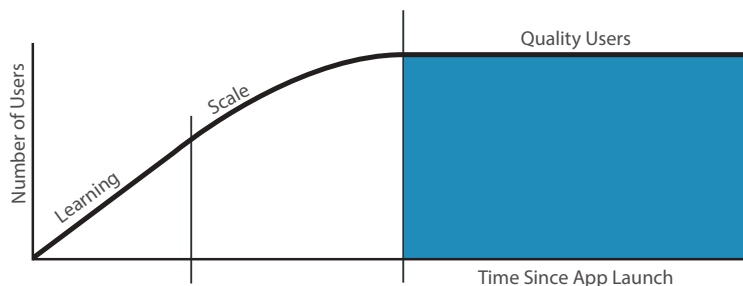
See Appendix page 274 for a pull out ‘Helpful Tips’ Sheet on “How many markets should you target?”



See Appendix page 275 for a pull out ‘Helpful Tips’ Sheet on “What are the sure signs of success, or failure?”

Quality

Focus on User Acquisition: Quality



Once scale is achieved, you can now focus on the different types of consumers that you have and create targeted, personalized strategies to make the most of your user base.

Now that you have the insights to architect an effective marketing campaign specifically tailored to your category of app, it's time to switch gears and focus on running the campaigns that will allow you to determine what works, what doesn't and how to do more of what makes money. Use the Quality User phase of your app lifecycle to acquire more of the quality users that matter.

The results of campaigns at this critical stage will allow you to identify and target your best users, balance your marketing mix and map out your strategy to expand into other markets and ride that wave!

This is also the most pivotal stage in your app lifecycle. The strategy you choose will decide if your app is – and remains – a category leader.



Test, learn and implement⁴³. This should be your app business mantra, according to Mick Rigby, app marketing authority and founder of the full-service agency Yodel Mobile. Follow his advice and use your advertising campaign at this stage of your app lifecycle to experiment smart and aim big(ger). Know what you want to achieve through advertising and measure the results.

Achieving success at this stage of app lifecycle depends on the choices you make and the steps you take.

1. Build the right (and attractive) ad creative. Let's face it. Not all users enjoy clicking on ads and many may find them intrusive — unless your ad is inviting and engaging. Building an attractive ad creative is therefore as important as designing your overall ad campaign. (See 'Helpful Tips' Sheet: Ad Creative, page 265.)
2. Know your audience — and target them correctly. Advertising on an ad network provides you the ability to control the quality and quantity of your acquisitions within the time frame you would like to achieve them. However, it's the effective use of targeting that will ensure your ad dollars are spent where they matter the most, helping you improve the overall ROI of your marketing expenditure. (See 'Helpful Tips' Sheet: Targeting, page 276.)
3. Experiment, then scale. With few exceptions your audience can download your app and use it anywhere in the world. And the overwhelming global success of games like Angry Birds confirms that people everywhere have an appetite for fun and addictive games. But experimentation and expansion is not just for the big studios. Small-time or indie app developers also benefit from a strategy that takes them out of the home market. Emerging markets are a particular favorite since chances are these markets will not be saturated from huge app development companies. Where there is less competition you can bet your app will have a greater chance of standing out. (See 'Helpful Tips' Sheet: Ad Creative, page 265.)
4. Track and optimize for quality. To turn your app into a serious business you can't just drive downloads and conversions: you have to track them.



See Appendix page 276 for a pull out 'Helpful Tips' Sheet on "Targeting"

Understanding tracking

So far, we have shown you the steps and strategies you need to follow at every stage of your app lifecycle in order to achieve your app objectives. But how do you know when you are winning?

Whether you want to increase the number of impressions/clicks, or simply aim to drive downloads, visibility into campaign performance is essential. This is where tracking solutions come



in. These solutions and approaches allow you to detect and attribute an action (download, click, conversion) to the source (such as a mobile ad or a cross-promotion).

Use tracking to:

- Know where your users/customers are coming from
- Understand what inventory segments are the most valuable
- Optimize your spend to valuable user segments
- Track in real-time

“Do not engage in paid user acquisition if you don’t have a tried and tested campaign tracking solution in place. The visibility tracking provides is essential – and you simply can’t afford to operate a serious app business without it.”

*~Ed Laws,
InMobi Vice President &
General Manager, Performance
Advertising, EMEA*

To get the full benefit, and the full picture, you will need to install a robust analytics package that allows you to track the metrics that matter most. While different mobile analytics solutions offer different views into the data and serve different purposes at different stages, they are all focused on the same task: tracking interactions and attributing to the source.

- Analytics in the app track the user’s journey through the app and key aspects of that interaction, such as time spent within the app and bounce rate.
- Analytics on the Web track the user’s journey through mobile websites and Web apps, and key aspects of that interaction, such as time spent on the website/within the Web app and bounce rate.
- Analytics in an advertising campaign track campaign performance, and are specifically used to monitor KPIs (volume, cost of clicks, installs, in-app purchases) and optimize spend. In an app the focus is similar, however, analytics solutions are finely tuned to attribute installs and in-app user actions to the original ad click that triggered them.

Tracking for mobile apps can be complex

Tracking advertising campaigns for mobile websites on mobile ad networks can be done relatively simply since most traditional tracking methods work on smartphones, such as client-based cookies and server-to-server tracking.

Case Study: HasOffers



The vast majority of advertising campaigns are based on app installs. Whether an ad network or publisher is charging for impressions, clicks, or installs, the majority of app developers are backing everything out to a cost-per-install. But Peter Hamilton, HasOffers CEO, has begun to see a seismic shift.

There was a time when pure volume of app installs was enough to get you ranked in Apple's top 25, launching your app into unbridled organic success, but as competition stiffens, Apple continues to tweak its ranking algorithm, and a stronger focus on user engagement moves to the top of the agenda, it's clear that more downloads of your app doesn't equal success for your app business.

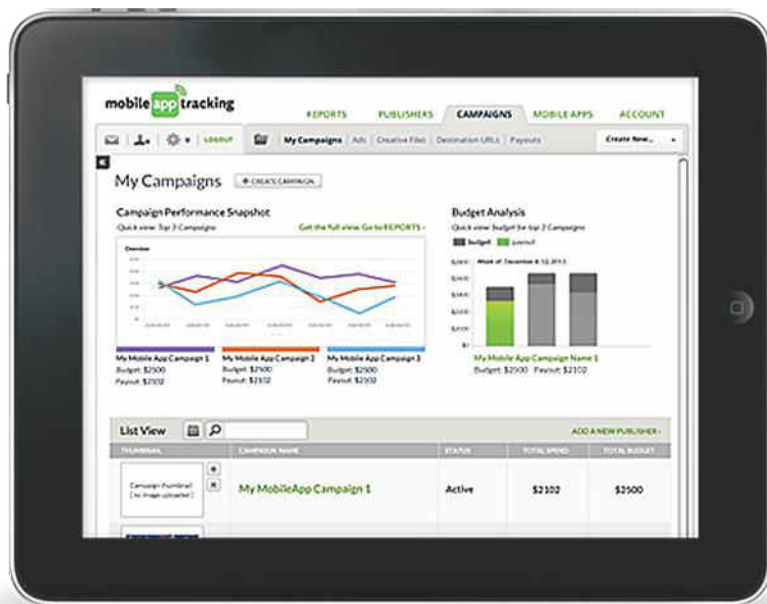
This paves the way for a cost-per-action (CPA) for mobile apps.

It's a shift that will require app developers to start thinking about the value of a user's actions beyond the install. And it's time for app developers to grapple with some key questions like 'What is a purchase in your app worth to you?' and 'How would this impact your budgets?', Peter explains. Getting answers will require solutions and strategies that allow app developers to track the Lifetime Value (LTV) of a user back to the milestone events that delivered real user engagement with the app.

"You're starting to see advertisers want to connect the dots between real user engagement and lifetime value back to those sources," Peter says "And this is obviously creating a world of massive data where there's a lot to take in and a lot to crunch... to get the actionable information you need to determine if a specific channel is effective or not and how you might optimize that channel to get the best results."

In line with this increased focus on tracking in order to understand and optimize the behavior of valuable users, comes a new interest in ways to effectively and efficiently compensate the ecosystem players (websites, publishers, ad networks) for the role they played in clinching the clicks, app installs, in-app purchases, other in-app events that generated revenues.

It's all about being able to measure these actions, both separately and together to assess the impact on the app business, Peter says. "App developers need more insight into the lifetime value of those users to determine what those actions are worth to their business. If both app developers and publishers have transparency into the same user



metrics, then we finally have a real foundation for negotiation and a starting point for building relationships with long-term growth opportunity.”

This is where companies like HasOffers, with its MobileAppTracking attribution analytics platform, has a key role to play. HasOffers provides software for networks and agencies to manage their performance advertising programs. Its MobileAppTracking solution attributes installs, in-app engagement and purchases back to ad partners (such as social networks, publishers, and mobile ad networks). It is integrated with a large number of mobile advertising platforms from companies including InMobi.

“The industry today is on a last-click model and that results in pretty major overlap,” Peter says. “[We see] sometimes upwards of 15-20% of users that have installed an app actually interacted with more than one advertising partner in the process. And, if that is the case, and you really only want to give credit to the last click, then you also need an unbiased system to determine who is the winner.”

The aim of MobileAppTracking is to provide insight into the overlap and transparency into the market. “If app developers and publishers can understand the data – and the power behind it – and how to use information for negotiation, they can be more effective and successful,” Peter says. “We’re starting to see some advertisers negotiate with their partners and only pay for the traffic that converts. They are moving past the install to compensate those partners that deliver the users that contribute high lifetime value.”

Attribution for key actions will become even more challenging as mobile app interaction moves across multiple screens and destinations.

Peter offers 3 key steps you can take to do business in a world where not all clicks and installs are created equal:

1. **Know your KPIs:** You have to know what a valuable user looks like in order to identify more of them. Start by defining the key characteristics that are clear indications of a valuable user— such as the number of times they open and use the app, the number (and amount) of in-app purchases, and their eagerness to share app events and content with their social network.
2. **Communicate your insights:** Once you know your valuable users, let your advertising partner know what you're looking for, too. Together you can look at the data as you run your campaigns to ensure you target — and ultimately convert — more of the users that matter to you. Keep in mind that it's not just about targeting. It's also becoming increasingly valuable to be able to re-engage with users and “re-warm” those leads that you acquired previously.
3. **Test — and test again:** Build relationships with your valuable users to extract value from them. But marketing well also requires A/B testing to determine what works. And don't throw away any of that old creative because you assumed it was at fault. As you may launch with new advertising, you may want to double check that it's not the creative that was the problem. It may have been the audience. A new audience may have a different user mindset and embrace precisely the creative that the other audience rejected.

However, tracking advertising campaigns for mobile apps on mobile ad networks can get complicated quickly since traditional tracking methods don't work. When it comes to mobile apps, users leave their web browsers, entering into app stores and marketplaces, and once they've installed a mobile app on their device and open it, they continue to operate without a web browser.

Put another way, the steps — from consideration to conversion — don't take place on one website or in response to a single call-to-action. The impression may happen on a publisher's site, while the actual conversion happens on the property belonging to the mobile advertiser. Thus, there are two different sets of Web property that need to be integrated. To further complicate matters, the app store sits between the publisher and the actual app being promoted. Tracking in these conditions requires a linking variable, which is constant, between the publisher (click) and the advertiser (download) environments.



Mobile apps and the wider mobile Web have different ecosystems. There is no universal solution, so app developers must rely on a mix of technologies to build a bridge between the click and the conversion and so attribute the action to its instigator.

There are three main sets of technologies used to track on mobile and tablets:

1. Device IDs
2. Browser Cookies
3. Device Recognition (also called Device Fingerprinting)

Device IDs



Device IDs are used to track users by exactly matching user actions within an app to the original ad click from the device. It's a little bit like a license plate: it's unique and there can be no duplication. A license plate identifies a vehicle and a device ID identifies the device. It is hardwired into a device because it is part of the operating system that runs on the device.

As such, any app can collect the device ID, which uniquely identifies that device in the network. But browsers can't. In practice the publisher app collects and transmits the ID when serving an ad while the advertiser collects the ID upon

install and each in-app user action. Of course, the effectiveness of this type of tracking is dependent on publishers and advertisers transmitting the required data.

Privacy concerns

Device ID tracking was the most common procedure on Apple iOS, but has been replaced due to privacy concerns because it cannot be changed or reset on a device. Thus, the UDID (as it is called on iOS) is giving way to the IDFA, which can be disabled by users who prefer not to be tracked. Apple's answer to the UDID will become the new industry standard.

Apple's actions also spurred the development of a slew of other workaround solutions – the MAC Address, ODIN, OpenUDID and SecureUDID – which will no doubt meet a similar fate as UDID. The Media Access Control (MAC) address is a permanent and unique number of the Wi-Fi interface on each iOS device. The ODIN is a solution based on the Mac ID. The OpenUDID and SecureUDID solutions accessing the pasteboard on the iPhone to place and read out a device specific ID.

With iOS 7, Apple eliminates MAC based and pasteboard tracking, leaving IDFA to reign supreme. Google's Android is also moving in the same direction, announcing it will introduce an equivalent to IDFA in summer/fall 2014.

Tracking campaign performance on Android, at least in the Google Play store, is pretty straightforward. The Android Referrer is a parameter which can be appended to a click URL and filled with a unique value per click ("click ID"). When the app is installed and opened for the first time, the Google Play Store sends the referrer ("click ID") to the app telling the app where the install originates from.

Browser cookies

The cookie is dying, according to Forbes. And this is no exaggeration. On the Web users set their browsers to reject cookies or quickly extinguish them. Most mobile devices accept cookies, but the tracking is not accurate and the in-app experience is interruptive for the user.

Provide a Seamless Web Experience

Cookies used to be problematic on first mobile devices. But are now supported on most smartphones.

Pro's:

- No integration needed with publishers and/or ad networks
- Allows seamless tracking on mobile web



Con's:

- Can affect the application user experience when tracking installs
- Cannot bridge between browsers
- Not the same accuracy on mobile, compared to online

Source: InMobi

Device fingerprinting

Fingerprinting tracks all types of mobile traffic, which is why many tracking solutions, including InMobi Analytics, rely on device fingerprinting to analyze the device characteristics behind each click and conversion.

In practice, the fingerprinting technology performs matches between user actions based on similarities between a wide set of parameters, including operating system, device model, carrier, country, language, time and mobile network code. By anonymously matching a combination of attributes to a device the fingerprinting technology arrives at a high statistical probability that two events are linked to the same device.

For example⁴⁴, if a user from a specific device profile taps an ad and then the tracking technology 'sees' that a device profile quite similar to this registers and installs an app 90 seconds later, the probability those two events were performed by the same device is extremely high.

When an install event happens, the app notifies the tracking server, which generates a fingerprint based on header data points. If the fingerprint generated at install matches a fingerprint previously logged from any other event (such as an ad click) the server determines a match and logs a conversion. The whole process happens in about 300 milliseconds and is transparent to the user because it happens in the background. As In Mobi's Ed Laws explains: "Device fingerprinting technologies work as a bridge between the visible default browser and invisible Web

Winning with analytics

A winning approach not only tracks the advertising channel you use to market your app and engage your quality users. It also attributes a conversion to the unique impression that generated it, allowing for optimization across multiple channels. Finally, it provides audience engagement analytics with a level of granularity that allows you to truly understand, segment and re-engage with your quality users. Even better if the solution you choose allows flexible audience segmentation, so that you can adapt your view of your quality users to their actions and so create and refine meaningful audience segments for your app.



Source: InMobi

An advanced tracking solution such as InMobi Analytics can help you achieve this. InMobi Analytics is a conversion tracking platform that helps you track the post-click conversions of your mobile Web and app campaigns across all your advertising channels. With it you can track downloads, leads, registrations, purchases, and so on. You can even track multiple conversion events for the same campaign, and this across ad networks.

view. As a result, it's possible to track the fingerprint without affecting the user experience; something that is impossible with cookies."

Clearly, complete visibility into where your users come and which segment of users are your most valuable users is key to managing your acquisition strategy and costs effectively. It's also critical to use these insights to continuously optimize your user acquisition campaigns.

Tracking can get tricky

Track and measure which sources are producing the best results so you can keep reaching for (and surpassing) your target goals. If you have formed partnerships to help with cross-promotion, and also teamed up with a mobile ad network to help you drive successful campaigns, then tracking can get tricky.

There are some excellent third-party tools available to advertisers that enable the tracking of an event, such as download or in-app registration or purchase, back to the source, whether that was a banner clicked on an affiliate site/app or any other marketing activity. The ability to marry up these activities allows advertisers to optimize mobile marketing campaigns to those solutions, networks and publishers that are generating conversions and tweak or drop those that aren't.

Understanding the value of users coming from other mobile apps is key to any cross-promotion or direct publisher relationships. By simply placing a tracking link in the advertisement, you can track which installs come from your own cross-promotion or for any other campaigns that come from other mobile apps.

More importantly, you can begin to see which mobile apps have the highest quality of users for your mobile apps and adjust your campaigns accordingly. MobileAppTracking provided by HasOffers tracks users from other apps by using device fingerprinting, but it can also utilize other tracking components such as IDFA and ANDROID_ID.

Repeat performance

The quality users you acquire – and engage – must be analyzed on a variety of dimensions. As later sections will show, knowing details about your quality users – such as the channels and sources that delivered them to your app, how they interact with your app (length of session, number of sessions and use context), as well as visibility into the features and aspects of your app that triggered a purchase or a 'like' – are key as you devise strategy to target, acquire and monetize the users that matter most.

InMobi's Mike Cohen suggests steps you need to follow to effectively acquire high-LTV users. "After you have chosen a tracking solution, set up post-install pings (also known as postbacks) at various events in your app that only a high-quality user would reach." These events could be a tutorial complete, reaching a certain level of a game, an in-app purchase, or a 'share' or 'like' on the user's social network. Passing these postbacks back to the ad network will allow the ad network to determine where they sourced those users. "Using that data, the ad network will find more users from that source or conduct lookalike modeling and find other similar users elsewhere on their network."

Significantly, many of the same user insights you gleaned in this chapter to acquire valuable users are also essential to choosing a monetization strategy, which we cover in the next section. From free-to-play apps supported by advertising to so-called freemium apps that capture users' attention and spend with a steady stream of new content and features, it's easy to become confused. What's more, your choice of model may change. Indeed, the advance of new hybrid models may make it necessary for you to 'fine tune' your monetization strategy more than once in order to be properly aligned with app market dynamics and the requirements of your most valuable users.



The three things you need to know



1.

If you are serious about your app business, then paid promotions are the 'next step' in a comprehensive strategy to achieve scale, volume and lasting success. Keep in mind that app store rankings/algorithms have changed in the past year, putting more emphasis on uninstall rates and post install engagement, so your app rank can actually be *negatively* impacted by incentivized downloads.

2.

Success is all about building out your edge over rivals and acquiring users who will use your app again and again. If you have a social app, then you likely used a powerful mix of guerrilla marketing and social media marketing to rise above the noise. Now that you have 'buzz', you can turn your attention to paid advertising. But be sure to select markets where you can get scale and virality.

3.

Whether you want to increase the number of impressions/clicks, or simply aim to drive downloads, visibility into campaign performance is essential. This is where tracking solutions come in. These solutions and approaches allow you to detect and attribute an action (download, click, conversion) to the source (such as a mobile ad or a cross-promotion).

Sections of this chapter were contributed to by:

Eric Seufert, author of *Freemium Economics: Leveraging Analytics and User Segmentation to Drive Revenue*, and Neil Patel. With insights from InMobi's Mahak Sharma, Innu Nevatia, Ed Laws and Mike Cohen.

Apponomics



04: Monetization & Optimization Crash Course

Where is the money in mobile apps? The remarkable growth of mobile apps has spawned a number of different revenue models. From the rise of freemium to the advance of ad-supported models, this section analyzes the business cases and the business value of the various approaches and strategies you can harness to move your app into overdrive. Learn what works and how the app experts have made their money.

Making smart choices


Choosing the appropriate monetization model for your app is going to be one of the most difficult decisions you make. The trick is to generate the most revenue without compromising the user experience and the quality of your app. The trap is to think you can do this after the hard work of building your app is done.

In fact, the absolute worst thing you can do is force a monetization model onto your app as an afterthought. You need to decide how you are going to monetize your app *early* in the development process and bake this into your app.

If your goal is to make money by enabling users to purchase additional content or capabilities, then your app will need to accept and process payments. If you want to generate revenue from advertising between levels in a game, then you will need to tailor gameplay to ensure the user experience is enhanced, not interrupted.

You also need to be clear about your options.

With so many monetization models to choose from – ranging from paid to free supported by mobile advertising – it's critical to make the right match between your app and your business model. To help you navigate the tough terrain, the next section briefs you on the pros and cons of each approach, allowing you to identify the model that will make the most money for your app.



“It’s important for app developers to choose among monetization options based on what is most effective at an individual user level. In some cases up to 90% of free-to-play users are not spending on in-app purchases. Hence it makes sense to monetize those users with ads. It’s also an easy way to increase the overall revenue you generate from an app and recoup your product costs. But don’t guess or guesstimate here. Whether you attempt to upsell your users to other apps, reward them or simply leave them alone is a decision you must make based on a deep understanding of each user’s behavior within your app.”

~Ed Laws,
InMobi Vice President &
General Manager, Performance
Advertising, EMEA

Paid

This model, also known as the one-off payment model, is very easy to understand. You charge the end-user for downloading and installing your app via a one-off purchase on the app store. Then you pay the app store provider their cut of the revenues and keep your share.

Pros This is a classic and proven monetization method, well-known both by users and publishers. Some apps priced below one dollar have had staggering success. The model is very straightforward.

ward because the revenue is proportional to the downloads. In general the split is 70% for the app developer and 30% for the platform.

Cons With paid apps, you are less likely to reach a lot of users. You are adding friction to the process and you must choose the right payment model(s) to please your buying customers.

Current market Paid downloads represents about 24% of Apple App Store revenues. Additionally, it's reported that 4 in 5 paid apps in Google Play are downloaded less than 100 times.



In practice, most of the leading developers have found that paid applications underperform other types of monetization. Why? Typically the consumer aversion to paid apps prevents them from trying the app. Additionally, users also like to try before they buy to determine if the app is worth owning in the first place.

Paid apps need payment methods

Now that you've developed your app, you have a lot of app stores and storefronts where you can sell your app, but you also have to choose a payment method and mechanism wisely. A singular focus on credit cards, for example, could exclude important customer segments, such as digital youth, who don't have credit cards but do have a huge appetite for apps.

The Amazon Appstore only allows credit card billing currently. Users need to locate and install the Appstore on their device first, but once they have done this the results are good. Users are required to give their credit card details up front so they can start spending with one-click straight away. Amazon may ask to give your app away free for a day in the name of promotion. This drives awareness and traffic but can impact your revenue potential.

Apple's App Store offers a number of options when it comes to distribution and billing. As well as the standard credit card payment option it is also possible to purchase an iTunes voucher and link it to your iTunes account. Once the credit card or iTunes voucher has been registered, the payment experience is seamless and consumers can quickly and easily pay for apps—you can even download free apps without having to register a payment method against your account.

BlackBerry App World currently provides the most extensive operator billing coverage, enabling BlackBerry subscribers to quickly and easily pay for apps on their phone bill with a single click, all without complex registration. Credit card and PayPal are also available

if added by the consumer. Higher-value apps are also known to be successfully sold to BlackBerry consumers.

Google Play traditionally enables users to pay using a credit card, but also provides some support for operator billing. Consumers only need to enter their card details when they make their first purchase, which can lead to lower conversion rates than stores that capture payment details sooner. Operator billing resolves this, allowing one-click billing without registration, but currently coverage is poor. In addition, there are reports of low success rates. Ad-funded apps work best on the Google platform.

Windows Marketplace favors monetization by credit card but is growing the number of places that operator billing can be used. Users are required to register their credit card details, which makes it easier for customers to buy products quickly with one-click.



Some app stores don't process the payments until 24 hours after the app is downloaded. This allows the customer to try the app and return it a day later if they're not happy. It also allows them to use the app or play the game for a day without paying.

Freemium

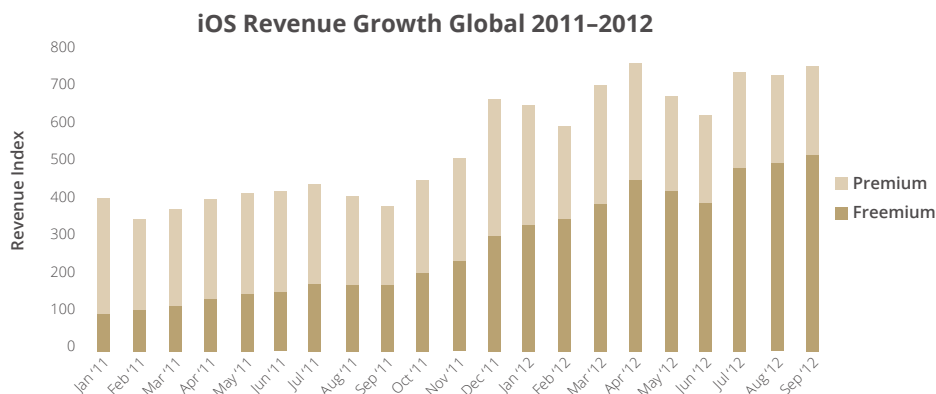
Freemium means that you offer your app free of charge to the user (to download and use in its most basic form). If a user wants to have an even better experience, then they have to pay for it. The goal here is to get as many users as possible to the pay threshold as quickly as possible by enticing them to go further with the experience.

Pros In practice this model addresses the shortcomings of the Paid model because it's all about removing the friction (aversion to paying for an app) by distributing an app with limited functionality for free. After you lure users with a 'free' app, the way is clear to use in-app billing (or other payment methods) to charge users to get the 'pro' version.

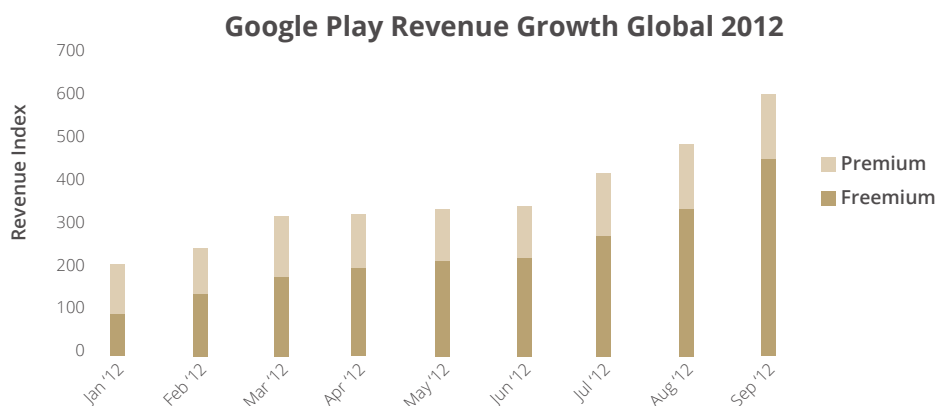
The same scheme allows app developers to charge users to add more features or levels in a game. In this scenario the freemium model could mean payment unlocks certain levels, while the basic levels remain free.

Cons Freemium can be a way to drive initial traffic, but it does have its downsides. A core drawback is the app developer is intentionally providing a large segment of its users (the “free” ones) with an inferior experience or service.

Current market App Annie⁴⁵, a leading provider of app ranking data and high quality mobile analytics, reports that freemium apps – free apps that have in-app purchases – are experiencing impressive revenue growth worldwide, far outpacing premium apps in both iOS and Google Play stores.



Source: App Annie Intelligence Report January 2011 – September 2012.



Source: App Annie Intelligence Report January 2012 – September 2012

It estimates that worldwide revenues for freemium apps in 2012 on iOS have more than quadrupled. For the same period worldwide freemium revenues on Google Play grew 3.5X. Premium revenues for both app stores remained relatively flat in these time periods.

Significantly, Japan and China are among the countries leading the growth, with Japan showing a 24X growth in freemium revenues and downloads from Google Play. Meantime, iOS freemium revenues in China have grown nearly 25X. (See *Going Global*, page 183.)

Making freemium work

How do you get your users to open up their wallets and make that all-important purchase decision that can decide the success or failure of your freemium model?

Here are some helpful tips⁴⁶:

Tease them. Provide enough in the free version of the app to build interest. Keep in mind that you shouldn't ask for money too early in the game. If opening up the app runs them up against a pay threshold (that is, you charge them to pay if they want to continue), they will most likely abandon and never return.

Be clear. The incentive to pay must be easily understandable and completely transparent. Your app must state exactly what the user will get when they pay for the extra content or features and give good reasons why they should do it in the first place. If you are not sure if you are doing this right, then ask a test group, or just a bunch of your friends to read your terms, and they will quickly validate whether the proposition is clear.

Make it seamless. If the user has to leave the app to go off and acquire the currency/points/virtual rewards to purchase what you offer, it will fail. You do not want to have a pause in the action when the user is ready to dig into their wallet and make a purchase. Show them the options then and there, and be sure that you return them to exactly the point when they decided to pay.

Deliver on the promise. Users intrinsically evaluate the ROI. If they pay, they should have an edge over those users who didn't. Be sure to offer them more for their money. And keep tuning what your app offers to reach higher levels of repeat purchases per monetizing user.

Innovate. Don't stop adding layers/levels/rewards to your app. Space them out and make them invaluable and your customers will likely continue to pay for them. This is a value exchange. Get it right and people will even pay more.

Case Study: Fingersoft



Last year Toni Fingerroos, 29, who had been coding since he was 10 years old, took the wraps off of Hill Climb Racing, the first game produced by his company, Fingersoft. Hill Climb Racing is an extremely addictive racing game that mixes fun with physics. With loads of customization and upgrade options, the app has built a strong fan base with high user engagement levels.

Back in 2012 the company was a one-man show, but it soon expanded to 11 developers after the game broke records and exceeded all expectations. In fact, the week the app was launched it beat downloads of Rovio's new game Bad Piggies on the Android platform. It proceeded to race ahead of the competition, topping the app download charts in three countries and leading in the game charts in 13 countries, including the U.S., the U.K. and Germany.

So how does a free app supported by banner ads become such a phenomenal and global success?

Home advantage

It helps that Toni set out to build a string of apps, including the camera app Cartoon Camera, to cater to new audience segments and markets. This allowed him to promote his first-ever game to users who already knew and loved his brand. "When I noticed the daily download numbers for the camera apps were growing, I knew the timing was perfect to release a gaming app." The strategy also helped Toni avoid the discovery dilemma altogether. His apps are real estate for cross-promotion and lay the groundwork for a sustainable business model. "Our volume comes from the fact that we have released so many apps, and that, in turn, allows us to release and promote more apps and games moving forward. "It's a virtuous and continuous circle.

Effective advertising

Early on Fingersoft chose several mobile ad networks, including InMobi, to maximize app revenues and achieve the number one objective: scale. "It's important for us to get as many users as possible." But it's even more critical to show users ads they



will appreciate, not avoid. “We want the user to be able to play the game without an interruption. With banners the user decides if they are going to interact with the ad, or if they are just going to go ahead and play the game.”

By analyzing several ad campaigns that ran on the app, InMobi was able to procure premium ad campaigns that consistently delivered higher eCPMs. App revenues from Hill Climb Racing app grew 50 times in less than 3 months, impressive growth that continues to the present. In October 2013 Fingersoft marked another important milestone: 100 million downloads of Hill Climb Racing – with no signs of slowing.

The takeaway:

Hit games are not a matter of chance. In the case of Fingersoft, success was the product of an experienced team, a large user base familiar with a range of apps, a cross-marketing approach that promoted new titles and a mobile ad strategy that delivered scale, high eCPMs and optimized inventory.



In app purchase

In-app purchase (IAP) is a variation on the Freemium model. Like Freemium, you offer a basic version of the app for free. But rather than a single upgrade to the premium version, you offer individual features or add-ons a la carte.

Similar to Freemium, in-app purchase is well suited to games – especially those that offer virtual goods or in-game enhancements that need to constantly be refreshed. Besides games, productivity and utility apps that have compelling features to sell a la carte are candidates for in-app purchase.

The purchasing process is completed directly from within the app and is seamless to the user in most cases, with the mobile platform provider facilitating the purchase and taking a share of the money spent (usually in the range of 30% or so), with the rest going to the app developer.



The IAP model first became available in Apple's App Store with the release of iOS 3.0 in October 2009. The BlackBerry App World added support for in-app purchases in September 2010, and in March 2011 Google added its version of in-app purchases called in-app billing for Android users.

Pros Do it right and IAP can bring you recurring revenue from your existing customer base. IAP paves the way for app developers to give away their app for free and make money on anything from unlocking features or extra levels, to removing ads, to adding additional stylistic themes.

Cons It's hard work to bait and lure customers into spending money in your app. To complicate matters, there is a long list of restrictions around what you can sell, how and how often. Finally, if you are determined to monetize your app effectively using IAP, you need to spend time understanding user behavior inside your app. This will help you determine the right point in the game-play/interaction to show your offer.

Abide by the rules

The App Store restricts what app developers can sell. Specifically, Apple's IAP program allows you to sell:

- Content
- Functionality
- Services
- Subscriptions

There are also a number of important guidelines to keep in mind.

- Your app must deliver the digital good or service your users buy within your app, and you can't use IAP to sell real-world goods and services.
- IAP allows your app to offer user credits or virtual currency provided they are used within the app.
- IAP items users buy cannot be shared across applications.

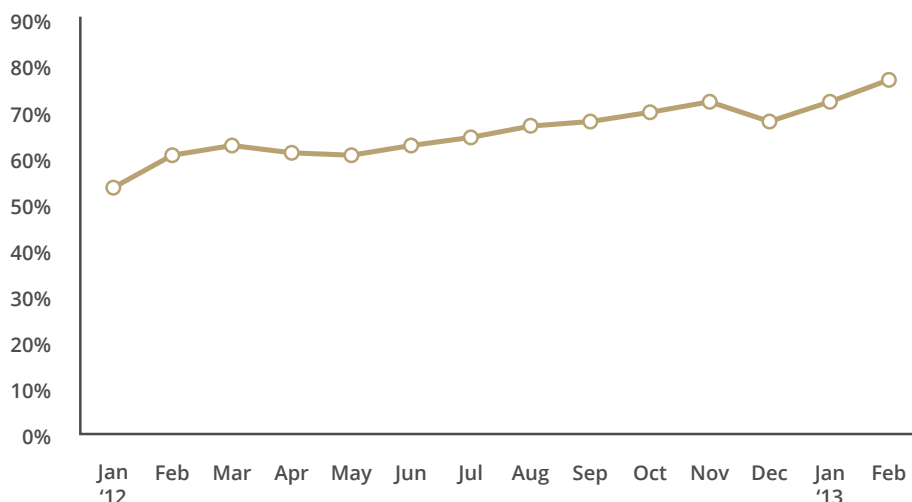
Apple currently offers four different types of in-app purchases: non-replenishable, replenishable, subscription-based and auto-renewing subscriptions. What's more, you can't use IAP to sell your users a *different* functionality; you are only permitted to peddle more of the same.

Current market The IAP model is proving effective. Gartner suggests this is because IAP is aligned with user habits. "We see that users are not put off by the fact that they have already paid for an app, and are willing to spend more if they are happy with the experience," Brian Blau, a research director with the analyst group, said in a statement⁴⁷.

Recent research from Distimo⁴⁸ indicates that use of IAP is on the rise. In Feb. 2013, for example, 76% of all Apple App Store revenue in the U.S. was generated using in-app purchases. The figure was even higher in Asian markets, with over 90% of revenues coming from IAP.

Total IAP Revenue Share

iPhone, United States



Source: Distimo Report, March 2013

Meantime, App Annie's list of the top 100 grossing iPhone apps in the U.S. (as of Oct. 8, 2013), shows that only 9 out of 100 apps exist purely as paid apps. Do the math, and 91 of the top grossing top 100 apps are essentially free to download. App developers then make their money using IAP.

IAP works for non-gaming apps too!

Attention app developers with non-gaming apps: IAP offers you a great way to monetize your users by selling them packs of "stickers."

In 2013 the industry witnessed an explosion in the number of users downloading these emoticons for use in messaging and social apps, with messaging and social apps bringing in tens of millions of dollars each month as a result.

An example is LINE in Japan. The Next Web reported⁴⁹ in May 2013 that US\$17 million of the company's US\$58 million in total revenue in Q1 2013 came from stickers. Later media reported that LINE's sticker revenue has climbed to US\$10 million per month.

So what gives stickers their stickiness? In a word: self-expression.

The packages of witty and whimsical emoticons — often related to licensed characters from popular shows and movies users like to reference in conversations with their friends — enable people to say more.

A picture says a thousand words— and users (especially in Asian markets) see that it's far easier to use emoticons on a smartphone than to type in characters. But the appeal of stickers is not limited to the East. Companies in the West are also embracing stickers in a big way, with social network giant Facebook leading the way. The company integrated stickers into the messaging platform used by its billion-plus users in early 2013. Currently the stickers are offered free of charge, but analysts reckon that's just the first move in a wider strategy to encourage more sticker usage before developing a model to monetize it effectively.

But you don't need to wait. Stickers are a hot topic now and represent a new communications tool that you can add to your non-gaming app to boost revenues from IAP.

Subscriptions can still work

Just like in real life where subscriptions are sold to print media like magazines and newspapers, apps in this space charge for fresh content and exclusive information. Little wonder that the subscription model is one of the more popular models for apps in the news/publishing genre.

Are you thinking of going with a subscription model? Follow these 3 rules of thumb to make sure your app is a crowd-pleaser⁵⁰.

Refresh your content — often: Each month or even week, there should be new videos, books, songs—whatever niche you're in. However, if you're doing a service, having a reason for the customer to justify paying you every month is crucial. Statistics have shown that consumers are willing to pay on a recurring basis, but only if they see the value in it. So be sure your customer service and content shine.

Pay close attention to app store policies: Perhaps one of the biggest hurdles in the subscription model is the complicated relationship between you and the app store(s) you choose to partner with. Each app store has its own unique policies when it comes to revenue sharing, and some stores have rather strict guidelines when it comes to subscriptions. Check before you make your users promises you can't keep.

Grow your partnerships: You may want to work with mobile operators since they can also promote your app to their customers. After all, the subscription model is what made the first wave of digital content—ringtones, wallpapers, and single-track downloads so incredibly popular. Having a relationship with an operator—who already controls the customer relationship they have with their subscribers—can lead to a lot of exposure for your app, and guaranteed subscriptions.

New breed of business models

As paid apps face greater difficulties gaining market traction, we see other models becoming more popular. In fact, hackpad⁵¹ (a collaborative list composed by 150 people including Fred Wilson, a venture capitalist known for investments in Web 2.0 companies) has an impressive list of 50+ revenue models (!) for mobile and Web, ranging from the classic pay-per-download to mobile commerce.

But we're not just seeing an avalanche of monetization models. We are also witnessing the advance of newcomer companies with capabilities to help app developers enhance the customer experience, thus making it easier (and more attractive) for users to spend money.

A prime example is Kiip (pronounced 'keep'), a platform company that delivers rewards for achievements that occur within games. The approach allows app developers to grant their users rewards for important achievements within the app. Users can receive both real and virtual awards, ranging from virtual currency points to free apparel and memorabilia. Since users receive new rewards for every new achievement, this builds an important (and lucrative) surprise factor into apps.



There are many monetization models, and there will no doubt be more coming online as this expert guide is made available to you. Choosing the right monetization model for an app is one of the key choices towards its success. The right choice depends heavily on your app's content, quality and engagement potential.

Key Resources

Insights into the market and metrics on how apps (particularly in your app category) are performing and the monetization models driving the downloads (for example paid versus free) are key to architecting an unbeatable and effective strategy to generate revenues.

Making marketing decisions based on the correct data is an important driving force. Simply put, you need business intelligence to build a sustainable app business. Here is a list of resources that should be part of your regular reading.

Adeven⁵² Based in Berlin and London this mobile analytics and ad verification company is committed to providing global app information to developers and publishers so that they can make informed decisions. Apptrace, a free online tool, sets an industry benchmark for understanding how, where and when apps perform. It offers global app rankings that can be sorted by 155 countries, device and price, providing you with key market data. In addition, app developers

can drill down to an individual app level and see how their ranking and prices have changed over time. App Store reviews are also analyzed and graphed to give a clear picture of performance. Adevven also publishes MASR (Monthly App Stats Report), a must-read resource that gives a detailed device distribution breakdown, as well as information on the most trendy and addictive apps in major categories, helping you make educated business decisions about the app store ecosystem.

App Annie⁵³ Since it was founded in 2009, App Annie's Analytics product has tracked more than 33 billion downloads and US\$8 billion of app store gross revenue across iOS and Google Play, making it one of the largest companies globally in terms of app store market data tracked. On a mission to help businesses do "The Math Behind the App Stores", the company offers an impressive portfolio of analytics tools. It also draws on the data to deliver reports and posts that zero in on hot topics ranging from the rise in freemium apps to the characteristics of a winning app. App Annie is a solid source for app trends and figures. Sign up for blog alerts to stay on top of the action.

Distimo⁵⁴ Distimo AppIQ provides insights into the estimated download volumes and revenues of all apps in the major app stores on a daily basis. For those interested in data about the most popular free, paid and grossing apps on a daily, weekly, monthly, or quarterly basis, Distimo's leaderboards are a great resource for further research. These leaderboards list apps and publishers per country and per category for the Apple App Store for iPhone and iPad, Google Play and the Amazon Appstore. Distimo also releases free publications with the most recent findings on the app market on a monthly basis.

InMobi Insights⁵⁵ InMobi Insights is the thought leadership portal on mobile advertising hosted by InMobi. It uses data from consumer surveys on mobile devices, along with data from the InMobi ad network spanning 165 countries, to provide actionable insights to app developers. Use the resources there to create your own infographics, compare data from different countries, or download current research.

