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**THE CHINESE MOBILE GAME MARKET**

Thesis

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<p>Only a few Western companies have thus far succeeded in the Chinese mobile game market. Many companies do not even attempt entering the market because it is regarded as too difficult and not enough information is available. Yet a successfully launched hit mobile game has the potential generate several hundred thousand dollars per day from China alone. The goal of this thesis is to present comprehensive information on all key aspects of the Chinese market, specifically from the point of view of a Western game company planning to bring their mobile game(s) to China. Sources utilized for this thesis include latest reports and publications from the industry, as well as practical experiences shared by industry veterans in the form of blogs, articles and talks.</p> <p>The factors one should consider when launching and operating a game in China, as well as the challenges and possible solutions to them are looked into. The greatest challenge is to find a strong and trustworthy local partner. A partner is vital when it comes to, for example, battling piracy or building the necessary connections for operating a game. The massively popular instant messaging app WeChat, by Chinese internet service giant Tencent, is one of the most important elements to take into account, as it can aid tremendously in acquiring users.</p> <p>Android and iOS dominate the mobile space in China. Both of them and the current top games and genres are examined. Android is the clear market leader in China, but differs greatly from its Western counterpart due to the lack of the Google Play app store. Other noteworthy comparisons are also drawn between the Western and the Chinese mobile game markets. Chinese players' thoughts regarding free-to-play is another area with clear differences. With strong market knowledge, quick reactions to market changes and the help of a good Chinese publisher, a Western company definitely has the potential to succeed in the challenging Chinese market.</p>	
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Koulutusala Luonnontieteiden ala	Koulutusohjelma Tietojenkäsittelyn koulutusohjelma
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<p>Vain harva länsimainen yritys on onnistunut Kiinan mobiilipelimarkkinoilla. Monet yritykset eivät edes pyri Kiinaan, koska sitä pidetään liian vaikeana markkina-alueena, ja tietoa on heikosti saatavilla. Onnistunut hittipelijulkaisu voi kuitenkin tuottaa pelkästään Kiinasta yritykselle jopa satoja tuhansia dollareita päivässä. Tämän opinnäytetyön tavoite on antaa kattava kuva Kiinan mobiilipelimarkkinoista. Työ pyrkii tarjoamaan hyödyllistä ja monipuolista tietoa länsimaiselle yritykselle, joka suunnittelee pelinsä julkaisua Kiinan jättimäisillä ja yhä kasvavilla, mutta myös haastavilla ja alati muuttuvilla markkinoilla. Tietolähteinä on käytetty alan tuoreimpia raportteja ja julkaisuja. Pelialalle on tavanomaista, että tietoa ja käytännön kokemuksia jaetaan muiden yritysten avuksi artikkelien, blogien ja erilaisten esitysten muodossa. Myös näitä on parhaan mukaan hyödynnetty lähteinä.</p> <p>Opinnäytetyössä tarkasteltiin kaikkia Kiinan mobiilipelimarkkinoiden tärkeimpiä osa-alueita, jotka on syytä ottaa huomioon, jos Kiinassa aikoo toimia, mahdollisia vastaantulevia haasteita sekä vinkkejä haasteista ylitse pääsemiseen. Suurin haaste on luotettavan ja vahvan paikallisen pelijulkaisijan löytäminen. Julkaisija on elintärkeä muun muassa piratismia vastaan taistelemisessa ja yhteyksien luomisessa eri tahoihin. Kiinalaisen internet-jätti Tencentin kehittämä ja valtavan suosion saavuttanut pikaviestintäsovellus WeChat on yksi markkinoiden merkittävimmistä osatekijöistä, sillä se mahdollistaa pelin saattamisen valtavien pelaajamäärien tietoisuuteen.</p> <p>Kiinassa mobiilipelimarkkinat keskittyvät Android- ja iOS-alustoihin, joten näihin molempiin paneudutaan, kuin myös kirjoitushetkellä suosituimpiin ja menestyneimpiin peleihin ja peligenreihin. Android-alusta on selkeä markkinajohtaja Kiinassa, mutta eroaa oleellisesti länsimaiden Android-markkinoista, koska Google Play –sovelluskauppa ei ole Kiinassa käytettävissä. Työssä vertaillaan muutoinkin Kiinan ja länsimaiden mobiilipelimarkkinoita, jotka eroavat paikoin huomattavasti toisistaan. Kiinalaisten mobiilipelaajien tottumukset ja mieltymykset esimerkiksi Free-to-Playn suhteen ovat hyvinkin erilaiset länsimaisiin kuluttajiin verrattuna. Vahvalle markkinatietämyksellä, nopealla reagoinnilla markkinoiden muutoksiin ja hyvän kiinalaisen julkaisijan avustuksella on länsimaisellakin yrityksellä mahdollisuus menestyä Kiinassa.</p>	
Kieli	Englanti
Asiasanat	Kiina, kiinalainen, mobiilipeli, markkinat, peliala
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## SYMBOL LIST

ARPPU	Average revenue per paying user. This figure is calculated to determine the average revenue per paying user, generally per month, for Free-to-Play games.
ARPU	Average revenue per user. This figure represents the average revenue across all users, normally per month.
CPI	Cost per install. This figure determines how much it costs to acquire a single install - i.e. a potential new user - for your game with ads.
IP	Intellectual property. IP rights are legally recognized exclusive rights to creations of the mind.
MAU	Monthly active user. The amount of users who play or login to the game at least once per month.
MMO	Massively multiplayer online game is a genre of games played with large amounts of players online.
MMORPG	Massively multiplayer online role-playing game. This is the most popular MMO archetype. World of Warcraft (WoW) is perhaps the best example.
QQ	QQ is a widely popular instant messaging service in China. It is similar to Skype or the discontinued MSN messenger. It is available for PC and mobile platforms and developed by Tencent.
RPG	Role-playing game is a genre of games where the player assumes the role of a hero in a fictional world.
SDK	Software development kit or devkit. SDK is a set of software development tools that allow the creation of applications for a specific platform or software framework.

TCG	Trading card game (aka collectible card game, CCG). A genre of games where players collect and usually trade specially designed cards. The cards are used to build decks to do battle against other players or the computer-controlled AI.
WeChat	WeChat is the international version and name of Weixin, an extremely popular instant messaging app for mobile platforms in China. It is developed by Tencent.

## 1 INTRODUCTION

China is the most populous country in the whole world and one of today's economic superpowers. The key thing to note is that growth is still happening in China, more so than in the Western world. While China's economic growth has slowed down in the past couple of years, there has now been more focus on boosting domestic consumption. In comparison to the West, the average Chinese consumer has a much lower amount of disposable income but that amount is slowly rising. More and more people are starting to have money to spend on entertainment and leisure. (BBC, 2014)

Many people enjoy video games in different forms (PC, mobile, consoles, etc.). Games are a relatively cheap way to relax and forget about your job for a while. Like in Finland, computers have become a vital part of everyday life. Most middle-class families have at least one computer, which of course makes gaming a viable entertainment option. For online games across different platforms, the free-to-play model is dominant.

In terms of annual revenue, PC and online games still trump mobile by a wide margin, but mobile has been experiencing rapid, even explosive growth. By now, most middle-class people own a smartphone with a touchscreen. Combine this with the fact that most people use public transportation, and you have a market with absolutely gigantic potential in terms of mobile games. Step into the metro in Shanghai, Beijing or another major city and you will see virtually everyone tapping and swiping away on their smartphones or tablets. In fact, according to InMobi's cross-market report, Chinese gamers are 112 % more likely to play games while commuting compared to American gamers. China, like the west, has also seen mobile games lure in a new audience previously largely unfamiliar with gaming. This casual market is massive, but not without its challenges. (ShanghaiDaily, 2014; InMobi, 2014)

The video game market in China is not easy to navigate, and this is true even more so when it comes to the complicated mobile game market. The amount of different devices, mobile appstores and even payment methods is many times larger than what we are used to in the West. A strong and reliable Chinese business partner is a requirement for doing business in China. The purpose of this thesis is to provide insight into what the Chinese mobile game market looks like, what are its challenges and what can be done to overcome them in order for a Western company to successfully enter the market.



## 2 CHINESE GAMING CULTURE

China has a strong gaming culture, which has predominantly centered around multiplayer PC games played online. Recently, mobile devices have lured in a massive new casual audience without any previous gaming background. Some form of social interaction with friends appears to be a key aspect across different types of games and platforms.

### 2.1 Short Overview of Chinese Culture

The Chinese culture is one of the oldest in the world. Nowadays the area of China is roughly the size of Europe and it contains approximately a fifth of the world's population. Old traditions are an important part of Chinese culture, and the vast amount of people undoubtedly has had an effect on the daily life and culture of China. China is governed by the Communist Party of China, whose focus has been on economic growth. Today China is the world's second biggest economy and the biggest importer and exporter of goods. Growth has been and continues to be impressive but it is not without its drawbacks.

There are huge gaps in standards of living within China, particularly when comparing the country's major cities to the poor rural areas. The center of a Chinese person's life is their family, but on the other hand it is money. Social security is weak and people's families and relatives act as a much-needed safety net. Parents invest all they can into their children's future. With money, you can put your child into good schools and give them the best chances for success in life. Later, in return, the children will take care of their retired parents, both financially and practically. Parents often have final say in what their even adult child can do.

As funny as it might sound, capitalism is flourishing in China. Money drives everything and to put it bluntly, without money you are nothing. If you do not have a job and thus money, the possibilities for normal living are bad. On the other hand, wealthier people usually like to show off their riches in the form of conspicuous consumption. This can be anything from clothing, cars and the latest smartphones to where you eat and where you live. Going to Starbucks or Häagen-Dazs is a way to show that you are well off and on a higher social status compared to others. Another interesting fact is how average Chinese people see fake products. They are fully aware of the product being fake, but many do not think it is worth it

to buy the real thing, when the fake one is nearly or sometimes just as good as the real one, and costs only a fraction of the price. Rich people are of course an exception to this.

The level of English among Chinese people is weak or oftentimes non-existent. In recent times, the importance of English has been embraced and speaking good English is considered to be important. Children from wealthier families often begin learning English in kindergarten. On Chinese TV, there are basically no American shows but there is one channel broadcasting news in English. Music and also games in English are almost equally hard to come by, although some of the newer generation has started following American TV shows through the Internet. Overall, China is slowly becoming more Western and the US is even admired by many young people. Access to Western social media, such as Facebook, YouTube and Twitter, remains unavailable, but several Chinese equivalents exist.

Especially in big cities, smartphones have become the norm, and consequently mobile gaming has become a big thing. The gigantic size of the market that is still growing has lured many companies into the mobile game market. Some Western companies have also seen some success in China, but most developers do not really know how to even begin approaching the Chinese market, given its numerous challenges, not the least of which is the requirement for Chinese language.

## 2.2 Gaming Landscape in China

Interestingly, while China has countless companies developing and publishing mobile games, basically only one Chinese game, Fishing Joy, has seen success outside of China. CocoaChina revealed that their Fishing Joy franchise generated \$6.28 million per month in revenue worldwide in early 2013. Chinese developers often resort to copying existing successful games without much creativity, perhaps partially due to the Chinese educational system, which does not emphasize creative or critical thinking. (InsideSocialGames, 2013)

The de facto monetization model in China is free-to-play (F2P). While F2P has only been prominent in the Western mobile game sector for the past few years, in China and most of Asia it has for long been the go-to model. As it is in the West, the vast majority of players do not spend any money in F2P games, but some do, and due to the massive size of the market this can amount to significant profits.

In China, gaming is seen as a socially acceptable and most importantly cheap form of entertainment, with little monetary or social risk involved. For the most part, the Chinese gaming culture has focused almost exclusively on online multiplayer games played over the Internet. Internet cafes have been highly popular especially among young male students. Of particular note is the fact that consoles and console games have been banned for the past decade and have seen only marginal success in China. The console market opened up this year but it is doubtful that they will see great success, as the Chinese gamers are used to playing on PCs and now mobile devices. Many people who play online or mobile games do not consider themselves gamers. They do not necessarily play for the sake of playing, they just want a simple game to play and waste some time when there is nothing else to do.

