CUSTOMLYTICS

eBooks

User Acquisition & Retargeting

This information was written by the Customlytics team for inclusion in the Mobile Developer's Guide To The Galaxy.

For a full copy of the developer's guide, visit the Customlytics website

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1 Introduction

Users are oxygen for your mobile app. Regardless of how you intend to make a living from your mobile business, you will have a tough time making any money from it without having a healthy userbase that continually uses your app (even more so if you tap into virtually any advertising-based business models). In this chapter, we will look at the basic mechanics behind acquiring and retaining users for your mobile application as well as the different activities that are part of it.

The contents of this chapter have a significant overlap with what would be called performance marketing in a lot of online / mobile-first companies. Without wanting to go into too much marketing theory here, performance marketing typically describes all activities that have the goal of acquiring & retaining users with the help of quantifiable marketing channels (so not Out-of-Home or print for example). If you want to put it like this, the opposite of performance marketing is the more traditional brand marketing where you will sometimes even use the same channels as in performance marketing, but the outcomes of your activities generally are very hard (or downright impossible) to measure. Having said that, there is still a significant amount of dependencies and interferences between performance marketing and brand marketing [1]. In most larger companies, these two fields of marketing are handled by separate (but ideally well-connected) teams.

It‘s not a secret that performance marketing means big business these days (particularly the user acquisition part) with numerous participants in the mobile marketing value chain all trying to get their small (or not so small) piece of the big advertising cake. According to mobile attribution provider AppsFlyer, a whopping $38.9 billion have been spent in 2018 globally just on mobile app install campaigns [2] while mobile marketing is making up for around 70% of digital ad revenue already today [3]. With ludicrous YoY growth rates of over 20%, there is no end in sight for the growth of mobile advertising revenues [4]. Mobile has become the norm in the advertising world.

1 Introduction (continued)

Interestingly enough there are not just a few app publishers out there where the entire business growth (story) is fundamentally based on performance marketing activities, meaning the number of users they have today is primarily made up out of users that were generated from putting money into marketing campaigns (so-called paid users). Typical characteristics of such companies are a strong online-based product as well as significant venture capital at hand (to spend on those marketing campaigns).

2 User Acquisition

User acquisition describes all activities that aim to acquire new users for your mobile application. It is a vast field and often consists of online marketing activities for businesses that live in the online world (naturally).

From a processual perspective, user acquisition is about all the steps involved from a user seeing an ad for your product to clicking on it, being redirected to a corresponding website or the app store page and then installing your mobile application. The channels in which you can find new users can be categorized into paid media and owned media, as we will learn below.

In almost all companies that engage in user acquisition activities, the marketing manager on duty will make use of different available media channels/sources to acquire qualitative new users (forming what is called the media mix).

2.1 Paid Media

Virtually any marketing campaign where you, either directly or indirectly, pay money to the owner of the ad inventory (that displays the ad for your product or service) falls into the category of paid media marketing campaigns. There are some common examples of companies that only exist because they offer paid media campaigns (say Google and Facebook), generating the vast majority of their overall revenue in advertising (north of 80% to be more precise [5]).

Paid media campaigns emit an almost magical appeal to marketing managers as they all come with the same highly attractive yet easy to understand value proposition: You insert money on one side and receive new users for your app on the other. Now the reality is not that simple, but the mechanisms behind all paid media campaigns follow the same pattern. You pay someone for a new user achieving some goal that was agreed upon (in our context this is typically a click on the ad, an app install or even some action inside of your app to be triggered by the newly acquired user). The payment between you as the advertiser and the owner of the ad inventory for the billable action you agreed upon can happen either directly (in case of players like Google or Facebook) or somewhat diffusely via numerous intermediaries (smaller app publishers do not have the resources to market the little ad inventory they own so they have to revert to ad-networks or so-called mediation platforms to sell their ad inventory).