Priori⁵⁶ Priori Data's AppMarket Reports are a great free source for identifying trending categories, business models and the most popular publishers and apps (including download estimates) across the three major mobile app platforms by country. Around 30 countries are covered.

Finally, you should also download and digest **Developer Economics**⁵⁷, a research series produced by market analysis and strategy firm VisionMobile. These comprehensive reports, which track app developer attitudes, revenues and tools, have grown into the largest, most trusted body of mobile developer research worldwide. The firm's most recent survey counted a whopping 6,000+ respondents across 115 countries for its 2Q13 survey and reports the current state of mobile ecosystems, developer mindshare, monetization trends, revenue models and developer tools.

Case Study: Learning from the King



Developers need a way to make money on their apps, and that combination often results in the freemium model – free apps supported by in-app purchases (IAP).

The first step is to give users a robust enough free app to get them to download it in the first place. The real challenge is finding a way to convince enough of those downloaders to part with their hard earned cash. Do it wrong and you've just

given away something for nothing. Do it right and it can be a lot more lucrative than charging everyone money upfront.

What's the secret? Maybe you can learn a lesson from the 'King'.

King, which was set up in Sweden, has built its business on its ability to persuade players to pay several times over to continue the same game. Embracing a freemium model, where it offers games for free but charges players for add-ons or extra lives, has been particularly effective as shown by the success of Candy Crush, described by some analysts as a global games phenomenon.

Indeed, Candy Crush has been the top Facebook game application for nine months and the top-grossing U.S. app for iOS devices, outdoing Spotify and TripAdvisor. Though King does not publish numbers, industry experts have estimated its revenues at between US\$1 and US\$3 million a day. The Wall Street Journal reports talk about an IPO valuation of US\$5 billion after a source recently said the company had filed to go public in the U.S.

Part of King's success lies in its smart decision last year to shift the focus of its popular online game to mobile. But it's the bait-and-hook approach King has baked into its freemium model that drives revenues. Players can pay for more lives, otherwise they must wait for 30 minutes before they may start again. Anxious to continue, players part with their cash. The game's appeal was broadened by its social aspect: Players can share their progress on Facebook, swapping lives as well as tips on how to crack the various levels.

Paid is dead?

Making money from paid applications is becoming more difficult, with app developers reporting lower sales⁵⁸ from their paid applications — regardless of how well their app ranks on the charts.

It's a shift that has led many app developers, including Jeremy Olson head designer at Tapity, a company specializing in education and utility apps, to declare in October 2013 that the paid model is well and truly dead⁵⁹.

While other app developers are less fatalistic about the future of paid apps, they contend the gold rush days are over — unless your app adds real value.

Predictably, people are still willing to pay for apps that offer utility. Simply put, apps that equip people to get something done — book travel, manage diets and fitness plans, check the weather, or receive warnings about speed traps — do sell.

“The market has shown that free apps will be downloaded at least in order of magnitude more than paid-up-front apps, and smart use of in-app purchase in a free app is likely to make more money. Over time, this trend has only become stronger and more clear. Paid-up-front iOS apps had a great run, but it's over. Time to make other plans.”

~ Marco Arment,
mobile app developer and
creator of Instapaper⁶⁰

People interact with these apps so much that it's worth paying for the upgraded experience or additional features beyond what they could get in a free version.



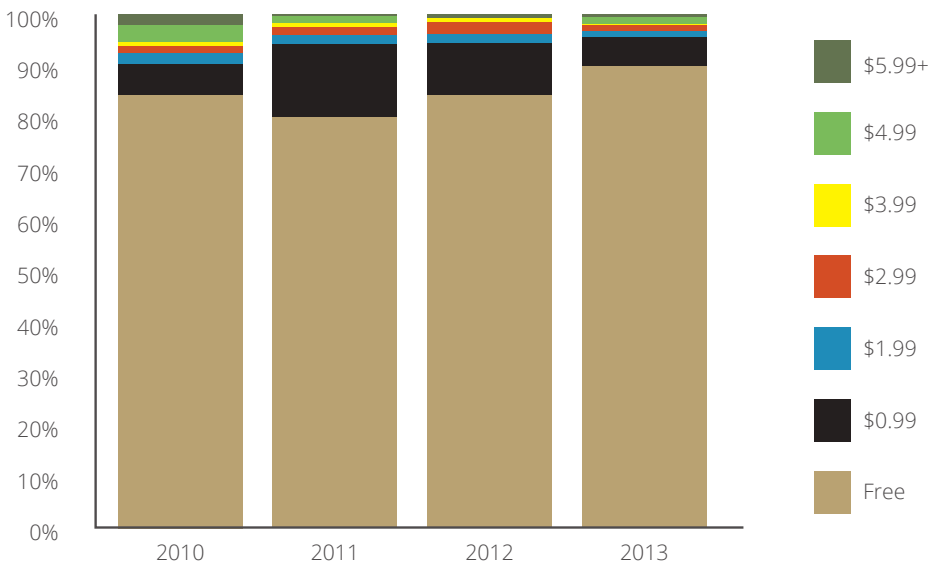
Flurry⁶¹ reveals that at least half of the top ten apps in the following categories are currently paid: Productivity, Medical, Business, Healthcare & Fitness, Navigation, Catalogs, Lifestyle, Photo & Video, Travel, and Weather. In some cases, paid apps also use in-app purchases to drive up revenue even further.

What happened?

The paid model, once the dominant way to monetize apps, it is rapidly losing ground to Free-mium and IAP models. To complicate matters users, particularly on Android, are growing resistant to paying even US\$0.99 for an app. As a result, achieving a critical mass of users has become an uphill battle.

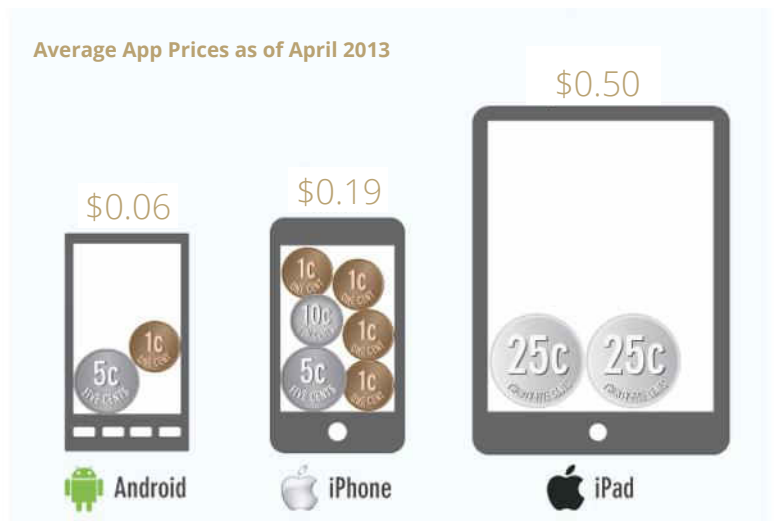
Mobile analytics provider Flurry documents the shift in the proportion of free versus paid apps in the App Store. Between 2010 and 2012 over 80% of apps (using Flurry Analytics) were offered free of charge. In 2013 a whopping 90% of apps in use were free.

Increasingly the Price of Apps is Free



Source: Flurry Analytics and the Apple App Store, US

Predictably, Android users are even less enthusiastic about paying for apps. Flurry reports that, as of April 2013, the average price paid for Android apps (including those where the price was free) was significantly less than for iPhone and iPad apps.



Source: Flurry Analytics, Google Play, the Apple App Store, US

The numbers tell two stories.

At one level, we can interpret the rise of free apps as proof that app developers and their audiences went with the crowd. Users made it clear they weren't going to pay for apps, so app developers decided the best way to adapt — and compete— was to make their app free too. The result: a staggering rise in the number of free apps across the app stores.

At another level, the data also implies that users have become more accepting of mobile advertising. Rather than pay a premium to avoid being exposed to advertising in their apps, users have become more willing to engage with ads that have become part of their free app experience.

Read between the lines, and the conversation about whether apps should have ads is largely over. Now the discussion is centered on questions around developing ways to make ads in apps as interesting and relevant as possible for consumers, and as efficient and effective as possible for advertisers and developers.



The future of app monetization appears to be linked to an ad-supported model. A recent study by Cambridge University⁶² computer scientists found that 73% of apps in the Android marketplace were free, and of those, 80% relied on advertising as their main business model. Free apps are also far more popular in terms of downloads, the researchers said.

Mobile advertising

With free downloads continuing to dominate the scene, it's clear that mobile advertising should be at the top of your list. Indeed, Gartner forecasts that nearly 127 billion downloaded apps will be free in 2014, that's over 90% of all downloads (!)

Table 1. Mobile App Store Downloads, Worldwide, 2010-2016 (Millions of Downloads)

	2012	2013	2014	2014	2016	2017
Free Downloads	57,331	82,876	127,704	167,054	211,313	253,914
Paid-for Downloads	6,654	9,186	11,105	12,574	13,488	14,778
Total Downloads	63,985	102,062	138,809	179,628	224,801	268,692
Free Downloads %	89.6	91.0	92.0	93.0	94.0	94.5

Source: Gartner (September 2013)

From running a burst campaign, a focused ad campaign spent over a couple days to drive downloads and move up in the app store ranking, to more targeted ad campaigns to promote new app releases, mobile advertising yields impressive results across the entire mobile app lifecycle. More importantly, Pankaj Bengani, InMobi Vice President of Global Strategic Partnerships, points out: "Advertising is the model that provides an income stream for app developers and effectively powers the App Economy."

Pros Unlike other models, advertising works for all apps. Daily use apps tend to generate lots of ad impressions and therefore high revenue per user (RPU). Even better if your app has frequent usage and long session times – like utility and news/info apps. But apps with short session times can also advertise effectively, if they're creative. For example, serving highly targeted interstitial ads early in the user session can be effective in getting the user's attention before they leave the app.

Cons Click through rates (CTR) on ads are generally between 0.1- 0.9%, indicating that 99% of users don't find the ads are relevant or interesting. The pressure is on you to make sure your ads are attention-grabbers, so you will need to take steps to ensure your ads are aligned with the user's tastes or too immersive and fun to ignore – or both. In an age where people expect everything to be personal and relevant, or at least entertaining, anything else is a FAIL.

Current market Ad spending on apps of all kinds – both mobile and desktop – is growing. In a new report on the mobile ad market, market research firm Gartner⁶³ expects global mobile advertising spending to reach US\$18 billion this year, up from an estimated US\$13.1 billion in 2013. By 2017 it's projecting the market will have sized up to be worth US\$41.9 billion.

"Over the next few years, growth in mobile advertising spending will slow due to ad space inventory supply growing faster than demand, as the number of mobile websites and applications increases faster than brands request ad space on mobile device screens," said Stephanie Baghdassarian, research director at Gartner, in a press statement⁶⁴. However, from 2015 to 2017, growth will be fueled by improved market conditions, such as provider consolidation, measurement standardization and new targeting technologies, along with a sustained interest in the mobile medium from advertisers.

With the growth in smartphones, mobile websites, and apps, mobile has become the fastest growing category in advertising. And many experts expect mobile advertising to exceed desktop Web advertising in the next few years. Whether you are an app developer, a publisher, or marketer, mobile advertising is a hot topic.

"Advertising is simple and effective. I think it all comes down to providing relevant ads for our users. So it is a win-win for everyone – for the user, for us, for the ad networks – so, of course, that makes business sense."

~Toni Fingerroos,
Founder, Fingersoft

The next section will provide you a ‘crash course’ in mobile advertising monetization and the metrics that matter most.

Monetizing with mobile advertising

Free is the most powerful word in sales. And in the App Economy, keeping your app free maximizes your chances of broad distribution to thousands and thousands (if not millions) of users.

Simply put, the advantage of ads is that you make money every single time the app is used, not just when it is first downloaded. This enables you to make more money over time.

But to understand your app revenue potential you need a clear understanding of key metrics. The section below lists the terms and definitions approved by the Mobile Marketing Association (except where marked *), the leading global trade association for the mobile marketing industry with over 700 members worldwide.

Mobile advertising at a glance

Click	The act of clicking on an ad (banner or text link) that has been served to a mobile screen.
Click-Through	The act of clicking on a banner or text link ad, which takes the user through to the advertiser's site or other destination. Used as a counterpoint to impressions to judge the response-inducing power of the ad.
Click-Through-Rate (CTR)	The response rate of an online advertisement, typically expressed as a percentage and calculated by taking the number of click-throughs the ad received, dividing that number by the number of impressions and multiplying by 100 to obtain a percentage: Example: 20 clicks / 1,000 impressions = .02 x 100 = 2% CTR.
CPM (Cost Per Mille, Cost Per Thousand)	The price paid by an advertiser for a site displaying their ad 1,000 times.
Cost per Click (CPC)	The price paid by an advertiser for a single click on its ad that brings the end user to its intended destination.
eCPM	A useful reporting metric for measuring revenue generated across various marketing channels, eCPM or effective cost per thousand impressions is calculated by dividing total earnings by the total number of impressions in thousands. For example, if a publisher earns US\$200 from 40,000 impressions, the eCPM calculation would be $(US\$200/40,000) \times 1000$ giving an eCPM of US\$5.00.

eCPC	eCPC is the effective cost of each click, calculated by dividing total earnings by the total number of clicks.
Fill Rate	The percentage of ad requests that are filled with ads (that is, where an ad is displayed to the end user).
Impression	An impression is generated every time an end user views an ad.
RPM*	RPM or Revenue Per Mille is the earning (estimated earnings) you will get for every 1000 impression. Where CPM is the cost of ads for 1000 ad impressions to advertiser, RPM is the revenue for publisher from 1000 impressions. RPM is calculated by dividing your possible estimated earnings by the number of page views, impressions, or queries you received, which is then multiplied by 1000.

Formula to Calculate RPM⁶⁵:

$$\text{RPM} = (\text{Estimated earnings} / \text{Number of page views}) * 1000$$

- If you earned an estimated US\$0.50 from 40 page views, then your page RPM would equal $(\text{US\$0.50} / 40) * 1000$, or US\$12.50.
- If you earned an estimated US\$100 from 30,000 ad impressions, your ad RPM would equal $(\text{US\$100} / 30,000) * 1000$, or US\$3.33.

Now that you understand the metrics, the basic formula is quite simple. More downloads equals more traffic, which equals more impressions and clicks, which means more revenue for you. Not one-time revenue, but ongoing cash that your integrated ads are generating for you 24 hours a day, seven days a week.

But don't just let the numbers guide you.

For example, the eCPM metric is not a foolproof standard for measuring your ad's performance. One advertiser with a high eCPM might generate less revenue for you than a lower eCPM advertiser simply because you've distributed more impressions to the lower eCPM advertiser. Simply put, eCPMs aren't always reliable and depend heavily on several variables including the volume of impressions and bid prices.

Case Study: Alegrium



Back in 2010 Stefan Damasena, today the CEO and Co-founder of Alegrium, teamed up with some friends to get away from their “comfort zone” and get with the action in the mobile apps space. It’s been an exciting ride ever since.

The studio, based in Jakarta, Indonesia, has grown, and so has the demand for its flagship app: Icon Pop Quiz.

The fun trivia game has since paved the way for a family of apps around the theme including Icon Pop Brand, Icon Pop Mania, Icon Pop Word. By way of background, the addictive guessing games are not only fun to play; they also offer users prizes related to the gameplay.

Looking back on his journey Stefan likes to quote Leo Burnett, an advertising executive listed among the most ‘creative’ men in the business: “When you reach for the stars you might not quite get one but you won’t come up with a handful of mud either.”

In the case of Alegrium setting stretch goals was the hard road but it paid off in the end. “We started with very high spirits to reach for the stars. We wanted to play in the big league with Angry Birds and Cut the Rope.” Pushing to achieve these goals, and keeping that passion, allowed the studio keep going – and absorb the emotional ups and downs that come with creating a hit game.

In fact, the first game Alegrium produced was a total failure. Then the studio started to look at other projects, not just games, to force success.

That was a big mistake – and a key learning for Stefan. “It you want success you have to focus – always – on your goal.” Simply put, if you’re a games studio, then make games.

It’s also important to be true to your vision, Stefan explains. “You can be a band that performs and covers somebody else’s song, or you can be a band that performs your own songs. I think its always best to sing your own song.”



Today, thanks to singular focus on quiz games, Alegrium counts 15 million downloads, 12.5 million on iOS and 2.5 million on Android.

Icon Pop Quiz has reached number 4 in the app store charts in the U.S, and number 1 in charts in the U.K. Canada, Australia, Indonesia, Philippines and many others.

How does Alegrium promote and market the app?

The model for monetization is advertising -- and later versions of Icon Pop Quiz are also monetized via in-app purchases. In this scenario users can purchase coins (virtual currency) to buy 'hints' to tough questions at 20 coins a pop. It costs 100 coins to skip hard quiz questions altogether.

Alegrium also partners with MoPub for ad mediation, a platform that allows bids from major ad networks including Millennial Media, InMobi, App Colony, Admob and many others. This approach has allowed the studio to "increase and optimize monetization."

At the other end of the spectrum, Alegrium makes use of app discovery services offered by companies including Appoday, which offer users free app-of-the-day deals to drive downloads and generate buzz.

To extend the lifecycle of its apps and stay top of mind Alegrium also uses push notification to update users on content and features.

Moving forward, the studio plans to expand to growth markets in Asia, starting with Japan.



Meet the mobile advertising ecosystem

As monetization opportunities for your app open up and evolve, it is important to first identify your marketing goals and then select a partner — or partners — for your mobile advertising program.

This section, which draws from invaluable resources and blog posts over at Mobyaffiliates⁶⁶, introduces you to a number of platforms that have sprung-up recently with features and functionality that enable app developers and publishers to mediate ads from multiple networks and take advantage of new sources of mobile advertising revenue.

Mobile ad server solution

Simply put, this is a computer system which stores, maintains and serves (uploads) advertising banners for one or more destinations (in this case mobile apps). Ad servers program, track, and report several statistics about visitors to the app, which are used by advertisers to custom tailor ads and offers to suit different categories of visitors.

Having an ad server solution can add a new layer of complexity to your app business — but there are some benefits.

- **Tracking:** Having your own ad server provides you with independent stats against which to audit the results being reported by the publisher and allows you to keep publishers and ad networks accountable.
- **Creative control:** From a creative perspective (depending on the ad server you use), using your own ad server affords you the ability to optimize delivery of your ads as well. Your ad server can give you the ability to split-test different ads and weight which will be shown accordingly.
- **Mining:** Reporting transparency can differ from publisher to publisher, leaving you with an incomplete picture. Using your own ad server provides you with transparency into the performance of your campaigns, giving you visibility into placement stats, geographic stats, creative stats, and hourly stats, all on multiple levels, to determine what is and what isn't working.

Generally speaking, a mobile ad server solution isn't cheap. But it's not the only reason app developers shouldn't build one for their business. "If your focus is to build a great app, then you want to spend your engineering resources to achieve that goal, as opposed to investing them in making and maintaining an ad server," InMobi's Pankaj Bengani explains.

Mobile ad mediation platforms

Mediation platforms manage the connection between app developers/publishers and ad networks, enabling app developers/publishers to connect to multiple networks and manage how they allocate their ads in their app. Some ad mediation platforms boast optimization algorithms that maximize revenue by automating decisions around eCPM value. This category includes companies like: MoPub, Burstly, Admob and Nexage.



Before choosing a mediation layer, research its technology, the networks it works with and their level of client service. Ad mediation platforms let you access a multitude of different networks, create and launch campaigns, prioritize ad networks and allocate backfill percentages.

Ad exchange

An ad exchange enables cross-platform mobile app developers to maximize revenues with one embedded SDK that serves ads from multiple ad providers. An exchange also offers app developers the chance to directly buy inventory from publishers to run their own campaigns on. This category includes companies like Inneractive, Tapjoy, Mobclix, Smaato and Nexage.

Many platforms that offer ad servers also offer mobile supply side platform (SSP) functionality and integration with real time bidding (RTB) exchanges.

Mobile SSPs are ad server platforms that sit at the publisher end of the real time bidding process, with demand side platforms (DSPs) sitting at the advertiser/agency end. Think of SSPs as the platforms that enable you to sell ad impressions in real-time. (The Rubicon Project and AdMeld are examples of two large SSPs and Trademob, MDotM, and Gradient X are three examples of large DSPs.)

Real-time bidding (RTB)

As the mobile ad market matures, app developers and publishers are faced with an ever-increasing variety of ways to monetize their inventory. The last years have seen platforms break on the market offering functionality and solutions that enable publishers to mediate ads from multiple networks, sell their inventory directly to advertisers and take advantage of new sources of mobile advertising revenue real-time-bidding (RTB).

Here's a simple scenario⁶⁷ to explain how RTB works – summarizing the many parties and moving parts involved.

Imagine a user with a mobile app (call it X) that uses RTB to deliver ads in the app experience. In the background, an advertiser – say, a major soft drinks maker – has specified that they are interested in reaching games enthusiasts, at the same time several other advertisers have also expressed similar interests in games lovers. Before an ad is displayed all of these advertisers participate in a real-time auction using their DSP systems to supply bids to the ad exchange to which the SSP system used by app X has floated this ad impression for sale.

Whoever bids most wins the auction, and their ad gets displayed to the app user in question. In this scenario, the soft drinks maker – based on its proprietary data and third party data about this specific app user – decides to bid more for this ad impression than other competing advertisers. The soft drinks maker does this because the algorithms of the DSP that it uses predict a high probability of this particular app user making a soft drinks purchase, thus delivering a positive ROI on paying for this specific ad impression. Based on this the soft drink maker makes a bid to win the auction and gets displayed to the games lover who visited app X.

Deconstructing RTB

Simply put, RTB allows advertisers to carry out much more complicated ad buying strategies than typical networks will allow. It gives them direct access to the first party data you've collected on users (mitigating the constraints of operating in a cookie-less environment) and lets them bid on ad impressions in real-time within high-frequency auctions. In theory this allows you as a publisher to achieve a high eCPM on your inventory. But you're not the only winner because RTB also allows the advertiser to get the most relevant traffic for their ads.

The basic premise of RTB is that ad impressions are not commodities to be sold in bulk, and that each ad impression is unique. InMobi's Pankaj Bengani explains they can differ depending on the time of day, the place or website, the audience, the propensity of that audience to make a purchasing or transaction at that particular time and place and given their transaction history.

However, Pankaj says, is not for newbies. Auctions can take place at a blink of an eye. A typical exchange imposes one tenth of a second for the bids to return. Volumes of bid requests and bids are also staggering. Google AdEx alone serves up 100 thousand bid requests a second.

Understanding the RTB model

RTB facilitates the near-instantaneous sale of advertising inventory as a component of a six-party model. The parties, according to Eric Seufert, Editor, Mobile Dev Memo⁶⁸, are as follows:

1. **User** – the person over whom the model makes revenue determinations. The instance begins when the user opens the app.

2. **App** – the particular mobile app being used.
3. **SSP** – a server-side technology platform that aids app developers primarily in pricing strategy, inventory management, and channel evaluation through data integration and analytics tools.
4. **Ad Exchange** – a technology platform that matches advertising inventory to advertisers in real-time.
5. **DSP** – A demand-side technology platform that aims to integrate multiple sources of advertising inventory (ad exchanges) with various data sources and analytics mechanics to optimize campaign management and targeting.
6. **Advertiser** – the entity attempting to purchase advertising inventory for the purposes of acquiring a user.

As a new way to buy inventory, RTB represents a method that will “augment, but never replace traditional buying methods,” according to Pankaj. This is because the technology, though highly targeted, is also highly complicated. “There are more algorithms involved in order to buy that inventory efficiently, and so you aren’t overpaying for it.”

Overall, RTB is a “great additional tool” for both publishers and advertisers to monetize their inventory and ensure advertisers get access to more inventory, but it also requires partnership to get positive results. Various players in the market, including InMobi, provide real-time bidding platforms to help advertisers and publishers manage campaign objectives, target specific audience types and hit ROI targets.

RTB is a hot topic and rightly so, but publishers and advertisers should approach it when they have scale and when they have a partner to help them do the process, Pankaj says. “Doing it right means making it part a sustained marketing and advertising strategy, it’s not something you do for a week or a month and then stop. It’s important to have a well-thought strategy around how to monetize or advertise on the market using these tools.”



One of the biggest benefits of RTB, for both publishers and advertisers, is that it unlocks the value of your first party user data. The good news: real-time data allows advertisers can use information (location, age, gender) on an impression-by-impression basis without profiling. The better news: providing this data means you can get premium CPMs on traffic that’s relevant to advertisers.

Strategies to optimize results

Now that you know the terms and formulas, this section will walk you through what you need to consider to optimize your results based on what you want to gain and how you want to grow your user base while making more money.

Before we dive into the details, it's important to understand what kind of performance to expect from mobile ad networks. After all, the mobile app advertising landscape is not the Web. The dynamics are different and so are the expectations.

It's important that you fully understand the levers you can pull to make the difference in the performance of your app advertising. In some cases, this may mean balancing eCPM and fill rate goals.

Fill rates

Just because an ad network has a high CPC doesn't mean they have a high RPM. Let's say, Network A has a US\$2 CPC, but only a fill rate of 10% – while Network B has a CPC of US\$1 but a fill rate of 100%. All other things being equal, you will earn more revenue with Network B.

But all things are not *entirely* equal.

As we have pointed out earlier in this section, don't assume that eCPM is THE only metric for success. Some networks may offer better eCPMs, but they simply cannot deliver them at a meaningful fill rate. The same goes for fill rate. Networks with a sharp focus on fill rate might be delivering more performance-based advertising at the expense of quality.

Remember: Focusing too much on one metric or the other could deliver a less than optimal overall yield for you. Balance eCPM, fill rate and the quality of the user clicking on the ads in the first place by partnering with monetization partners and ad networks that deliver the best overall yield.

Net dollars in your pocket should be your ultimate goal as you select the best companies to partner with. Work with an ad network that has global reach through working with many publishers around the globe (including premium publishers).



There are still more mobile impressions than ad demand so using only a single network means that you will have unfilled impressions. Using several networks will guarantee that you can get as close to full fill rate as possible. Sometimes the traffic

in one geographic location might not match with the demand that an ad network might have in that particular region. To get the best results for your app business you need to understand that different ad networks have different strengths in different regions. While you should work with more than one ad network, you should also match demand to an ad network that can provide it.

Fill Rate is a metric that you need to watch carefully. It can be affected by 'bugs' on the ad-serving end or by errors made by mediation partners. It's therefore important to ensure that, while setting up mediation, all ad networks are working properly.

Impressions

Just showing more ads to users will not result in more revenue unless you can optimize to get a rise in the number of clicks. CTRs can vary widely – based on a variety of factors related to the reach and targeting capabilities of the ad network(s) you choose to monetize your app and user base.

Generally speaking, the revenue that you generate for your app follows this formula:

Revenue = Number of impressions x CTR x CPC.

But that's just for beginners.

Formula for success

If you are serious about your app business you should understand that these aren't the only metrics by which you can gauge your revenue. There are many other factors that can affect your revenue, which Arun Kumar Pattabhiraman, InMobi Global Marketing Lead -Performance Advertising & App Developers, details in the much more accurate formula below:

Revenue = Requests x %Valid Requests x Fill Rate x Render Rate x CTR x CPC

Arun breaks this formula down into its key component parts.

1. Requests: The number of requests depends on the user base and the traffic that is provided to the ad network by the publisher. Among all the requests that are provided, only a % is considered valid by the ad network. The rest gets invalidated. There are several factors that can cause an ad network to consider a request invalid:

- An error in integration
- Wrong slot size specified by the developer
- The wrong ad format

Usually an ad network has a set of slot sizes that they specify. Ensuring that you have a clean integration, full understanding of slot sizes and sending a request with the right slot size, will help improve the % of valid requests received at the ad network's end.

2. Fill Rate: Already covered.

3. Render Rate: Ideally, the number of ads rendered should equal the number of ads served. However, there could be a difference at times, particularly when the ad served is a full-screen interstitial. When it comes to interstitial ads, it's important to place the ad at a suitable point in the app — for example, at the end of a level in a game where it doesn't interrupt gameplay. In such a case the app developer would typically send a request for the ad when the app session begins. The ad network serves the ad at the same instant, and the ad continues to load in the background, ready to be rendered at the end of the level in the game.

While this approach obviously delivers a good user experience, there can be a downside. Imagine a scenario where the average session length in the game is too high and the user simply exits the game before they complete the level and can be exposed to the interstitial ad. In this case the fully loaded ad was requested but does not get rendered. As a result, the render rate decreases, which proportionally affects your revenue.

4. CTR: The mantra to remember here is that you shouldn't maximize impressions, you should maximize clicks. As MoPub⁶⁹, a company which provides an ad mediation platform, writes in its blog: One way to achieve this is by repetition of ads. As the user navigates, use the same banner unit so that an ad is consistently shown. The publishers with the highest CTR (3-5%) and highest CPMs (US\$3-6) all have one thing in common: they use the same banner unit as the user moves through the app.

Users typically fly through your menus. MoPub stresses that trying to load a new ad for each page means that the user will move on before the ad has been loaded. Playing catch up between ads and users is not a good strategy. However, if the same ad banner is used, it will be displayed for the maximum time on screen, thus increasing the chances that the user will click the ad.

Tricks to boost CTR

Always keep your ads on-screen especially when you have a scrollable app. You don't want the ad to be hidden where the user cannot click it!

Place banners either in-game or post-task. Do not place ads on pre-task pages because users tend to breeze past those pages without giving them a second look. Placing an ad there wastes an ad impression since users want to get to the gameplay, not click on an ad.



But more is not always better. Every user has a threshold after which they are annoyed or 'fatigued' at seeing the same ads. This is called 'Creative Fatigue' and managing it is imperative. (For details and advice on how you can determine the right amount of ads to serve to drive the best results for your app business, see Chapter 7.)

5. CPC: Advertiser bids broadly depend on two factors: First, the budget the advertiser has and their willingness to pay for a click. Second, the quality of the inventory that is available. To get top prices app developers are well advised to partner with ad networks that have access to premium advertisers with deep pockets. Of course, if the advertiser values a user who is seeing and interacting with the ad, then they also might be willing to bid more. That's why it's up to the app developer to make sure they send all user data they have when they send the ad request. Advertisers need — and value — user data. Sending this data along with your ad request gives the advertiser what they want most, thus boosting their willingness to increase the bid. This, in turn, increases CPC.

For example, MoPub writes on its blog⁷⁰ that a good target to aim for is a CTR of around 1%. Of course, app developers have been known to achieve results that are both higher— and lower— than this. “However, using CTR=1% in our formula yields a CPM of around US\$0.50 — and means that your app is generating around US\$0.50 for every 1000 ad impressions on average.”

However, if you are consistently seeing a low CTR (<0.1%), then MoPub writes you may need to adjust your strategy — fast! In many cases, poor ad performance (CTR <0.1%) triggers ad networks to serve even poorer ads to your app, pushing your app one huge and dangerous step closer to annoying your users with advertising they can neither relate to nor appreciate. In these cases, it might be better not to show an ad at all.

How do you avoid this risk? Partner with several ad networks to deliver consistently high quality (high relevance) ads in the first place. High standards in the ad networks you work with goes a long way toward achieving a higher CTR.



For best results integrate through an SDK, not through an API. And always choose partners with global scale.

App developers and publishers that partner with several ad networks tend to outperform those that choose to work with fewer ad networks.

Why? Because key metrics in the formula, such as CTR and CPC, are not static. Both change over time and can vary by as much as $\pm 20\%$ (in fact CTR can dip by as much as $30\%^{71}$). Do the math, and this means that your expected revenue can drop by a half from the high point to the low.

By incorporating several ad networks, you can ensure broad reach (across geographies and demographics), and avoid showing your users the same ads over and over again since each ad network will maintain and manage a fairly different roster of advertisers and inventory.



Before you add a new ad network to your mix, test for yourself what it can deliver. You can do this easily by setting up a frequency cap on that network. This way, you are able to monitor the performance of that network without diverting too much of your traffic to it, thus ensuring you hit your revenue target. If the ad network delivers on its promise, and performs well over a period of time, then you can remove the cap to divert more of your traffic to it— and reap increase in revenues.

Mobile advertising best practices

Users typically interact with ads in mobile apps very differently than they do with online ads on websites, where the form factors (large screen, QWERTY keyboard) make browsing and scanning a more ‘lean-back’ experience.

On a mobile device users are in ‘sit-forward’ mode. They launch an app because they want to get something done — fast: check sports scores, get directions, chat with friends, play a game. The list goes on.

There’s a lot to manage if you want to reach your audience with advertising they will genuinely appreciate and accept. Above all, do all you can do to avoid delivering advertising that is interruptive, irrelevant or impersonal.

Here’s a checklist to help you get started⁷².

Relevant and targeted: If you have advertised on the Web or even dabbled in the world of traditional advertising, you'll know the name of the game is "conversion." How many people see the ads and—more importantly—how many of them actually become customers. To drive CTR (click-through rates) in mobile advertising, you must be able to deliver the right and most relevant ad to the user. In practice this means making sure a user in Japan is not presented with an ad for a sporting goods offer from a store in New York, for example. Likewise, a person viewing a children's book app should not be served an adult advertisement. Targeting users is essential and sure to increase the bottom line numbers of clicks, conversions, and overall revenue.

Helpful and not annoying: The last thing users want to experience is an ad that prevents them from continuing whatever it is they were doing in the first place. If they are busy playing a mobile game, the ad should not interrupt the game play. Instead, the ad should appear at precisely the moment that it would actually encourage the user to engage with the ad. Displaying an ad between levels, for example, is one of these moments. Thus, the ads you are serving should be relevant, helpful, and implemented properly to avoid annoying the user. Integrate this thinking into your mobile advertising and monetization strategy and you can greatly enhance the overall user experience.

Integrated and well designed: Ads should be perceived as an integral part of the app in which they appear. An ad that sticks out like a sore thumb not only ruins the aesthetic of the app itself; it will most likely not generate a click by the user. If the ad appears in the same color scheme as the UI of the app, or if it appears on its own separate screen in between levels, then it is not a distraction. Instead, advertising has become part of the experience, encouraging users to engage and click the ad. This interaction (as opposed to interruption) boosts the developer's revenue—and the enjoyment of the app user. But don't limit yourself to just one ad format. An ad that has an interactive layer that facilitates rich media such as video will be even more of an enticement for the user to click the ad. (See Helpful Tips: Ad Creative (page 267).)

Here are some related rules of thumb courtesy of *The Everything Guide to Mobile Apps*⁷³:

- Place banner advertising at the top or bottom of your app and don't make it annoyingly easy for a user to accidentally click on an ad. Accidental clicks are frustrating to users and virtually worthless to advertisers.
- Don't show interstitial advertising or videos more than once every three minutes. Anything more frequent than that increases the risk of losing users. It is okay to put up a video or interstitial ad after ninety seconds, for example, but don't show another for at least three minutes after that.
- If you are going to use video, try to integrate it into the experience and make it subtly clear that this is how you are making money. For example, after a user has passed a level you can include a video ad with text along the lines of: "Wow, great job! While the next level is loading, please watch this video from our sponsor."

- If you include banner advertising, that doesn't mean you can't use interstitials or vice versa. Some people may disagree with this, but it's really up to you to determine what fits your content. The benefit of employing multiple ad types is that you create multiple revenue streams and have levers to pull in case one isn't working for you. But, remember, don't overdo it.

7 Deadly Sins of Mobile Ad Monetization

How can you maximize your ad revenue without compromising the user experience? InMobi, which analyzes over 3 billion data points every day, has gained deep visibility into how users are interacting with apps and their ads within those apps. Based on these insights InMobi has identified common mistakes app developers make – the 7 Deadly Sins – and ways to avoid them.

1. Believing your inventory is homogenous – it's NOT. An ad at the beginning of the app creates a totally different value (and user experience) than an ad in the middle of the app user session, or at the end. Therefore, it's critical to understand which is your most frequent inventory and distribute it accordingly. Making this tweak can help you see an upsweep of 10%.

Here are 3 examples to show how the pros do it.

- Ads at the start: King uses this top spot in the app to show its own house ad. So, if you have any other apps in your app portfolio, make sure you show them at the app launch screen instead of showing ads from other networks.
 - IAP placement: If your app interface allows real-estate to show ads during gameplay, make sure that your ads are not intrusive. Banner ads are a good bet here since you don't want to interfere with the flow while your user is using your app.
 - Natural break points: Use interstitials at natural break points, like the score board or leader board. This is where you are asking your users to share their scores on social networks and where a full screen ad does not interrupt the action flow.
2. Thinking clean data signals don't matter. They do. This is the age of data, and data is essential for better targeting. Country, state, city, geography, demographic are important data signals. Other data signals are user registration data, key words around your app or even something as simple as your app category. These data signals are what advertisers need to know when they are deciding to show ads on your app. Sending the right data signals can lead to a revenue upside of 20%, so do not ignore this.

Remember the advertiser is not just looking to show an ad to a person who is playing a game. That's way too general! An advertiser is keen to know the data signals that indicate context. A user playing a game while waiting for a flight at the airport might appreciate an ad for a vacation destination, while a user playing a game near to an outdoor music festival might appreciate an ad for a new CD release. ALL of these data signals help ad networks create the different user personas that improve targeting and – ultimately – make your inventory more valuable.

3. Ignoring user preference. No two users are alike. More exposure to ads does not necessarily make you more revenue. It's all about showing the right ads to the right users to enhance the user experience. Making this part of your advertising strategy can lead to an upside of 15% in revenue, not just in mobile ads, but also in-app purchases.
4. Not considering user behavior in the app. Monetize your app with ads, but not at the cost of losing your user base. Analyze how many times you show an ad to a user during a session. You certainly don't want to show an ad to a user who has only been using your app for one minute. Instead, measure user statistics carefully to ensure you do not interrupt your user when they want to get something done. (See Deadly Sin #1) Abiding by this rule will help you see a revenue upside of 10%.

If the average user time on your app is 5 minutes, the best time you can show an interstitial will be before leaving the app at the 4 minute mark. This ensures that you are able to monetize the user wisely and not interrupt the interaction. For casual games, where the session time for each level is generally very short, you can place interstitials after every 2 to 3 levels. If you have a multi-player game, the best placement is where the user has finished their level and is waiting for the other player.



Work with a partner that will not keep showing your user the same ad over and over. That is just going to lead to ad blindness. So work with a partner who will allow aggregation at adequate refresh intervals.

5. Not adopting new ad trends and formats. It's important to keep on top of what's popular – be it banners, interstitials, app walls, video ads or even data maps – because advertisers are going to focus their marketing spends on the best performing ad formats. Watch the trends and you can see a revenue upside of 15% for simply adopting the latest ad format.
6. Not choosing the right ad partner. Be discriminating. Every ad network you use will require you to add another SDK to your app. Not fun and not smart! Choose 3 or 4 networks that will give you a combination of skill and performance. Be broad and don't think that you only need to show ads for games in gaming apps. Chose a

partner that is going to give you diverse demand from both gamers, as well as other brands across retail, news, auto, telecom, travel, finance. Mix it up and target your users as people — not just gamers — and you can easily see an upside of up to 20%.

7. Dismissing industry evolution. Assuming that what happens in the mobile space doesn't affect your business is possibly the deadliest sin of all. New operating systems require you to optimize and strategize. Take the case of the new Apple iOS7. The 64-bit support has more processing power so you can now design bigger and better games. Another exciting feature of iOS 7 is producing the automatic app of the day. This means that you as a developer need not worry about weird option cycles any more; your apps are going to be automatically updated.

Hybrid models to get more out of advertising

Clearly, IAP has its merits. But it also has its shortcomings. If you are determined to build a business, not just a one-hit-wonder, then you want to do more than sell digital goods and hope your users will clamor for more. You want to employ advertising — and tools such as segmentation and targeting — to engage and retain your most valuable users.

Simply put, IAP and advertising are not two competing business models. As this section will show, managing the two models effectively can help you optimize your app marketing strategy and maximize your revenues.

Indeed, Eric Seufert, author of the must-read app business book *Freemium Economics: Leveraging Analytics and User Segmentation to Drive Revenue*⁷⁴, points out that combining IAP and mobile advertising is the best — and most effective way to gain revenue from 100% of your user base.

Given that freemium apps generally convert at a very low rate, with less than 5% of total users directly contributing revenues through in-app purchases, Eric notes that placing advertising in an app allows app developers to generate a “complementary revenue stream which can be drawn upon to supplement low conversion rates.”⁷⁵

Case Study: Madbit Entertainment



How does an indie app compete with big-name blockbuster apps? Really well if the brains behind the app take a new twist on a classic game. Daniele Ratti tells us about his app adventure at MadBit Entertainment and plans to take the fun app to the rest of Europe – and beyond.

At 21 Daniele Ratti is already a seasoned indie app developer, having published over 70 apps on his own in the last three years. But the real action started when he teamed up with another university student and founded MadBit Entertainment.

Together they have produced Nomi Cose Città Revolution, a game app that's a mobile twist on the board game Scattagories produced by Hasbro through the Milton Bradley Company and published in 1988. The objective of the 2-to-6-player creative-thinking, category-based party game is to score points by uniquely naming objects within a set of categories, given an initial letter, within a time limit.

The mobile gaming app, which counts over 1 million users in Italy alone, does more than encourage fast-paced and fun gameplay. It offers users perks for their participation. Without the deep pockets of a King.com the creators had to rely on



“Our strategy was to give users something different, something they hadn't seen before in a mobile app.”

innovation, not investment, to win users and generate buzz. “Our strategy was to give users something different, something they hadn't seen before in a mobile app.” They paired the classic game with an awards scheme that allowed users to compete and win daily. The prize: gift cards or a paid app on the App Store (at a cost of US\$0.99 per app). The creators also host ‘tournaments’ to keep users excited and engaged.

The strategy works and so does the monetization model. “We chose to offer the app for free supported by advertising since users are encouraged to play our game frequently to win prizes.” It's an audience eager to play and accepting of advertising as part of the addictive gameplay.

Moving forward, Daniele is planning to take the app to markets beyond Italy and perhaps experiment with additional monetization models, such as in-app billing, in a new game in the coming year.

