Mobile Internet

Development Trends Report

2015 Spring Festival Edition

Baidu移动

Baidu Mobile Services Group

& Baidu Business Analysis Dept.

Overview

- The *Mobile Internet Development Trends Report* is based on statistics provided by Baidu Mobile Search, Baidu Mobile Assistant, Baidu Mobile Statistics, and other related data mining. It provides data-based insight into major trends of the mobile Internet in China.
- The Report consists of two parts: a review of the Mobile Internet market in 2014, and insight into behavior of people born after 2000—the "Post-Millennials"

Part I: Review of the Mobile Internet Market in 2014

1. The China smartphone market and competition among manufacturers
2. The Return of the King: leadership in Chinese mobile search
3. The old structure of BAT and the new battlefield

Part II: Insight into the Behavior of Post-Millennials Related to Mobile Internet Services

4. Behaviors of existing and Post-Millennial mobile Internet users
5. Ten characteristics of Post-Millennial Internet users

Part I

Review of the Mobile Internet Market in 2014

1. The Chinese smartphone market and competition among manufacturers
2. The Return of the King: Leadership in Chinese Mobile Search
3. The old structure of BAT and the new battlefield

1. The Chinese smartphone market and competition among manufacturers

- Smartphone market
- Competitive landscape for manufacturers

Key Points >

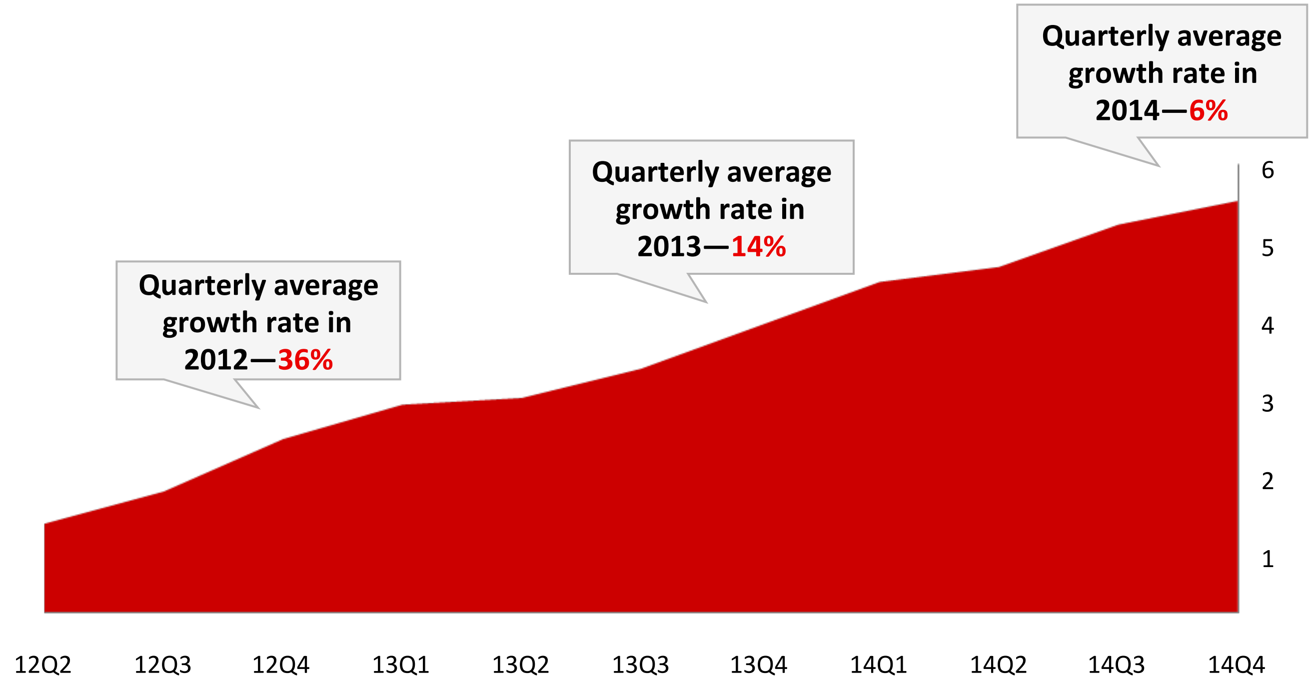
1. Smartphone market :

- Growth of the smartphone market slowed conspicuously in 2014. The benefits from the growing active user base are expected to end in 2015.
- Smartphone user scale and usage activity far outweigh that of tablets. Tablet devices are mainly used for entertainment.

2. Competition among manufacturers:

- In 2014, Apple won over a number of high-end Android users and grew its market share with the launch of the large-screen iPhone 6
- In 2014, domestic Android manufacturers showed robust growth, while the market growth of international smartphone manufacturers such as Samsung has been declining.

1.1 The smartphone market* slowed in 2014. Benefits from the growing active user base are expected to end in 2015.



Smartphones account for 91% of the total number of Internet-connected Phones*

Figure 1 : The scale of the smartphone market

(number of daily active smartphones)

(12Q2 – 14Q4, unit： 0.1 billion)

* **Smartphone market** refers to the number of daily active smartphones (connecting to the Internet at least once a day) out of the total smartphone market.

* **Internet-connected phones** refers to daily active devices (connecting to the Internet at least once a day) out of the total market of all types of mobile phones (including feature phones)

1.2 Smartphone user scale and usage activity far outweigh that of tablet users. Tablet devices are mainly used for entertainment.

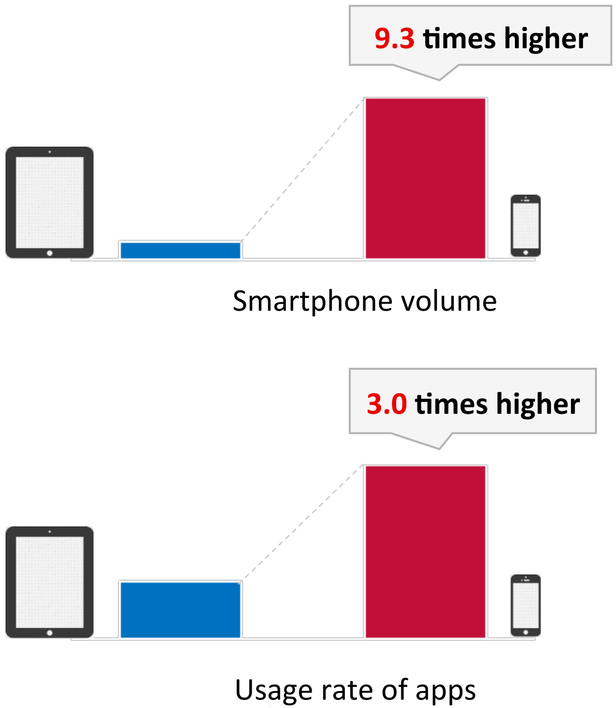


Figure 2: Comparison of smartphone volume and usage rate of apps between tablet and smartphone (14Q4, unit: 0.1 billion, %)

Top 3 app types for tablet users | Top 3 app types for smartphone users

1.3

In 2014, the iPhone 6 won over a number of high-end Android users, and domestic Android manufacturers grew market share.

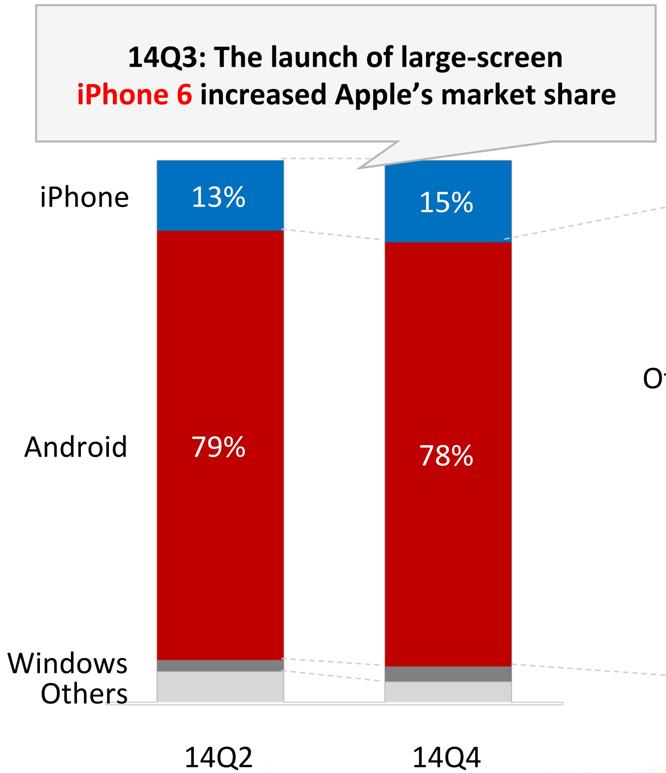


Figure 3: Device volume of different operating systems in the total smartphone market

(14Q2 vs 14Q4)

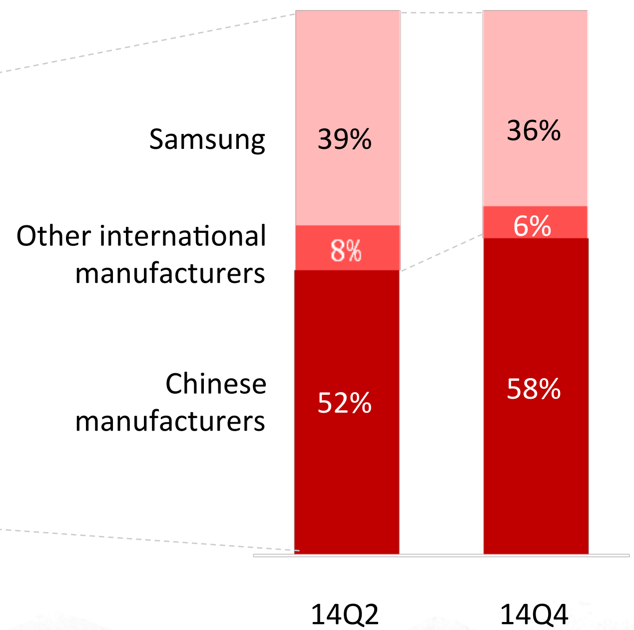


Figure 4: Market share of Android manufacturers in the total smartphone market

(14Q2 vs 14Q4)

2. Leadership in Chinese mobile search

- Search’s importance as a gateway
- Search traffic trends

Key Points >

1. Search’s importance as a gateway:

◆ Mobile search apps are the second most widely used apps after social messaging apps.

◆ Mobile and PC search developed along similar lines—but mobile has grown faster.

◆ Demand for mobile search is robust, with the average number of searches per user steadily increasing.

2. Search traffic trends:

◆ Baidu has a nearly 80% traffic market share in mobile search, covering 90% of total mobile users.

◆ Baidu mobile traffic has surpassed the PC traffic even as PC traffic has increased. Baidu embraces a new mobile age.