On PC, multiplayer online games where you can easily play with your friends have been most popular, with MMO's (Massively Multiplayer Online game) still dominating the platform. Unlike in the west, MMO's have seen some success on mobile platforms as well. Generally games that allow you to interact with others tend to do strongly. (Gamasutra, 2012)

### 2.3 Chinese Mobile Gamer Behavior

According to TalkingData's Chinese market report, mobile game players spend an average of 32 minutes playing games each day, while 28 % of users spend over 1 hour each day playing games. The average gamer splits their time across 2.4 game titles, but spends about 80 % of their gaming time in one game.

The following graph (Figure 1) represents the hours of the day when players typically play. A noticeable peak can be seen during the late evening as many people like to play and relax a bit before going to bed, as well as during the lunch break at work or school. The daily spending times distribution looks very similar, with relatively more users spending money during the evening, making it the most opportune time for in-game events and limited-time promotions. While gaming, 28 % of users are on a 2G connection, 24 % are on 3G and the remainder 48 % on Wi-Fi – though of course some might play games completely offline as well. As for the age of Chinese mobile gamers, 42 % of them are between 25-34, while 24 % are between 19-24, according to InMobi's mobile market report. (TalkingData, 2014; InMobi, 2014)

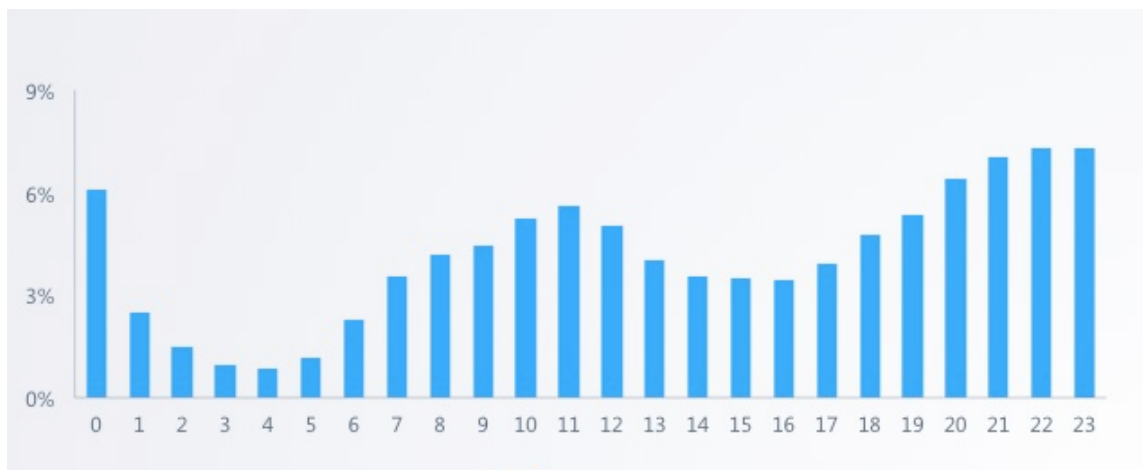


Figure 1. The hours of the day when Chinese mobile gamers play the most. (TalkingData, 2014)

#### 2.4 Chinese Government Control

The Chinese government supervises and strictly controls the content of games. To officially publish a PC or web game in China, approval from the Chinese Ministry of Culture is required. Getting approved can take several months. Forbidden content include heavy violence, gambling, bones and other reference to dead people and their spirits, explicit sexual content, unfavorable references to China, the Chinese army, the Chinese Government or any sort of unsuitable political content. To mention a couple of well-known examples, Battlefield 4 and Call of Duty: Modern Warfare 2 have both been banned in China by the government. Of course banned games can still be obtained, either by pirating or ordering online from Taiwan or Hong Kong for example. (PocketGamer, 2013)

Mobile games do not require specific approval, but Apple does not allow much of the same contents on its Appstore in the first place. On Android, all the key distributors are Chinese companies, making it easy for the Chinese government to control them if needed. In other words, while approval is not (currently) needed for publishing a mobile game, if the game contains content that the Chinese government deems inappropriate, it will get shut down and banned retroactively.

## 2.5 Simplicity Is Key

Chinese gamers prefer simple games. This is especially true for the casual and inexperienced mobile gamers. One thing to note is that for the most part, Chinese gamers did not grow up playing Mario or Zelda on their Nintendo's. They have only recently discovered games through their mobile devices. This is why extremely simple games with strong touch mechanics work best – Angry Birds and Fruit Ninja, for example, have been very successful. Chinese people do not want to think too much when playing – they just want to waste some time and have some quick and simple fun. (InMobi, 2014)

About 56 % of Chinese mobile gamers play on the PC as well, according to InMobi's Mobile Gaming report. In comparison, only 43 % of American and just 40 % of Korean mobile gamers also play games on PC. These numbers can mostly be explained by the fact that many Americans prefer playing on consoles instead of PCs, and over half of American households owning a video game console. (ESA, 2014)

Understanding your audience is important in China. For the most part, casual games appeal to low income, low education people and children, while online mobile games tend to appeal to middle-aged people and young adults. (InMobi, 2014)

### 3 MOBILE MARKET OVERVIEW

There are over 700 million active smart devices in China, and that number continues to grow, albeit at a much slower rate than before. About 450 million users have a 3G connection. According to statistics from Flurry Analytics, over 32 % of the total smart device usage in China is gaming. China has for a few years now been the country with the most new smart device (iOS and Android) activations. It is noteworthy that a large amount of users come from tier 2 or tier 3 cities, as opposed to tier 1 cities, such as Shanghai or Beijing. The city tiers are appointed by the Chinese government. According to Umeng, users in tier 1 and 2 cities prefer simulation, education and adventure games, whereas users from tier 3 cities and below prefer action, card, music or sports games. Nearly 60 % of active devices are from tier 3 cities or below, as seen in the image below (Figure 2). First tier cities account for only 19 % of all active devices. (Quartz, 2014; mobiForge, 2014; Forbes, 2014; Smartions, 2013; Flurry, 2012; Umeng, 2014)

#### **Distribution of active devices in cities ( 2014-3 )**

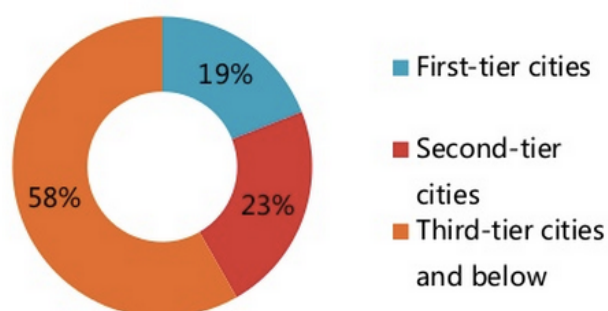


Figure 2. Distribution of active devices per city tiers. (Umeng 2014)

For game developers, basically only Android and iOS are relevant as mobile platforms as shown in the image below (Figure 3). Android has even further strengthened its position as the #1 mobile operating system.

CHINA JUL 2013		CHINA JUL 2014	
Android	76.2%	Android	84.6%
BlackBerry	0.3%	BlackBerry	0%
iOS	18.8%	iOS	13.2%
Windows	2.3%	Windows	0.8%
Other	2.4%	Other	1.3%

Figure 3. Mobile operating system market shares in China. (Dazeinfo, 2014)

There were an estimated 310.8 million Chinese mobile gamers at the end of 2013, with 248 % growth year-over-year from 2012. To put that into perspective, there are more mobile gamers in China than there are people in the U.S. Research firm SuperData reported on May 5th, 2014 that Chinese gamers are estimated to spend \$3 billion on mobile games in 2014. The Chinese gamers' spending rate is likely to overtake that of U.S. next year. The U.S. as the biggest mobile market in terms of revenue is starting to look saturated, while in China the ARPPU (average revenue per paying user) grew over 20 % since last year. During the first quarter of 2014, the ARPPU in China grew to an astounding \$32.46. In comparison, the ARPPU in the U.S. grew 11 % during the same period, ending up at \$21.60. In other words, paying users in China spend more than 10 USD more than those in the U.S. (Market-ReportsOnline, 2014)

The following image (Figure 4) depicts CocoaChina's (developer and publisher of hit mobile game Fishing Joy) earnings from games between different appstores in China. Interesting to note is how much a top title can make in China; \$3.2 million per month on iOS and \$4.8 million per month on Android.

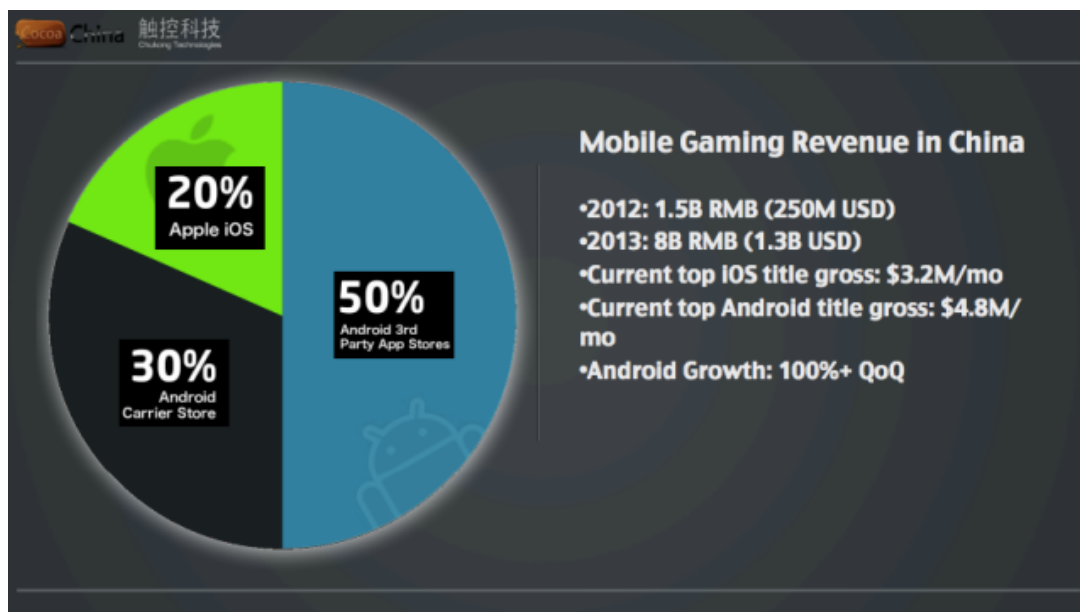


Figure 4. CocoaChina's Mobile gaming revenue in China. (CocoaChina/Chukong Technologies, 2013)

The image below (Figure 5) compares the US and Chinese mobile markets in terms of conversion and ARPPU. The conversion rate – while lower than in the U.S. – also grew 21 % from 2.4 % to 2.9 %. Meanwhile in the U.S., the conversion rate dropped from 5.2 % to 5.0 %. On the other hand, Niko Partners estimates that 38 % of Chinese mobile gamers will spend money on games in 2014. (Venturebeat, 2014)

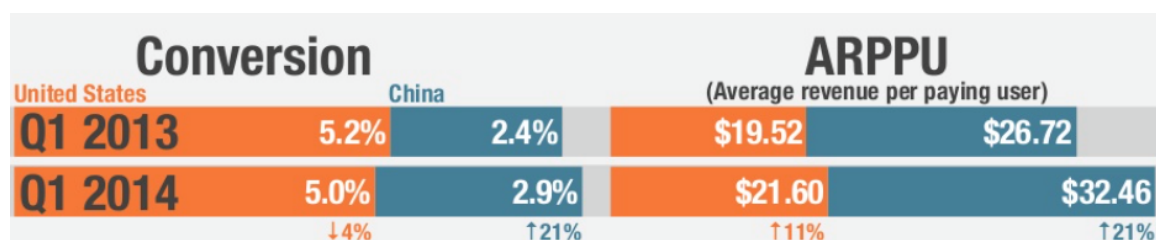


Figure 5. Conversion and ARPPU in the US and China. (SuperData, 2014)

Cost Per Install (CPI) is one of the key figures to look at for mobile games. Basically you want this number to be lower than the users' LTV (Lifetime Value) in your game. LTV represents the average expected dollar value of a single user. When your game's LTV is higher than your CPI, attracting more users through ads is a profitable investment.