2.1.1 Goals and Metrics

The apparent goal of any paid media user acquisition campaign is to generate qualitative new users for your mobile app. Metrics that are commonly used for such campaigns have naturally evolved around that goal and have been influenced by the needs of advertisers as well as the owners of the ad inventory (which naturally have slightly different intentions sometimes). The most important core metrics for you to know as you tap into the land of paid user acquisition are:

2.1.1 Goals and Metrics (continued)

Metric	Description
Impressions	An ad being exposed/displayed to a single user
Click	A user clicking on an ad
Installs	A user installing an app
Actions (Events)	A user performing some kind of action in your app

While the most popular acronyms (largely resulting from the core metrics above) for you to know in regards to paid user acquisition are:

Metric	Explication	Description
CPM	Cost Per Mile	Very traditional online marketing metric that describes the price of one thousand ad impressions.
CTR	Click-Through Rate	The percentage obtained from dividing the number of users that clicked on a given ad by the number of times the ad was delivered (=impressions). Important indicator for the quality of the creatives that you are using (the higher, the better).
CPC	Cost Per Click	The price for one user clicking on your ad.
CPI	Cost Per Install	The price for one user installing your mobile application after clicking on your ad.

2.1.1 Goals and Metrics (continued)

Metric	Explication	Description
CPA	Cost Per Action	The price for one user performing some predefined action inside of your mobile application. Sometimes also referred to as CPE (Cost Per Event).
CLTV	Customer Lifetime Value	The predicted or calculated net profit that you are going to make from the relationship with a given user.
ROI	Return on investment	The percentage obtained from dividing the net profit generated by the marketing campaign by the net spend for the marketing campaign times 100. In contrast to ROAS, this metric takes into account all expenditures that were invested into the campaign (software, labor, costs,...) which means it is harder to achieve a positive ROI than it is to achieve a positive ROAS.
ROAS	Return on Advertising Spend	The percentage obtained from dividing the revenue made from ads by the advertising spend times 100. In contrast to the ROI, this metric only takes into account ad spend and revenue made from the acquired users. Essentially ROAS is only considering revenue while ROI is considering profit.

2.1.2 Selected Channels

The channels to reach qualitative new users for your mobile app are ever-evolving (as is the way people use their smartphones). Generally speaking, you can only reach users effectively in other apps where they spend a significant amount of time. Obviously, those apps have to offer ad inventory so that you can run your ads there. The four quintessential meta-categories of channels for paid user acquisition are:

Paid Social

Advertising is the primary revenue stream for virtually any of the social networks these days. Facebook, Twitter, Snapchat, and many more will be happy to take your precious marketing budget to run ads for your product. Because these platforms appear as such an obvious choice for marketers looking to engage with new users, competition with other advertisers (and hence prices for ad inventory) is continuously on the rise for any of these. Therefore it is essential to efficiently target and optimize one's campaigns so that they stand out of the flood of marketing campaigns the users are confronted with every day. Billing for the ads you run on these platforms typically happens on models that are related to either the impression (CPM), click (CPC) or install (CPI) while some even offer models that are based on users taking some specific action in your app after the install (cost per action or CPA). Almost all advertisers that are serious about their online marketing engage in some sort of paid social activities.

Paid Search

Google has always been and still is the pioneer in this area, but with Apple rolling out Apple Search Ads to more and more storefronts globally, there finally is the option to run ads on the search function of the App Store as well. In general, paid search describes all occasions where you can display ads after a user has been searching for some specific keyword(s). The two main use cases for this in the app context are the search on the web (where Google is still ace) as well as search queries in the Google Play and Apple App Store.

2.1.2 Selected Channels (continued)

For the latter, you have to use Google Universal App Campaigns (UAC) on Android and Apple Search Ads on iOS to be displayed above the organic search results (and hence your competitors) in the app stores. Again, billing for the ads you run on these platforms typically happens on models that are related to either the impression (CPM), click (CPC) or install (CPI) while some even offer models that are based on users taking some specific action in your app after the install (cost per action or CPA). Almost all advertisers that are serious about their online marketing engage in some sort of paid search activities.

