Statistical Report on Internet Development in China

(July 2016)

CNNIC
中国互联网络信息中心
CHINA INTERNET NETWORK INFORMATION CENTER

Preface

In 1997 China's competent departments authorized China Internet Network Information Center (CNNIC) to organize relevant Internet entities to jointly carry out an Internet development survey. Ever since then, CNNIC has published 37 statistical reports on Internet development in China, and this report is the 38th report. All the reports of CNNIC have witnessed the whole development process of China's soaring Internet industry. With precise and objective data, the reports provide a significant basis for government departments and companies to master the development of Internet in China and make relevant decisions. Therefore, they have attracted a lot of attention from all aspects of society and have been cited widely both at home and abroad.

Since 1998 CNNIC has been issuing the Statistical Report on Internet Development in China every January and July by convention. In the first half of 2016, with the further deepening of the Internet's influence on the economic, cultural and social development, its impact on the whole society was elevated to a higher level. As a witness to Internet development, CNNIC correspondingly expanded and deepened its survey on the whole society's application of the Internet. The main body of the 38th Statistical Report consists of two chapters: Fundamental Resources and Personal Application. The chapter of Fundamental Resources introduces the development of Internet-based resources in China; that of Personal Application is dedicated to the size and structure of Internet users, the environment for Internet access and the development of personal application of the Internet. The report aims to accurately and objectively reflect the Internet's role in social development.

Data collection in this semi-annual Report also received great support from the government, enterprises and all walks of life. All surveys went on smoothly and data collection was completed in time in close cooperation with other Internet organizations, survey websites and media. We hereby express our sincere gratitude to all the people who have given help. Meanwhile, we would like to extend our sincere thanks to Internet users who have participated in our 38th statistical survey on Internet development.

China Internet Network Information Center (CNNIC)

July 2016

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Abstract

Ⅰ. Basic Information

◇ Up to June 2016, China had 710 million Internet users, an increase of 21.32 million from the end of 2015. The Internet penetration reached 51.7%, up 1.3 percentage points from the end of 2015.

◇ Up to June 2016, the number of mobile Internet users in China reached 656 million, an increase of 36.56 million from the end of 2015. The mobile netizens accounted for 92.5% of the total netizen population, while this percentage was 90.1% at the end of 2015.

◇ Up to June 2016, the number of Chinese rural netizens accounted for 26.9% of the national total, reaching 191 million.

◇ Up to June 2016, among the total Chinese netizens, the proportion of those using mobile phones as a means to access the Internet was 92.5%, up 2.4 percentage points from the end of 2015; the proportions of those using desktops and laptops as means to access the Internet were 64.6% and 38.5% respectively; and this proportion was 30.6% for tablet computers and 21.1% for TVs.

◇ Up to June 2016, China had a total of 36.98 million domain names, of which 19.5 million or 52.7% were ended with ".CN", and 500, 000 were suffixed with ".中国".

◇ Up to June 2016, China had a total of 4.54 million websites, of which 2.12 million were under ".CN".

Ⅱ. Features of Personal Application

China's netizen population has exceeded 700 million, with Internet penetration growing steadily.

Up to June 2016, China had 710 million Internet users, a semi-annual increase of 21.32 million or 3.1%. The Internet penetration was 51.7% in China, up 1.3 percentage points from the end of last year, 3.1 percentage points higher than the world average, and 8.1 percentage points

higher than the Asian average[1].

The number of mobile Internet users in China reached 656 million, strengthening the leading position of the mobile Internet

Up to June 2016, China had 656 million mobile netizens, who accounted for 92.5% of the netizen population, up from 90.1% in 2015. The netizens who only use mobile phones to access the Internet accounted for 24.5% of the netizen population, and mobile Internet devices were more widely used. With the improvement of mobile communication networks and the popularization of smart phones, the mobile Internet application penetrates into every aspects of uers' livelihood, promoting the increase in the number of netizens accessing the Internet via mobile phones.

The Internet penetration in rural areas remains stable, but the gap between urban and rural still exists in this respect

Internet penetration in rural areas remained stable, being 31.7% in June 2016. However, Internet penetration in urban areas was 35.6 percent points higher than that in rural areas, representing a wide urban-rural gap. Lacking computer or Internet knowledge and being uninterested in the Internet are still the main barriers for rural residents to access the Internet. 68.0% of the non-Internet users in rural areas lack computer or Internet knowledge, and 10.9% of the rural non-Internet users are uninterested in the Internet or think it's unnecessary to access the Internet.

The scenarios of online payment and mobile payment are diversified, and people are developing a new habit of Online Banking

The Online Banking applications maintained growth momentum in the first half of 2016, and the growth rates of users of online payment and Online Banking were 9.3% and 12.3% respectively. With the rapid development of e-commerce applications, online vendors continued to expand and enrich offline payment scenarios, and implemented various marketing strategies of building a chain of social relationships to boost the transition of offline-payment users. The users of Online Banking continued to grow; the continuous increase of financing products and

[1] For the Internet penetration for the world and for Asia, please visit http://www.internetworldstats.com/stats.htm.

continuous upgrading of user experience helped people to develop the habit of Online Banking. Providing suitable platforms and scenarized and intelligentized services has become a new direction of the development of Online Banking.

Online education and online government services develop fast, and the Internet driving the development of public services

In the first half of 2016, all types of Internet public-service applications witnessed an increase of their users. The number of users of online education, online cabbie or online government services was over 100 million, and these online services showed the distinctive characteristics of diversification and mobility. Online education continued to subdivide and its user groups continued to expand, so its services developed in the direction of diversification; meanwhile, mobile education, which provides personalized learning scenarios, the experience of touching mobile devices' screens, voice output and other functional advantages, has become the mainstream of online education. Based on the huge market demand and increasingly sophisticated technology, online cabbie services continued to expand. Online government, with a combination of government websites, Weibo, WeChat public platforms and mobile clients, gave full play to the role of the Internet and information technology as carriers, and optimized the user experience of its services.

Fundamental Resources

Chapter I Fundamental Internet resources

Ⅰ. An Overview of Fundamental Internet resources

Up to June 2016, China had 338 million IPv4 addresses and 20,781 blocks/32 of IPv6 addresses.

There were totally 36.98 million domain names in the country. Specifically, ".CN" domain names increased by 19.2% to 19.5 million during the first half of this year, and accounted for 52.7% of the total domain names in China.

There were altogether 4.54 million websites, a semi-annual increase of 7.4%, among which 2.12 million were ".CN" websites.

International Internet bandwidth reached 6,220,764 Mbps, with a semi-annual growth rate of 15.4%.

Table 1 Comparison - Fundamental Internet resources in China from December 2015 to June 2016

	December 2015	June 2016	Semi-annual increment	Semi-annual growth rate
IPv4	336,519,680	337,608,448	1,088,768	0.3%
IPv6 (block/32)	20,594	20,781	187	0.9%
Domain name	31,020,514	36,984,009	5,963,495	19.2%
".CN" domain names	16,363,594	19,502,493	3,138,899	19.2%
Website	4,229,293	4,542,406	313,113	7.4%
".CN" websites	2,130,791	2,124,416	-6,375	-0.3%
International Internet bandwidth (Mbps)	5,392,116	6,220,764	828,648	15.4%

Ⅱ. IP Address

By June 2016, the number of IPv6 addresses in China had reached 20,781 blocks/32, a semi-annual increase of 0.9%.

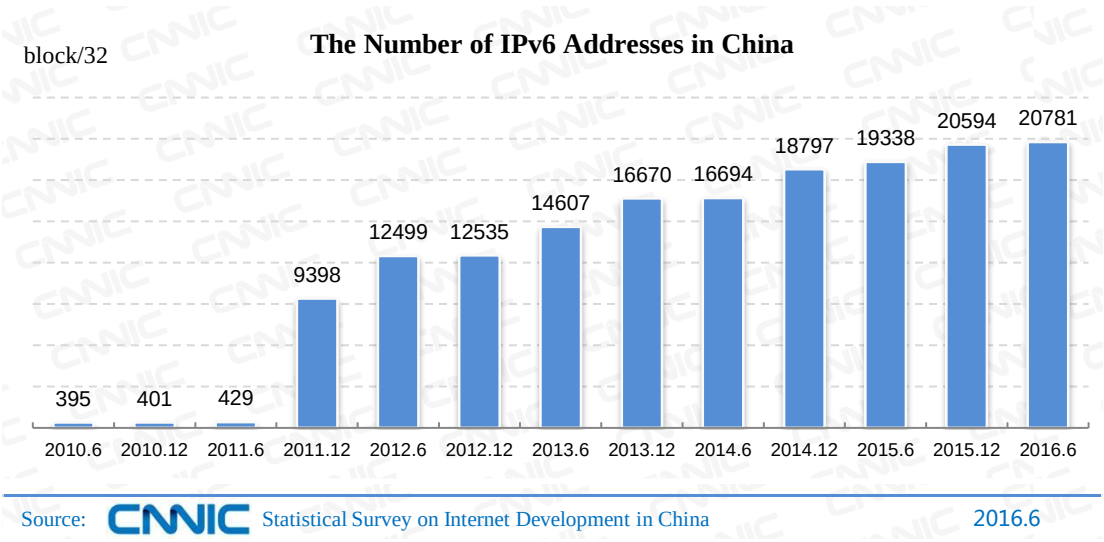


Figure 1 Number of IPv6 Adresses in China

All IPv4 addresses had been assigned by February 2011 and since then the total number of IPv4 addresses in China had been basically stable, being 337.61 million up to June 2016.

Figure 2. Changes in IPv4 Address Resources in China

III. Domain Name

Up to June 2016, the total number of domain names of China had increased to 36.98 million, with a semi-annual growth rate of 19.2%.

Table 2 Number of Domain Names in Each Category[2]

	Number	Proportion in total domain names
CN	19502493	52.7%
COM	10936254	29.6%
NET	1281586	3.5%
ORG	373063	1.0%
中国	501302	1.4%
BIZ	89899	0.2%
INFO	206212	0.6%
Others	4093200	11.1%
Total	36984009	100%

Up to June 2016, China had 19.5 million ".CN" domain names, up by 19.2% during the first half of the year, accounting for 52.7% of total domain names in China. The number of ".COM" domain names reached 10.94 million, accounting for 29.6%, and that of ".中国" reached 500,000.

Table 3 Number of ".CN" Domain Names in Each Category

	Number	Proportion in total ".CN" domain names
.cn	14433505	74.0%
com.cn	2458280	12.6%
adm.cn	1138661	5.8%
net.cn	996326	5.1%
ac.cn	15735	0.1%
org.cn	397628	2.0%
gov.cn	55290	0.3%
edu.cn	6992	0.0%
mil.cn	76	0.0%
Total	19502493	100%

Ⅳ. Websites

Up to June 2016, China had 4.54 million websites[3], up 7.4% in half a year.

[2] Generic top-level domains (gTLD) are provided by domestic domain name registrars.
[3] It refers to the websites whose domain name registrants are within the territory of the P.R.C.

Figure 3 Number of Websites in China

Note: Websites ended with ".EDU.CN" are excluded.

V. International Internet Gateway Bandwidth

Up to June 2016, China had 6,220,764 Mbps of international Internet gateway bandwidth, up 15.4% in six months.