Ads vs. IAP

Like most decisions you must make to maximize the monetization of your app, the ads vs. in-app purchases calculus is not straightforward.

At one end, the freemium model is all about encouraging a small, enthusiastic minority of users to engage with the app to the greatest extent possible.

At the other end of the spectrum, mobile ads are all about targeting all your users with ads they will likely appreciate based on their profile, content and other variables we will explore in the next chapter. Do it right and ad revenues will scale – and boost user engagement to new heights.

Here are some rules to follow if you want to get the most out of this powerful combination of models.

Choose the right placement. Ads cannot be placed in an app haphazardly. (Review the 7 deadly Sins, page 152 for tips and tricks to ensure you implement ads to enhance, not interrupt, the app experience for your users.)

Remember mobile ad basics: Reports reveal that non-IAP, active users have proven to be highly engaged. To clinch the deal make sure your ad strategy is about delivering quality, relevant ads (to the right users).

Ad(d) value: Think of ads as an important form of monetization, but make sure they augment the revenue delivered by IAPs without negating the potential for the app to monetize through microtransactions.

As a rule: Ads should be displayed in a freemium product when you can be sure that they won't cannibalize in-app purchases. The good news: immersive ad formats such as video can actually enhance engagement, allowing you to maximize ad revenues and improve the likelihood that a user may eventually convert.

Analytics are essential

You will need to use an analytics solution capable of making decisions around a variety of scenarios, including the right time to show a user an ad if they haven't converted in, say, three days.

But it's risky business to use just one approach (or rule) to convert users. As Eric observes: "Such an approach isn't necessarily invalid, but it likely leaves money on the table by applying one conversion threshold across the entire user base."

Why?

Because, as the next chapter shows, your users are complex. They have a broad range of requirements, preferences and behavioral profiles. Understanding your users will allow you to maximize monetization, and more importantly, focus your efforts on attracting and retaining your most valuable users.



The three things you need to know



1.

In-App Purchase is gaining serious traction because it paves the way for app developers to give away their app for free and make money on anything from unlocking features or extra levels, to removing ads, to adding additional stylistic themes. Do it right and IAP can bring you recurring revenue from your existing customer base. But it can be hard work to bait and lure customers into spending money in your app. If you are determined to monetize your app effectively using IAP, you need to spend time understanding user behavior inside your app.

2.

Before you add a new ad network to your mix, test for yourself what it can deliver. You can do this easily by setting up a frequency cap on that network. This way, you are able to monitor the performance of that network without diverting too much of your traffic to it, thus ensuring you hit your revenue target. If the ad network delivers on its promise, and performs well over a period of time, then you can remove the cap to divert more of your traffic to it—and reap increase in revenues.

3.

Ads should be perceived as an integral part of the app in which they appear. An ad that sticks out like a sore thumb not only ruins the aesthetic of the app itself; it will most likely *not* generate a click by the user. If the ad appears in the same color scheme as the UI of the app, or if it appears on its own separate screen in between levels, then it is not a distraction. But don't limit yourself to just one ad format. An ad that has an interactive layer that facilitates rich media such as video will be even more of an enticement for the user to click the ad.

Sections of this chapter were contributed to by:

Toni Fingerroos, Fingersoft; James Cooper, Mobyafilates; Eric Seufert, Mobile Dev Memo. With insights from InMobi's Pankaj Bengani, Arun Kumar Pattabhiraman and Ed Laws.

Apponomics



05: Get Smart About Customer Lifetime Value

This section proposes the approaches that will enable you to identify your high value users and extract more value from them. From a crash course in defining, measuring and maximizing the Lifetime Value (LTV) of your users, to a detailed look at how you can group your users based on psychographic segments (or personas) around how they interact with your app, this section will help you devise new ways to increase revenues from your existing users and ensure you acquire more of the users that matter most for your app business.

ROI- positive metrics and mindset

Since the earliest days of mobile apps, the goal for most app makers and developers has been volume. The higher the download volume, the more revenue their app would produce, or so the thinking went.

Against this backdrop, the pressure to deliver the download numbers was relentless. There was pressure to not only generate downloads in high volumes, but to do so quickly.

So app makers and marketers did what seemed only reasonable: they spent to reach their download goals, often overpaying to get there in the hopes that these incentivized downloads would convert into users who engaged with their app and delivered a return.

And as app developers watched their budgets dwindle, they were stuck in a rut analogous to the early days of online marketing. Back then marketers focused on metrics such as website visits, page views, and clicks. But as the industry matured, marketers learned that, though those were important metrics, it was really the end result metric that mattered most—revenue.

Fast forward, and mobile app developers have arrived at the same conclusion. Volume may look good and feel great, but downloads don't translate into revenue.

In fact, as app analytics company Localytics reminds us⁷⁶, those high download numbers may just be indicative of a high churn rate. New users are downloading your app all the time, but they are also deleting it.

Clearly, the most effective way to build an app business is to base it on ROI metrics, rather than download metrics. This enables you to truly scale your business in an ROI-positive way.

The bottom line: you build a successful and sustainable app business when you make the move from a volume-based model to one focused on the right ROI metrics. This section will walk you through those key metrics, but first you have a bigger question to consider:

How do you know when the time is right to focus on these metrics?

The answer depends on where you are in your app lifecycle.

A review of the app lifecycle (Learning, Scale, Quality User can be found in *Acquiring High Quality Users at Global Scale*, page 082) shows the best time to start thinking about ROI – and identifying the users most valuable for your app – is directly after you achieve the level of visibility you want for your app.

Whether your goal is sheer volume to rise up in the app store ranking, or to generate an avalanche of social media buzz that allows you to build an army of app advocates, once you have run the



campaigns that get you the scale you want, it's time to focus on ROI metrics and getting most value out of your most valuable users.

Simply, put, at launch your app strategy is understandably all about scale. But after you hit your target, and your app has matured, then "it's high time to utilize the data about your users and plan a strategy to optimize user value," according to Innu Nevatia, InMobi, Head of Revenue Delivery & Optimisation, Performance Advertising, EMEA.

At this critical point in your business, Innu says, it's all about your active users: how to both keep them in an active state and to improve the revenue per active user (ARPAU), or better stated, the lifetime value (LTV) of the customer.

"In the early days it's all about driving organic downloads. But once you have achieved critical mass the timing is right to focus on understanding the data and signals you are getting about how your users are behaving in the app. Who is paying, who is not and who would do more if you introduced the right campaign to influence their behavior."

~Innu Nevatia,
InMobi, Head of Revenue
Delivery & Optimisation,
Performance Advertising, EMEA.



LTV is not an easy metric to grasp, compute and leverage for most app developers. But understanding LTV is the most effective and meaningful way developers can plan their marketing budgets to identify and engage their most valuable users. Understanding how much money your customers spend is at the core of all marketing strategy. Thus, LTV is what Eric Seufert⁷⁷, author of *Freemium Economics: Leveraging Analytics and User Segmentation to Drive Revenue* calls "a dashboard-level metric that provides critical insight into how a service monetizes."

Everything you need to know about LTV

So what is LTV?

In its simplest form LTV is a metric that measures the monetary value of a user *over the lifetime through which* they are engaged with your app. But it's also a metric that Arun Kumar Pattabhiraman, InMobi Global Marketing Lead-Performance Advertising & App Developers, points out is a metric that can capture the net present value of the estimated cash flows from a user over their lifetime.

Take into account just how much revenue you think you're likely to generate from your users, and LTV becomes the key metric that allows you to plan, justify and adjust the marketing spends they make towards acquiring users. Remove the marketing spend from the estimated LTV of the user and you start measuring real profit per user.

What is the LTV of your app?

Start by looking at the total LTV of an app user, a key metric that is the function of two important pieces of data.

1. Average lifetime of your app user

The easiest way to measure this is to measure the average number of sessions that your users engage with your app and the average length of each session. The end result of this calculation will give you a very good indication of the average lifetime of your app user.

2. Revenue streams from your app users

To get the most accurate number you need to factor all the revenue streams for your app into this equation. Be sure to include revenue from paid downloads and in-app purchases, if you are using them to monetize your app.

- If your app is a paid app, then this number is simply the net revenue you earn from each paid download after deducting the app store's revenue share. Since this is a one-time revenue (because your users paid to own the app forever) this number is equal to the user's lifetime contribution towards the total LTV.
- If you used IAP to monetize your app, then it can get tricky. The numbers vary depending on the IAP model you used and how each purchase was priced. These metrics should typically be available through reports from your app stores or payment processing vendors.

Rather than drown in the details, make it easy on yourself. Just focus on the following variables:

1. What percentage of your total unique users make an in-app purchase?
2. What is the average value of an in-app purchase (net of rev-share to payment processor)?
3. What is the average number of in-app purchases made by each user who participates in any form of in-app purchase?

Once you have these metrics, then plug them into this simple formula to calculate the user's contribution toward LTV:

$$1 \times 2 \times 3 = \text{Revenue from IAP}$$

- If you used mobile advertising to monetize your app, then the number you're looking for is a function of the eCPM that your ads deliver and the number of ads you show to each user during their lifetime.

Deconstructing LTV through ads

$LTV = (eCPM/1000) \times \text{Number of ads shown to the user in their lifetime}$

How do you calculate the number of ads that can be shown to a user in their lifetime?

Calculate: Average session length per user X Average number of sessions per user

Divide by: Ad refresh rate (the ad refresh rate is equal to the number of ads shown to a user in 60 seconds)

Multiply by: % of traffic allocated to non-house ads

Now that you have calculated the LTV of your app user, you can measure the LTV of your app by multiplying this number by the total number of unique users you count for your app right now.

More tips for calculating LTV

Calculating LTV for freemium products requires insight into both customer lifetime and spending patterns. The first component of LTV is what Eric Seufert calls duration, a term to describe the number of days in which a user will engage with a service as opposed to the number of calendar days over which they'll remain in the service. Let's say a user downloaded your game on January 1, played again on January 10, and then deleted your app on January 30. You would calculate that user's duration as two days, not 30.

The concept of duration borrows from finance — and it's a good fit. Thinking about customer lifetime from the perspective of duration makes sense because a user then resembles a perpe-

Mind the gap!

Of course, there are other ways to calculate LTV. You can also start by determining the RPDAU (Revenue Per Daily Active User).

To do this, divide the total revenue generated in one week (include all revenue sources such as in-app purchases, advertising, offers and any other monetization sources) by the number of active users in the same week. Now divide this number by seven. This method takes into account weekly usage patterns.

To determine LTV, multiply the RPDAU by the average number of days in one month a user is active in your app. Most apps have a one or two month lifespan. The number of days active can vary from app to app. Use a method of unique tracking to find this average. This number could be anywhere from 2 to 10 days, but it can be higher for some apps.

How to Calculate LTV

$$\frac{(\text{Advertising} + \text{Virtual Item Purchases} + \text{Offerwall}) \text{ Total Weekly Revenue} / \text{Average Number of Weekly Active Users}}{7}$$

= RPDA (Revenue Per Daily Active User)

RPDAU* (Average Days Active Per User a Month) = LTV

Source: InMobi

Add up these data points and you will have a good idea of your app user LTV.

But be aware that methods to calculate LTV do not capture the indirect revenue streams from your users. These connected users, who are sharing your app with their friends, pinning it on Pinterest or just tweeting their high praise, are also driving significant revenues for your app.

In this connected and super-social world, their allegiance to your app (and influence as your app advocate) is almost as valuable as hard cash. Simply put, social currency IS

currency. However, the impact on your app revenue of social referrals and word-of-mouth promotion is the topic of another book!

InMobi's Arun Pattabhiraman suggests⁷⁸ that the simplest way to measure the impact of social referrals is by answering the following question: How much would it cost you if you had to pay for each customer you acquire through a social referral?

For example, if a highly engaged user generates on average 50 social referrals for your app, and on average 10% of them convert into real users, then the impact on overall ROI can be calculated as the following:

Value of social referral from 1 engaged user = $50 \times 10\% \times \text{US\$1}$ (assumed average CPA delivered by a paid campaign) = US\$5.

As Arun sees it: this is essentially the savings in cost you can potentially realize for every highly engaged user you acquire, and it should be netted out from the overall cost of acquisition when calculating ROI on marketing spending.

point on the curve represents the likelihood that a user will interact with your app on that day. Adding up those values will provide you with duration.

The second component of LTV is customer value — that is, how much money users spend. This is fairly simple to calculate.

Eric suggests a good rule of thumb is to take a trailing average mean because changes to the app's functionality (content pushes, bug fixes, introducing new features), changes to the app ecosystem (competitor apps), and changes to user base dynamics can cause spending patterns to shift. An historical average would not provide appropriate weight to these changes.

But don't be too hasty. Since massive spenders are (hopefully) part of the user base spending distribution, don't remove them without first validating that their spending patterns within the context of a high-spender are improbable or irregular.

It's important to measure average spend on a daily, per-user basis not in calendar days but in engagement days — otherwise it is incompatible with duration.

Also: LTV should tell you the expected income from a user acquired today. Historical spending averages are irrelevant information. Ideally, you're constantly testing and improving upon monetization funnels and content, so it follows that you want your LTV metric to reflect those improvements.

Getting a dashboard-level LTV metric as accurate as possible can facilitate many decisions around your app business. But keep in mind LTV sets a limit on per-user marketing spend.

At the earlier stages in your app lifecycle, where you are focused on acquiring users for your app, LTV prescribes a target for acquisition budgeting (see page 160). As this section shows, the importance of calculating LTV grows as your app matures.

Simply put, at first the concept of LTV represents a maximum per-user acquisition price threshold, beyond which acquisition is unprofitable. In later stages, after you have reached a critical mass, LTV is useful when aggregated by user characteristics around your most valuable users such as acquisition channel, geography and demographic group.



Calculating LTV in a spreadsheet LTV is difficult to calculate for freemium products and is often done so programmatically (given the large amounts of data that must be parsed in order to capture the stratified nature of freemium user bases). But Eric has cracked the code. In his new book, *Freemium Economics: Leveraging Analytics and User Segmentation to Drive Revenue*, he shows how LTV estimates can also be made in spreadsheets and introduces models to accommodate curves in player metrics (retention and monetization) in order to project terminal values for various player segments. If you want a crash course, Eric offers the Comprehensive Free-To-Play Game Model: Revenue, DAU, Virality, And Retention⁷⁹ (spreadsheet included) over at his MoDev Memo blog. This essential F2P Excel model is free to download, but you must first subscribe to his Mobile Dev Memo weekly newsletter to access it.

Maximizing LTV

LTV maximization is as much an art as it is a science.

The process begins with understanding your users well and accepting that they are a heterogeneous bunch. Each individual user has defining characteristics and it's up to you to group your users into manageable segments (or buckets) in order to improve monetization. At this stage of your app business, it's all about classifying customer bases into distinct groups based on multi-dimensional data and is used to suggest an actionable roadmap to design relevant marketing strategies at a segment level that will drive desired business outcomes.

Behavioral targeting basics

Traditionally, marketers have grouped their users accordingly based on their location and demographic data (age, gender, marital status). It's a good start, but we all know people are far more complex.

Take the group known as Boomers, an audience segment that includes people born from 1946-1964. Surely, conventional wisdom would dictate that this age bracket could not include early adopters of technology, nor would it be populated by app enthusiasts – right?

Wrong!

Early adoption is a behavioral characteristic. It has little to do with age. Clearly, while youth has been a convenient demographic proxy, it can also be a poor one when segmenting your app user customer base.

Booming Boomer market

Forget the stereotype that Boomers are luddites when it comes to mobile technology. Boomers is also a super-cool audience segment that includes pop icon Madonna, actor Tom Cruise and Bollywood diva Sridevi. According to a national online Mitchell Poll of 600 Boomer smartphone users in the U.S.⁸⁰, 76% have downloaded at least one app in addition to standard apps. Nearly half of all the Boomer respondents (49%) have added six or more apps to their smartphones.

The survey also found that more is better when it comes to the number of apps on a Boomer's smartphone. In fact, 76% have downloaded at least one app in addition to the standard apps; 22% have added six to ten apps; 10% have added 11 to 15 apps; and 17% have added more than 15 apps.

Interestingly, this audience segment is also primed for easy-to-use shopping and travel apps.

Boomers are especially interested in apps that help manage or ward off chronic disease. In fact, 57% surveyed by the Mitchell Poll said they would likely download a general information app to look up medical symptoms or diseases. Additionally, 48% would likely download a health monitoring app for a specific chronic medical condition, and 48% would likely download a weight and exercise app.

There is also a future in games for app developers who want to target Boomer women with games. About 40% of gamers in this segment are women and nearly one-quarter are over 50.

The bottom line: If you are serious about getting a share of the Boomers' US\$2.5 trillion wallets, then look beyond demographics to group your users based on psychographic attributes.' App developers who make the effort to understand Boomers will open their hearts – and their wallets.



Don't miss the mark! Maximizing the LTV of your customers requires you to build the business intelligence to manage more complex customer segments based on much more than demographic data and geographical location.

Sophisticated segmentation

Segmentation is complex and there is no one correct approach to defining your app audience.

Helpful insights come from ConsumerScape 360°, a research program from International Data Corporation (IDC), global provider of market intelligence, based in a survey of more than 50,000 consumers in 25 countries across the Americas, Asia/Pacific, CEMA and Western Europe.

The program has allowed IDC to identify 6 distinct consumer market segments: Tech Evangelists, Impulse Buyers, Experimental Adopters, Pragmatic Purchasers, Green Buyers, and Disengaged Functionalists.

One market segment in particular, Tech Evangelists, was found to be particularly influential when it comes to monetizing mobile apps.

"In terms of formulating a strategy for the prioritization of app development and marketing, focusing on Tech Evangelists' download and usage of apps will deliver the largest ROI by far in terms of segment-based app development and marketing," Michael DeHart, director of IDC's Global ConsumerScape 360° program, said in a press statement⁸¹.

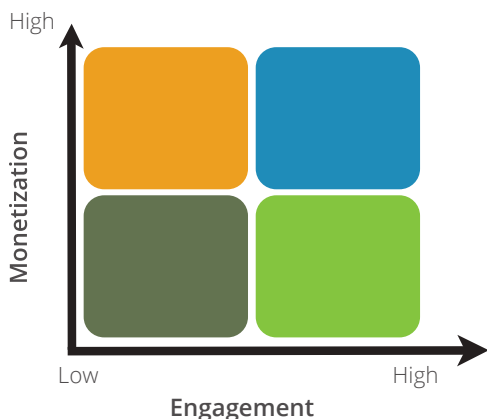
Tech evangelists not only own the most devices and utilize the most advanced functions, features, and apps, they are also the group that drives adoption of device ownership and usage by other market segments. Successful segmentation is about breaking your user base into smaller groups of people who share similar characteristics. This enables you to target them individually – and much more effectively – as a smaller, more personalized target audience.

Keep it simple

Nearly all segmentation methods require you to have a certain level of knowledge about your customers, insights you draw from data around your audience and how they interact with your app. Our final chapter, Data-Driven Marketing In The Era of 'You' (page 231), will discuss this

in greater detail. For the moment, let's focus on some of the first simple steps you can take to segment your audience and so improve how you monetize your users.

InMobi's Arun Kumar Pattabhiraman points out⁸² that the simplest way to effectively capture the key attributes that affect LTV is to construct a model that focuses on what impacts LTV most: Engagement and Monetization.



Source: InMobi

Engagement

Engagement attributes describe the depth, frequency and the duration of the user's engagement inside the app. To arrive at each answer you need to ask key questions and— more importantly — have the analytics capabilities to measure your audience in each respect to provide the answers.

- **Depth:** How many levels have users crossed in your app/game?
- **Frequency:** How many times in a day do users open your app? How many days in a month do users use the app?
- **Duration:** How much time do users spend inside an app? In which level of the app do users spend the most time?

Monetization

These attributes are largely related to the recency, frequency and monetary value of the revenues you earn from your app's users. Questions to ask and answer include:

- How recently did the user buy a virtual good?
- What was the dollar value of the purchase?
- How many purchases did the user make in the last month?

This is only a partial list of the questions (and customer insights) you need to ask yourself about your users. As the next sections will show, knowing the answers will help you design bespoke incentive programs to enhance the monetary value of each user.



Build detailed user profiles to enable highly targeted mobile engagement. Keep track of what each user has bought, played and downloaded. Know if they've opened the app recently and use these insights for audience segmentation.

Multiple personalities

Winning is all about having the data and capabilities to assign users to psychographic segments (or personas) based on their app usage. But the task can get tricky because an individual user may qualify for inclusion in more than one persona based on how they interact with your app at different times or under different conditions.

A classic example is the Digital Mom, a segment that eagerly embraces utility apps to get things done during the day and then gravitates to games and social apps after hours to connect with friends, have fun and gossip around pop culture and celebrities.

Simply put, your app users fulfill different roles during the day, and can also be grouped in multiple user segments. To complicate matters, app users who own more than one device increasingly may not exhibit the same app usage patterns (persona) across their devices.

As app users are multi-faceted – and now interacting with apps across multiple screens– it's increasingly important to factor these contexts (and personas) into your segmentation and targeting strategies. (See Helpful Tips: Targeting on page 276)

There is no right or wrong answer to how you should decide how many segments to choose for your app. The most important thing to consider is that for every additional segment you create, you will also increase the effort required to build, test, deploy and analyze your results. So, be pragmatic and don't try and run before you can walk.

Start slowly and build up step by step. If you create hundreds of unique segments you will struggle to manage your data and to find the time to accurately measure what has been successful in the first place. While there are mobile analytics tools available to help you tame the flood of data, there is no sense drowning in information.



Bear in mind a few over-targeting pitfalls: if you define a profile too finely you run the risk of creating a micro-niche that is too small to yield worthwhile results. Avoid putting too many behavioral segments together. By balancing reach and relevance you'll have the makings of a perfect marketing strategy.

Case Study: Tiny Co



TinyCo is growing fast! The San Francisco-based mobile gaming powerhouse responsible for app store chart-toppers like Tiny Monsters, Tiny Village and Tiny Zoo Friends has been recognized as one of the first to crack the code on monetizing the Android platform, and its games have been downloaded more than 85 million times worldwide. Rajeev Nagpal, Head of Product, tells how analytics and targeting have contributed to TinyCo's tremendous success.

TinyCo may like to think of itself as an ‘indie’ player, but its performance puts it in a league with the major studios. Its titles consistently reach the top grossing charts on the iTunes, Google Play, and Amazon app stores. More importantly, its determination to deliver “games as a service” has allowed it to push more content to more users more often – a formula that helps it keep gameplay fresh, exciting and addictive. “We have benefitted as a company by treating the games as a service, with our more successful games doing three updates a week.”

To support this TinyCo has built a server-side infrastructure that enables it to push new content and new episodes, without having to wait for Apple’s approval to do so. “People feel that the game is alive because we respond to what they request in the game – when they request it.”

TinyCo has chosen a free-to-play model, monetized by in-app purchases, to make money – and the results have been impressive. “We have players who pay hundreds and thousands of dollars over a longer duration, if they feel that the game is giving them the experiences they appreciate.”

Part of this is due to the gameplay, which is constantly updated thanks to the infrastructure that updates the content on the fly. The rest is analytics.

TinyCo has a razor sharp focus on acquiring and keeping high quality users. “It’s a very simple equation in our mind,” Rajeev explains. First, you need to focus on users where net LTV is greater than the cost for install. Second, you have to have a way to scale this that is profitable.



How does an app developer get there from here? Work with a partner that has global reach, great analytics and sophisticated audience segmentation and targeting. In the case of TinyCo the partner that meets these criteria is InMobi. “We want to generate profit at scale and for that you need a global player. The combination of users insights, demand analytics, and global reach InMobi offer allow TinyCo to acquire and target the users that matter most.”

TinyCo also uses this capability to identify and engage its “power players and power pairs.” It’s a strategy that Rajeev says can pay dividends because these are types of users that “can account for about 70% of your overall revenue, even though they may only be 10-20% of your user base.”

In his view targeting is not only a must; it also continues across all the stages of the app lifecycle. “Targeting is crucial to acquire users, and targeting is also crucial once you have acquired users and want to retain them. Finally, targeting is crucial once you have retained them and want to monetize them.”

TinyCo doesn’t just harness customer data and insights to target valuable users. It also uses this approach to re-activate them. The approach is simple, yet sophisticated, and centers around “appointment mechanics” baked into the game. As Rajeev describes it, this is part of the two-way communication – built around push notifications – that helps bring valuable users back to the game. In addition, “social features and channels” encourage deeper engagement. “When people are engaged socially, they have a social circle and a much higher probability of returning back to the game.”

Rajeev recommends app developers pay close attention to analytics and map out an LTV strategy that fits their company size and business objectives. App developers should also draw from this data to experiment with pricing models.

His advice: Test various price points for in-app purchases and don’t be afraid to name your price. “There are going to be players that love your game so much that they would be willing to pay more – and it pays not to limit your game so they can only spend a certain amount of money.”



Measurable and actionable

As Philip Kotler⁸³, a leading marketing author, consultant and professor outlined over a decade ago, a winning approach to audience segmentation is yield groups that are measurable, substantial, accessible, differentiable, and actionable.

But if you don't have the necessary information to define a segment, then how do you even begin to meet those requirements? It's one of the major challenges you will face, which is why this section introduces you to the analytics tools you can employ to glean real and actionable insights from the data.

Essential mobile app analytics

Clearly, you cannot build a sustainable app business by counting downloads. But you can ensure competitive advantage if you use mobile app analytics to gain visibility into how your app is being used.

As the usage of the app is essential for retaining customers, you can also use the analytics data to engage your users, modify your mobile app marketing strategy and eliminate any ineffective promotions or techniques from the mix.

Simply put, mobile analytics track how customers use your app so you know how to improve it to get new customers and keep the ones you have.

Don't let your app business drive blind.

It's crucial to understand how users are interacting with your mobile app. This can let you know how engaged users are when playing certain levels of your game or when they're using particular screens or sections of your app. With this information, it becomes a lot easier to find the optimal locations for ads, as well as learn the best pricing model for your particular apps.

What's more, you can use analytics data to find out when users are most engaged with your app so you can place ads or incentives to encourage that positive interaction with your app and – ultimately – make more money.



If you want to increase the lifetime value of your users, you need to know more about them. This information is valuable and will allow you to implement changes that can dramatically affect your bottom line – in a good way.

An effective mobile analytics tool helps you measure your app's growth and progress, see how many people are downloading your app, and understand what app pages or content are most popular and engaging. More importantly, the tool should allow you to measure the positive or negative impact of changes you make on the fly.

Make sure the mobile app analytics tool you choose provides you Key Performance Indicators (KPIs) that together show a fairly complete picture of when, where, and how often your app is used. You should also have visibility into how much new interest and user loyalty your app has, and where new users are coming from.

The tool you choose should offer insights into “funnel conversion.” Like a conversion this is a measure of how often your customers are performing some action, like making an in-app purchase, which benefits your bottom line.

Finally, the tool you choose should allow you to define and take actions on targeted segments. Even better if this capability is also integrated within the analytics product, allowing you to implement a targeted monetization strategy more easily and effectively.

Use analytics tools to gain actionable insights...

- Understand how many users download your app
- Understand the times when people use your app
- Understand which platform is most popular

InMobi's Krishnendu Majumdar, Head of Supply & Developer Products, identifies these as Retention and Monetization.

Retention is a measure of the ‘stickiness’ of your app which is actually a function of Monthly Active Users (MAU) or Daily Active Users (DAU) and gives you an indication of the engagement levels of users with your app. Benchmark this against the industry and competition with your app category.

Monetization is a measure of the money your app is making, which will require you to monitor the following variables:

1. Conversion rate (that is, the split between paying and non-paying users) and how many of your non-paying users are actually converted to become paying users
2. Average Revenue Per User (ARPU or your total revenue of your app divided by the number of users)

3. Conversion rate (that is, the split between paying and non-paying users) and how many of your non-paying users are actually converted to become paying users

Average Revenue Per Paying User (ARPPU or your total revenue divided by the total paying users in your app)

Remember: The last two variables will likely differ because — as a rule — the number of paying users is generally much less than your non-paying users, so it is important to measure them both.

Popular platforms and tools

There's no shortage of mobile app analytics platforms to choose, so it's important to choose a tool that will deliver the data you need before laying down any cash.

You can find a helpful and comprehensive list over at Mobyaffiliates⁸⁴ that lists nearly 50(!) providers. They range from Apptentive, a platform that allows app developers to collect and analyze user feedback related to their apps, to Distimo, a free analytics tool that allows app developers to track downloads, revenue and get notifications if the app passes certain milestones.

Clearly, not all platforms are created equal. There are platforms that allow you to measure basics such as installs, rankings, revenues, purchases and competitor rankings, as well as issues such as bounce rate, crashes and any number of events unique to your app. And there are other platforms that provide you a thorough understanding of where your installs are coming from and what kind of users these installs are delivering.

More robust analytics platforms allow you to properly monitor and identify your most valuable sources of traffic. This goes beyond the mere volume of installs, and into whether or not the users are generating any real value for your business, either in terms of revenue/purchases, or engagement.

Tips to get the most out of mobile app analytics

As this section shows, analytics is key to measuring the execution and value of all the hard work you have put into your app. Here's some advice (via Ryan Matzner from Fueled⁸⁵) to help you get the most of mobile app analytics, and hopefully equip you to avoid some costly mistakes.

Pick the KPIs that match your target audience: Before you dive into analytics, make sure you understand what you're hoping to better understand. For instance, a content publishing app might be more concerned with the number of stories read by the user or time spent in the app, while an ecommerce app is invariably primarily interested in purchase conversions.

Market data matters: There are a few analytics providers that offer market data. This type of data is useful to see what similar apps are doing in the marketplace relating to price and number of downloads. For instance if a competing app is performing poorly at a US\$2 price point, you may be able to use analytics tools to better determine the appropriate price for your app.

Install correctly: User data can be really useful, providing the data is accurate. Chances are, your analytics provider of choice will offer an SDK or some code snippets to drop into your app so it can properly track data. Be careful to install this correctly, because an analytics platform that's supplying faulty data is no good and counterproductive. Another important point when installing an SDK is to be mindful of how it might affect your app's speed. When in doubt, consult your analytics provider's support team to make sure everything is as it's supposed to be. They might also be able to offer some helpful pro tips to help you get the most out of their product.

Pick an analytics provider you can grow with: If you have an iOS app and are looking to create an Android version, or an iPhone app and are looking to build an iPad version, make sure you pick an analytics provider that can cater to your needs. If you're considering monetizing your application through in-app advertising, you might want to use an analytics provider that also has partnerships with ad networks or strong ad delivery models. Pick a vendor that is going to be able to handle your needs as your product scales, whether that means covering different platforms, devices or geographies.

Taking Control

Campaign analytics, user engagement, purchase behavior, and level completion trends are just a few of the basics you can monitor.

Start with common categories such as purchase history, engagement, and loyalty. Or you can take control of your app business and create unique tracking events to build your own user intelligence system.

Harness your audience insights to create groups based on in-app behavior and classify your users across various audience segments (or personas) such as 'socialites' (users more interested in sharing their scores with the community, than moving up in the levels), 'hobby gamers' (users who play your game for a few minutes a day to pass time on the daily commute), and 'achievers' (users who are dead-serious about winning).

InMobi Analytics

Connect the dots, and app developers are well advised to choose an app analytics platform that gives them precise insights into their user behavior and enables them to act immediately on these insights – to maximize monetization and engagement seamlessly.

InMobi's Analytics service captures large volumes of data including over 100 billion mobile ad impressions monthly, consumer engagement data such as click throughs, user actions and a wealth of targeting information about handsets, network carriers, time of day, demographics, behaviors and more.

Combining this data with user history and profiles enables InMobi to serve the most effective ads to each customer at the right time and – more importantly – to assess mobile ad performance against campaign objectives. InMobi's Krishnendu Majumdar points out this analysis also equips app developers with business intelligence that they can use to allocate campaign spend, increase ROI and maximize LTV.

The platform offers three different services – Insights, Segments and Actions.

Insights aims to offer publishers detailed insights to the user behavior by providing in-app data like audience retention (daily active and monthly active users), engagement (time spent within the app and session frequency), in-app revenue, and any custom actions defined by the publishers or developers. Insights also allows you to attribute installs and user revenue back to the channel through which they were acquired.

Segments allows publishers to divide their app users based on various parameters like country, purchase history, engagement time, and app launches or any custom parameter created by publishers based on their requirements.

Actions allows publishers to deliver in-app messages and enables them to provide different app experiences for different segments through targeted actions. These actions include, but are not limited to, offering virtual goods for sale to high paying customers, offering rewards to users when app engagement declines, showing display ads to non-paying customers or after specific amount of app launches, and cross-promoting new apps to users.

Think of InMobi Analytics as a one-stop solution for mobile audience management. Use the platform to create and track app user segments relevant to your business and enable targeted actions to maximize revenue from your apps.

Finally, close the loop by sending targeted, rich in-app messages such as cross-promotions and virtual goods sales to users in the segments you define to modify app behavior and make money. This is achieved by promoting the most relevant incentive to each user segment while optimizing campaigns to acquire more of the high LTV users.



Define and monitor a precise set of users based on purchase history, engagement levels, app launches and a whole lot more. Take control of your user base by targeting the right segment with the right approach.

Mapping for success

Once you have defined the relevant behavioral attributes and chosen an effective mobile app analytics platform to measure what matters, you can begin implementing a powerful action strategy to influence user engagement or monetization.

As an app developer you need to understand your audience and their motivation for interacting with your app. If you offer a gaming app, then proper segmentation of your user base will allow you to leverage each user group, and drive the most value for your app.

Is your user a ‘competitive gamer’ who is excited about new levels that you introduce in your game? Then you want to avoid showing this segment of user an ad. Instead show them house ads for limited edition weapons that you are introducing, or competitions that you are hosting.

Is your user a ‘casual gamer’ who has shown through in-app purchases of virtual goods that they are interested in moving up the levels, if the conditions are right? Then don’t waste your house ads promoting features and events. Instead, just make sure you promote the level ups and other assists sure to interest this user segment.

Is your user a ‘socialite’ who is not interested in moving up the levels, but is thrilled to share with their friends on social networks. Then take a completely different approach. Refrain from showing house ads because this type of user is much more interested in knowing what other players are doing and experiencing. Make it possible for this type of user to take your app viral with a score board.

Is your user a hobby gamer who plays your game for 10 minutes every day on the commute to work? This is a user segment you can monetize through ads. Make sure you are collecting and sharing the right data signals so your ad network partners can make the match between the

specific user persona and the advertisers in order to show the most relevant ads and so maximize your eCPMs.

Indeed, there are many actions you can take to influence user behavior based on your own unique approach to segmentation. Often times, you will find that identifying what works best for your app and your business is an answer you will arrive at by trial and error — unless you have deep insight that goes beyond the data to the relationships *between* the data sets.

Data Driven Relationships

Data in any advertising medium is a currency. At one level, it is an economic asset that enables app developers to drive and optimize segmentation in order to extract more value from their most valuable users. At the other end of the spectrum, data allows app developers to enhance the price-value of their audience. All the while the market evolves to consist of different and competing targeting and retargeting models.

As the final section shows, this is a development that puts new pressure on app developers and places a premium on them having access to the capabilities that connect the dots between the deeper contextual and behavioral cues their app users leave behind. But before we immerse you in the what you need to get more out of your most valuable users, we show you the steps you can take to reach a wider, global audience with your app.

The three things you need to know

1.

Whether your goal is sheer volume to rise up in the app store ranking, or to generate an avalanche of social media buzz that allows you to build an army of app advocates, once you have run the campaigns that get you the scale you want, it's time to focus on ROI metrics and getting most value out of your most valuable users. At this critical point in your business it's all about your active users: how to both keep them in an active state and to improve the revenue per active user (ARPAU), or better stated, the lifetime value (LTV) of the customer.

2.

LTV should tell you the expected income from a user acquired today. Historical spending averages are irrelevant information. Ideally, you're constantly testing and improving upon monetization funnels and content, so it follows that you want your LTV metric to reflect those improvements. If you need help, then *Freemium Economics: Leveraging Analytics and User Segmentation to Drive Revenue* is an essential read ;)

3.

Maximizing the LTV of your customers requires you to build the business intelligence to manage more complex customer segments based on much more than demographic data and geographical location. There is no right or wrong answer to how you should decide how many segments to choose for your app. The most important thing to consider is that for every additional segment you create, you will also increase the effort required to build, test, deploy and analyze your results. So, be pragmatic and don't try to run before you can walk.

Sections of this chapter were contributed to by:

Eric Seufert, author of *Freemium Economics: Leveraging Analytics and User Segmentation to Drive Revenue*; Suzie Mitchell, Mitchell PR; James Cooper, Mobyafilates; Ryan Matzner, Fueled. With insights from InMobi's Innu Nevatia, Arun Kumar Pattabhiraman, and Krishnendu Majumdar

Apponomics



06: Think Big, Go Global

Cultural barriers, piracy concerns, fragmented app distribution ecosystems and the need for localization have prevented most app developers from entering promising markets like China, Japan and Korea. But it can be done and this section will show you how.

Going East for opportunity

Mobile has created a world without borders or barriers. The same is true for mobile apps.

Simply put, mobile apps are global, and so is your success, if you plot a strategy to bring your app to the widest possible audience.

If this is your goal (as it should be) then prepare to do much more than list your app in app stores across key markets. You will need to localize and customize your app, navigate the local app ecosystem, and immerse yourself in market data to understand the app usage, preferences and tastes of local consumers. As previous sections have shown no matter where you market your app, knowing your audience is a must.

To help you architect an approach to effectively market your app – and make money– this section provides you insights into key markets (smartphone penetration, app usage, app revenues), app user profiles (demographics, app preferences, propensity to make in-app purchases), and expert advice on what it takes to overcome local obstacles to achieve amazing success.

Why Asia?

Of course, the first question on your mind might be why dedicate so much of this chapter to mapping out the opportunity in Asia?

Granted, there is opportunity everywhere, with markets on every continent showing positive growth in app revenues in 2013. But it's the markets in Asia – specifically China, Japan and Korea – that are reaching record numbers.

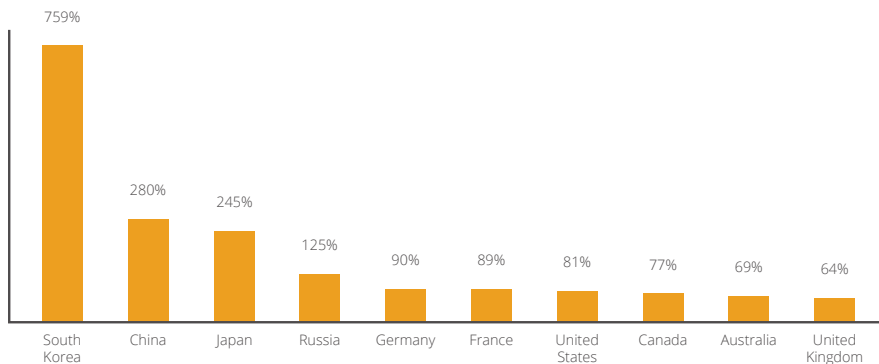
According to the Year In Review report issued by Distimo in December 2013⁸⁶, which ranked the top 10 countries based on combined mobile app revenue from Apple App Store and Google Play, the U.S. market managed to hold its number one spot, followed by Japan and South Korea.

(Since there is no paid content offered in China on the Google Play app store, Distimo bases its analysis on an estimate of revenue from the iOS platforms iPhone and iPad. China came in 5th place, following the U.K., which took 4th place.)

A deeper dive into the Distimo data reveals that Japan was the hottest market for mobile apps, with revenue from apps skyrocketing by 759% (!) The analysis is based on comparing the revenue generated from the two leading app stores across 34 countries.

Market Growth

Analyzing the market growth over the year provided further interesting insights about the top 10 countries:



Source: Distimo



On a typical day in 2013, Distimo estimates that global revenues for the top 200 grossing apps in the Apple App Store hit US\$18 million. For Google Play global revenues reached around US\$12 million. Connect the dots, and the Apple App Store held its lead, but Google Play saw its share of the pie increase consistently month over month.

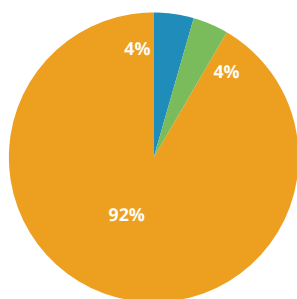
Asia is also where the freemium model is gaining serious traction, a development that plays in favor of app developers seeking to generate revenue from free apps with in-app purchases.

Distimo, which compared global business model distribution with the aggregated revenue from apps in the top 200 grossing charts, found that in-app purchases increased from 77% to 92% in the Apple App Store, and from 89% to 98% on Google Play.

The U.S. and Japan, which the analysis identified as the two top markets measured by mobile app revenues, have developed a clear preference for the freemium model.

Apple AppStore - United States

November 2013

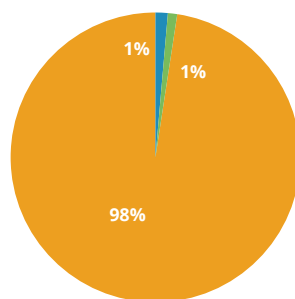


Free apps with in-app purchases

Paid apps

Apple AppStore - Japan

November 2013



Paid apps with in-app purchases

Source: Distimo

Connect the dots, and similarities between markets and models in the East (China, Japan and Korea) make them attractive – and more importantly, accessible – to mobile app developers in the West.

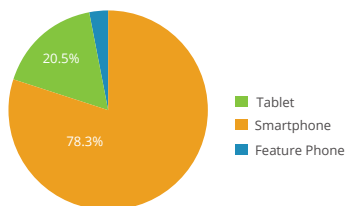
But don't celebrate just yet.

Asian markets are tough to crack. Cultural barriers, piracy concerns, fragmented app distribution ecosystems and the need for localization are among the chief issues standing between you and your app success.