Ad-Networks

Traditional ad-networks are directly connected to many publishing apps and try to sell their traffic on a semi-exclusive basis. Unfortunately, they represent the most intransparent traffic as they will typically not disclose the actual publisher apps to you (as this is their only asset really). This diffuseness makes this kind of business model highly attractive for fraudsters that apply all types of techniques to fake results (regardless whether it‘s ad clicks, installs or even in-app activity). Billing for the ads you run on these platforms usually happens on models that are related to the app install (CPI) while some might be willing to offer you models that are based on users taking some specific action in the app after the install (cost per action or CPA). Given the limited transparency of such offerings, you should treat any campaigns that you run with such networks with extra caution and question the numbers you get out of them (especially if they offer you CPA-based billing).

RTB (Real-Time-Bidding)

A relatively new trend when it comes to user acquisition is the rise of RTB (Real-Time-Bidding) platforms as well as providers who specialize in acquiring app installs through the big SSPs (Supply Side Platforms). What they do is placing bids for ad inventory at so-called ad exchanges. This allows them to buy traffic from a multitude of different apps in an automated manner.

2.1.2 Selected Channels (continued)

The various vendors in this area compete against each other by using their own (supposedly superior) proprietary algorithms as well as machine learning to find the right users to place a bid on in the auctions. Billing for the ads you run on these platforms typically happens on models that are related to either the impression (CPM) or the click (CPC). Providers worth taking a look at here are Jampp [6] and Liftoff [7] (amongst countless others).

2.1.3 Tracking

To be able to run paid user acquisition campaigns that are based on anything else than the mere amount of impressions and clicks, you have to integrate additional tracking solutions into your mobile app. The reason for this is that 3rd parties (like Google or Facebook) have a tough time figuring out whether an install of your app has happened after a click on one of their ads without such additional tracking solution. They can not fetch this information from the Google Play and Apple App Store, meaning that in consequence, they can also not sell you app installs (as they are unable to detect that an install has happened).

That‘s why it is no surprise that the most basic install tracking solutions come from someone that has a natural interest in enabling the measurement of app installs and user behavior based events for your app - the advertising platforms themselves. Facebook and many of the more significant advertising platforms offer their own proprietary tracking solutions so that you can run advertising campaigns on their platforms. The two biggest problems with these:

They only work for measuring campaign results on the advertising platform that is handing them out (creating a similar situation like you have on web where every advertising partner forces you to integrate a proprietary tracking pixel on your website to run campaigns with them) and secondly, it is just not advisable to receive the measurement of the campaign results from the same party that is selling you the traffic.

2.1.3 Tracking (continued)

Instead, it is recommended to integrate a 3rd party install attribution provider (they call themselves MMPs - Mobile Measurement Partners) that can independently attribute new app installs to the source (e.g., your marketing campaign on Facebook).

There are four relevant vendors in the market for this today (Adjust [8], AppsFlyer [9], Branch [10] & Kochava [11]) and each of them is working in more or less the same way. They collect information from the user upon clicking on the ad and save it on their servers.

Then there is a component of the tool that you have to integrate into your app (a so-called SDK - Software Development Kit). Once implemented, this SDK runs inside of your app and collects information from the user as well. When the user installs and then opens your app for the first time (after clicking on the ad of course) these tool providers match that two information (click & install) and attribute the install to the source.

After that has happened, they would then also forward this information to the advertising platform which will then be able to count the install (and subsequently bill you for it). In addition to the install tracking, the SDK of the MMP would also be able to measure certain activities that your users perform in your app (which you can freely define or even choose not to capture entirely).

This behavioral data can be forwarded to the advertising platforms as well and will then be available to optimize your campaigns (i.e., buy more users that perform the desired actions in your app). Ever wondered why that pair of socks from Amazon you looked at three weeks ago is still chasing you in different ads across different mobile apps you are using? This is how they do it.

2.2 Owned Media

While all the paid marketing activities for user acquisition described in this chapter so far might seem attractive to you, they all have one major drawback: They cost money (typically a scarce resource if you are just starting out with your mobile business). That‘s why we will now speak about a kind of placement that is not costing you any money - your very own ad inventory.