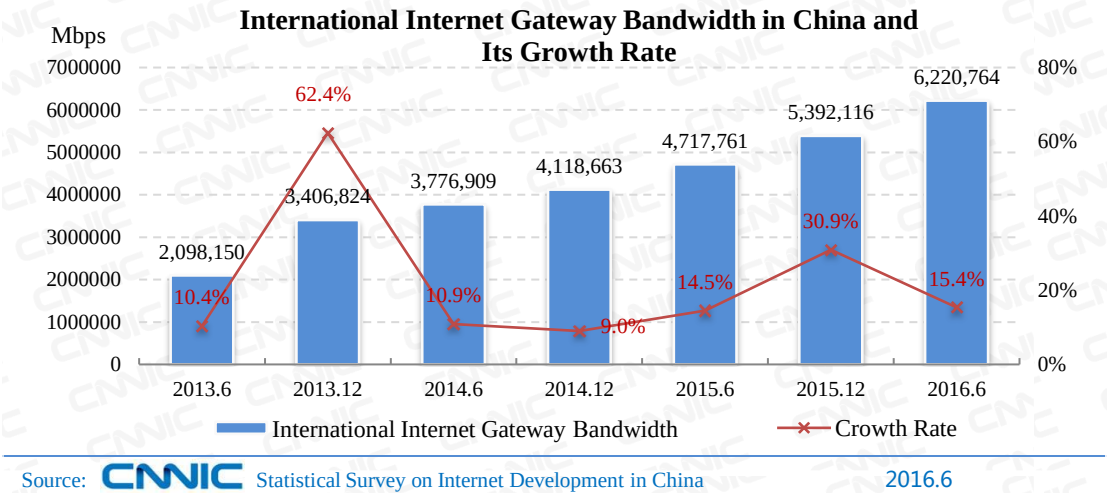


Figure 4 International Internet Gateway Bandwidth in China and Its Growth Rate

Table 4 International Internet Gateway Bandwidths of Backbone Networks

	International Internet gateway bandwidths (Mbps)
China Telecom	3,817,006
China Unicom	1,501,805
China Mobile	787,263
China Education and Research Network	61,440
China Science & Technology Network	53248
China International Economy and Trade Net	2
Total	6,220,764

Personal Application

Chapter II The Size and Structure of Internet Users

Ⅰ. The Size of Internet Users

(I) Overall Size of Internet Users

Up to June 2016, China had 710 million Internet users, a semi-annual increase of 21.32 million or 3.1% higher than the growth rate during the second half of 2015. The Internet penetration reached 51.7%, up 1.3 percentage points from the end of 2015.

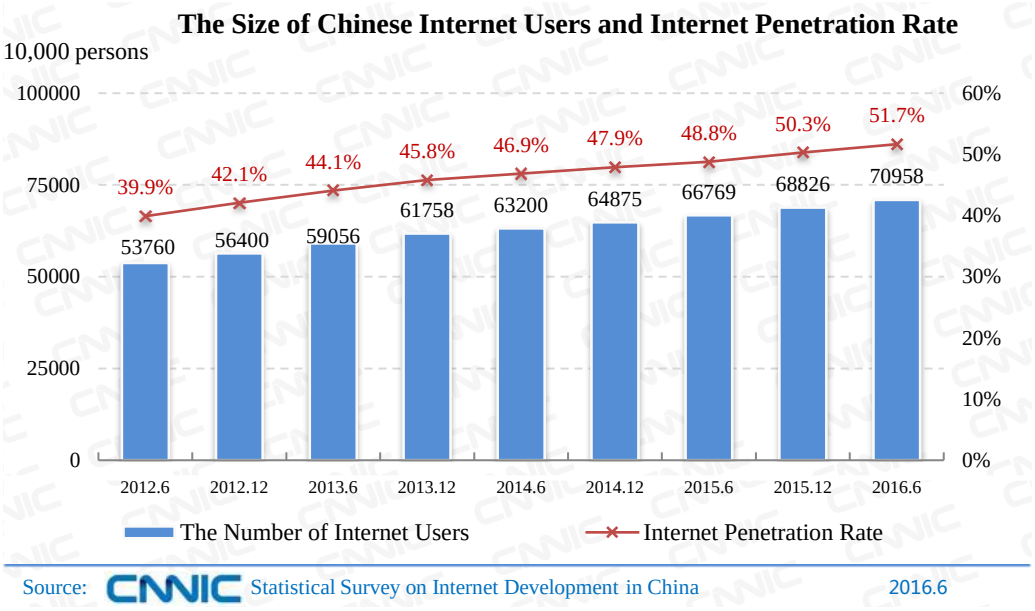


Figure 5 The Size of Chinese Internet Users and Internet Penetration

With the continuous improvement of Internet infrastructure construction and the continuous introduction of favor policies, as well as the Internet's penetration into all walks of life, the number of Internet users in China continues to increase. With the further implementation of the Broadband China strategy, the optical-fiber transformation of broadband networks has made rapid progress, with optical networks having covered more than 50% of Chinese households[4]. In the first half of 2016, the State Council and relevant departments introduced a series of guiding

[4] Data source: Ministry of Industry and Information Technology

opinions, such as “Internet+” government services, “Internet+” circulation of commodities, and “Internet+” manufacturing, to promote the integration of the Internet and various sectors. In April 2016, Xi Jinping, General Secretary of CPC Central Committee, proposed the idea of promoting the development of network communication and letting the Internet benefit the people better. In the future, the Internet, as the infrastructure of an information society, will have more profound impacts on China’s political, economic, cultural and social development.

(Ⅱ) The Size of Mobile Internet Users

Up to June 2016, the number of mobile Internet users in China reached 656 million, an increase of 36.56 million from the end of 2015. The proportion of netizens using mobile phones to access the Internet climbed up from 90.1% in 2015 to 92.5%, and the mobile phone is still the most important device for Internet access. There were 173 million netizens only using mobile phones to access the Internet, accounting for 24.5% of the country’s total netizens.

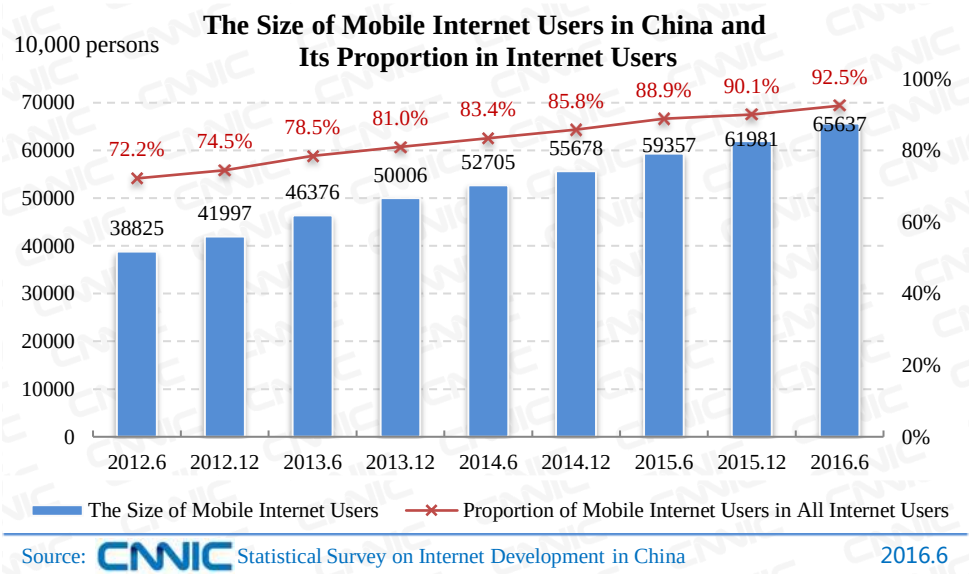


Figure 6 The Size of Mobile Internet Users in China and Its Proportion in Internet Users

The robust growth in the number of new Internet users and former PC users’ rapid transformation in their old way of accessing the Internet jointly boosted the continuous increase in the number of mobile Internet users. On the one hand, the convenience of accessing the Internet via mobile devices reduced the threshold for Internet use and became an important factor to promote the growth in new Internet users. In the first half of 2016, there were 13.01 million newly increased mobile Internet users, who accounted for 61.0% of the newly increased Internet users.

On the other hand, the continuous diversification of mobile Internet applications and their deep penetration into the users' work, life, consumption and entertainment needs prompted former PC users to use mobile Internet devices. In the first half of 2016, the newly increased mobile Internet users included 23.55 million netizens who used to access the Internet via PCs, an increase of 12.02 million from the end of 2015.

(III) The Size of Rural Internet Users

Up to June 2016, China had 191 million rural Internet users, accounting for 26.9% of the national total; the number of urban Internet users was 519 million, accounting for 73.1%, an increase of 25.71 million or 5.2% from the end of 2015.

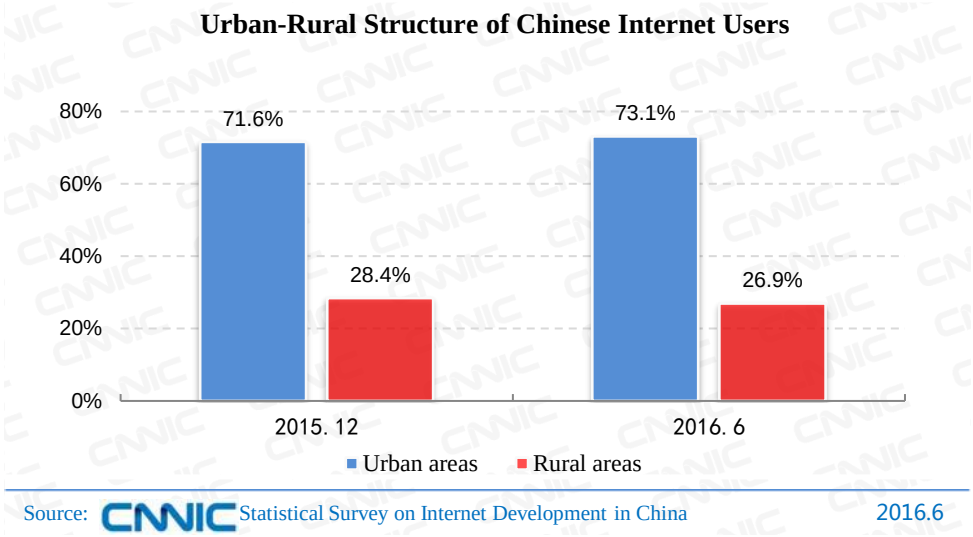


Figure 7 Urban-Rural Structure of Chinese Internet Users

Internet penetration in rural areas remained stable, being 31.7% in June 2016. However, Internet penetration in urban areas was 35.6 percent points higher than that in rural areas, leaving a wide urban-rural gap.

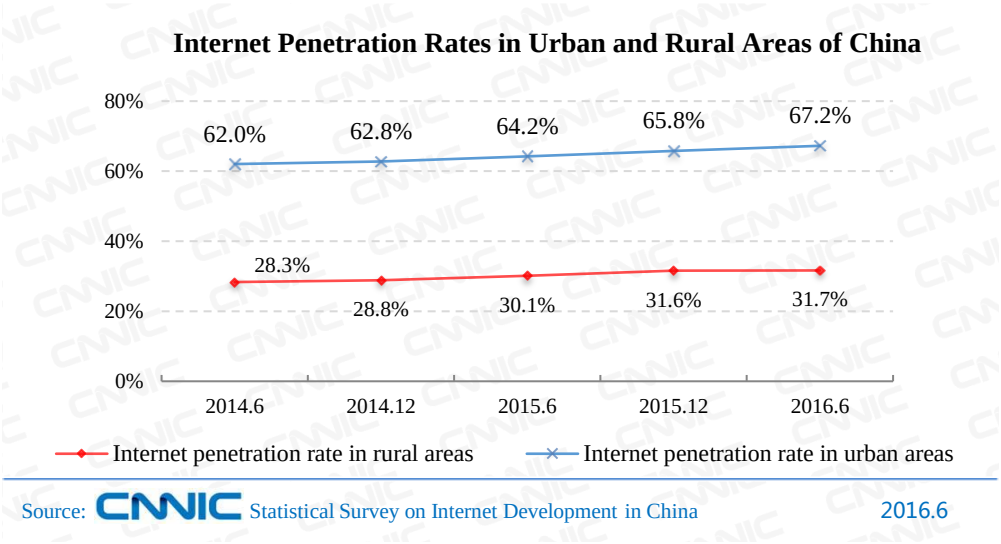


Figure 8 Internet Penetrations in Urban and Rural Areas of China (June 2014 to June 2016)

Insufficient Internet knowledge and recognition leads to weak demand for Internet use, which are still the main reasons why rural non-Internet users do not access the Internet. The survey result shows that 68.0% of rural non-netizens do not access the Internet because they lack computer or Internet knowledge; 14.8% because they are either too old or too young; and 10.9% because they are uninterested in the Internet or think it unnecessary to access the Internet. So rural non-Internet users either don't know how to access the Internet or are unwilling to use the Internet. To resolve this problem, on the one hand, local township governments, village committees, activity centers and schools should play their roles in carrying out training in computer and network knowledge to promote the popularization of the Internet; on the other hand, based on local demands and conditions, measures and services more aligned with regional characteristics and closer to the lives of rural residents should be implemented to remove obstacles for rural non-Internet users and guide them to use the Internet.