2.1 Mobile search apps are the second most widely used apps after social messaging.

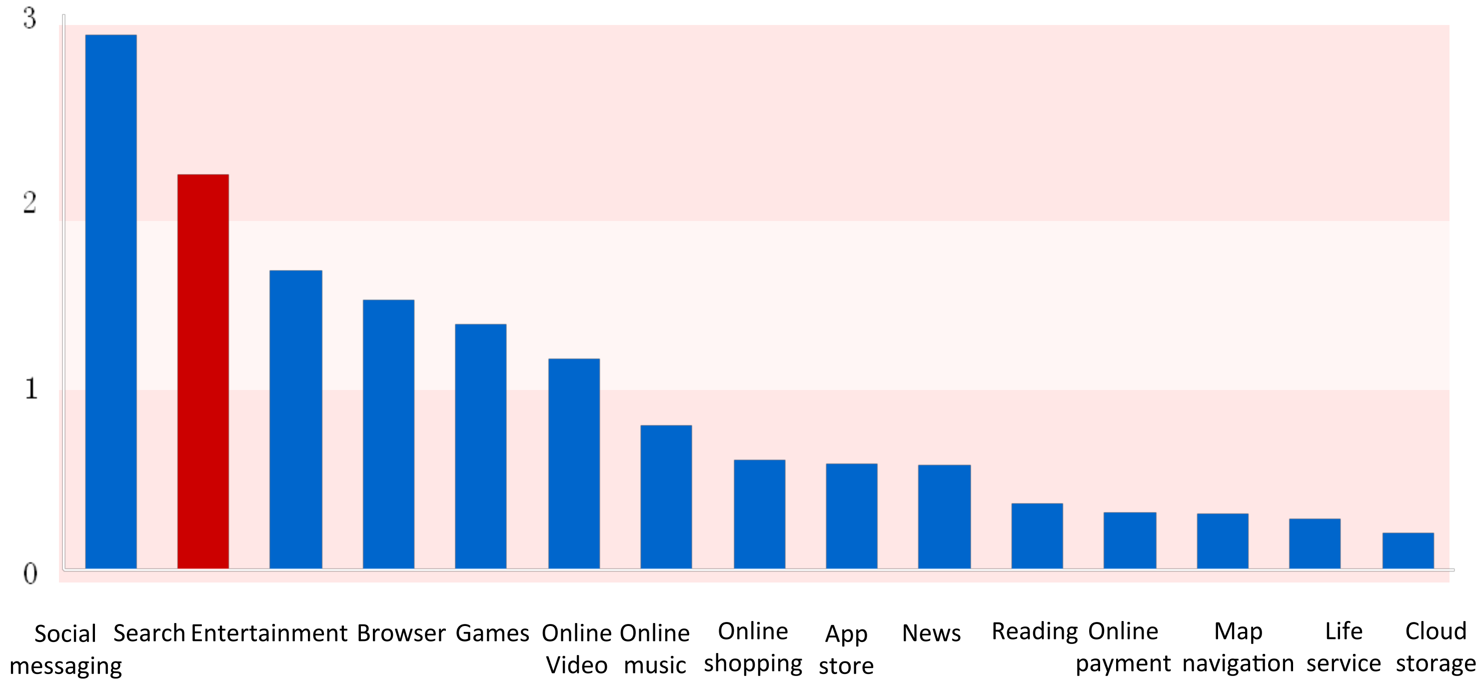


Figure 5: DAU of apps by type

(14Q4, unit: 0.1 billion)

2.2 Mobile and PC search developed along similar lines—but mobile has grown faster.

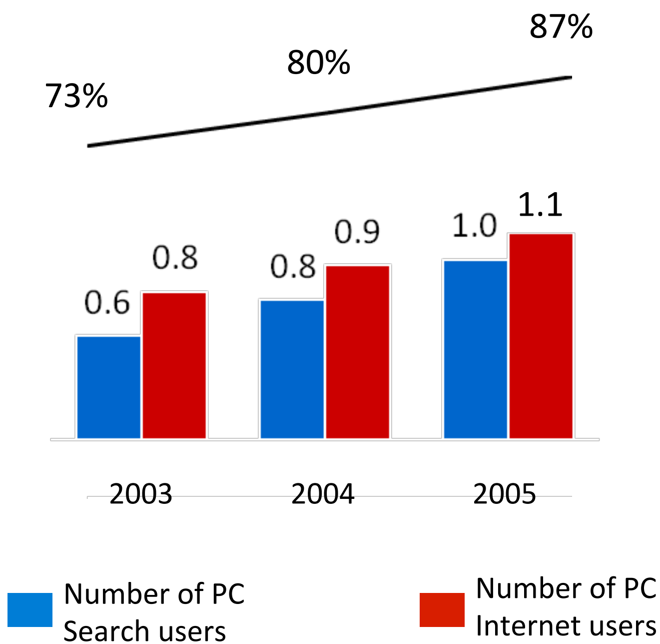


Figure 6: PC search users/percentage of total PC Internet users (2003-2005, unit: 0.1 billion)

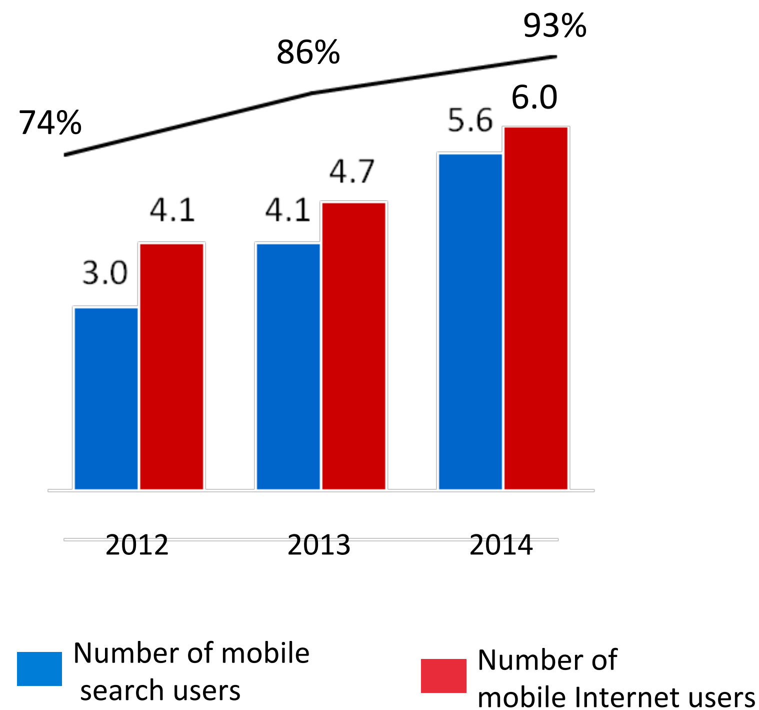


Figure 7 : Mobile search users/percentage of total mobile Internet users (2012-2014, unit: 0.1 billion)

2.3 Demand for mobile search is robust, with the average number of searches per user growing steadily.

Over the last 3 years, the number of mobile searches per user per day has increased by

↑ 47%

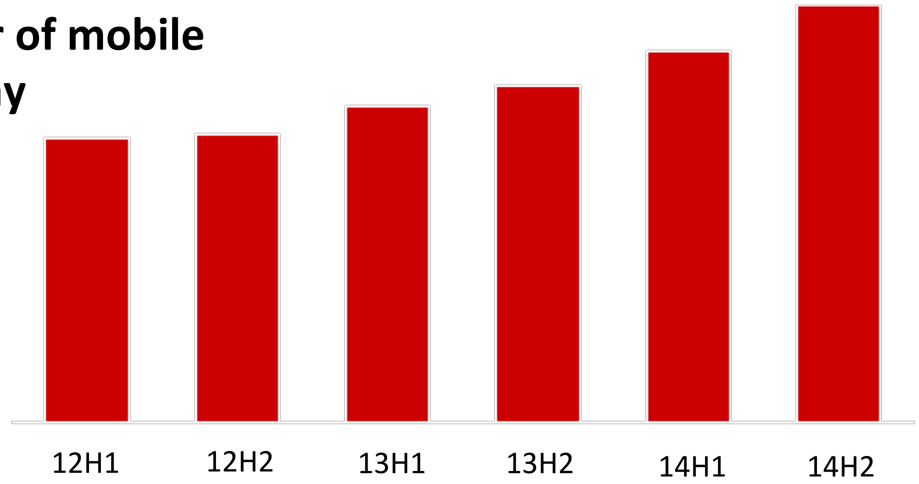


Figure 8: Mobile searches per user per day on Baidu Search (12H1 – 14H2)

2.4 Baidu has a nearly 80% traffic market share in mobile search, covering 90% of total mobile users.

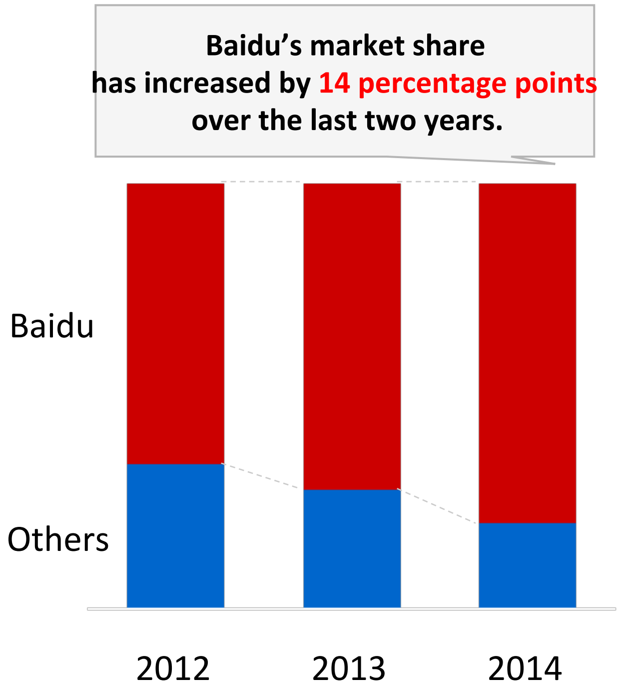


Figure 9: Baidu Mobile Search market share (2012-2014)

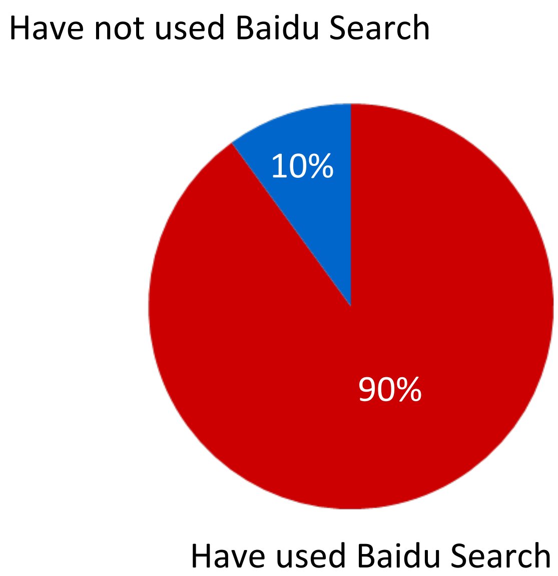


Figure 10: Percentage of mobile users who have/ have not used Baidu Mobile Search (14Q4)