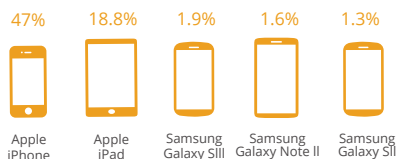
But, as this section shows, a strategy built on preparation (translation, localization, customized promotions) and partnership (choosing global ad networks that have deep local knowledge and established relationships with key local players and app stores) can pay remarkable dividends.

China

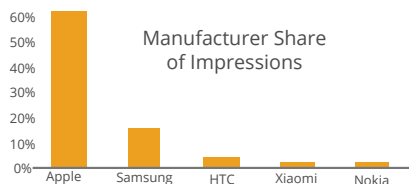
InMobi Network Data - China



Device Share of Impressions

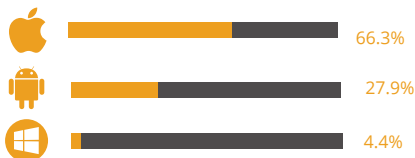


Handset Share of Impressions



Source: InMobi Network Data for Q3 2013

Manufacturer Share of Impressions



Operating System Share of Impressions

Source: InMobi

Penetration

In February 2013 China overtook the U.S. to become the world's largest smart device market, according to IDC. The research firm counts 246 million devices in use in China, compared with 230 million in the U.S. What's more, China accounted for 26.5% of all smartphone shipments last year.

In addition to the huge uptick in the number of devices, China also saw a drop in device prices. Specifically, the iPhone is becoming affordable for the mass market, and low to mid-range Android handsets with their impressive capabilities are also gaining serious traction. Thus, the stars are aligned for a meteoric rise in the number of mobile apps, and analysts concur that growth in the Chinese market is indeed taking place at an astronomical rate.

The lure of China

Could China be the next big marketplace for mobile apps? While this section will also highlight the many obstacles that await app developers who choose to take their app to China, recent stats from App Annie⁸⁷ reveal there are also impressive rewards for courageous app developers that commit to doing just this.

Mobile gaming is the fastest growing segment of the entire Chinese games market. According to Niko Partners' 2013 Chinese Mobile Games Market Report, in 2012 there were 192 million mobile gamers in China. This year there will be 288 million. In 2014 there will be 390 million. Compare that to the fact that there are 314 million people – total – living in the U.S.

If each of those gamers spends 33 cents per month this year (2013), revenue will reach US\$1.2 billion, up 60% from 2012.

Mobile app users 40% more time on their devices playing games in 2013 than they did in 2012, and they visited their favorite games 41% more often than in 2012. Even in smaller cities where not everyone owns a phone, the ratio of phones to people is more than 125%.

Spotlight on the Chinese consumer

Research firm eMarketer estimates that 28.5% of China's population used a smartphone in 2012. It expects that percentage to continue to rise over the coming years. The total smartphone population will top half a billion by 2015.

Smartphone Users and Penetration in China 2001–2017

	2011	2012	2013	2014	2015	2016	2017
Smartphone users (millions)	208.5	382.4	415.7	466.4	508.5	549.3	591.6
– % change	139.0%	93.4%	8.7%	12.2%	9.0%	8.0%	7.7%
– % of mobile phone users	24.0%	39.0%	40.0%	43.0%	45.0%	47.0%	49.0%
– % of population	15.6%	28.5%	30.8%	34.4%	37.4%	40.2%	43.1%
Note: individuals of any age who own at least one smartphone and use the smartphone(s) at least once per month							

Source: eMarketer

Against this backdrop, eMarketer declared that 2013 marked a tipping point in mobile in China. “The size of the mobile audience—and the amount of time users spend on their mobile devices—is simply too massive to bypass any longer,” the company wrote⁸⁸.

Eager app users

Given the size of the addressable market, the engagement of the audience, and the widespread availability of speedy mobile connections, it is no surprise that advertisers and mobile app developers alike are stepping up.

Up until now the common perception that Chinese app users were not heavy apps users (and unwilling to pay for digital content in the first place) has hampered marketing investments and kept most app developers away from China.

However, recent research from InMobi⁸⁹ (based on a survey of 1,000 app users in China and the U.S.) has shed new light on consumers tastes and behavior, uncovering exciting similarities between user communities in both countries.

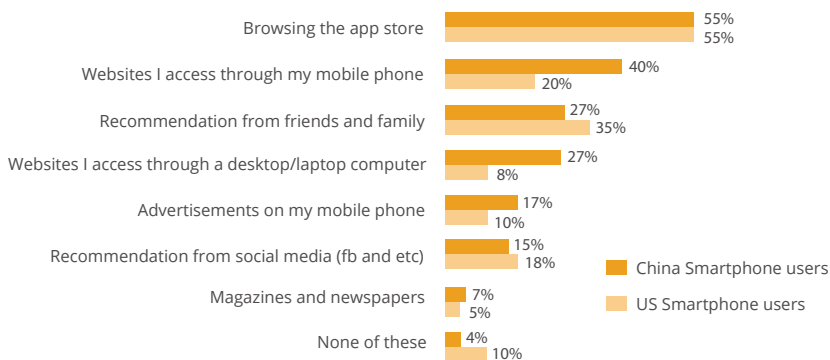
Among the findings:

1. **Huge use.** App users in the U.S. and China have a key characteristic in common. They are heavy users of apps. What’s more, users in China don’t just use the apps they download; they are also proactively looking for more apps to download.
2. **Pay to play.** Contrary to the popular perception that Chinese app users are averse to paying for their apps, findings indicate that users have a healthy appetite for in-app purchases. What’s more, price is not ‘the’ determining factor driving their download decisions. In some cases, American users are actually somewhat more price-conscious than their Asian counterparts.
3. **Advertising acceptance.** High levels of receptivity to mobile advertising among app users in both the U.S. and China translate into familiarity with approaches that recommend apps and ads based on their interests and past browsing history.

In addition, the InMobi research found that Chinese users have a strong appetite for exploring new apps. A whopping 97% of smartphone users in China revealed that they proactively search for new apps to download, with 37% of them searching on a daily basis. The Chinese also seem to be more determined in their search for new apps, with only 28% of the Chinese rarely or never searching for new apps to download, compared to 40% in the U.S.

Interestingly, word-of-mouth is also a big factor in finding apps users like. In both markets, Android users are more likely to look up reviews for apps on mobile websites.

Channels through which users discover apps

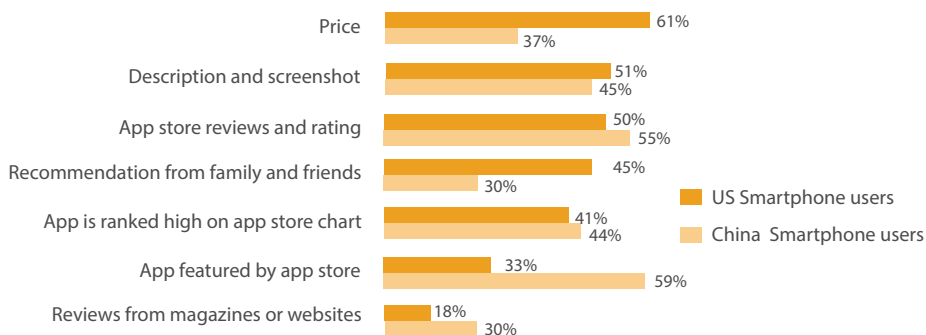


Q: How do you usually find new apps to download to your phone?

Source: InMobi

So what clinches the deal and influences the decision to download an app? The research shows that, in China, price is not an issue since the freemium model, enabled by local payment methods, has become more attractive.

Factors that influenced the download decision



Q: When you are deciding whether to download an app, which factors have the biggest influence?

Source: InMobi

App store reviews were also considered important by about half of the respondents in each market.

Gamer profile

Who are the Gamers on the InMobi network? To answer this question InMobi's Developer Insights research series examined the key characteristics and app usage behavior of Chinese Gamers to help app developers better understand – and monetize – this important user segment.

Among the takeaways:

Gender determines preference: Gender influences game preference. Overall, males prefer adventure and RPG games, with 34% preferring this other other genres compared to just 13% for female gamers. Males also enjoy casino games and social games. Females, on the other hand, love their puzzle games! It's a favorite genre with 40% of females, compared with only 12% of males. To drive installs you need to target gameplay and advertising to the audience and gender that will appreciate them most.

Operating systems exert influence: Gender may influence the games Chinese play, but it's the operating system that determines how they discover them. Among Apple iOS users the majority (64%) find cool apps by browsing the app store. Not so with Android users. They find apps everywhere – on app stores (38%), on mobile websites (36%) and online websites (18%). Interestingly, double the number of Android users find apps through mobile advertising, compared with Apple iOS users. To drive installs you should also adjust your campaign to target app discovery behaviors based on operating system.

Leverage in-app purchases: 45% of mobile gamers make in-app purchases; one-third of mobile gamers make in-app purchases once in a while or often. Understand your gamers and identify what motivates them to make purchases.

- Gamers who play to KILL TIME will upgrade to beat a tough level
- Gamers who prefer QUICK AND SIMPLE gameplay will upgrade to beat a tough level or to unlock a new level
- Gamers who prefer VERY CHALLENGING gameplay will upgrade to beat a tough level or unlock new characters/ abilities
- Gamers who LOVE THE COMPETITION will upgrade to beat a tough level or to unlock a new character or ability
- Gamers who LOVE TO PLAY BUT HAVE NO TIME will upgrade to beat a tough level or to unlock a new level

The future is bright: More than 90% of respondents expect to download apps within the next 30 days, while 15% of Android users said they expect to download more than 30 apps within the next 30 days. Gamers expect to install multiple applications. Consider ways to capitalize on their obsession. You could make serious money by running performance ads in your app.



Don't rely on app store presence alone to generate paid app installs in China. Nearly 20% of gamers who play a mix of free and paid apps discover apps through mobile advertisements and websites. Also: A higher percentage of gamers who play a mix of both free and paid apps discover new games through mobile ads and mobile websites than the percentage of gamers who only play free games.

China's challenges

At first glance it would seem that the Chinese mobile app market is ripe for the picking. However, doing business in China is far more complex than it is in western markets due to a variety challenges that span the app lifecycle from distribution to monetization.

Fragmented app distribution: In the U.S., the app store market is a two-horse race, where Apple App Store and Google Play are the dominant distribution channels. In China you need to rethink this altogether. Android may dominate with a 70% market share, but distribution via Google Play will miss your target entirely since access to Google Play is restricted due to regulation and censorship⁹⁰ by the Chinese government. According to Chinese Android app store Wandoujia⁹¹, more than 70% of Android smartphones in China do not offer Google Play services.

Your plan of action: If you want Chinese users to download your app, you can't 'go it alone.' Distribution without a partner is frustrating from start to finish. You'll need to know which app stores to work with (around 20 of all the 500+ app stores count as major players in the overall ecosystem) and you'll need to contend with monetization, and the Chinese government's 30% tax hit.

It's therefore imperative to partner with an ad network that knows the local market and has invested in building the relationships with the individual app stores and reviewers that are a prerequisite to gaining distribution and achieving scale. Remember that working with a partner that has the right local knowledge and connections not only helps you make money. It can ensure you keep more of what you earn. In China app stores are already taking a 30% cut of earning and the Chinese government can also take about 20% in revenue from the app developer in taxes and regulation fees. Depending on your app category and company size you could also consider accessing the market by teaming up with a major game operator, such as Tencent.

Navigating China's app landscape

With Google Play out of the picture China has developed one of the most complex and fragmented Android app store ecosystems in the world, counting a whopping 500+ home-grown app stores. Some of the largest app stores include Anzhi, AppChina, Gfan, Hiapk, Mobile Market, Nduoa, Snappee, Tencent, Wandoujia, Baidu App Store, Opera Mobile App Store and Pandaapp.

These alternative Android app stores drive amazing app download volume. In China Tencent App Gem, boasts nearly as many monthly downloads per app as the main Android app store, Google Play. (Downloads per app is calculated by taking the total number of apps in the store, and dividing by monthly downloads.) Another app store, Anzhi, has about two-thirds of the downloads per app.

Both of these Chinese app stores are much bigger than Amazon's main app store.

Here is a list of some of the leading app stores via AppFlood⁹², a mobile advertising and cross-promotion network.

360 Market has over 115,000 apps and comes bundled with China's most popular free mobile security app, currently sitting on 70% of all Chinese handsets.

Anzhi.com is one of the most popular Android app stores in China.

Xiaomi is one of the most successful handset manufactures in China with 7.19 million Chinese users. Naturally, this is the default app store for Xiaomi smartphone users.

D.cn, formerly the number one mobile game portal, it continues to have a high profile.

GFan has partnerships with HTC, Samsung, MOTO, Sony Ericsson, Lenovo and Huawei as well as major Internet portals and social network sites, like TenCent, Renren.com and Kaixin.

Baidu is the largest Chinese language search engine — which means it's a great route to get your apps displayed in search results.

Tencent is China's largest web portal leading app store. It's reach is linked to the massive uptake of its communication platform QQ, which just happens to be the most-used desktop instant messenger in China.

AppChina has big ambitious plans, having recently completed its US\$6.4 million first round of fundraising.

Wandoujia is China's leading Android app store with over 200 million users. It was one of the first startups incubated by Innovation Works. Wandoujia has recently raised US\$120 million in funding led by SoftBank Corp.

Payment methods: In many ways, China is still a cash-based society. Since credit card penetration is low and Google Play is not easily accessible, Android app monetization requires you to integrate the local online payment options that are popular, such as Alipay.


Your plan of action: It's also important to work directly with China's three mobile operators, China Telecom, China Unicom and China Mobile, which have come up with local payment and carrier billing options making it possible to charge in-app payments directly to the user's mobile phone bill. About 75% of app payment in China is done through direct carrier billing.

Piracy concerns: Without Google Play to regulate the Chinese market, pirated games and malware are rampant in the Android app space. While concerns with IP theft and copycatting are rampant, and understandable, they shouldn't deter you entering the Chinese market. They should motivate you to take what is already yours. The very fact that the Chinese market is notorious for piracy pretty much guarantees that your app is already available in China, just published by someone else.

Your plan of action: Work with a local partner who is familiar with the China app store ecosystem and will use these relationships to ensure illegitimate apps are pulled and replaced by your official app. Use a freemium business model to monetize your app. (Paid models are doomed to failure in a market where piracy is practically the norm.) Frequent updates to the app are also recommended, which will make it difficult for hackers to keep up.

Localization & sharing: Generally speaking, it's always a good idea to customize your apps for your customers. But in China translation is essential to your app success. In fact, a 2012 Distimo report found that China is the only country where local language apps⁹⁴ – not English language apps – dominate the top 200 most downloaded free applications. Specifically, 79% percent of all free downloads in the top 200 are chalked up to apps that support the Chinese language.

Your plan of action: Don't stop at simple translation. While this is an important part of the localization process, it's only just the start, according to Jessie Yang, General Manager, InMobi China. "It is also important to connect with user emotions and culture. Customizing with Chinese avatars and timing launches with Chinese festivals is a good strategy."



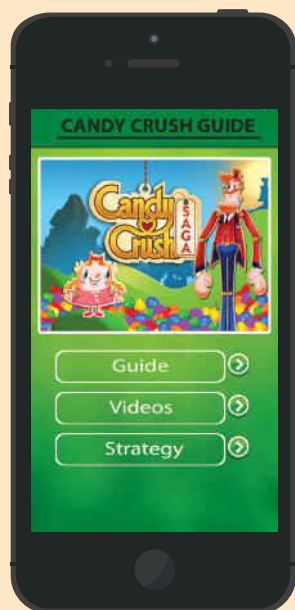
"Games lacking a Chinese payment system not only miss out on potential revenue, they also leave Chinese players locked out of premium game content and feeling frustrated. These gamers are eager to pay, but complain they can't buy gems in Clash of Clans."

~ Chinese Android app store
Wandoujia via TNW⁹³

Localization pays dividends for app developers

HalfBrick didn't need convincing. It introduced its popular mobile gaming app Fruit Ninja into China with customization that included displaying Chinese zodiac images. In just three months, the Chinese edition of the mobile app reached 40 million downloads and racked up US\$6 million in sales.

In China InMobi draws from its local knowledge and insights to help app developers customize their ad creatives for the local market. "It's important to ensure that every aspect of the app, down to the color of the creative, is aligned with what is expected and acceptable in China," says InMobi's Jessie Yang.



This was particularly true in the case of King.com, which InMobi helped to successfully launch Candy Crush Saga in China.

The original creative, which displayed an animated figure wearing a green hat seemed harmless enough – if you don't know the Chinese market.

In fact, when a man has been having an affair and sleeping with the wife of another man, he is referred to as a man wearing a green hat. "We knew that an innocent oversight in the key visual could have had disastrous consequences for the app, and immediately adjusted the color of the key visual to display a more neutral color," Jessie explains. This change sealed the success of the app campaign in China.

The takeaway: First impressions matter. Don't leave any aspect of your app to chance – and don't risk making a debut in the market that is the talk of the town for all the wrong reasons. Taking your app to China requires deep local knowledge and a partner who knows how to prepare every aspect of your app – down to the creative – to delight local tastes.

In China, you must also localize your product to connect with the country's home-grown social network platforms and providers. With both Twitter and Facebook blocked in China, your users naturally use local social media products like Sina Weibo, Tencent Weibo, Renren and Douban. Because these companies dominate the social media landscape in China, they are integrated into most mobile apps.

Fail to take your customization to this level — thereby making it impossible for your Chinese app fans to log in with their social network credentials to praise your app or share it with their friends — and you are leaving money on the table. “Social media has a great influence on app download decisions among consumers in China. App developers must therefore promote their apps heavily on these local social media channels to drive downloads,” Jessie says.

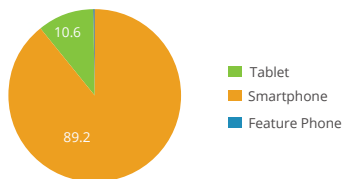
Checklist: What it takes to win in China

Jessie Yang, General Manager, InMobi China, shares her top tips.

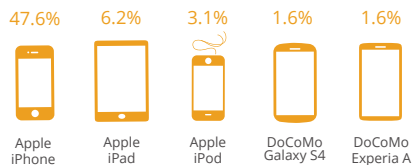
1. **Embrace freemium.** This monetization model tends to work well particularly in China because it's perfectly in sync with user habits and their preference to try out the product before they actually make a purchase. It's all about earning user trust. And, speaking of trust, keep in mind that paid apps are easily pirated, which is another reason to put your trust in a freemium model.
2. **Get the money — their way.** Given the low credit card penetration in the Chinese market, partnering with a local payment provider such as Alipay is critical. In practice Chinese users must deposit money into their Alipay account before any payments (or in-app purchases) can be processed. Additionally, Chinese users have to reauthorize their payments every month. While a subscription model may work in the U.S. (where users can sign up to have their credit card charged every month), building your app business on automatic recurring payments is not a viable option in China right now.
3. **Know your users.** Knowing your audience for your app will help you target users and customize your marketing strategies appropriately. For example, more traditional online mobile games are known to appeal to 18 to 35 year olds, while casual games appeal more to a wider range of audience segments including children.
4. **Advertising delivers - but beware.** China offers a large and engaged user base for your app, making advertising a great way to monetize your app and refine your targeting. However, the Chinese ad network space is quite fragmented, with over 70 competing ad networks. To win in such a crowded market, many networks resort to misleading reporting and other unscrupulous practices to lure developers. Don't be fooled. Conduct due diligence and pick a trustworthy partner who can offer both performance and scale to make ad monetization pay dividends.

Japan

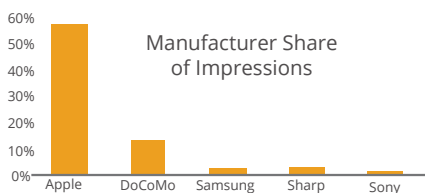
InMobi Network Data - Japan



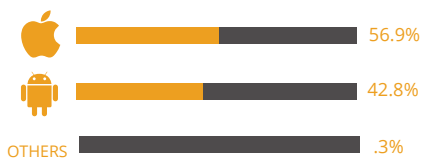
Device Share of Impressions



Handset Share of Impressions



Source: InMobi Network Data for Q3 2013



Operating System Share of Impressions

Source: InMobi

Market landscape

While Japan has long been a mobile-centric society, smartphone penetration lagged behind that of other major markets such as the North America – until now. In 2013 smartphone penetration in the country not only closed the gap to many other markets. It surpassed them.

Research firm eMarketer estimates⁹⁵ that the number of smartphone users in Japan is increasing quickly, and will rise from 41.7% in 2013 (up from 27.7% in 2012) to 60.2% in 2014. In comparison, smartphone penetration in the U.S. in 2013 reached 44%, up from 39% the previous year.

Smartphone Users and Penetration in China 2001–2017

	2011	2012	2013	2014	2015	2016	2017
Smartphone users (millions)	19.0	35.3	53.0	76.5	82.2	87.4	88.9
– % change	180.1%	85.4%	50.1%	44.4%	7.4%	6.4%	1.6%
– % of mobile phone users	18.0%	33.0%	49.0%	70.0%	74.4%	78.9%	79.9%
– % of population	14.9%	27.7%	41.7%	60.2%	64.8%	69.0%	70.3%
Note: individuals of any age who own at least one smartphone and use the smartphone(s) at least once per month							

Source: eMarketer

Significantly, smartphone growth shows no signs of slowing. In fact, penetration is expected to continue in 2014 and ultimately overtake key markets, including the U.S.

Interestingly, 2013 also saw the Apple device install base explode after Japanese mobile operator DoCoMo added the iPhone to the roster of devices it distributes and supports.

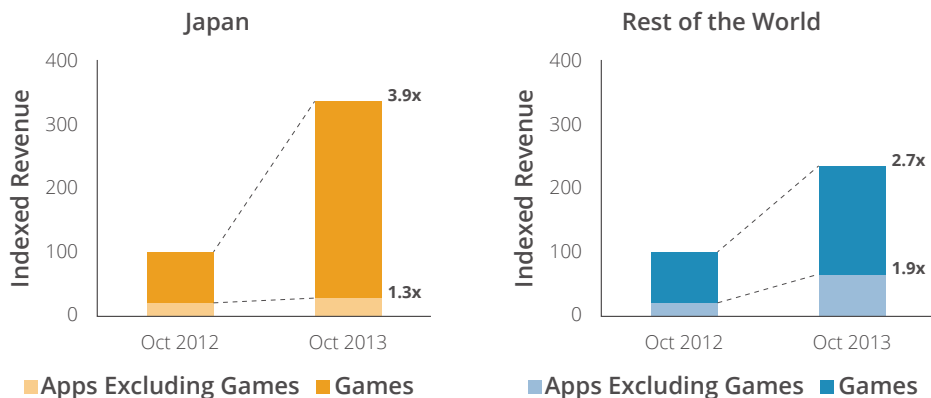
Connect the dots, and these combined market conditions ensure that spending on mobile apps in Japan, which reached a new high in December 2013, will far outpace app spending in other key markets for years to come.

Japan's big app spenders

Japanese users aren't only big on apps; they're the world's biggest spenders according to app tracker App Annie. In December 2013 App Annie surprised the industry with a report that showed just how app spending in the country had exploded, to exceed growth in all other major markets.

Explosive Growth in Games Drove Japanese Revenue

Combined iOS App Store and Google Play Monthly App Revenue



* Growth in games spend in Japan dramatically outpaces growth in the rest of the world

Source: App Annie



In Japan, each downloaded game earns "3 times the global average on devices and 6 times the world-wide norm on Android devices," according to app tracker App Annie.

Clearly, spending on apps has skyrocketed, making it all the more important to understand what makes the Japanese user tick.

In Q3 2013 InMobi fielded a survey⁹⁶ through its global mobile ad network, conducted on-device across both Android & iOS smartphones, to better understand Japanese consumers and how they discover and use mobile apps.

Among the key findings:

App Usage: Japanese smartphone users are more likely to download a higher volume of apps, with 87% of smartphone users expected to download apps in the next 30 days. And their appetite for exploring new apps among the Japanese is high. A whopping 97% of smartphone users in Japan revealed they proactively search for new apps to download, with 15% searching on a daily basis.


App Discovery: Browsing the app store, recommendations from friends and family, and mobile websites are the top three ways Japanese users discover apps. Mobile advertising has also emerged as an important discovery channel, with 34% of respondents reporting they discover new apps via mobile ads. In Japan, users prefer ads that are context-aware and those that recommended specific apps based on their current content consumption and preferences. Also, rich media ads were preferred to simple banner ads, suggesting that users like to engage with ads that have richer content.

Key factors: What influences the decision to download an app? As you would expect in a market where app spending is exploding and freemium schemes are on the rise, price is not the deciding factor. App store reviews were also considered an important factor in influencing download decision.

Market challenges

High expectations: Japan is the hot app market, but you're up against homegrown app developers and studios that know their stuff. Better than any other country, Japan's mobile game makers have cracked the revenue code with creative models that make sure each download counts and players stay engaged. From virtual currency schemes, to offering prizes and perks for a limited time only, to tweaking the gameplay in real-time so users don't defect when they enter a difficult level, Japanese app developers are masters of the art of persuasion. What's more, many have even hired math and statistics experts to parse billions of data points to make sure users come back for more.

Your plan of action: To compete — and win — you have to run your game, not just develop it. Borrow a page from the playbook of market leaders like GungHo and use goodies and smart schemes to entice and engage your users. If you have the resources, you may want to hire some analysts. If this is too complicated, then you will want to ally with an ad network partner that has the capabilities to connect the dots in the digital breadcrumb trail your users leave behind as they connect with games (and advertising) on mobile devices and multiple screens.



“In Asia, Japan is our best market, and the reason why is we did localization from the beginning. We added Japanese language to our app and we were lucky that we were featured in the app store. This was the start of a Japanese [user] community. Seeing we can be successful in Japan we also bought some traffic there and that was so successful that we were able to build up even more of a community.”

~ Sven Ossenbrüggen,
CEO, Xyrality

Customer service: Customer service is a highly developed art form in Japan, and is based on different concepts of the relationship between the buyer and seller. In the mobile app space this is no different. In fact, the virtual nature of the business relationship between you and your user means that delivering superior customer service can put you ahead of the competition.

Your plan of action: From a non-Japanese perspective, the Japanese expectation for high quality and consistent customer service may seem rather extreme. But work to meet these expectations and you may recruit app fans for life. Remember service applies to everything you do around your app, but this dedication should also extend to how you react to input and feedback about your app. It's important to acknowledge every communication (comment, email, tweet), and a simple "I'm working on it" is better than not saying anything at all.

Multi-channel marketing: Mobile apps are big in Japan because app developers are also shifting advertising budgets to balance between mobile and more traditional mediums like TV. In fact, the top two TV advertisers⁹⁸ in Japan are mobile gaming companies. In addition to using TV to reach their users beyond the mobile device, these app studios also promote using giant billboards to spread the word.

Your plan of action: Mix it up when it comes to marketing. Use multiple channels to reach your users beyond the time that they are on their mobile device. Mobile advertising has many benefits (measurable results, real-time reporting, user interaction), but don't be blind to opportunities in print, outdoor, and other media. If you have the budget, explore TV. Competition is tough and winning is all about putting marketing where your users are.

Popularity: One of the hallmarks of Japanese culture is aversion to risk. In order to win a new Japanese customer, you need to prove that you are not a risky choice for them. In the mobile app space this means it's up to you to prove your app is a good choice.

Your plan of action: Show off your download stats and showcase any other evidence that your app is popular among their peers. And don't be shy. Feature this information front and center in your ad creative to grab their attention.

Japanese publishers, say the real key to their revenue generation is a system of data-crunching and game-tweaking that keeps people engaged and active, on the theory that "people will eventually pay, if they keep playing," as GungHo producer Daisuke Yamamoto says.

*How Japan Is Winning in Mobile Games, The Wall Street Journal*⁹⁷



Japan can be a tough market for foreign developers with its competitive market and a culture known for being persistent and patient. Gaming is currently the largest app market in Japan, with social apps in second place. Not many foreign mobile or social gaming companies have been successful in Japan and it's a market that won't accept anything less than well prepared. Jayesh Easwaramony, InMobi Vice President, Business Development - Asia Pacific, says marketers need to execute an effective and creative strategy with a clear focus on the product and involving necessary factors like translation, localization, customized promotions and customer support.

Spotlight on CyberZ



Advertising agency CyberZ strives to help Japanese clients do global campaigns and help global clients win in Japan, acting as a bridge between both markets. Ippei Fukami, COO of CyberZ USA, Inc., and Ayaka Ozaki, Mobile Media Relations, share valuable advice and insight to help you understand — and ultimately win in the Japanese market.

Japanese apps are going into the global market, global apps are coming to the Japanese market, and all mobile games are able to monetize everywhere. It's a wave of change and CyberZ is an advertising agency riding on the crest of that wave, working with game developer clients and studios to assist them in user acquisition and promotion, and identify the strategies that drive results.

Standards are high, and social is hot

Gameplay has shifted — dramatically. Games now enable — even encourage — more social interaction between users. The result is a new category of gaming, known as social gaming. A string of successful titles, such as GungHo's Puzzle & Dragons, and the games Rage of Bahamut and Clash of Clans, show the way, creating user expectations for engaging games that are also high-quality. Users have also come to expect feature functionality that allows them to connect with their friends and battle against their enemies. However, not all games are social, although balancing the level of "socialization" within the game is also important.

It is not an easy experience to deliver "socialization" within a game. In fact, many app developers find this genre very challenging. Social gaming requires a robust infrastructure and there is a heavy load on servers and networks. To complicate matters app developers must have the technology to match teams that are similar to each other (at similar levels) in real-time events across the network.

Against this backdrop, LINE, the extremely popular messaging app and communication tool, began to release its own social gaming apps. This gaming platform covers a wide category from casual matching puzzle games to mid-core card games. LINE Play is also a well-known and popular game.

Games are monetizing

The freemium model is driving success in Japan, and has been doing so for a number of years. The Japanese market is also more game-focused than the U.S., for example. In June 2013, 94 of the top 100 top grossing apps in Japan were games. In the U.S. the number of games among the 100 top grossing apps was 79.

The list included games from Finland's Supercell and King (UK/Sweden), as well as Megapolis (from Russian games developers Social Quantum) and Master of Chaos, created by Chinese app developers.

Connect the dots, and app developers can make it big in Japan. But their success depends to a great extent on their ability to manage efficient user acquisition. This is also where partnership – above all, choosing the right partners – is essential.

Virality is your first step

Before you take the plunge you need to promote. "That is unique to the Asian market, and you also want to create virality before you launch any campaign, let alone your app," notes Ippei Fukami. In practice this means asking users to pre-register before the game is out in the app store. This also allows developers to acquire organic users for their apps and "retain a good number of daily active users at the time of launch." In addition, TV commercials are also a cost-effective way to engage and acquire a large user base in Japan.

Ippei Fukami points out it's a good idea to collaborate with one of Japan's leading app review sites, such as AppBank. "Using teaser sites and review sites to promote apps has a huge impact of how app developers acquire users. In fact, Japan's top grossing app, Puzzle and Dragons, have been working with AppBank, and this has greatly increased their user base."

This is important since Japanese users tend to look to app review sites to find good games and not only on app stores. A tie-up with a leading review site like AppBank can help make your app viral when you launch. CyberZ, which has the necessary relationships, can be a bridge between you and local media.

Post-launch requires a plan

Ayaka Ozaki advises clients to be clear about their objectives for their app. She outlines a plan that stresses careful planning. "We would come up with media planning to maximize user acquisition by expanding exposure in the first few days after the launch. Following on from that we would target highly-engaged users by reaching a higher rank in Japan's

app stores. Finally, moving into the next phase, the focus would be on acquiring high quality users by fully optimizing sustained campaigns."

She also advises app developers to be more open to employing creatives that they might not consider in western markets. "The Japanese mobile market is accustomed to Japanese anime (animation) that also has more of a hint of sexual content." So, if a touch of erotic fits your app gameplay, then you can be a bit more free about it. Of course, if such images are not a fit, then don't use them.

The point is to use animation — and words — to promote your app." Japan is more textual, everyone likes to put all the explanation in the banner, and even on the screen shots in the app store." Getting the right balance between image and text is critical, particularly since most of the ad networks in Japan are CPC based. "If you can't optimize or be creative, your advertising will likely have bad performance."

You can't go it alone

The app business in Japan follows a predictable pattern. "Everything goes through agencies and everyone is used to that," Ippei Fukami says. He observes that the focus in Western markets is on innovative technology to optimize campaigns, while the focus in the Japanese market is on detailed operations and efficiencies. "This is one of the reasons why agencies offer full support for advertisers."

Whether it's establishing collaboration with major players to build products, or connecting with influential app review sites, CyberZ has built up the capabilities to help its clients crack the Japanese market.

Working with an agency like CyberZ also allows app developers to test and optimize their campaigns frequently, which is a must in Japan. "It is more important in Japan to be able to optimize by creatives and placements frequently, because that strictly affects your eCPM."

CyberZ's own research shows that Japanese users feel that some of the global apps available are hard to understand because of language and cultural differences. These shortcomings could be addressed and corrected with the help of agencies like CyberZ.

To support its clients CyberZ also does creative support, media buying and provides a tracking solution (Force Operation X) to monitor and optimize results.

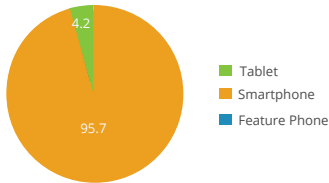
Checklist: What it takes to win in Japan:

Jayesh Easwaramony, Vice President, Business Development - Asia Pacific, provides his top tips.

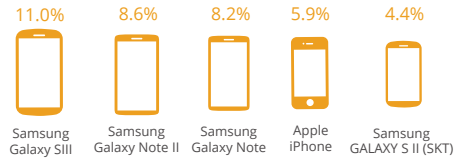
1. Think big – and broad. The good news: iOS and Android phones are gaining market share so app developers for these platforms can skip having to list their apps in local app stores or on platforms run by local players. But this might not be the best strategy. Many mobile operators, although they have adopted iOS and Android platforms, run successful and popular app stores aimed at their user base. At the other end of the spectrum, top mobile gaming firms and app portals, such as GREE and DeNA, promote and run app stores that share many similarities with the Apple App Store and Google Play. Get more impact for your app by being aware of these local app portals and use them to optimize distribution and monetization of your apps.
2. Localization matters. Localization is an important consideration for any app developer determined to be a success outside their home market and Japan is no different. But don't stop at language translation. Be sure to customize your app to fit with local culture and meet user expectations for a great experience. Don't second-guess your users – it's a risky way to run your app business. Instead, partner with an ad network that has the local knowledge and established relationships to help you make your app a success.
3. Customer service is crucial. Japanese consumers are accustomed to a high quality of customer service. Don't disappoint them! If you offer an app, then you must also support it. This means being responsive to their comments and complaints – and it means improving your app to show you are listening.
4. Visual appeal clinches the deal. Japan is an advanced market with a huge appetite for 'cool' stuff. Don't be afraid to push the envelope with apps that showcase advanced features like augmented reality. But don't go overboard either. Mobile apps (as everywhere) need to be intuitive and visually appealing to your user. This means making sure navigation is a no-brainer and the overall experience is valuable to the user.
5. Keep freemium top of mind. Japan is the world's biggest spender when it comes to apps. A freemium model with in-app purchase will pay dividends, as will an ad supported model. Make your choice, or create a combination of the two models to fit your own unique audience of app users. Whatever you choose, knowing your users is key to crafting the best monetization strategy without compromising user experience, engagement or quality.

Korea

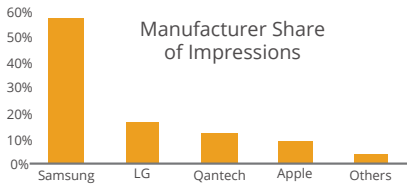
InMobi Network Data - Korea



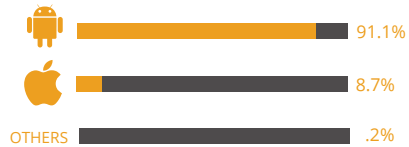
Device Share of Impressions



Handset Share of Impressions



Source: InMobi Network Data for Q3 2013



Operating System Share of Impressions

Source: InMobi

Market landscape

With an estimated 28 million active iOS and Android devices, South Korea is one of the biggest and most attractive markets for app developers trying to gain a foothold in Asia. It also helps that it is home to smartphone makers Samsung and LG and more fans of the Phablet (Samsung Galaxy Note) device than anywhere on the planet.

Simply put, Korea is at the forefront of app adoption and innovation. Little wonder that app analytics company Flurry declared⁹⁹ Korea the “first connected device market in the world to approach saturation.”

Addicted to apps

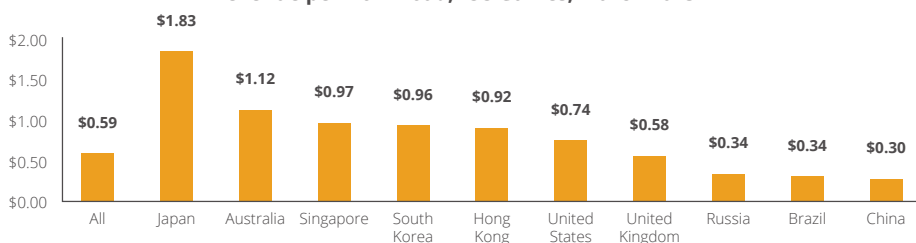
Koreans have been referred to as “game-obsessed” — and for good reason. In January 2013 App Annie reported¹⁰⁰ that the U.S., Japan and South Korea are the top three in the percentage of app money spent on games. In December 2012 in the U.S., 76% of Google Play revenue came from games. In Japan, it was 88%. South Korea users topped the charts with 95% of their Google Play app spend going toward games.

In line with this trend App Annie further reported that nine of the ten top publishers by app revenue in Google Play were from Japan or South Korea, with Gameloft the only exception. Nine of the top ten games showed the same trend.

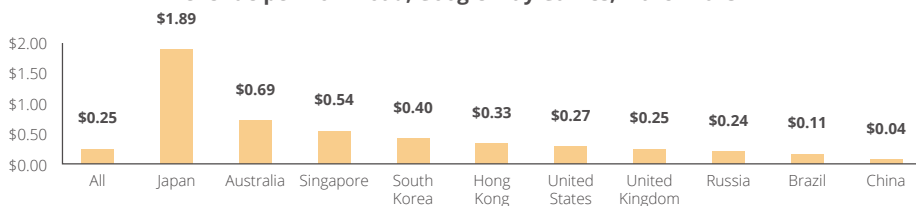
Revenue per Download, March 2013

Japan and South Korea score high on revenue per download

Revenue per Download, iOS Games, March 2013



Revenue per Download, Google Play Games, March 2013

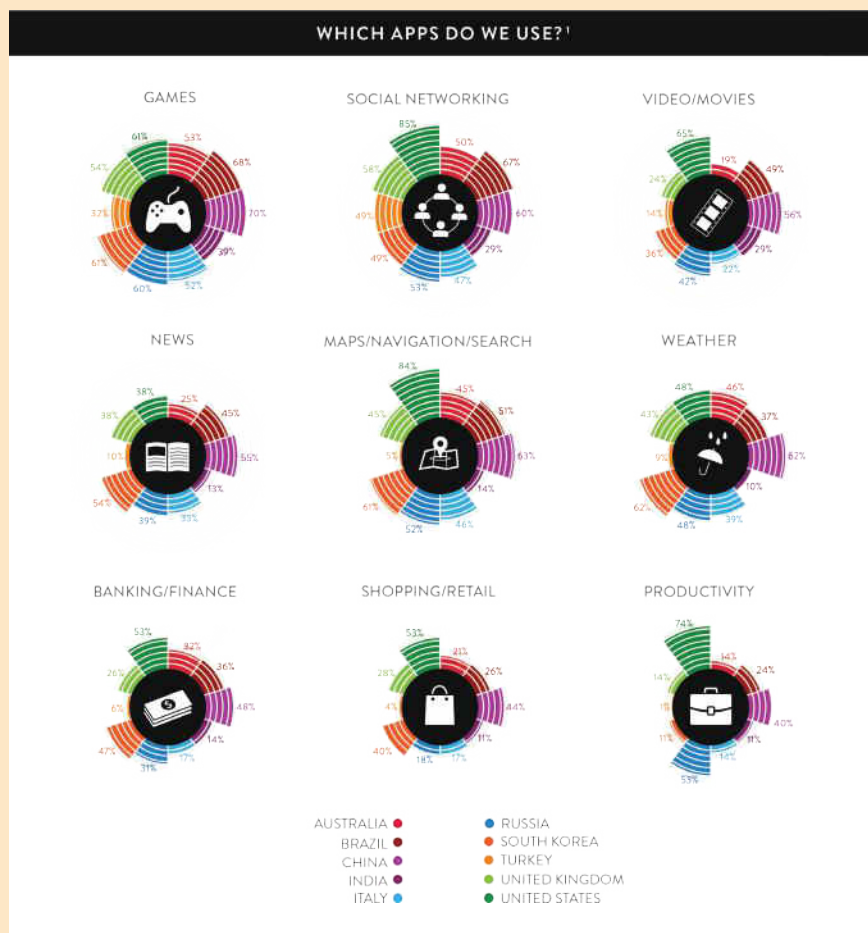


Source: App Annie

More recently, App Annie told an audience at the Asia Casual Connect that 80% of all games revenue on Google Play is generated from U.S., Japan and Korea. The company noted in the keynote that Japan and Korea’s combined game revenue is higher than the rest of the world’s game revenue on Google Play.

Korean app preferences

The Mobile Consumer⁴⁰¹, a global snapshot of consumer mobile usage compiled by research leaders Nielsen, confirms that Korean smartphone users are also the heaviest mobile app users.



Significantly, gaming apps are the most used type of app in more than half of the selected countries, including Korea. Social networking app usage is also strong in Korea, which is also home to KakaoTalk, the extremely popular mobile messaging app used by a whopping 93% of the country's smartphone users.