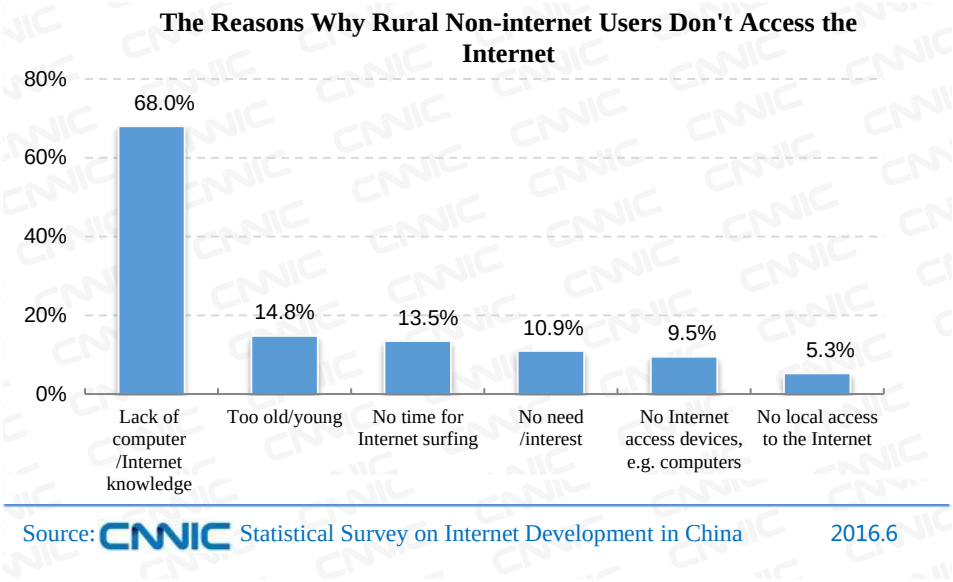


Figure 9 The Reasons Why Rural Non-internet Users Don't Access the Internet

Ⅱ. The Structure of Internet Users

(Ⅰ) Gender Structure

Up to June 2016, the male-to-female ratio was 53:47 among Chinese Internet users, and was 51.2:48.8 in the total population of China, which shows that Chinese netizens' gender structure tends to be balanced and is basically in line with the sex ratio of the total population.

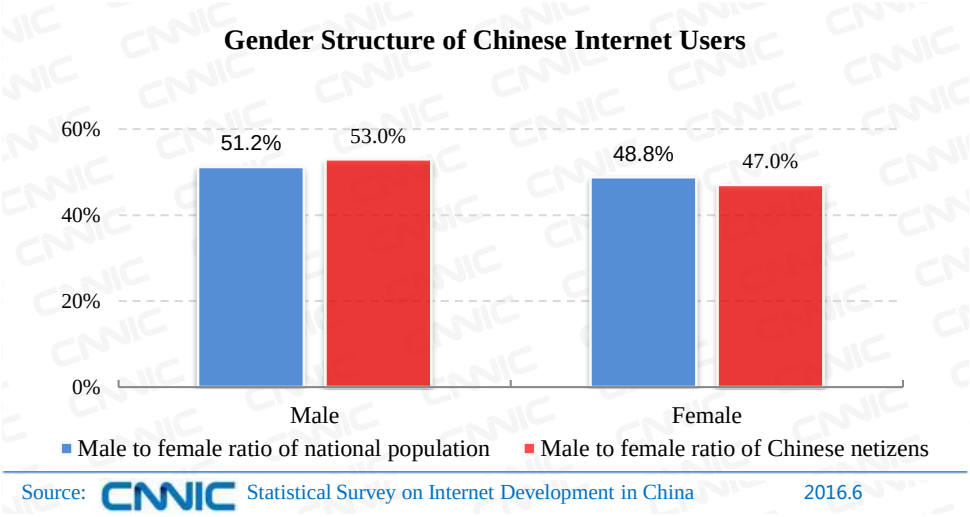


Figure 10 Gender Structure of Chinese Internet Users

(Ⅱ). Age Structure

Up to June 2016, of Chinese Internet users, 74.7% aged 10-39. Among them, 30.4% aged

20-29, 20.1% aged 10-19 and 24.2% aged 30-39. So, the age group of 10-39 was still the largest part of Chinese netizens. Compared with the data at the end of 2015, the proportions of those under 10 and those above 40 both rose, indicating that the Internet is continuing to penetrate into these two age groups.

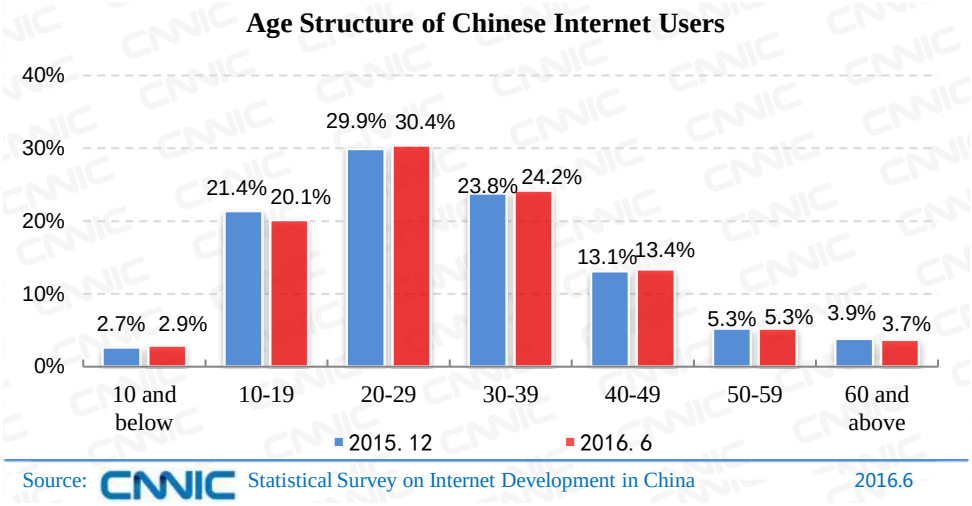


Figure 11 Age Structure of Chinese Internet Users

(III) Education Structure

Up to June 2016, most Chinese netizens were those with a secondary education qualifications: junior high school students constituted 37.0% of the Chinese netizen population, and this percentage was 28.2% for senior high school/secondary specialized school/technical school students. Compared with the data at the end of 2015, the proportions of netizens with primary school education or below, and those with junior college, undergraduate education or above both rose.

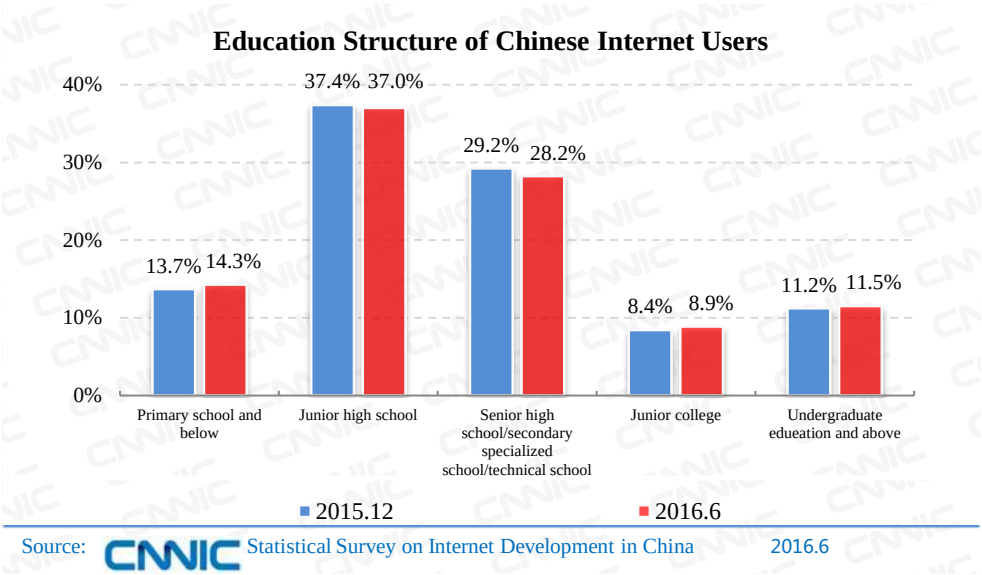


Figure 12 Education Structure of Chinese Internet Users

(Ⅳ) Occupational Structure

Up to June 2016, of Chinese Internet users, 25.1% were middle school students; 21.1% were self-employed businessmen/freelancers; and 13.1% were enterprise managers/ordinary staff members. Compared with the data at the end of 2015, the proportions of these three groups remained relatively stable.

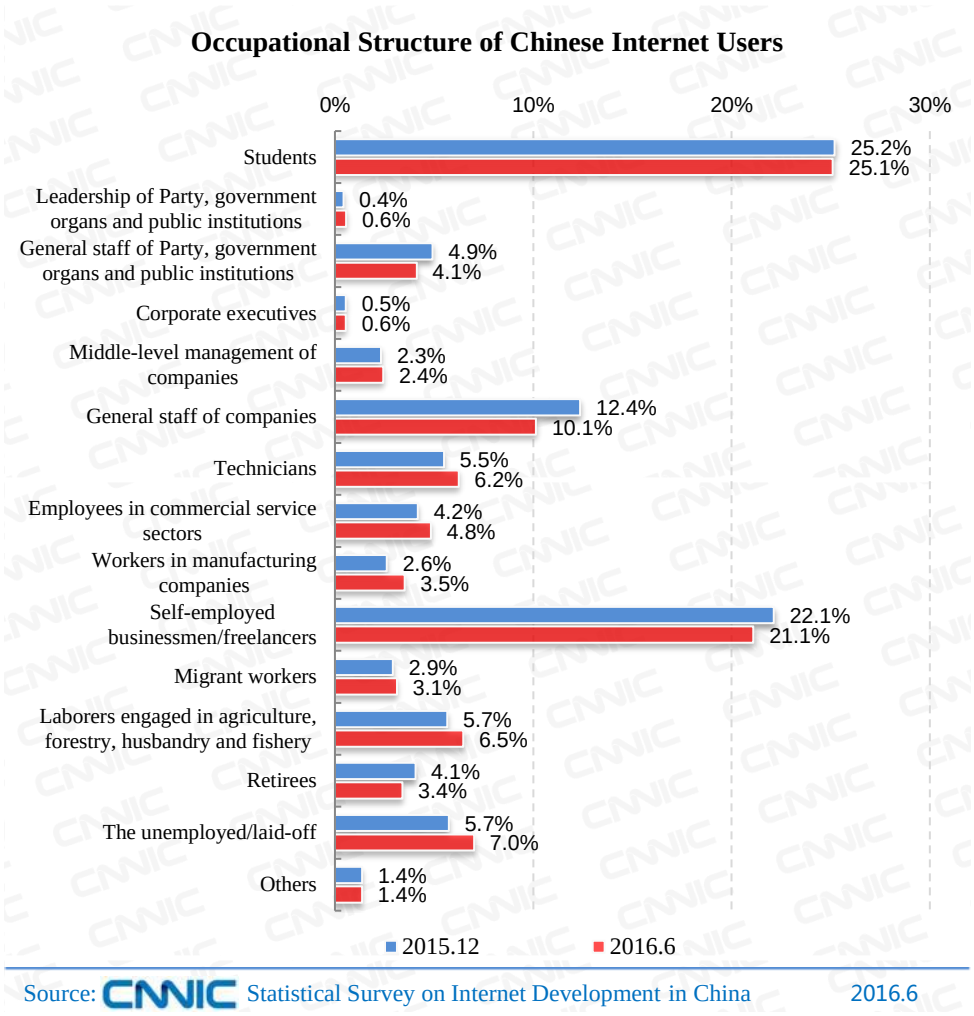


Figure 13 Occupational Structure of Chinese Internet Users

(Ⅴ) Income Structure

Up to June 2016, the proportions of netizens with a monthly income[5] of RMB2,001-3,000 and RMB3,001-5,000 were 16.2% and 22.7%, respectively, the highest among all income groups. Netizens' income is growing as the economy develops. The proportion of netizens with a monthly income of above RMB5, 000 rose by 3.8 percentage points from the end of 2015.

