



Web OS Opportunities and Challenges in China

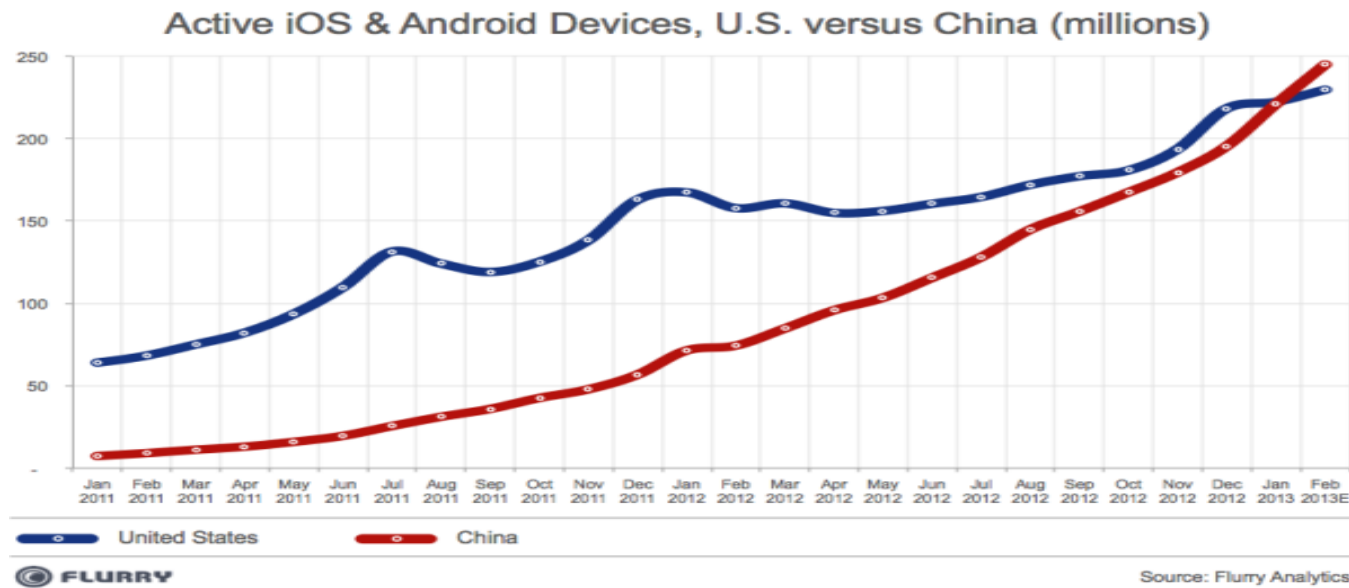
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Agenda

- **Overview China Smartphone market**
- **What is driving China Smartphone market**
- **Tizen's Opportunities and Challenges in China**
- **Tizen Ecosystem Consideration**
- **Q&A**

China is the world's largest handset and Smartphone market by volume, as well as the second-largest market by value.



- By February 2013, China have 246 million Smartphone devices compared to 230 million in U.S
- U.S. will not take back the lead from China for vast difference in population

1.15 Billion mobile phone user, still growing up

- **By the End of Q1 2013, Mobile Phone user has reached 1.15 billion in China**
 - 2G user: 870 million
 - 3G user: 280 million
- **Mobile Phone user still growing up**
 - During Q1 2013, mobile phone user increased 34.9 million
 - 3G user has become the mainstream
 - a) China Mobile 3G user's incremental grew 28%, 2G user's incremental negative growth 8%
 - b) China Unicom 3G user's incremental grew 17%, 2G user negative growth 44%
 - b) China Telecom 3G user's incremental fell 6%, but above the average of last year, 2G user negative growth 27%

Data source: Operators quarterly report

In China , Smartphone market is growing rapidly

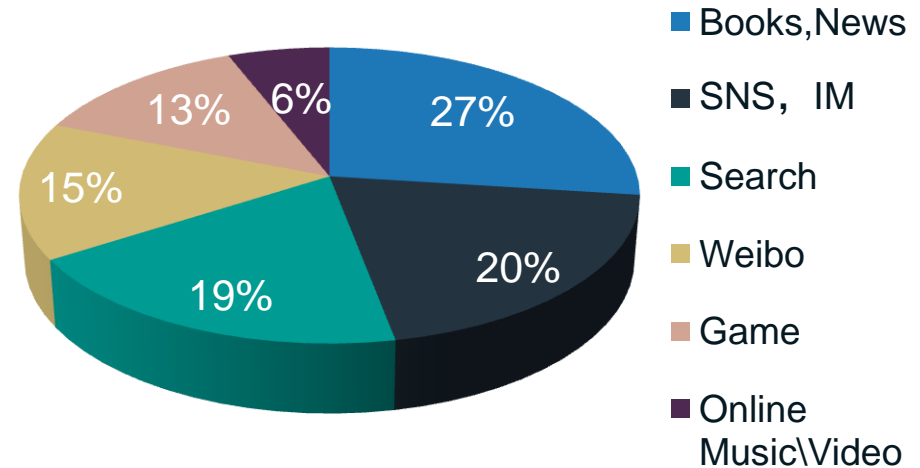
- **China Smartphone market is growing rapidly**
 - In March, China market sales 26 Million Smartphone, increased 41.9% than the same period last year
 - a) Android have 91%(increase 0.5%) market
 - b) iOS have 5.9%(drop 0.4%) market
- **JP Morgan reported the high-end Smartphone market is saturating, first-time buyer is reducing**
 - By 2014, the global Smartphone growth rate will sharp decrease to 17% from 37% in 2013
 - Then most of Smartphone buyer will come from emerging markets like China