Case Study: GameVil



Creators at GAMEVIL share the blueprint you can follow to go global and acquire the high quality users that are essential to lasting success.

With over 300 million game downloads and experience publishing hundreds of games on multiple platforms, GAMEVIL is one of the most active and innovative mobile game companies in the world.

Established in 2000 and with offices in Los Angeles, Tokyo, Beijing and Seoul, GAMEVIL is an experienced global mobile game publisher working with more than 70 top studios around the world. Its titles include in-house hits such as ZENONIA, Baseball Superstars, and Fishing Superstars, as well as third-party titles in Air Penguin, Monster Warlord, Punch Hero, Dark Avenger, and Cartoon Wars. All games are free-to-play with in-app purchases.

What did it take for GAMEVIL to become a global gaming giant?

First, the creators studied each market to localize their app and understand the app distribution landscape. “South Korea and China are two of the top 5 biggest markets, so knowing how to enter these markets is essential.” Distribution in both countries is fragmented.

In Korea, for example, local operators and platform providers play a significant role and run their own app stores (T-Store is run by SK Telecom; Olleh is run by Korea Telecom and U+ is run by LG). Meantime, China has over 400 Android app stores. “Knowing each market’s forte is definitely necessary to drive success. Also, Asian markets are extremely specific to the region, so everything from gameplay to graphics must be localized to local tastes.”

Second, the creators were crystal clear about their user acquisition strategy. “We buy users at a price that makes the most sense for us. The price should be lower than the LTV of the obtained users, so that



we are ultimately ROI positive.” But it’s not a task you can set and forget. “Anyone can pay for ‘x’ amount of users but if those users don’t convert, the campaigns would essentially be a waste. Thus focusing on monetization of each of the games is extremely important, and in order to achieve this, operating games as a service is essential.”



But acquiring valuable users is just half the battle. To keep them loyal the creators emphasize ongoing engagement through running promotional events, hosting competitions, and a host of approaches around accumulative progression, gacha systems, avatars and pet systems, collection mechanics, and alternative game modes. “Live operations is no longer optional but a must.”

Finally, the creators were aware of the requirement to localize games and gameplay to each region. “Localization and distribution is key. Developers must act locally and think globally. Also, distribution is transitioning and game discovery is being driven by social media platforms such as KakaoTalk in Korea and WeChat in China. Working with publishers can definitely facilitate the process in getting both accomplished.”

Depending on your business objectives, and your budget, you may also want to establish a presence in local markets to support operations and oversee promotions. The creators are convinced having a local presence in their key markets is also key to sustained success there, which is why GAMEVIL is now focused on building up a live operations team in Los Angeles.

But, whether you establish a local office or simply partner with local players to help ensure your app has local impact, you should always monitor your analytics – and local market trends – for ideas and inspiration. “We are also always looking for the next upcoming markets using the trends in our revenue and download numbers. Being able to recognize these trends early is vital so that we can make the biggest impact before the market becomes crowded.”

Korea is a sophisticated mobile market brimming over with opportunity provided app developers understand local preferences (such as a strong focus on gaming and social apps) and adapt quickly to the somewhat complicated app store ecosystem where Android is king, but Google Play isn't.

Market challenges

App store ecosystem: With an estimated 28 million active iOS and Android devices, South Korea is one of the biggest and most attractive markets for app developers trying to gain a foothold in Asia. But if developers think that all they need to do is to simply localize their apps and release them on Google Play or App Store to be successful in South Korea, they are in for a rude shock.

While being on Android is essential for any developer or startup (Korea has a higher share of Android device ownership than most other countries in Asia including Japan), one of the biggest challenges in the Korean market is that the official Android app store, Google Play, is not all that popular.

T-Store, the home-grown Android app store run by local mobile operator SK Telecom, has a bigger draw and counted 19 million registered users as of January 2013. At that point T-Store had served up a total of 10.8 billion Android app downloads since it launched in 2009.

While regional app stores operated by local mobile operators complicate the app store landscape, there is also increasing competition coming from platform owners.

Notably the social gaming platform belonging to KakaoTalk and Hangame, the social game platform from mobile messaging app and platform provider NHN, are building their own app ecosystems — ones that bypass the operator-run app stores — and having tremendous success at it. Significantly, the strategy pursued by KakaoTalk also shifts the role of Google Play to become the 'gateway' for games popular in that community.

Plan of action: Recognize that the Android ecosystem is fragmented and difficult to crack — on your own. Partner with an ad network that has local knowledge and make sure your app is listed on the right app stores. Having an audience on these regional app stores and social platforms can boost your app on other platforms.

Payments: Korea is a market where key conditions, such as payment methods, play in favor of app developers, allowing them to seriously monetize their apps. This stems from the fact that South Korea is a world leader in mobile payments, driven by the availability (and use) of NFC-enabled devices. For example, SK Planet, a wholly owned subsidiary of Korean mobile operator SK Telecom with an aspiration to become a global platform innovator, offers a mobile payment

system called T-Cash, which is used for 54% of in app purchases¹⁰², and also can be used to pay for off-device transactions such as train and taxi fares. Another third of in app purchases are paid for using gift certificates, demonstrating the potential of mobile devices as a mechanism for giving and receiving gifts.

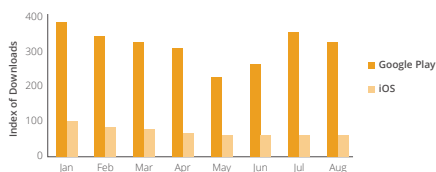
Plan of action: It has been observed that Android users monetize at a much higher rate in South Korea because the country's mobile operators offer carrier billing. A fast and easy purchase option, it allows users without credit cards to make in-app purchases, thus boosting conversion and monetization rates in the South Korean Android market. As a result, large studios have seen their conversion rates increase by over 7% compared to non-carrier billing markets. Make use of this payment method and pursue a freemium model to monetize your app.

Business model: In many mature app markets the paid app model is losing ground to freemium — and Korea is no exception. Indeed, Korean studios have expressed to InMobi that they prefer to pursue a free-to-play model and then monetize via digital goods (in-app purchases) and mobile advertising. They base this on first-hand experience, which has taught them they can modify their free titles faster and so improve conversion. It's an approach that works better — and makes more money — than spending budget to achieve a one shot burst from paid downloads, which app developers judge to be more of a hit-or-miss model.

The trend to freemium is also supported by app store analytics company App Annie. Overall, it reports that freemium apps on iOS have seen revenue increase by a factor of 4 on iOS over the last 24 months, and on Google Play by a factor of 3.5 over 2012.

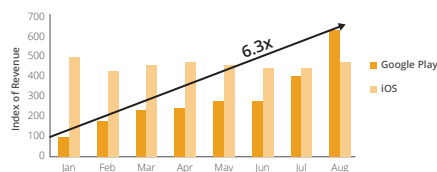
Industry Growth in South Korea

Growth of iOS and Google Play Downloads in 2012



Neither iOS or Google Play downloads grew in 2012

Growth of iOS and Google Play Revenue in 2012



Google Play Revenue has grown 6.3x in 2012, while iOS has not grown

Source: App Annie

In the Korean market App Annie points out that even though downloads remained relatively stable for both Android and iOS, revenue on Google Play shot up by a factor of 6.3 for the period of January to August 2012.

Plan of action: If games is the category you are targeting, increase the lifetime value and monetization of your apps through a free-to-play model with a freemium model. If ad monetization is

Checklist: What it takes to win in Korea:

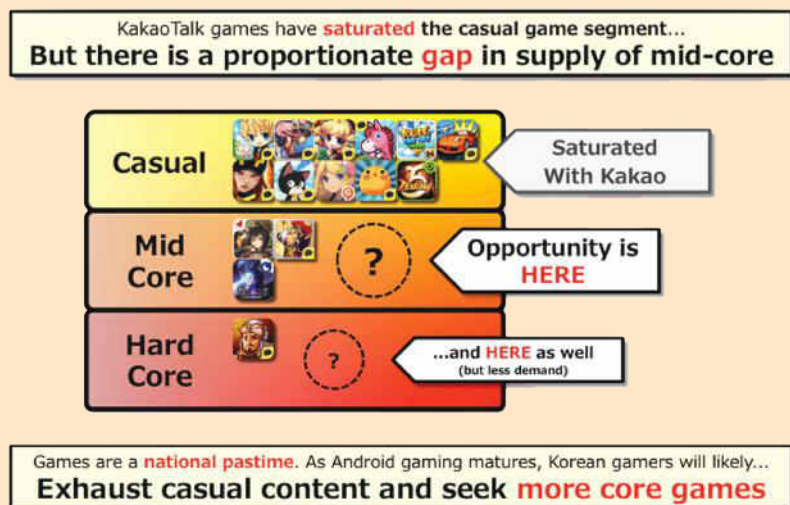
Seungyon Kim, VP & Head of Performance Business, Asia Pacific at InMobi, provides his top tips.

1. **Make gameplay easy and addictive:** From role-playing adventurers, who can become immersed in the gameplay, to puzzle princesses, who enjoy games during the 'down-time' that they are meeting or chatting with friends, Korea is a mature market with a wide variety of user segments. How do you hook this complex community of gaming enthusiasts with your app? Pay attention to the details. Elegant design is a must and so is usability. The game should be playable with fingers, so a complex cluttered screen will get you minus points.
2. **Pay attention to local social networks:** The app ecosystem in Korea is not dominated by Google Play. Regional app stores operated by mobile operators are popular – and so are the app ecosystems being build by leading players such as KakaoTalk. In fact, this social network is at the center of the action, and widely regarded as the default gaming platform. It has a unique model of launching over 20 new game titles every Tuesday, and then it encourages the 40 million users of its chat app to get involved and play against each other. Little wonder KakaoTalk is also the platform where 7 of the top 10 grossing apps have been launched. Forge the partnerships (with studios and ad networks that know the region well) that will allow you to promote your app on these platforms.
3. **Target new opportunity:** Koreans are gaming addicts and social networking also accounts for a significant share of app activity. But app trends reports¹⁰⁴ looking at the local market note Korean users are also heavy users of apps beyond just games and chat. Utility apps are popular among Android users and Entertainment apps capture a lot of time spent in iOS apps. Specifically, compared to app users elsewhere, Koreans over-index on Entertainment apps on iOS and several app categories (Media/Video, Photography, Lifestyle, Shopping, and Tools) on Android. Don't think you can only make it big in Korea if you publish a gaming app. It may be that a localized, customized version of your camera app would also be a crowd-pleaser. But you can't know that until you try.

your model, then look for an ad network mediation which allows you access to local ad networks. This will give you better fill rate and higher brand eCPMs.

Where is the REAL opportunity?

Korea is a hot market for gaming apps, but also look for gaps in the market that you can target with more niche apps. Platform players like KakaoTalk have primed the market for social and gaming apps, spurring the growth of casual gaming titles such as Anipang (similar to Bejeweled). With casual games crowding Metaps¹⁰³, a Japanese startup offering an app monetization platform, suggests app developers tap the opportunity with apps in other games genres.



Source: Metaps Inc

This is not to say that other apps don't have a chance. To the contrary, Seungyon Kim observes that apps aligned with popular activities among Korean consumers such as entertainment (K-pop, movies, live TV), communication (chat), shopping, news and education are making notable inroads. Either way, be sure you know – and target – your audience. Korea, a market that already has a healthy appetite for apps, should be at the top of your Asia expansion agenda.

Case Study: Orangenose Studios



Founded in 2010, Orangenose Studio is a young mobile game development company focused on casual games that are easy to pick up and play. The creators are based in Singapore and Taiwan, with the main development team located in Taipei. Chien Ming Liang (Leon), Orangenose Studio CEO, tells us how his team tackled markets as diverse as China and the U.S. to reach achieve success.

Want to get to the top of your app category and —ultimately— win in markets as diverse as China, Korea and the U.S.? Leon advises app developers to “make more mistakes.” For Leon it’s more than an motto; its a business mindset that has allowed Orangenose Studio to experiment with models and approaches, and achieve success. It’s all about cultivating the ability to “learn what to do and what not to do much faster than everyone else.”

In the case of Orangenose Studios, learning from the market, and their audience, has allowed them to release a string of successful casual games titles, including the best-selling What’s My IQ and Hardest Game Ever 2, a collection of exciting mini-games that measures the player’s reaction time.

Hardest Game Ever 2 reached the number 1 position in more than 20 countries including the U.S., and it has been downloaded more than 50 million times on Apple iOS and Android devices. In addition, Hardest Game Ever 2 also won the Game of the Year Award and the People’s Choice Award organized by Taipei Computer Association.

This is no mean feat if you consider that casual games have shorter life spans than other game genres.

Since casual games come and go, the trick is to keep the user curious, Leon says. This means keeping the users entertained – sometimes with humor, other times with quirky questions. “We want users to come in, play a bit, realize the game is quite special and then recommend it to their friends.”

Orangenose Studio also hosts “social media battles,” allowing users to compete and share with their friends on Twitter, Facebook and other networks. The monetization model is mobile advertising with some in-app purchases –



and the results have been impressive.

Hardest Game Ever 2 generates more than 800 million monthly impressions with nearly 50% of these originating from China and the U.S. Orangenose Studio



needed an ad network that could drive monetization at scale across these diverse markets and it also wanted eCPMs that were significantly higher compared to what they achieved with their earlier titles. A partnership with InMobi helped suggest innovative ad placements for superior yields. Specifically, Orangenose Studio was able to scale revenues by 100X and get 25% higher eCPMs in the U.S. and China.

China is a tough market to crack because it's essentially a closed market. In China distribution is "done by connection" and only apps with good placement and exposure can move the needle on your business. "You have to have the proof, the conversions, before other users want it and other distributors will work with you."

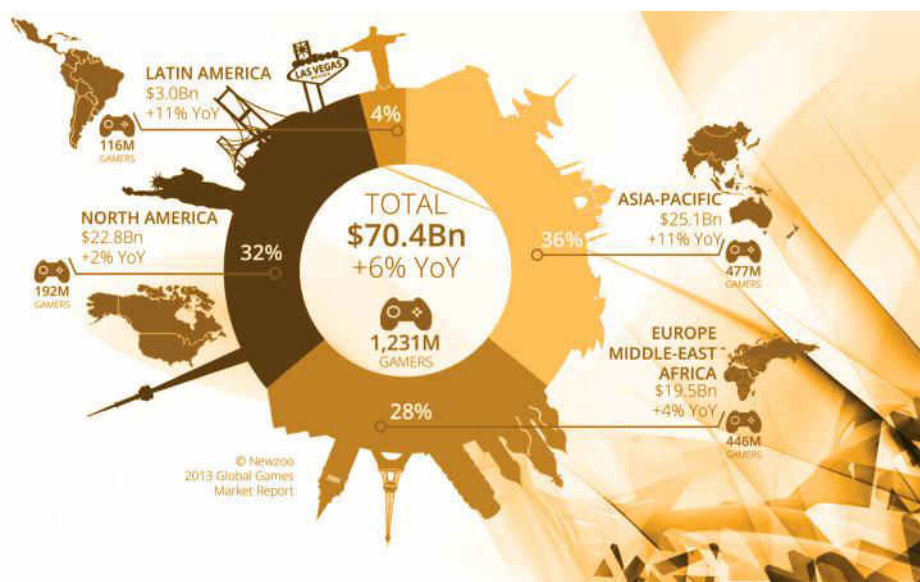
In Korea and Japan the app store landscape is less difficult to navigate, but that doesn't make them easy markets for your apps. "Even if you translate your app into the local language it's almost as if the users can smell your app is not-made-here." Poor translations are a dead giveaway, and so is content that doesn't fit the local culture.

Learning to make mistakes and move on fast has allowed Orangenose Studio to move up the ranks quickly. Today it ranks 8th (as of May 2013) in Top Publishers by Monthly Downloads based on the App Annie Index Report. The next step for the company: focus on building brand so that users will automatically associate the brand with fun and addictive casual games.

Your global playground

Reams of research show each and every one of us is part of an intricate new mobile economy built on apps. The App Economy has arrived and in 2013 we downloaded some 70 billion mobile apps, that's 10x the number of people on the planet (!).

Globally, we spent US\$70 billion on games alone in 2013, a figure that will soar to US\$86.1 billion by 2016, according to the Newzoo Trend Report¹⁰⁵ published September 2013. In that same period the number of gamers worldwide will rise from 1.21 billion in 2013 to 1.55 billion. This development, driven by the advance of casual and social gaming, underlines the great and global opportunity for mobile app developers everywhere.



Source: The Newzoo, US

App spending and enthusiasm in Asia is pushing much of this growth. The outcome is a new kind of gold rush fever as mobile app developers from the West focus their strategy on growing their footprint in the East.

But there is also increasing interest among app developers in the East to tap into lucrative and addressable markets in the West, specifically North America, Latin America and Europe.

In the middle of this app exodus from East to West and from West to East, it's clear that the app market is your global playground, allowing you to localize and launch your app anywhere on the planet.



Going West with success

As you would expect, your chances of success in western markets depend on many of the same factors that would also decide your app's fate in Asia: the category of your mobile app, your knowledge of your target markets, your attention to local culture and preferences (translation, localization, customized promotions), and your choice in partners.

"Now, we have reached an era of coexistence; Japanese apps are going into the global market, global apps are coming to the Japanese market, and all mobile games are able to monetize everywhere."

*~ Ippei Fukami,
EVP of CyberZ USA, Inc.
via Pocketgamer ¹⁰⁶*

The good news: cultural barriers, piracy concerns and fragmented app distribution ecosystems—precisely the obstacles that have deterred some western app developers from expanding to the East (China, Korea, Japan) — do not pose a huge challenge for app developers going West.

In the U.S. and much of Europe the app store market is a two-horse race, where Apple App Store and Google Play are the dominant distribution channels.

The even better news: Previous chapters have already tackled other aspects of app marketing and monetization, providing you a proven plan for app market expansion and domination. Simply review the earlier sections for the data, insights and practical advice that will allow you to architect and execute a strategy to expand your app footprint.

The bottom line: The global app market is booming.

It's also full of surprises.

Case in point is the unexpected exodus of users in the West away from Facebook to a new breed of mobile messaging apps from Asia. The next section recounts the rise of the Asian giants and highlights why their strategy to be much more of a platform than an app is a money-maker.

Social Messaging: A force, not a fad

Mobile messaging applications might be available for free, but an increase in in-app purchases and other business models has turned the industry into a multi-million dollar goldmine.

This is where apps made in Asia are leading the pack, prompting Facebook to admit that it is losing ground to the competition.

Indeed, social messaging apps have taken a bite out of revenues mobile operators generated by messaging – and now they are nipping at the heels of established networks like Facebook. Many of the reasons for this revolve around what Facebook has become – namely, a network where parents, teachers and other adults hang out. This is precisely the audience youth don't want reading their timeline or getting a glimpse of their 'selfie' photos capturing moments only they and their friends need to know.

Another reason for the massive shift to social messaging apps is the cool stuff they offer – and what they have become.

Messaging apps have morphed into social messaging platforms with millions of users and great features, ranging from games and music sharing to a wide assortment of stickers to personalize and customize messages. The most successful examples come out of Asia: KakaoTalk (South Korea), WeChat (China) and LINE (Japan).

They say a picture is worth a thousand words, and, in the case of LINE, stickers – images that users choose instead of words in their messages – are making millions¹⁰⁷ (!)

Results for 1Q2013 reveal games accounted for half of its US\$58 million in sales. Sales of its 8,000+ different stickers accounted for 30% of sales or US\$17 million.

How do instant messengers make money?



- Stickers, e.g. \$0.99 for a set of 16 in WeChat. Line makes over \$10 million a month this way.
- Promoting other apps and games that monetize via in-app purchases
- Subscription fees

Source: On Device Research

KakaoTalk co-CEO Sirgoo Lee can look back and laugh – all the way to the bank. “Nobody thought that instant messaging services and games could match,” he told the audience¹⁰⁸ at Startup Asia Jakarta 2013. Today gaming is a major money-spinner and KakaoTalk counts over

120 million users today and 32 million daily unique visitors. Games alone helped the company generate US\$311 million in sales in the first half of 2013.

Asian messaging apps have their sights set on expanding into other markets across Asia and in the West. China's WeChat, which is custom building its app to suit local tastes outside China, is sharply focused on expansion to the West. Meanwhile KakaoTalk is looking at opportunities in Indonesia, the Philippines and Vietnam.

"Customization is key," KakaoTalk's Lee said in an interview¹⁰⁹. "Currently, our yellow color really works in Korea, but maybe people in Indonesia like orange. So we'd change our color to orange, and the user interface might become different."

At the same time, messaging apps popular in the West, such as WhatsApp, are also broadening out. While WhatsApp is quite different from Asian chat apps and doesn't entertain ambitions around becoming a gaming platform. It has signaled its intent to be more than an app, unveiling an API that lets other mobile apps share content through WhatsApp.

What positions these mobile messaging apps for global expansion?

Survey results and data¹¹⁰ from On Device Research (3,759 Android and iOS smartphone owners in the U.S., Brazil, South Africa, Indonesia, and China) document the amazing advance of these apps.

Among the findings are some clues to how you can make and monetize your social app in order to ride the wave:

There's serious money in stickers: The On Device survey results show that most smartphone users know and actively use stickers/emoji in messaging apps. What's more, over 20% of sticker users have purchased paid stickers at least once.

Case Study: Go Launcher



At one level, Go Launcher is a utility app that allows users to personalize the homescreen on their Android devices. But Go Launcher has also evolved into a platform providing third-party designers real estate to sell their designs, skins and icons. How does a Chinese app company become a leading global storefront? Norm Liang, Senior Director, Growth, tells us what he learned along the way to becoming a top 5 publisher on Google Play.

Wanting to take back control how the homescreen looks and operates on their Android device over 100 million users on Google Play have downloaded Go Launcher. The value proposition is quite simple, it's all about providing users the tools to better access and manage information on their device. The monetization model centers around in-app purchases supported by both advertising and virtual currency.

Today Go Launcher is a top 5 publisher on Google Play, and the Go Launcher app includes a series of apps, widgets and themes that users can use to customize their Android devices. As a result, Go Launcher finds itself becoming more of a platform than just a publisher, providing real estate to designers to feature and sell their own themes. "Our technique has been to cross-promote and leverage the app store[front] tools to improve performance in the form of downloads," Norm says. "We are still thinking about how our app can evolve into a service."

The personal nature of the app required Go Launcher to listen and learn from its user base. "That helped us grow a very vocal user base and deliver a better product to the market." Today the company is active in what it calls 'community outreach.' This means connecting with bloggers, and responding to users who leave comments or feedback on our fan pages. "I think bloggers have been the biggest driver of growth and traffic for us."

The number one challenge to doing business in China was the fragmented app distribution landscape. But looking back, Norm says tackling that issue was in many ways less of a challenge than taking the



app global. “Coming from Asia into the U.S., it was harder for us to deal with a more direct distribution chain.”

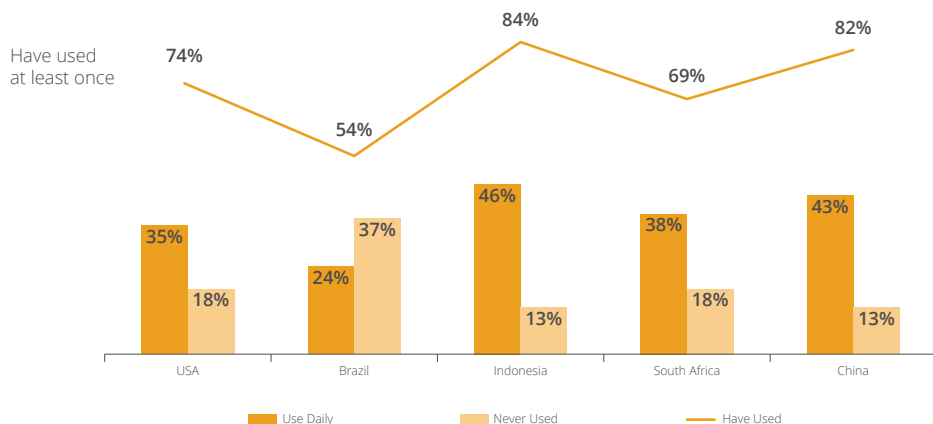
Another challenge was payments. “We realized that we needed to use virtual currency simply because Google Wallet didn’t provide us with the reach, so having a wallet with virtual currency that users could earn into by downloading other apps was a good plan for us.”

Going global has taught Norm three lessons he’d like to share with app developers everywhere:

1. **Pay attention:** Analytics and knowing your users is key, so use the tools to identify your valuable users and where they come from.
2. **Make the match:** Once you know your users, define your path of monetization, keeping in mind that different regions have different mechanisms. Focus on methods that work. Once you get the transaction volume, then you can start to invest in better payment methods.
3. **Set limits:** Once you’ve identified your monetization strategy, pick a few partners to help you achieve your objectives. Whether it’s ad networks or payment providers, don’t be tempted to test and integrate everything. Too much is too much and sustainable business success requires you to prioritize.

Stickers are well known and actively used by almost 40% of smartphone users

Q : Do you use stickers / emoji in messaging apps?



Source: On Device Research

Photos are the ones to watch: More photos are now shared via Snapchat than Facebook. It appears its self-destructive mechanism, which effectively removes a trace of photos and videos after they are sent, is a crowd-pleaser among women and youth.

WhatsApp is on the march: It's now the leader in social messaging across the five markets surveyed. Even in the U.S. Facebook Messenger is feeling the pressure as WhatsApp gains in popularity among 16-24 year olds.

WeChat hits a milestone: China's top social messaging app is also making friends in new markets. And in August 2013 the number of registered users outside China hit the 100 million mark.

Stickers and other features are clearly moving up the radar and motivating users to flock to mobile messaging apps. But even if you don't have a social app in this space, you can still attract a global following by adhering to the basic rules of marketing.

Combine the correct user insights with a clear monetization strategy and content localized to the requirements of your target market and you can win BIG in the West, the East –and everywhere in between.



Similarities between markets make it simple for you to get in on the action, just localize and you can launch your mobile app anywhere on the planet.

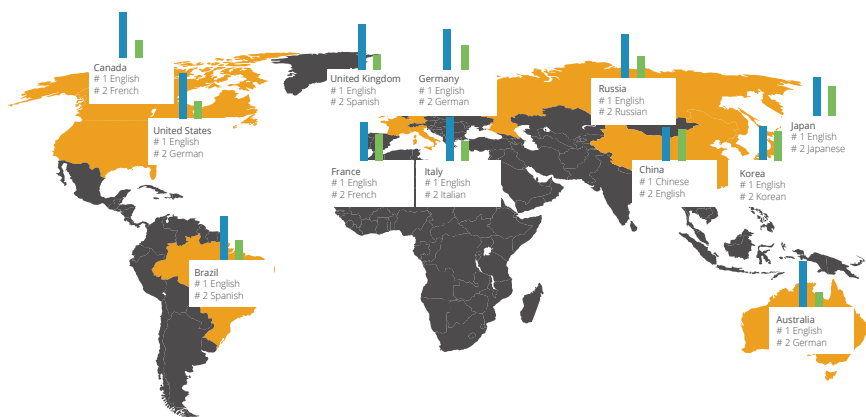
Localize your app

It's a no-brainer that app developers should publish their app in the native language of the market they target. But it's pretty amazing to see data that documents the positive impact on app downloads when app developers make that effort.

This is what we have when we read between the lines of *The Impact of App Translations*¹¹¹, an app market report from app store analytics company Distimo, that focuses on the localization of applications by languages, and offers insights about the most popular languages and the distribution of languages per country across 12 of the largest markets: the U.S., Canada, the U.K., Germany, France, Russia, Italy, Japan, South Korea, China, Brazil, and Australia.

Most Popular Languages in the Top 200 Per Country

Proportion of Free Downloads by Language for iPhone



Source: Distimo

Among the findings:

- English leads. More than 90% of the free downloads and revenue generated by apps in the Apple App Store in the top 200 for iPhone and iPad support English. Keep this in mind if you are preparing to take your app global.
- Local languages count. The proportion of free downloads and revenue attributable to all non-English languages has grown. What's more, app developers have seen that intro-

ducing their app in the native language of a market leads to a boost in download volumes and revenue.

- It goes both ways. The largest share of total revenue is gained by native language apps in Asia (Japan, China, and Korea), while apps in the English language gain the most revenue in the other countries.

The Importance of Native Languages

Proportion of Free Downloads and Revenue by Language for iPhone



Source: Distimo



Looking at the amount of revenue gained by the top 200 applications by native language, Distimo reports that apps in the native language generate a sizeable chunk of revenue. In fact, popular apps that support the native languages of Japan and Korea generated the most revenue of all languages in these countries as well.

Research your target markets and publish your app in the languages your audience uses and appreciates. Extend that approach to all aspects of your app business and localize your promotional campaigns, in-app purchases, and local content such as news and you will do more than drive downloads; you will cultivate true app fans.

Know and delight the customer is the first rule of business everywhere on the planet, and your app business is no different. The final section shows how you can stitch your user insights and information together in a comprehensive strategy to target – and re-target – your users in way they genuinely appreciate to move the needle on your business objectives.

Case Study: J2 Interactive



Creators of the MX Player talk about the business model that has allowed them to chalk up more than 50 million downloads to become a super-successful app on the Android market.

The MX Player is the first Android video player allowing users to view movies and videos, which supports multi-core decoding. It's this sharp focus on quality and innovation that is key to the app's tremendous success.

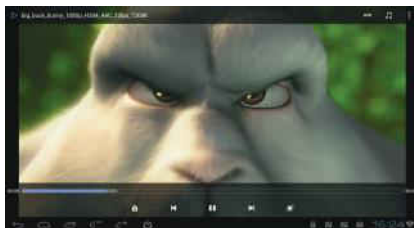
Early in the planning stages the creators identified a gap in the market for a high-quality video player app and pushed ahead in development to stay one step ahead of the market. "In Korea competition is high, much higher than markets of similar size and composition." The way to win in the Korean market and – ultimately– take that success global? "Build upon your own specialized area and deliver on solid quality rather than being too concerned about the latest trends."

Rather than use marketing to attract users, the creators tuned into their users for feedback that allowed them to continually improve the app. In addition, the creators manage their own forum and a bug reporting system in order to "actively solve problems and handle feature requests." The result is an app that consistently rates among the top 3 in its category.

Quality attracts quality users, and the creators provide both a paid app and an app free to download (supported by advertising). This approach has allowed them to maximize their user base.

If, like J2 Interactive, you've set your sights on bringing your Korean app to English speaking markets in North America, Europe and elsewhere, how should you prepare? The creators have two recommendations:

1. Brush up on your English skills – to both produce and promote your app. "Developers need to be able to verbally communicate in English if they want to actively promote their app in the overseas communities."
2. You should also focus on delivering a good user experience. "The app needs to function seamlessly across multiple devices, even the ones not yet launched in Korea."



The three things you need to know

1. Asian markets are booming – but they can also be tough to crack. Cultural barriers, piracy concerns, fragmented app distribution ecosystems and the need for localization are among the chief issues standing between you and your app success. Therefore, a strategy built on *preparation* (translation, localization, customized promotions) and *partnership* (choosing global ad networks that have deep local knowledge and established relationships with key local players and app stores) can pay remarkable dividends.

2. Japan is an advanced market with a huge appetite for ‘cool’ stuff. Don’t be afraid to push the envelope with apps that showcase advanced features like augmented reality. But don’t go overboard either. Mobile apps (as everywhere) need to be intuitive and visually appealing to your user. This means making sure navigation is a no-brainer and the overall experience is valuable to the user.

3. Stickers, emoji and other features are clearly moving up the radar and motivating users to flock to mobile messaging apps. But even if you don’t have a social app in this space, you can still attract a global following by adhering to the basic rules of marketing. Combine the correct user insights with a clear monetization strategy and content localized to the requirements of your target market and you can win BIG in the West, the East –and everywhere in between.

Sections of this chapter were contributed to by:

Ippei Fukami, CyberZ, and Sven Ossenbrüggen, Xyrality. With InMobi Insights from Jessie Yang, Jayesh Easwaramony, Kazusuke Obi and Seungyon Kim.

Apponomics



07: Data-Driven Marketing in the Era of You

The new paradigm in effective app marketing is all about understanding your user and how they interact with your app. Success is about listening to 'digital signals' in order to target (and re-target) marketing campaigns in a highly personalized way to provide value to your user and generate value for your app business. But you also can't go it alone. Partnering with a technology platform provider is essential to discern knowledge from the noise.

The mobile app revolution is in full force. But like any good uprising, chaos is rampant and many players across the app ecosystem — especially app developers — don't yet have a clear picture of what it will take to win in the end. Of course, that is to be expected in a space where change is constant and innovation happens at breakneck speed.

However, there is a clear consensus about the strategies and approaches that will NOT work going forward. Chief among these is the mindset that mobile apps can be designed and simply sent out into the universe of users.

As we have shown in the previous sections, app developers need to understand who their users are, how they got to the app in the first place and what they do while they are in the app. More importantly, app developers must detect and understand audience patterns and develop segmentation strategies that allow them to better target their quality users.

As this section will show, you must prepare *now* for a new phase in the evolution of our App Economy, one that will be data-driven and powered by customer insights.

But before we explore where your app business is going, and why, let's briefly examine the developments that got you to where you are today.

Shift happens

In the early days of the App Economy, app developers, including Rovio, broke on the scene with a simple business model of selling high quality apps for just US\$0.99. The 'paid' model was born and it flourished. It represented the lion's share of app revenue from 2008 through mid-2011. It also triggered an avalanche of activity as other app developers — professional and indie alike — scrambled to get in on the action.

Tough competition drove more and more apps to be downloaded for free, and monetized by other models such as mobile advertising and later in-app purchases. To grab a top-notch spot in the app store rankings (then the only effective way to gain audience recognition) app developers focused their efforts on driving sheer volume.

In 2012 downloads began to lose their luster. They may have looked good on paper, but app developers also began to realize volume alone was a flawed metric. In no way was it a true indication of whether their app was moving the needle on their wider business objectives. Sure, plenty of app developers and studios continue to tout their mobile app download numbers, but they are seeing this achievement through a distorted lens.

Fast forward, and, increasingly, app developers accept the hard truth that the winners will be those developers that not only build a desirable app, but who also best understand their users.

This shift in mindset highlights the many challenges around collecting and leveraging customer data, challenges that the vast majority of app developers struggle with today.

To complicate matters, the rise of monetization models, such as in-app purchasing (see Monetization, page 118), that rely on marketing and mobile advertising to attract, retain and engage large audiences of app users, turn up the pressure on app developers to properly identify, segment and understand their audience with a view to meeting the unique needs and wants of their most valuable users.

App developer disconnect

As we stand on the threshold of what many analysts are calling the “year of personalization¹¹²,” it’s more important than ever to put the user – the individual – at the center of all you do. Unfortunately, the goal of ‘one-to-one marketing’ is often inconsistent with the aim of many app developers to make a winning app.

This disconnect exists because the business of developing a great app is quite different from marketing one.

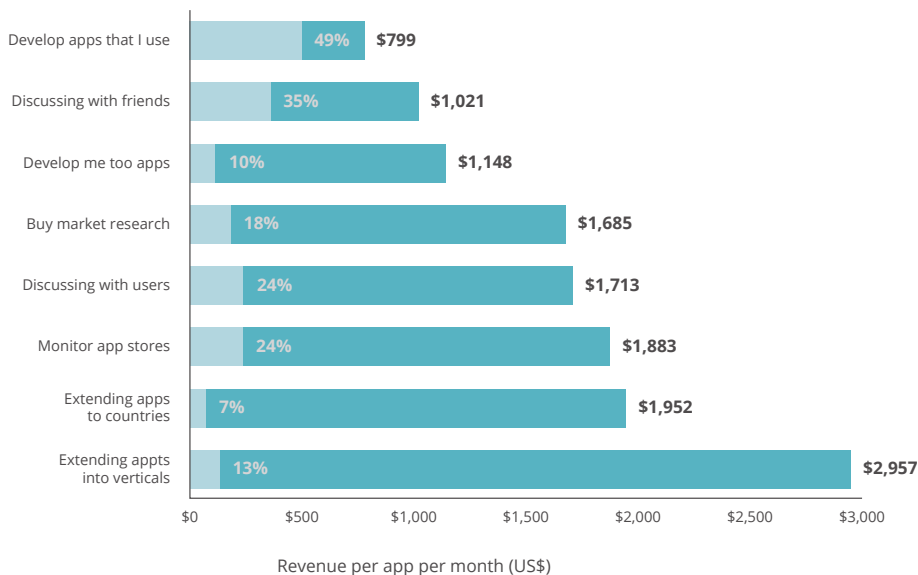
As Arun Kumar Pattabhiraman at InMobi observes: “Developers are stuck in a design paradigm that reduces app development to making functionality and content design based on a limited definition of user personas.” As a result, app development is based on an “introverted logical grouping of seemingly homogenous users” rather than a sophisticated understanding of user personas. “It’s a sorely insufficient approach that sadly leaves app developers blind to the needs of the *individual* user.”

This steep learning curve is further documented in the 2013 edition of Developer Economics¹¹³, the research series from VisionMobile. The findings of this report, based on an online survey of over 3,400 developers worldwide, reveal that app developers lack a clear understanding of the customer at critical stages in their app development.

- Only 24% of app developers surveyed plan their apps based on discussions with users, a figure which does not change with development experience or proficiency.
- Almost half of developers (49%) decide which apps to develop based on their own needs. Unsurprisingly, those same app developers end up generating the least amount of revenue per app per month, indicating that they have a lot to learn in how they plan their app.

Successful developers grow by extending apps into countries and verticals

Popularity and average revenue per app per month by method used to decide what app to develop next, developers interested in making money only, revenues excluding top 5% (n=1,696 weighted)



Source: VisionMobile

VisionMobile correctly concludes that app developers are creating apps without the rigor of understanding their markets or their users. Its verdict: “The bottleneck of the build-measure-learn cycle of lean development is the ‘measuring’, or understanding of customers.”

“The developer learning curve is far steeper on the business side than on the coding side, and it’s getting steeper.”

~George Karavias,
Developer & CEO, Anlock ¹¹⁴

Your users come first

People want what they want when they want it and how they want it. It’s a tall order and users can be unforgiving if you get it wrong. No pressure! The well-known marketing mantra of ‘right experience/right customer/right time’ should not overwhelm you. Instead, let it inspire you.

If you think this may all sound like a refresher course in Retail 101, you’re partially right.

The success of your app business is inextricably linked with your ability to ‘delight the customer’ again and again – a marketing motto that pre-dates the rise of Madison Avenue’s Mad Men¹¹⁵ and the 1960s focus on mass customization.

But it also depends on your expert ability to read the data ‘signals’ your users are sending you via interactions with their devices, their apps and their digital and physical worlds.

Simply put, your users are leaving a digital bread crumb trail (important clues in the form of browsing behavior, personal preferences, purchasing patterns, etc) across platforms, devices, and networks. Connect the dots in the data, and you will create competitive advantage for your app business.



Data signals are what you need to collect and understand in order to glean important insights about your users (their needs, interests, preferences, views, sentiment) and build a sustainable app business. Make sure you are prepared for the task by implementing a robust mobile analytics solution. There are many on the market and you can find a list of some of the leading offers by checking out the lists in the appendix, courtesy of our friends at Mobyaffiliates (www.mobyaffiliates.com).

The next section will equip you to tune in to the signals –and tune out the noise.

Early in the game

Most app developers jump into app design and functionality as the first step in their app development process. This is a logical flow since, after all, app developers are *building* an app. Abhishek Bapna, Head of Products, Performance Advertising Solutions at InMobi observes that the process is quite similar to what we know from the more traditional product development processes we associate with other sectors such as manufacturing.

“There the approach centers on product managers first making the effort to understand their users and their needs before they begin product design. The outcome of the process is often a market requirement document (MRD), which the product manager then translates into a product requirement document (PRD).”

Seen from this perspective, he says, the process for designing and developing an app is quite similar – except for one huge difference. Apps are also instruments of intense personal engagement. Think about it. The user downloads the app onto their device and

interacts with it frequently, interaction that produces signals that app developers should learn to listen to in order to deliver a superior and consistent app experience.

However, how many app developers actively think about building a solid data management strategy to tune into these signals as part of the early process? How often do questions such as “what user signals are important to my business?”, “what user signals should I collect?” or “how should I store them?” get raised early on in the app development process?

The hard truth is many app developers realize the importance of wrestling with these fundamental questions too late in the process. The first step to building a great app business also involves thinking through your data strategy **before** you jump into app development.

“Having a well developed plan to collect, store and process user signals early on is the only way to ensure that you are well set to leverage the data and make the most of your marketing and monetization strategies once the app enters the app store and into the hands of your users,” Abhishek says.

A first critical step in your strategy to ‘listen’ into and decipher your user signals starts with mobile analytics. “Having analytics is core to your business, key to your differentiation and essential to your competitive advantage.” But, as later sections will show, you also need to partner with a technology platform provider to bring context and meaning to the signals, otherwise you are in risk of driving your business blind.

Data comes next

With the rise of digitization and the advance of mobile, companies and organizations across all verticals and everywhere on the planet have amassed terabytes of information about their legions of customers. This digital treasure trove, dubbed ‘Big Data’, is highly valued as a way to help meet the evolving needs of customers and spot important market trends.

While the industry debates a standard definition¹¹⁶ for what is unquestionably the most promising source of actionable business intelligence in our century, one point cannot be argued: Big data is BIG.

Indeed, Big Data is exploding. Roughly 90%¹¹⁷ of all the world’s data has been generated in the last two years. And thanks to the rapid growth of the Internet, digital technology such as smartphones and video cameras, and increasingly sophisticated business data collection practices, the amount of available data continues to double every two years¹¹⁸.

As Andreas Weigand¹¹⁹, former chief scientist at Amazon writes on his blog: “With nothing more than a few clicks, billions of people are digitizing and broadcasting their thoughts and emotions to the world in real-time... producing massive amounts of data.”

But Big Data will also make way for ‘smart data’ as advanced marketers learn to evaluate the signals coming from a wide range of sources — including smartphones, social media, wearables and the sensor network we associate with the ‘Internet of Things’ — to make their campaigns more personal relevant and, hence, effective.