[5] Specifically, the income of students includes living allowances provided by families, salary earned from work-study programs, scholarships and others. The income of peasants includes the living allowances provided by children, income of agricultural production, and government subsidy. The income of those who are jobless, laid off or unemployed includes the living allowances provided by children, government relief and subsidy, pension, and subsistence allowances. The income of retirees includes the living allowances provided by children and pension.

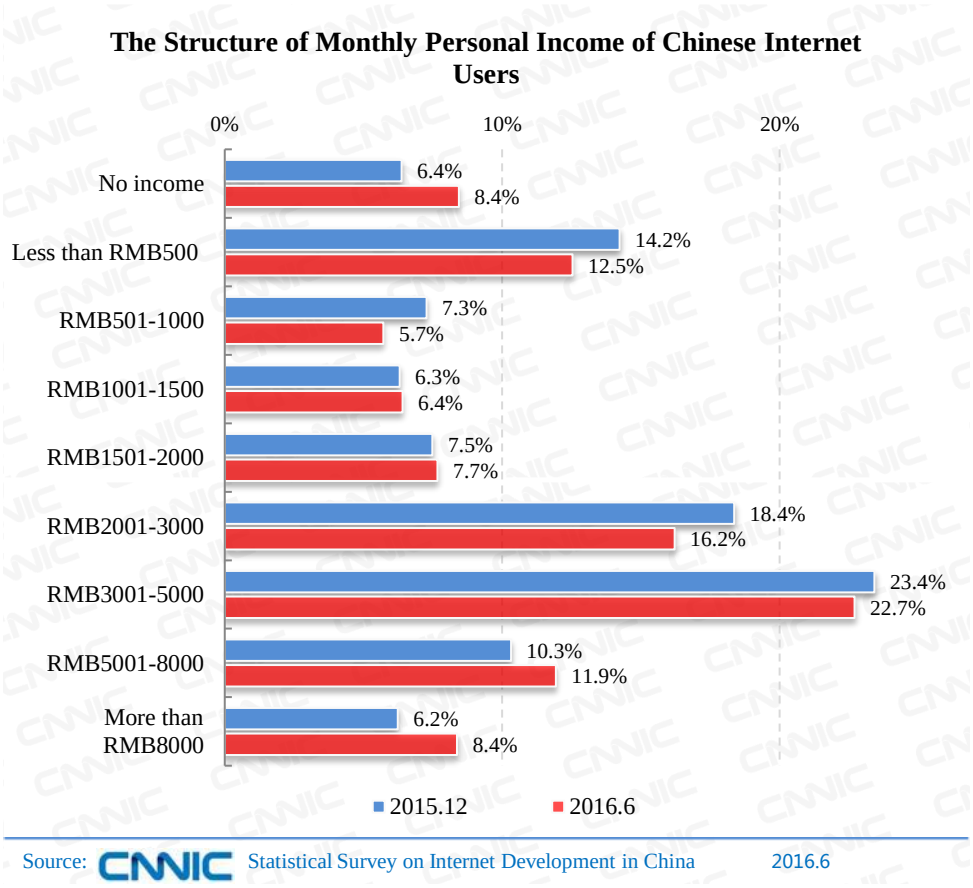


Figure 14 Structure of Monthly Personal Income of Chinese Internet Users

Chapter Ⅲ Internet Access Environment

(Ⅰ) Internet Access Devices

In the first half of 2016, the proportion of the Chinese netizens using mobile phones and TVs to access the Internet increased significantly compared to the data at the end of 2015. Up to June of the year, 92.5% of Chinese netizens accessed the Internet via mobile phones, up by 2.4 percentage points from the end of 2015. With rapid development of the smart television industry, the TV set, as an entertainment and Internet access device at home, was used by 21.1% of Chinese netizens, up by 3.2 percentage points from the end of 2015. Respectively 64.6%, 38.5% and 30.6% of Chinese netizens used desktops, laptops and tablets to access the Internet, down by 3.1, 0.2 and 0.9 percentage points from the end of 2015, respectively.

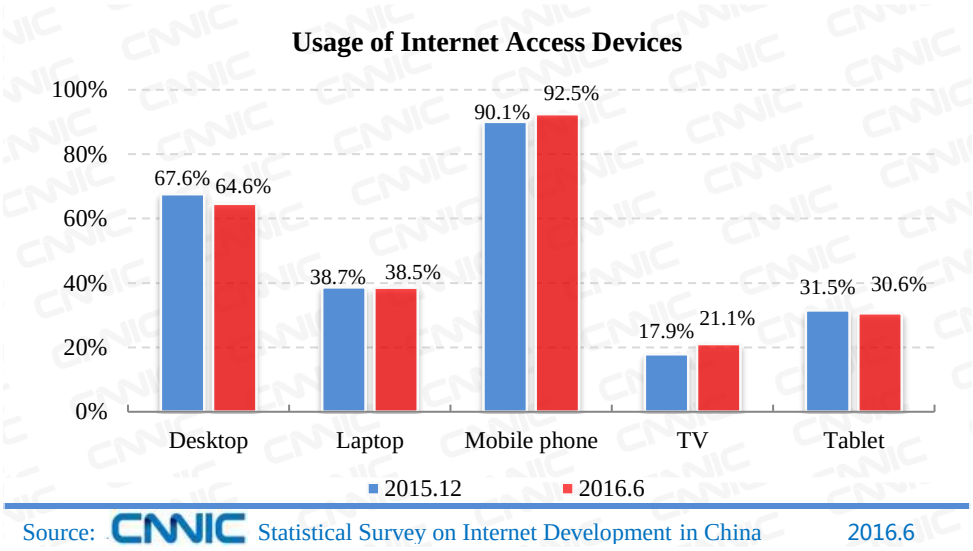


Figure 15 Usage of Internet Access Devices

(Ⅱ) Venues of Internet Access

Up to June of the year, 87.7% of Chinese netizens accessed the Internet via computers at home, down by 2.6 percentage points from the end of 2015; the proportion of netizens who did so at the workplace, schools or public places all edged up while that of those who did so at Internet bars slipped to 17.3%.

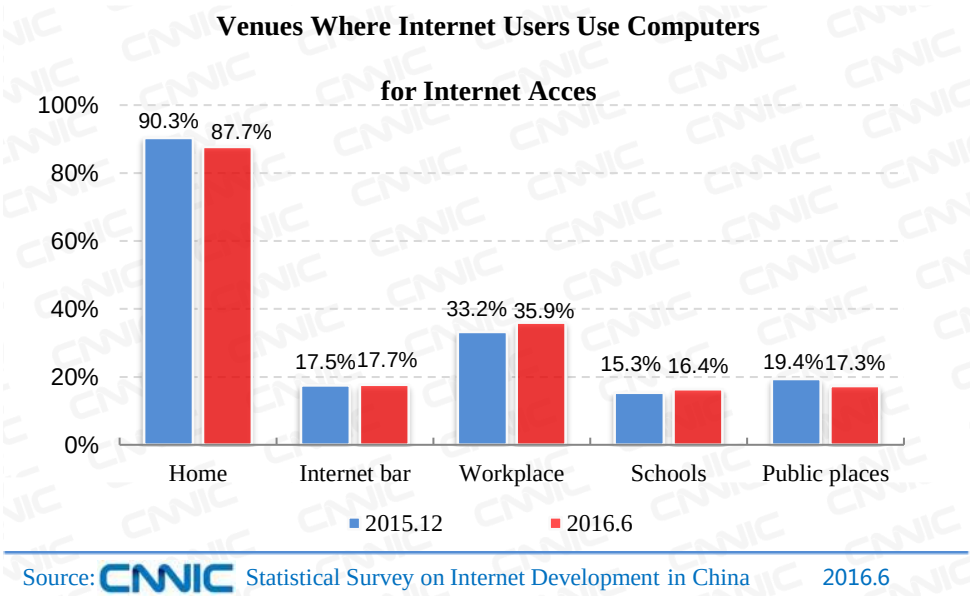


Figure 16 Venues Where Internet Users Use Computers for Internet Access

(III) Network Access

Up to June of the year, 91.7% of mobile Internet users in China accessed the Internet via the 3G/4G network, up by 2.9 percentage points from the end of 2015. The implementation of a series of measures to increase the network speed and reduce access charges, such as sharing traffic, reserving the unused traffic of the current month, lowering roaming charges, provide guarantee for the further growth of China's 3G/4G network users.

By June of the year, 92.7% of Chinese netizens had accessed the Wi-Fi network in the past six months, up by 0.9 percentage point from the end of 2015. The acceleration of deployment of Wi-Fi networks at homes, workplaces and urban public places, and the continued growth in the usage rate of wireless terminals such as mobile phones, tablets and smart TVs, have promoted the development of Wi-Fi networks.

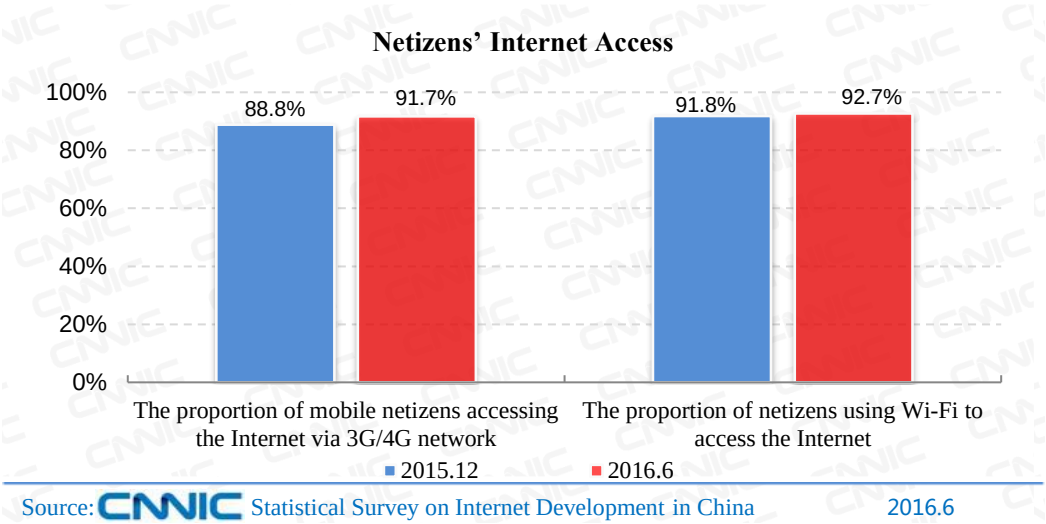


Figure 17 Netizens' Internet Access

(Ⅳ) Online Duration

In the first half of 2016, the average online duration per netizen in China was 26.5 hours a week, an increase of 0.3 hour compared with the data in 2015.

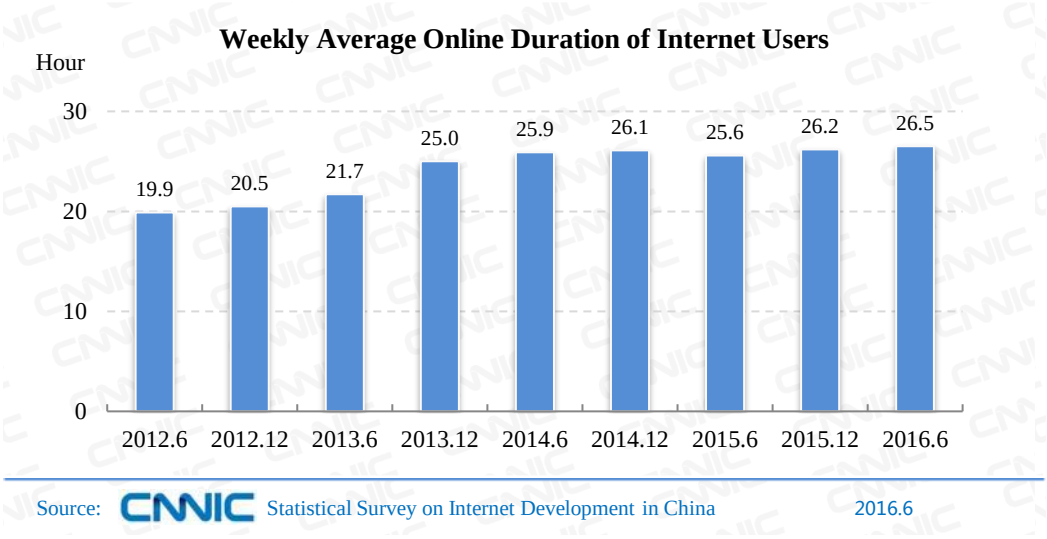


Figure 18 Weekly Average Online Duration of Internet Users

Chapter IV The Development of Personal Internet Applications

The first half of 2016 saw the steady development of personal Internet applications. Except for online games and forums/BBS, users of other applications were growing, among which those of online meal ordering and Internet financing grew the most fast, respectively by 31.8% and 12.3% in the first six months. Users of online shopping grew by 8.3%. Most mobile applications witnessed rapid growth in their users. During the first six months, users of mobile applications for meal ordering grew by 40.5%, and users of mobile payment and mobile shopping both grew by nearly 20%.