In China, the CPI jumped at the start of the year to obscene amounts but has since settled to a more reasonable number. As seen on the figure below (Figure 6), the profit margins in the U.S. are becoming thinner and acquiring new users is more and more expensive. CPI went up 37 % in the US last year. In China, user acquisition is still relatively cheap which makes it easier to bring in profits, at least for now. However, the competition is extremely fierce and revenue is top heavy. According to SAPPRFT - a Chinese regulatory agency's report, 92 % of mobile games released fail to generate profits. (GamesInAsia, 2014)

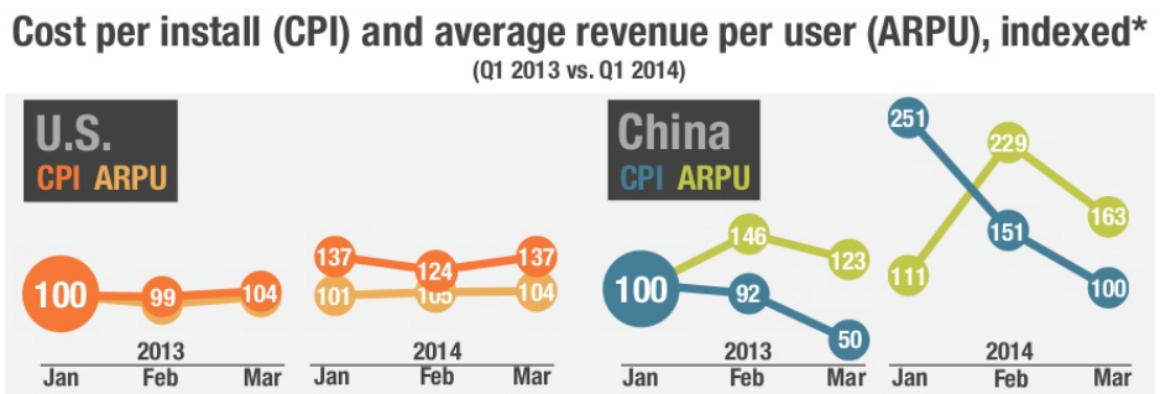


Figure 6. CPI and ARPU in US and China. (SuperData, 2014)

The Chinese mobile game market is expected to keep growing. Niko Partners estimates the annual revenue to reach \$7.4 billion in 2018, with a compound annual growth rate of 37.6 %, as demonstrated by the image below (Figure 7). Niko Partners also estimates that the amount of Chinese mobile gamers will rise to 770 million by 2018.

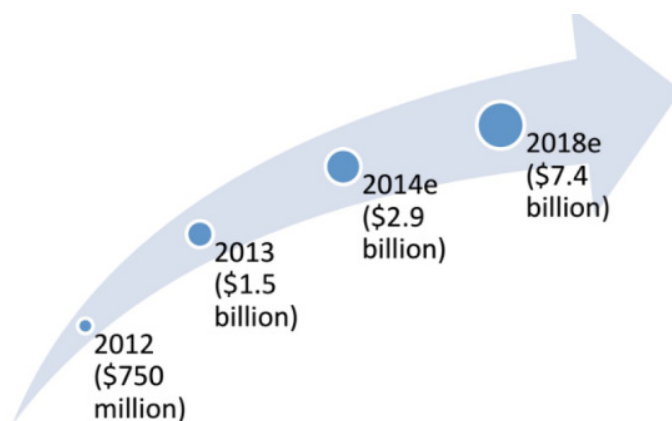


Figure 7. Growth projection of the Chinese mobile game market. (Niko Partners, 2014)

### 3.1 Chinese Mobile Carriers

There are three mobile carriers in China: China Mobile, China Unicom and China Telecom. China Mobile is the market leader with 775.6 million subscribers. Note that this includes non-smartphone users as well but those are likely to stay with the same carrier when switching to a smartphone later on. China Unicom is second with 285.7 million subscribers, while China Telecom comes third with 185 million subscribers, as the chart below (Figure 8) illustrates.

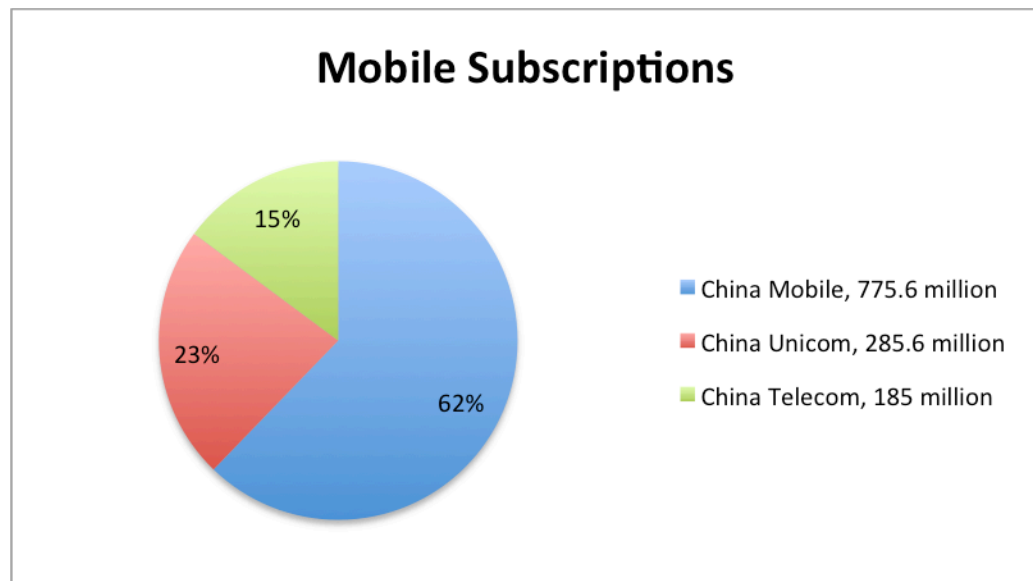


Figure 8. Mobile Subscriptions across the 3 Chinese carriers. Self-made chart using mobiForge data from February 2014

China Mobile only started offering iPhones on contract at the beginning of 2014 as Apple and the carrier failed to reach an agreement prior to that. As the most popular carrier now offers iPhones, it is possible that iOS will see a small increase in market share in the future, although it will not stop Android's dominance. (Cnn Money, 2014; TechNode, 2014)

3G coverage is getting better and better in China and is widely available. In total there are about 450 million 3G subscribers. All three carriers are pushing out 4G as well though only China Mobile currently has networks available. 4G from the other two carriers is coming, but has been delayed due to technological and licensing issues. Overall though, 4G is still far away and even China Mobile only has 1.3 million 4G users. (Forbes, 2014)

The below figure (Figure 9) shows the amount of 3G subscribers across the three carriers in China.

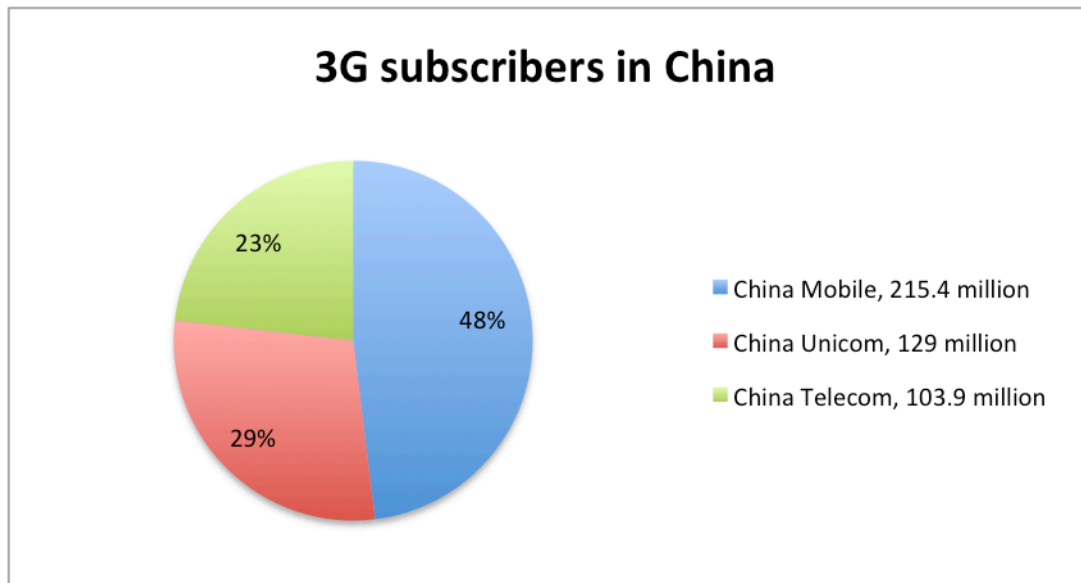


Figure 9. 3G subscribers across the three carriers in China. Self-made chart using mobiForge data from February 2014

In terms of online mobile gaming, 3G is generally enough but has not yet been adopted by all Chinese smartphone users. All carriers' 3G offerings include a data cap, which depends on how much you are willing to pay every month. Game developers need to keep this in mind, as many Western operators offer 3G without data caps, allowing users to download apps as freely as they wish, while Chinese users probably prefer to save data and refrain from downloading apps on 3G.

As the following image (Figure 10) shows, Wi-Fi is becoming more common but the majority of smartphone users still rely on mobile connections. More tech-savvy Android users do download apps via their PCs though, which does not appear in the data. In terms of making in-app purchases or social media updates, the data cap is of course largely insignificant.

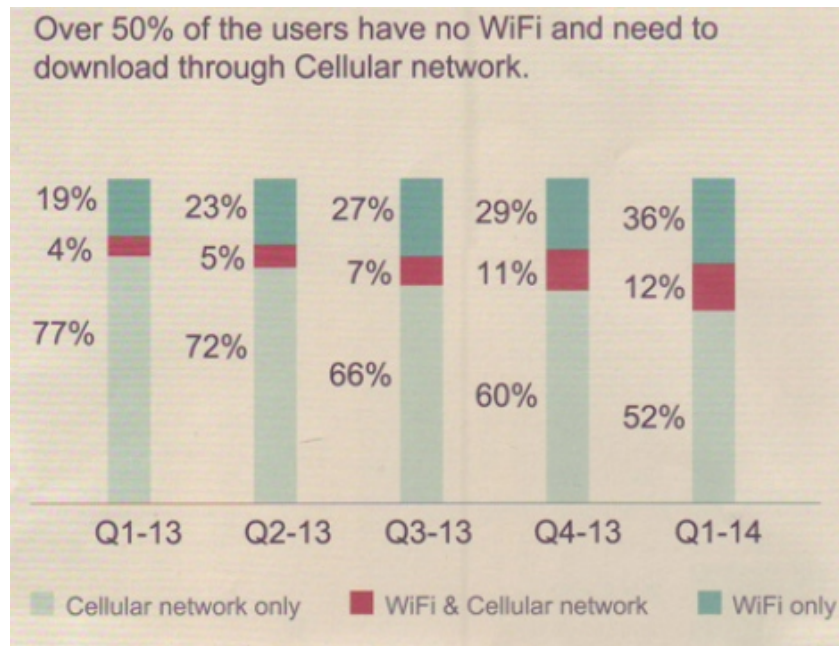


Figure 10. The networks used by Chinese mobile owners for downloads. (PocketGamer, 2014)

Two important things regarding the three mobile carriers in China are their appstores and most importantly the billing methods they provide. Appstores are looked into in Chapter 6.2 Appstores and Distribution Channels and billing methods are addressed in Chapter 5.4 Billing Methods.

### 3.2 WeChat

WeChat, known as Weixin in China, can be described as the Chinese equivalent of WhatsApp in the West, Kakao Talk in South Korea or Line in Japan. With the exception of WhatsApp, they are all free to download and use. WeChat is an instant messaging app available for mobile platforms and was first launched in January 2011. WeChat is aiming to be much more than simply a messaging app with gaming on the side. It is possible to book a taxi, check out fashion trends, shop online or soon even pay for gas using WeChat. (TechViewAsia 2014; TruTower, 2014; TechInAsia, 2014 a, TechInAsia 2014 b)

WeChat is developed by the Chinese Internet giant, Tencent. Previously Tencent also developed the massively popular MSN messenger-esque chat software for PC called QQ, which is still widely used in China and also offered for mobile platforms. Tencent offers games

through its QQ service on PC already, as well as its mobile QQ app. The most popular PC games published by Tencent in China are League of Legends and CrossFire, a Counter Strike-like FPS by South Korean developer SmileGate. It should be noted that Tencent owns a majority stake in Riot Games, League of Legends' American developer.