“In 2014, big data will finally be put to good use as marketers stop waiting for insights to reveal themselves and start finding actionable paths through the information.”

~ Melissa Parrish,
research director and principal
analyst at Forrester¹²¹

Research firm Forrester is particularly bullish about the significant— and competitive — advantages to leveraging Big Data. It expects 2014 to be a pivotal year in which “marketers and publishers will find that data-driven marketing will create new ad products and targeting opportunities.”¹²⁰

Forrester’s recommendations to advertisers for the year ahead: Embrace an “approach that combines the art of marketing — channel coordination based on your audience’s behaviors across the customer lifecycle — with the science of marketing — making investment decisions based on desired business outcomes and informed by data insights.”

Welcome to data-driven marketing in the era of YOU. The customer is in control and the ‘old school’ approaches to marketing won’t cut it any more. You don’t need a crystal ball to see that revenue growth in all areas of marketing, including your efforts to market and monetize your mobile app, will increasingly depend on having the capability to offer a personalized customer experience, complete with relevant interactions and strategic data-driven engagement that benefits both sides.

The significance of signals

What do Line Corp., GungHo Online Entertainment Inc., and DeNA Co. have in common? The Wall Street Journal reveals¹²² these mega mobile games studios and publishers in Japan have cracked the code and are wielding analytics to “master the psychology” of gameplay and mobile payments. They are leading a new breed of app companies that have learned to tune into the right signals to reach, engage and monetize their users successfully.

Predictably, these super-successful app companies are not sharing precisely how they achieve such amazing results. But their singular focus on improving, enhancing and expanding their analytics capabilities tells us that customer insights — gleaned from the vast array of digital signals that make up ‘Big Data’ — is the source of their competitive advantage.

The good news: Data is clearly becoming the new ‘black gold’ of our age and smart app developers that grasp this can become tomorrow’s tycoons.

The even better news: There are steps you can take right now to benefit your app business and ensure you take your place among the leaders of your app category, not the also-rans.

The solution lies in collecting, understanding and leveraging signals, and then wielding these insights to build stronger user personas.

Importantly, best practice is all about respecting personal privacy.

Respecting privacy is best practice

There’s no doubt consumers love apps. However, before people download and use these apps to their full potential, they must be confident that the integrity of their personal information is protected. In many cases, users don’t have enough information to decide whether apps are too intrusive, observes Chris Davies, General Counsel EMEA and Head of Privacy at InMobi. “The practical problem is that data collection practices are just too vague or in some cases non-existent and this is where the ambiguity results in suspicion.”

To complicate matters, the process to request and serve an ad involves a business ecosystem of players including users, app publishers, third parties that include ad networks and providers of mobile analytics to monetize the app, and agencies and brands. They must work together when sharing data to ensure the delivery of relevant advertising, while informing users about the data usage.

After the ad request is sent to the ad networks and exchanges (the partners chosen by the app developer to monetize that particular app) it’s then a race measured in milliseconds by those parties to find and serve the ad that best matches the request. In practice the information exchanged will indicate that a certain user with a specific device (identified by the unique device ID) at an approximate location has interacted with an app and triggered an ad to be served.

While the data exchanged to deliver that ad is clearly not personally identifiable information, Chris explains that over time ad networks and advertisers that are repeatedly exposed to similar ad requests can begin to connect the dots.

“Imagine if I interact with ads at 2 places over time at similar hours, and let’s say the following pattern begins to take form. In the early morning and evening the interaction takes place in Kent, and during work hours the interaction takes place in London,” Chris explains. “Over time it would be possible for the players in the ecosystem to conclude with a high probability that the user with device ID xyz123 lives in Kent and works in London. They don’t know my name, age or gender of course, but it has been possible to deduce a pattern as to my app preferences and when I interact with those apps.”

To address concerns about personal privacy it is imperative that app developers work with ecosystem players and partners who have – and follow – a clear policy regarding the collection of data and the information that is passed through their networks. It is also important to app developers to be up front and transparent about what the app collects and passes to partners.

Tell your users straight out what data about them is being collected, what will be shared with third parties and what the benefit is. It may be that the app will harness this data to deliver location-aware and relevant information and offers, or it may be that the mobile app will leverage the calendar to help the user manage their daily routine. “The point is users want to know what is happening in the background and in order for users to be truly comfortable about using an app, developers should show their users how seriously they take privacy and data security by being transparent and open. This will ultimately result in the tangible benefits of making users comfortable and ensuring long term engagement” Chris explains. “Armed with this information your users can make a meaningful evaluation of your app – and will likely decide to download it and keep it, not delete it.”

Negative news reports about alleged abuses of personal information have left users feeling wary and app developers feeling vulnerable.

To help build user trust in mobile apps [the] MEF, the global community for mobile content and commerce, recently launched AppPrivacy™ with the goal of helping app developers apply best practice in the collection and sharing of personal information.

The free online tool, available at www.appprivacy.net, provides app developers access to a privacy policy generator that makes it easy for them to identify and incorporate privacy best practice into app development and design workflow. The policy generator is powered by the latest data resources and developer-friendly guidance on privacy issues.

In practice AppPrivacy enables developers to answer simple questions about their app (what it does, the data it collects to do this, and the partners it works with to realize monetization) and then delivers them a customized, short-form, easy-to-understand privacy policy that they can embed into their app that clearly explains how their data is being used.

InMobi’s Chris, sits on the MEF EMEA board and worked on the creation of AppPrivacy, reports that recent research by [the] MEF shows that more than a quarter of the top 100 free apps still don’t have a privacy policy and, of those that do, only a third offer access to the policy within the

app. “Transparency and permission are key. App developers should always seek relevant permissions to collect data necessary for the operation of the app and users have to be empowered to make their own choices in a way that will ensure a trusting relationship between them and the apps they use on an everyday basis.”

Tune In, Tap In

Signals, in some form or other, have been around for decades. A great example is click-stream data on the Web, the digital breadcrumb trail we leave on the Web that helps Internet companies rearrange or recommend items and advertising based on what we viewed, and what we ignored.

The advance of social and mobile in later years has obviously added to the volume of signals. The two have combined to unleash a flood of signals that reflect people’s interests, queries, actions, plans, locations and even intentions.

Rohan Choudhray, Performance Advertising Solutions, InMobi, observes that “the amount of data accessible to app developers, ad networks and third-party players in this space is absolutely mind-boggling.”

If you think that is an exaggeration, then this glimpse into a ‘day in the life’ of activity on the InMobi ad network should change your mind.

Total number of events ingested in a single day	9.2 Billion
Total amount of new data generated in a single day	5TB
Total number of unique users on the InMobi network/month	691 Million
Total amount of data processed in a single day	240TB
Number of distinct analysis done directly on InMobi Hadoop warehouse in a single day	~800

Source: InMobi

But the sheer volume of ‘Big Data’is also its shortcoming.

As the celebrated statistician and writer Nate Silver¹²³ put it, “Every day, three times per second, we produce the equivalent of the amount of data that the Library of Congress has in its entire print collection. Most of it is... irrelevant noise. So unless you have good techniques for filtering and processing the information, you’re going to get into trouble.”

Clearly, the challenge is to discern the real insights from the noise. In many ways, its analagous to listening to shortwave radio where you must struggle with static to stay focused and tuned into that station you want to hear most.

As an app developer you must tune into your users' signals, without drowning in the static. Success is about extracting the insights that will help you better target your users and consistently deliver a great app experience.

Building better personas

In the previous sections, (See Acquiring High Quality Users at Global Scale, page 082) you learned that it is essential to target the right users for your app with the right ad creative and to acquire them at the right price. This ensures you are engaging your users and not wasting money in the process by targeting users who are not likely to monetize for your app in the first place.

"People don't want something targeted to the whole world—they want something that reflects what they want to see and know."

~ Sheryl Sandberg,
Facebook COO

In this section, we look at how you can leverage signals, data and user insights better — to stay one step ahead of your competition and one step closer to your user.

Let's face it. Targeting is not new; it's the cardinal rule of user acquisition.

App developers, ranging from major studios to indie outfits, have long adopted the mindset that allows them to understand how (and why) they must target users by demographics, location, context, device, and operating system.

Of course, it's not the size of data (or the number of signals) you collect that makes you successful. As the next section shows, it's your ability to uncover the true meaning behind the data and execute decisions based on those insights that gives you the edge.

Your app exists in an ecosystem

Mobile apps do not exist in isolation.

User interactions are monitored, captured and passed on by a variety of players, ranging from mobile operators to platform providers, and from ad networks to social networks. Each, in their own capacity, is collecting a stockpile of data and signals in the process.

No doubt your app business is already ‘tuning in’ to some user signals. But, given the impact and importance of signals on your app business, capturing, analyzing and leveraging user signals must be a discipline, not a pastime.

Here is a list of some common user signals that you should plan to collect and leverage to ensure your app achieves the success it deserves:

- Basic: Handset: Geography OS, OS version, country, carrier
- Demographics : Age, gender, income, profession
- App Ownership: Number of apps the user has, category of apps the user has
- Engagement data: session length, app opens, retention cohort data, user dormancy data, level completion trends
- In-App purchase data: items purchased, # of purchases, price of purchase, recency, frequency and monetary value of the purchases
- Social data: Recency and frequency of shares across social media (Facebook, Twitter, LINE), other shares, social graph data
- Custom data: Events and accomplishments within the app, sections, levels, scores, or other events that can help define user behavior
- Psychographic segmentation information: data, patterns and preferences that allow app developers to segment users into detailed profiles and personas such as ‘socialites’, ‘achievers’ and ‘casual gamers’ (see Taking Control, page 177)
- Persona data: Interests, purchase intents, behavioral patterns and data (also linked to location and known as geo-behavioral data)
- Geopulse data: the insights that result when approaches combine real-world user profiles with demographic, geographic, and behavioral information generated by analyzing geo-behavioral patterns

Clearly, with the right infrastructure in place, app developers can collect and process a variety of user signals to help them run their business better. But a focus on the parts – instead of the sum of the parts – will yield a fragmented view of the user.

A better approach is one that aggregates the signals to arm you with a deeper understanding of the user, knowledge you can wield to build strong user personas – and ultimately – a stronger and sustainable business.

As Abhishek Bapna at InMobi puts it: “Winning is all about aggregating and analyzing the data and signals available to you in order to influence and encourage the customer journey through your app and monetize your users.”

Why you can't go it alone

Activity in and around your app is generating unprecedented amounts of signals and data about your user base. What your users likely want, need and would greatly appreciate is contained in the signals. But trying to decipher them on your own is an impossible task.

Data signals take many forms, owing to their distinct sources, structures, taxonomies, use guidelines and actionability. In addition, some data signals are the property of the companies that collect them (for example, search data around intent belonging to Google, social graphs around engagement belonging to Facebook, and preference data around purchases belonging to Amazon).

Many other data signals are around user activities that are happening outside the app — and well outside what any app developer can observe or measure.

Simply put, clues to how users interact with their apps — from download to purchase — are scattered across the breadth and depth of our physical and digital worlds.



From Samsung's path-breaking NFC-enabled virtual vending machines¹²⁴ serving up content and apps to users who scan images with their smartphones, to the long-tail of websites and blogs flourishing under the radar that promote app download links along with their reviews, data signals related to what, where, when, and how your users interact with you app are boundless.

In order to be leveraged for maximum value, data signals must not only be accessible. They must be aggregated, stored, cleansed, and standardized in such a way as to make them useful as inputs to your app business and wider strategy to achieve lasting success.

Even if by some good fortune you could invest in a server farm the size of a small city to do the computational 'heavy lifting', you would find that you still had huge gaps in the data for the simple reason that you don't have access to all the disparate sources of data. You also lack visibility into statistical significant samples of the user population (not just users of your app) necessary to detect — and even predict — trends around user behavior and preference likely to impact your user base.

That is the domain of technology platforms such as InMobi. Drawing on data from their relationships with third-party providers — companies that can range from research firms specializing in consumer data and segmentation such as comScore, to place data powerhouses such as Factual that add a critical layer of context on top of location data — technology platform providers bring order and meaning to the data. This, in turn, delivers app developers actionable insights they

need to activate, support, and target their users with experiences and offers every single user will genuinely appreciate.

Technology platform providers turn signals into actionable insights for your app business, identifying the patterns, relationships, and connections that allow you to meet unique user needs, which vary across use cases and user profiles.

What should you look for in a technology platform provider?

Think of a technology platform provider as a hub for maximizing the value of your critical customer data assets – both the signals “owned” by you and the information sourced from third parties. Your ability to compete is clearly linked with your partner’s scale, speed and flexibility.

Here’s a checklist to help you make what might be your most important business decision ever.

- **Connections are key.** Check if the provider has relationships with agencies, database management companies and other third parties. Being able to access, understand, and leverage this data positions the provider to offer you additional consultative support and actionable insights based on a rich and continuous stream of data around users and user scenarios.
- **Middlemen are out.** Intermediary players, a group that includes most all ad networks, won’t always have the inside track you need to understand and engage your users. Look for partners that orchestrate the action, not just sit in the middle of it. This means making sure your partner has the capabilities (skills, talent, financial resources, and resolve) to be an end-to-end technology stack that connects advertisers with their audience.
- **Timing is everything.** Delivering a user an ad after they’ve left a key location is a FAIL – and will be likely dismissed as spam. Make sure your provider leverages an approach to data processing that is real-time and – where possible – automates the downstream decision making.
- **Size matters.** This is not a job for small ad networks with big ambitions. Make sure your partner has visibility into millions (and billions!) of app interactions, a statistically significant sample that allows them (and you) to detect – and even predict – trends around user behavior and preference. But it’s not enough to be able to recognize users patterns; your partner also must know your app category inside out. If you have a gaming app, for example, it’s important to partner with a provider that has insights into what really makes gamers tick. Of course, having insights into the right user personas (or geographies) is essential to success. But actions always speak louder than words, so make sure your partner is a powerhouse than can execute on what they observe to benefit your app.

- **Credibility — and trust — is king.** This is a long-term relationship that must be built on trust and integrity. Do your homework to see if your partner is vocal about individual privacy and committed to data security guidelines. Having a credible platform to manage complex — and critical — data governance functions, is proof your partner conforms to best-practice conventions with respect to user privacy and preferences.

The takeaway: Look for a computational powerhouse that can seamlessly (and rapidly) collect, integrate, manage and activate large volumes of data and disparate data signals. It's also critical to find a partner with insights into billions of app interactions by users across the globe.

As the next section shows, stitching signals together into user stories and scenarios brings order to the data, allowing you to target and re-target your users with success and — ultimately — identify new, similar users to monetize in similar ways.

Moving from user personas to user stories

Users are people, too, with their own interests and preferences and passions that make them amazing individuals.

And each individual has a different story to tell.

While you may strive to fulfill the promise of one-to-one marketing, it is not possible or profitable to focus on one individual at a time. But you can create user personas — based on the signals your users are sending — that will allow you to deliver customized experiences that meet their requirements for that special treatment that shows you know and value them as individuals.



Analyze and aggregate signals to give your users experiences they will genuinely appreciate. As they experience these benefits they will be even more willing to interact with your app. It's a virtuous cycle. Listen, learn and respond — it's how you encourage lasting loyalty and create an app business built to last.

The trick is to leverage the powerful insights from these user stories to define unique actions that will benefit your bottom line — and your relationship with the user. Here are some scenarios

Case Study: Animoca



Outblaze Ventures Holdings Limited, also known as Animoca, is a leading developer and publisher of mobile games and edutainment apps for global audiences. The company has released more than 300 apps across multiple platforms, with more than 170 million game downloads since its launch in January 2011. Yusuf Goolamabbas, the company's Chief Technical Officer (CTO), talks about how knowing markets and understanding user behavior has allowed the company to span the globe.

Animoca has an impressive roster of games and edutainment apps. The Pretty Pet Salon franchise and the Star Girl series have become wildly popular with audiences throughout the world, earning high acclaim from gamers and reviewers alike. In September 2013 Animoca struck a deal with Tsuburaya Productions Co., Ltd. and licensed Ultraman Galaxy, a unique role playing/collectible card game around Ultraman, the cult TV show from 1966 featuring a super-powered humanoid from outer space.

The gameplay allows players to assemble their own Ultraman Team by collecting and upgrading cards for Ultra Seven, Ultraman Zero and the rest of the Ultraman Family—over 400 in all. The game is also connected to Google+ and Facebook to let players form alliances with their friends to fight collectively against intergalactic villains.

As a rule, Animoca is sharply focused on producing and publishing mobile apps that offer a high level of interaction. It pays close attention to user behavior when making the decision whether or not to show ads in their freemium apps. “We try to experiment with segmentation and understand who is playing and who is paying,” Yusuf explains. “For example, users who do not make in-app purchases after some time are shown ads.” By the same token, no advertising is shown to users who are spending in the app.

His rule of thumb is simple: If you are lucky, 3% of your users will convert, or spend in your app. This is also 3% that doesn't need to be shown ads. The other 97% are not paying, and should be shown ads. But app developers should also think about why users aren't paying. In some cases,





it could be that they want to pay, but are hampered by a lack of payment methods. In countries such as Indonesia and the Philippines, there is a disposable income, but few have credit cards. App developers serious about expansion shouldn't just localize content; they also need to integrate local payment mechanisms, like operator billing.

Advertising should be relevant and targeted. For example, users playing a more female-oriented game will very likely appreciate an ad for other female-oriented games. "They are not going to be upset and I am going to end up making much more money."

Cross-promotion is also another strategy app developers can pursue, but Yusuf warns it only makes sense if you have scale. "You should be at around 100,000 DAU (Daily Active Users) within your network. At that scale it makes things interesting!" And that's also when an app company "can think of itself as its own miniature ad network."

Scale is also a must if you are monetizing using mobile advertising. At 100,000 DAU app developers are much more able to "absorb dips and curves" as users come and go. "You have more leeway and even if a few thousand leave your app it doesn't affect you as much because that's where targeting and other strategies can help you get them back and even increase their value."

Of course, there is no sure-fire formula you can follow to acquire and keep users. However, Yusuf does have some tips:

1. Keep it fresh: Provide continuous updates and content to keep users interested and increase interaction with your app.
2. Grow 'glocal': Look for other opportunities for your app. There are many markets where you could be a hit – if you only tried. Animoca makes sure its apps are desirable and accessible, and "so typically our games are localized to around 9 or 10 languages."



that introduce you to common user stories and the solutions you can use to create value for the user and your business.

User story: I already installed this app, but why do I still see an ad for the same app when I am playing my most favorite game?

Big Data solution: Negative targeting.

Why promote your app to users who have already installed it? Sounds like a silly question to ask, but many app developers end up doing just this. This is the disconnect that results because users are downloading apps from many sources and most ad networks can't pick up on this signal.

This happens because, no party in your app business ecosystem has an effective mechanism to track app ownership with 100% certainty. Critically, this information is essential to intelligently filter existing users (those who have already installed the app) out of the universe of users targeted by your app promotion campaign.

The solution is negative targeting. This approach allows you to leverage available data on app ownership to exclude users who are already using your app from your app promotion campaign. By including or excluding users based on whether they have already downloaded your app you avoid the overlap which ends up costing you money. Obviously, running a campaign that targets and reaches existing users is a way to burn cash fast. What's more, campaigns aimed to convert users who already own your app is effectively 'spam', and something you want to avoid at all costs.

User story: I saw an ad for this app before, but I am still not convinced I need to download and try it.

Big Data solution: Re-targeting.

Re-targeting has a long and impressive track record in the Web world, where it allows companies to track and serve repeat ads to users who have visited a website or browsed products but bounced off before completing a purchase. Re-targeting is so popular (and effective) because it focuses advertising spend on people who are already familiar with the brand/offer (because they visited the website and so demonstrated interest). That's why most marketers who use it see a higher ROI than from most other digital channels. Several online retailers such as Criteo have used re-targeting effectively in their digital and mobile marketing campaigns and have seen great results, including increase in click through rates by up to 600% in comparison to standard display advertising.

Of course, no one wants to feel as if the website knows who they are and saw what they did. That would be creepy and users would feel stalked. The proper approach is one where the company re-targets only the users who are 1) most likely to convert and 2) the ones whose behavior (past purchases, for example) shows they are valuable consumers.

In mobile re-targeting is similar. It's all about leveraging past user behavior data to re-target users who have clicked on an ad, or visited an app store but not downloaded the app. But there are a few ways you can increase the odds that these users convert. InMobi's Abhishek Bapna has two top tips: "For maximum results you should rotate the ad creative to manage user ad fatigue, even if you are re-targeting users to promote the same app.

Also, empirical data on mobile marketing campaigns suggests that a potential user clicks on an ad multiple times before they download an app so it's important to use techniques such as frequency capping to control the maximum number of times a user is presented with the same ad. "The ideal maximum is something that the app developer discovers largely by trial and error, but a robust ad serving platform, such as InMobi, can also identify this programmatically to ensure creatives are shown to the same user as many times as needed, to drive a conversion, but capped to a certain threshold that is known to result in creative fatigue."

User story: I love these kinds of apps, and I would like to try a few more of them!

Big Data solution: Re-target users who have already installed apps of a similar type.

If you have done your research well enough, you know the competition and you also know the kinds of apps out there that are similar to yours. Let's assume your app is an addictive puzzle game that asks users to make matches. Then you know your app has a lot in common with competing games such as Bejeweled, which tasks players with matching a bunch of crystals and jewels for big scoring opportunities, and Jewel Mania, where users match various colorful jewels while trying to dodge pitfalls and hazardous portals.

Now you don't have to be a rocket scientist to conclude the audience that likes those games might also like yours. You obviously want to re-target users who have already seen an ad for an app similar to yours and then converted as a result of it (meaning they clicked and installed it). Once again, this is where an approach that leverages data around app ownership can literally clinch the deal. There's no smarter way to acquire users quickly for your app.

User Story: I love this app, I spend a lot of time using it and, in fact, I confess I also spent a lot of money inside it!

Big Data opportunity: Leverage Lookalike Modeling to acquire other users who behave similarly to your existing users in this respect.

Congratulations. Your app appeals to a specific user persona that also spends a good amount of money on in-app purchases. Now to identify the pockets of users who – like this segment of users that has already shown they are big spenders – will spend cash in your app and make you rich.

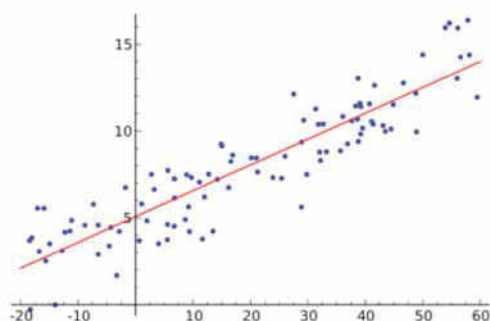
This is where Lookalike Modeling comes in. Lookalike Models are used to build larger audiences from smaller audience segments to create reach for advertisers. In theory, they reflect similar

characteristics to a benchmark set of characteristics the original audience segment represents, such as high engagement.

While this a great way to target new users for your app. It's also an advanced data modeling technique that requires rigorous methodology and huge computational power to get right.

And there's also a built-in tension in the model. If you are not too exact and loosen the model, then you will actually be able to target an even larger segment of similar users. The question is: where do you draw the line?

This dilemma becomes clear if you look at the typical lookalike model represented in the graph below. The dots on the red line are your big-spender users – the ideal users you want lots more of. The blue dots that aren't located on the red line are your potential users.



Source: *The Guardian* ¹²⁵

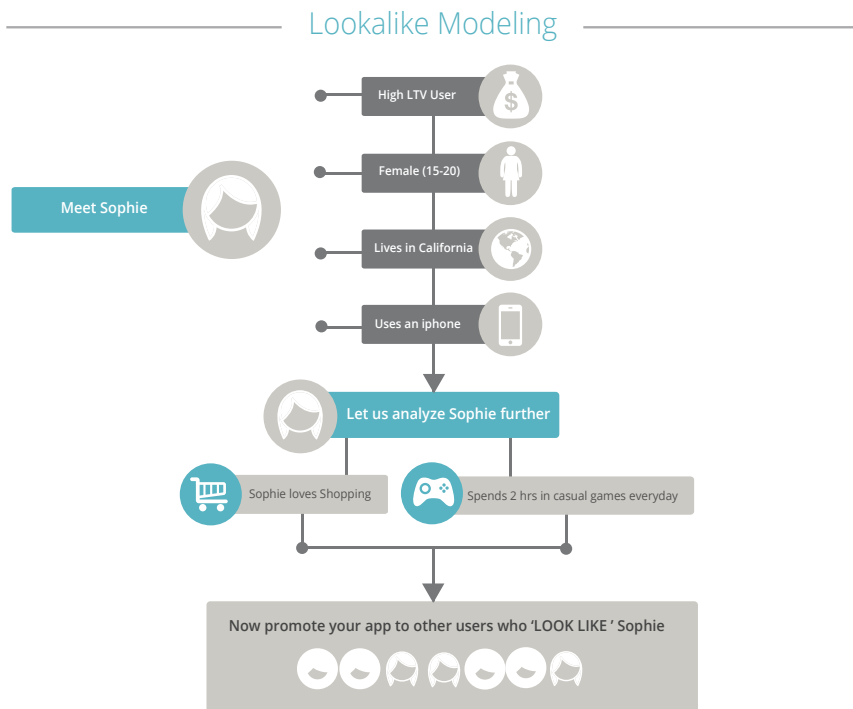
The closer your potential users (represented by the blue dot) are to your real users (joined by the red line), the closer their behavioral fit to the advertiser, or the higher the probability of the user converting into a lucrative user for your app.

Simply put, the closer the dot is to the line, the more apt the fit. However, you'll notice that the line only goes directly through a few points. Many more are clustered around the line – at varying distances. The line describes the ideal user, but the ideal user only exists in scarce quantities. So what do you do?

Most app developers and advertisers will simply relax the model to fit more potential users, an approach that allows them to cast a wider net.

Sounds sensible. But there is a catch. Some dots are quite close to the 'ideal' users along the red line, while others are much more distant. Depending on how much you relax the model you could

target more users, but these same users might not be so ideal. As a result, performance may go up or down, depending on how near or far the ad viewer is to that best-fit line.



Source: InMobi

The trick is balance, observes InMobi's Abhishek Bapna. "Success depends on being able to effectively identify the universe of attributes held by your ideal user that will also help you define a sizeable base of targetable users." His advice: Ask yourself: What uniquely describes your best monetizing (or high LTV) app users? Identify these traits and characteristics and use this insight to understand your users' interests and other behavior, which can then be used through an ad network to target the right users for your app."

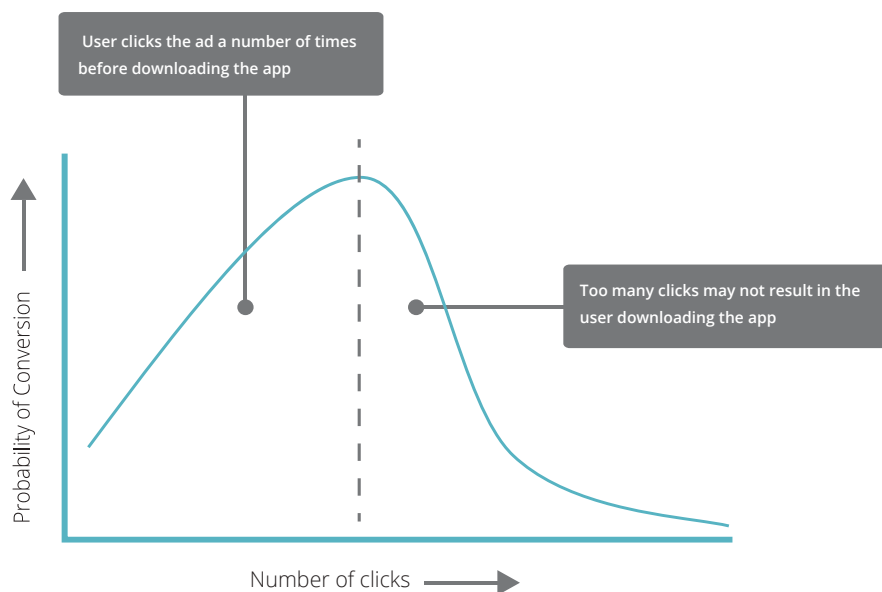
User story: I am tired of seeing the same ad again and again!

Big data solution: Automated creative fatigue management.

Users typically need to see an ad multiple times before they respond to the ad with a click or a conversion. At the same time, the probability of a click or a conversion begins to drop beyond a certain threshold or frequency, as the user grows tired of seeing the same ad again and again.

This threshold is called the “Optimal frequency” and refers to the maximum number of times a user can see an ad before making a decision around clicking an ad or downloading an app.

Auto-Fatigue Management



Source: InMobi

While this tends to vary by user or user segments, an intelligent technology platform should ideally have an in-built modeling around ad fatigue to control the number of times an ad is shown to the same user. Also, with the knowledge that a particular ad has been shown to a user already, developers and ad networks can also intelligently rotate the ad creative, even if it is for the same app, to manage ad fatigue.

3 tips to tackle Ad Fatigue

If there is one thing about app marketing and monetization that is a constant battle to overcome, it's dealing with Ad Fatigue. Here are a few strategies to follow that will help you limit this, and actually encourage users convert.

- Look and learn: Watch for Ad Fatigue by keeping a constant watch on CTR metrics and frequency (that is, number of times you show the ad to the users)
- Mix it up: Rotate your ad creative to ensure you're standing out and do the same with your ad formats.

- Keep it simple: Keep your marketing message simple for immediate understanding. But you can also be creative. Change the wording on the creative to ‘tease’ users with different texts to communicate your offer.

Remember: it doesn’t take long for ad blindness to set in. For this reason it’s essential that your ads stand out and act quickly to engage your audience’s attention. It’s important to convey unique value propositions, key differentiators and calls to action in your ad copy. Check out the ‘Helpful Tips’ for actionable insights and sure-fire strategies all around the ad creative, page 265.

User story: If a lot of my friends use this app, I might try it out too!

Big data solution: App recommendations based on social graph information.

Social graph ad targeting is a way to target app users based on who they’re connected to within social networks. And since we know these relationships are the ties that bind, there is a very high probability that targeting users based on their associations with each other will allow you to identify users who share the same interest in your app.

Here’s how it can play out:

- Mia downloads your app. Ad targeting technology determines that she is also close to Xinghua Wang, as she frequently interacts with him via his public social profile on the network where the two are connected.
- Xinghua Wang is therefore also shown ads for the app Mia has downloaded because of his proximity to her in his social graph.

No one will dispute that social media has become an amazing way to promote your app and get discovered. It follows that tapping into the social graph of your app fans can expose your app to more similar users that will likewise love your app.

But targeting to the social graph, which is essentially a person’s digital footprint, requires robust Big Data management. This makes it more complex to implement than the other techniques discussed in this section. But crack the code, and you will reap huge benefits! (Of course, this must be done according to best practices and without compromising personal privacy, so be sure to read and internalize the section on how you can do both on page 238.)

InMobi’s Abhishek Bapna points out that understanding the social graph has benefits.. “So if you or the ad network have access to a user’s valuable social information, such as apps the user’s friends have installed, then sharing this information with the user through the ad creative is an intelligent way to prompt a user to install your app.” Building on the earlier analogy, he explains that the exchange could go something like this:

Mia moves up a level in a game, progress that the app developer gleans from visibility into activity inside the app. Understanding that Mia is also friends with Pike, a serious and goals-ori-

ented gamer (a persona linked to signals such as his participation in tournaments with Mia hosted by the app developer) there is a high probability that an offer or message personalized to Pike and mentioning that Mia has moved ahead of him in the game would ignite his interest in gameplay. “The idea here is to add value to the decision-making process by communicating information that might encourage the user, in this case Pike, to play in order to achieve the social gratification he craves.”

Come together

The concept of targeting the social graph is based on some established research, such as a landmark 2006 study from Wharton School of the University of Pennsylvania by Professor Shawndra Hill. The study examines the influence of social networks by studying a large telecommunications firm that was marketing a new service.

Among the findings¹²⁶: “Network neighbors — those consumers linked to a prior customer — adopt the service at a rate 3 to 5 times greater than baseline groups selected by the best practices of the firm’s marketing team.” The study concluded that analyzing the social graph is a way to “acquire new customers who otherwise would have fallen through the cracks, because they would not have been identified based on traditional attributes.”

User story: I find rich media interstitial ads really engaging and I always end up watching trailers and videos on my mobile. Plain old banners are just boring

Big data solution: Personalization of adcreative basedonpast ad engagement behavior.

Data based on past ad engagement, such as clicks and conversions a user has generated on a previously served ad and ad format is a gold mine. Use it to deliver the right ad to the right user. But make sure you also choose the right ad creative to enhance their ad experience.

If the data shows that a user doesn’t respond to banners but reveals that the same user does click on full page interstitials, then you know your plan of action. Do not waste resources showing that user a banner ad (unless you want to annoy them!) and show an interstitial instead.

As InMobi’s Anne Frisbie, VP & GM, Global Alliances, sees it: “You know you only have a limited number of chances in winning the user’s attention and interest before ad fatigue begins to set in, so why try their patience and drain your pocketbook?”

User story: I am a serious gamer and I spend a lot of time and money playing games. So, don’t think you can buy me cheap! ;)

Big Data Solution: Predicted LTV based bid optimization.

Not all users are created equal nor do all users monetize equally for your app business. Clearly highly engaged and high monetizing users, in other words users with high Lifetime Value (LTV), are far more important to target than casual non-paying users of your app.



Having access to any and all information your technology platform provider has collected both internally and through partnerships with third-party data management providers (DMPs) such as Blue Kai and Factual (insights that enable a more holistic and unified view of the user) at the time of serving an ad is the best way to ensure that you are indeed targeting the right user with your app promotions and campaigns.

But a high LTV behavior, such as a tendency to spend a significant amount on in-app purchases, is linked to a specific user, and not just to a specific app. There is also a high probability that a high LTV user who spends on in-app purchases to move up the levels in app 'x' may also pay to move up the levels in *other* apps.

Put another way, the propensity to spend money on in-app purchases, which we have already identified as a high LTV behavior, is a characteristic deeply ingrained in this user. There is every reason to believe the user will exhibit the same behavior (spending on in-app purchases) when they interact with another *similar* app in the same app category.

Obviously, there is business benefit in being able to interpret the user signals that indicate a fit between the high LTV behavior (spending on in-app purchases) and the users with that very favorable trait. By aggregating user LTV signals across multiple apps, robust technology platforms like InMobi have built an LTV prediction engine that enable this match, thus targeting the right user at the time of ad serving.

To stay with this analogy, this approach doesn't just ensure that ads for similar apps reach users who have a propensity to spend loads on in-app purchases. It also balances the bidding process, ensuring that you bid at the right price for this valuable audience. This is key since the chances of advertisers to acquire high LTV users depends on their bid.

In practice, if the bid is lower than the predicted LTV of the user (measured in dollars) and higher than all the competing bids, then that advertiser will, in all likelihood, be able to attract the user to your app. In this scenario, an approach that employs predicted LTV based bid optimization ensures the same budget is apportioned more efficiently across the universe of users you are targeting, thus helping you win the users that matter the most to you, while at the same time not compromising on the number of users you wish to acquire.

These user stories illustrate some of the many ways you can harness users insights and signals to optimize your user acquisition and retention strategies to deliver the best results. As we have shown, targeting is a journey, not a destination.

With new signals emerging from our smartphones and embedded in the networks around us, you can be assured the journey will be an on-going one.

Get ready to enter the age of ‘Trillions’.

Trekking in ‘Trillions’ territory

It’s a fantastic journey that lies ahead. And the must-read book titled *Trillions: Thriving In The Emerging Information Ecology*¹²⁷ — co-authored by Peter Lucas, Joe Ballay, and Mickey McManus, President, CEO, and principal of MAYA Design, a leading pervasive computing design firm — is our field guide to the wonders and challenges that await us as we enter an age where wearables and ambient ‘connectedness’ are the norm.

And that time is a lot closer than you think.

Microprocessors and sensors are already embedded into everything from smartphones and smartwatches, to cars and clothes, to pills and packaging. In fact, industry manufactures more microchips than grains of rice and, in a few more years, the authors of Trillions note , their numbers will climb into the trillions, creating a world “literally permeated with computation.”¹²⁸

It all started out at PC Peak, a mountain of technological change driven by the rise of mass-market computing and the arrival of the PC. Fast forward, and a much bigger mountain is coming into view over the treetops.

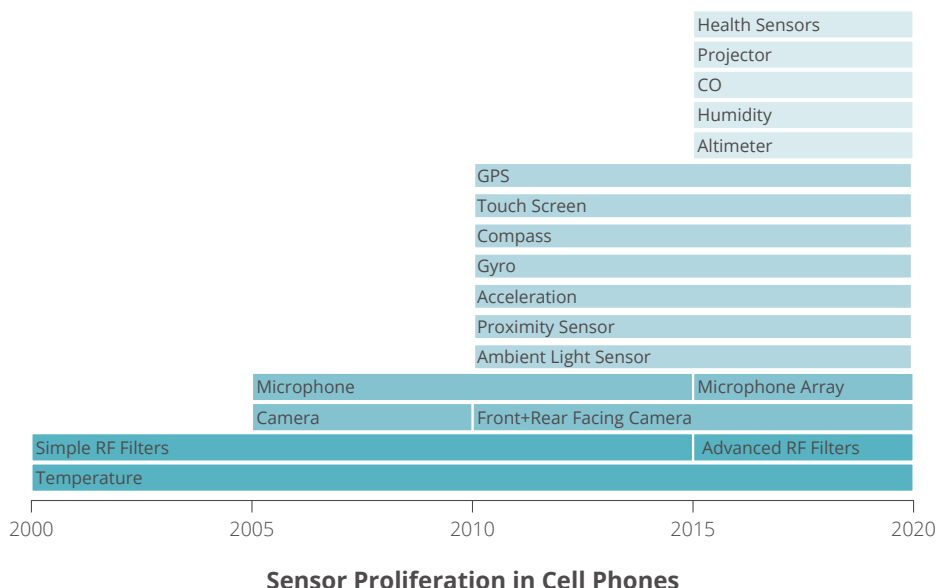
Today Trillions Mountain towers over us. It was created by a seismic shift in technology that has changed the way we interact and behave forever. Mickey McManus puts it this way: We may have started out in a state where information was mostly contained in PCs but now, thanks to the advance of mobile and the avalanche of mobile apps, information isn’t ‘in’ anything.

It is *everywhere*.

Sensory explosion

Technology isn't just abundant; it's smart — and going to get a lot smarter.

By 2015 sensors built in to smartphones will be able to tune into new aspects of our environment like humidity and altitude, and communicate these data signals to any other entity (apps, networks, appliances — the list goes on) that needs to be 'in the know' in order to deliver amazing services that will impact and improve our lives. Of course, this will need to take place with our express permission.



Source: www.fairchildsemi.com

What services, platforms and apps can more and smarter sensors enable?

It would be easier to ask what is not possible!

- Smartphones have already opened up new possibility for apps to monitor and even regulate activity across the so-called Body Area Network (BAN). The arrival of additional health sensors and actuators (motors that convert energy into motion) will no doubt provide new opportunities for app developers to deliver apps that read these signals to allow users — specifically athletes — to control their physical conditions, prevent overstrain and improve their performance.

- Altimeters in our smartphones will mean apps could determine elevation changes. In theory they could also determine what floor a person is on inside a building. It's easy to imagine mobile apps that tap into these signals as a guide for first-responders relying on location data to find a person in need of medical attention in a building.
- Sensor systems will also enable a new breed of apps and services. Researchers at DIEET¹²⁹ are working to develop a low-cost smart multisensor system to monitor the ash fall-out following the explosive activity of volcanoes. This fall-out represents a factor of risk for people and a serious hazard for air traffic. By measuring the average granulometry of ash particles and the ash flow rate people can be warned about potential risks. It's easy to imagine mobile apps that would tap into this system to listen to signals and alert users in these areas (near the Etna volcano in Italy for example) about environmental hazards and potential risks.

Packing and the purchase funnel

It's early days but MAYA is already working on prototype packaging that can 'sense' when consumers – people who likely appreciate the product or intend to purchase the product – are nearby. This interactive and intelligent packaging can effectively 'sense' a person's presence, a signal that triggers the package to activate to get their attention.

Mickey can imagine scenarios where such packaging could literally become embedded in our daily routine to add value – and convenience – to the decision-making process. Tortilla chips packaged in this way, for example, could 'know' they are being considered as a purchase by a nearby user and suggest a spicy dip on a nearby shelf as the perfect accompaniment.

With the help of sensors everywhere that infer what we want and need, a mobile app or service could then 'manage' the resulting purchase process all the way down to the real-time delivery of a relevant discount coupon to the user's mobile device, or the addition of new loyalty points to the supermarket club card mobile wallet.

Do the math. Millions of mobile apps, billions of users and trillions of sensors add up to countless opportunities for app developers to create and deliver contextually relevant experiences users will embrace, appreciate and monetize.

Location meets context

Perhaps the most accurate data signal related to context is location.

Clues to physical movement and presence — essential to the delivery of advertising and marketing that is timely and ‘placely’¹³⁰ — are coming in via GPS tracks on the mobile device. But signals are also coming in from indoor beacons and iBeacons, Foursquare check-ins and a host of location-aware apps and services — signals that add to the insights and the noise.

“People are using more apps, and more importantly people are giving permission to share more and more of their sensor data with their apps,” observes Tyler Bell at Factual, a data company that uses its understanding of places to help app developers develop more personalized app experiences using the context of location.

But longitude and latitude are just part of the picture. Is the user an enthusiastic sports fan at a stadium watching a live event? Or a social butterfly out for the evening at a new bar that is currently the ‘in’ place to be? Context around location can decide whether an app experience flies or fails.

To provide location context that app developers and publishers can use to deliver more relevant content, Factual maps mobile location signals generated by mobile devices to real world locations in its Global Places data. “Our primary data resource is a collection of over 65 million businesses and landmarks in 50 countries around the globe,” Tyler explains.