Users of basic Internet applications grew steadily, and diversified services were provided to meet users' needs precisely

Users of basic Internet applications such as those for instant messaging, information searching, and network news grew steadily, and their usage rates were all above 80%. Enterprises engaging in instant messaging, based on in-depth research of user needs, provided diversified and differentiated services, and developed targeted products to meet various online and offline needs of the users; search engine companies focused on the development of artificial intelligence to enhance their differentiation-based competitiveness, and meanwhile the government introduced some relevant regulatory policies to strictly regulate the content of searchable information; providers of network news developed the "distribution algorithm" based on user interest to meet users' demand for personalized news in the mobile Internet era; the integration of traditional media and new media accelerated, and the all-media trend initially appeared.

Users of commercial trade applications grew rapidly, and regulatory policies continued to improve

The first half of 2016 saw the steady growth in users of commercial trade applications; users of online shopping and online travel booking grew respectively by 8.3% and 1.6%. The government promoted consumption upgrading while strengthening its regulation on cross-border e-commerce and other related trades, and online shopping platforms combined shopping-based consumption and service-based consumption; online meal ordering was in the initial stage of

market cultivation; the delivery system based on catering services can develop other "short-distance" delivery services closely related to people's lives, which has broad prospects for development; the rapid growth in tourism consumption boosted the rapid development of online travel booking.

The scenarios of online payment and mobile payment are diversified, and people are developing a habit of Internet financing

The Internet financial applications maintained growth momentum in the first half of 2016, and the growth rates of users of online payment and Internet financing were 9.3% and 12.3% respectively. With the rapid development of e-commerce applications, online vendors continued to expand and enrich offline payment scenarios, and implemented various marketing strategies of building a chain of social relationships to boost the transition of offline-payment users. The users of Internet financing continued to grow; the continuous increase of financing products and continuous upgrading of user experience helped people to develop the habit of Internet financing. Providing suitable platforms and scenarized and intelligentized services has become a new direction of the development of Internet financing.

Users of online entertainment applications grew steadily, and the process of copyright protection was accelerated

The first half of 2016 saw the growth in users of mobile entertainment applications; users of applications for mobile music, videos, games and literature all grew by more than 6%. The process of copyright protection was accelerated in the field of online entertainment, and application vendors took active measures to safeguard the legal rights and interests of copyright owners. The content of online videos was better in quality and more diversified to attract users and cultivate their habit of paying for watching; online music platforms expand their shares in overseas markets, and the emerging industrial chain based on online music, including organizing shows of star singers and managing fans, gradually formed; as an emerging online entertainment application, live streaming platforms maintained a strong momentum of development. With the involvement of major Internet companies, the competition in this field will become more intense.

Online education and online government services develop fast, and the Internet strongly improves public services

In the first half of 2016, all types of Internet public-service applications witnessed an increase of their users. The number of users of online education, online cabbie or online

government services was over 100 million, and these online services showed the distinctive characteristics of diversification and mobility. Online education continued to subdivide and its user groups continued to expand, so its services developed in the direction of diversification; meanwhile, mobile education, which provides personalized learning scenarios, the experience of touching mobile devices' screens, voice output and other functional advantages, has become the mainstream of online education. Based on the huge market demand and increasingly sophisticated technology, online cabbie services continued to expand. Online government, with a combination of government websites, microblogs, WeChat public platforms and mobile clients, gave full play to the role of the Internet and information technology as carriers, and optimized the user experience of its services.

Table 5 Usage Rate of Internet Applications by Chinese Netizens in December 2015 and June 2016

	June 2016		December 2015		
Application	Number of users (10,000)	The percentage of Internet users using the application	Number of users (10,000)	The percentage of Internet users using the application	Semi-annual growth rate
Instant messaging	64177	90.4%	62408	90.7%	2.8%
Search engine	59258	83.5%	56623	82.3%	4.7%
Netnews	57927	81.6%	56440	82.0%	2.6%
Online videos	51391	72.4%	50391	73.2%	2.0%
Online music	50214	70.8%	50137	72.8%	0.2%
Online payment	45476	64.1%	41618	60.5%	9.3%
Online shopping	44772	63.1%	41325	60.0%	8.3%
Online games	39108	55.1%	39148	56.9%	-0.1%
Online banking	34057	48.0%	33639	48.9%	1.2%
Internet literature	30759	43.3%	29674	43.1%	3.7%
Travel booking[6]	26361	37.1%	25955	37.7%	1.6%
E-mail	26143	36.8%	25847	37.6%	1.1%
Online meal ordering	14966	21.1%	11356	16.5%	31.8%

[6] Travel booking: It is defined in this report as booking air tickets, hotel, train tickets and travel & vacation products via Internet in the last 6 months.

Application	June 2016		December 2015		
	Number of users (10,000)	The percentage of Internet users using the application	Number of users (10,000)	The percentage of Internet users using the application	Semi-annual growth rate
Online education	11789	16.6%	11014	16.0%	7.0%
Forum/bbs	10812	15.2%	11901	17.3%	-9.1%
Internet financing	10140	14.3%	9026	13.1%	12.3%
Online stock or fund trade	6143	8.7%	5892	8.6%	4.3%
Live streaming[7]	32476	45.8%	--	--	--
Online government services	17626	24.8%	--	--	

Table 6 Usage Rate of Mobile Internet Applications by Chinese Netizens in December 2015 and June 2016

Application	June 2016		December 2015		
	Number of users (10,000)	The percentage of Internet users using the application	Number of users (10,000)	The percentage of Internet users using the application	Semi-annual growth rate
Mobile instant messaging	60346	91.9%	55719	89.9%	8.3%
Mobile netnews	51800	78.9%	48165	77.7%	7.5%
Mobile search	52409	79.8%	47784	77.1%	9.7%
Mobile music	44346	67.6%	41640	67.2%	6.5%
Mobile video	44022	67.1%	40508	65.4%	8.7%
Mobile payment	42445	64.7%	35771	57.7%	18.7%
Mobile shopping	40070	61.0%	33967	54.8%	18.0%
Mobile game	30239	46.1%	27928	45.1%	8.3%
Mobile banking	30459	46.4%	27675	44.6%	10.1%
Mobile Internet literature	28118	42.8%	25908	41.8%	8.5%
Mobile travel booking	23226	35.4%	20990	33.9%	10.7%
Mobile mail	17343	26.4%	16671	26.9%	4.0%
Mobile meal	14627	22.3%	10413	16.8%	40.5%

[7] The live streaming services surveyed for this report include live sporting events, host live show, online games and live concerts.

Application	June 2016		December 2015		
	Number of users (10,000)	The percentage of Internet users using the application	Number of users (10,000)	The percentage of Internet users using the application	Semi-annual growth rate
ordering					
Mobile forum /bbs	8462	12.9%	8604	13.9%	-1.7%
Mobile stock or fund trade	4815	7.3%	4293	6.9%	12.1%
Mobile educational courses	6987	10.6%	5303	8.6%	31.8%

(Ⅰ) The Development of Basic Applications

1.1 Instant messaging

Up to June 2016, China had 642 million users of instant messaging, accounting for 90.4% of the total netizen population and representing a semi-annual increment of 17.69 million. In particular, users of mobile instant messaging reached 603 million, constituting 91.9% of mobile netizens and recording a semi-annual increase of 46.27 million.

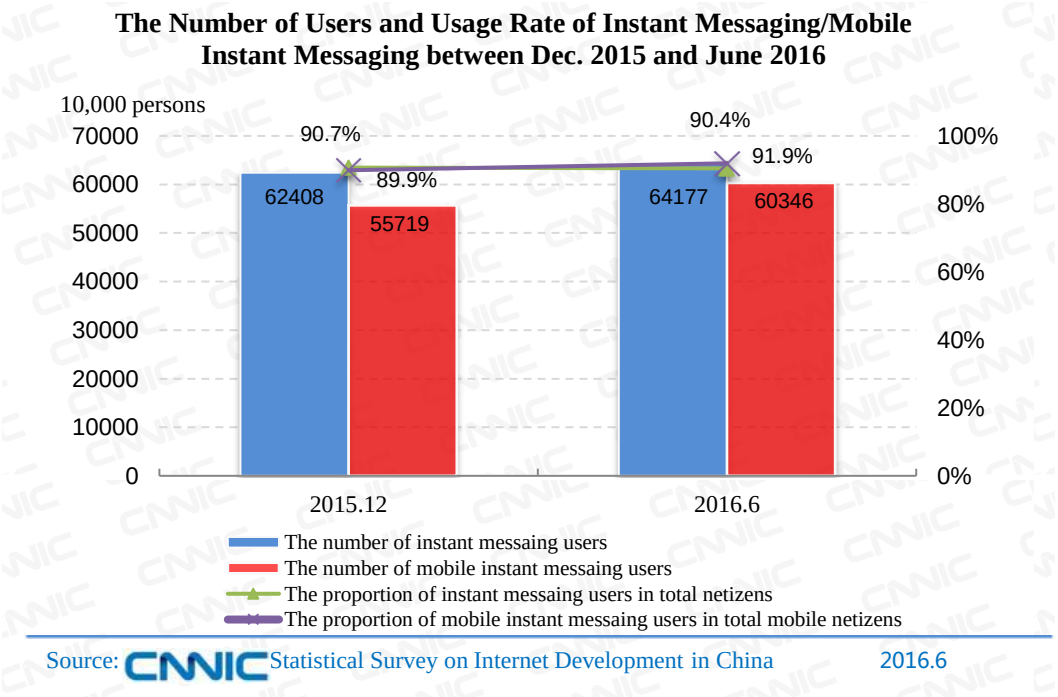


Figure 19 The Number of Users and Usage Rate of Instant Messaging/Mobile Instant Messaging between December 2015 and June 2016

The growth of instant messaging users decelerated; the core function and market structure of instant messaging were relatively fixed, so it focused on the business expansion based on communication services, featuring diversified businesses, differentiated positioning and professional services.

Firstly, in the past few years, instant messaging based on communication services has been extending to different fields such as payment, e-commerce and offline services, and enhancing its value through diversified business. In payment, the instant messaging providers seized the chance to promote the function of distributing red packets during the Spring Festival, aiming to foster the users' payment habits through social contacts; in e-commerce, the instant messaging providers, depending on its functions of communication and message passing, promoted commercial trade through WeChat shops; in offline services, the providers, through active cooperation with offline retailers, and integration of membership, social contacts and payment, increased adhesiveness of users while expanding their businesses.

Secondly, differentiated positioning of instant messaging products was more obvious in the first half of 2016. Since the growth of instant messaging users decelerated, instant messaging products focused on differentiated development. WeChat and QQ, both taking dominant positions in the instant messaging market, gradually differentiated based on age groups of their users; momo, Alitalk and YY Live respectively focused on social contacts among young users, online shopping, online games and other specific communication scenarios to achieve sustainable development.

Finally, mobile instant messaging for enterprises was valued by major instant messaging providers in the first half of 2016; it has good market prospects, but the competition in its market will also be more intense. Relying on smart phones that are always at hand and integrating multiple professional functions applicable to workplace scenarios, mobile instant messaging for enterprises broke the limit of the users' requirement for applied scenarios while substantially increasing the efficiency of communication and collaboration among the employees. Alibaba, Tencent and NetEase have increased their investment in mobile instant messaging for enterprises, so the competition in this market will be more intense.

1.2 Search Engine

Up to June 2016, China had 593 million search engine users, a semi-annual increase of 26.35 million or 4.7%, with a usage ratio of 83.5%; it also had 524 million mobile search users, a semi-annual increase of 46.25 million or 9.7%, with a usage ratio of 79.8%. Search engines are the second biggest Internet application for both netizens and mobile netizens in China.