2.5 Mobile traffic surpassed PC traffic: Baidu embraces a new Mobile Age

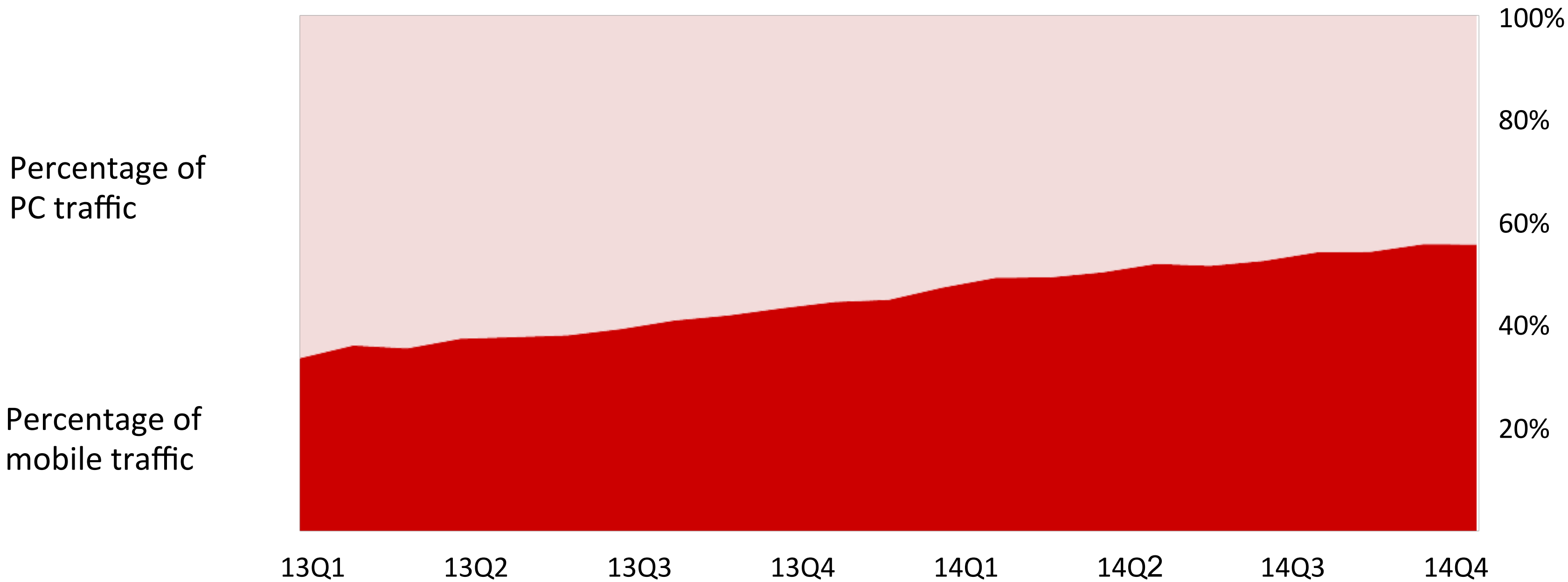


Figure 11: Baidu PC and mobile search traffic composition

(13Q1 - 14Q4, unit: %)

3. The old structure of BAT and the new battlefield

- Old structure
- New battlefield

Key Points >

1. Old structure:

- The Top 3 apps take 70% of user market share in most verticals.
- 17 out of the top 20 mobile apps are developed by BAT. Baidu, Alibaba and Tencent are showing an even stronger presence in mobile than they did in PC.
- BAT hold an even stronger presence in mobile than PC, taking 60% of time spent on mobile devices.

2. New battlefield:

- BAT have started a new battle with their “super platform apps”, aiming to “connect people with services.”
- BAT’s “super platform apps” cover most high-frequency lifestyle services.
- Users prefer using a “super platform app” to look for services, rather than installing individual apps that offer a singular service.
- Baidu is well-positioned in lifestyle services, connecting people with offline services.

3.1 The top 3 apps take 70% of user market share in most verticals.

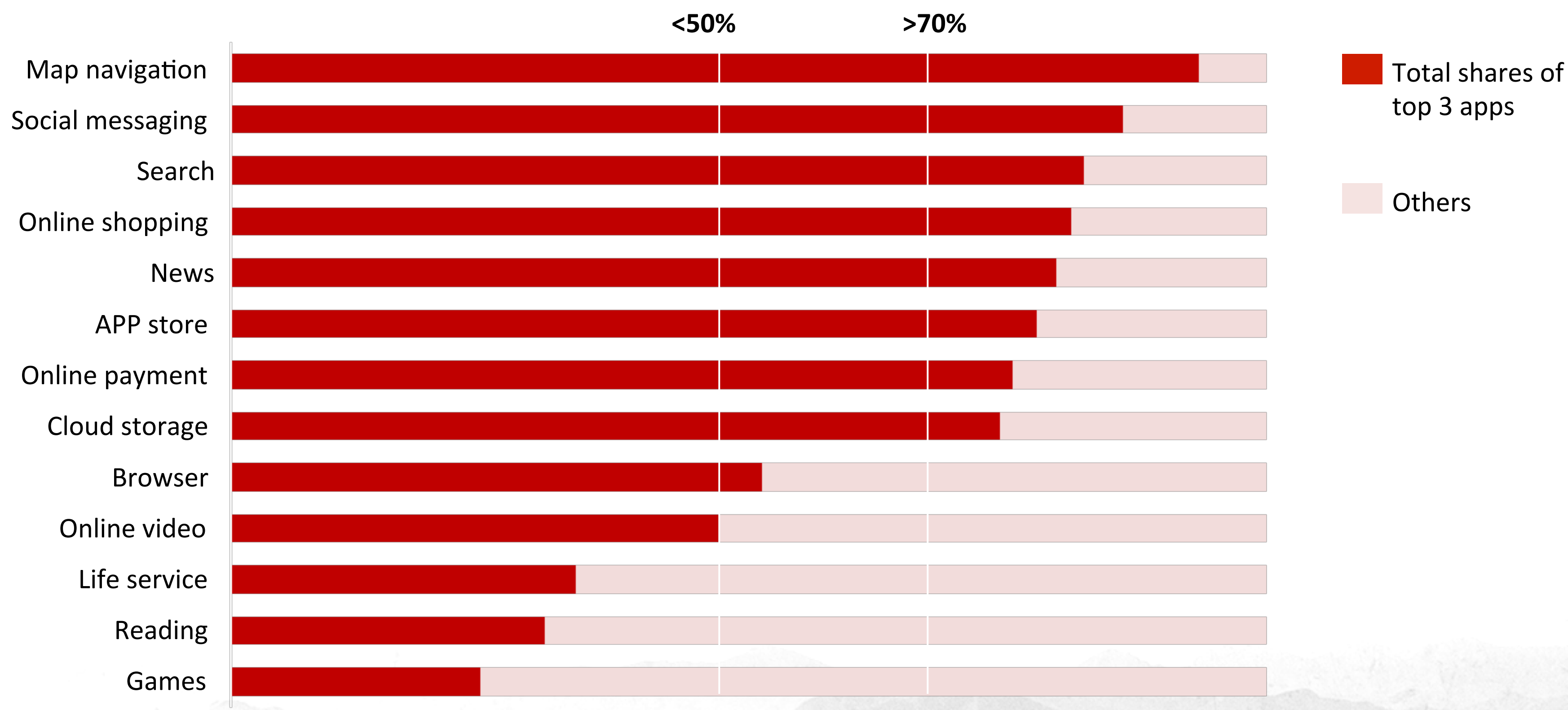


Figure 12: User market share of the top 3 apps in each vertical

(14Q4, unit: %)

3.2 The rise and fall of apps in 2014

Figure 13 The Top 5 fastest growing and the most quickly declining apps in 2014 (by DAU)

3.3 17 out of the top 20 mobile apps are developed by BAT. Baidu, Alibaba and Tencent have a stronger presence in mobile than PC.

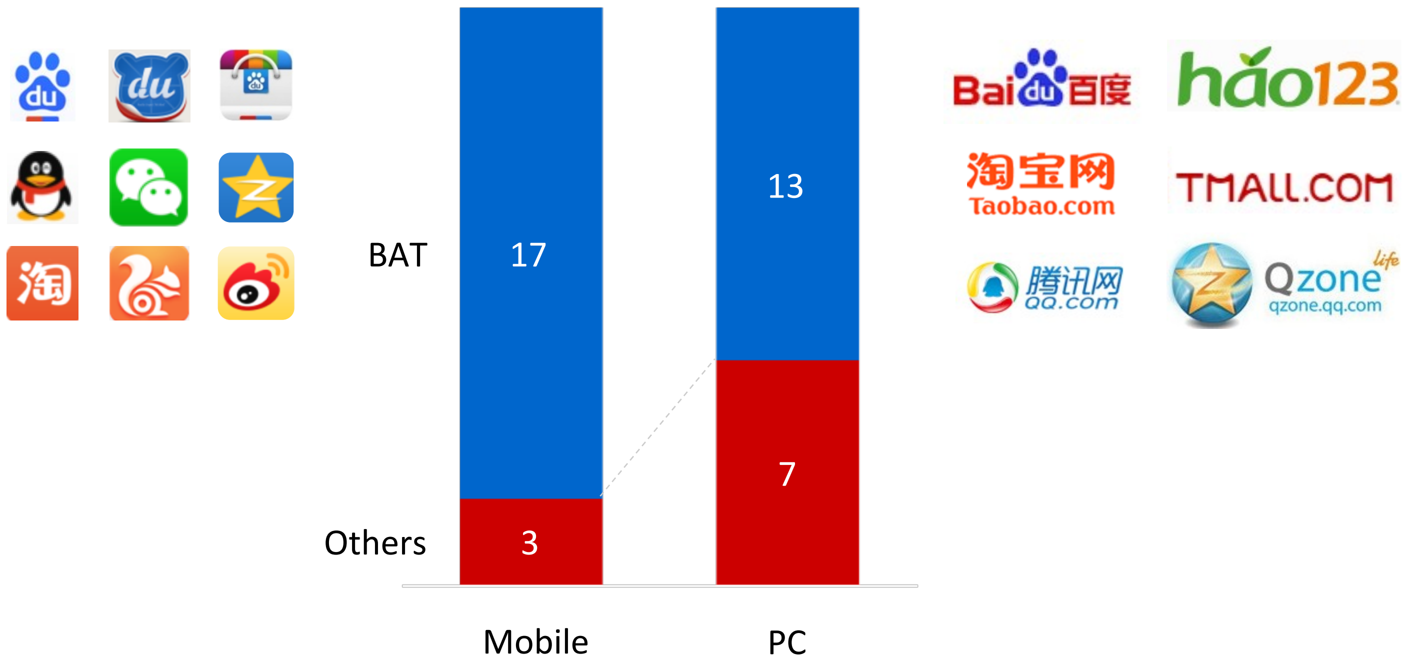


Figure 14: Top 20 mobile apps and PC websites
(by number of users)
(14Q4)

* BAT refers to three Internet companies in China—Baidu, Alibaba, Tencent.

3.4

BAT hold an even stronger presence in mobile than PC, taking 60% of time spent on mobile devices.

