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MARKETING STUDY FOR A NEW MOBILE APPLICATION

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Hundreds of mobile applications, apps, are released every day and it is hard to get users for new app without marketing. The purpose of this thesis was to find out what kind of marketing is useful for new mobile application and thus help author of this study to create global marketing communications plan for his new mobile app.

Studying the marketing theory from mobile apps' point of view and researching how some successful mobile apps were marketed at the beginning helped to find out ideas how to market new mobile application, with minimum budget.

Theory part of the study consists of McCarthy's 4P classification, which was found out to be suitable also for mobile app marketing, and Kotler's eight steps for developing effective communications.

In the researching part of this study it was studied how some successful mobile apps were marketed before app was launched, around launch time and after launch. Marketing in social networking services at the same time was also studied.

Qualitative research method and best practice benchmarking were used in this study. Information how successful apps Angry Birds, Instagram, Moves, PicLab, Tinder and Yik Yak were marketed in their early days was collected for example from internet news, articles and their social networking service accounts.

This study helped to find many ways to market new mobile app, even with limited budget, and the findings will definitely help to create global marketing communications plan for the mobile app. It remains to be seen if author's app will become a success story or will it be forgotten among many others.

CONTENTS

1	INTRODUCTION	5
2	BACKGROUND	6
	2.1 Author's first app	9
	2.2 Background of author's second app	
3	PURPOSE OF THE STUDY	
4	THEORETICAL FRAMEWORK	. 13
	4.1 Marketing mix	14
	4.1.1 Mobile app as a product	14
	4.1.2 Place for mobile app	
	4.1.3 Promotion of mobile app	19
	4.1.4 Price of mobile app	
	4.2 Marketing communications	
	4.2.1 Identify the target audience	
	4.2.2 Determine the communication objectives	. 26
	4.2.3 Design the communications	27
	4.2.4 Select the communication channels	28
	4.2.5 Establish the total communications budget	29
	4.2.6 Decide the communications mix	30
	4.2.7 Measure the communications results	32
	4.2.8 Manage the integrated marketing process	33
5	METHODOLOGY	. 33
	5.1 Research method	33
	5.2 Data collection	34
	5.3 Data analysis	37
6	RESULTS	
	6.1 Before launch	40
	6.1.1 Instagram	. 40
	6.1.2 Moves	. 41
	6.2 Launch	42
	6.2.1 Angry Birds	42
	6.2.2 Instagram	43
	6.2.3 Moves	. 43
	6.2.4 Tinder	. 44
	6.2.5 Yik Yak	45
	6.3 After launch	45
	6.3.1 Moves	. 45

	6.3.2 PicLab	45
	6.3.3 Tinder	46
	6.3.4 Yik Yak	46
	6.4 Social networking service usage	48
	6.4.1 Instagram	49
	6.4.2 Moves	50
	6.4.3 PicLab	50
	6.4.4 Tinder	51
	6.4.5 Yik Yak	52
	6.5 Easy to use apps	52
7	RELIABILITY AND VALIDITY OF THE STUDY	53
8	CONCLUSIONS	55
	8.1 Before launch	55
	8.2 Launch	56
	8.3 After launch	57
	8.4 Social networking service usage	58
	8.5 Final conclusions	59
9	SUGGESTIONS FOR FUTURE DEVELOPMENT AND STUDIES	61
A	CKNOWLEDGEMENTS	62
R	EFERENCES	63

1 INTRODUCTION

The first smartphone-like devices were introduced in the late 1990s and more advanced devices, for example BlackBerry in United States and Nokia's Symbian devices in Europe, were popular in the middle of 2000s. It was possible to install new applications, apps, to these devices but the number of apps was low. The real smartphone boom started when Apple launched first iPhone in 2007 and HTC launched first Android phone in 2008. Nowadays there is much over million apps available for Apple's iOS devices and Android devices and about one thousand new apps are released every day for both platforms.

App developers want their apps' to have many users but the huge number of apps makes it hard to separate new app from others. It is also very likely that the new app will not even be seen at all by possible users without marketing. Because of this marketing of the new app is very important.

The author of this study is developing mobile apps as a hobby. Studying best ways to market mobile apps with limited marketing budget will help to raise possibilities to increase these apps' popularity and possibility to succeed.

This study will find answers to questions like "what kind of global marketing communications plan is needed and useful for new mobile application", "what are the best ways to market new mobile application (with minimum budget)" and "how some other start-up companies marketed their mobile apps at the beginning". Learning the theory and doing the study will help to create global marketing communications plan for mobile app.

This study will be done using qualitative case study research method and data will be collected using best practice benchmarking. Information about what mobile start-up companies have done to succeed and how they marketed their apps in the beginning will be searched for example from internet news, articles and apps' social networking service accounts. For example information how popular apps like Instagram, Moves and Yik Yak marketed their apps in the beginning will be studied.

2 BACKGROUND

Usage of smartphones and tablets is increasing rapidly. In the year 2013 about one billion smartphones were sold (Strategy Analytics 2014) and in the year 2014 the number of sold smartphones was 1.3 billion (Strategy Analytics 2015). Smartphone shipments grew 29.6% in year 2014 compared to previous year. In the year 2014 Android-based smartphones had 81.2% market share globally, Apple's iPhone had 15.0% global market share and Windows Phone smartphones had 3.0% market share. Other smartphone operating systems had 0.7% market share.

Also number of smartphone and tablet applications, apps, is increasing very rapidly. Google's senior vice president in charge of Android and Chrome, Sundar Pichai, told in invite-only event on 24 July 2013 that Google Play has 1 million Android apps (Warren 2013). Earlier on 29 October 2012 Google told Google Play had 700 000 Android apps (Womack 2012).

On 8 January 2015 Apple told its App Store has more than 1.4 million applications (Apple 2015). On 22 October 2013 Apple told in its annual iPad event that they have more than one million apps in their App Store (Ingraham 2013). Earlier on 12 September 2012 Apple told in iPhone 5 event that they have 700 000 apps in their App Store (Ingraham 2012).

Based on the numbers above on average over one thousand new apps has been added to Google Play every day during first half of 2013 and about 900 new apps has been added daily to Apple's App Store during 2014. Above-mentioned figures come directly from Google and Apple. As seen from AppFigures's example below (Picture 1) also other companies provide mobile app related statistics. These statistics are usually more up to date but differ slightly from Google's and Apple's numbers.

1,500k 1,250k 1,000k 750k 250k 2010 2011 2012 2013 2014

Total Number of Apps by App Store

Picture 1. AppFigures's graph showing number of apps by app store. (Michaeli 2015).

There are huge possibilities for mobile application developers. For example Finnish company Supercell was founded in June 2010 and it started to develop mobile games in 2011. In October 2013 company sold 51% of its stocks to Japanese SoftBank and GungHo Online Entertainment with 1.5 billion US dollars (SoftBank & GungHo Online Entertainment 2013).

Another example of success story is social video service Vine, which was founded in June 2012 and Twitter bought it before the application was even available in October 2012. Vine makes it possible to create and share maximum of six seconds long looping video clips. Vine released free iOS app for Apple devices in January 2013 and free app for Android devices in June 2013. After seven months of initial release Vine told it has over 40 million registered users (Vine 2013).

Third example of success story is WhatsApp messaging application. WhatsApp was founded in February 2009 by Brian Acton and Jan Koum. The whole mobile app in-

dustry had just started to grow. Apple's App Store was opened only seven months earlier and Google's Android Market (predecessor of current Google Play) was opened four months earlier. Koum bought an iPhone a month before they founded WhatsApp. (Olson 2014).

Facebook acquired WhatsApp five years after WhatsApp was founded in February 2014 for approximately 19 billion dollars (Facebook 2014).

It is also interesting to see how WhatsApp's price compares to traditional high-tech company's price. Nokia sold Nokia's Device & Service business to Microsoft in September 2013 (deal was completed in April 2014) and the total price was little higher than 5.4 billion euros (Microsoft 2013). About 25 000 Nokia employees from more than 130 sites across 50 countries, many factories, tens of thousands of computers as well as plenty of other devices was transferred to Microsoft (Microsoft 2014). Facebook's WhatsApp deal was more than twice as big as Microsoft's Nokia deal but WhatsApp had only 55 employees (about 0.22% of Nokia's mobile phone business employees) (Burnham 2014).

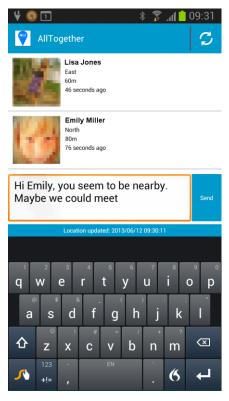
Marketing is usually very important but it is also possible to create very big user base without any marketing. Venture capital company Sequoia Capital has told that WhatsApp did not use any money for marketing or user acquisition and company did not even have marketing or PR employees (Goetz 2014). Still at the time of the deal WhatsApp had more than 450 million active users (more than 6% of world population).

Despite of the possibilities success seems to be very unlikely. Many app developers would like to create profitable apps but Gartner forecasts that less than 0.01% of mobile apps in consumer segment will be considered a financial success by their developers through 2018 (Gartner 2014). However, not all applications are meant to be financial success. Some applications are made as a hobby and their developers do not expect any profit from those and some applications are made to increase brand recognition or increase product awareness.

2.1 Author's first app

The author of this study is developing mobile apps as a hobby in free time. The first app, AllTogether that can be seen in Picture 2 below, had an idea to show nearby friends and allow easy messaging with them. This app was designed, developed and released in 2013. App updated user's location to server regularly, also while app was not open, and got distance and direction of nearby friends in return. User had to log in to Facebook account using the app and then it automatically found out list of user's Facebook friends and showed their distance and direction, but only if friends also used the same app and they were nearby. From users point of view it was easy to take app into use as separate account was not needed.

Initially development of this app was started to find out how easy or hard it would be to develop mobile app and to understand what kind of skills are needed. App development and running app's servers was not expensive as the running costs were only some tens of euros per month. The plan was to offer the app first totally free of charge and advertisements would have been added to get revenue from it if the app would have got plenty of users.



Picture 2. AllTogether app.

App was planned so that it could be used everywhere, for example in bars, cafes, concerts, music festivals, sport events or shopping malls, to find nearby friends and meet them. The favorite idea was that young adults would use app in bars and invite friends to have good time together.