### 3.2.1 WeChat User Numbers and Growth

WeChat currently has around 438 million monthly active users (MAUs). MAUs increased by 42 million going from Q1 2014 to Q2 2014. As the image below (Figure 11) shows, WeChat's has, for the most part, kept up a steady growth. This growth is expected to continue. WeChat reached 100 million users outside Mainland China in August 2013. Most of the international users are from Hong Kong, India, Indonesia, Taiwan and Malaysia (Tencent 2014; MobileWorldLive 2013; TheNextWeb, 2013)

**Number of monthly active WeChat users from 2nd quarter 2010 to 2nd quarter 2014 (in millions)**

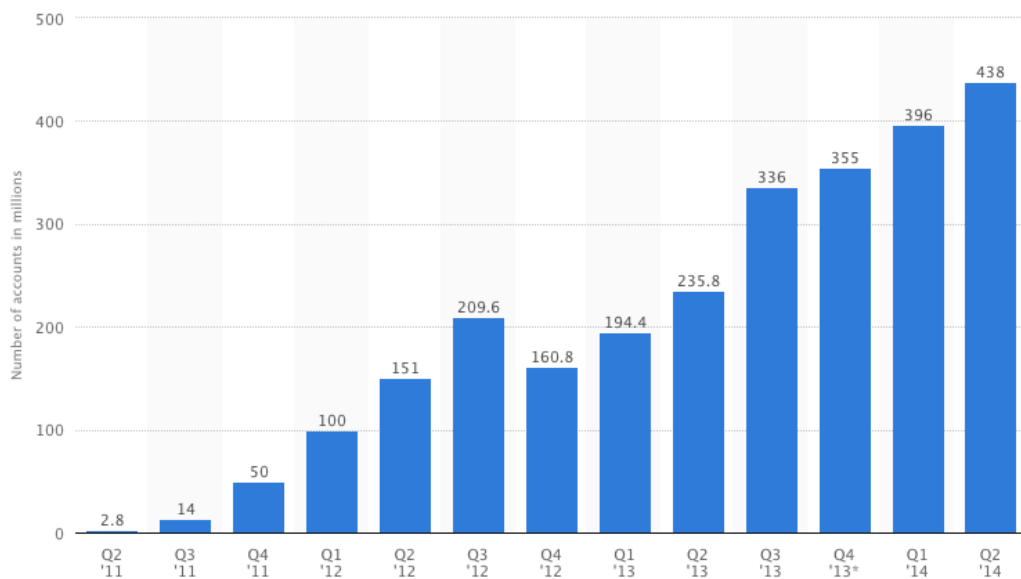


Figure 11. WeChat users per quarter. (Statista, 2014)

### 3.2.2 WeChat Game Center

For mobile game developers the biggest hurdle often is getting your game noticed. For Tencent, WeChat had amazing user numbers but was not generating much in the way of profits, which lead the company to test out games on WeChat in the summer of 2013. The games proved popular and the initial batch of five games reached 570 million downloads in November 2013, only three months after their launch. (TruTower, 2014)

Especially relevant to game developers is the fact that WeChat games link users across the Android and iOS platforms. This means users are able to compete with their friends regardless of platform but also that supporting both Android and iOS versions is recommended. WeChat currently features two types of games: simple HTML5-based games that are played within the WeChat app itself and games that are installed separately but tap into the social features of WeChat. HTML5 is a markup language used for structuring and displaying information and data on a website but it can also be used to build apps and games. If you want to play a WeChat game, you must give WeChat permission to post messages from the game to your friends – not unlike Facebook games.

While so called game center services exist, such as the one offered by Apple itself, they are not actively used even by gamers and likely not at all by non-gamers. In other words, they are not very effective at helping developers attract new users. Apple's game center only had around 67 million users back in October 2011 and in early 2014 there were rumors that Apple was even considering removing the Game Center app entirely in iOS 8. WeChat on the other hand, is used by virtually all smartphone users in China and can aid tremendously in getting new users. Landing a partnership with Tencent to launch a game on WeChat is far from easy though. They are looking for successful, high quality games. Past success for the title or franchise undoubtedly makes it easier to strike a partnership with Tencent, while smaller and unknown developers likely cannot get a deal. (IGN 2014; Pocketgamer, 2011; TheNextWeb, 2014)

Bo Wang, vice president of business development at Tencent, gave the following statement in an interview with TheNextWeb:

”For free-to-play mobile games, it's even more striking that the game content and game quality make a big difference. So in the long run, we think the innovation part, the crea-

tivity part, the unique strengths of Western (game) studios make some very good quality and fun-to-play games that address the market needs.”

The first Western game, Candy Crush Saga, launched on WeChat on Android in August 2014. Either QQ mobile or WeChat login can be used but the game can only be downloaded from Tencent’s own AppGem app store. It has received a large number of 1-star reviews because currently it requires a special invitation code to continue past the initial login screen. Fruit Ninja and Temple Run 2 have also been announced but not yet released (TechInAsia, 2014; Venturebeat, 2014).

WeChat games are generating major profits and are a big driver for Tencent’s increased revenue. Games connected with Tencent’s WeChat or QQ mobile platforms brought in 1.8 billion Chinese Yuan (\$289 million) in revenue in the first quarter of 2014 – tripling from Q4 of 2013. The paying user base also more than doubled during the same period. Impressive growth continued on to the next quarter of April-June: the revenue generated for Q2 2014 was about 3 billion Yuan, or (\$490 million), amounting to a growth of about 67 %. In other words, WeChat and QQ mobile games are generating well over \$100 million per month. The main difference between QQ mobile and WeChat is in the user base. QQ is more popular in second-, third-, and lower tier cities in China. WeChat is aimed more towards white-collar consumers with higher-end devices, in other words tier 1 cities such as Shanghai and Beijing. (Bloomberg, 2014)

Naturally games added later to an existing portfolio of WeChat games cannot all generate the same impressive revenues. With hundreds of millions of users and only a few games to choose from, it is perhaps no surprise that the initial titles have performed well. The future will show exactly how WeChat will shape the mobile game landscape in China but it is already a major factor to consider. For the iOS Appstore, Tencent was the top publisher in both June and July, according to App Annie. Needless to say the ease of using WeChat’s own payment system and strong social features are driving sales as people want to compete with their friends for top scores. (NYTimes, 2014; TechInAsia, 2014)

### 3.3 Android in China

Android is by far the most popular smart device operating system (OS) in China, holding a remarkable 84.6 % market share. This is in large part due to a very wide range of Android devices – from cheaper models to the top Android models such as Samsung Galaxy S5. While it is nice for the consumers, the vast range of different devices represents a huge hurdle for game developers. In comparison, iOS is a relatively easy platform to develop for, thanks to the limited amount of devices. Android fragmentation is an even bigger problem in China, with several Chinese manufacturers offering Android-based smartphones as well as tablets.

As shown in the image below (Figure 12), devices across different price ranges are all popular. What is notable however is that 80 % of the \$500+ segment are iPhones. The lower price segments are by and large all Android devices, with 35 % being under \$150.

#### Distribution of price ranges of smart phones in China

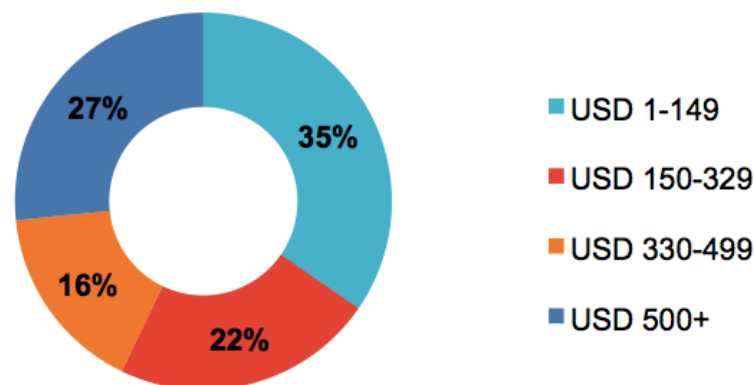


Figure 12. Smartphone price range distribution. (Umeng's China Mobile Internet report, 2014)

Besides fragmentation, the second big problem for a game developer publishing their game in China comes from the fact that Google Play, for the most part, is unavailable. This basically stems from the fact that Google refused to censor certain Internet search results in China, prompting the Chinese government to utilize its "Great Firewall of China" to block



Google search and later many if not most other Google services in Mainland China. (IBNLive, 2010)

In the West, you basically have two distribution channels on Android: Google Play and the Amazon appstore. Technically both are there in China but their market shares are minimal. Instead, there are roughly 200 Android appstores available. Luckily, only a dozen or so are actually relevant in terms of downloads and revenue. The top 20 stores get 80 % of the total downloads, according to Jeff Lyndon from iDreamSky, a leading mobile game publisher in China. (VentureBeat, 2014)

As shown in the chart below (Figure 13), four out of the top five manufacturers are Chinese. Compared to Q1, Xiaomi overtook both Samsung and Lenovo, taking the number 1 spot. Yulong is also known as CoolPad. Samsung and Apple both saw decreased sales. Xiaomi offers comparable devices to those of Samsung, Apple or other top manufacturers but at a much lower cost. Their business model attempts to mostly bring in revenue through mobile applications and extra services. Of some note to game developers is the fact that Xiaomi devices run a forked version of Android, MiUi.

## Smart phones, China, units by vendor, Q2 2014

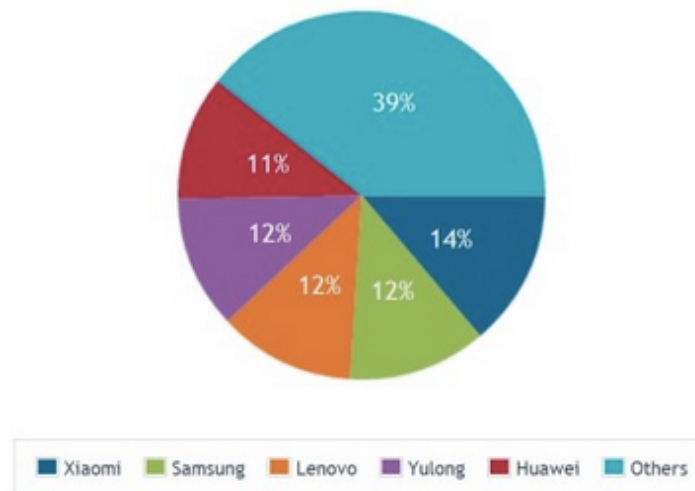


Figure 13. Smartphones by manufacturer. (AndroidAuthority, 2014)

All in all, Android is the dominant force in the Chinese market but presents many challenges for game developers. It is likely that Android's and the Chinese manufacturers' dominance will continue in the future. Even getting a hold of these devices can be tricky in a Western

country – meaning testing for bugs and such on them is likely best left to a Chinese publishing partner. The amount of users with such devices is simply too high to ignore.

### 3.4 iOS in China

While iOS only holds a 13.2 % market share in China, it is still a major player, especially in terms of revenue. For the most part the iOS market in China is similar to the West. Distribution happens primarily through the Apple-curated Appstore, as do payments. The average revenue per user is still significantly higher on iOS than it is on Android, and iOS users in China are more likely to pay for an app or a game up-front, although free-to-play games are still preferred. iPhone remains a premium product and a status symbol in China, and its owners can usually spare money for a paid app they really want. China was one of the launch markets for iPhone 5S and 5C but normally Apple has not included China in the launch markets. The same is true for iPhone 6 and iPhone 6 plus, which are launching in China on October 17th, 2014, roughly a month behind the US launch.