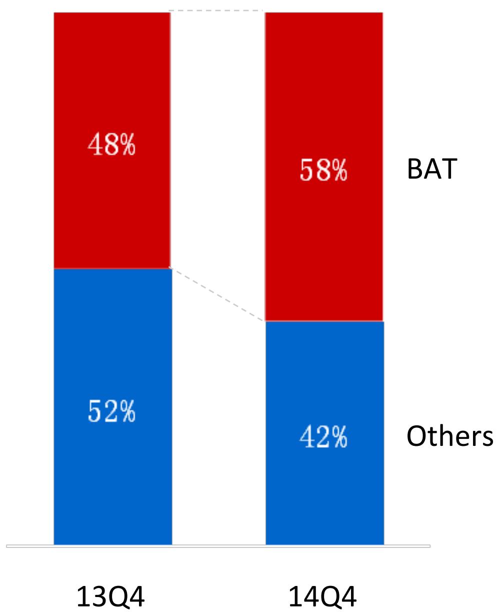


Figure15: User time spent on BAT mobile products (13Q4 vs 14Q4)

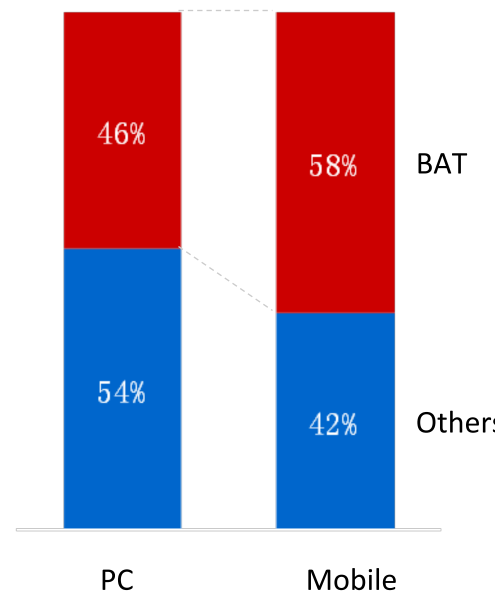


Figure 16 User time spent on BAT PC/mobile products (14Q4)

3.5 After a round of user acquisition competition, BAT accelerated monetizing their mobile business and started looking for new market opportunities.

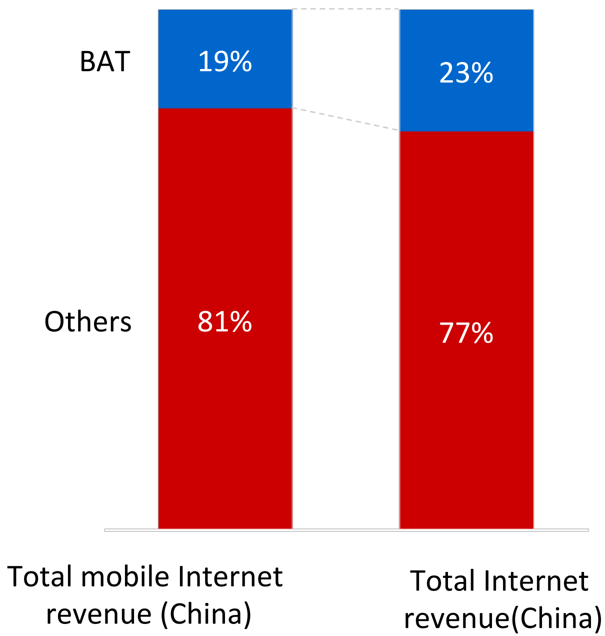


Figure 17: BAT revenue shares comparison (14Q4)

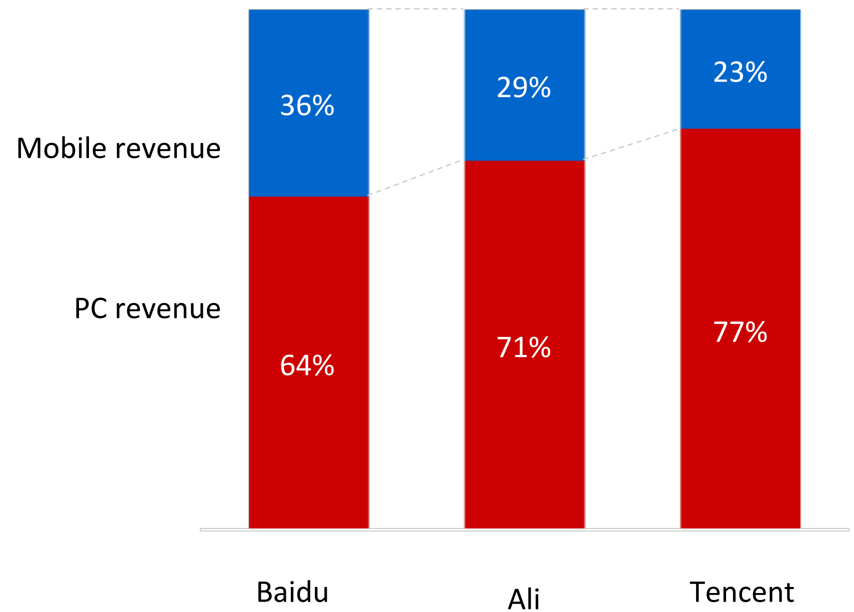


Figure 18: BAT mobile revenue contribution (14Q3)

* **Sources**： Baidu, Alibaba, and Tencent financial reports

3.6 The next battlefield: BAT "super platform apps." The three companies are striving to connect people with offline services.

Mobile Baidu

Taobao

WeChat

3.7 All high-frequency life services have been covered by BAT "super platform apps".

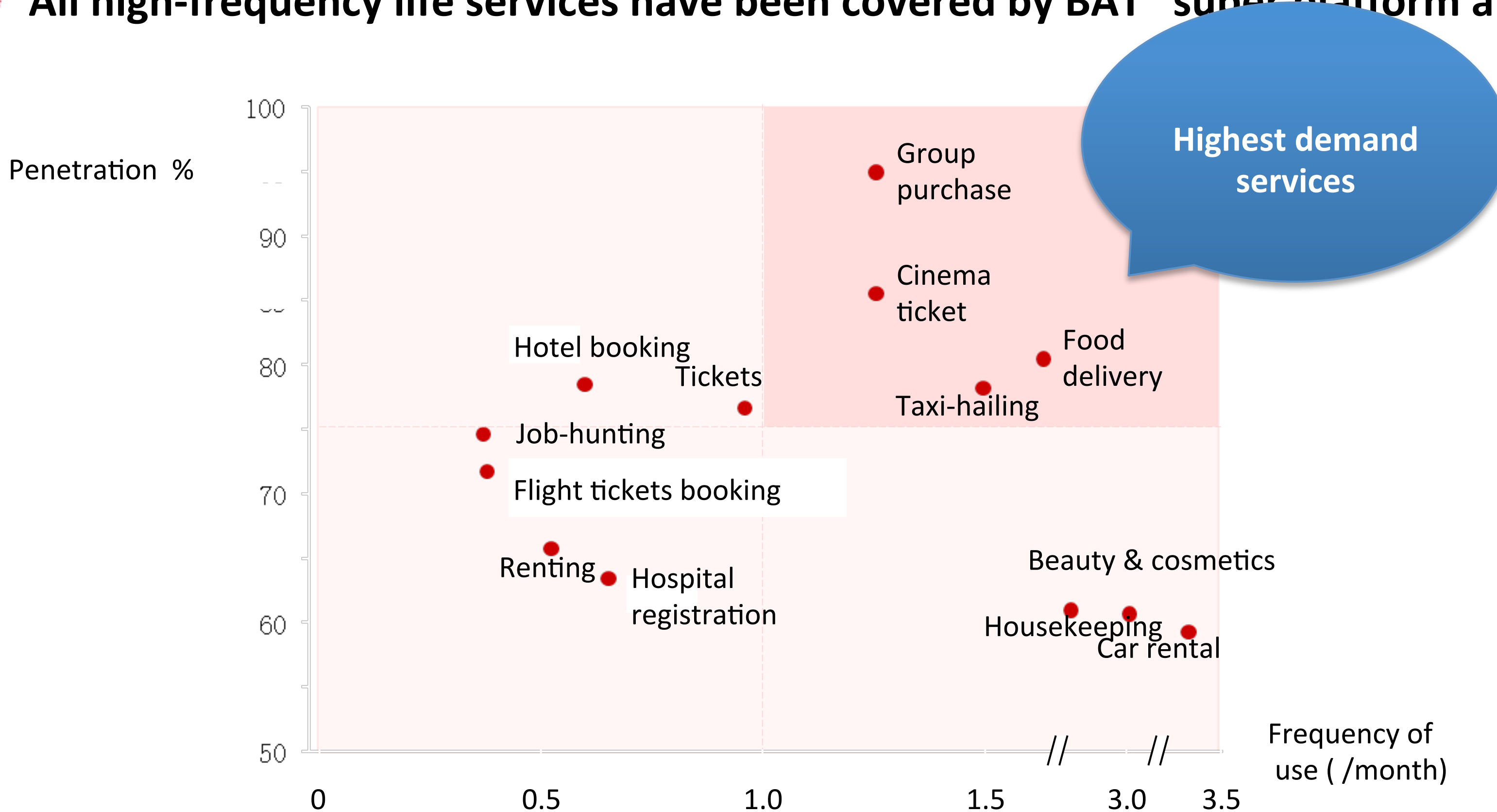


Figure 19: Penetration* and frequency* of use of life services provided by mobile apps (14Q4)

- **Penetration** refers to the percentage of mobile Internet users who have used a particular service.
- **Frequency of use** is how frequent a user uses a particular service.

3.8 Users are more open to consume online on mobile devices than on PCs, particularly for life services.

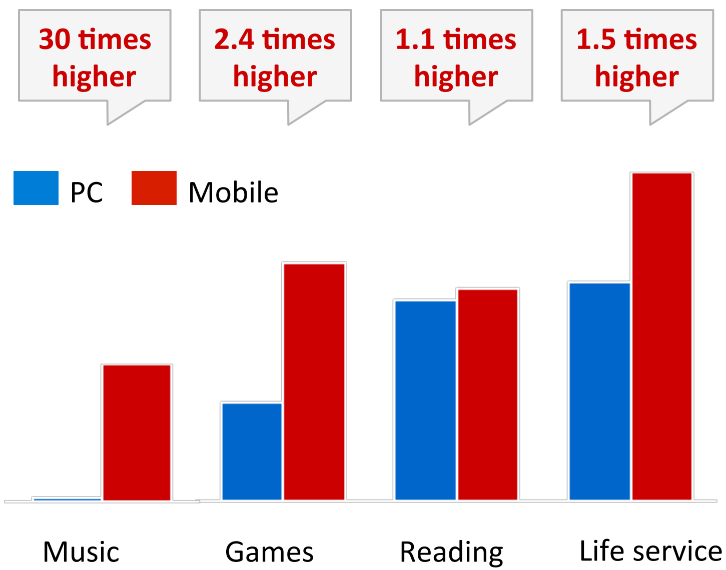


Figure 20: Openness to pay on PC vs. mobile (14Q4)

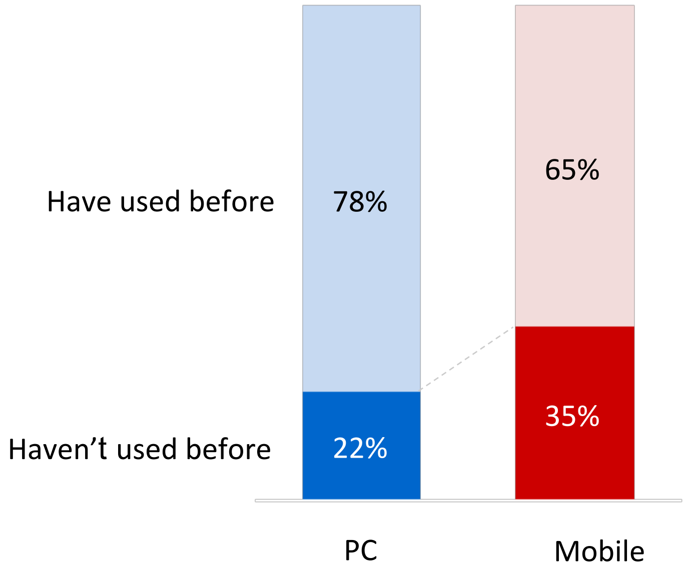


Figure 21: Percentage of users who have/have not used life services on PC/mobile end (14Q4)

3.9

Users are more willing to search on BAT "super platform apps" for different life services, rather than installing individual apps that provide a singular service.