And the reason Factual focuses on foundational location data is because there is a lot of value app developers and publishers can add to the user experience if they understand how users engage with the commercial landscape around them.

“Factual is positioning itself for a near future where there is not sparse location data, as currently, but one in which there is far too much location data to make sense of it all in a timely manner,” Tyler explains. “Devices are currently moving through a data-infused world that cannot inform the consumer experience.” But that is set to change.

Marketing and ‘Made Media’

The age of Trillions is upon us. At one level, it is about the advance of technology that will allow devices, appliances, apps — everything (!) to communicate with themselves and with us. At another level, it heralds a paradigm shift in how everything — and this includes apps — is developed, marketed and integrated into our lives.

“This shift — equal to the next industrial revolution— is defined by massive connectivity and disrupts every part of the business process, from development to production through to

marketing,” observes Jonathan Cohen, Chairman, CEO and Founder of the Agency of Trillions (AoT), a MAYA Company.

AoT was created by its founders and strategic advisors with the conviction that today’s agencies are not preparing their clients for this shift. Together, MAYA and AoT are bringing Human-Centered Design into the heart of these processes, breaking down barriers between marketing and product development to help the emerging ecosystem of brands, companies and developers harvest and leverage user stories, signals and insights and turn them into true business value.

MAYA and AoT are also adding a new dimension to marketing. Paid, owned and earned media was marketing and advertising before the advent of Trillions. Now business and brands must brace themselves for ‘made’ media, the outcome when the product itself becomes the platform for its advertising and marketing message, Jonathan explains.

What happens when products join the social network? In a word: disruption.

“We’ve all lived through a related form of this disruption with the advent of social media,” Jonathan says. Looking back that’s when everyone with access to social media (Twitter, Facebook, YouTube) was empowered to speak to (and about) companies — and companies had to listen and respond.

Simply put, old school ‘one-to-many’ marketing gave way to engagement marketing and nothing has been the same since, Jonathan explains. “At AoT we are preparing companies for what happens next, when products begin telling stories as well.”

Loud and clear

Up until now the business of every company, brand and developer has been to create what their customers will like —and monetize. From hard cash to valuable social currency, the deal has been clear cut: They create and people consume. And the role of the consumer is to accept or reject the final product set before them.

Trillions turns that model on its head.

Trillions amplifies the voice of the individual, giving each and every single one of us a greater say in our experiences, Mickey explains. From apps and entertainment, to advertising and commerce, people “will come to expect, even demand, a new level of personalization and relevancy because the technology is there to deliver it.”

Moving forward, apps will need to be more than fiercely personal and extremely relevant.

They will have to evolve and become what Mickey calls ‘generative platforms.’ Rather than simply deliver users better experiences, apps will have to enable users to co-create their content, advertising, and added value.

Minecraft, the indie sandbox game that generates itself as players explore it, is a great example of where this is going. Gameplay is emergent and adapts to the players, not the other way around. More importantly, the players have complete control and creative freedom.

In the future, all apps – not just games like Minecraft – will have to put people at the center of all they do.

Jonathan notes that, “Instead of trying to get customers to like the things we make, we’ll shift to customers having the power to make the things they like.”

The challenge for app developers will be three-fold. First, they will need to learn new ways to customize app experiences on a massive scale by equipping and involving people to participate at every stage.

Second, app developers will have to internalize the approaches that allow them to integrate users’ input, ideas, and signals into the process.

Third, app developers will have to move beyond thinking of their platform as being “about” a mobile device and extend their thinking to consider all the products, people, and places their uses are moving through.

The app of the future will be massively distributed. Apps won’t just be on phones, they’ll be embedded within every single product a customer touches. Living “in” the information isn’t just a metaphor it’s fast becoming a reality.

The outcome will be a new phase of app growth and innovation that empowers people, encouraging lasting loyalty and allowing app developers to build sustainable successful businesses.



The three things you need to know



1.

There's no doubt consumers love apps. However, negative news reports about alleged abuses of personal information can leave app developers vulnerable and possibly even liable to privacy-related prosecutions. It's therefore imperative that you take steps to make your apps privacy friendly. AppPrivacy provides you with a **FREE** mobile privacy policy generator along with up to date resources and information on everything you need to know about privacy when collecting data in your mobile apps.

2.

Activity in and around your app is generating unprecedented amounts of signals and data about your user base. Data signals take many forms, owing to their distinct sources, structures, taxonomies, use guidelines and actionability. In addition, some data signals are the property of the companies that collect them, while others are around user activities happening outside your app – and well outside what you can observe or measure.

3.

The future is bright! Do the math. Millions of mobile apps, billions of users and trillions of sensors add up to countless opportunities for app developers to create and deliver contextually relevant experiences users will embrace, appreciate, and monetize. But it will also be challenging as app developers brace themselves for 'made' media, the outcome when the apps join the social network and become their own platform for advertising, marketing and more.

Sections of this chapter were contributed to by:

Tyler W Bell, Factual; Mickey McManus, MAYA Design; Jonathan Cohen, Agency of Trillions. InMobi insights were provided by Arun Kumar Pattabhiraman, Abhishek Bapna, Rohan Choudhry, Anne Frisbie and Chris Davies.

Apponomics



Appendix

In this section:

- Helpful Tips
- Endnotes
- Glossary
- App-solutely essential industry contacts
- Expert Contributors
- InMobi Insights Contributors
- The MobileGroove Media Team
- The InMobi Team



'Helpful Tips' Sheet: Ad Creative

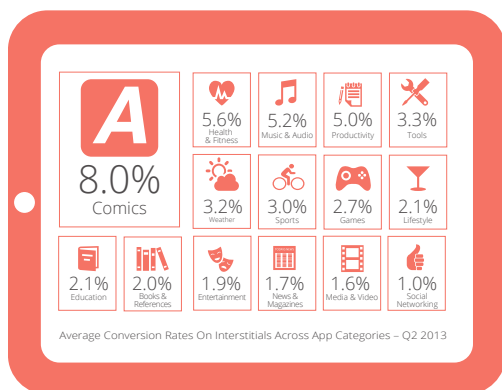
As a developer, you know that designing the right ad experience is crucial to grabbing the user's attention and convincing them to download your app. While simple banners continue to do this job quite well, mobile advertising today offers far more interesting options, ranging from rich media and interstitials to expandable ads and other unique and native ad formats.

So which one do you pick for your app? Let's go through your options and what each ad format delivers.

Interstitials

The full-page interstitial ad that appears between content pages, typically on gaming and mobile apps, ranks among the most effective ad creative formats. Since an interstitial ad unit is typically 10 times larger than the size of a traditional banner ad, and also because of how it appears within the flow of regular content, this type of ad is more likely to capture the user's attention than other formats.

While a lot of game developers use interstitials already, this ad format is also seen to work very well for a wide range of content. On the InMobi network, interstitials drive as high a conversion as 8% for Comics and 5.6% for Health & Fitness Apps.



Source: InMobi

For apps with short app sessions, static interstitials get the point across immediately and are found to be the most effective in driving engagement.

Interstitials or banners?

In an age of dwindling attention audiences are often distracted by something else. By making the most of all available space on the screen, whether smartphone or tablet, you can grab and maximize user attention, encouraging engagement, click through and ultimately, conversions.

An interstitial ad provides the user with the option to close the ad and get back to the intended content. Considering that an interstitial ad appears either prior to the app launch, in between app levels or before exit, the ad's interference with the main app content is also minimal. As users intend to continue using the app, attention for the interstitial ad is guaranteed.

Data from InMobi's network, finds that interstitials are the most effective ad format. In general, it appears that interstitials are most effective while promoting games, social and entertainment apps.

On Android, the conversion on interstitial ads are almost double that of other ad formats

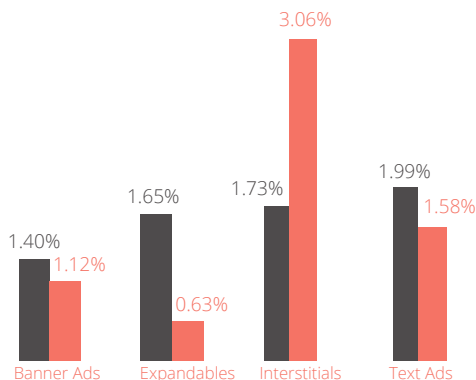


Chart 4: Conversion Rates Across Ad Formats by iOS, Q2, 2013

■ Conversion Rate on iOS
■ Conversion Rates on Android

Source: InMobi

However, banners continue to work well for a wide range of non-gaming content on both iOS and Android.



For any app promotion campaign, use a good mix of HD banners and interstitials to ensure you reach audiences on a wide variety of hand-sets. Also, rotating ad formats can reduce ad fatigue and help drive higher ad engagement.

Best practices for maximizing your creative

As with every ad format, developers can benefit from implementing simple best practices while using interstitials for monetization.

Placement & Frequency: Interstitial ads should be placed such that there is minimum interruption in the user experience. If you have a game app, place your interstitials after each game level. For non-gaming apps, aim to place the interstitial after every 2 or 3 pages. The ad can also be placed when the app is just opened, before the user begins interacting with the app's core content. While it may be tempting to use interstitials more frequently to maximize monetization, InMobi has observed that developers see maximum eCPMs when interstitials are used after every 2-3 minutes. Too many interstitial ads at critical junctures within the game/app will lead to negative user experience.

Choosing the right kind of interstitials: There are several types of interstitials, ranging from static interstitials to rich media and video interstitials, and even timed interstitials, which persist for a pre-defined time interval. For apps, which typically have shorter app sessions, static interstitials get the point across immediately and are found to be the most effective in driving engagement. Conversely, for more engaging apps with longer app sessions, video interstitials deliver higher eCPMs. Static interstitials typically are observed to provide CTRs as high as 20% while video-interstitials are found to deliver superior engagement.



By leveraging maximum real estate on the mobile screen, developers can deliver an engaging ad experience to users and significantly boost monetization.

More is better

Overall, interstitials offer a powerful way to engage with users. They also give advertisers the flexibility to provide a wide range of interactions on the ad unit that could make it more appealing or drive more conversions.

But you should also experiment to find the right fit between your app and the many other ad formats and approaches available on the market.

Video and trailers: Reams of research¹³¹ suggests mobile video ads and trailers send user engagement through the roof. We know from brand marketing campaigns that time spent in mobile rich media ads is phenomenal, with U.S. consumers spending around 20 seconds with mobile rich media ads. It's also notable that campaigns with features like games can drive time spent above 1 minute. So it follows that mobile video creative is part of your mix if you want to promote your app effectively.

Facebook needs no convincing. It recently beefed up its offer to encourage app developers to use video creative and so improve the efficiency of app installs in News Feed. In practice potential users can click play to watch a video featuring the app before making the decision to actually install it. In line with this Facebook has also simplified the buying process for mobile app ads by giving app developers the option to bid and optimize for mobile app installs with the option to set a cost per action (CPA) bid to better manage their budgets.

Native ads

Tomi Ahonen, independent consultant and best-selling writer of the book *Mobile as 7th of the Mass Media: Cellphone, Cameraphone, iPhone, Smartphone* – argues that mobile is the most potent form of media in the history of mankind. Following print from the 1500s, recording from the 1900s, cinema from the 1910s, radio from the 1920s, TV from the 1950s and Internet from the 1990s, mobile is the mass media where “all forms of content and communications converge.”

However, he – and many other mobile authorities and futurists – have criticized advertising on mobile for merely picking up where online display advertising left off. Rather than strike out in new directions as you would expect from a new mass media, mobile advertising began by forcing banners onto tiny smartphone displays. Not a great user experience – and one that was bound to change.

Thereafter, advertisers and publishers moved to interstitials, a format this section shows succeeds in offering a better user experience.

Fast forward, and Krishnendu Majumdar, InMobi Product Head, Supply & Developer Solutions, confides on his blog¹³² that app developers demand ad formats that do much more. “One [app developer] recently asked me, “If I spend so much time and effort in building, what I believe, is the coolest app ever then why am I forced to carry ads that suck all the fun out of my app?”

The answer appears to lie in native ads, a development that many say will rock the industry. Research firm Forrester¹³³, for example, predicts native advertising will come of age in 2014, with brands, publishers and native advertising networks increasingly able to make targeted decisions based on content consumption and sharing data.

Hard numbers play in favor of this new mobile mega-trend. Quoting a recent report from BIA/Kelsey, Ad Age reports¹³⁴ that spending on native advertising (online and mobile) in the U.S. was up by over 71% this year over last year, and by 2017 it will account for 42% of all social media spending.

“Display remains the most prevalent form of social advertising throughout our forecast,” Jed Williams, VP-consulting, BIA/Kelsey, said in a statement. “At the same time, native advertising formats are quickly emerging as alternatives to display that can generate better engagement and performance. The rapid growth in native is further accelerated by the widespread usage of social networks on mobile devices.”

So what is native advertising? It’s a form of paid media that appears as sponsored content and seems to naturally belong in the place where it shows up. It can take the form of a blog post, video, advertorial, product placement, sponsored Twitter post or any other type of content.

In mobile native ads are essentially ad units that are adapted to an app’s look and feel, providing a seamless experience to users and resulting in better monetization for publishers.

The aim of this ad format is to allow app developers and mobile publishers to deliver an engaging, in-context, experience to their end users. InMobi has taken the wraps off a new platform that does all this, with minimal development effort.

The Native Ads platform simplifies the process of delivering native ads across multiple, discrete publishers by adapting a base set of creative assets like the logo, tagline, call-to-action, all in real time.

In practice the platform customizes ads to suit minute details like visual representation, interaction elements and social sharing options. It is also built atop the InMobi ad network — which provides publishers access to a wide range of global ad campaigns from thousands of advertisers on the InMobi ad network — across apps, brands and commerce advertisers — thereby increasing their monetization potential.

The focus is to deliver engaging and non-intrusive ads to users that do not compromise the user experience delivered by the app. “There is a lot of interest, and until now, there has been not been a platform to support publishers and app developers serious about achieving the competitive differentiation this new format offers,” observes InMobi’s Pankaj Bengani. And the number of both is on the rise. “The velocity is growing fast as more publishers and app developers scramble to learn more about native ads on mobile.”

In beta tests, InMobi has seen user engagement rates up 5x for native ads compared to typical banners or other ad units.

Custom ads This new ad format, developed and offered only by InMobi, recognizes that every app is unique. To this end the creative lets the app developer call the shots, enabling them to customize standard ads with visual elements specific to their app with absolutely no additional integration effort.

Here are 3 things to keep in mind when rolling out a native advertising campaign:

1. **Make it feel natural:** Successful native ads seem to naturally fit within the environment where they appear.
2. **Don’t blur the lines:** Integrity and quality are essential. Don’t damage user trust by ‘tricking’ users into clicking links to purely promotional content they would consider ‘spammy’.
3. **Think big and broad:** It’s not just about delivering a great experience, it’s also about optimizing that experience. There’s a lot of opportunity and loads to learn!

App developers can select from a rich gallery of custom frames and animations pre-built for the most popular app categories. Whether it's to match colors, add new textures or just include characters from the app onto the frame, InMobi's custom frames can make ads come alive with InMobi's custom animations, or custom animations app developers can create by working with InMobi's in-house team.

Testing to get it right

Differences in advertising creatives can have a massive impact on click through rates (which also impact cost per install prices). Focus on A/B tests, but don't get overwhelmed. Focus your efforts and keep in mind that a multitude of broad aesthetic themes should be tested when building out a portfolio of ad creatives for a product.

Be prepared to test, change and implement new creatives throughout the lifecycle of your app. A/B testing ad creatives doesn't always require you to run a campaign on a mobile ad network. In some cases, desktop Facebook display ads can be built quickly, and can provide a decent proxy for effectiveness on mobile.



'Helpful Tips' Sheet: How much can it cost?

Mahak Sharma, InMobi Business Development Lead, Mobile Gaming, provides the insights to help you plan – and stick to – your budget.



There are two broad factors that will decide your advertising budget: your production costs and the number of networks/channels you target. Obviously you can spend more on advertising than you spent on the production of your gaming app. That is bad business. Generally speaking, InMobi has observed that marketing budgets hover around 20% of production costs. While the exact amount can vary depending on the studio size and the game genre, this is a good rule to follow.

It's quite inefficient to split your spending across too many ad networks. You optimize your spend by carefully choosing 3-4 ad networks with the proven capabilities (targeting, geographic focus, wide publisher network) to reach and engage your target audience.

Once you have decided how much you want to spend (say, 20%-30% of your production budget), then you need to distribute it among your chosen ad network partners. Of course, the exact split will depend on your business objectives. (It makes sense to spend more with an ad network partner that has a strong presence in China, if your strategy is to release your app there.) InMobi generally recommends that app developers plan to spend at least US\$200 in each market with each ad network.

But you should also not be afraid to experiment.

In a space where 40+ ad networks are competing for your spending it's a good idea to earmark around 10%-20% of your total marketing budget to 'test' different ad networks and the results they deliver. If the results are positive, then you can partner, but be selective. Many studios developers spend 80% of their budget (20-30% of their production costs) on 2-3 ad networks they trust, and then the remaining 20% is distributed among up to 8 networks to see how (if) they really perform.



Apps in this category thrive on viral sharing and word-of-mouth. Initially, your spend will be low as you seek to build and understand your audience. But things change drastically when you enter the Scale stage of your app lifecycle. InMobi has observed that app developers generally spend 40%-50% of their revenues to grow their app business. How much you spend will depend on your appetite for market share and the money you want to make in the process. Large communications and entertainment apps like Spotify spend millions, but it has also become the leading social/music/sharing app on the market. (Of course, not every app developer is a market giant or is pursuing a strategy to be one). Count on spending US\$200-US\$300 per ad network per market minimum.



Similar to social apps, your focus on advertising comes in the Scale stage of your app lifecycle. What you spend depends on your ambitions (and your revenues). Let your business plan be your guide and factor US\$200-US\$300 per ad network per market into your algorithm for app success.



'Helpful Tips' Sheet: How many markets should you target?

Innu Nevatia, Head of Revenue Delivery & Optimization, Performance Advertising, EMEA at InMobi, reveals the key considerations that should be top of mind as you plan campaigns to target users and achieve success.



Gaming apps are global in popularity, so your strategy shouldn't ignore opportunity outside your home market. InMobi observes that most app developers have a three-prong approach. First, in the Learning phase of the app lifecycle, app developers generally launch campaigns in a number of English-speaking markets to raise awareness and drive downloads. Clever app developers also use the Learning phase to de-bug their app and ensure it will delight their audience.

Second, app developers expand their foot print to most tier 1 and tier 2 markets, a group of countries that includes all English-speaking markets as well as France, Italy, Germany and Spain.

Finally, if results are positive and app developers have done their work to localize and customize the app (see Think Big, Go Global, page 183), then app developers will target the lucrative markets in Asia.



The countries you target will depend on a variety of factors including your business goals, your budget (what percentage of your revenues you are willing to invest), and copyright laws that might limit the use of your app. Check local laws to make sure the countries you target will permit you to launch. Localization is equally critical to your app success. Generally speaking, it's wise to target 3-5 key markets for your app. Keep in mind that mobile should play a central role in your marketing, but you'll also need to dedicate spend to more traditional channels such as TV and print.



Once again, you follow a path similar to social apps. The number of markets you target will depend on what you want to achieve for your app business. The Scale stage of your app lifecycle should see you focus on 3-5 key markets. Anything less and you might be leaving money on the table.



'Helpful Tips' Sheet: What are the sure signs of success, or failure?

If you miss your target, then you obviously need to rethink your strategy. But how high should you set your expectations? Mahak Sharma, InMobi Business Development Lead, Mobile Gaming, shares practical advice and hard numbers.



In the soft launch period, the stage of your app lifecycle that will tell you whether or not there's an audience for your app in the first place, aim to recruit 1,000 active users daily. This is a statistically significant sample that will allow you to understand your audience behavior and identify the most valuable users, insights that will help you plan and expand your app business.

In the next phase of your app (when you expand to additional English-speaking markets) you should chalk up at least 100,000 users for your app within the span of a 10-day to two-week advertising campaign. Put simply, "100,000 active users in 10 days" should be your business mantra. Achieve this milestone and then the way is clear to go global – and reap the many rewards for your hard work and marketing prowess.



Use games apps as a benchmark to meet – and exceed – by a factor of 10. You want to aim for millions per month, which is a reach you would expect for an app that is truly viral. If you're not achieving this scale, then step up your marketing efforts – and pay keen attention to social media marketing to amplify the impact of your advertising campaigns.



Once again, your app is truly in a class of its own. While you depend on virality to scale the numbers you should aim for will differ widely depending on your app. Let's keep it simple. Use game apps as a benchmark. If you are not coming close to these metrics, then take it as a signal to seriously re-think your marketing strategy.

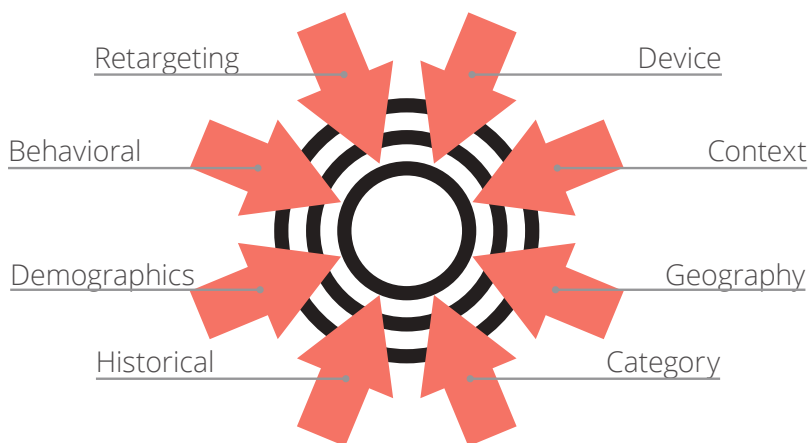


'Helpful Tips' Sheet: Targeting

As you strategize, analyze your audience and adapt your app advertising to achieve optimal results. If it doesn't work for your audience, don't waste your time and money. Study your customers so that you can impress them while achieving your campaign goals.

There are many mobile ad networks to choose from. When selecting an ad network, be sure to choose one that offers the right targeting options for your app. Common targeting functions include platform, device type, app category, and country.

Below are some of the popular and useful targeting capabilities provided by InMobi.



Source: InMobi

Behavioral Targeting: Show ads to specific user segments (movie buffs, gamers, digital moms) that have been defined on the basis of their interests, activities and real-world interactions.

Context: Target users at the time of the day when they are most likely to respond to your ad. Ideal times are before they go to bed or when they are on the commute.

Demographic: Target ads by focusing on selected population characteristics members of your target audience have in common such as age, gender, language or education level.

Device: Ensure your mobile app ads are targeted to model capabilities of the devices your customers use. Use device targeting to reach only the devices and models for which your app was built in the first place.

Geography: Target users based on their location – by state, city, zip code, latitude/longitude.

Operator & Wi-Fi: Reach users on specific operator networks or only target users on Wi-Fi. For large app download campaigns, Wi-Fi users provide the highest conversion rate.

OS: Show your ads only on OS versions for which your app was built to ensure there is no wastage.

Site-category: Increase the relevance of your ad by targeting users on the websites they are most likely to visit. (Example: an ad for a mobile sports app on a sports news website.)

Don't scatter your resources or your budget by showing your ad to everyone. As we've shown, targeting according to the parameters that make the most sense for your app is a practice that pays dividends. If you want to expose your app ad to single women, under the age of 25, who like cats and casual gaming and lives in Catamarca then you can. But be careful to not to fall into the trap of "hyper-targeting." If you are too granular, you run the risk of limiting the pool of potential users likely to download your app – and you reduce your chances of success.

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Glossary

Ad Exchange	An ad exchange is a sales channel between publishers and ad networks that can also provide aggregated inventory to advertisers. They provide a technology platform that facilitates automated auction based pricing and buying in real-time.
Ad Marketplace	An ad marketplace is where ad networks and exchanges combine with advertisers and publishers of all sizes creating an exchange for all ads.
Ad Network	Ad networks provide an outsourced sales capability for publishers and a means to aggregate inventory and audiences from numerous sources in a single buying opportunity for media buyers.
Ad Platform	A mobile advertising platform is a third-party network that allows advertisers to publish text, graphic or animated advertisements on mobile websites and applications.
Ad Server	An ad server is a web server dedicated to the delivery of advertisement. This specialization enables the tracking and management of advertising related metrics.
Analytics	Analytics is the discovery and communication of meaningful patterns in data. Analytics are helpful to increase application value and customer satisfaction.
Android	Android is an open source mobile operating system developed by Google.
APIs	Application Programming Interface (API) is a protocol intended to be used as an interface by software components to communicate with each other.
App	Application software is all the software on an electronic device that causes a computer to perform useful tasks beyond the running of the device itself.
App Search	A search engine that helps users find mobile apps.
App Store Analytics	App store analytics allow you to track and analyze your app sales.

App Store Optimization	App store optimization (ASO) is the process of improving the visibility of a mobile app in an app store.
ARPAU	Average Revenue Per Active User.
Banner	A banner ad is a rectangular image featured on a website or application, which acts as a portal to the advertiser's site once clicked on. Banner ads come in different shapes and sizes and are often interactive.
Behavioral Tracking	Behavioral Tracking uses previous online user activity (e.g., pages visited, content viewed, searches, clicks and purchases) to generate a segment, which is used to match advertising creative to users (sometimes also called Behavioral Profiling, Interest-based Advertising, or online behavioral advertising).
BlackBerry	BlackBerry OS is a proprietary mobile operating system designed specifically for Research In Motion's (RIM) BlackBerry devices.
CDN	Content Delivery Network.
Click	The act of clicking on an ad (banner or text link) that has been served to a mobile screen.
CPA	CPA (Cost-per-Action) is cost of advertising based on a visitor taking some specifically defined action in response to an ad. "Actions" include such things as a sales transaction, a customer acquisition, or a click.
CPC	CPC (Cost-per-Click) is the cost of advertising based on the number of clicks received.
CPE	CPE (Cost-per-Engagement) model means advertising impressions are free, advertiser pays only when a user engages within the ad unit.
CPI	CPI (Cost-per-Impression) refers to the cost of Internet marketing or email advertising campaigns where advertisers pay for every time an ad is displayed.
CPL	CPL (Cost-per-Lead) is an online advertising pricing model, where the advertiser pays for an explicit sign-up from a consumer interested in the advertiser offer.

CPM	CPM (Cost-per-Thousand) is a media term describing the cost of 1,000 impressions. For example, a website that charges US\$1,500 per ad and reports 100,000 impressions has a CPM of US\$15 (US\$1,500 divided by 100).
CPV	CPV (Cost-per-Visitor) is when the advertiser pays for the delivery of a Targeted Visitor to the advertiser's website/app.
CTR	Click Through Rate is the response rate of an online or mobile advertisement, typically expressed as a percentage.
Crowdsourcing	Crowdsourcing is the practice of obtaining needed services, ideas, or content by soliciting contributions from a large group of people, and especially from an online community, rather than from traditional employees or suppliers, including start-up fundraising.
Custom	Allows for customized ads for their API.
Custom App Platform	A platform that offers cross-platform mobile deployment services.
Customer Relationships	Customer relationships platforms help mobile apps manage relationships with their customers by providing them with behavioral insights and tools to facilitate interactions.
Customer Support	Customer support platforms enable mobile apps to collect customer feedback, answer questions and resolve issues, with the goal of driving higher customer satisfaction.
Data Analytics	Data analytics is the discovery and communication of meaningful patterns in data. Analytics are helpful to increase application value and customer satisfaction.
DAU	Daily Active Users.
Direct	Direct marketing is a channel-agnostic form of advertising that allows businesses and nonprofit organizations to communicate straight to the customer.
Distribution Platform	Digital distribution platforms provide mobile software to mobile devices.

DSP	A demand side platform (DSP), also called buy side optimizer and buy side platform, is a technology platform that provides centralized and aggregated media buying from multiple sources including ad exchanges, ad networks and sell side platforms, often leveraging real time bidding capabilities of these sources.
eCPC	Effective Cost Per Click. eCPC is calculated by dividing total earnings by the total number of clicks.
eCPM	Effective Cost Per Thousand (Mille) impressions.
Engagement & Retention	Companies that offer strategy services and in-app feedback tools, enabling developers to easily engage customers for positive ratings, feedback and customer research.
Exchange	Ad exchanges are technology platforms that facilitate the bidded buying and selling of online media advertising inventory from multiple ad networks.
Fill Rate	The percentage of ad requests that are filled with ads.
Flash Lite	Adobe flash lite is a lightweight version of Adobe Flash Player intended for mobile devices.
Freemium	Free apps supported by in-app purchases.
Funding	Crowdfunding service that connects developers to buyers interested in buying wholesale copies of their apps.
Games	A company, tool or service that specializes in games.
Geolocation Targeting	Geolocation targeting is the displaying (or preventing the display of) content based on automated or assumed knowledge of an end user's position in the real world.
HTML5	HTML Version 5 is the latest generation of HTML from the Web Hypertext Application Technology Working Group (WHATWG). HTML5 was designed to provide a comprehensive application development platform for web pages that eliminates the need to install third-party browser plug-ins such as Java and Flash.
IDFA	Identifier for Advertisers. Opt-out tracking and targeting tool for mobile applications.

Impression	An impression is generated every time an end user views an ad.
In-App Purchasing	In-app purchases (IAP) are purchases made from within a mobile application.
In-line	In-line text ads are text links that appear within the text of your content.
Interstitial Display	Interstitial display is an ad that appears between two content pages. Also known as transition ads, intermercial ads and splash pages.
iOS	iOS is a mobile operating system developed and distributed by Apple Inc. Apple does not license iOS for installation on non-Apple hardware.
JavaME	Java Platform, Micro Edition (Java ME) provides a robust, flexible environment for applications running on mobile and other embedded devices: mobile phones, personal digital assistants (PDAs), TV set-top boxes, and printers.
KPI	Key Performance Indicator. Volume, cost of clicks, installs, in-app purchases.
Location Services	A location-based service (LBS) is a mobile data service related to an end user's immediate location.
LTV	Lifetime Value.
MAC	Media Access Control.
Marketing	Marketing specialists help improve an apps competitiveness and market share through marketing strategies.
Mediation	An ad mediation platform coordinates with ad networks to help maximize your fill rate and increase your monetization.
MMORPG	Massively Multiplayer On-line Role Playing Game.
Mobile Web	The Mobile Web refers to access to the World Wide Web, i.e. the use of browser-based Internet services, from a handheld mobile device, such as a smartphone, a feature phone or a tablet computer, connected to a mobile network or other wireless network.
Monetization Platform	Monetization platforms provide developers with a range of products and services to help add commerce and monetize their apps.

Open Source	Open Source refers to a program in which the source code is available to the general public for use and/or modification from its original design free of charge, i.e., open.
Personalization	Personalization technology enables the dynamic insertion, customization or suggestion of content that is relevant to the individual user, based on the user's implicit behaviour and preferences.
Real Time Bidding	Real Time Bidding (RTB) indicates a real-time system for either bidding on or buying ad inventory.
Rich Media	Rich media are advertisements with which users can interact (as opposed to solely animation) in a web page format. These advertisements can be used either singularly or in combination with various technologies, including but not limited to sound, video, or Flash, and with programming languages such as Java, Javascript, and DHTML.
ROI	Return on Investment.
RPM	Revenue Per Mille. The earning (estimated earnings) you will get for every 1000 impression.
RPU	Revenue Per User.
RTB	The RTB acronym (real-time bidding) indicates a real-time system for either bidding on or buying ad inventory.
Samsung Bada	Bada is an operating system for mobile devices by Samsung.
SDKs	Software Development Kits (SDKs) are typically a set of software development tools that allows for the creation of applications for a certain software package, software framework, hardware platform, computer system, video game console, operating system, or similar development platform.
Search	Search targeting helps advertisers target users when they look for places, businesses, housing, entertainment, etc. in specific geographies using a search engine.
SEM	SEM (Search engine marketing) is a form of internet marketing that seeks to promote websites by increasing their visibility in the search engine result pages.

Social Ad Platform	Social ad platforms measure, engage and advertise across social media to increase brand exposure.
SQL	Structured Query Language. A special-purpose programming language designed for managing data held in a relational database management system.
SSP	Supply Side Platform. Mobile SSPs that sit at the publisher end of the real time bidding process.
Static	Static ads remain on a web page or app for a specified period of time or are embedded ads.
Symbian	Symbian is a mobile operating system and computing platform designed for smartphones and currently maintained by Accenture.
Targeting	Companies focusing on targeting strategies analyze traffic to a site or app and recommend targeted messaging.
Text	Text advertisements is the delivery of an ad through just text.
UDID	Unique Device ID. Your UDID is a 40-digit sequence of letters and numbers.
Video	A video ad is an advertisement that contains video.
Virtual Currency/Rewards	Virtual currency/rewards is electronic money or rewards that act as alternative currency.
Virtual Reward Platform	Virtual reward platforms allow apps to display advertisements which reward virtual currency for completing an action, including opt-in.
WebOS	WebOS is a mobile operating system based on a Linux kernel, initially developed by Palm, which was later acquired by Hewlett-Packard and then LG Electronics.
Windows Phone	Windows Phone is a series of proprietary mobile operating systems developed by Microsoft, and is the successor to its Windows Mobile platform.

App-solutely essential industry contacts

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Mobile App Marketing Agencies

AdColony	Mobile ad network that focuses on HD video advertisements for apps, where developers pay only if a video ad has been viewed to completion. Based in Los Angeles, California.
Ad Dash	App promotion/advertising network that lets developers set-up their a cross-promotion ad networks within their own library of apps.
Adduplex	App promotion network that's focused on the Windows Phone operating system. Based in Helsinki, Finland.
Alau.me	Link tracking tool, similar to bit.ly, that lets you track how many users click on a link to your app store page and then go on download your app.
Amadeus Consulting	App and software developer that also offers app promotion, including social media marketing, press relations and Flurry analytics. Based in Colorado, USA.
AppDog	Incentivized app promotion platform that rewards users with free Facebook credits when they download Android or iOS apps. Based in San Francisco, USA.
App Marketing Agentur	Innovators in app strategy, app marketing and app monetisation since 2009. Our expertise covers strategies and efforts to gain visibility, optimise revenues, and achieve best positioning needed for your app success. Clients include Lufthansa and The Daily Mirror.
AppOptimisers.com	App Optimiser is the service that makes your app stand out in a hugely competitive market.
App Optimisers	UK-based app promotion agency specializing in social media marketing, video and blog promotion. Claims to have promoted 5 top 10-ranking apps.

App Promo	Innovators in app strategy, marketing and monetization. Our goal is to assist developers and app owners in succeeding in the business of apps. We provide services to increase discovery, optimize revenue and better position applications to set them up for success. Our team has years of proven experience in strategy, marketing and increasing revenue for companies with their digital offerings.
Apppli	App developer and app promotion company offering SEO, ASO, PPC, microsite development and other app promotion services. Based in London, UK.
Appromotor	App promotion platform, which lets developers submit their app into a database that acts as a resource for journalists and bloggers looking to review apps.
Approstar	Mobile app marketing and consulting firm dedicated to providing our clients with a strategic business model and varied promotional campaigns for mobile and tablet devices. Discovering new talent and executing an efficient way to communicate to the public about every project is our life. We create success.
AppsMarketing.mobi	Full service app promotion agency based in Herzeliya, Israel. Worked with apps such as the KungFu Panda Storybook and Retrogram.
Appucino	Platform that uses location-based marketing to promote videogame apps and brands. Owned by developer Games2Win and based in Mumbai, India.
Avai	App developer that also offers app promotion and marketing services. Based in Texas, USA.
Clash Media	Mobile marketing company that offers a cost per download app cross-promotion platform. Based in London, U.K.
ComboApp	Mobile App Promotion Supermarket! Our a la carte marketing services span User Acquisition, Media Outreach, Social Media, and Monetization Strategy Solutions.
Dimoso	Dimoso stands for digital, mobile and social. A brand new agency that offers more than just conventional PR and marketing; we offer a total approach to how to communicate with your target audiences, whether they are consumers, investors, businesses or brands.

Dot Com Infoway	Dot Com Infoway (DCI) is a premier IT company located in India providing offshore IT outsourcing solutions to businesses across the globe. DCI provides enterprise solutions that include software solutions, web solutions, mobile application solutions, Internet marketing and a whole gamut of IT solutions and products to clients.
Fetch	We exist to provide our clients with the best in class strategy, creative, design and media services surrounding mobile and tablet devices. By harnessing people, experience and technology, we continuously deliver creativity and innovation.
Jampp	Incentivized app promotion network that focuses entirely on the Android platform and on Latin American users. Based in Buenos Aires, Argentina, with offices in London.
LunarAds	App promotion network that allows users to cross-promote with themselves and other developers for free. Based in Missouri, USA.
MauDau	App promotion network that offers a similar solution to Applifier whereby developers effectively trade app downloads for free. Based in Chicago, USA.
MobiZest	Full service marketing agency that specializes in mobile and app promotion. Clients include Intent Media and Just Eat. Based in London, U.K.
My First Mobile App	App developer agency that also offers promotion services across all smartphone platforms.
OnTheMob	As a renowned mobile app agency with a hands-on approach to all things mobile, with a commitment to making excellent apps for every category. Over the years, we have produced top branded apps for all the popular names in the mobile app industry till date. Companies and businesses trust our professionals to deliver outstanding projects for them, built and customized to their exact needs. Our passion in being part of the global mobile app industry has made us success stories and pace-setting leaders in creative and technological solutions within the business.
PressPect	App marketing agency that helps promote your app in Russia. Offers PR services, translation and Russian app store optimisation. Based in Moscow, Russia.

ProAppMarketing	'Boutique' app marketing agency based in the U.K. Offers app-focused PR services, app sponsorship campaigns, blogger outreach and more.
Pulse Mobile	Pulse Mobile is GlobalWide Media's mobile marketing business, offering the most comprehensive marketing platform in the industry.
SEO Girl	Freelance Web marketer based in Tel Aviv, Israel. Offers app promotion services such as app store optimization, social media marketing and press relations.
Sosemo	Digital marketing agency that offers app promotion services such as PR, app store optimisation and review site submissions. Based in New York City, USA.
TapGen	Allows developers to promote their apps across a non- incentivized curated app wall, as well as platform that promotes apps while also offering users competitions and special offers.
Venture Mobi	VentureMobi.com is an international app marketing & development agency, based in London, U.K. Focused on the delivery of high quality campaigns that deliver impact, ROI and measurable results.

General Mobile Analytics Platforms

Amazon App Analytics	Amazon provides iOS, Android, and Kindle Fire APIs that help app developers improve monetization and create better experiences for users.
Appboy	Appboy is a leading platform for mobile relationship management, enabling companies to manage the lifecycle of their users through a suite of marketing automation products.
Appsee	Appsee's visual app analytics platform automatically tracks all user interactions in the app, provides insights into their behavior and helps add developers keep their users happy.
Appsflyer	AppsFlyer is a mobile apps measurement platform that allows app developers, brands and agencies to measure and optimize their entire mobile customer acquisition funnel from one real-time dashboard.

Apsalar	Apsalar is the data-driven mobile ad platform powered by first party behavioral data providing marketing analytics and advertising solutions for mobile marketers.
Countly	Countly is world's leading open source mobile analytics platform tracking 500M+ unique identities. It provides insights about user actions inside your mobile application and helps improve your product.
FlightPath	Free over-the-air beta distribution for iOS developers. A free Web service for mobile developers, project managers, and app testers.
Flurry	By integrating rich, relevant business data and powerful application services, Flurry allows developers to do what they do best: build great apps.
Google Mobile App Analytics	Mobile App Analytics measures what matters most at all key stages: from first discovery and download to in-app purchases. Provides a clear view app developers can act on to make users happier – and to make their app a success.
Kontagent	Kontagent is a leading mobile analytics solution. The platform gives brands data-driven insights to create deeper, more engaging mobile experiences.
Localytics	Localytics was conceived in 2008 in Boston, Massachusetts with one simple goal in mind: to help our customers build stronger relationships with their mobile and web app users through our analytics and marketing platform.
Mobile-AppTracking	HasOffers launched MobileAppTracking (MAT) in 2011 as the first unbiased platform for tracking mobile app installs back to advertising sources. The product has ignited the demand for advertisers to have accurate performance data on their mobile advertising spend.
Mixpanel	Mixpanel's mission is to help the world learn from its data. It has built one of the most advanced analytics platforms for mobile & Web, and analyzes 17 billion actions every month.
Omniata	Omniata is a startup with a data platform designed to provide app developers with a high-level overview of all aspects of usage and monetization. It is sharply focused on marketing analytics and user acquisition optimization.

Swrve

Swrve is dedicated to one thing only: building lasting, personalized relationships with mobile app consumers.

Gaming-specific Mobile Analytics Platforms

Chartboost

Chartboost was founded in 2011 as a direct deals marketplace for mobile games traffic. Using Chartboost's platform, developers can "trade" installs with each other with pre-determined terms for free (in addition to being able to purchase traffic from the network). Chartboost is headquartered in San Francisco and has an additional office in Amsterdam.

GameAnalytics

GameAnalytics was founded in 2011 as a user experience, monetization, and engagement optimization tool. Headquartered in Copenhagen, Denmark, the company raised a US\$2.5MM Series B round from Sunstone Capital, Crunchfund and others in February 2013.

GamesAnalytics

GamesAnalytics was founded in 2010 as a consultancy focused on the gaming sector but has expanded since then to offer tools to developers to optimize retention and monetization through in-depth data analysis. GamesAnalytics is headquartered in Edinburgh, Scotland and raised the first US\$1.3MM portion of a planned total US\$3MM Series A investment in July 2013.

PlayHaven

Launched in 2010, PlayHaven calls itself an LTV Maximization Tool and focuses on data-driven user segmentation for the purposes of revenue generation through IAPs and ads. The company is headquartered in San Francisco with additional offices in Portland, Helsinki, and Buenos Aires, and it serves 2.5BN monthly game sessions across 5,000 games.