While Apple has been doing quite well in China, perhaps surprisingly it has suffered somewhat from a lack of apps. Whereas the US Appstore has over 1 million apps, the Chinese Appstore only had around 150,000 at the beginning of 2014. (Quartz, 2014)

The iPad is by far the most popular tablet in China. In the second quarter of 2014, 59.2 % of all tablets sold were iPads, while the closest competitor in Samsung managed 9.1 %. Lenovo was third with a 7.4 % market share. Most iPad users have the device for entertainment purposes, and they are also comparatively more prone to spending money on games than a regular smartphone owner. In China, 67 % of iPad users say they buy virtual goods – whereas the same number is only 37 % in the US. (Bibeypost, 2014; Gamesindustry.biz, 2013)

As the following image (Figure 14) shows, older iOS devices are quite widely used in China, and the adoption rate of new iPhones or iPads is perhaps not as high as in the West. Instead, the hype surrounding the launch of the model seems to drive sales for older but more affordable devices, as Apple normally cuts prices on old models following the launch of a new device. Mixpanel's data shows that following the launch of iPhone 5 S/C, the biggest increases in usage were actually seen in legacy models such as iPhone 4s or the first generation iPad mini. (Mixpanel, 2014)

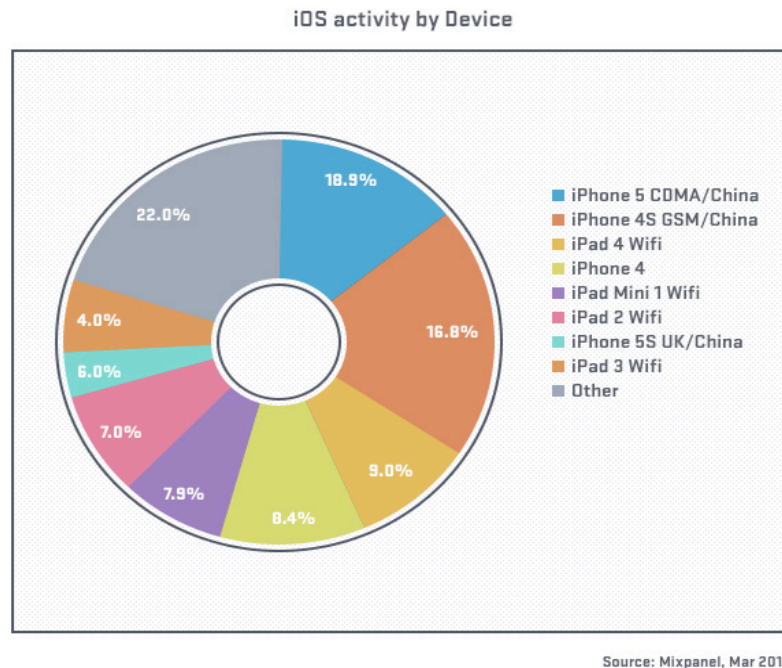


Figure 14. Active iOS devices in China. (Mixpanel, 2014)

Overall, the Chinese iOS market is certainly easier to navigate than its Android counterpart. It is also lucrative for game developers. According to AppAnnie Analytics, around 90 % of the Chinese Appstore's revenue is generated from games, which is highest across all countries. It is possible that the new iPhone 6 and iPhone 6 plus will help Apple gain back some market share, as Chinese users generally prefer large screens which iPhones have not offered before. (Smartions, 2013; CNBC, 2014)

A few years ago, iOS jailbreaking was extremely common. Up to half of the iPhones in China were jailbroken at the end of 2011. At the start of 2013, the number was at around 30 %. In March 2014 the percentage was 14.2 %. A service called Kuaiyong offers iOS apps for free. It used to offer paid apps for free as well but appears to only offer genuinely free ones at this time. This service is usable without jailbreaking. This combined with the fact that people are more aware of the risks of jailbreaking, and perhaps most importantly, Apple accepting Chinese Yuan since November 2011, have made jailbreaking much less common. One purpose for jailbreaking for some Chinese users has been the wish to use a 3rd party solution for Chinese language input on iOS. Previously these could only be installed on jailbroken devices but Apple announced at WWDC 2014 that iOS 8 allows 3rd party keyboards. This could even further refrain Chinese users from jailbreaking their devices going forward. (Umeng, 2012; Kuaiyong 2014; TheVerge, 2014)

#### 4 TOP MOBILE GAMES AND GENRES

The top genres in China differ quite a bit from those we are normally used to seeing dominate the charts in the West. Whereas simple casual games are the best choice for a new smartphone owner unfamiliar with games, over time they become more accustomed with gaming and seek deeper gameplay experiences. Lately there has been a clear trend towards more mid-core style games. RPGs (Role-playing games) and TCGs (Trading Card Games) are amongst the most popular. 70 % of all game revenues come from TCGs, RPGs and MMORPGs. (Massively Multiplayer Online Role-Playing Game) (TalkingData, 2014; appsasia, 2014)

For any genre, mid-core Chinese players are avid fans of the so-called "Three Kingdoms" era of Chinese history as well as games with Chinese martial arts fantasy (Jianghu) elements. Some well-known examples of this style in the West are the original Xbox game 'Jade Empire' and the movie 'Crouching Tiger, Hidden Dragon'. (Gamasutra, 2013)

Based on TalkingData's 2013 statistics, on an average mobile device, 54 % of all games are casual games, such as Cut the Rope or Temple Run, 24 % are card games (poker or casino) and the remaining 22 % are other games. Simple casual games are often included as pre-installs on devices, which could contribute to the statistics. A regular user has an average of 5.59 games installed on their device.

The following image (Figure 15) shows the genre preferences of Chinese gamers, with RPG and adventure games clearly at the top. In other words, while many people probably have the latest hits such as Temple Run II, they might prefer playing RPGs for the most part, especially for longer sessions.

### 2.2.2b Chinese Mobile Gamer Genre Preference

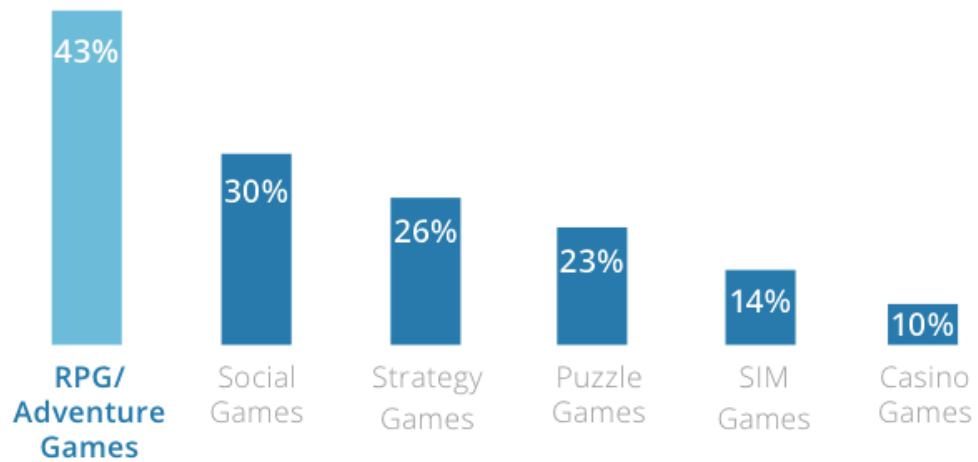


Figure 15. Genre preferences of Chinese mobile gamers. (InMobi, 2014)

The below image (Figure 16) depicts the top genres in the first half of 2014. RPGs and TCGs are the top contenders, with strategy and arcade genres falling a bit behind, but this is possibly simply due to the lack of attractive titles in those genres compared to a big number of offerings in the RPG and TCG genres.



Figure 16. Genres of the top 25 iOS/Google Play games in China. (Appsasia mobile market research, 2014)

There is a clear difference between preferences when comparing different areas in China. The generally wealthier users in tier 1 cities prefer online mobile games, whereas the users in lower tier cities, most likely using lower-end Android phones, prefer puzzle- and casual games. According to Umeng, owners of phones priced under \$150, spend up to 60 % more time playing casual games instead of hardcore games, whereas owners of \$500+ devices, the opposite is true; they spend up to 60 % more time playing hardcore games over casual games. (InMobi, 2014; Umeng, 2014)

Out of the top 25 iOS/Google games in China, 92 % - or 23 titles - included Chinese localization. Tencent published 28 % of the top games, according to Appsasia's data from July 2014. WeChat basically guarantees Tencent's position as the dominant publisher at least for now. (Appsasia, 2014)

#### 4.1 Top iOS Games in September 2014

First it should be noted that only 65 % of iOS game installs come through the Appstore. The rest are via 3rd party appstores, such as the aforementioned Kuaiyong. (TalkingData, 2014)

Taking a look at the Appstore top 10 grossing tab on September 21st, 2014, we can formulate the following list:

1. 刀塔传奇 - 剑圣的觉醒 (dao ta chuanqi - jian sheng de juexing)

This Chinese game in essence is a DOTA-themed card battle game developed by LongTu Games. The developer claims the game to have 43 million players across all platforms and it was launched exclusively in China at the end of February 2014. (AppAnnie, 2014)

The player should choose a squad of five heroes to go into battle. The battle itself is very quick (sometimes under 20 seconds) and seems to be mostly automatic without much control required from the player. The battle is shown in 2D with the actual DOTA heroes, instead of cards and effects. It has been heavily advertised on Metro stations, bus stops, etc. in Shanghai and presumably other tier 1 and 2 cities as well. Apparently the developers do not have copyrights to use Valve's DOTA heroes and there is likely to be either an acquisition or a major legal case. Valve and their Chinese partner might opt to outright buy the company that developed the game. Rovio has used a similar kind of method by starting to cooperate with some of the companies who created unlicensed Angry Birds merchandise in China. (Reuters, 2012)

2. 雷霆战机 (leiting zhanji)

This is a 'Space Invaders' or Shoot 'em up style flying shooter from Tencent. (iTunes, 2014)

3. 天天富翁 (tiantian fuweng)

This is a board / gambling game from Tencent. (QQ video, 2014)

4. 天天酷跑 (tiantian ku pao)

This is a casual 2D runner from Tencent. It can also be found in the top 10 Android games.

5. Clash of Clans

Supercell's flagship title, Clash of Clans, has been in the top 10 grossing games of Apple's Chinese Appstore basically every day since August 6th 2012. In terms of downloads it has never really been a top performer, but it does not seem to be stopping it from bringing in impressive revenues over an extended period of time. For a look at how adding Chinese localization boosted Clash of Clans' revenues in China, see Chapter 6.1 Localizing for China. (AppAnnie Analytics, 2014)

6. Craz3 Match for WeChat (天天爱消除 tiantian ai xiaochu)

Craz3 Match is a Bejeweled-style match-3 game from Tencent with cute animal characters. This game is also in the Android top 10. (Google Play, 2014)

7. 全民飞机大战 (quanmin feiji dazhan)

"National Warplanes" (free translation) is another Space Invaders –style vertical scrolling shoot 'em up game, also by Tencent. (iTunes, 2014)

8. Boom Beach

The Clash of Clans-esque Boom Beach from Supercell's has found success in China as well. Apart from its release date, Boom Beach has also been in the top 100 grossing apps of the Chinese Appstore each day since its launch on March 26th, 2014. For the most part it has hovered between ranks 1-20.