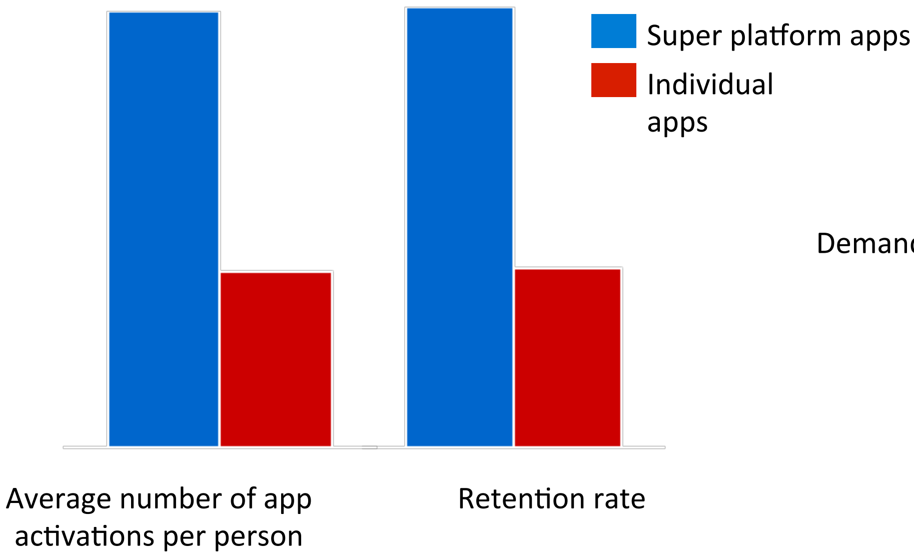


Figure 22: Super platform apps vs. Individual apps (14Q4)

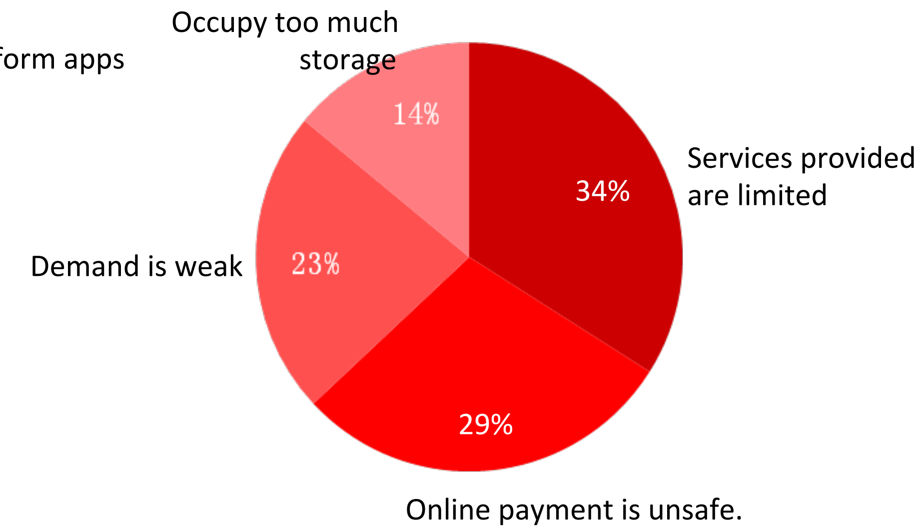


Figure 23: Why users choose super platform apps over individual apps (14Q4)

3.10

Baidu is well-positioned in lifestyle services, connecting people with offline services.

App

Users' demands for various life services

- Group buy
- Food delivery
- Movie tickets
- Taxi-hailing
- Hotel booking
- Scenic spot tickets
- Flight tickets
- Car renting
- Show tickets
- ……

Mobile Baidu & Baidu Connect

Multiple life service Clients

……

Baidu's life service resources

- Merchants
- Third-party platforms
- Value-added service providers
- ……

3.11 **Baidu Connect has become a popular service among tourists, who can buy tickets to scenic spots by typing @ and the name of a destination into Mobile Baidu search app.**

Part II

Chinese Post-Millennial Mobile Behavior

4. Set behaviors of existing users and emergence of Post-Millennials

5. User behavior of Post-Millennials

4. Set behaviors of existing users and emergence of Post-Millennials

- Set behaviors of existing users
- Drastic change in user base structure

Key Points>

1. **Existing users' behaviors are set:**

◆ Replacing old phones with new ones was the driving factor of sales in smartphone. New user purchases only account for 30% of the total sales of smartphones.

◆ No significant differences observed in activities of existing users before and after their phone replacement—which means their behavior is approaching stasis.

2. **Drastic change in the structure of new smartphone user base:**

◆ New user base structure is different, with elderly and young users growing faster.

◆ Users born after 2000 are much more active than those born in the 1950s. The Post-Millennials will become the major force in the future mobile Internet.

4.1

Replacing old phones with new ones was the major factor driving smartphone sales in 2014. New user purchases only account for 30% of the total sales.

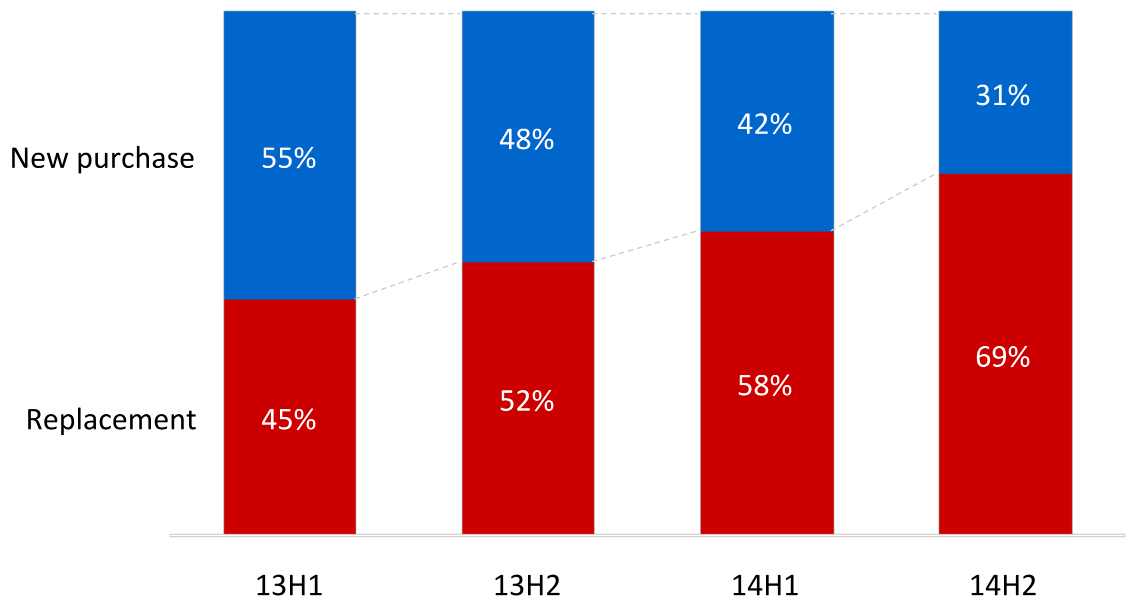


Figure 24: New purchases vs. old phone replacement in China, 2014 (13H1 – 14H2)

4.2

No significant difference observed in activities of existing users before and after phone replacement: behavior is approaching stasis.

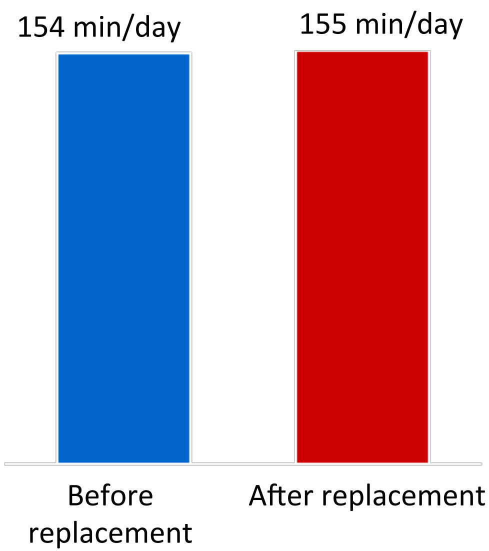


Figure 25: User time spent on mobile devices before and after phone replacement
(14Q4)

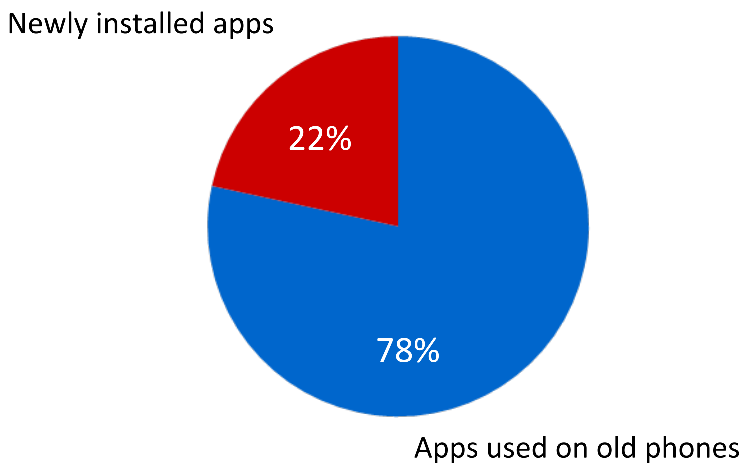


Figure 26: Installation of apps before and after phone replacement
(14Q4)

***The time that users spend on mobile devices** refers to the accumulated time that the smartphone users spend on all kinds of apps in a day, excluding the time on text messages and phone calls.

4.3 New user base structure is different, with elderly and young users growing faster.

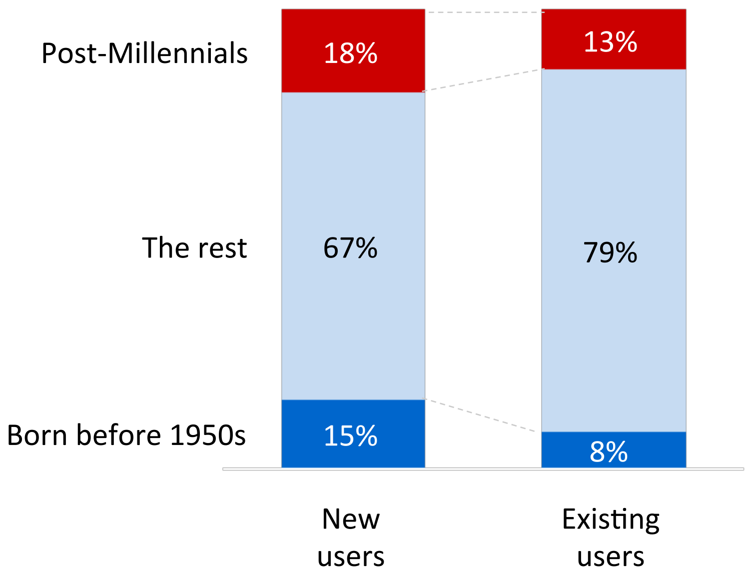


Figure 27: Age groups of smartphone users (14Q4)

Post-Millennials are mostly children age 6 to 15. They are students from Grade 1 to Grade 9, with an average age of 12.