Data source: Operators quarterly report

China Smartphone user's preference

- 27% user use Smartphone read books and news
- 20% user use Smartphone access SNS and chat using IM
- 31% user use Smartphone 2-3 hours, except for phone call time; and 22% user use 3-5 hours.

China Smartphone user's preference

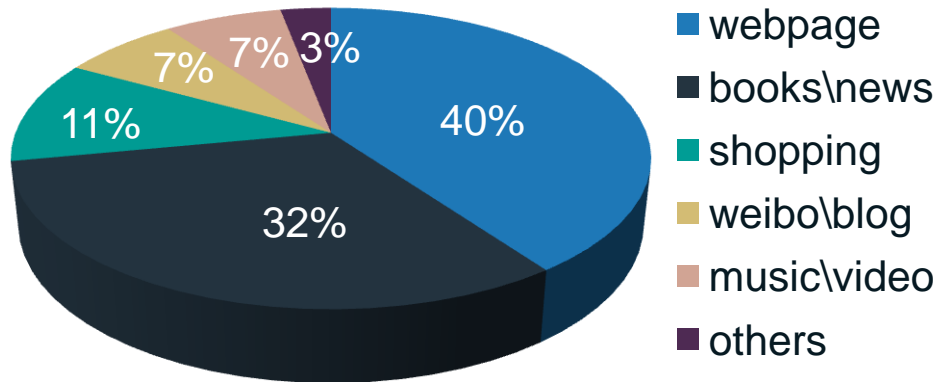


The big screen Smartphone is becoming more and more popular in China, And they are pay more attention on the sustainable use time.

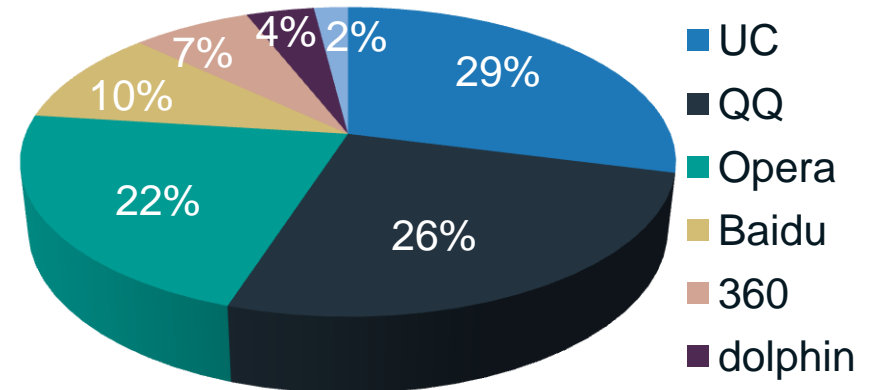
Data source: Hexun

China Smartphone user's browser preference

Main purpose of using browser



China Popular Smartphone Browser

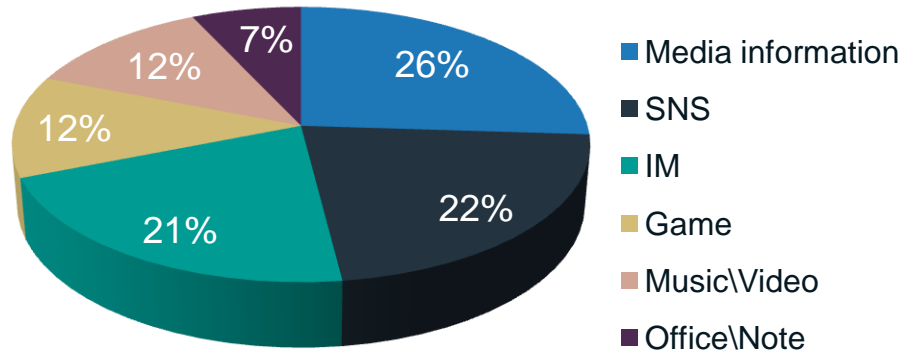


- Access webpage and read books/news are the main purposes. And mobile shopping is becoming more and more popular.
- UC, QQ and Opera covering 77% of browsers market share