Information of this app was first sent to Finnish technology magazines and news sites so that they could write small news about it in their websites. This did not work so well as only one small web-only "magazine" published information of the app. Tietokone magazine had "write us about new Finnish mobile app and we release it in our website" section in their website and they published story about the app in their website a week later.

Information of the app was also sent to tens of foreign websites, which release stories of new mobile apps. This kind of information was sent only to websites, which said they would write about apps free of charge. Many of them replied that their queue is many months long and many of them asked some money to speed up the process or to get a guarantee they will publish story of the app. No money was spent and in the end no-one published information of the app.

Also Finnish festivals were seen as a good place to use the app and comments about app was sent to festivals' Facebook pages. This kind of advertising was like shooting blindly with a shotgun and hoping that it hits someone. This marketing did not increase number of users much.

The app got some users but most of them stopped using app soon. One of the potential reasons why users stopped using the app was because their friends did not use the app and because of that they only saw empty list of friends in the app. The app had also a possibility to invite user's friends to use app but it did not help much.

There were some ideas how to increase number of users by adding new functionality and making it possible to see more friends' further away. It was noticed that mobile users are not so willing to share their location, especially with a very small "company" or app they knew nothing of. It was also realized that even there would be plenty

of users, they would use the app mainly only about once per week, maybe while in bar, and then ads would not generate enough revenue.

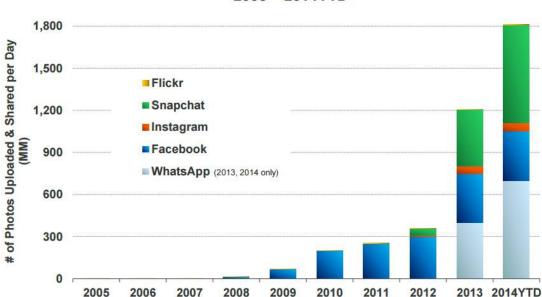
Google had location sharing feature called Latitude between 2009 and 2013. In the autumn of 2013 Google Latitude was replaced by Google+'s location sharing feature, which shows user's friends, whose location sharing is enabled, on map. At the same time when the AllTogether app was released also Facebook was rumored to release quite similar feature in the near future. Facebook released its Nearby Friends feature officially in April 2014.

Because of the above-mentioned reasons the decision was made to stop AllTogether app's development and shut it down.

2.2 Background of author's second app

Taking photos using smart phones and sharing them to social networking services is very popular nowadays. Gigaom's report (Roettgers 2015) tells that average smart phone user takes 150 photos monthly, 5 photos daily. There are many factors affecting how many photos different user groups take monthly. For example female iPhone users under the age 25 take an average of 250 photos monthly and male Android users take an average of 90 photos monthly. Also geographical area affects the number of taken photos. An example comes from Japan where young female iOS users take over 300 photos monthly.

Sharing photos to social networking services is also very popular nowadays. Venture capital firm Kleiner Perkins Caufield & Byers told in May 2014 that over 1.8 billion photos has been uploaded and shared daily in 2014 as shown in Picture 3 below. This figure contains only uploads and shares in Facebook, Flickr, Instagram, Snapchat and WhatsApp so the actual number of uploads and shares is much higher. According to figures about 350-400 million photos are uploaded and shared to Facebook every day. (Meeker 2014, 62).



Daily Number of Photos Uploaded & Shared on Select Platforms, 2005 – 2014YTD

Picture 3. Number of photos uploaded and shared daily. (Meeker 2014, 62).

Andrew Watts, 19 years old student who describes himself as an "actual teen", caused a small hurricane in marketing area in the beginning of 2015. He wrote "A Teenager's View on Social Media" blog post on 2 January 2015 where he describes how he sees different social networking services from teen's perspective (Watts 2015). Twelve days later in TechCrunch's video interview Andrew tells that about 500 000 persons has read his story so far (Tsotsis 2015).

Second mobile app from this study's author is about photos and social networking services and young users could form its biggest user group. This app will also be "anonymous" and also Andrew Watts, "actual teen", tells in his blog post that he likes anonymity (Watts 2015).

3 PURPOSE OF THE STUDY

The purpose of this study is to get help for new mobile app's marketing from global marketing point of view. Learning the theory and researching how other popular apps were marketed at the beginning helps to find out what kind of marketing is useful for

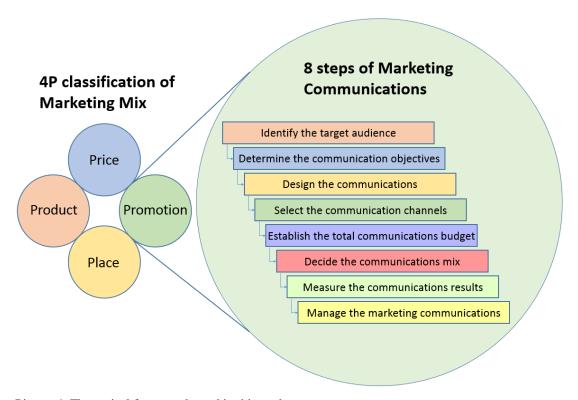
new mobile application. In the end this study helps to create global marketing communications plan for new mobile app.

Minimum budget will be used in the design and development of the mobile app as well as in marketing. Minimum budget will be taken into consideration also in global marketing communications plan.

This study finds answers to questions like "what kind of global marketing communications plan is needed and useful for new mobile application", "what are the best ways to market new mobile application (with minimum budget)" and "how some other start-up companies marketed their mobile apps at the beginning".

4 THEORETICAL FRAMEWORK

McCarthy's 4P classification of marketing mix and Kotler's eight steps of marketing communications are used as a theoretical framework in this study (Picture 4).



Picture 4. Theoretical framework used in this study.

4.1 Marketing mix

In 1960 professor E. Jerome McCarthy reduced the Marketing Mix to four elements in his book Basic Marketing: A Managerial Approach. Product, place, promotion and price are the variables in his 4P classification.

- Product: the right good or service for satisfying the target's needs. For example physical good, service, benefits, instructions, warranty and packaging are products.
- Place: contains all decisions and actions needed to get the right product to target market's place. Product is delivered to customers via channel of distribution, series of companies who participate in the flow of products from producer to consumer. For example channel type and location of stores belong to place part of marketing mix.
- Promotion: telling to target market or other parts of distribution channel about the product. Promotion can be focused on getting new customers or keeping existing ones. For example advertising and publicity are part of promotion part of marketing mix.
- Price: setting the correct price for the product. For example flexibility of price and discounts are part of price part of marketing mix.

(Perreault & McCarthy 2002, 48-50)

At first sight McCarthy's 4P marketing model does not seem to fit so well for mobile app marketing. For example price does not play so big role in mobile apps because many apps are free or they cost only few euros or dollars. Also place seems to be quite irrelevant because almost all mobile apps are distributed via mobile market-places (for example Google Play for Android applications and Apple's App Store for Apple's iOS devices). But in reality 4P fits well also to mobile apps.

4.1.1 Mobile app as a product

Pratt (2011a) tells that product in mobile app marketing contains wide variety of areas. For instance quality is an important part of product. As an example app should not crash in any circumstances and it is important to make sure that no data will be lost, for example game's highest score or to-do list content cannot be lost. It is also important to make sure app works on different kind of devices, from low end to highend devices. It is also important that app does what it is expected to do.

Usability is another part of the product. It should be easy to start using app. An example of bad usability comes from online shopping sites. Many online stores require user to create user account before user can make a purchase. If user only wants to buy one item from the store, it will be quite likely he will find another online store where user account is not required. Spool (2009) tells an example where big e-commerce site increased its sales by 300 million dollars in one year after removing mandatory registration. Mobile app should also be easy to use and its usage self-evident. Mobile app will not be used if user has to read manuals or spend too much time learning how to use it. User should not be scared to try different buttons and other component in mobile app. If app has complex features, app should guide user so that user learns how to use it. (Pratt 2011a). Apps should have common look and feel so that app looks good and does not look outdated. When user knows how to use one app, he should be familiar with other apps too. It is ok to be creative but app should still feel familiar. For example Apple has made user interface guidelines for iOS developers and Google for Android developers.

It is also important to plan how users would use the app and what kind of set of features is offered to users. Are users going to use it once a week, daily or maybe only once and is it used quickly or will users spend plenty of time with it. Will users want to have plenty of features or possibilities or should the number of features or possibilities be limited to increase usability? It should be studied if lack of feature makes users to choose different app. (Pratt 2011a).

It is important that app is valuable for users and remains to be valuable also in the future. Maybe some new features should be added in the future to fulfill existing users' new needs or respond to competitor's new features. At the same time it should still be easy to new users to start using the app. Having happy users adds word of mouth marketing as existing users tell about app to their friends and family. (Pratt 2011a).

Every mobile operating system evolves and new versions will have new features for developers. Taking new operating system's new features in use in app development may mean it will not work in older devices or devices which does not have new operating system version installed. It should be studied will it be ok if app works only in newer devices and all potential users cannot use it. Also device's hardware might have some limitations. For example front camera might be missing and only few high end devices have heart rate monitor.

Mobile app developer should also be familiar with new mobile app trends and what kinds of services or features users use in other apps (Pratt 2011a). Should for example location based features be added to app or should it be integrated to social networking services? Also competitors' offerings should be monitored regularly.

App can also be used for communication. Users can for example be asked to review or rate app, report problems or share app's website link to user's friends. App can also contain links to app's website, social networking service pages or help pages. App can also be a place to promote developer's other apps. (Pratt 2011a).

4.1.2 Place for mobile app

Most mobile apps are nowadays installed from mobile app distribution platforms. Apple's iOS devices can install apps from Apple's App Store and most Android apps are installed from Google Play. There are also other distribution platforms for Android devices. Some of them are owned by big known companies like Amazon Appstore or Samsung Galaxy Apps and some are smaller app distribution platforms. Android users should take care of security and install apps only from trustworthy platforms.

Apple's App Store and Google Play both have more than million apps and about one thousand new apps are added to them daily. Because of this it is hard for users to find app developer's app from app distribution platforms. Platforms have some lists, which increases possibility that users will find app developer's app but unfortunately these lists increases usually only visibility of already popular apps.

One way to increase discovery of app is to use correct keywords in app's name and description so that app will be found when user uses distribution platform's search functionality. Also app's icon is important as it helps app to stand out from app listings and good quality screenshots and video help to grab user's attention if user opens app's details in distribution platform. (The Secrets to App Success... 2014).