* **Post-Millennial users** refer to children under 14 years old, while **users born before 1950s** are people beyond 65 years old.

4.4

Users born after 2000 are much more active than those born before 1950. The post-2000s will become the main force in the future mobile Internet.

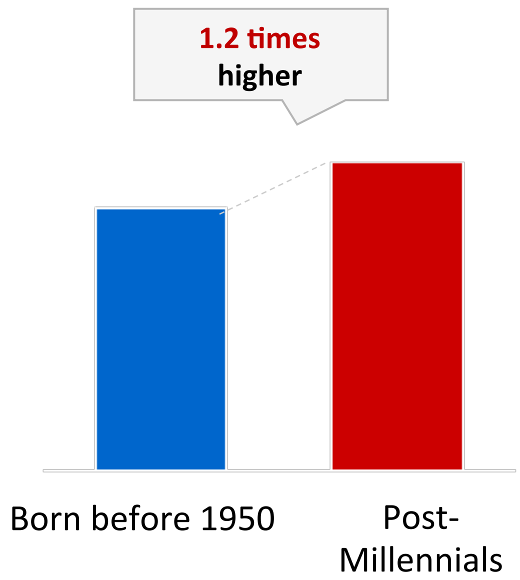


Figure 28: Average time spent on smartphones (14Q4)

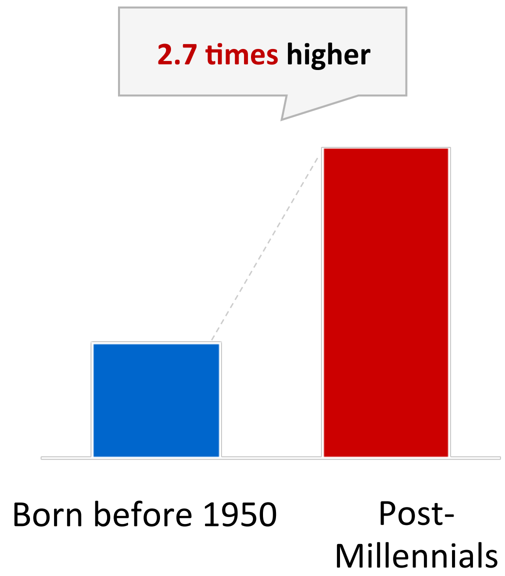


Figure 29: Average number of app downloads (14Q4)

5. Characteristics of the Post-Millennials

- 10 behavioral characteristics
- 4 development trends

Key Points>

1. Characteristics of users born after 2000

- **They are not the decision makers:** Post-Millennials pay attention to fashionable, emerging brands, but tend to make similar purchase choices as other users—parents are buying or giving second-hand phones.
- **Multiple devices:** Percentage of users with both smartphones and tablets among Post-Millennials is higher than average.
- **Trying new things:** Post-Millennials are more willing to try new and long-tail apps.
- **Work & entertainment:** Apart from education apps, Post-Millennials show strong interest in games, music apps and app stores.
- **Younger game fans:** Post-Millennials prefer RPG and EDU games while show little interest in board games.
- **Night owls:** They spend more time on mobile devices at night hours due to school hours.
- **Weekend effect:** They spend more time on entertainment during weekends than on weekdays.
- **Pre-exam effect:** Before major exams, Post-Millennials tend to remove social and entertainment apps from their phones.
- **Search pioneers:** They are more interested in online search and they are the major users of voice and visual search.
- **Mobile lovers:** Mobile search has become an essential part in the life for the Post-Millennials.

2. Development trends of mobile Internet driven by Post-Millennials:

- **Multi-device and cross-device more common**
- **More products and brands that appeal to the younger generation**
- **Seasonality (weekends, pre and post-exams, holidays) prominent**
- **Voice and visual search becoming mainstream**

5.1 Not decision makers: Post-Millennials pay attention to fashionable and new brands, but tend to make similar choices to regular users when purchasing a mobile phone.

Most Post-Millennials have no say in purchase decisions. Their parents buy them phones or give them hand-me-downs.

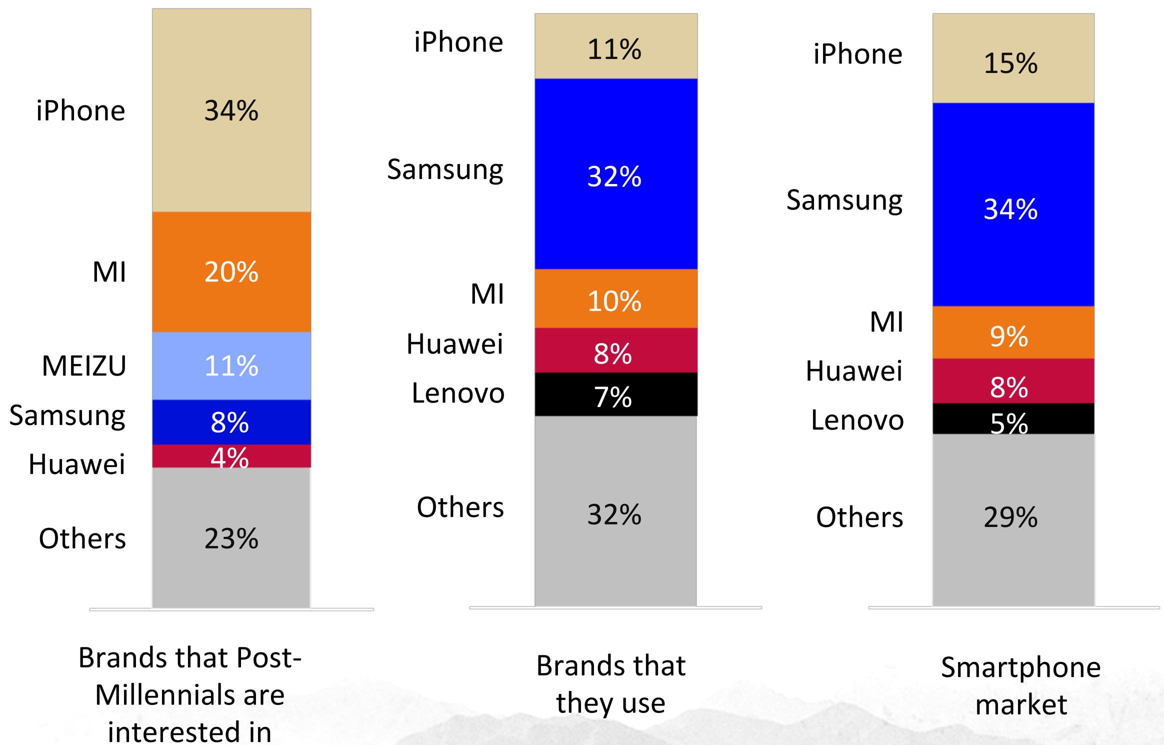
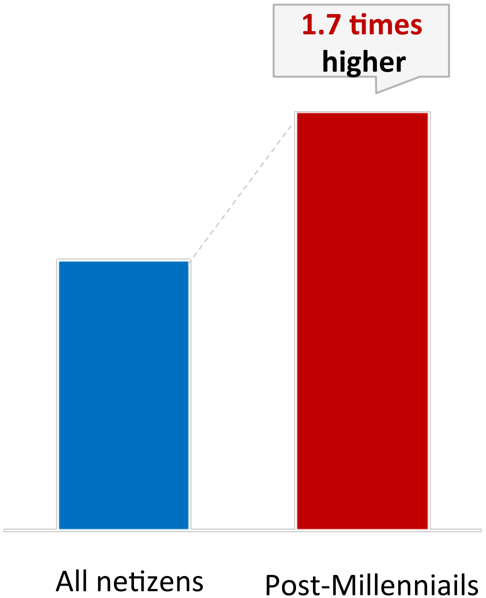


Figure 30:

Top 5 Smartphone brands that Post-Millennials favor and actually buy

(14Q4)

5.2 Multiple devices: percentage of users having both smartphones and tablets among Post-Millenniails is higher than average.



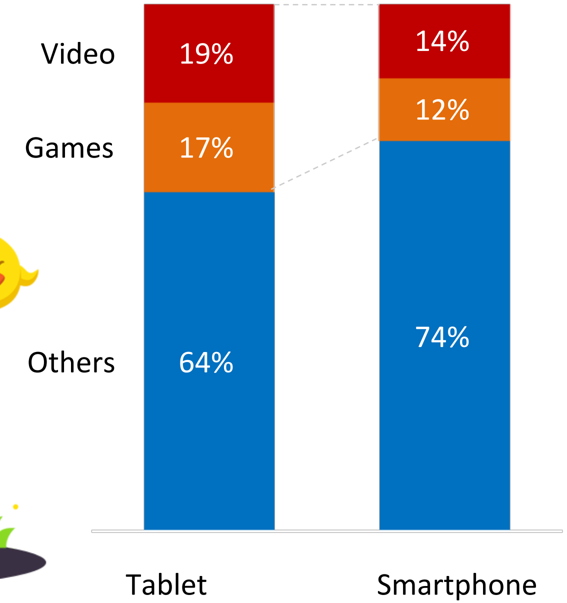
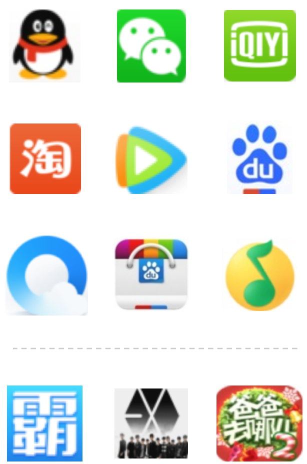


Figure 31: Proportion of Post-Millennials who have tablets (14Q4)

Figure 32: Time that Post-Millennials spend on tablets and smartphones (14Q4)

5.3 Trying new things: Post-Millennials more willing to try new and long-tail apps.



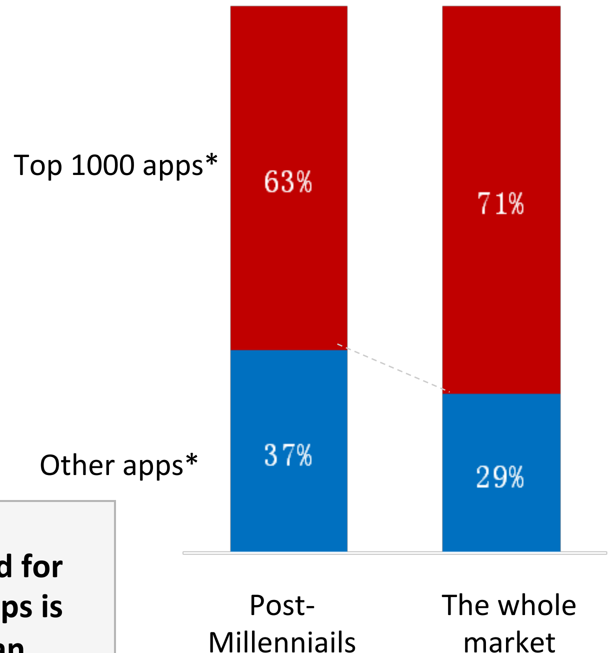
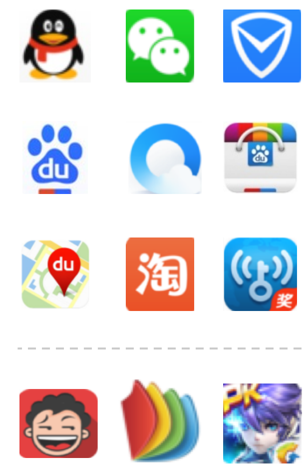


Figure 33: apps that smartphone users download (14Q4)



Post-Millennials demand for download unpopular apps is 1.3 times stronger than other users.