If you have a website or some other kind of online presence that goes along your mobile application, chances are that you have unused potential to convert some of the users that visit your website/blog/social media page to actual app users. As paid marketing has become the norm and cure for everything, the potentials of owned media placements are often disregarded. The general idea behind all the placements listed below is to show the visitor that you have a mobile app that is compatible with his device and that he or she should certainly try it out.

2.2.1 Goals and Metrics

The goal behind any owned media user acquisition activity only differs slightly from the objectives behind paid user acquisition campaigns. Similarly, you try to generate new users for your app - the only difference being that now the users are already on your website and as you own the inventory, you don‘t have to pay to show your ads.

Since there are no costs attached to the ad placements themselves, we are only looking at a reduced subset of core metrics to be taken into account for your owned media user acquisition activities compared to the paid user acquisition activities:

2.2.1 Goals and Metrics (continued)

Metric	Description
Clicks	An ad being exposed/displayed to a single user
Installs	A user clicking on an ad
Actions (Events)	A user installing an app

While the most popular acronyms (largely resulting from the core metrics above) for you to know in regards to owned media user acquisition are:

Metric	Explication	Description
CTR	Click-Through Rate	The percentage obtained from dividing the number of users that clicked on a given ad by the number of times the ad was delivered (=impressions).
CLTV	Customer Lifetime Value	The predicted or calculated net profit that you are going to make from the relationship with a given user.

2.2.2 Example Placements

Possible options for placements in your online presences are numerous and depend heavily on the kind of service or product you offer. The three most effective and most universal ones are:

2.2.2 Example Placements (continued)

Smart Banner

Both Android and iOS offer standard versions of the smart banner that hovers on top of your website for visitors using a smartphone. If you use a tracking provider (MMP) in your app, it is advisable to create a custom smart banner and put a tracking link behind it, so that you can measure how many installs you generate from it (+ some extra information).

App Store/Play Store Badges

It is advisable to put the official Apple/Google app store badges somewhere at the bottom of your website if your app relates to the content of the website. Doing so gives your users another option to get your app and shows that you have one in the first place.

QR Code

For website visitors using a regular computer, it is helpful also to include a QR-code to the App Store/Play Store so that they can take out their smartphone and scan the code, instead of having to look for your app on the stores. If you use an install attribution provider (MMP), this exercise becomes a bit easier because they all offer tracking links that can determine the correct app store (Android/iOS) for the user to be redirected to based on the user‘s device.

2.2.3 Tracking

As you can probably tell by now, it makes your life a lot easier if you use an attribution tracking provider (MMP) when implementing the owned media placements mentioned above. Indeed it is not an absolute necessity to have a tracking provider in place (in contrast to paid media), but if you do, you should use tracking links behind all the placements so that you can get the clicks, installs, and events resulting from your owned media activities.

Furthermore, it is advisable to create a small script that fetches the so-called referrer URL and any incoming UTM parameters coming with the website where the user clicks on your tracking link. This information should then be written into the tracking link you use on the page as tracking parameters (right in the moment when the page is loaded). This way, you can see where visitors from your website are coming from before installing your app in your MMP dashboard/reporting.

3 Retargeting

Acquiring new users for your mobile app is only half of the story (actually less than that). In order to establish any sustainable app business, you need loyal customers that come back to your app over and over again. All the precious installs you can buy with marketing money will not take you anywhere if none of these paid users shows any activity after the install (which is often the case with low quality mobile traffic). The technical expression for users becoming inactive is user churn - if you start reading more about this, you will most certainly come across the term in a lot of publications as the problem it describes is somewhat trending these days (and even more so the available countermeasures at hand).

The sheer figures are quite depressing. According to a study from mobile legend Andrew Chen dating back to 2015, around 80% of new users are gone just three days after they installed the app on their Android smartphone (with the definition of gone being that they either stopped using the app or just downright uninstalled it from their device) [12].

3 Retargeting (continued)

These figures were confirmed with more recent data throughout the following years, leaving a rather dismal image of how users engage with the apps on their smartphone.

If you study the problem of user churn for mobile apps on a meta-level, you end up with three fundamental solutions (let's call them countermeasures instead) that should always be seen as complementary to each other, rather than alternatively.