One important criterion for users to select app from app distribution platform is its rating and reviews. Because of this it would be important to get good ratings and reviews early. One possibility is to ask beta testers, who are testing the app before the actual launch, or early users to rate app. On the other hand it is not wise to ask ratings if users seem not to be satisfied enough because then they would not give good enough ratings.

Although apps are installed from online distribution platforms, place can still be seen as a geographical location also in mobile app marketing. App developers should for example study if their app fits in to certain areas. For example alcohol related apps would not be a big success in countries where alcohol is prohibited or apps, which need lot of network bandwidth, would not be useful in rural areas where network is slow or unreliable.

Another important thing to consider is localization of the app to different languages. Mobile analytics company Distimo's analyst van Agten tells in his analysis (Van Agten 2012) that applications increased number of downloads in foreign country on iPhone more than 128 percent in the next week after introducing the translated app compared to the week before. On the other hand van Agten admits that it is hard to say if the increase of downloads is caused by the introduction of the native languages.

It is also important to get familiar with different markets as they may be different compared to Western markets. For example many social networking services are blocked in some countries. For example Facebook, Twitter and Instagram all have been blocked in China and local social networking services are used instead. If mobile app, which integrates to social networking services, is intended for Chinese mar-

ket, it should be integrated to local social networking services. There are also differences in app distribution platforms. For example Google Play is not available in China but there are many local app distribution platforms, which can be seen from the Picture 5 below.



Picture 5. Not comprehensive example picture showing differences between Western and Chinese app distribution platforms. (Fong 2013).

It is nowadays common to soft launch mobile app first in some countries to test its reception before bigger launch. Canada is a common country for this kind of testing. "Canada is a good test market for several reasons. The data you get there is reliable and comparable to the other major markets — the U.S., the UK, Denmark and so on — and the country is also of a good size", Thorbjörn Warin, CMO of Finnish gaming company Grand Cru, told Mashable (Murphy Kelly 2013).

One recent example how soft launch can lead to cancellation of development comes from Supercell. Supercell soft launched its new Spooky Pop game in Canada and Australia in December 2014. Two months later in 9.2.2015 they announced they will end game's development because game did not fulfill their quality standards and fell short of long-term playability (Supercell 2015).

It is also good to study what kinds of devices are used in target market. For example iPhones are much more popular among US teenagers than Android phones. According to Piper Jaffray's survey conducted in autumn 2014 67% of US teenagers own iPhone and 73% of teenagers expect their next phone to be an iPhone (Piper Jaffray)

2014). On the other hand in Spring 2015 Apple had 43,1% market share of smart phones and Android had 52,2% market share in US (AppleInsider 2015). These different results show that iPhones are more popular among teenagers in US but Android devices are more popular on other demographic groups.

4.1.3 Promotion of mobile app

Promotion of mobile app is mainly the same as promoting any product or service. App can be promoted for example in internet ads, blogs, social networking services and in many other places. One should create for example accounts and pages in social networking services for new mobile app. These accounts and pages can be used as landing pages, where links in different places can lead to. For example Instagram could be used to share photos of happy users using the app and Pinterest could be used to show screenshots of app or infographics of app related information.

Pratt (2011b) tells that links should lead to app distribution platform if the aim is to make customers to install app right away and to app's website if more screenshots and information is wanted to be shared. Links leading to app's Facebook page will increase number of likes and shares, add viral marketing and also gives the opportunity to communicate with fans and users in the future.

One difference between other products and mobile apps is the shelf where product is offered to customers. For example products in grocery store have very little information, if any, available in the edges of shelves but "shelf" on app distribution platforms has plenty of information of the product.

"Shelf" on app distribution platform can contain for example apps name, longer description, icon, images, videos, information what's new in this version, user ratings, comments and number of installations. The "shelf" of mobile app can also be reached directly from links and app can be installed easily from the "shelf" using only one button. This button can also be clicked in computer and app will be installed to mobile device.

App developer can and should make app's material in "shelf" as attractive as possible. Links in websites, blogs, tweets, online ads etc. can lead directly to app's details page in app distribution platform so application's graphics, videos and other information in that page are important also from promotion's point of view. Also some websites and blogs take app's graphics and icon from app distribution platform and use them.

One more thing worth mentioning is mobile app listing and review websites. There are nowadays hundreds of these websites and one can send information about new app to these websites to increase visibility of the new app. Some of these websites require payment before they add app to their listings or review app.

4.1.4 Price of mobile app

There are few different ways to monetize mobile apps. It is possible to let users install app for free and the revenue comes from in-app advertisements or in-app purchases. It is also possible to sell apps via one-time purchases or use subscription-based solution. Monetization model can also be changed dynamically. For example if user does not make in-app purchases in couple of first days, then ads can be shown to this user. (App Annie & IDC 2014, 6).

Freemium model generates revenue allowing users to make in-app purchases. There are many different ways to utilize in-app purchases. Free app can for example offer limited usage, bandwidth, hours or storage space and in-app purchase can remove or modify limits. Another possibility is to allow free usage of app's full functionality only for some time and user has to make in-app purchase to extend time period. In-app purchases can also be used to buy virtual items, speed-ups or upgrades or add functionality to app. Also possible in-app ads can be removed using in-app purchase. (App Annie & IDC 2014, 12).

Paid apps mean apps, which can be bought from app distribution platforms. It is worth noting that users using Apple's devices spend on average over four times more

money on apps than Android users (Elmer-DeWitt 2014). Benedict Evans (Evans 2014) found five reasons for this:

- Market share of Android is strongest in relatively lower income countries
- Many users in those countries do not have credit cards and Google has been very slow to offer carrier billing
- Android phones are on average about two times cheaper than iPhones people who choose to spend the extra money are sending a signal about their intents.
- Apple offers a distinctly different proposition to Android so perhaps the users
 who are attracted to Apple's proposition are more likely to spend more money.
- Developers' behavior may be affected if they believe that Android users do not pay they may offer a free ad-supported app instead of a paid app, or set a lower price. And if developers decide not to support Android at all or support it later, then their potential users will select iPhone first, which becomes self-fulfilling. Examples of this are some magazine apps, which have low number of users in Android tablets. So magazine app developers support Android tablets later causing magazine app users to choose Apple's iPads instead.

Also paidmium apps can be bought from app distribution platform. In addition to one-time purchase paidmium apps offer also in-app purchases.

Different kind of advertisements can be shown inside app and sometimes even outside of app. Ads generate revenue in few different ways. Some advertisers pay for ad views, some require user to click ad or for example start playback of advertisement video. Ads can be shown for example so that it hides part of app's screen all the time or only sometimes. Ads can also be opened as a separate full screen ads or they can be shown when user closes app. Also notification ads can be used. These ads will be shown in device's notification area even app itself is not running. Apps can be totally random or they can for example be related to running app, user's earlier internet usage or user's location. Based on App Annie's survey in February 2014 42% of re-

spondents uses ads in their apps (App Annie & IDC 2014, 21) and it is estimated that usage of in-app ads will increase by 2017 (App Annie & IDC 2014, 33).

It is hard to find official or even unofficial information how much mobile app can make money via in-app advertisements. One unofficial example comes from Vietnam. Vietnamese developer Dong Nguyen created simple mobile game called Flappy Bird in May 2013. Game was installed 50 million times to Android and iOS devices by February 2014. Nguyen told in February 2014 that he earns 50 000 dollars in day from in-app advertisements (Hamburger 2014).

It should be noted that some users may dislike ads and they may remove app because ads are shown. Ads may also hinder app's usage making it harder to use and this may cause users to remove the app.

One way to monetize app is to use subscription-based model. This model is popular for example in music and video services, which allows users to listen unlimited amount of music or watch unlimited number of movies and TV series in certain time period, for example per month. In this model app can be installed without purchase but it is useful only if user pays monthly or yearly etc. fee.

It is also possible to let app be used without a charge but it can still help company to gain revenue. In these cases app can drive interest to their websites and stores for example by providing coupons, sale notices or localized information. (Reynolds 2014).

Based on IDC's and App Annie's study revenue coming from in-app ads and freemium model increased in key countries between 2012 and 2013. Picture 6 below shows that revenue coming from in-app ads increased 56% and freemium model's 211%. At the same time revenue coming from paid and paidmium models shrank. Paid model's revenue shrank 29% and paidmium's 23%. (App Annie & IDC 2014, 8).

Mobile App Revenue in Key Countries 200 +56% +211% 2012 2013 150 100 50 In-App Advertising Freemium Paid Paidmium Advertising

Picture 6. Revenue from in-app ads and freemium model grew between 2012 and 2013. (App Annie & IDC 2014. 8).

iOS App Store & Google Play

In December 2013 83% of top 1000 apps in iOS App Store and Google Play used freemium model. Eight percent of apps used paid model and nine percent paidmium model. Freemium generated 92% of the revenue while paid and paidmium apps both had only 4% share of the revenue. (App Annie & IDC 2014, 9).

4.2 Marketing communications

Promotion, one of the items in marketing mix, is described deeper in this marketing communications chapter. Philip Kotler's ideas of marketing communications presented in his Marketing Management book will be used in this study. According to Philip Kotler developing effective marketing communications contains eight steps:

- Identify the target audience
- Determine the communication objectives
- Design the communications
- Select the communication channels
- Establish the total communications budget
- Decide the communications mix
- Measure the communications results
- Manage the integrated marketing communications

(Kotler & Keller 2011, 482).

4.2.1 Identify the target audience

Market segmentation is a way to divide market into smaller pieces, which helps to identify target audience. A market segment contains group of customers sharing similar set of needs and wants. Segments can be defined in few different ways. One way to define customer segments is to use descriptive characteristics like geographic, demographic and psychographic. Another way to do the segmentation is to use behavioral segmentation. (Kotler & Keller 2011, 214).

Geographic segmentation divides market to geographical units, like countries, regions, cities or neighbourhoods (Kotler & Keller 2011, 214). Geographical segments for mobile apps could contain for example Silicon Valley area, rural areas, Stanford University area or Finland in general.

In demographic segmentation variables like age, family size, gender, income, occupation, education, race, religion, generation, social class or nationality are used to divide market to smaller pieces (Kotler & Keller 2011, 216). Example segmentation for mobile app could be 15-20 years old girls from middle and upper social class.