Top 1000 APPs: the top 1000 Apps installed in Andriod devices; **other Apps**, besides the top 1000.

5.4

Work & Entertainment: Besides education app, Post-Millennials show great interest in games, music apps and app stores.

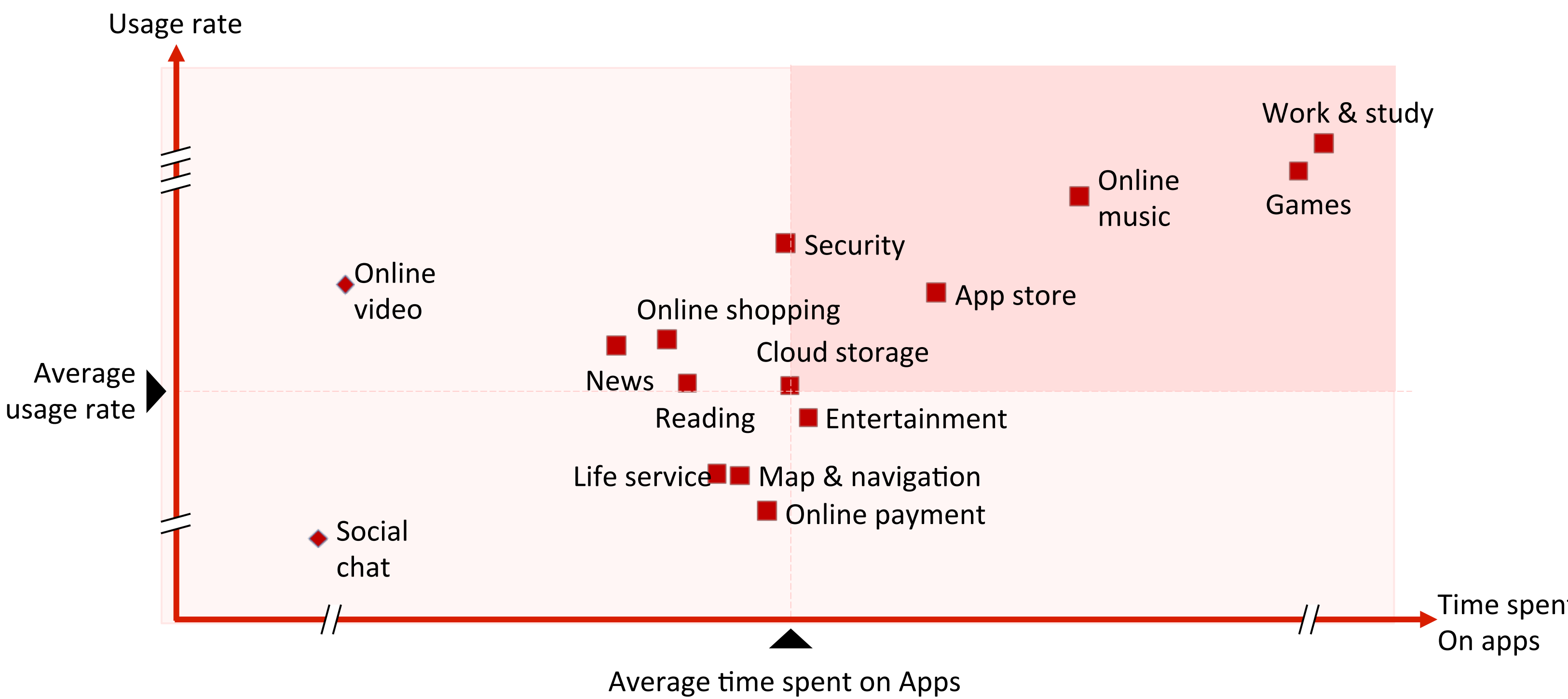


Figure 34: Post-Millennial use rate and and average usage time

5.5 Post-Millennials prefer RPG and EDU games while shows little interest in board games.

Figure 35: Types of apps that smartphone users download(14Q4)

5.6 Post-Millennials spend more time on mobile devices at night due to school hours.

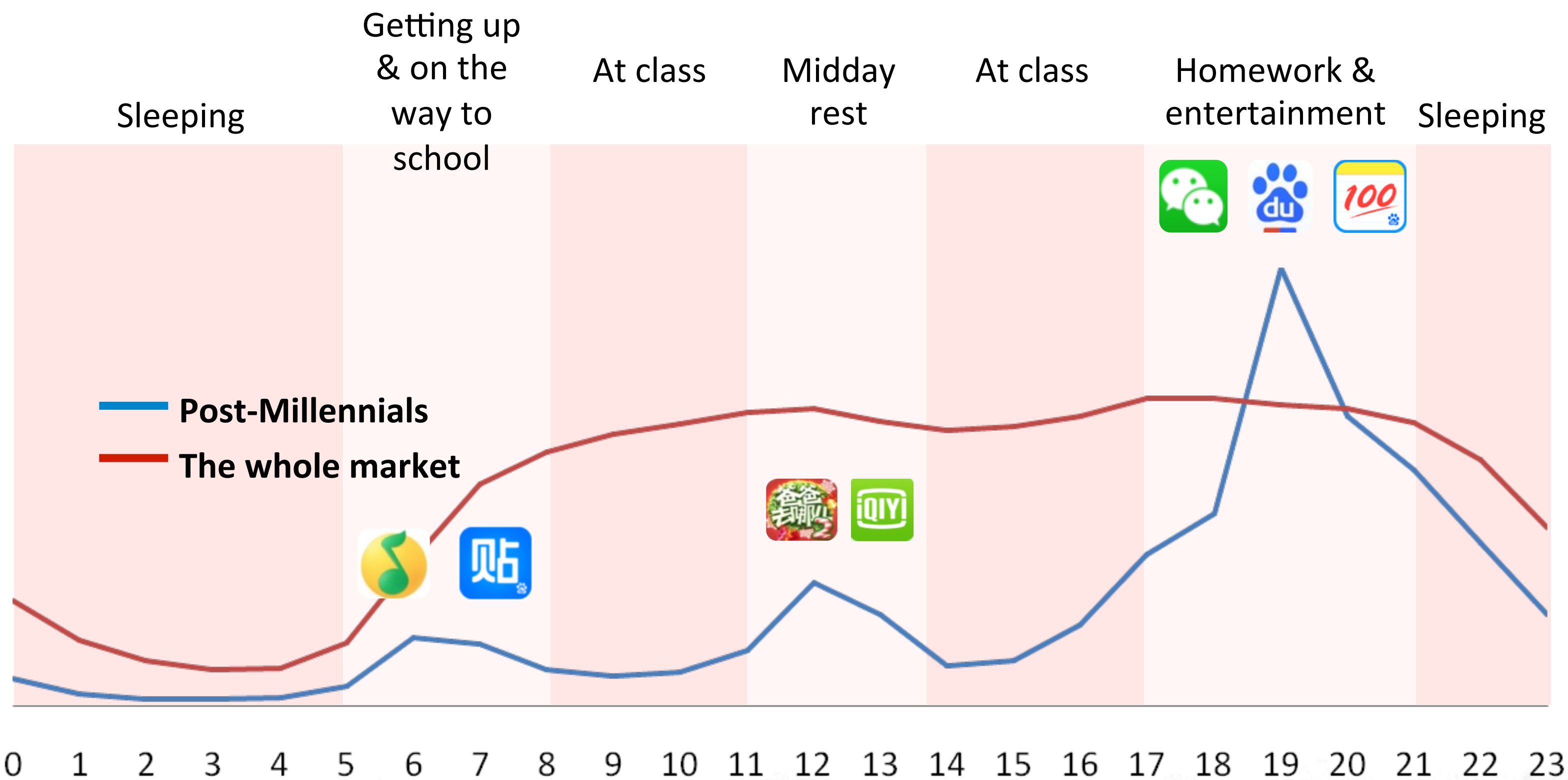


Figure 36: Post-Millennial mobile Internet activity: workdays (14Q4)

5.7 They spend more time on entertainment during the weekends.

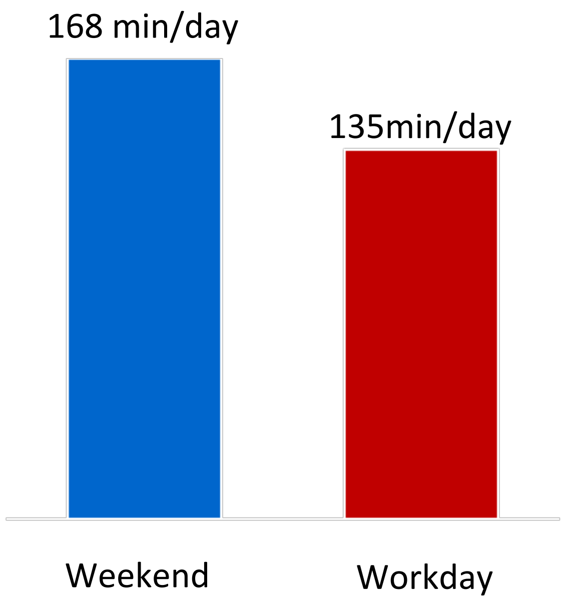


Figure 37: Time spent by Post-Millennials on mobile Internet on weekends and on workdays

(14Q4)

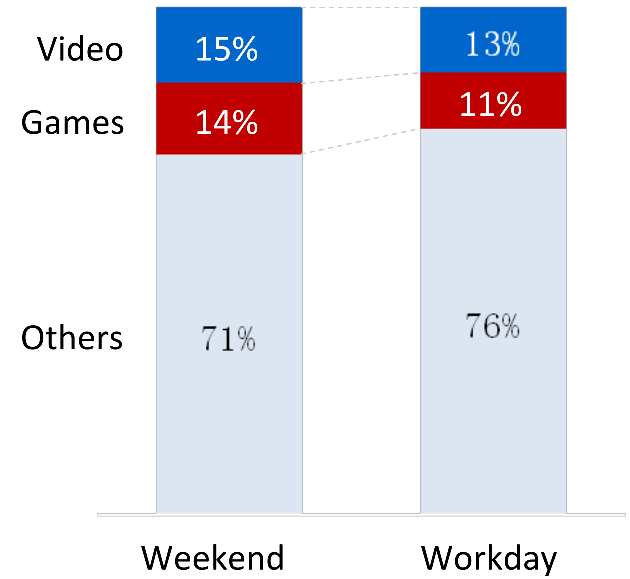


Figure 38: Time spent on different apps at weekends and on workdays

(14Q4)

5.8 Before major exams, they tend to remove a many social and entertainment apps from their phones.

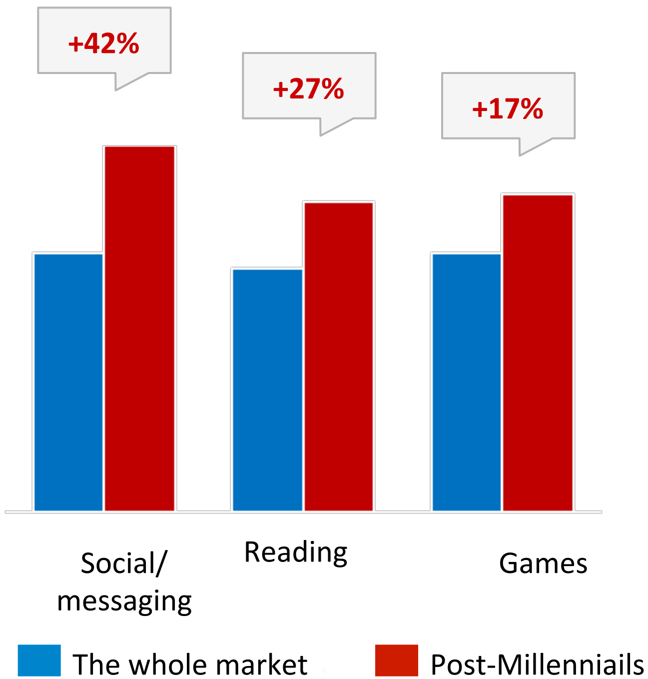


Figure 39: Top 3 app types removed before exams

Post-Millennials tend to remove apps before exams and reinstall them after exams.