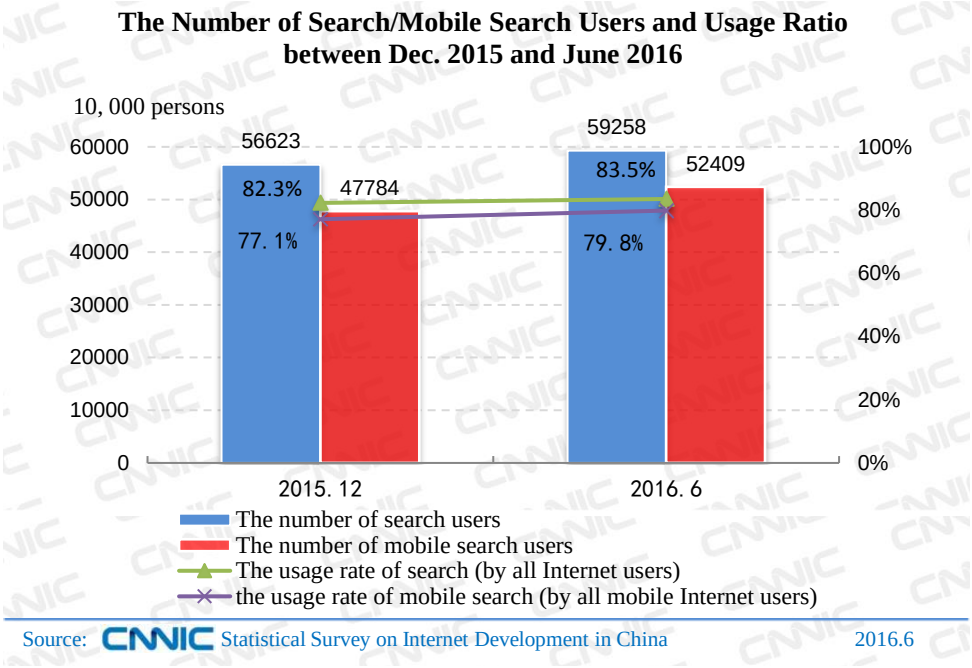


Figure 20 The Number of Search/Mobile Search Users and Usage Ratio between December 2015 and June 2016

In the first half of 2016, the changes of search engine industry were mainly reflected in competitive landscape and policy environment:

First, artificial intelligence technology became the development priority of the industry, search accuracy continued to improve. The in-depth integration of artificial intelligence technology and search algorithms was applied into the search products for everyday use; currently, the recognition technology of the mainstream search engines can be used to detect or recognize voices, images and videos with a high success rate, to further help users search whatever they want.

Second, mobile vertical applications were more diversified, causing the position of mobile search data-usage entrance to decline and lowering the efficiency of its monetizing; the search engine enterprises improved accuracy of information search and richness of products provided by

them through diversified competition, to attract users and innovative monetizing channels. For example, Baidu accelerated its connecting "services" and precisely positioned user search scenarios depending on big data, to enhance the conversion rate of information search to payment for consumption; Sogou connected Internet applications such as social communication and professional Q&A, to strengthen its capacity of absorbing professional and high-quality content; sm.cn, relying on the user base of UC mobile browser and the support of Alibaba's big data, improved the user experience of mobile search.

Third, the state introduced regulatory policies to oversee the searched contents, and great progress was made in the protection of users' rights and interests. On June 25, the Cyberspace Administration of China released the Provisions on Administration of Internet Information Search Services, putting forward the concept of "Internet information search service" for the first time and specifying the obligations of service providers, with a view to fostering a fair and reliable information search environment for netizens from such aspects as government supervision, corporate social responsibility, and code of business conduct.

1.3 Netnews

As of June 2016, China had 579 million of Netnews readers, accounting for 81.6% of all netizens. The size of Netnews readers grew by 14.87 million over the end of 2015, a semi-annual increase of 2.6%. Specifically, 518 million people, or 78.9% of mobile Internet users, read news on their phones, an increase of 36.35 million or 7.5% over the end of 2015.

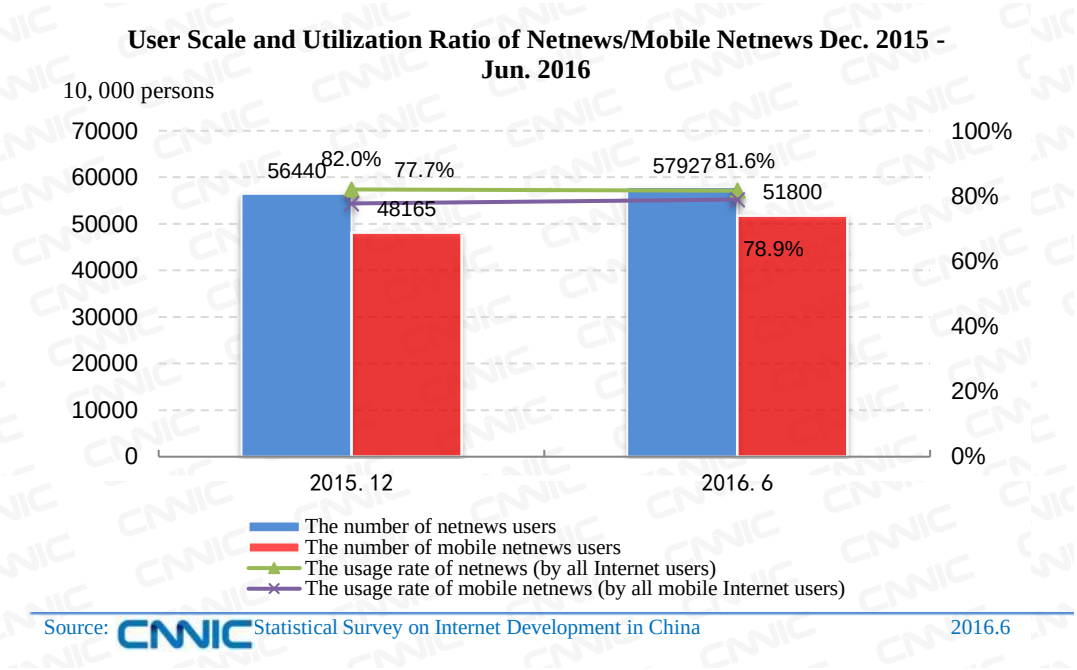


Figure 21 User Scale and Utilization Ratio of Netnews/Mobile Netnews Dec. 2015-Jun. 2016

Mobile devices became a main channel for netizens to read news, and information explosion and fragmentation brought by the development of mobile Internet accelerated netizens' demand for individualized and vertical news. Meanwhile, the stronger media attributes of mobile Internet also presented higher demand to news media. Therefore, driven by mobile Internet, online news showed new characteristics in the way of distribution and media development in the first half of 2016.

In terms of information distribution, mobile Internet propelled the rapid development of the algorithm-based distribution mode based on user interest, which became the main distribution mode of netnews. Compared with the era of printed media and PCs when editors distributed press releases, the mode of algorithm-based distribution, using data technology, selects and recommends news users interested in, greatly improving the distribution efficiency. At present, this mode is still immature in terms of targeted distribution and needs improvement in the quality of contents and the range of topics, while the "editor-dominated distribution" mode still has a place in the field of professional and vertical online news. With the advance of big data technology and diversification of data dimensions, the algorithm-based distribution mode is expected to be able to realize well-targeted content recommendation.

As to media development, mobile Internet accelerated the integration of traditional and new media, and the trend of media convergence turned up. In the first half of 2016, the "tangible"

integration of traditional and new media was completed as state and local media shifted to new media through the use of "WeChat, Weibo and news apps" [8], of which traditional media including the People's Daily and CCTV News gained a strong foothold on the Internet. However, in terms of "intangible" integration, traditional media still needs to be deeply integrated with new media in all aspects ranging from contents, channels, platforms to operations, and strives to embark on a path of integrated and sustainable development, so that a modern communications network featuring diverse media and integrated development can take shape.

1.4 Social networking

With the development of Internet, social networking, as an essential element of Internet applications, has gone beyond transferring information but been fused with communication and commerce applications. With the help of the user base of other applications, social networking applications helps users to form a even stronger social relationship chain, and can disseminate information rapidly on a wide scale.

WeChat Moments and Qzone are social networking services based on instant messaging. As of June 2016, their utilization ratio had reached 78.7% and 67.4% respectively. WeChat Moments is an acquaintance social networking platform based on WeChat contacts. With the expansion of users and product features, weak-relationship social intercourse also makes its way, giving rise to a variety of parallel circles within the product. Qzone features strong and weak relationships in relationship chain, and focuses on individual information with relatively weak attributes of media.

As a media platform for disseminating information based on social relationship, Weibo has shifted its development strategy to vertical contents after industrial adjustments, and shaped itself as vertical communities of interest, thus with attributes of both media and community. Up to June 2016, Weibo had 242 million users and the utilization ratio was 34%, a slight increase over the end of 2015. Weibo features social networking with strangers, with information spreading among people following one another. In terms of contents, Weibo has moved from news and social information it focused on in the early stage to interest-based vertical fields.

[8]Refer to WeChat and Weibo platforms and news applications.

Usage Rate of Typical Social Networking Applications Dec. 2015 – Jun. 2016

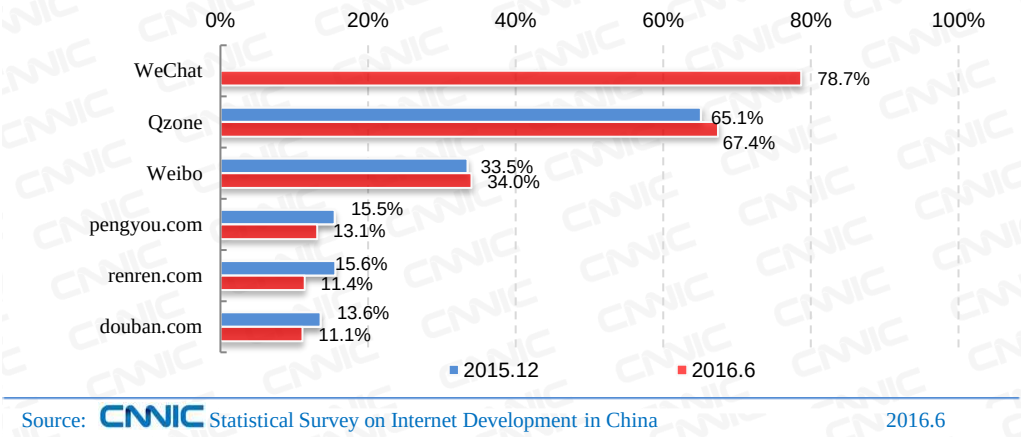


Figure 22 Usage Rate of Typical Social Networking Applications

(Ⅱ) The Development of Business Transaction Related Applications

2.1 Online shopping

Up to June 2016, China had 448 million online shoppers, an increase of 34.48 million or 8.3% over the end of 2015. The online shopping market maintained robust growth. The number of mobile online shoppers grew rapidly to 401 million, an increase of 18.0%. The usage rate of mobile shopping increased from 54.8% to 61.0%.