9. 放开那三国 - 跨服激战 (fang kai na sanguo - kua fu jizhan)

This is a Three Kingdoms –themed card battle action game where you form a squad of heroes to wage battle. The battle seems to happen mostly automatically. (Youku, 2014)

10. 天天炫斗 (tiantian xuan dou)

This is a 2D fighting/shooting game by Tencent. The game features a virtual joystick for movement and a few buttons for different attacks and moves. (Youtube, 2014)

The top grossing iPad games are largely the same as those on iPhone, but Blizzard’s iPad-only Hearthstone also manages to break the top 10, coming in at #8. 魔力宝贝 (moli bao-bei) at #4, is the Chinese mobile version of a Japanese MMORPG, Crossgate, originally developed by Square Enix. Another Western game: Summoners War: Sky Arena is at rank 10. Looking further down into the top 20, there are some more MMORPGs and other Western titles such as Plants vs. Zombies 2, Order & Chaos Online and Game of War: Fire Age. The top grossing iPad games generally include more hardcore –style games than on Android or even iPhone, which has usually been the case in Western markets as well. (iTunes, 2014; AppAnnie Analytics, 2014)

#### 4.2 Top Android Games in August 2014

The ranking of the top Android games in China is published monthly by NewZoo and TalkingData. It is based on the install base of the apps, collected directly from users’ devices. Eminently, the list is dominated by Chinese titles – six of which are developed or published by Tencent - and only two Western games manage to break the top 10. (NewZoo, 2014)

1. WeChat Dash (a.k.a. GunZ Dash, 天天酷跑 tiantian ku pao)

WeChat Dash is Tencent’s sidescrolling 2D runner. (WeChat Games, 2014)

2. PopStar! (消灭星 xiaoxie xing)

PopStar! is a simple 2D puzzle game from Chinese developer Zplay where the player must tap on a block to remove adjacent blocks of the same color. (Google Play, 2014)

3. QQ Fight the Landlord (a.k.a. QQ 欢乐斗地主, huanle dou dizhu)



Traditionally this game is known as Dou Dizhu in China. It is a very popular gambling card game for three players, where two players team up against the landlord. It uses the traditional (“poker”) deck of 52 cards. This is Tencent’s mobile version of the game. (Google Play, 2014)

4. WeChat Speed (a.k.a. Speed Up, 天天飞车 *tiantian fei che*)

This is a 3D car game with a single straight road where the player should dodge traffic and collect coins. It is developed by Tencent. (Google Play, 2014)

5. Rhythm Master (节奏大师 *jiemou dashi*)

Rhythm Master is a Guitar Hero-like music game by Tencent, featuring many of the songs that are popular in China. (Kotaku, 2013)

6. Temple Run 2

Temple Run 2 is published by iDreamSky in China, and had already reached over 130 million downloads at the end of 2013. (TechInAsia, 2013)

7. Craze3 Match for WeChat (天天爱消除 *tiantian ai xiaochu*)

Craze3 Match is a Bejeweled-style match-3 game from Tencent with cute animal characters. (Google Play)

8. 全民飞机大战 (*quanmin feiji dazhan*)

This is a Space Invaders –style vertical scrolling shoot ‘em up game, also by Tencent. (iTunes, 2014)

9. AniPop (开心消消乐 *kaixin xiao xiao le*)

AniPop is a match-3 puzzle game from Chinese developer Happy Elements, with cute animal characters. (HappyElements, 2014)

10. Subway Surfers

The second Western title to break the top 10 is Subway Surfers, co-developed by Kiloo and SYBO games and published by iDreamSky in the Chinese market.

## 5 MOBILE GAME MONETIZATION IN CHINA

The best results can be achieved with a full-spectrum approach – meaning both in-app purchases as well as in-game ads. Chinese players generally will not pay for getting rid of ads and tolerate them at least to some extent. This approach allows developers to bring in revenue from the large amount of users who will not buy anything in-game.

### 5.1 Free-to-Play

Asian developers first adopted free-to-play as the main monetization model out of necessity. Piracy was so rampant and widespread that it was not profitable to develop traditional pay-to-play games. As a result, developers gave up trying to combat piracy and started exploring other models. F2P was the answer and by now, it is by far the most prominent and successful monetization model in China. The fact remains that only a fraction of players pay for games or in-game items, but free-to-play games can still bring in considerable revenues. In the West, hardcore gamers traditionally dislike the free-to-play model. The model has found success in the casual mobile game market only in recent years. Chinese gamers on the other hand, are entirely familiar with the free-to-play model, as it has been prominent for years in the online and PC-gaming spaces. Due to this, free-to-play mobile games are also accepted as normal.

The so-called pay-to-win games, which are heavily shunned by many Western gamers, are generally accepted or sometimes even preferred by Chinese gamers. Conspicuous consumption is also apparent in games and online communities. In other words, people who have money want to show it to others through various means. Buying cosmetic or power boosts is normal. People want to reach the top of the leaderboard to show others that they are better, and some are willing to pay for the privilege. Business-wise, the most successful titles have been the ones that give huge advantages to the paying players. (VGsummit, 2009)

Henry Fong from Yodo1 recommends offering an extremely wide range of prices when it comes to payment options. According to Fong, a small percentage of users will basically blindly buy the most expensive item they can. (Henry Fong on Gamasutra, 2012)

Interestingly, according to SkyMobi, a Chinese app distribution company, the best time to ask for an in-app purchase from new players is during the first 4-8 minutes of gameplay. (PocketGamer, 2014)

## 5.2 Premium Games

Only a select few premium (or pay-to-play) have seen success on mobile in China. Currently on iOS, only the top 3 paid games (Plague Inc., Infinity Blade III and Minecraft – Pocket Edition) barely fit into the top 100 grossing games list found on the Chinese Appstore. Minecraft is the only one that doesn't offer in-app purchases.

There is some money to be made from pay-to-play games on iOS but the revenue potential is undoubtedly much lower than that of F2P games. Basically some of the more hardcore gamers are still willing to pay for great games but for the masses – i.e. casual mobile gamers, F2P is definitely more lucrative. On Android, launching a pay-to-play game is a wasted effort as the users are typically less wealthy and piracy is still common.

## 5.3 Advertising

Due to the massive size of the market, advertising can bring in considerable revenue. The difficult part for Western developers is that the regular international ad channels and methods may not bring in much or any money in China. Chinese ad networks must be utilized – and integrating their SDK's (software development kit) into the game can be tough as the documentation might only be available in Chinese.

A notable difference to the West is the fact that CPM (cost per mille) impression campaigns are not common. CPM reflects the cost per 1000 views of an advertisement. Nowadays most campaigns are either cost-per-action (CPA) or cost-per-click (CPC). CPA represents the cost per a specified action, such as viewing a video or signing up for a service. CPC refers to the cost of each click of an ad and is generally used for website advertising. Banner ads are the most effective but propose a challenge to game designers on where to place the ads for maximum clicks while disrupting gameplay as little as possible.

Online shopping is huge in China, and the top monetizing ads are for consumer brands – not other games. Ideally the game matches in some way what is advertised and the same common sense rules apply as in the West. Placing a car insurance ad in a racing game will most likely deliver better results than just having random ads.

Due to the fragmented nature of the Chinese market, there is no AdMob-like solution for easy mobile ads. Developers have to either work directly together with the major ad networks, or most likely team up with a local partner who can help with managing ads and probably get better deals from said ad networks as well. Revenue can vary wildly even from day to day, so optimizing which ads to show is important. This requires an “inventory” of ads from different ad networks. Simply signing up with an ad network, plugging in the SDK and calling it a day will not generate consistent revenue. One day you might monetize fine, and suddenly the next day not at all – without much control or knowledge as to why it is happening. There are over 70 competing ad networks making the competition very stiff. Some networks can resort to misleading reports or other devious activities to lure developers. (VentureBeat, 2012; InMobi 2014)

#### 5.4 Billing Methods

Mobile billing is not quite as straightforward in China as it is in the West. It used to be notoriously difficult; many developers reported amazing download numbers from China, especially on Android, but very low revenue. This changed in late 2012 when the big mobile carriers restructured their billing programs. Perhaps the biggest reason for billing difficulties is that the average user – i.e. a middle class Chinese person – does not have a credit card, which is the main way of doing appstore and mobile payments in the West.

On Android, the most important billing methods are those provided by the three mobile carriers in China (see Chapter 3.1 Chinese Mobile Carriers) as they are by far the most convenient for most users. Most mobile phone owners have a pre-paid plan on their phones – meaning they can buy new 50 or 100 Yuan cards to add additional money to their phone for calls, texts, cellular data, as well as making payments.

The following chart (Figure 17) represents CocoaChina’s sources for revenues across their games. Carrier billing is by far the biggest contributor at 75 %, while AliPay brings in 7 %

and the remaining 18 % comes from advertising. CocoaChina's US GM Lei Zhang revealed that CocoaChina's top game, Fishing Joy 2, earned about 90 % of its revenues through carrier billing in late 2012. (InsideMobileApps, 2012)

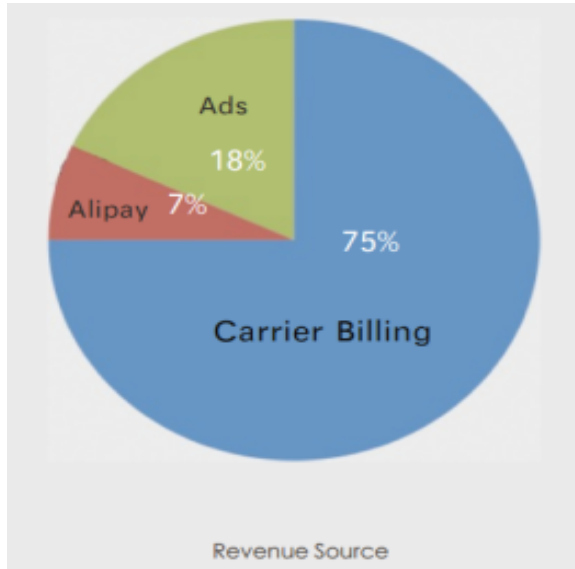


Figure 17. CocoaChina's revenue sources for mobile games. (Techcrunch, 2013)

Direct carrier billing was recently announced for China Mobile on iOS. China Mobile will take a 15 % cut of the sales through this payment option. Right now, the Appstore supports credit cards and prepayments via online banking. China Mobile has only started selling iPhones on contract in early 2014. The two other carriers - China Unicom and China Telecom – have sold iPhones for longer but do not yet offer direct billing methods on iOS. Apple only added the Chinese Yuan as a currency to its Appstore in November 2011. After this change, it became possible for Chinese users to add money to their iTunes accounts through online banking with a dozen major Chinese banks supported. iTunes gift cards are of course also an option, although rarely used. Basically, paying for purchases on iOS is a bit more complicated than on Android, where "one-click" carrier billing can be utilized. (Technode, 2014)

AliPay is an online payment method offered by AliBaba, the online giant behind TaoBao, China's biggest online shopping site. As many people already use AliPay to pay for their online shopping, it is also convenient for some to use it for mobile purchases, including game content. As with direct carrier billing, AliPay is also not available for Apple services.

While carrier billing is relatively easy to use, the payment process is still not smooth enough for some games. NetEase Games estimates that 60 percent of users leave in the middle of the payment process, which can in some cases last for over 100 seconds. (Gamesindustry.biz, 2014)

Tencent's instant messaging app, WeChat, known as WeiXin within China, started including games in the summer of 2013 as a way to increase revenue. WeChat includes its own payment system, which is naturally used for WeChat games as well. In fact, in the last quarter of 2013 the App Store's top grossing chart was dominated by WeChat games. For additional information, check Chapter 3.2 WeChat. (TheNextWeb, 2014)

## 6 PUBLISHING A MOBILE GAME IN CHINA

Successfully publishing a mobile game in China is not an easy undertaking, but with good prior knowledge and a thorough plan, it is by no means impossible.

### 6.1 Localizing for China

Whether to localize your game for the Chinese market or not is really not a choice – you simply have to do it if you are actually serious about entering the Chinese market. Successfully localizing a game is not an easy task – even for a mobile game with minimal actual text. Attempting to Google-translate everything and calling it a "Chinese" version will not go well. Chinese players have grown accustomed to playing games in their own language and if the translations are off in a game, it might be funny at first but soon the players will abandon it for other games.

Keep in consideration that there are two widely used versions of the Chinese language; Simplified Chinese, used predominantly in Mainland China as well as Singapore, and Traditional Chinese, used mostly in Hong Kong, Taiwan and Macau. For the most part, the spoken language is the same whereas most of the characters are different. For Mainland China, Simplified Chinese is the language of choice for localization.

Localizing for the Chinese market requires a strong understanding of Chinese culture, which few Western people possess. Virtually all of the Chinese publishers who work with Western developers offer localization as part of their service, which makes it easier for Western companies. In essence, translating the game from English to Simplified Chinese is only a small part of actually localizing the game to suit Chinese tastes. Localizing can also involve removing or changing elements that would get the game banned by the Chinese government: politics, heavy violence, explicit sexual content and real money gambling.