Psychographic segmentation is used to divide customers to different groups based on their personality traits, lifestyle or values. There are different classification systems available for psychographic segmentations. One popular classification system is Strategic Business Insight's VALS framework, which classifies US adults to eight primarry groups.

- Innovators Successful, sophisticated, active, "take-charge" people with high self-esteem. Purchases often reflect cultivated tastes for relatively upscale, niche-oriented products and services.
- Thinkers Mature, satisfied, and reflective people motivated by ideals and who value order, knowledge, and responsibility. They seek durability, functionality, and value in products.
- Achievers Successful, goal-oriented people who focus on career and family.
 They favour premium products that demonstrate success to their peers.

- Experiencers Young, enthusiastic, impulsive people who seek variety and excitement. They spend a comparatively high proportion of income on fashion, entertainment, and socializing.
- Believers Conservative, conventional, and traditional people with concrete beliefs. They prefer familiar, US-made products and are loyal to established brands.
- Strivers Trendy and fun-loving people who are resource-constrained. They favor stylish products that emulate the purchases of those with greater material wealth.
- Makers Practical, down-to-earth, self-sufficient people who like to work with their hands. They seek US-made products with a practical or functional purpose.
- Survivors Elderly, passive people concerned about change and loyal to their favorite brands.

(Kotler & Keller 2011, 226-227).

Mobile app could be targeted for example to innovators and experiencers.

Behavioral segmentation is used to divide customers based on their knowledge of, attitude toward, use of or response to a product. Customers have different needs and they may want different benefits from the product leading to different segments. Also for example user status and usage rate can be used to group customers. User status can be nonuser, ex-user, potential user, first-time user or regular user. Product can be marketed better to potential users and nonusers by studying if they have deeply held attitudes, beliefs or behaviors or just lack of knowledge of the product. Some consumers use the product a lot and others' usage rate may be smaller. It may for example be a good idea to market mobile app more to heavy users, who could lead to bigger revenue through more in-app purchases or bigger amount of seen ads. (Kotler & Keller 2011, 227-228).

There are five consumer attitudes, which can be identified and used in segmentation. Enthusiastic and positive consumers do not necessarily need much marketing efforts and more efforts can be used to market product to indifferent consumers. Time should not be used to market product to negative and hostile consumers. (Kotler & Keller 2011, 229).

Kotler and Keller (2011, 482) tells that the "target audience is a critical influence on the communicator's decisions about what to say, how, when, where, and to whom." It is possible to profile the target audience in terms of any of the market segments but it is often useful to do so in terms of usage and loyalty. Is the target audience new to the category or a current user? Is the target audience loyal to the brand or to a competitor? Or is the target audience switching between brands? Is brand user heavy or light user? Based on the answers communication strategy will be different.

There are services, which helps to identify mobile app's target audience. For example App Annie, Quantcast and Yahoo's Flurry Analytics can be helpful. One should also pay attention to trends to find out user groups who favor similar apps and narrow down a large amount of consumers to a more manageable group of possibly users. (Hines 2014). Trends can be found for example using Google Trends or Twitter Trends.

4.2.2 Determine the communication objectives

Percy and Rosenbaum-Elliott (2012, 7) define four communication objectives, which are defined below.

- Category need. Consumer has to have some kind of interest, need or reason to buy item from product category.
- Brand awareness. Percy and Rosenbaum-Elliott tell that brand needs to be identified in order to buy it. Identification can happen via by recognition or recall. Recognition happens when consumer sees item on the shelf and recall happens when consumer thinks the brand beforehand.
- Brand attitude. Brand awareness is not enough to drive consumer to an actual
 purchase. Consumer has to have favorable attitude towards the brand. Attitude can be formed from the feelings consumer has associated with brand and
 also what consumer knows or learns about the brand.

 Brand purchase intention. This is the primary communication objective for promotion. Consumer may have favorable attitude towards many brands.
 Brand purchase intention refers to thoughts like 'I think I'd like to try that' or 'I'll buy that' and these thoughts may come to consumers mind after favorable brand attitude.

4.2.3 Design the communications

Three problems should be solved to achieve desired response from communications. These problems are what to say (message strategy), how to say (creative strategy) and who should say (message source). (Kotler & Keller 2011, 484).

Message strategy, what to say, can be formed from 12 different types of messages. These 12 message types are formed from rewards and experiences. Customers expect four types of rewards from the product: rational, sensory, social or eco satisfaction. Three types of experiences are results-of-use, product-in-use and incidental-to use experience. "For example, the appeal 'gets clothes cleaner' is a rational-reward promise following results-of-use experience. The phrase 'real beer taste in a great light beer' is a sensory-reward promise connected with product-in-use experience." (Kotler & Keller 2011, 484).

Creative strategies, how to say the message, are the way to translate messages into a specific communication. Creative strategies can be classified broadly as either informational or transformational appeals.

- Informational appeal elaborates on product's attributes or benefits. Some examples of informational appeal advertising are problem solution ads (Burana stops the toughest headache pain), product demonstration ads (Thompson Water Seal can withstand intense rain, snow and heat) and product comparison ads (Elisa offers more HD channels than other cable operators). In addition to mentioning product's good attributes or benefits it may in some cases be a good idea to mention also shortcomings of the product.
- Transformational appeal elaborates on a non-product-related image or benefit. It might illustrate what kind of person uses the product or what kind of

experience results from its use. Appeals often attempt to stir up emotions that will motivate purchase.

(Kotler & Keller 2011, 484-485).

Message source, who should say the message, is an important part of the communication. Spokesperson's credibility is an important and the three most often identified sources of credibility are expertise, trustworthiness, and likability. Messages delivered by attractive or popular sources can achieve higher attention and recall. (Kotler & Keller 2011, 485).

4.2.4 Select the communication channels

It is harder and harder to select efficient means to send the message as channels of communication become more fragmented and cluttered. There are two main categories for communication channels: personal and non-personal.

- Personal communication channel means that two or more persons communicate face-to-face or person-to-audience through phone, traditional mail, email or mobile or internet messaging.
- Non-personal communication channels are aimed to more than one person and include advertising, sales promotions, events and experiences and public relations.

(Kotler & Keller 2011, 486-487).

User-to-user is an important channel in mobile app promotion. User-to-user marketing can be built into the app. For example user of app should be able to share information of app to potential users through social networking services or messaging apps directly and easily from the mobile app itself. Also getting support and sending feedback and liking the app should be easily possible directly from the app. Users should also be encouraged to use these in-app marketing features. (Ohayon, Kaje & Hanage 2013).

4.2.5 Establish the total communications budget

Determining marketing communications budget is one of the hardest marketing decisions. John Wanamaker, merchant and magnate who lived in United States between 1838-1922 once said "I know that half of my advertising is wasted, but I do not know which half." There can be big differences in marketing communication budgets between industries and also between companies in same industry. (Kotler & Keller 2011, 488-489).

There are many methods to define marketing communications budget. Kotler and Keller (2011, 489) describe four methods.

- Affordable method, where company spends on marketing what they can afford. This method ignores the role or promotion as an investment and promotion's impact on sales volume. This method leads to uncertain annual budget making long-range planning difficult.
- Percentage-of-sales method, where specified percentage of current or anticipated sales is spent on marketing. This method views sales as the determiner of communications rather than as the result. Using this method leads to a budget set by the available funds rather than by market opportunities. This method discourages experimentation with aggressive spending. Dependence on year-to-year sales prices interferes with long-range planning. This method also does not encourage building the communication budget by determining what each product and area deserves.
- Competitive-parity method, where similar marketing communication budget is used as competitors are using. However, there are no grounds for believing competitors know better and each competitor's reputation, resources and objectives are different.
- Objective-and-task method, which defines specific objectives, determines the
 tasks that must be performed to achieve these objectives and estimates the
 costs of performing them. The sum of these costs is the communication budget.

One example of marketing budget size in mobile gaming world comes from Supercell, which used about 400 million euros, about one fourth of its revenue, to marketing in 2014. Supercell used marketing budget for example in mobile ads and production of animated cartoon video ads. In South Korea Supercell had a big outdoor advertising campaign where more details of game characters were described. Popular TV show's actors were used in advertising in China and in February 2015 Super Bowl ad was used in United States. The idea was to make Clash of Clans (Supercell's game) players sitting on home couches to be proud and say "hey, I play that game too". Clash of Clans ad was the most popular Super Bowl XLIX ad in YouTube. (Lappalainen 2015).

4.2.6 Decide the communications mix

Marketing communications budget has to be allocated to major modes of communication, which are described below. Media and channel choices can vary a lot depending on the company and product.

- Advertising, which reaches geographically dispersed consumers. Advertising
 can build up a long-term image for a product (for example Coca-Cola ads) or
 trigger quick sales (for example Stockmann's Hullut Päivät ads).
- Sales promotion, including for example coupons, contests and premiums.
 Sales promotion draws attention and can lead consumers to the product. They also incorporate some concession, inducement or contribution that gives value to the consumers. Sales promotion also includes a distinct invitation to engage in the transaction now.
- Public relations and publicity, which is based on three distinctive qualities:
 High credibility as news stories and features are more authentic and credible to readers than ads.
 - Ability to reach hard-to-find buyers as public relations can reach prospects who prefer to avoid mass media and targeted promotions.
 - Dramatization as public relations can tell the story behind a company, brand or product
- Events and experiences. A well-chosen event or experience can be seen as highly relevant because the consumer is often personally invested in the out-

- come. Events and experiences are more actively engaging for consumers and events are typically seen as an indirect "soft sell" cases.
- Direct marketing, which can happen for example over the phone, online or in person. Message can be prepared individually to each recipient and it can be changed depending on person's response. Also very up-to-date information can be shared.
- Word-of-mouth marketing, which can happen online and offline. Word-of-mouth marketing can be highly influential because people trust others. Word-of-mouth marketing can reflect personal facts, opinions and experiences.
 Word-of-mouth marketing can occur when people want it to and are most interested and it often follows noteworthy or meaningful events or experiences.
- Sales force, meaning personal selling. It creates an immediate and interactive episode between two or more persons and each is able to observe the other's reactions. Personal selling also permits all kinds of relationships to spring up, for example matter-of-fact selling relationship and deep personal friendship. In personal selling personal choices are often given to buyer and he or she is encouraged to directly respond.

(Kotler & Keller 2011, 490-492).