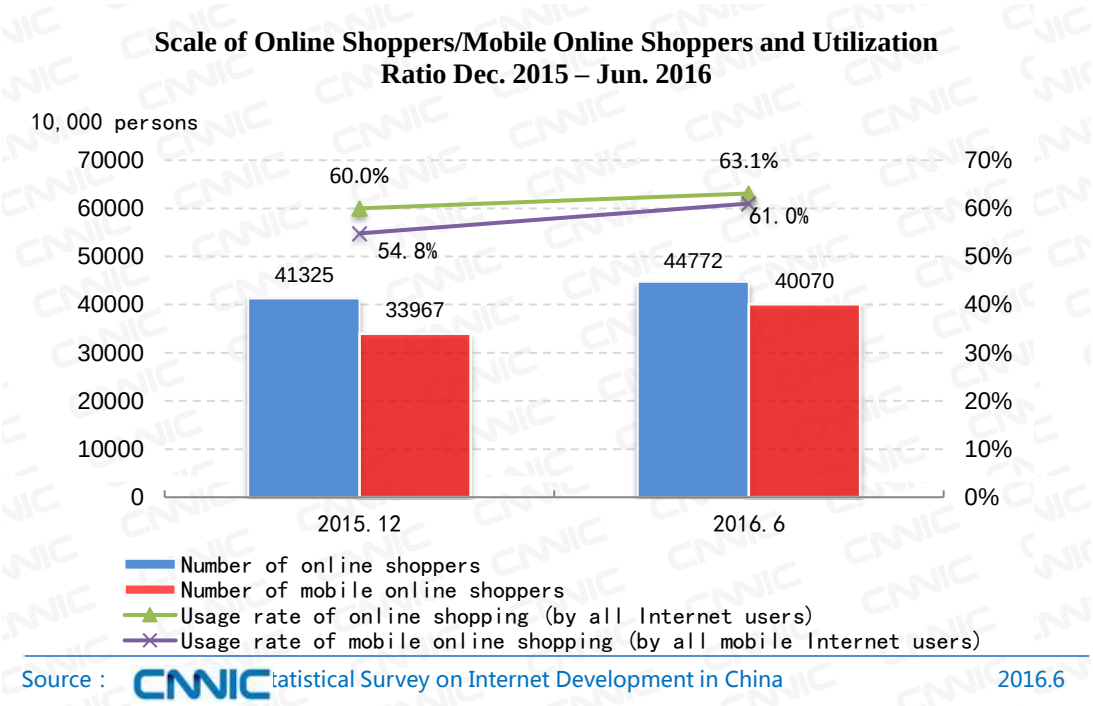


Figure 23 Scale of Online Shoppers/Mobile Online Shoppers and Utilization Ratio Dec. 2015 – Jun. 2016

The government and enterprises worked together to promote consumption upgrading through macro policies and promotions. The 13th Five-year Plan makes clear the direction of consumption upgrading towards intelligent, environment-friendly, intensive, and quality consumption, emphasizing that service consumption should be expanded to drive the upgrading of consumption structure. Combining traditional retailing and information consumption, online shopping conforms to the trend of consumption upgrading. Meanwhile, e-commerce platforms diversified and upgraded their marketing methods, and extended from online shopping to service consumption. For example, they introduced media elements on PCs and mobile devices for the purpose of interest-based shopping guide, and experimented with video shopping guide by tapping the economic value of Internet celebrities with the help of short videos and live broadcast.

The introduction of the new tax policy indicates that cross-border e-commerce has been subject to supervision after a period of policy incentives. In March 2016, the Ministry of Finance, General Administration of Customs, and State Administration of Taxation jointly issued the *Notice on the Import Tax Policy for E-commerce*, and the *List of E-commerce Imports* was announced on April 7. The new policies on one hand make clear the mode and status of cross-border e-commerce import at the taxation level and reflect the government's positive

attitude towards the development of the cross-border e-commerce industry, and on the other hand indicate that the industry will enter a stage of orderly and rapid development subject to regulation, which is conducive to its mid- and long-term development. Allowing a period of transition buys time for exploring new modes of regulation and also provides a buffer for the industry .

As to rural e-commerce, the government and e-commerce enterprises made efforts to facilitate online shopping in rural areas and sale of agricultural products to urban areas via e-commerce platforms, thus accelerating the process of urban-rural integration. The *Guiding Opinions on Accelerating the Development of Rural E-commerce* issued by the General Office of the State Council brings forward seven measures in favor of rural e-commerce. E-commerce companies are encouraged to set up rural service stations, extend their platform advantages to rural areas, overcome the restrictions of logistics and information flow, and strengthen points of weakness in talent and concept. This is not only conducive to narrowing the income and consumption gaps between urban and rural areas but also attracting more people to start businesses in their hometown, thus promoting rural economic development. Meanwhile, with the advance of rural e-commerce, the e-commerce service industry enjoys a broader market space and development potential.

2.2 Online meal ordering

Up to June of the year, 150 million Internet users had ordered meals online, a half-year increment of 36.1 million or 31.8%. Specifically, 146 million of them did it on mobile phones, an increase of 40.5%, and their proportion in total mobile Internet users increased from 16.8% to 22.3%.

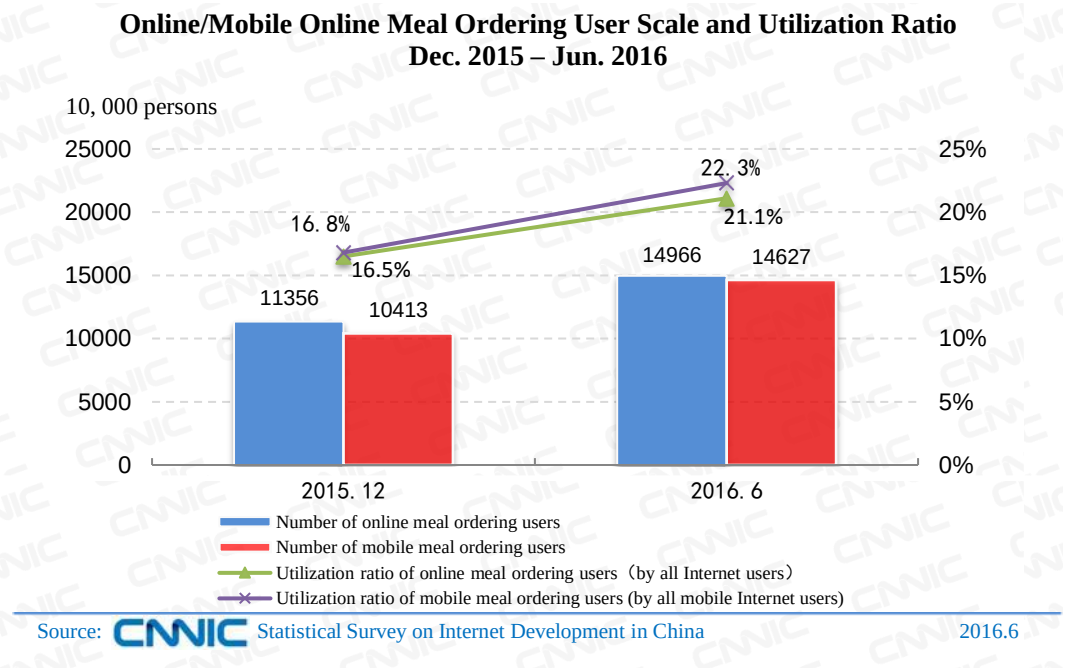


Figure 24 Online/Mobile Online Meal Ordering User Scale and Utilization Ratio Dec. 2015 – Jun. 2016

The online meal ordering industry experienced rapid development. The improved policy environment, rational market competition and expanding range of services contributed to the continued increase in user scale.

In terms of policy environment, the standards for the online meal ordering industry were gradually established. The *Measures for the Administration of Catering Businesses* (Trial) promulgated by the Ministry of Commerce and NDRC for the first time includes provisions on meal services. The measures for the administration of online food safety adopted in various regions regulate the services provided by online caterers and third-party platforms. Meanwhile, the ban on motorcycles and electric bikes in densely populated cities posed a serious challenge to the online meal ordering industry. Thus, the industry should improve the service mechanism under the government's regulation and strive for sustained, steady and orderly development.

In terms of market competition, enterprises entered into a stage of rational competition. Driven by capital, the industrial pattern remained stable. However, the practice of fostering consumption habits with subsidies at the early stage led to users' dependency on subsidies. In response, online meal companies need to retain users by delivering quality services, so as to achieve sustained development.

The online meal ordering industry is still at the primary stage, with considerable market

potential and development space. With the increasing Internet use among the urban population, the growing spending power, the formation of personalized distribution consumption habits and the accelerated pace of urbanization, the demand for online meal services will expand rapidly. The logistics system established to meet the needs of catering services can expand other "short-distance" distribution services closely related to people's lives, enjoying a broad prospect.

2.3 Travel booking

As of June 2016, the number of netizens with the experience of booking air tickets, hotel rooms, train tickets or holiday travels on the Internet reached 264 million, an increase of 4.06 million or 1.6% over the end of 2015. The Internet users who had booked train tickets, air tickets, hotel rooms and holiday travels online respectively accounted for 28.9%, 14.4%, 15.5% and 6.1% of total netizens. Specifically, the number of netizens having booked air tickets, hotel rooms, train tickets or holiday travels on the mobile Internet reached 232 million, an increase of 22.36 million or 10.7% over the end of 2015. Chinese netizens' utilization ratio of mobile travel booking increased from 33.9% to 35.4%.

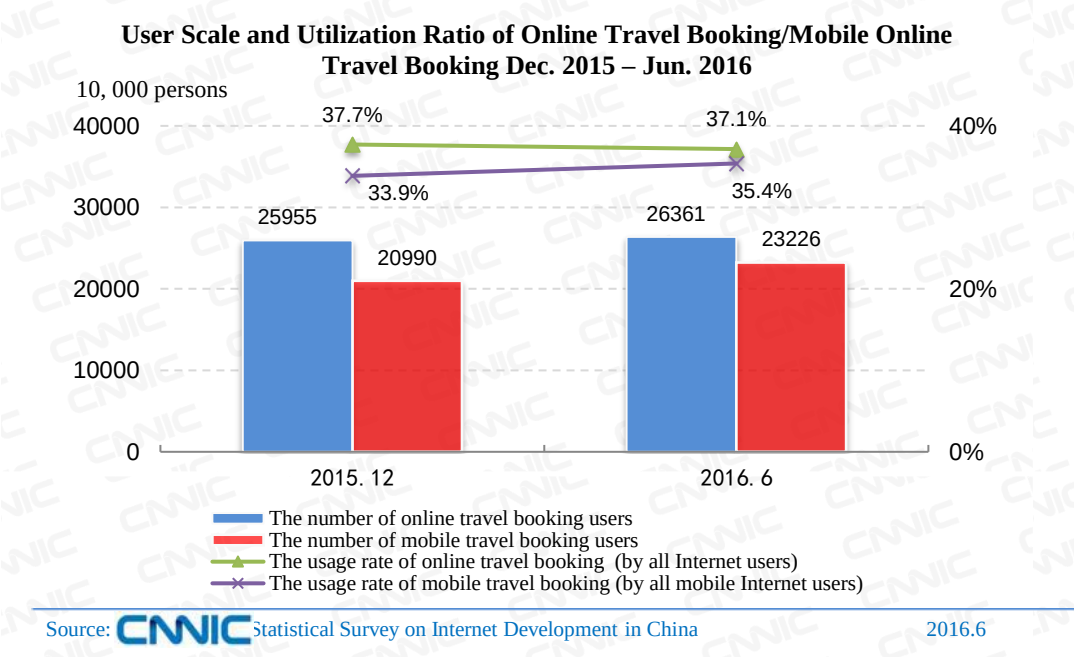


Figure 25 User scale and utilization ratio of online travel booking/mobile online travel booking Dec. 2015 – Jun. 2016

Amid fierce competition, online air ticket, hotel and holiday travel companies attempted to stay competitive by adopting the following measures in 2016.

In terms of air ticket booking, online ticket booking services of airlines will grab a chunk of market share from agents, in that airlines are able to sell tickets directly given their concentrated resources, mature membership system and low level of dependence on OTA[9]. For the latter, the vast customer base and all-round travel services will help to bring traffic to airlines' ticket booking platforms.

As to hotel booking, hotel service providers with their locations and brands even more scattered will continue to depend on online booking companies. Online booking companies will be under greater pressure when negotiating with hotel service providers, and face more intense competition from their rivals. On one hand, online booking companies take commissions from hotels, a pressure on their revenue, so some hotels have instead focused on operating their own booking services. On the other hand, search, group buying and e-commerce applications have branched into the field of hotel booking, further intensifying the competition.

With capital support, OTAs have integrated the entire industry chain. They cooperate with scenic spots throughout the process of planning, design, project investment and operation, thus having a say and certain power. In terms of services, they deliver quality travel experience including accommodation, catering and shopping, and build up distinctive service brand and reputation. They also develop scenic spot projects and thematic travel activities through the modes of investment, licensing and entrusted operation.

(III) The Development of Internet Finance Applications

3.1 Internet financing

Up to June of the year, 101 million netizens had purchased Internet financing products, an increase of 11.13 million over the end of 2015, and the utilization ratio was 14.3%, up1.3 percentage points. After years of rapid development, the Internet financing market saw a great increase in the varieties of products and improvement in user experience, and netizens basically got used to online financing.

[9] OTA: Online Travel Agent.