The best game experience allows the user to really connect with the story and thus fully enjoy it. Common themes in Western titles, such as zombies, Dark Age –style knights or Tolkien-esque lore with elves and orcs, are not the kind of themes that Chinese players truly appreciate. The most popular themes for games, especially RPGs and adventure games, in-

volve the so-called "Three Kingdoms" era of Chinese history. This era was especially brutal and bloody – but makes for an apt premise for action or strategy games. Another extremely popular theme is Wuxia/Jianghu, which is a broad genre of Chinese martial arts fiction. Including Chinese cultural elements can also aid a lot in getting your game promoted or featured by websites, blogs or actual distribution channels.

Nowadays many developers organize some sort of in-game events for holidays, such as Christmas or Halloween. During holidays people usually have more free time to spend playing games and the extra, often time-limited, content can bring in extra revenue. In China though, people celebrate different holidays. That's not to say the Chinese players would not enjoy a Christmas event in the game, but the traditional Chinese holidays and festivals are the times when special in-game events should be organized.

The biggest Chinese holiday is the Spring Festival, also known as the Chinese New Year or Lunar New Year. The Spring Festival takes place usually around the end of January or beginning of February in the Western calendar. During this time people usually have a holiday of one to three weeks and many people return to their hometown to see their families. In some ways the festival is similar to Christmas in the West, with gifts being exchanged, delicious food eaten and time spent together with family and relatives.

The following image (Figure 18) shows Chinese publisher SkyMobi's statistics for when is the best time for promotions. The biggest peak is during the national holiday, which takes place during the first week of October.





Figure 18. Optimal times for promotions for mobile games in China. (SkyMobi via PocketGamer.biz, 2014)

Another popular holiday is the Mid-Autumn Festival, held on the 15th day of the eighth month of the Chinese calendar and usually occurs between early September and early October in the Western calendar. Rovio, the Finnish developer of Angry Birds, included the Mid-Autumn Festival in its Angry Birds Seasons pictured below (Figure 19).



Figure 19. Angry Birds Seasons Chinese Lunar Festival. (GamesInAsia 2011)

Rovio also sold Angry Birds –themed mooncakes pictured below (Figure 20). Mooncakes are a delicacy eaten specifically during the festival. This old festival originates from the Tang dynasty (618 - 907). Historically it centered around lunar worship for good luck and plentiful harvest. Nowadays mooncakes are offered between friends, colleagues and family members during the festival, which became an official public holiday in 2008. (Xinhua News, 2010



Figure 20. Angry Birds mooncakes. (ODMgroup, 2011)

The vast majority of the top games in China are localized, and fewer and fewer games with no Chinese language option have reached the top charts. Supercell's Clash of Clans reached commendable success even before Chinese language was added. The game was launched on August 2nd, 2012 and Chinese language support was only added in version 4.14 on May 23rd, 2013. Despite this, the game was still hovering around top 10 to top 20 of the top grossing chart on iOS during late 2012 and early 2013, according to AppAnnie analytics. After the localization was added, the game has basically cemented its position in the top 10 grossing, often even top 5 grossing of the Chinese Appstore.

The following graph (Figure 21) clearly shows the effect of adding Chinese localization to Clash of Clans, which Supercell did on May 23rd.

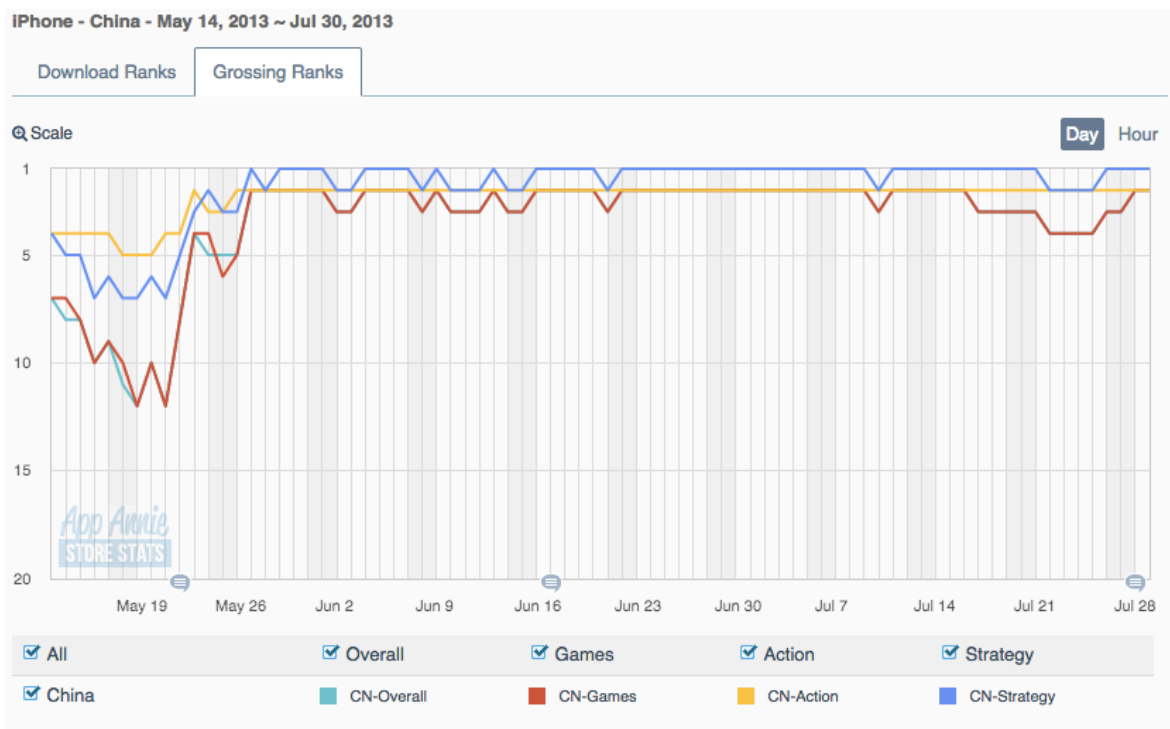


Figure 21. Clash of Clans grossing statistics before and after Chinese localization. (AppAnnie Analytics, 2014)

Localization for the Chinese market is not really the first thing you need to consider when still developing a game. It is normally best to decide to localize and enter the Chinese market only after your game has found success in the West, as quality localization can be rather expensive, not to mention the resources needed for the whole publishing process.

## 6.2 Appstores and Distribution Channels

For iOS, the Apple-curated Appstore is the main distribution channel. As mentioned earlier, only 65 % of all iOS installs come through the Appstore, the rest are through jailbroken or non-jailbroken 3rd party appstores.

As for Android, as mentioned before, Google Play is not available in China. This has spawned hundreds of appstores to fill the void. By now the market has consolidated enough that only a dozen or so appstores are meaningful. The most relevant appstores are 360 Mobile assistant, Tencent's MyApp, Baidu's mobile assistant, 91 Mobile assistant (91 Wireless),

Wandoujia, Xiaomi's MiUi Market, HiMarket, Anzhi Market and China Mobile's mobile application market. All in all, the top 20 stores get 80 % of the total downloads.

Qihoo 360 is the most popular antivirus software in China. The majority of users have the software on their PC, and it is also extremely widely adopted on mobile devices. They operate an Android appstore as well, with a coverage of 29 %, making it the most widely adopted Android appstore. According to appsasia, the revenue split between the developer and the 360 platform is the standard 70 % for the developer and 30 % for the platform holder. Naturally when working with a publisher, they will take their cut out of the 70 % as well. (NewZoo, 2014)

Tencent's MyApp is the Android appstore run by WeChat developer Tencent, with 24 % coverage amongst mobile phone owners, according to Newzoo's and SuperData's data. MyApp has become more widely adopted thanks to WeChat, as Tencent requires users to install WeChat games through its MyApp store. Back in March 2014, MyApp only had a coverage of 17 %, which means it has seen strong growth in only a few months. With WeChat still growing, it is likely that this growth will continue. For MyApp, the revenue split is 50 % for the developer and 50 % for Tencent, unless the game is published exclusively on Tencent's platforms, in which case the split is the standard: 70 % developer, 30 % platform holder.

Baidu is China's top search engine. The company has been slow to react to the emergence of mobile. It does, however, run the 3rd most widely adopted Android Appstore in Baidu Mobile Assistant, with 19 % coverage among users. The biggest perk for Baidu's Appstore is that they can show their own Appstore's links as the first search results when people are searching for an app or game. Baidu is the search engine of choice for 81.7 % of desktop users. In Baidu's case, the revenue share works as follows: For games with monthly revenues of up to 500,000 Chinese Yuan (roughly \$80,000), it is the industry standard 70 % for the developer, 30 % for the platform holder. If the game's monthly revenue exceeds 500,000 Chinese Yuan, the revenue split will be 50 % / 50 %. (China Internet Watch, 2014; Marbridge consulting, 2014)

The 91 Mobile Assistant, also known as 91 Wireless, has been adopted by 8 % of Chinese mobile device users. Baidu acquired NetDragon Websoft's subsidiary 91 Wireless in July of 2013 for \$1.9 billion as a way to strengthen its mobile Internet presence. The Baidu Mobile

Assistant and the 91 Mobile Assistant acquired by Baidu are both still run separately. (Bloomberg, 2013)

Included in Baidu's purchase of 91 Wireless, was HiMarket, another Android Appstore previously operated by NetDragon. HiMarket can be found on 8 % of Android smartphones in China. HiMarket is often pre-installed in so called grey market phones, bought tax-free from Hong Kong and smuggled into China for resale. (TechInAsia, 2014)

Wandoujia has been installed over 350 million times and its app offerings see 800,000 new installs each day in total. Wandoujia is found on 11 % of Chinese smartphones. It is attempting to offer – in the same vein as Google Play - other forms of entertainment besides apps and games, such as movies and books. For Wandoujia, the revenue share is 70 % for the developer and 30 % for Wandoujia for apps with monthly revenues below 500,000 Chinese Yuan (about \$80,000). For apps with over 500,000 Chinese Yuan in monthly revenues, the split will be 50 % / 50 %. (TechNode, 2014)

The MiUi appstore from Xiaomi comes preinstalled on all Xiaomi devices, although it is available for any Android device. As mentioned previously, Xiaomi is now the 1# smartphone manufacturer in China in terms of devices sold. The Xiaomi appstore covers 11 % of Chinese mobile users. For Xiaomi's platform, the revenue split is the standard 70 % for the developer, 30 % for Xiaomi. (TechNode, 2014)

Another significant party is the biggest mobile carrier, China Mobile, with its CMCC mobile application market included in phones sold by the operator. The China Mobile market reaches 4 % of the Chinese mobile phone users.

Anzhi was #4 in terms of downloads and traffic last year, but has been on a downward trend since then. Currently it covers 6 % of Chinese users. It is backed by the major Chinese online game publisher, Shanda Interactive Entertainment. Shanda previously focused on online PC games but has recently also been transitioning into mobile games.

Apart from the Appstores themselves, one very good but challenging option is to pursue a deal to get your game pre-installed on devices, either by device manufacturers or mobile carriers. For a Western developer without prior connections, it is not easy to land such a deal barring a big hit game, but many of the most well-known Chinese publishers are already in

co-operation with smartphone manufacturers or mobile carriers in China for potential pre-install deals. (InsideMobileApps, 2011)

In summary, the state of Android distribution is perhaps not as chaotic as one might come to believe when first hearing about "hundreds" of Android appstores in China. While there are roughly 200 stores, the top 20 or so are all that's realistically needed to reach the Chinese gamers. Still, the Android landscape differs greatly from the one we see in the West, but with a strong and well-connected Chinese partner, it is entirely possible to find success.

### 6.3 Finding a Publishing Partner in China

As mentioned several times already, a Chinese publishing partner is basically a must when entering the Chinese market. An indie developer might be able to find a bit of extra revenue simply by publishing their game onto some of the biggest Chinese appstores, but it is extremely rare to really make it big this way, and often you might not make any money at all. For a bigger company with longer-term plans for doing business on the Chinese market, a partner is needed. Another option is to establish a local office for Chinese operations and building connections yourself, as for example Rovio has done, but for your average company, it is not really a feasible first option.