"In the introduction stage of the product life cycle, advertising, events and experiences, and publicity have the highest cost-effectiveness, followed by personal selling to gain distribution coverage and sales promotion and direct marketing to induce trial. In the growth stage, demand has its own momentum through word of mouth and interactive marketing." (Kotler & Keller 2011, 493).

New mobile app can and should be promoted already before its release. Pre-release promotion campaign could start few weeks before the app's release date and its target would be to create anticipation same way as movie trailers do. This kind of pre-release marketing will create the desire to install app when it is released. Early users can also be told that they will get the possibility to install app first before others. Promotional video should be created and journalists, bloggers and other influencers should be contacted so that they are aware of the coming app and can share information of it. Also pre-release version of app can be given to these influencers so that

they can publish reviews or other information of the app right away when it is released. (Ohayon, Kaje & Hanage 2013).

Mobile app bloggers and app review site authors are usually busy and they do not have time to review all apps. To increase possibilities to get mentioned by bloggers app developer should write a "mini press release", pitch email, to bloggers to make them interested to find more of information of the app and write about it. These emails should be addressed to the correct persons. It is for example useless to send information of productivity app to mobile game blogger. (Gauchet 2012).

PicLab's founder Roberto Nickson suggests app developers to build a list of key journalists and write a tailor-made email specifically for them. According to Nickson generic emails are not going to work. Journalists want to write about something, which brings visitors to their publications so app developers should write unique and interesting story of the new app to journalists to gain their attention. (Nickson 2015).

4.2.7 Measure the communications results

Communications impact has to be measured after implementing communications plan. Target audience members can be asked if they recognize or recall the message, how many times they have seen the message, what points they recall, what are their feelings about the message and what are their previous and current attitudes toward the product and the company. Behavioral measures of audience response should also be collected. These measures can include for example how many people bought the product, liked it and talked to others about it. Collecting this kind of information helps to find out how many percent of the consumers are aware of the product, tried it and are satisfied of it after the communications. (Kotler & Keller 2011, 494). Example of feedback measurement results can be seen in Picture 7.



Picture 7. Example of feedback measurement results. (Kotler & Keller 2011, 494).

Keeping track of app installations and where they are coming from is important and helps to find out, which of the used advertising channels are performing well and which are not so good (Starkell 2014). There are easy to use services available helping app developers to measure marketing campaigns success. For example Tapstream, Yozio, Distimo's AppLink and Google's Mobile App Analytics can be used, among others, to track marketing campaigns.

4.2.8 Manage the integrated marketing process

It is not enough to use one or two communication tools or medium approaches. All available tools should be integrated to reach more consumers and have better ways to communicate about products. Integrated marketing communications helps to improve the company's ability to reach the right customers with the right messages at the right time and in the right place. (Kotler & Keller 2011, 494-496).

5 METHODOLOGY

5.1 Research method

Very many definitions of qualitative research method exist. One definition comes from Van Maanen (1979, 520): qualitative research is "an umbrella term covering an

array of interpretive techniques which seek to describe, decode, translate, and otherwise come to terms with the meaning, not the frequency, of certain more or less naturally occurring phenomena in the social world." Qualitative research involves collection of a variety of empirical materials, such as interview, artifacts, case study, cultural texts, life story and personal experience, that describe routine and problematic moments and meanings in individuals' lives (Denzin & Lincoln 2011, 3-4).

Another main research method is quantitative research method. In quantitative research numerical data is collected and analyzed using mathematical methods and phenomenon will be explained. It is easier to answer some questions using mathematical, quantitative, methods. Quantitative method can also be used to study many data, which do not naturally appear in quantitative form but can be asked or formatted to be in quantitative form. (Muijs 2004, 1-2).

It is hard or even impossible to find comparable numerical data for this study's questions so the qualitative research method will be used in this study. And to be exact, qualitative case study research method will be used in this study. Qualitative case study is an approach to research that helps exploration of a phenomenon within its context using different kind of data sources. Qualitative case study ensures the issue is not seen only through one lens, but rather a variety of different lenses which allows revealing and understanding the phenomenon from multiple angles. (Baxter & Jack 2008, 544). One of the questions this study tries to find answer for is "how some other start-up companies marketed their mobile apps at the beginning". According to Yin (2003, 1) case studies should be considered when "how" or "why" questions are being posed. Suitable case for this study is "the ways start-up companies marketed their mobile apps in the beginning".

5.2 Data collection

For this study data will be collected using best practice benchmarking. In best practice benchmarking similar processes or activities are studied to get comparison of their performance data. Best performance results can then be used to identify, adapt and implement similar practices. Best practice benchmarking is the most powerful

type of benchmarking and it is used to learn from the others' experience and achieve breakthrough performance improvements. Best practice benchmarking focuses on action, meaning that the reasons why other organizations are achieving higher level of performance will be found out and something will be done with the comparison data. (Abbas, Görmer, Kohl, Mann & Orth 2010, 23). Best practices benchmarking can also be described as the process of finding out and studying the best internal and external practices, which produce superior performance. The performance can be measured through various financial and non-financial indicators. (Bogan & English 1994, 5).

According to Bogan and English (1994, 7-8) there are three types of benchmarking. These benchmarking types are process benchmarking, performance benchmarking and strategic benchmarking. Process benchmarking focuses on separate work processes, for example to billing process. This form of benchmarking tries to find the most effective operating practices from many companies, which have similar work functions. Process benchmarking helps to improve performance quickly if core processes are improved.

Performance benchmarking makes it possible to find out company's competitive positions through product and service comparisons. Performance benchmarking usually focuses on price, technical quality, additional product or service features, speed, reliability and other performance characteristics. (Bogan and English 1994, 8).

In general, strategic benchmarking investigates how companies compete. Strategic benchmarking can be used across industries to find out the winning strategies, which have enabled high performing companies to be successful in their marketplaces. (Bogan and English 1994, 8-9).

Benchmarking can also be classified as internal, external and best practice benchmarking. Internal benchmarking is used within a company. Another function, department or division, which performs particularly well or provides high quality products or services, can be used in internal benchmarking within a company. Greater internal efficiency or effectiveness can probably be a result of internal benchmarking

but significant improvement in competitiveness may not be achieved. Internal benchmarking is not the way to become world-class. (McGaughey 2002, 475).

External benchmarking studies best practices in other organizations. These organizations can be direct competitors or organizations in similar or unrelated industries. Different kinds of companies often utilize the same or similar processes. For example manufacturing, purchasing, selling, employee training or product development often have similar processes, even in different industries. (McGaughey 2002, 475).

Information about what mobile start-up companies have done to succeed and how they marketed their apps in the beginning will be searched for example from internet news, articles and their social networking service accounts. For example information how currently popular apps like Instagram, Moves and Yik Yak marketed their apps in the beginning will be studied.

The amount and content of tweets, Facebook posts and Instagram photos and their captions will be studied and compared. Also for example press releases and their content as well as news about apps and what is written of them will be studied and compared.

Twitter made it possible to search every public tweets using their search feature on 18 November 2014 (Zhuang 2014). Thanks to the Twitter's change it is now possible to find companies' all tweets, which can be used to find out how companies' used Twitter in their marketing in the beginning.

In addition to Twitter also companies' initial stage Facebook posts and Instagram pictures will be searched and studied. These cannot be searched as easily as Twitter tweets but it is still possible to find companies' first Facebook posts and Instagram pictures.

Google's search results can be limited according to publishing date and Google will be used in this study to find out what kind of news was written about apps' in their initial stage. Google's search results may for example reveal stories of app's initial stage in technology sites.

Google's search results may also reveal early phase press releases, which may help to understand how companies marketed their apps in the beginning. Also apps' initial stage websites may be studied, if appropriate. Old websites can be studied using Internet Archive's Wayback Machine.

5.3 Data analysis

Qualitative data analysis method from book Qualitative Data Analysis: A Methods Sourcebook, written by Miles, Huberman and Saldaña, will be used in this study. Book describes three phases of data analysis: data condensation, data display and conclusion drawing and verification.

Data condensation means the process of selecting, focusing, simplifying, abstracting, and/or transforming the data of written-up notes, interview transcripts, documents and other collected materials. Data will be stronger after condensation. (Miles, Huberman & Saldaña 2013, 12).

A display is an organized, compressed piece of information that allows conclusion drawing and action. (Miles, Huberman & Saldaña 2013, 12).

The qualitative analyst interprets what things mean by writing down patterns, explanations, causal flows and propositions. Conclusion can be found from these notes, first unclearly but little by little clearer and clearer. Conclusions are also verified so that they can be said to be truthful. (Miles, Huberman & Saldaña 2013, 13).

Data analysis may also reveal information of existing mobile apps, which may not necessarily be directly about marketing but which may indirectly help to distribute app to wider audience.

6 RESULTS

Information how successful apps Angry Birds, Instagram, Moves, PicLab, Tinder and Yik Yak were marketed around launch time was searched and studied in this study. The results are divided into four categories, which are: before launch, launch, after launch and social networking service usage. Investigation did not reveal information of all categories from all studied apps. Because of this some categories below have results only from some of the studied apps.

Angry Birds is a mobile game developed by Finnish company Rovio and it was released in the end of 2009. Rovio was established already in 2003.

Instagram is a mobile social networking service focusing on photo and video sharing. Photos and videos can be shared easily also to other services from Instagram. Instagram was founded by Kevin Systrom and Mike Krieger. Systrom worked earlier on Odeo, which later became Twitter. He also worked two years on Google working on Gmail and Google Reader. Krieger worked earlier on instant messaging and social networking service called Meebo, which was later acquired by Google. (Instagram n.d.). Instagram was released in the autumn 2010 and it got 10 000 users within hours. It had 100 000 users at the end of first week and 200 000 after two weeks. (Markowitz 2012).

Moves app tracks automatically users' walking, cycling, running and transportation using only the mobile phone. The app tells users how much user moves, shows routes on a map and provides a simple daily storyline of user's daily actions. Moves was developed by Finnish company called ProtoGeo, which was founded in the beginning of 2012. On global launch date in January 2013 company had 8 employees (ProtoGeo 2013). At least some of the ProtoGeo's founders had started successful companies also earlier. App was released three months earlier in UK App Store but not marketed actively. Three and half weeks after global launch Moves app was downloaded over 750 000 times (Heikkilä 2013). Facebook acquired ProtoGeo and Moves app on 24 April 2014 (ProtoGeo 2014).