Paid Retargeting

You run paid ads in other apps/websites exclusively targeting existing app users of yours that are not as active in your app as you would wish (because they either abandoned your app or entirely uninstalled it from their device). By showing them additional features of your product or sometimes just raising awareness that the app already exists on the user's phone, you try to convince them to get back into your app and to give your product another shot. Due to the level of technological sophistication involved in the process of buying ad-inventory in a real-time manner, you have to rely on one of the dedicated mobile app retargeting providers in the market (like Remerge [13]) for this.

mCRM (Mobile Customer Relationship Management)

Think of mCRM as the owned media counterpart of paid retargeting. You make use of communication channels that do not incur any (or just minimal) incremental costs per message sent like push notifications, in-app-notifications, email and so on, again trying to convince the user that he should come back to your app. The obvious downside is that with the majority of messaging channels that are coming with your app directly (namely push notifications and in-app-notifications), you will not be able to reach any users that have already uninstalled your app.

If you want to succeed in the mCRM domain, it is almost inevitable that you end up using a technology provider that handles user segmentation, message delivery, campaign triggering, and reporting for you. The topic of mCRM will be portrayed in greater detail in the next major chapter of this book.

3 Retargeting (continued)

You build the perfect product

In theory, all the market shares should be yours if you „simply“ go out there and craft the ideal product (for whatever purpose your app has). While that scenario is never going to happen, it‘s a matter of fact that a higher quality product will almost always have better customer retention rates than a similar product of lower quality.

As you will have noticed, only two of those countermeasures even fall into the marketing category (paid retargeting & mCRM). Consequently, paid retargeting will be discussed in this sub-chapter, while the other marketing-based cure for user churn (mCRM) will be the main actor in the next major chapter.

3.1 Paid Retargeting

The character of paid retargeting in itself is similar to paid user acquisition, only for users that already have (or have had) your mobile application installed on their device. The main goal is to raise additional awareness for your app by displaying ads to existing users in order to get them back into your app. Thanks to so-called deep-links, the user experience can be designed pretty smoothly. For example, you can decide to take users right back into your app, after clicking on the ad (vs. having them to go through the app store again). Typically you would only target users that are not living up to your particular definition of a loyal customer with this kind of campaign (what would be the point of doing otherwise?) and then try to convince those guys to give your product another go.

The obvious downside is that you have to pay someone a good amount of marketing money again to go out, find the users that already have your app while they browse other apps and websites (utilizing so-called user lists with device identifiers of the users you already know), buy an ad impression from this specific app publisher and eventually display a banner or some video to the user you are retargeting. All of this has to happen in a staggeringly short period of time (the time between a user clicking on a link to a new page/screen in the app and the desired page having finished to load - speaking milliseconds here) which is why you will have to use one of the RTB (real-time-bidding) providers.

3.1.1 Goals and Metrics

Paid retargeting campaigns are typically created with a clearly defined goal in mind: Some action or behavior that users should perform in your app. Think of app retargeting campaigns as a tool to push users a little bit further down the conversion funnel. They have already installed your app but did not place an order yet or did not buy that extra pack of in-app-currency you offered them two weeks ago. With retargeting ads, you would now be able to remind them of your app/ service and make them come back to your app to perform the desired action eventually.

Since users are already in the later stages of the conversion funnel (where install has already happened) we are looking at a smaller subset of important core metrics here:

Metric	Description
Clicks	A user clicking on one of your placements.
Actions (Events)	A user performing some kind of action in your app.

While the most popular acronyms (largely resulting from the core metrics above) for you to know in regards to paid user retargeting are:

Metric	Explication	Description
CPA	Cost Per Action	The price for one user performing the pre-defined action inside of your mobile application that you desire to achieve with the retargeting campaign. Sometimes also referred to as CPE (Cost per Event).
CLTV	Customer Lifetime Value	Customer Lifetime Value / The predicted or calculated net profit that you are going to make from the relationship with a given user.