Likely the best way to get in touch with these publishers for a "no-name" Western developer is - same as for Western publishers - attending game development conventions, such as Game Developers Conference (GDC) China or ChinaJoy. Of course, the publishers focused on Western games can also be found at game conferences in Europe or the U.S. Keep in mind that the publishers want to find quality Western games, so agreeing to the first deal offered is not a good idea. It is best to take it slow and talk with as many publishers as possible, to see what kind of deals they are offering and how much interest there is for your game.

Working only via online-means, it is of course also possible to land a deal. Meeting face-to-face where you can just hand them a device with your game to test right away is simply a much more convenient process. Within a minute they can probably tell if the game has potential on the Chinese market. Getting a publishers attention with an email is a lot harder,

and the presumably Chinese recipient's English might not be that good. In any case, having a game that's already seen at least some success in the West is a good foundation.

#### 6.4 Evaluating a Potential Partner

Arguably the trickiest part of finding a partner is evaluating whether or not they can be trusted. How can you evaluate a publisher who comes to you and says they want to publish your game in China? The mobile boom has spawned a massive amount of start-ups and would-be's from honest to dishonest to those downright stealing and scamming. Especially for a gullible Finnish developer, it is surprisingly easy to believe when a Chinese publisher comes to you with an offer to publish your game while saying they've already published "Fruit Ninja" and "Tiny Wings" with over 20 million downloads in total.

How, then, can you verify what they're saying is true and trust them as a partner? A good starting point is to find out if they've already worked with Western developers, and asking those developers for their experiences. If they've had good experiences, it is most likely safe to work with said publisher.

While it might sound like a big thing to do, visiting the publisher's office and seeing them at work is a good idea if you are really serious about launching in China. This should give you a pretty good idea of what kind of a company you are dealing with. If it is simply someone trying to steal your game and sell it on, they probably will not even be open to a visit. Testing out their appstore and/or other published games on a device (or just using your own device to find and test them) is also a good idea – just to check that the games they claim to have published are actually out there and published by them.

Another suggestion that an honest partner should be open to is doing a test launch for a month or so. This also allows you get some important insight into the market from the analytics and data gathered. Such a test launch could of course give dishonest publishers the chance to steal your game so caution is advised.

## 6.5 Well-known and Established Publishers

The most successful and best-established publishers of Western games are: iDreamSky, TalkWeb, Yodo1 and Chukong Technologies (CocoaChina).

The top Chinese publisher of Western games is iDreamSky, which had its \$115.5 million initial public offering (IPO) in the US stock market on August 7th, 2014. They claimed to have 110 million MAU's in July 2014 and offered 40 games in total. In 2013, 85 % of the company's revenue came from just three hit games: the Temple Run series, Fruit Ninja and Subway Surfers – big earlier Western hits. iDreamSky's IPO and status in general is boosted by strong connections with Tencent and future potential publishing deals on WeChat. iDreamSky's business model is basically to license a Western game, and to develop and customize it to suit the Chinese market, giving the original developers a share of the revenue. Basically, iDreamSky claims to take care of virtually everything from localization to payment methods to optimizing monetization for the Chinese market as well as adding Chinese payment, appstore-specific and advertising SDK's. All this of course requires the game developer to hand over all their source code for the game. The revenue split starts from the standard 70-30 with the majority going to the developer, but for more successful titles it will be about 50-50. For a lesser-known mobile game developer, it is probably tough to get a deal with iDreamSky, as they seem to be focusing on high quality games, most of which have already become hits in the West. (iDreamSky, 2014; MarketWatch, 2014; Forbes, 2014; VentureBeat, 2014)

TalkWeb, or more precisely its US publishing division Spellgun has been also relatively successful. TalkWeb itself is a leading mobile e-commerce application provider in China. Together with Concept Art House, it started Spellgun to aid US-based developers in launching their games in China. Presumably it is available for non-US developers as well, as the top two games they publish in China currently are Angry Birds as well as PopCap's (EA) Plants vs. Zombies 2. The original Plants vs. Zombies game was a big hit in China, but heavily pirated and thus did not see significant revenues. After some initial troubles and lots of 1 and 2 star reviews causing the overall rating of the game to plummet, Plants vs. Zombies 2 has also found success in China and is now doing well. (GDCVault, 2013; VentureBeat, 2014)

Yodo1 has published, among others, Cut the Rope: Time Travel and Ski Safari in China. According to Yodo1, Ski Safari was originally bringing in only about \$69 per day in China, pri-



or to localization, and had been downloaded about 35,000 times. Following extensive localization and distribution efforts, as well as re-working the game's monetization to fit the Chinese market, the game now has over 25 million downloads in total, with an average of 250,000 downloads per day, as well as a daily average revenue of \$15,500 when factoring in both Android and iOS in China. Yodo1's operates its service as a revenue share model, with the split depending on how much work is needed for localization, etc. (Gamasutra, 2013; InsideMobileApps, 2012)

Chukong, also known as CocoaChina, is another publisher that has seen some success, though mostly from its own Fishing Joy franchise. On July 25th, 2013 Chukong announced a partnership with Gameloft to publish Asphalt 8 and Dungeon Hunter 4 in China. They are also partnered with Ubisoft, Disney and Konami, among other reputable companies. For Disney, they've published the Where's My Water series. CocoaChina is also behind the popular Cocos2d-x game engine, used mostly for mobile games and apps. (Chukong, 2013; Chukong, 2014; GamesIndustry.biz, 2013)

## 6.6 User Acquisition

In terms of user acquisition, it seems that having a game that is based on a known IP is important, and IP's are now being taken more seriously in China. According to 360's Chinese market report, based on data collected from 500 million active users of their antivirus app, you can see up to 2.4 times more downloads when your game is based on a known IP. With an existing fan base, for example in the case of a Hollywood film IP, the user acquisition is much easier and cheaper, and these kinds of IPs generally appeal strongly to the casual mobile gamer audience. Holding a popular IP also offers better chances for promotional partnerships. According to Umeng's 2013 Chinese market report, 2013 was in fact the first year when Chinese developers took officially licensed IPs seriously, and many licensed the IP rights from their owners. Out of the top 100 games in December 2013, 20 % had 3rd party licenses, increasing from 13 % in June 2013. Another beneficial aspect of having a known IP is that the fans are potentially easier to monetize, as they are already at least somewhat emotionally invested in the IP. (360, 2014; Reuters, 2014; HitCents, 2014; Umeng, 2014)

According to 360's report, the CPI (cost per install) on Android was ¥6 (\$1.00) in the second half of 2013, but increased by 33.34 % to ¥8 (\$1.30) in the first half of 2014. The

competition is getting more and more fierce, and retaining existing users is becoming more important than before.

For iOS, the CPI went down from ¥25 (\$4.07) in the second half of 2013 to ¥20 (\$3.26) in the first half of 2014. This marks a decline of 20 %, yet it still remains far higher than the CPI on Android.

Needless to say, having an inherently social game that can seamlessly integrate social networks to boost virality can help tremendously in getting new users. The key social networks are WeChat, QQZone, Sina Weibo, Tencent Weibo, Youku Tudou, Douban and Renren. Douban, Renren and QQZone are more traditional social networks similar to Facebook. Sina Weibo and Tencent Weibo resemble Twitter and WeChat is closer to WhatsApp, when looking for rough Western equivalents. Douban also owns China's #1 online radio station. For online videos, Youku Tudou is the market leader. According to Umeng's Chinese market report for 2013, 48 % of all shared content on social networks come from games. The actual social functions utilized are largely the same as with the Western networks, but the Chinese ones must be integrated instead because the Western equivalents are all blocked. (Umeng, 2014; NewZoo, 2014)

Overall, Chinese developers spend proportionately bigger chunks of their budgets on user acquisition and the marketing of their apps. According to Appflood's network metrics, Chinese advertisers overtook US ones in mobile ad spending in the third quarter of 2013. In fact, they spent 25 % more than US developers, though a lot of their spending has been in emerging markets such as the Middle East and Asia. This includes apps of all kinds, not only games. Acquisition costs in China are still significantly lower than in the West, but the ever fiercer competition is driving up costs. In most cases, the act of acquiring users of course falls on the Chinese publishing partner, as navigating the complex environment without local presence, existing networks and connections is nearly impossible. (Gamasutra 2014)

## 6.7 Piracy and Copycats

China is notorious for essentially all kinds of pirated products, not only games. For mobile games today, piracy is still a widespread issue, but with the free-to-play business model, it is no longer grounds for forgoing the Chinese market altogether. The top publishers provide

assistance in combating pirated products, and can go so far as to work with distribution channels to replace the pirated version of the game so that when users update to the latest version, they effectively change from the pirated copy to the real one. (Yodo1, 2012)

iDreamSky has adopted a model where, from the get-go, they work with basically all the appstores out there even if the revenue from them is negligible, because this disincentivizes those small stores from distributing any pirated copies of the games in the first place. They also include their own SDK in games they publish, which among other things includes anti-piracy technology. (VentureBeat, 2014)

Some pirate appstores apparently inject malware into their games, which installs other apps on the user's device without their knowledge, thereby bringing up the total download numbers. These fake installs are then sold as new users. Most successful Western apps can usually be found in China on pirate appstores even if the developer has made zero effort to enter the Chinese market. (TechNode, 2014; ReadWrite, 2013)

Copycatting – in other words developing your own version of someone else's game, is still commonplace in China. The same happens in the West of course – if someone creates a very successful product, others will imitate it and perhaps try to give their own take on it. In China though, it is rarely the case of "drawing inspiration" from a popular product. In most cases it is blatant copying.

A relatively recent example of copycatting is that of Blizzard's Hearthstone: Heroes of Warcraft. Reportedly, a team of only two Chinese developers created their own iPad version of Hearthstone, named "The Legend of the Crouching Dragon" in only 20 days. Back then, the PC version of Hearthstone was still in Closed Beta, and no launch date had been announced for the iPad or Android tablet versions. The game mechanics were exactly the same, but they had changed the artwork of all the cards and heroes to a "Three Kingdoms" style. Blizzard and their Chinese publishing partner, NetEase, sued the Chinese developer, Unico Interactive for copyright infringement for ¥10 million (\$1.65 million). It appears no resolution has been reached in the case yet. (2P.com; Gamesindustry.biz, 2014)

Of course, any very successful mobile game will spawn copycats – especially the relatively simple casual games, such as Angry Birds or Fruit Ninja. Usually the best way to fight off these types of copycats is to simply have a more polished, higher quality game with a better user experience as well as frequent updates. (CocoaChina, 2013; TechCrunch, 2011)

## 7 SUMMARY AND ANALYSIS

The Chinese mobile game market calls for a unique approach. Entry as a Western developer is tough, and a Chinese partner with strong connections and local experience and expertise is a necessity, but does not guarantee success in any way. 2014 is the year the market is really exploding with growth, and the opportunities are tremendous. The huge mobile boom has resulted in most Chinese developers diverting their attention to mobile games, not to mention all the Western developers looking for their slice of the pie.

The average Chinese people have more and more money to spend, and a smartphone is one of the key items everyone wants to have. As a result, more and more new gamers are entering the market and possibly getting their first real gaming experiences on mobile phones. Due to this, simple games are seeing the most success and the overall complexity of games is lower than in the West, where the mobile gamers have slightly more advanced tastes. On the other hand, recent trends in China especially on iOS are showing more mid-core and even hardcore games such as MMORPGs doing well. There are simply so many potential customers of different types and with different preferences that the download volume potential even for a niche product of high quality is relatively good.

The market is changing extremely quickly and the companies who are first to adapt will triumph. Local Chinese developers have a clear advantage in this regard, but it does not mean that a Western developer could not significantly boost their revenues by investing resources into a proper launch on the Chinese market.

For me the biggest challenge when working on this thesis was finding up-to-date information especially in the English language. There are some helpful reports and publications available, but they can grow outdated in a matter of a few months. Books would not be a viable form of information even if they existed, because they would be outdated before they got into the hands of readers. Good Chinese reports and data is surely available, but Google Translate can only do so much, and while I had some help from some of my Chinese friends I still had to rely mostly on information found in English, which is a shame. Deeper research into Chinese reports and their data would be very interesting but hopefully I managed to provide useful information to anyone simply curious about the Chinese market or companies actually looking to enter China – in which case I can only say: Good luck!

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