PicLab is a mobile app helping users to add typography & artwork and apply filters and photo effects easily to photos. PicLab was founded by Roberto Nickson and it was released in the spring 2013. PicLab was downloaded 125 000 times in first 13 days (Sawers 2013).

Tinder is a location based "dating" app, which shows photos of other nearby users. User can like or not other persons and if both persons like each other's, they can start chatting. Tinder was created by few persons from Hatch Labs, a "venture sandbox" of IAC/InterActiveCorp. IAC owns several digital services like About.com, Ask.fm and online dating services like Match.com and OkCupid. At least one of the Tinder founders has founded successful start-up earlier. Tinder was released in the autumn 2012. It had 400 users in the first day and 4000 users by the end of the first week (Bosker 2013).

Yik Yak is an anonymous messaging app allowing messaging to nearby users. Users can write, comment, like and dislike messages, 'yaks'. Yik Yak was developed by two college students, Tyler Droll and Brooks Buffington, from Furman University (South Carolina in the United States). Droll's father supported his son's decision to leave med school for Yik Yak and he sent related comic strip (Picture 8) to Troll (Shontell 2015). Yik Yak was released in the autumn 2013 and developers told on Twitter they have 1000 users two and half weeks after the launch (Yik Yak 2013b) and after seven weeks they had 5000 users (Yik Yak 2013a). They reached 100 000 users in three months (Yik Yak 2014).



Picture 8. Droll's father sent this comic strip to him. (Shontell 2015).

6.1 Before launch

This chapter describes how above-mentioned apps were marketed before they were launched.

6.1.1 Instagram

Instagram was based on founders' earlier app, Burbn, which got 500 000 dollar investments from venture capitalists. Burbn was not officially available but was tested by some users. One of these users was TechCrunch journalist M.G. Siegler who told that he used Burbn six months before Instagram was officially launched. (Siegler 2010a).

Before launch Instagram was shared with friends and beta tested. Beta testers are a group of more or less real customers outside of the development team and they test the app just before the launch. Beta testers gave feedback, which helped to develop

better app. (Markowitz 2012). Also some popular technology websites' journalists used Instagram before launch and TechCrunch and Gigaom wrote about it two weeks before the launch date. (Ha 2010; Malik 2010; Siegler 2010a; Viticci 2010).

Twitter co-founder Jack Dorsey helped also Instagram (Siegler 2010a). Dorsey was Instagram's beta tester and he shared his first Instagram photos to Twitter before Instagram was officially launched. Tweets had links to Instagram photos and there was this kind of text under these early photos: "[username] is using a limited preview of Instagram – an amazingly fun & simple life-sharing app for your iPhone. Snap photos wherever you go to show the world what's going on in your life. Select from photo filters that transform regular ol' photos into works of art you'll want to keep around forever. Want to know when we go live? follow us on twitter [link to Instagram's Twitter account]".

Many Instagram photos were shared to Twitter before app was even launched and these tweets generated a lot of curiosity. Photos shared to Twitter and Facebook increased the popularity of the app rapidly. (Bolt 2011). For example Twitter cofounder Jack Dorsey had almost 1.6 million followers at that time (Jack Dorsey's Twitter page... 2010).

6.1.2 Moves

Moves app's idea, design and features were studied using small groups of users using mockups, prototypes and competing products over a year before the launch (Karjalainen 2014). Many kind of mockups can be used while studying app's idea or its features. Mockups can vary for example from simple hand drawn screen layouts to partly functional real user interfaces. User research was a very important part in the development of Moves app. ProtoGeo, company behind Moves, used paper prototypes, online surveys, laboratory walkthroughs, diary studies, guerrilla studies, crowd sourced studies, quantitative A/B testing and traditional acceptance tests to investigate users' behavior (User Research – Product and ... 2013).

Journalists writing about technology are interested of new kind of apps and Moves was clearly new kind of app. This made it easy to approach technology journalists and it helped a lot in starting phase. ProtoGeo was also actively showing app to people and they invited some persons to try it before the global launch. (Woodbridge 2013). For example journalists from TechCrunch and AllThingsD used Moves before global launch (Cutler 2013; Gannes 2013).

According to ProtoGeo CEO, Sampo Karjalainen, active beta-phase users had an important role to increase number of users. These users spread the word of app effectively. (Tikkanen 2013).

Moves became available in UK App Store about three months before global launch and ProtoGeo decided not to market it widely before global launch. ProtoGeo got few UK users using for example Google AdSense advertisements and these initial users were studied to find out for example how many users kept using the app longer. (Woodbridge 2013).

6.2 Launch

This chapter describes how apps were marketed at launch time.

6.2.1 Angry Birds

Rovio did not try to get in to the top positions right away in the English-speaking markets. Rovio realized very early that it would not be easy to become popular in those countries and they decided to conquer smaller markets first. Only few hundred purchases were required to become number one in the Finnish App Store. The same worked also in Sweden and Denmark, then Greece and Czech Republic. Rovio got $30\,000 - 40\,000$ downloads from smaller countries. Then they used Chillingo, an independent publisher, which helped so that two months after release Apple agreed to feature Angry Birds as UK App Store as a game of the week. (Cheshire 2011).

Angry Birds got a viral push from a popular skier as she told Swedish TV viewers that she played Angry Birds. This helped game to become popular in other European countries and caught the eye of American gamers. (Cohen 2011).

Rovio also made a YouTube video, only the second ever for an iPhone game and released free lite version at the time when Apple featured it in UK App Store. After game was featured, it jumped from 600th place to first in App Store. (Cheshire 2011).

6.2.2 Instagram

In the launch date popular technology sites like TechCrunch, VentureBeat, Gigaom, Wired and MacStories wrote about Instagram (Gannes 2010; Ha 2010; Siegler 2010b; Sorrel 2010; Viticci 2010).

Twitter co-founder Jack Dorsey tweeted on Instagram launch date that the app is now available: "One of my favorite new apps for the iPhone is now available for download: @Instagram. Gorgeous photos." (Dorsey 2010). Dorsey had almost 1.6 million followers at that time (Jack Dorsey's Twitter page... 2010).

6.2.3 Moves

ProtoGeo sent an official press release on the global launch date. They also announced in the global launch press release that ProtoGeo has recently raised 1.6 million dollars seed funding. (ProtoGeo 2013).

On the global launch date TechCrunch and AllThingsD wrote about Moves and authors of these articles told they have used Moves already few weeks (Cutler 2013; Gannes 2013). Also Pando wrote about Moves on global launch date including interview of ProtoGeo's CEO Sampo Karjalainen (McKenzie 2013). Also some other websites wrote about Moves on global launch date but those articles did not reveal any extra information in addition to press release's information. In the next week af-

ter global launch one to five new articles about Moves was written daily. Some of them used for example TechCrunch's article as a reference.

Good media coverage from appropriate media helped to increase download count of Moves (Tikkanen 2013).

6.2.4 Tinder

Tinder decided to target and attract younger users. Tinder was launched at the University of Southern California when Tinder's founders arranged a birthday party for a co-founder's college-age brother and his friends. Guests had to show they had downloaded Tinder app. Number of downloads jumped from 400 users on the first day to over 4000 by the end of the first week. (Bosker 2013).

Tinder spread the app at approximately ten college campuses around launch time (Bosker 2013). Tinder founders focused on college students because they knew that if the app would be successful in this highly social demographic then others would find it valuable as well. In early months over 85% of Tinder's users were between the ages of 18-24. (Zelle n.d.).

Tinder decided to identify social influencers in college campuses and targeted them (Hackett 2015). Tinder's founders went to highly social people and had them promote app to their friends and that's how app's use base grew. They for example gave Tinder-branded apparel to undergraduates in different campuses to arrange Tinder frat parties and promote app (Bosker 2013).

Whitney Wolfe, Tinder's vice president of marketing, visited half-dozen key sororities. She gave presentations in sororities and all the girls at the meetings installed Tinder app. Then she visited corresponding brother fraternity, where guys opened the app and saw all these cute girls they knew. This marketing strategy increased Tinder's user base from under 5 000 to about 15 000. (Summers 2014).

In the early days of Tinder Wolfe went also to the Apple store and told the guy behind the counter about Tinder. This guy's eyes pop out as he swiped through girls in Tinder app. "There may have been only 200 people, she remembers, but they were 200 of the prettiest girls you've ever seen." (Witt 2014).

6.2.5 Yik Yak

Yik Yak founders lied to their friends that development of Yik Yak was requested by Harvard students. About half of the Furman University's students downloaded the app within first week or two (Shontell 2015).

6.3 After launch

This chapter describes how apps were marketed little after the launch.

6.3.1 Moves

ProtoGeo tried to have good relationships with the journalists who have been interested about Moves app so that journalists could write more about the app in the future. Better relationships were built for example so that ProtoGeo was in contact with these journalists and shared information of Moves' progress to them. (Tikkanen 2013).

Apple featured Moves app for two weeks in February 2013, which helped to increase number of downloads (Woodbridge 2013).

6.3.2 PicLab

The Next Web wrote an article about PicLab two and half week after the launch. In this article it was revealed that PicLab had 125 000 downloads in first 13 days after launch and at the same time it became a top photo app in Indonesia (Sawers 2013). Also about ten other news sites wrote about PicLab in the following days after The

Next Web's article. At least some of these articles used The Next Web's article as a reference. Unfortunately it was not possible to find direct answers why PicLab got so many downloads and became top photo app in Indonesia in 13 days.

In Washington Business Journal's article Roberto Nickson, founder and CEO of PicLab exposes some thoughts why he thinks PicLab became so popular and how it got so many downloads. Nickson believes that good product markets itself. According to Nickson PicLab was growing mostly organically and no money was used on advertisements. Nickson also reveals that watermark, which is added to every photo edited with free version of PicLab, has been a key to spread knowledge of PicLab. It costs 0.99 dollars to remove watermark but still some of the big celebrities who use PicLab actively, for example 50 Cent and Ariana Grande, used the free version. The watermark was shown to everybody who follows these celebrities on social networking services and this way PicLab's name was spread widely. "The reason it took off with the young demographic was because Ariana tweeted and Instagrammed it", says Nickson. (Lampert 2014).

6.3.3 Tinder

Tinder's growth did take off around January 2013. College students had a holiday break in the end of December and beginning of January. During the break students told about Tinder to their brothers, cousins and friends and app started to grow like a virus. (Lapowsky 2013).