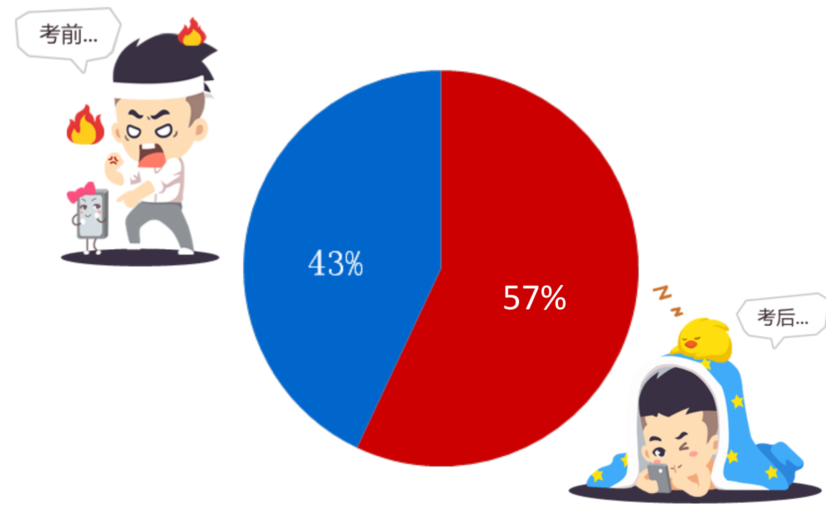


Figure 40: 57% of apps removed before exams are reinstalled one week after the exams

5.9

Post-Millennials are more interested in online searches, and are the major users of voice and visual search.

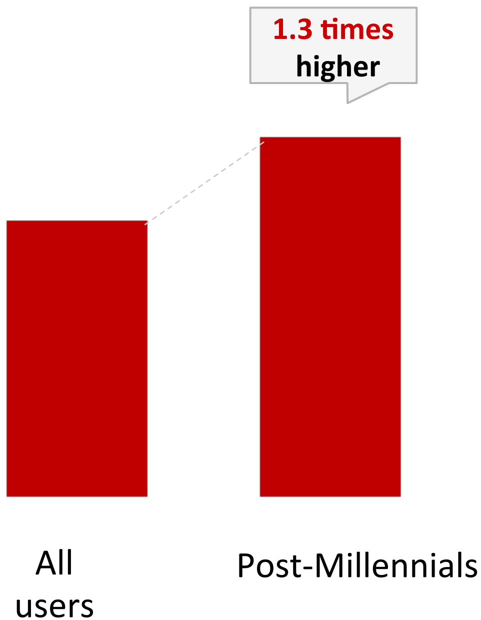


Figure 41: Average searches per day

(14Q4)

Post-Millennials account for 17% of the total mobile online search users, but account for 34% of total voice and visual search queries.

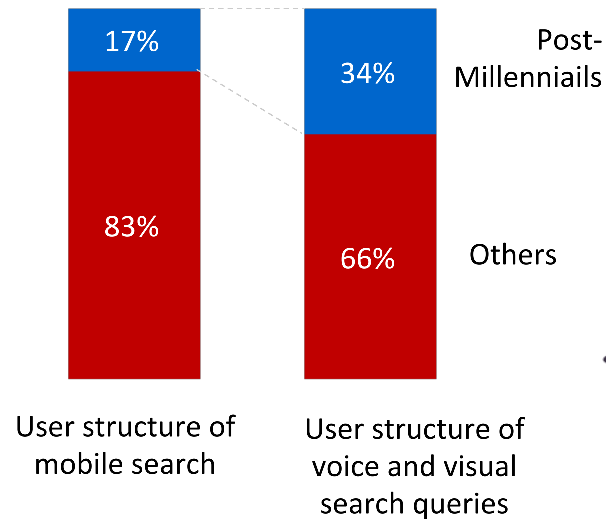


Figure 42: Post-Millennial users of Baidu voice and visual search

(14Q4)

5.10

Mobile search has become an essential part of life for Post-Millennials.

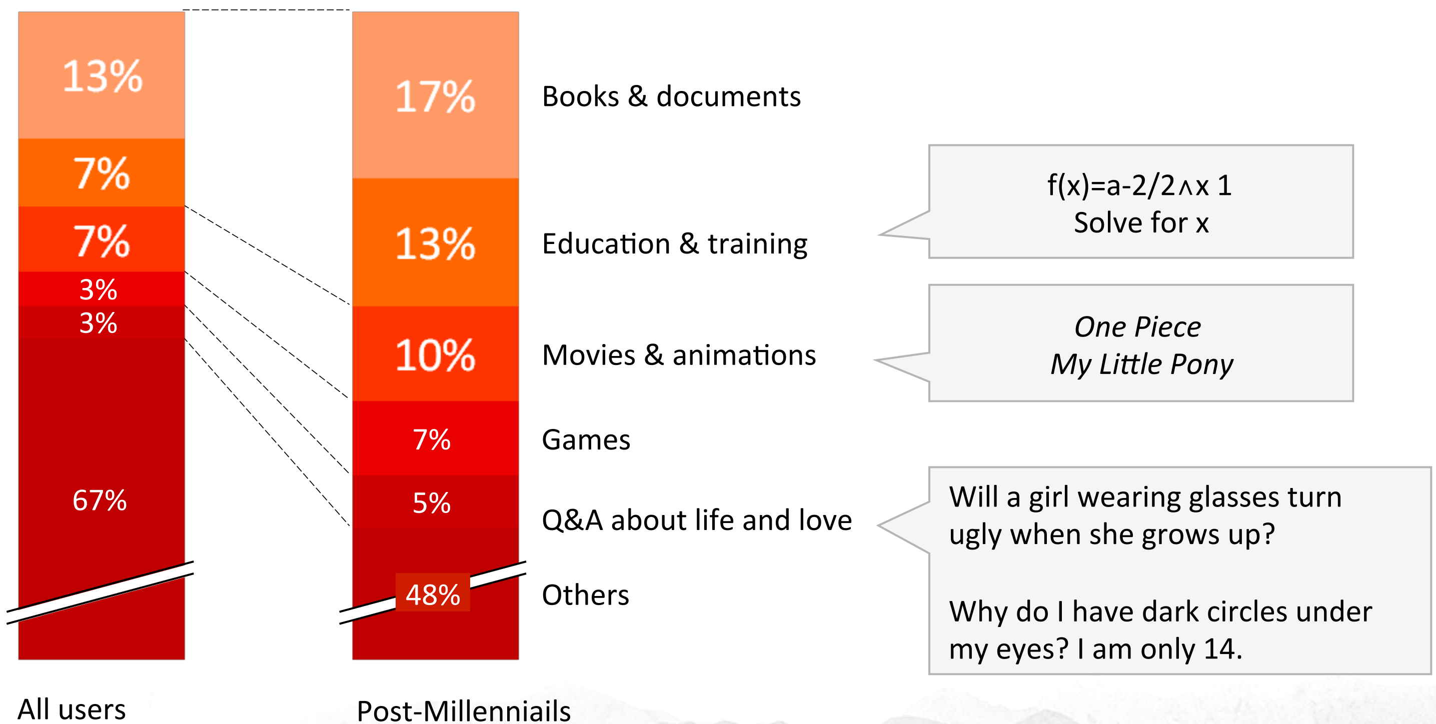


Figure 43: Mobile searches performed by Post-Millenniails (14Q4)

Trend: Post-Millennials, as the majority of mobile Internet users in the future, will shape the development trends of the mobile Internet.

I. Multi-device and cross-device

The Post-Millenniails, born in the mobile era, are used to switching from smartphone to tablet and to PC. Their demand for trans-device usage is very strong.

II. Products and brands catering to the younger generation

The younger generation is a major target when a smartphone brand or an app wants to acquire new users. The young are always more willing to embrace new things.

III. Seasonality

With the proportion of Post-Millennial users increasing, the overall mobile Internet development is seeing more seasonality: fluctuations in different seasons, e.g. on weekends/before & after exams/ summer & winter breaks.

IV. Voice and visual search dominates

Post-Millennials exhibit a stronger desire to use voice and visual search. In just a few years, voice and visual will replace text search to become the mainstream means of online search for the Post-Millenniails.

Appendix: Sources of the Analytical Data

Time: 2012.6.1-2014.12.31

Data: Baidu Mobile Search(http://m.baidu.com)Baidu Mobile Assistant(http://as.baidu.com and client products, Baidu Mobile Statistics(http://mtj.baidu.com), related user research and data mining；

Statistics:

Source of the data used in this report:

- Analysis of results pages produced by Baidu Mobile Search. Baidu Mobile Search is an important gateway from which mobile users get access to Internet resources. It has more than 100 million visitors per day.
- Analysis of the distribution of apps launched or jointly produced by Baidu Mobile Assistant
- Analysis of apps and devices powered by Baidu Mobile Statistics. At present, Baidu covers more than 100 million mobile devices.
- Online and offline research and analysis on users conducted by Baidu Business Analysis Dept.

Graphs & Charts：

The double slash sign in some of the column charts is designed to shorten the length of high columns and creates a better reading experience.

Disclaimer

The report is jointly produced by Baidu Mobile Service Group and Baidu Business Analysis Dept. Information herein is for references only. Based on the statistics provided by Baidu Mobile Search, Baidu Mobile Assistant, and Baidu Mobile Statistics, other related data mining as well as data from the research and analysis on users, the report is designed to reflect the general development trend of mobile Internet in China. We do not guarantee 100% accuracy and completeness of the data in the report. The report shall not be used as the basis of investment decisions, nor should it be regarded as obligatory or a legal basis or evidence, no matter explicit or implicit. Baidu Mobile Cloud Business Dept. will supplement, correct and revise relevant information at a regular basis, but we do not guarantee a prompt release of the information updates. Baidu disclaims any responsibility for direct/indirect investment profit and loss resulted from the information herein.

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For more information about mobile Internet, please visit http://developer.baidu.com/.

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