3.1.1 Goals and Metrics (continued)

Metric	Explication	Description
ROI	Return On Investment	The percentage obtained from dividing the net profit generated by the marketing campaign by the net spend for the marketing campaign times 100. In contrast to ROAS, this metric takes into account all expenditures that were invested into the campaign (software, labor costs, ...) which means it is harder to achieve a positive ROI than it is to achieve a positive ROAS.
CLTV	Customer Lifetime Value	Customer Lifetime Value / The predicted or calculated net profit that you are going to make from the relationship with a given user.

3.1.2 Methodology and Vendors

There are numerous vendors for app retargeting campaigns offering their supposedly superior campaign solutions to solvent app publishers wanting to re-engage their userbase. However, from a technological and processual perspective, the different offerings do not actually differ too much. The only real differences are in the quality of the algorithms they use to place bids for ad inventory on the big ad exchanges, leading to better efficiency for some of the vendors.

Outside of the bidding algorithm, they all work in the same way: When starting the campaign, you provide them with a list of users you want to retarget. Users on that list are typically identified by the GPS_ADID for Android and the IDFA for iOS (being the two dedicated advertising identifiers from Apple and Google).

3.1.2 Methodology and Vendors (continued)

Secondly, you have to define the creatives, the goal of the campaign (what should users do in your app?) and set up the data transmission from your MMP so that the event data is passed to the retargeting provider. When all the preparational work is done, the retargeting provider starts to place bids for ad inventory being displayed to users on your user list at the big ad exchanges like MoPub or PubNative.

Those exchanges run auctions for ad inventory right at the moment when a page on a website or inside of an app is loaded. At that time the information about what user is going to see the ad (based on advertising ID) is already present and the retargeting providers would then only place bids for users that are on your user list.

If they win the auction, your ad is displayed, and ideally, the user would click on it. Upon the click on the ad (which has your MMP tracking link behind it), the user gets taken back to your app straightaway while the MMP SDK would track all the user behavior after the app opens again. Events that occur are forwarded to the retargeting provider so that they can optimize the campaign based on this.

Having made the point of how similar the providers are to each other, there is still a hand full of vendors that we can recommend from personal experience and based on the technology in use:

- Jampp [6]
- Liftoff [7]
- Remerge [13]
- Adikteev [14]

3.1.3 Tracking

Having an attribution tracking provider (MMP) in place is even more critical for retargeting campaigns than it is for user acquisition campaigns. It is downright impossible to run any retargeting campaigns without an MMP because you will lack the most quintessential part of the retargeting campaign setup: The user list that the retargeting provider needs to look for your existing users as they use other apps and websites. This list is maintained by your MMP (as the SDK runs in your app, capturing all your current users).

Despite the user list, your MMP plays another vital role in executing retargeting campaigns by measuring user events (actions your users perform in your app). One of these events will most certainly be the goal of your retargeting campaign and without your MMP tracking it in the first place and forwarding that data to the retargeting provider you simply can not run the campaign (i.e., the retargeting provider would refuse even to start the campaign as there is no success criterium).

3.1.4 Deeplinking

From a user experience perspective, it is (very) advisable to use deep-links when setting up any retargeting campaign. In combination with the mechanics of the tracking link you get from your MMP, this allows you to redirect the user right back into your app upon clicking on the retargeting ad (vs. having them go through the app store again). Ideally, you would redirect the user to the view/page in your app that corresponds with the content of the ad that the user clicked on in the first place. To give you an example: If you run a fashion online store app and you are displaying retargeting ads showing sneakers, make sure that the user gets the correct deep-link to be redirected to that particular pair of sneakers (and not have him land on the homepage of your shop). If you reach the point where you want to run retargeting ads for your app, and you do not support deep-links by then, it's high time to get them implemented. There is no extra tool needed to achieve this. You only have to declare the deep-links and corresponding views in the IDE (integrated development environment) that you are using. Both Apple [15] and Google [16] provide detailed instructions on how this can be done.

Footnotes

[1] https://thenext-us.com/2017/10/brand-marketing-vs-performance-marketing/

[2] https://www.appsflyer.com/blog/app-install-ad-spend-predictions-2017-2020/

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