6.3.4 Yik Yak

After taking over Furman University one of the founders sent a message to his friend in nearby college telling how popular Yik Yak is in Furman University. Within days Yik Yak became popular also in nearby college. Early 2014 founders searched every nearby schools websites to find student organizations contact persons and their email addresses. Every Tuesday thousands of personalized emails were sent to these persons to market Yik Yak. "It was pretty much, 'Yik Yak is awesome, and you're lame because you're not using it", said app's founder Buffington. (Shontell 2015).

Email campaign worked and they got many users in first bigger school, Georgia Institute of Technology. Then they sent "Hey, there's this really cool app called Yik Yak and Georgia Institute of Technology is using it. Why aren't you guys using it?" emails to student organization contact persons in University of Georgia, rival of Georgia Institute of Technology. They got 2000 new users in single day from University of Georgia. (Shontell 2015).

Yik Yak released a press release about three and half months after launch. In this press release they tell that the app has got 100 000 users in three months. (Yik Yak 2014). Many articles about Yik Yak were written after press release.

During spring break 2014 Yik Yak users told about the app to their friends. Before spring break Yik Yak was active in 30-50 schools and after the break it had users in more than 250 colleges. In the early days Yik Yak founders marked conquered schools on map as seen in Picture 9. In summer 2014 usage of Yik Yak lowered a lot but app was not forgotten. Students started to use Yik Yak again in August and it was downloaded almost 100 000 times daily. In autumn 2014 founders spent 85 days visiting 32 colleges with rented and decorated bus. They spent thousands of dollars to mechanical yak and they used yak costume during the college visits to market app. They participated many frat parties and shared branded shirts and socks to students. (Shontell 2015).

After two semesters Yik Yak was used by 50% - 80% of students in over 1 600 schools in the US. Almost 1 000 articles about Yik Yak have been written in college newspapers by spring 2015. Also Facebook used same PR tactic. (Shontell 2015).



Picture 9. Yik Yak's founders had a map of app's expansion in the early days. In May 2015 they had users at 1600 colleges across the United States. (Shontell 2015).

6.4 Social networking service usage

This chapter describes how apps were marketed in their social networking service accounts around launch time. Apps may have been marketed also using unofficial accounts but it was hard or impossible to find those unofficial accounts and that is the reason why only official accounts were studied. It is also possible that app developers did not spend much time on their own social networking service account, they for example did not post much on their Facebook page or publish photos on their Instagram account, but were otherwise active, for example commenting others Facebook posts or liking others' Instagram photos. Apps' Facebook pages, for example, were studied but it was not possible to find if app founders commented posts on other pages or persons' timeline and marketed their app in those comments.

Researching the topic revealed also in some level how app users were used to market apps to their friends and followers in social networking services.

6.4.1 Instagram

Instagram's early days' Facebook posts have been deleted and currently the oldest Facebook post is from October 2012, two years after launch. Internet Archive's Wayback Machine reveals that Instagram added posts to their Facebook timeline already earlier but unfortunately Wayback Machine's earliest snapshot of Instagram's Facebook page is from April 2011. This snapshot shows that Instagram posted to their Facebook page on February 19 2011 but earlier posts cannot be seen from Wayback Machines snapshot. This snapshot also shows that Instagram added 192 photos to Facebook before April 2011.

Instagram founders created Twitter account and announced app in Twitter 1.5 months before launch. About a month before launch they replied to few Twitter users that app will be launched soon. Also one test user's Instagram photo was shared at the same time in Twitter. Instagram started tweeting more and more when launch date was approaching. Most of the Instagram's tweets were replies to others questions like "when will Instagram be released?" or "what devices it works on?" One tweet was a reply to popular photographer, when he asked what he should do with when he gets 10 000 followers in Twitter. Instagram just proposed he gives a camera from his collection to 10 000th follower.

On launch day Instagram told in Twitter that the app is released. At the same day they sent about 100 tweets, mostly answers to questions. Instagram also asked in Twitter replies many users to send their further development ideas. Also Twitter cofounder Jack Dorsey, who had almost 1.6 million followers at that time, tweeted that Instagram is released.

It was very easy to share Instagram photos to Twitter and thousands of users shared photos this way every day starting from the Instagram's launch date when over 2000 photos were shared to Twitter. These tweets had a caption and link to the photo in

Instagram's website. These kinds of tweets were sent also before launch date by beta testers.

6.4.2 Moves

ProtoGeo did not use Facebook much around Moves launch time. ProtoGeo sent first post to their Facebook page about two months after UK launch and about five weeks before global launch. In this post they told that the new version is available. Next post was on global launch date, when they announced the global launch. ProtoGeo sent only few posts to their Facebook page after global launch.

ProtoGeo sent first tweet about UK launch on Moves UK launch date. Next tweets about new releases were sent three and five weeks after UK launch. About six and half weeks after UK launch they told in Twitter that Moves was featured as a new app in Health & Fitness category in the UK App Store. Only very few tweets were sent before global launch. After global launch ProtoGeo sent about 1-5 tweets on weekdays. Usually some of these tweets were replies to others' questions and one or two tweets were not replies. Number of tweets increased slowly and about a month after global launch they sent about ten tweets daily.

6.4.3 PicLab

Facebook was not used in PicLab's marketing in early days because PicLab created Facebook account only about two and half months after the launch.

About two weeks before the launch PicLab started to send photos almost every day to Instagram and Twitter. After the launch PicLab posted 2-5 photos to Instagram daily featuring most creative shared pictures. This way PicLab was demonstrating what kind of modifications can be done with PicLab.

PicLab's Instagram account was advertised after launch in Twitter: "Loving all the great images being shares to Instagram with PicLab! We feature the most creative ones on our IG". After the launch PicLab also retweeted others' review articles.

On a launch day PicLab users posted 14 tweets including #piclab hashtag to Twitter. Some of these tweets had photos embedded and others were tweets about photos added to Instagram. Next day after the launch 47 tweets including #piclab hashtag was sent to Twitter and about twenty similar tweets was sent daily after that. After the launch #piclab hashtags started to arrive also to Flickr photos. First about 3-10 photos per day were added to Flickr. Free of charge version of PicLab also had watermark, which shows that the photo is edited by PicLab app. This helped to spread the word of PicLab when users posted photos to social networking services.

According to PicLab's founder Roberto Nickson it is critically important to have a strong social media presence (Nickson 2015). Nickson tells that there are lots of people who are always tagging PicLab on their photos in social networking services (Lampert 2014). Nickson also believes the most effective form of marketing at the moment is social media influencer campaigns. PicLab has used a company, which brings app developers and social media influences together and helps to market app through influencers. (Nickson 2015).

Nickson understood early the power of Instagram as an advertisement platform. He has had many Instagram accounts, which had more than one million followers. Nickson was also in contact with many popular Instagram account owners and used this network to push PicLab up the App Store charts. This way PicLab became first photo app in 31 countries. (Nickson 2015).

Nickson also tells that PicLab has only been marketed using social networking services and their ad spending has been nothing (Lampert 2014).

6.4.4 Tinder

Tinder started tweeting about two weeks before launch with this kind of tweet: "go to http://www.gotinder.com and get on the list. The game starts soon!" The next tweet was similar: "flirting will never be the same. The game starts soon! http://www.gotinder.com/index.html". On August 2 2012 they tweeted that Tinder is

out. In the next months Tinder sent only few tweets, for example some statistics like "Tinder has officially just broken 1000 users!!" and few photos from their launch party. Most of the Tinder's tweets were also posted on Facebook.

6.4.5 Yik Yak

Only very few tweets, Facebook posts or Instagram photos were sent few days before release. They sent no tweets in the first half of November 2013 and about one tweet per day in latter half of November, mostly resending someone's yak to Twitter. On December they answered few times per day to users' questions. They also asked users to tell about Yik Yak back home during Christmas break.

In the first two months after the launch date they published two pictures to Instagram showing users as pins on top of college maps. Also some pictures showing a guy wearing a yak mask in different places was published in first two months in Instagram. Similar map and mask photos were published until the end of March 2014. During this time they published eight different map photos, ten mask photos and some other kind of photos.

6.5 Easy to use apps

It was mentioned in many found articles and interviews that studied apps are simple and easy to use. This can be seen such a big finding that it deserves own chapter.

For example Angry Birds is incredibly simple and it can be played even there is only one minute to spare (Cheshire 2011). PicLab's founder thinks also that PicLab stands out from the other similar apps because of the easiness of the use and beautiful user interface (Lampert 2014). Instagram and Yik Yak are also easy to use when there is even a little extra time, for example while waiting bus.

Instagram made it easy to follow or unfollow anyone. It is not so big deal if someone unfollows you, definitely not as bad as if someone unfriends user in Facebook. Insta-

gram makes it easy to share photos often or just observe others photos, it can be used whichever way. (Eler 2012). It is also not mandatory to follow back on Instagram. User can follow only those accounts who share content he or she wants to see. (Watts 2015). Also Moves app's competitive advantage is based on the ease of use. App recognizes and measures user's movement fully automatically (Tikkanen 2013).

Also Tinder is insanely simple app, "stupid simple". User just swipes through profiles using "infinite swipe" feature. User can log in for ten seconds and get an experience, which is cool for millennials, who they target. (Oppong 2014). Tinder also gets all needed profile information from Facebook, which makes it very easy to start using the app. There is no need to spend half an hour to fill in the profile.

Tinder also made the app safer by tying user identities to Facebook. This gives the sense of security to app users as there is always a connection to real person through the Facebook integration. Male spamming is reduced because chatting is enabled only after both persons like each other's and this makes the app more fun to use for female users. (Pelczar 2013).

7 RELIABILITY AND VALIDITY OF THE STUDY

Data analysis is reliable if the findings are consistent. This can be evaluated using these questions:

- Will the same results be generated on other occasions?
- Will other observers reach similar observations?
- Is there transparency in how conclusions were made from the raw data? (Saunders, Lewis & Thornhill 2009, 156).

According to Saunders, Lewis & Thornhill (2009, 156-157) there are four threats to the reliability of the research. First threat is subject or participant error. For example when studying the degree of employees' enthusiasm for their work, then the Monday morning interview may result different answers than interview in Friday afternoon.

Material of this study was collected from internet news, articles and apps' social networking service accounts and subject or participant error was not seen as a threat for this study.

Second threat is subject or participant bias. Employee might for example answer the questions so that the answers are pleasant for management. (Saunders, Lewis & Thornhill 2009, 156). This was a potential threat in this study because for example press releases might be over positive or company CEO might tell airbrushed stories in internet articles. This threat was kept in mind while collecting results and it did not affect the outcome of this study.