App Store Analytics Platforms

App Annie

App Annie is a Beijing-based app store analytics platform that allows developers to track statistics related to app performance across an array of platform stores: the iOS App Store, Google Play, Amazon, the Windows Store, and the Mac App Store. App Annie was founded in 2010 and has raised US\$22 MM in financing, including a US\$15 MM Series C led by Sequoia Capital.

Appcod.es	Appcod.es is an App Store SEO optimization tool developed by Motivapps, an iOS app development studio based in Warsaw, Poland. Appcod.es allows users to check the rankings of apps for various sets of keywords in the App Store. The tool also allows developer to assess the keywords used by competitor apps in their descriptions and the ranks those apps sit at for different keyword searches.
appFigures	appFigures is an app store rankings platform operated by New York-based Filetup Media. appFigures consolidates data from across a variety of platform stores and makes that data available through web-based reports as well as regular email reports. appFigures also translates product reviews into the developer's language of choice and converts global sales into a single currency. appFigures offers a tiered pricing scheme, scaling up with the number of apps tracked.
Applause	Applause, launched in 2013, is an app quality measurement tool developed by uTest labs, a Seattle- and Boston-based quality assurance consultancy and software development firm.
Distimo App Analytics	Distimo, founded in 2009 and based in Amsterdam, is a mobile research and app store insights company that specializes in market intelligence. Its free analytics product covers all major app stores and integrates directly into apps through an SDK to offer conversion tracking functionality for various ad networks.
MetricsCat	MetricsCat, founded in 2013 after having launched through a Garage48 hackathon, is an app store analytics product focusing on the aggregation and analysis of app store reviews. The MetricsCat tool allows for competitor apps to be tracked and for reviews and app store rankings to be charted pairwise over time.
MobileDevHQ	Founded in 2012 and based in Seattle, MobileDevHQ aims to be a full-service discovery optimization platform. The company offers a full suite of tools aimed to help app developers analyze their apps' positions in search results (for both the iOS App Store, worldwide, and the Google Play store in the United States) and a consultancy service that can be tailored to a specific company's needs in staying abreast of developments in their vertical.
SearchMan SEO	SearchMan develops tools to help app publishers optimize their app store discovery on iOS. SearchMan is based in Mountain View, California, and has taken investment from 500 Startups.

App promotion networks

AppBrain	AppBrain offers two Android-focuses services, one is a offer-wall platform that delivers non-incentivized app promotions, the other is AppBrain's own app store (which is downloadable from Google Play). The app store provides regular app recommendations of the best apps in Google Play.
Applifier	Applifier offers a non-incentivized platform for iOS and Android users, focused entirely on games. Developers can promote other publishers games via banner ads embedded into their pause screen, or via interstitial ads. Applifier's USP is that developers do not pay for users. When a publisher sends a user to someone else's app, that publisher will receive a new user – for free. Applifier makes its money by serving paid ads next to the cross-promotion ads.
Fiksu	has gone down a similar route to TapJoy. The company has developed an incentivized network that circumvents the App Store, letting users sign-up to a web-based platform. It works by giving users credits every time they download a promoted app, these credits are then turned into iTunes gift codes, which can be used to purchase paid apps.
Flurry	Flurry offers its AppCircle service to developers, which is similar to W3i's platform, offering non-incentivized downloads. Flurry claims its network is able to increase downloads by using its detailed analytics to recommend relevant apps within other apps the consumer is using.
G6Pay	G6Pay used to be a big player in incentivized downloads, but has now gone down a similar route to W3i , offering a non-incentivized app promotion platform, where iOS developers can cross-promote apps via interstitial ads and pay per download.
TapJoy	Arguably the biggest provider of incentivized downloads, and its business was hit hard by Apple's ban. The company has since migrated its incentive network outside of the app store and onto the Web.
W3i	W3i has now shifted to a non-incentivized model, where developers have access to a cross-promotion platform dedicated to mobile games. While W3i's platform doesn't reward users for downloading apps, it does provide limited offers and gives developers a variety of ad display options – think of it as a premium ad network dedicated to mobile games.

App promotion agencies

Apps Marketing Mobi	Full-service app promotion agency based in Israel. Offers monetization, app marketing and app store optimisation.
AppPromo	Full service marketing agency that focuses on app promotion. Based in Toronto, Canada.
ComboApp	App promotion agency based in Vancouver, Canada with offices in Chicago. Offers social media promotion, PR and more.
ProAppMarketing	App promotion agency that handles PR, social media development, monetization and research and analysis. Based in London.

Cross-platform App Stores

Alternative.To	Less of an app store, more of a directory of applications with user reviews and editorial ratings. Features apps from Windows Market-Place, App Store and Google Play.
AppCentral	Platform that helps companies launch and maintain their own app store. Focuses on productivity apps. Formally known as Ondeego.
AppCity	French app store that claims over 340 thousand users. Distributes apps across iPhone, Android and BlackBerry platforms.
AppShup	App store based in India that specialises in SMS- delivered Java apps.
Appia	Marketplace that creates app stores for clients and distributes apps to a variety of different app stores. Claims to have a combined audience of 250 million, via more than 20 different app stores.
Appitalism	Indie app store that claims to feature over 1 million apps. Focuses on social features to aid app discoverability. Owned by Liberty Media.
Appolicious	Editorially-curated app directory that helps developers get their apps rated and discovered. In association with Yahoo.
AppVisor	App recommendation service that uses a social network to recommend a set number of apps per day to its users.

BananasFactory	Developer community that markets your app to different app stores, mainly those offered by operators in Asia and developing countries.
Biskero	Mobile content store that focuses on distributing Flash games and apps to mobile devices. Works primarily across Android and Nokia handsets.
Djuzz	Mobile game store run by Asian ad-network Buzz City. Claims to have 320 thousand users per day.
GetJar	One of the biggest third-party app stores currently in operations. Claims to distribute more than 350,000 mobile apps, with 395 registered developers. Also offers a pay per download system to help developers get visibility.
Handango	Independent app store run by PocketGear, offers apps on BlackBerry, Windows Mobile, Android and Symbian platforms. Works with app marketplace Appia.
Handmark	App developer behind popular Tweetcast app, which also runs an app store for Android, BlackBerry, Windows and Palm devices.
Handster	Claims to features over 30,000 apps from 4000 vendors across Android, Symbian, Java and BlackBerry platforms. Also offers white-label platform to manufacturers, distributors and carriers. Owned by Opera.
Kongregate	Mobile and desktop Flash-powered app store that focuses on videogames. Claims to reach over 6 million mobile and desktop gamers, with 56,000 Flash games.
mJelly	App store and mobile website directory that publishers can submit their content to. Developers can submit links to existing apps in other app stores.
Mobango	Mobile content-sharing store, which allows users to upload and share videos, ringtone and photos, as well as applications.
Maopao	One of China's biggest app stores, distributing apps across iPhone, Android and Symbian platforms. Unfortunately, it doesn't look like the website has an English translation.

NexVa	Multi-platform app store that also offers a white-label product and works with affiliates to drive traffic.
OpenAppMkt	Android and iPhone-compatible market that distributes web-apps built in HTML5. Unlike the traditional 70/30 split, developers keep 80% of app sale revenue.
Opera Mobile App Store	The mobile app store run by browser developer Opera and powered by subsidiary Handster. Offers Android, Windows Mobile, BlackBerry and Symbian apps.
PhoLoad	Community-driven website that allows developers to upload and distribute their free apps. Compatible with Android and Symbian platforms.
WAC	The app store for the Wireless Application Community (a consortium backed by a number of telcos). Focuses on distributing cross-platform web-apps using mainly HTML5.
WhiteApp	Directory of white-label iPhone and Android apps that can be easily rebranded and sold to clients.
Zeewee	Cross-platform app store that distributes HTML5 web apps. Offers in-app purchasing, direct to bill and push notifications. Claims to have distributed over 1 million apps since its launch.

Expert Contributors



Aaron Watkins
*President &
 Founder, Appency*

Appency was born as the first full service marketing agency for app developers as mobile marketing veterans Aaron Watkins and Liz Jones realized that there was a need for professional marketing assistance in the app space, and traditional marketing and PR agencies just were not cutting it. Over four years later, Aaron and Appency have helped small developers, software companies and mega Fortune 500 brands alike succeed in the app space with their unique blend of product consulting and a comprehensive and creative approach to app marketing. You can follow Aaron @AppGuyAaron or @Appency.



Andrea Pappas
*Senior Analyst,
 VisionMobile*

Andreas is a Senior Analyst at VisionMobile, responsible for primary research and analysis across the company's products. Andreas comes to VisionMobile from Ofcom, the U.K.'s telecoms & media regulator and competition authority, where he provided technology horizon scanning, analysis and due diligence across a range of sectors (mobile, next-generation fixed, new media). Before Ofcom, Andreas was a research engineer at BT Exact, BT's research arm, where he was focusing on network-layer mobility and context-aware communications. Andreas is based in London, U.K.



Anton Soeharyo
*CEO & Co-founder
 Touchten Games*

Anton is a jolly CEO of Touchten Games. He is one of the founders of the company, and currently in charge of the whole marketing process. His passion includes playing games (d'oh) and languages. Educated in Singapore, China and Japan, Anton speaks Bahasa, English, Chinese and Japanese fluently. In building the company, he started by envisioning creating a game that would entertain the whole world. His inspiration came since the rise of the App Store, and ever since then, he and his team has created more than 15 titles with many of them achieved top ranks in the stores.



Calypso Harland
*CEO and Founder,
 DevLab*

Founder of DevLab, Calypso has been working in tech since 1998, from the network layer to the application layer. She's helped drive two acquisitions to date, Streaming Media for \$100M in 2000 and Geo for £65M in 2008. She's worked intensively with the developer community since 2011, firstly heading up global marketing at leading mobile software company Marmalade and then with AngelHack, where as Global Marketing Director, she was in charge of promoting the world's largest series of hackathons across 32 countries.



Daniele Ratti
*Independent
 Developer*

Daniele Ratti was born in Lecco (Italy) in 1992. He is studying IT Engineering at University of Bergamo. He started developing mobile apps when he just turned 18 and published over 80 apps between AppStore and GooglePlay. In January 2013, together with his university colleague Matteo Milesi, founded his first mobile startup "MadBit Entertainment" and he reached more than 1.6 million users in less than a year with the first title "Categories Game". At the moment he's throwing in a new B2B adventure with a book-keeping Start-Up called Fatture in Cloud.



Edith Yeung
*Vice President
 of International
 Business
 Development,
 Dolphin Browser*

Edith Yeung is the VP of International Business Development for Dolphin Browser. Dolphin is the most popular Android browser (also on iOS) in the U.S. and the only Gesture and Voice enabled browser available today. For overseas, China Telecom and KDDI selected Dolphin as the only browser to preload on their Android phones in China & Japan. Dolphin Browser has over 100 million installs worldwide and is a Sequoia Capital, Matrix Partners and Qualcomm company. Dolphin can be reached at www.dolphin.com or on Twitter @edithyeung @dolphinbrowser.



Emma Hedlund
CEO, AppBooster

Emma Hedlund is a strong businesswoman who has a background in business development and project management from international companies. She has a strong sense of building up good and successful business relations. Emma has been working with Entrepreneurial companies before and knows all the hard work it takes to create a successful company. Today she has total focus of creating a global company with the AppBooster team and though it is hard most times the future looks promising!



Eric Seufert
Editor, Mobile Dev Memo.

Eric Benjamin Seufert is the Editor of Mobile Dev Memo and the Head of Marketing at Wooga, the mobile game developer. Previously, Eric held positions in strategy and business intelligence at Skype and Digital Chocolate. Eric specializes in quantitative and predictive methods for mobile user acquisition. Eric's book, Freemium Economics, was published by Elsevier in 2014.



GameVil

GAMEVIL is a premier mobile game publisher with offices in Los Angeles, U.S. and Seoul, Korea. Established in 2000, GAMEVIL has earned a reputation as a leading company in the mobile games sector by crafting award winners in a diverse portfolio of games, including Baseball Superstars, ZENONIA and most recently Jackpot Madness Slots, an all-new Vegas-style casino slots game. GAMEVIL is well known for revolutionizing the sector with its original and innovative mobile games, backed by unparalleled expertise in advanced mobile technology.



Harvey Elliott
CEO, Marmalade Technologies Limited

Harvey Elliott is CEO of Marmalade Technologies Ltd, makers of the C++ cross-platform Marmalade SDK and iOS to Android porting tool - Marmalade Juice. With an insatiable passion for new technology, games and creativity, Harvey is intent on ensuring developers can create great content for any device, through a comprehensive range of easy to use and accessible technologies. Harvey has been leading Marmalade Technologies since June 2012. He also sits on the Board of Trustees at BAFTA, chairing the BAFTA Games Committee as well as the BAFTA Children's Committee. Prior to Marmalade, Harvey was Vice President & General Manager at Electronic Arts.



Ippei Fukami
*Executive Vice
 President, CyberZ*

Ippei Fukami has been actively involved in CyberAgent's Online Advertising Division since 2006, serving as Sales Account Manager and also Senior Manager of SEM and in-house product development. By 2011, he became focused in smartphone advertising and with that, he founded CyberZ USA in San Francisco in July 2012, where he is the head of global marketing supporting mainly social games. CyberZ USA is an advertising agency focused on smartphone promotions, with our headquarters being in Tokyo, Japan. We strive to help our Japan clients do global campaigns and global clients do well in the Japan app industry, as a bridge between both markets. We are able to measure the success of our campaigns with our specialized tracking tool, Force Operation X (F.O.X.) and work closely with our advertisers to provide the best global solutions for our clients.



J2 Interactive

J2 Interactive is a South Korea-based app developer, best recognized for MX Player, the first Android video player that performs multi-core decoding. MX Player is currently ranked top on Google Play with over 10 million downloads. The CEO is Jaehyun Kim.



James Cooper
*Founder, Soko
 Media (inc
 Mobyaffiliates)*

James Cooper is the Founder of Soko Media, which provides B2B services, events and content that connect the app industry. These include <http://mobyaffiliates.com> - a marketplace for mobile advertising and <http://apppromotionsummit.com> - an international app marketing conference. His latest product, <http://businessofapps.com> is an app industry intelligence service launching in early 2014. James started off in mobile in the early 2000s creating 'wap' sites, selling mobile phones and running ringtone services. He also created one of the first independent app stores.



Jonathan Cohen
*Chairman, CEO
 and Founder of the
 Peter Guber funded
 Agency of Trillions
 ("AoT"), a MAYA
 Company*

Jonathan Cohen is the Chairman, CEO and Founder of the Peter Guber funded Agency of Trillions ("AoT"), a MAYA Company. Cohen was also the Managing Partner and Founder of Zen Media Group and Partner at Handprint Entertainment where he was responsible for advising & counseling on all entertainment matters for artists that have generated over US\$1 billion in revenue (media, publishing, touring & merchandise) which include Jennifer Lopez (aka "JLo") & Sean Combs (aka "Diddy"). Cohen received his Law Degree from New York University School of Law in 1992 and his Engineering Degree from University of Wisconsin-Madison in 1991.



Ken Herron
*Social media
 marketing authority*

Ken is a cool hunter for new ideas, strategies, and technologies to increase the value of world-class brands. A global marketing alchemist, he unleashes peoples' creativity to use technology to develop stronger emotional connections between companies and their customers to drive revenue and market share. Ranked the #2 Chief Marketing Officer on Twitter worldwide by "Social Media Marketing Magazine", Ken is a frequent author (including contributing to 2013's "The Everything Guide to Mobile Apps") and popular speaker on leveraging technology for marketing, and the leading practices to engage consumer and enterprise brands' customers online. Follow Ken @KenHerron!



**Chien Ming
 Liang, Leon**
*CEO Orangenose
 Studio.*

Chien Ming Liang, also known as Leon, is a game producer, and the founder of Orangenose Studio. He is the producer of several bestselling mobile causal games including Stupidness 2, "What's My IQ" and "Hardest Game Ever 2". Leon published over 7 great titles that have over 70 million downloads worldwide, with his latest title, "Hardest Game Ever 2" garnering an average store rating of 4.5 stars.

Leon founded Orangenose Studio, a mobile game development and publishing company in 2010. Born in Taiwan, Leon completed his Bachelor of Computer Engineering degree in Nanyang Technological University in Singapore in 2005.



Lynda Smith
*Chief Marketing
 Officer, Twilio*

Lynda brings over 25 years of experience in marketing, sales and general management across a diverse set of industries. In her capacity as SVP Marketing/Chief Marketing Officer for a number of companies including Genesys Telecommunications Laboratories, Nuance, Genpact, Jive, WeVideo and now Twilio, Lynda has been responsible for the full end-to-end marketing responsibilities of an organization. Twilio provides a software and cloud-based communications platform that enables developers and businesses to build the communication solution that meets their specific needs. Whether integrating voice, messaging or VoIP capabilities into a web or mobile app or building a complete call center solution, Twilio removes traditional obstacles to creating effective communications experiences.



**Matthäus
 Krzykowski**
*Co-Founder, Head of
 Growth XYO*

Matthaus heads the growth team at app search company Xyo. By translating customer experience into product innovation, he keeps Xyo moving forward. In line with his passion for helping ideas develop into products and companies, he is an investor and advisor to other innovative startups. He has extensive product management experience in commerce, online marketing and mobile content. He holds a Masters in Business from the highly-ranked research University of Technology RWTH Aachen, where he also studied Mechanical Engineering, Production Systems and History of Arts.



Meeta Shah
CEO, EFlashApps

Meeta Shah is the Founder and CEO of EFlashApps, LLC, an Ed-Tech company that develops mobile apps, games and animations geared towards early childhood education. Prior to the EFlashApps start-up, Meeta ran a successful Bollywood web portal that was one of the first ever licensed Indian music streaming sites in the pre-iTunes era. With English being her second language, Meeta sought to develop mobile apps in preschool language learning for the sake of teaching English to her own daughter who was then a toddler. What started as 1 app has evolved to over 60 apps across multiple platforms with millions of children worldwide learning 12 languages from content developed by EFlashApps. EFlashApps can be reached at www.eflashapps.com.



Mickey McManus
*President, CEO, and
 principal of MAYA
 Design*

Mickey McManus is president, CEO, and principal of MAYA Design, a leading technology design and innovation lab. In 2005, Mickey spearheaded the launch of MAYA's Pervasive Computing practice to help companies kick-start innovation around business challenges in a vastly connected world. To explore the emerging value at the intersection of design, technology, and business, Mickey co-authored *Trillions: Thriving in the Emerging Information Ecology* (Wiley 2012). The book is a field guide to the future, where computing will cease to be confined to any particular "box," but instead be freely accessible in the ambient environment. Mickey is a frequent speaker on the topic of design, pervasive computing, and business innovation.



Neil Patel
*Co-Founder, Crazy
 Egg, Hello Bar and
 KISSmetrics*

Neil Patel is the co-founder of Crazy Egg, Hello Bar and KISSmetrics. He helps companies like Amazon, NBC, GM, HP and Viacom grow their revenue. The Wall Street Journal calls him a top influencer on the Web and Entrepreneur Magazine says he created one of the 100 most brilliant companies in the world. He was recognized as a top 100 entrepreneur under the age of 30 by President Obama and one of the top 100 entrepreneurs under the age of 35 by the United Nations. Neil has also been awarded Congressional Recognition from the United States House of Representatives. Twitter: @neilpatel



Norm Liang
*Sr, Director, Growth,
 Go Launcher*

Norman Liang is Sr. Director of Growth at Sungy Mobile (NASD: GOMO), responsible for international partnerships and monetization for the Go Dev Team series of Apps on Android, including Go Launcher EX, Go SMS Pro, and Go Weather Pro. Norman previously was at Photobucket where he managed the mobile partnerships with carriers and handset manufacturers and launched the company's first Android and iOS apps.



Pai-Ling Yin
*Social Science
 Research Scholar,
 Stanford Institute
 for Economic Policy
 Research*

Pai-Ling Yin is a Social Science Research Scholar at the Stanford Institute for Economic Policy Research. She is also a co-founder of the Mobile Innovation Group (mig.stanford.edu), studying the all aspects of the mobile app ecosystem, from industry evolution to platform competition to entrepreneurial strategy. Pai-Ling received a PhD in Economics from Stanford and was a professor of strategy at both Harvard Business School and MIT Sloan School of Management. She has written numerous cases on technology and strategy and research papers on platform competition and diffusion of innovation. She also co-owns a small business, FitLAB Pilates, in Cambridge, MA.



Patrick Kane
CEO, Priori Data.

Patrick Kane is the founder and CEO of Priori Data. Before founding Priori, Patrick was an investor with Vestar Capital Partners, a US\$7bn private equity firm, in Munich and New York. He began his career in the investment banking division of Morgan Stanley in New York. Patrick received an MBA from INSEAD, in France and Singapore, and a B.A. in International Studies, magna cum laude, from Middlebury College in Vermont, USA.



Peter Hamilton
*Chief Executive
 Officer, HasOffers*

Born and raised in west Texas, Peter began his early career in classical music as a trained opera singer. His travels and interests in online content eventually lead him to explore user experience and discovery in 2005 where he began to develop skills in online marketing from SEO to Display to Performance Marketing. Meeting partners Lucas and Lee in 2009 gave him the opportunity to become a marketer for marketers by providing a data driven product for tracking advertising relationships. The flagship product, HasOffers, was a quick success and has become the global leader in tracking and attributing mobile app advertising. Peter graduated from the University of Texas at Austin.



Rajeev Nagpal

*Head of Product,
TinyCo*

Rajeev believes in crafting fun and innovative experiences that make millions of people happy few minutes at a time. Rajeev joined when TinyCo was still a tiny company and helped build 4 cutting-edge pillars of the company – namely Product, Analytics, Games-as-a-Service and Community, while simultaneously nurturing a powerful culture of ownership. Rajeev fosters a 360-degree perspective on building quality games with a signature. Rajeev previously worked at Digital Chocolate and Zynga after dropping out of Booth school of business. He studied Computer Science at Arizona State with a focus on interactive entertainment and built a FPS game for his thesis.



Ryan Matzner

Director, Fueled

Ryan Matzner is a Director at Fueled, a top-tier mobile design & development agency with offices in NYC, Chicago, and London. Ryan and his team work closely with a wide range of clients to create highly polished, revenue generating apps.



Stefan Damasena

*CEO/Founder,
Alegrium*

Stefan has been involved in digital production since 2000. He has been working for multinational clients and brands such as POCARI SWEAT, Frisian Flag, Danone, NOKIA, Hutchison, KAO, Honda and many others. He left the digital advertising industry to pursue his passion in digital product and founded Alegrium with three of his best buddies.



Steve Gleitsmann

*President, GET IT
Mobile Inc.*

Steve has an impressive 15+ year record of accomplishments in business development, intellectual property licensing and general management. He is President of GET IT Mobile, an innovative company providing a complete engagement and user acquisition platform for mobile apps.


STORM8

Storm 8

Founded in 2009, Storm8, Inc. is the leading mobile gaming network and developer of social games for iOS and Android. With more than 10 million daily active users and 600 million total downloads to date, Storm8 is also home to three innovative brands TeamLava, Shark Party and FireMocha. Under these brands, Storm8 has amassed a network of more than 200 million devices worldwide and continues to create engaging mobile social games that span genres – from casual arcade hits Bubble Mania and Jewel Mania, to social casual games such as Bakery Story and Farm Story 2, to MMORPGs including World War and iMobsters, and social casino games like Slots and Bingo!. Storm8 is headquartered in Redwood City, California. For more information, please visit www.storm8.com. Follow them on Twitter @storm8.



**Sven
Ossenbrüggen**
*Co-Founder and
Managing Director,
XYRALITY GmbH,*

Sven Ossenbrüggen is the Co-Founder and Managing Director of XYRALITY GmbH, a top mobile developer and publisher, specializing in next-generation MMOGs. With Lords & Knights Xyrality launched in June 2011 one of the first successful construction and management titles in the mobile market. Today, three years after the foundation, Xyrality has 75 employees and is working on three new titles. Before he founded Xyrality, Sven was CEO of gamigo and transformed it from an online games magazine into one of the leading European MMOG publishers.



Tomasz Kolinko
Founder, AppCodes

Tomasz Kolinko is an independent iOS app developer, and a founder of AppCodes – one of the best tools for App Store marketing. AppCodes mainly helps with App Store SEO, but also tracks press mentions of the competitors and assists in market research.



Toni Fingerroos
CEO, *Fingersoft Ltd*

Toni Fingerroos is the CEO and founder of the mobile games company Fingersoft. He developed Hill Climb Racing which reached 1st place in top free games in the USA in Google Play and has been downloaded over 100 million times globally. In 2013 he received the Game Developer of the Year award in Finland. Toni came up with the name Fingersoft when he was ten years old, with a passion for developing games. After years of making games for his friends to enjoy he wanted to learn more about business and economics. He co-founded two companies and also assumed managerial responsibility. In 2012 he officially founded Fingersoft Ltd. pursuing his life-long dream of running an independent game studio.



Tony Pearce
CEO, *Gamesgrabr*

With 20 years experience in senior management in the entertainment and gaming industry Tony has an excellent track record as a successful entrepreneur and CEO. Over the past 10 years Tony has raised over £15m in VC funding, started 3 companies and had 2 successful exits. Most recently Tony founded gamesGRABR an innovative platform (web, mobile and tablet) that marries the power, and usability of a contemporary 'pinboard-style' interface. Tony is also the co-founder of an executive networking event called the Centurions which is aimed at the digital entertainment industry and takes place every two months in London along with events in New York, Istanbul and Munich. Follow Tony @gamesgrabr.



Tyler Bell
VP of Product,
Factual

Tyler Bell (@twbell) leads Factual's product initiatives in global place data and contextual audience platforms. He is a former Oxford University archaeologist who specialized in the landscape analysis of the early medieval period, with more topical research in GIS and anisotropic cost surfaces. He has broad interests in open source and place-based information systems, and previously led Product for Yahoo's Geo Technologies Group. Tyler writes about data- and geo-technologies for O'Reilly at <http://strata.oreilly.com/tylerb>.



**Yusuf
Goolamabbas**
*CTO, Animoca
(Outblaze Ventures)*

Yusuf Goolamabbas is the CTO of Outblaze, where he has served since the Company's inception in 1998. In addition to designing various Outblaze systems, he is responsible for researching and evaluating new technologies to incorporate into Outblaze solutions and products. Today, Yusuf leads the team responsible for developing massively multiplayer online games based on popular intellectual properties, including Hello Kitty Online and Ben10 Omniverse. Prior to Outblaze, Yusuf worked at Kent Ridge Digital Labs in Singapore for two years as Senior Engineer. He has a Bachelor of Science in Computer Engineering from the University of Bombay and a Master of Science in Computer Science from the Georgia Institute of Technology.

InMobi Insight's Provided By



Jayesh Easwaramony,
*Vice President,
Business
Development*

Jayesh Easwaramony leads business development for InMobi in Asia Pacific. In his two years at InMobi, he has been responsible for the rapid growth of InMobi's inventory in complex markets like China, Japan, Korea, Australia and southeast Asia through an assiduous mix of partners. Leading a 15 member team, he has worked to partner with a wide array of publishers and developers. In a short span, he has grown InMobi's revenue size by over five times in the region and also signed critical strategic partnerships with Coochina, LINE and Tencent. He has also shaped InMobi's global monetization strategy and publishing business.



Ryan Merket,
*Director of Product,
App Galleries*

Ryan Merket joined the InMobi team as the Director of Product Marketing after the acquisition of his company, AppGalleries.com, in July of 2012. Ryan currently is currently the GM of AppGalleries.com and Director of Developer Relations.



Mike Cohen, VP
& GM of InMobi's
*North America
Performance
Advertising team*

Mike Cohen is an entrepreneur and investor in the mobile industry with nearly 15 years of experience driving growth for mobile Internet companies. Currently he is the Vice President and General Manager of Performance and Programmatic Advertising at InMobi, the world's leading independent mobile advertising company. Previously Mike was an investor at Qualcomm Ventures, the early-stage investment arm of the mobile technology giant Qualcomm. He was also a team leader at Nokia's corporate strategy and business development teams. Earlier in his career, Mike was an investment banker at the mobile practice of Jefferies Broadview. Mike holds an MBA from Harvard Business School and a BS from UC Berkeley.



Ed Laws

*Vice President &
General Manager,
Performance
Advertising, EMEA*

Ed Laws leads the rapidly growing regional performance business at InMobi, working with app developers to acquire high value users and maximize app monetization. Prior to InMobi, Ed was the EMEA Head of Mobile Marketplace at Yahoo!, and has over 12 years of experience in the mobile ecosystem.



Mahak Sharma

*Business
Development Lead,
Mobile Gaming*

Mahak leads the Gaming Vertical (Business Development) at InMobi San Francisco. Besides working with large U.S. gaming studios on the User Acquisition side, she enjoys sharing her ideas about the economics & right mix of efficient user acquisition on mobile through blogs and papers. Prior to this, she was working in the product team at InMobi building next generation app download products. She graduated with her Masters degree from Carnegie Mellon & Bachelors in Engineering from IIT.



Innu Nevatia

*Head of Revenue
Delivery &
Optimization,
Performance
Advertising, EMEA*

Innu heads revenue delivery and optimization for the Performance Advertising business and is responsible for driving quality user acquisition for app developers at scale and managing key strategic partnerships. She is extremely passionate about the fast growing mobile ecosystem and is excited to be part of a global team poised for great success in the industry.



Pankaj Bengani

*Vice President of
Global Strategic
Partnerships*

As Vice President of Global Strategic Partnerships at InMobi, Pankaj is building the company's strategy and relationships with the largest global ecosystem partners. Prior to InMobi, Pankaj was an entrepreneur who co-founded a company in the online education space; StudyPlaces was funded by Kleiner Perkins and sold to Educomp. Pankaj has a wealth of digital media expertise and also spent time as a senior member of Yahoo's Corporate Strategy team. He has an undergraduate degree from UC Berkeley and an MBA from University of Pennsylvania's Wharton School of Business.



**Krishnendu
Majumdar**

*Head of Supply &
Developer Products*

Krishnendu Majumdar, or Krish (as people call him), is a seasoned software professional with over 17 years of experience. Currently, as the Head of Supply & Developer Products at InMobi, Krish is responsible for building the right products for monetizing apps through ads. Krish is passionate about delivering the right ad experience to end-users and also drives the Native Ads revolution at InMobi. He was earlier the Chief Architect at InMobi, and made the transition from core technologist to take on a product leadership role. Before joining InMobi, Krish was working as a Senior Architect for the Rightmedia Ad Exchange at Yahoo. Krish is as passionate about cycling as he is about tinkering with technology. A passionate hacker, you will always find Krish focusing his attention on thinking 'out of the box' and solving hard problems.



Jessie Yang

*General Manager of
InMobi China*

Jessie is the General Manager of InMobi China with overall responsibilities to lead and scale up InMobi's business in China. She brings extensive experience in mobile ecosystem with proven track record in general management and business operations in China. Prior to InMobi, Jessie was the GM of Business Development and VP of Operations of TOM Group in charge of mobile internet business development and new media business. Before TOM Group, she was COO of Sky Flying Media Group in charge of overall business. She also worked at McKinsey & Company as Senior Engagement Manager covering TMT sector. Jessie holds a MBA degree from MIT Sloan School of Management.



Seungyeon Kim
*Vice President and
 Head of Performance
 Business, Asia
 Pacific*

Seungyeon Kim is the Vice President of InMobi's Performance business across the Japan and Asia Pacific region, driving massive growth through sales and partnerships with top global app businesses. Prior to his current role, Seungyeon launched and drove over 200% annual growth of the InMobi business in Korea as the first General Manager of InMobi Korea. Seungyeon brings to InMobi extensive experience and expertise in global direct sales and partnership from Google.



Abhishek Bapna
*Head of Products,
 Performance Advertising
 Solutions,
 InMobi*

Abhishek Bapna heads all app download product management at InMobi. Prior to InMobi, Abhishek worked at Google for several years where he worked on the core Adwords auction, Google Apps, and Commerce. Abhishek holds a PhD from Stanford University in auction theory and a Bachelors in Mechanical Engineering from Indian Institute of Technology, Delhi.



Rohan Choudhray
*Performance
 Advertising
 Solutions, InMobi*

Rohan's focus as product manager at InMobi is primarily on efficient and quality user acquisition for app developers. Since joining InMobi in 2011, Rohan has worked on several key products including CPI-based optimization, retargeting and new ad formats like interstitial and native ads. Rohan is currently involved in developing the next generation of user acquisition products at InMobi, focused on moving beyond CPI to drive quality users @ scale for app developers. Very passionate about the possibilities of Big Data, Rohan believes that there are vast efficiencies that can be unlocked by combining relevant signals from advertisers, as well as InMobi's own understanding of the user. Before InMobi, Rohan tried his hand at a couple of unsuccessful startups in education and internet space. He holds a dual degree (Bachelors and Masters) in Computer Science from Indian Institute of Technology Delhi (IIT) and a Masters in Business Administration from Indian Institute of Management Ahmedabad (IIM).



Anne Frisbie

*VP & GM, Global
Alliances*

Anne joined InMobi in 2008 as Head of North America. She most recently served as Vice President of Category and Sales Intelligence at Yahoo! At Yahoo!, she was charged with managing the company's most important categories that accounted for a majority of the company's revenue. She and her team provided leading branded advertisers and top-tier agencies, strategic insights and digital media solutions. Anne has been working in the digital media industry for the past 15 years.



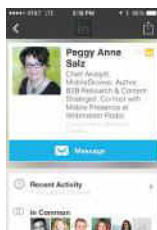
Chris Davies

*General Counsel
EMEA and Head of
Privacy*

Chris sits on the MEF EMEA Board and is an Advisory Board Member of the Future Washington based Future of Privacy Forum. Chris is responsible for global data protection and privacy issues at InMobi and sits on the MMA European Privacy Committee. He is a founding member of MEF's Privacy in Mobile Apps Working Group helping to launch the MEF App Privacy tool. Prior to joining InMobi, Chris was General Counsel at the global price comparison website Kelkoo and Senior Legal Counsel at The Financial Times.

The Team

Author



Peggy Anne Salz is the chief analyst and founder of MobileGroove, a top 50 ranked influential destination providing analysis about all things mobile. In addition to outstanding editorial content, Peggy produces and promotes custom research on behalf of global clients and industry organizations including the Mobile Marketing Association. Peggy is also a Gigaom Research mobile analyst, where her focus is mobile loyalty, mobile messaging and mobile retail.

Peggy is best known as the lead author of *The Everything Guide to Mobile Apps: A Practical Guide to Affordable Mobile App Development for Your Business* (F+W Media Inc.), a practical, crowd-sourced book providing businesses and developers with insights on how to make, monetize and market mobile apps.

She has also authored four editions of the *Netsize Guide*, an annual mobile industry almanac, and edited and produced the *Mobile Operator Guide 2013*. She is currently working on a number of projects including an educational resource to help marketers master the challenge of multi-channel marketing.

She has established a successful consulting career based on vision, insight, versatility, and more than 15 years of industry experience. Graduating with honors from the University of Pittsburgh, Peggy earned a B.A. in Philosophy of Science, Political Science, and Economics. She is a Fulbright fellow and a member of the International Who's Who of Professionals.

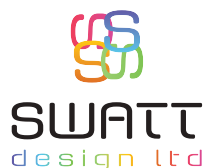
Assistant to Peggy Anne Salz



After 15 years as a Personal Assistant, Amanda Roulstone now runs Dragon Virtual Assistants, and provides virtual support to Peggy Anne Salz. Amanda has worked with Peggy for nearly 2 years and helped to deliver 4 books to date. Amanda's skills include proof reading, project management, audio transcription and scheduling appointments.

Dragon Virtual Assistants has been providing support to SMEs nationwide since 2007, from our base in Lincolnshire, U.K., we can provide professional services across the country, and overseas. Our services include Audio Transcription, Telephone Answering, Invoicing and Credit Control, Word Processing and Office Administration services are tailored to our client's needs.

Graphic Designer



SWATT Design Ltd. is an independent graphic design studio based in Hampshire UK, specializing in targeted bespoke graphic design and marketing for print. Our mission is to help our clients and their products to look their best through targeted, creative graphic design in the form of branding, advertising, packaging, and print literature.

We value honesty, integrity, and quality; and feel that these values should never be compromised by budget. We strive to not only meet your design requirements but to exceed them through understanding you, your business, and your customer as thoroughly as our own. Then taking that understanding and crafting it into design that makes a real difference.

Creative director Samantha Watt heads up SWATT Design Ltd. After 17 years running creative departments for a number of corporations in both Canada and the U.K., Sam understands the value of top quality graphics and the impact it can have on a businesses' bottom line. Formally trained in traditional graphics at George Browns' College of Art and Design in Toronto, Samantha moved to the U.K. in 2003 to expand her understanding of design and offer a unique perspective to companies and clients looking to appeal to both North American and European markets.

Printer



Tyson Press is a well established printing company specializing in hardback and paperback book printing, as well as multi page magazines, catalogs and brochures. A wide range of traditional finishes are available offering a great choice to any publisher.

Customer focus lies at the heart of this very modern business and this is why Tyson has grown so fast in recent times.

In the next few months Tyson Press is planning to add a new range of E-products to it's existing portfolio. This complementary service recognizes changing times and will see Tyson offering both E-books and E-magazines for the first time. Watch this space.

The InMobi Team



**Arun Kumar
Pattabhiraman**
Editorial Director

Arun Kumar Pattabhiraman leads global marketing efforts for app developers at InMobi. Arun is passionate about mobile and the internet and is fascinated by the myriad ways in which they continue to transform our lives. He joined InMobi in January 2011 and has since donned multiple hats across business development, marketing and product marketing for InMobi's developer solutions. Prior to InMobi, Arun drove prepaid voice revenues at India's largest telecom operator, Airtel, where he conceived and launched several market leading products and managed customer lifetime value through targeted marketing campaigns.

Arun started his career as a software engineer for mobile billing platforms at Tata Consultancy Services. He graduated from the Indian School of Business (ISB), Hyderabad with an MBA in Strategy and Marketing and received his bachelors in Electrical and Electronics Engineering from the College of Engineering, Guindy - Anna University. Arun is currently based out of Bangalore, India.



Julia Giona
*PR & Promotions
Lead*

Julia Giona joined InMobi in August 2013 to head the Global Corporate Communications group. Julia has over 14 years experience in high-tech marketing communications and international public relations, and was previously Chief Communications Officer at Mind Candy Ltd., a digital entertainment company for children. Prior to that, Julia drove international marketing & public relations for Evernote, the world's most popular app for remembering things, where she helped grow the user base from 9 million to over 55 million users. Julia holds a B.A. degree in History from the University of California, Santa Barbara.

**Chris Martinez***Design and Creative
Director*

Chris has over 20 years of creative experience in advertising, business development and global marketing with some of the top companies in the world, including Apple, Audi, Clorox and Kellogg's. As Creative Director for InMobi Chris manages a global team of designers and developers producing the companies brand identity. He was on the team that landed the Audi of America account for Venables Bell & Partners in 2007. The account was the biggest in agency history at US\$80 million.

Chris was also a Creative for Apple where he managed a team of eight creative professionals. His team developed retail training materials for the companies' 90 worldwide locations.

When Chris is not working he enjoys spending time with his wife Jenn and two sons, Blake and Jordin. In between projects and life Chris restores vintage Italian Vespa/Lambretta scooters.



Shrikant Latkar
*Executive Sponsor
 and Marketing Chief*

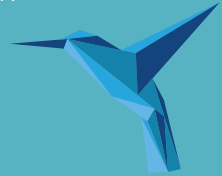
Shrikant is responsible for all marketing activities for InMobi globally. Additionally, he is also responsible for market research (InMobi Insights) and corporate communications.

Shrikant has spent the last 20 years in the technology industry in a wide variety of marketing, product management, and engineering leadership roles. Prior to InMobi, Shrikant was responsible for marketing all products and solutions for the Aricent Group comprising of three strategic business units - product engineering services, carrier services and solutions, and frog design. He has also worked in various leadership roles in marketing, product management and engineering at Juniper Networks, Avaya and Lucent Technologies Bell Labs. Having lead both products and services businesses, Shrikant brings a well rounded perspective for all aspects of product management and marketing.

Shrikant holds a Bachelor's in Electronics and Communications engineering from Karnataka University, India and an MBA from the Leavey School of Business, Santa Clara University, USA. He also received honorable mention ranking among top 20 CMOs in the PR Global Awards 2013. He is also an advisor to two Silicon Valley startups Vistapointe and Granttoo.

Shrikant is passionate about the intersection of technology and the user, and loves to build innovative solutions that make a difference in peoples' lives. He is based out of InMobi's San Francisco office.

From popular cross-platform tool providers to leading app data companies, and from regional app marketing gurus across China, Japan and Korea, to super-successful app companies that hit it big, this book uniquely gives you the inside track on everything you need to market and monetize your app.

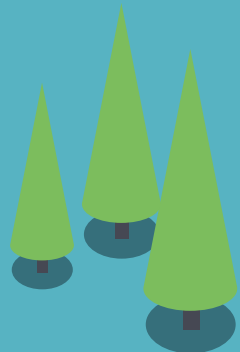


"The greatest weakness of most developers is thinking seriously about the business intricacies of their games and apps. On that basis, *Apponomics: The Insider's Guide to a Billion-Dollar App Business*, should be on everyone's reading list."

— **Jon Jordan**, *editor-at-large, PocketGamer.biz*

"For an app to become a worldwide success in today's international market, developers need a competitive edge. The '*Apponomics: The Insider's Guide to a Billion Dollar App Business*,' contains practical advice: how to create cost-effective mobile app install campaigns to obtain volumes of high quality users, how to reach foreign markets, how to maximize user lifetime value, and ultimately, how to increase ROI. It's an essential read for anyone in the industry."

-- **Rodrigo Mejia**, *User Acquisition EMEA, Gameloft*



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