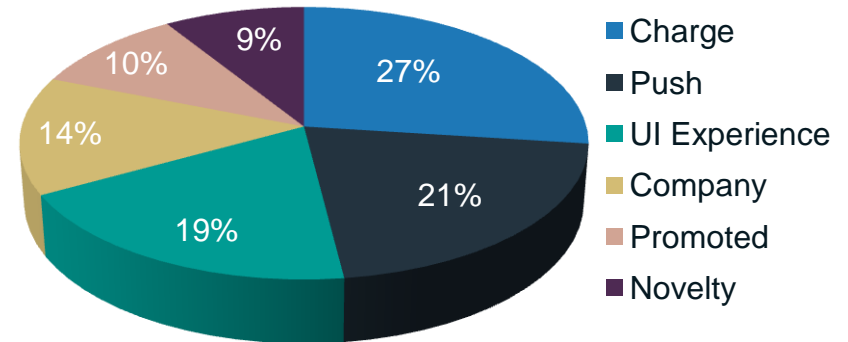
Data source: Hexun

China Smartphone user's App preference

What applications tend to be installed



Consider factors before installing application



- Top three categories apps are Media information, SNS and instant messenger
- Top three factors to consideration: Charge , Push and UI Experience

Data source: Hexun

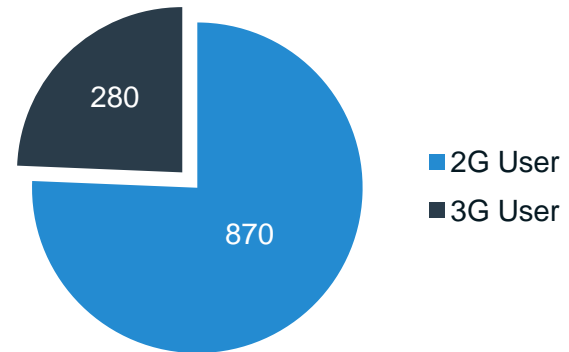
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3G drives Smartphone replace feature phone

- Q1 2013, China 3G user rapidly increasing :
 - China Mobile : increase 16 million
 - China Unicom: increase 11.4 million
 - China Telcom: increase 741 million
- 870 million 2G user is moving to 3G
 - High speed network drive
 - Mobile internet\application\game drive
 - Current 3G user only 280 million

Mobile user (million) in China



Data source: Operators quarterly report

TD-LTE will drive the second wave

Networks

- The number of TD-LTE BS reached 20,000 by the end of 2012, covering 13 cities in mainland and serving one hundred million people in HK
- **The plan in 2013 is to deploy more than 200,000 BS**

Cities

- Large Scale Trial (before 2012): 6 cities (Guangzhou, Hangzhou, Nanjing, Shanghai, Shenzhen, and Xiamen)
- Expanded Scale Trial (2012): 15 cities (Guangzhou, Hangzhou, Nanjing, Shanghai, Shenzhen, and Xiamen), Beijing, Tianjin, Qingdao, Shenyang, Fuzhou, Ningbo, Chengdu, Wuxi and Wenzhou)
- **Commercial Network (2013): >100 cities, with around 750 million population**

Vendors

- **10** Infrastructure Vendors
- **>20** Chipset / Terminal Vendors



China Operators are leading 2G user to 3G

- **1000RMB Smartphone plan**
 - High subsidies reach up to 50%
 - Local terminal manufacturers have 30s devices, include Huawei, Coolpad, Lenovo, ZTE etc
 - International terminal manufacturers have joined, include Samsung, Moto, Nokia etc

Operator	Brand	Model	Price	OS
China Telecom	Huawei	C8813	900 ¥	Android
China Mobile	Samsung	GT-S7568	1199 ¥	Android
China Mobile	Lenovo	A278T	350 ¥	Android
China Mobile	Lenovo	A288T	350 ¥	Android

4 Typical 1000RMB Smartphone

Data source: Third party

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Tizen's Opportunities in China

- **Opportunities**

- The World's biggest Smartphone market , 870 million 2G user waiting to buy 3G/4G Smartphone
- 11.28 million first-time buyer per month
- Operator is open and would like to see the multiple OS in market
- Cost effective device is welcomed by the market

Tizen's Challenges in China

- **Android and iOS already have 97% Smartphone market share**
 - Android also open source and free, even if it's controlled by Google
 - Android has covered the low to high end Smartphone
 - App Store and Ecosystem are Tizen's weakness
- **Terminal Manufactory Brands**
 - International brands: rising the profile
 - Local brands: cover more market share

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Two issues should be considered for Tizen Ecosystem

- **How to develop Web Apps Fast and Easily?**
 - HTML5 standard compromise
 - Web Application portability between OSs and Browsers
 - Web Apps development tools
- **How to delivery Web Apps to end user in low cost?**
 - Web page apps VS Installable apps
 - URL VS App Store

Q&A

Thanks

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