Third and fourth threats are observer error and observer bias. For example if research is conducted by many persons, then different interviewers might ask questions in different ways and they might interpret also the answers in different ways. (Saunders, Lewis & Thornhill 2009, 157). These were potential threats also in this study as researcher sought the data from internet and maybe not enough important sources were found for the study and thus some important information may not have been studied. Author of this study had also one kind of bias about the topic but he stayed objective and did not take his bias into account during data analysis.

In this study researcher got one kind of results from the used sources and maybe other researchers would have got little different kind of results. Researcher feels that he found and used most of the important news and articles and other articles would not have given much more or different information of the study's topic. Some new details could be still found about the topic but researcher believes those details would not change the results.

For example PicLab sent daily only about one photo before the launch and 2-5 photos after the launch into Twitter and Instagram but still PicLab's founder Roberto Nickson tells in articles how important it is to be present in social networking services and that PicLab used these services heavily. Researcher of this study focused only on apps' own social networking service accounts and because of that all marketing activities in social networking services were not found. But marketing in social networking services was revealed from other sources, for example from articles

where Nickson was interviewed. Researcher of this study feels that also other researchers would end up to similar results.

It is also important to make sure that the research results are valid. It is important to confirm that the findings are really about what they appear to be about (Saunders, Lewis & Thornhill 2009, 157).

Information what mobile start-up companies have done to succeed and how they marketed their apps in the beginning was studied from many internet news, articles and apps' social networking service accounts. Many good information sources were found and used and researcher of this study feels that the results are reliable and valid. Investigating the topic more from other sources might reveal more details but in general the results would be the same. The reliability of the study can be validated and all used sources have been mentioned in the study.

8 CONCLUSIONS

The main points found in this research are listed briefly in this chapter, first as a separate chapters and then as a common list in final conclusions chapter.

8.1 Before launch

Instagram was based on founders' earlier app Burbn, which got 500 000 dollar investments. Instagram's founders also worked earlier for example at Google, Meebo and Twitter's predecessor Odeo so they were "known" persons in start-up scene in Silicon Valley, which certainly helped to market Instagram. Burbn was beta tested by some users and journalists. Also Instagram was beta tested by some users and also by some journalists and for example by Jack Dorsey, Twitter co-founder. Two important technology news sites, TechCrunch and Gigaom, wrote about Instagram before it was launched. Beta testers published some Instagram photos before launch in Twitter. These tweets had a link to Instagram website where the actual photo could be

seen as well as some information of the coming new app. For example Jack Dorsey had 1.6 million followers at that time, which was a big audience for Instagram's early marketing.

User research was an important part of the Moves app development. The idea, design and features were studied using small groups of users using mockups, prototypes and competing products over a year before the launch. Active beta-phase users had an important role as they spread the word of app effectively. It was easy to approach Technology journalists with the new kind of mobile app and for example journalists from TechCrunch and AllThingsD used Moves before it was launched. Moves app's team consisted of known persons from earlier successful technology companies, which may also helped them to approach journalists.

8.2 Launch

Angry Birds game was first published in smaller countries to validate its idea and design. Viral push from popular person helped to spread the information of app effectively.

Popular technology news sites wrote about Instagram on launch date. Also Twitter co-founder Jack Dorsey tweeted on launch date to his 1.6 million followers that the app is available.

Press release was sent on Moves app's launch date. This press release also mentioned that ProtoGeo, company behind Moves, raised 1.6 million dollars investments recently. TechCruch, AllThingsD, Pando and some other news sites wrote about Moves on launch date. In the following days few articles about Moves were published daily on technology sites.

Tinder was released in birthday party on university and all guests had to install app before they could join the party. Tinder's founders marketed app though highly social persons on campuses. For example some influencers got Tinder-branded apparel to promote Tinder for example in frat parties. Tinder also visited half-dozen key sororities and all the girls installed the app. Then they visited fraternities and every guy installed the app when they saw all the girls in Tinder.

Yik Yak founders lied to their friends that development of the app was requested by Harvard students and this helped to get first users.

8.3 After launch

Apple's decision to feature Angry Birds in UK app store made a big impact on app's success.

ProtoGeo kept having good relationships with journalists so that they would write more about Moves in the future. ProtoGeo for example shared information of Moves app's progress to journalists. Apple also featured Moves for two weeks, which increased number of users.

The Next Web wrote about PicLab two and half weeks after launch. This article revealed that PicLab has got 125 000 downloads in first 13 days. About ten other news sites wrote about PicLab in the following days after The Next Web's article.

Tinder started to grow like a virus during holiday break when users told about it to their brothers, cousins and friends.

Yik Yak was spread to other universities and colleges when its founders found out other schools' student organization contact persons' email addresses and sent them personalized emails about the new app, which is used heavily in other schools. After getting 100 000 users three and half months after release Yik Yak's founders sent a press release. Many articles about Yik Yak were written after this press release was sent. Yik Yak users told about the app to their friends during spring break, which increased number of app's users a lot.

8.4 Social networking service usage

It was not possible to find out if Instagram used Facebook around launch time. Instagram used Twitter a little before the launch of app for example to answer curious potential users' questions when the app will be released. On launch day Instagram sent about 100 tweets, mostly answers to others' questions. Thousands of users shared Instagram photos when Instagram was released.

ProtoGeo did not use Facebook to market Moves app in the early days. Only few posts were sent to Facebook before and after the Moves launch. ProtoGeo used also Twitter very little in the beginning. Only few tweets were sent before global launch. After global launch one to five tweets was sent daily by ProtoGeo, usually as replies to others' questions. ProtoGeo accelerated the Twitter usage and about a month after global launch they sent about ten tweets daily.

Facebook account for PicLab was created only about two and half months after the launch. PicLab started to send photos almost every day to Instagram and Twitter about two weeks before the launch. After the launch PicLab posted 2-5 photos to Instagram daily to demonstrate how photos can be modified using the app. PicLab's users started to share photos with #piclab hashtag on social networking services, which spread effectively information of the app. PicLab's free version added a watermark to photos, which helped to spread information of this app to others when users posted watermarked photos to social networking services. Also some celebrities used PicLab's free version and watermark was added also to their photos, which were seen by millions of followers.

Tinder did not send many tweets or Facebook posts before the launch or in the following months.

Also Yik Yak was not advertised much in social networking services before the launch. They shared only few photos in Instagram before and after the launch.

8.5 Final conclusions

Active beta testers before the launch seem to help the early days marketing as they are growing the hype around the app. Small pieces of information about app or "teasers" before the launch will also grow the hype. Getting some technology journalists excited and on board before the launch could help a lot as they would be likely to write about the app at some point.

Good media coverage, social influencers and viral marketing helps the app to gain more users on launch time. It is also a good strategy to start from small area, for example from few colleges. Also personal marketing helps to get the first users.

Articles written in technology sites after the launch helped apps to grow. Also personal email campaigns and word of mouth communication from user to user helped to gain more users. Big boost can be seen in number of users if app is featured in Apple's App Store or in Google Play.

Some of the studied apps used social networking services only a little in early days marketing. Instagram started to use Twitter for active discussion between them and users after the launch. Also PicLab used Instagram to demonstrate what kind of modifications can be made using the app. Free of charge version of PicLab added a watermark to photos, and thus those photos shared the information of PicLab through social networking services. Also #piclab hashtag was used a lot when users shared photos from PicLab to social networking services.

In addition to the results listed in the results chapter also findings written on theoretical framework chapter in this study should be taken into account while creating global marketing communications plan for mobile app.

Also ideas how to make app more user friendly and easier to use has been got during this study. Yik Yak uses anonymity, which strengthens the idea to use anonymity also in author's own app. In general anonymity can be used to help users if they are not so willing to reveal what they for example like. For example a guy will not nec-

essarily want to tell to his friends that he likes love songs but still he could like them anonymously on social networking services.

This research definitely helps to create global marketing communications plan for a new mobile app. Learning theory and studying the topic has given many new ideas how to market new app before and after the launch, even with minimum budget. Also for example the importance of easy to use and simple app has become clearer for the author of this study.

Some of the ideas found during this topic's research can be used easily and others require more investments or even luck. For example getting help from journalists may be harder for unknown developer. It may be hard to write exciting enough pitching email for journalists so that they decide to test app and write an article about it. Sometimes some luck may help app developer. Maybe for example app developer's friend knows a celebrity or other influencer who would like to test app and market it, intentionally or not, to his or her followers.

Having a great number of followers or friends in social networking services makes it easier to market app to these persons. Also app users can market app in social networking services. Depending on the app it may be possible to add feature to the app, which makes it easy for app users to market app to their followers or friends in social marketing services. PicLab's watermark is a nice example of this.

Focusing on small area might also be a good way to start spreading app to the world. For example focusing first on one college's students might help to validate the idea of app and get some early phase feedbacks. Also personal marketing could be easier in this kind of situations. This kind of limited set of users can also be used as beta testers before the launch.

Also sharing information of the app and "teasers", for example YouTube videos, before the launch can be used to generate hype around app, which helps to get more users right after the launch. But how to get enough interested persons for this kind of pre-launch information and "teasers"?

9 SUGGESTIONS FOR FUTURE DEVELOPMENT AND STUDIES

Many app developers can get ideas for marketing from this study. However, this study focused on some level on author's own mobile app and how to get help for its marketing. Other app developers might have different needs for their apps' marketing for example because they might develop different kind of apps or focus on different kind of user segments. For example app without any kind of linkage to social networking services or app meant for elderly persons are different kind of apps, which may be marketed differently. Because of this other app developers might want to study this topic from little different angle to get better ideas for their needs.

This study got all the data from internet sources. Other kind of sources could be used in future studies to find out more information of the topic. For example real app developer interviews could reveal something more about the topic.

Mobile app marketing is also constantly changing, which means that today's best marketing ideas might not be so good after a while. Also new kind of marketing channels arise once in a while. A good example is a Snapchat mobile app, which lets users to send photos to their friends and these friends can see the photo only about ten seconds. After that the photo cannot be seen anymore. At first it is hard to see Snapchat as a marketing channel but some companies are already using it in marketing. Surprisingly for example Finnish Tax Administration uses Snapchat as a marketing channel. Because of the constantly changing mobile app marketing there is always room for new studies about this topic.

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