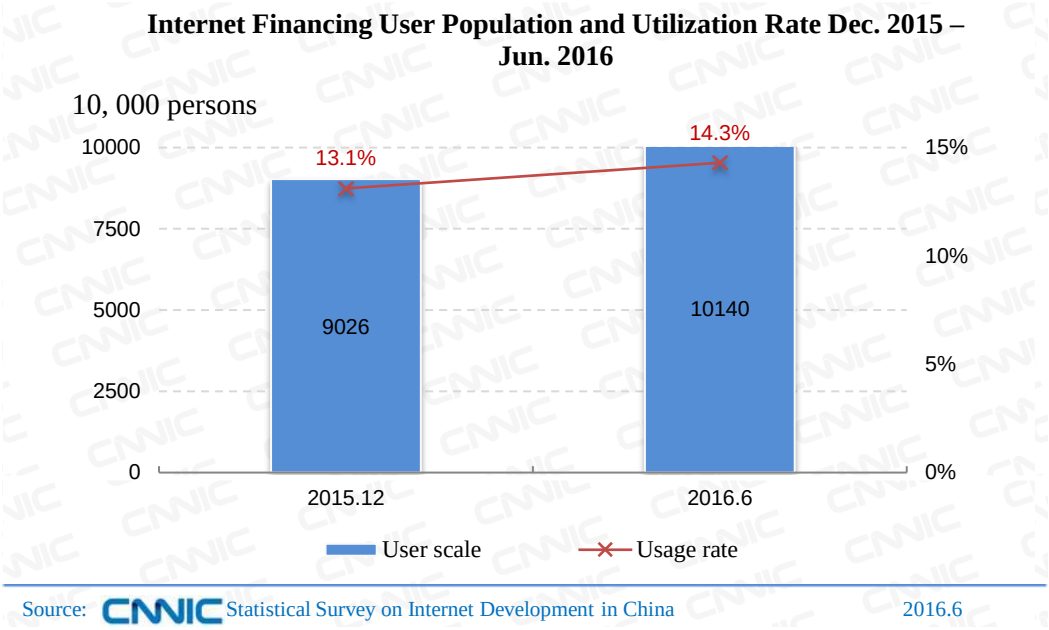


Figure 26 Internet Financing User Scale and Utilization Rate Dec. 2015 – Jun. 2016

With the innovation of Internet companies, the deepening of financing concept, and the development of Internet technology, the Internet financing market has showed the new attributes of platform, scenario and intelligence.

Firstly, Internet financing companies have shifted to one-stop financing platforms by enriching product varieties and extending the service chain. From the perspective of users, they are able to purchase various kinds of financing products. That to some extend stimulates the purchase demand and is conducive to market development. Currently, one-stop financing platforms are still at the development stage of importing users. With regard to the market pattern, traffic giants represented by e-commerce companies boast prominent advantages.

Secondly, scenarios are becoming the new development direction of the Internet financing industry. Internet financing companies keep expanding market share through accelerating creating and connecting to scenarios and turning scenarios into traffic access. Financing scenarios cater for the actual needs of users and are integrated with their life, promoting them to shift their focus from the number of yields to financing based on needs and to better enjoy the experience of wealth growth. Financing scenarios can also to some extend increase the purchase intension and stickiness of users.

Thirdly, a new development direction of Internet financing is to provide intelligent financing services for users by combining users' online behavior data and information on financing

products with such technologies as big data, artificial intelligence and deep learning. Intelligent financing services, though in their infancy, will be able to solve the contradiction between the numerous online financing products and the lack of financing knowledge of the public, reduce decision-making pressures of investors and provide them with comfortable and convenient financing experience, thus advancing the development of the Internet financing industry.

3.2 Online payment

Up to June 2016, China had a total of 455 million online payment users, an increase of 38.57 million or 9.3% over the end of 2015, and the utilization ratio increased from 60.5% to 64.1%. At the same time, China had 424 million mobile online payment users, a half-year growth of 18.7%, and the utilization ratio increased from 57.7% to 64.7%.

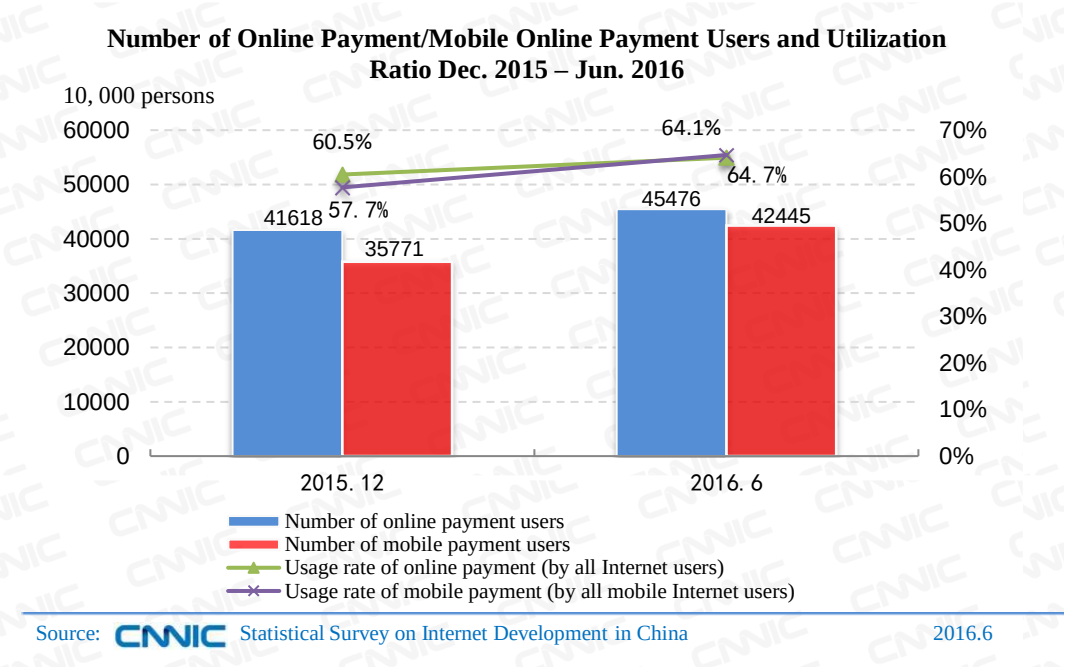


Figure 27 Number of Online Payment/Mobile Online Payment Users and Utilization Ratio Dec. 2015 – Jun. 2016

The rapid growth of online payment users in the first half of 2016 mainly has three reasons. First, the fast development of e-commerce applications shored up the demand for online payment, driving the expansion of online payment users. Second, online payment companies continually expanded and enriched offline consumption payment scenarios, and rolled out various subsidy policies to attract users. Third, online payment companies increased marketing efforts to expand the influence of online payment products, and made full use of the social relationship chain to

turn netizens into online payment users. Such efforts included the "collecting blessings" activity launched by Alipay and "shaking for gift money" activity by WeChat during the Spring Festival.

At present, netizens are still getting used to online payment for offline consumption. Though an alternative to bankcards and cash, online payment is still not a mainstream payment method in the offline retail industry, which remains a key area online payment companies are competing for. In addition, the credit service demand of netizens expanded with the development of the financial industry, and third-party payment companies made active efforts in providing credit reference value-added services based on transaction data, which will get on the fast track once the government allows enterprises to conduct personal credit reference operations.

Overall, online payment got a head start in the payment market and remains a mainstream payment method, but its dominance is being challenged by other types of mobile payment. Since the beginning of 2016, banks and China UnionPay have teamed up with domestic and foreign mobile phone companies in a move to take a bigger share of the mobile payment market. Apple Pay and Samsung Pay are now available in China, and phone makers like Xiaomi and Huawei have released new models of NFC-capable phones. NFC-based mobile payment involves huge costs and a long time to upgrade devices, thus unlikely to shake off the dominance of online payment in a short time. But given its advantages in safety and convenience, China UnionPay, phone makers and online payment companies are bound to beef up competition and cooperation in this field.

(Ⅳ) The Development of Online Entertainment Applications

4.1 Online games

Up to June 2016, China had 391 million online game players, who accounted for 55.1% of all netizens. In particular, the number of mobile online game users reached 302 million, an increase of 23.11 million from the end of 2015, accounting for 46.1% of mobile Internet users.

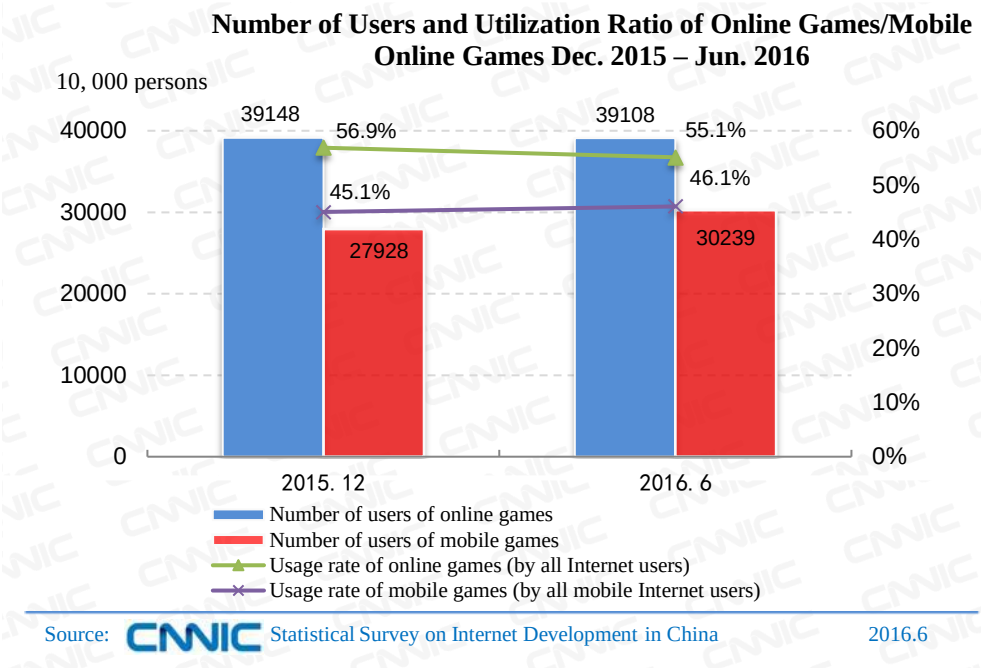


Figure 28 Number of Users and Utilization Ratio of Online Games/Mobile Online Games Dec. 2015 – Jun. 2016

In the first half of 2016, the number of online game users stayed stable, and the shift to mobile devices, standardization of copyrights, and adaption of contents into videos became the main trends.

Firstly, game users on the whole continued to move away from PCs to mobile terminals. In the first half of 2016, the utilization ratio of PCs decreased to 61.4% from 67.7% at the end of 2015, while that of mobile phones grew to 77.3% from 71.3%. With the quality improvement of mobile online games and the enriched methods of playing, the number of mobile online game users is expected to grow in the future, but given the apparent advantage in interactions on the PC end, mobile online games are unlikely to entirely displace PC-end games.

Secondly, the standardization of online game copyrights accelerated, especially on the mobile end. In June 2016, the State Administration of Press, Publication, Radio Film and Television issued the *Notice on the Administration of Mobile Online Game Publishing Services*, providing that mobile online games must get approval before launched. This indicates that the issue of infringements having long beset the mobile online game industry will be addressed. In addition, in the first half of 2016, online games companies with quality content copyrights such as Tencent, ChangYou and PWRD launched campaigns against online games suspected of infringements. In short, the standardization of online game copyrights has promoted the industry

to enhance the awareness of intellectual property rights and ensure fair play.

Thirdly, the adaption of online game contents into videos became a trend. As an important part of the pan-entertainment industry, the integration of online games with other cultural & entertainment forms accelerated. In the first half of 2016, adaption of online game stories into films received high attention from game makers, and companies with successful game products including Tencent, NetEase and Giant launched their film adaption strategy successively. For online game makers, an important development direction is to achieve coordinated development with other online entertainment and content patterns based on online games, and thus form a sound pan-entertainment industry.

4.2 Internet literature

Up to June 2016, the user scale of Internet literature was 308 million, accounting for 43.3% of the total netizen scale and representing a half-year increment of 10.85 million. In particular, users of mobile Internet literature reached 281 million, constituting 42.8% of total mobile netizens and recording a half-year increase of 22.09 million.

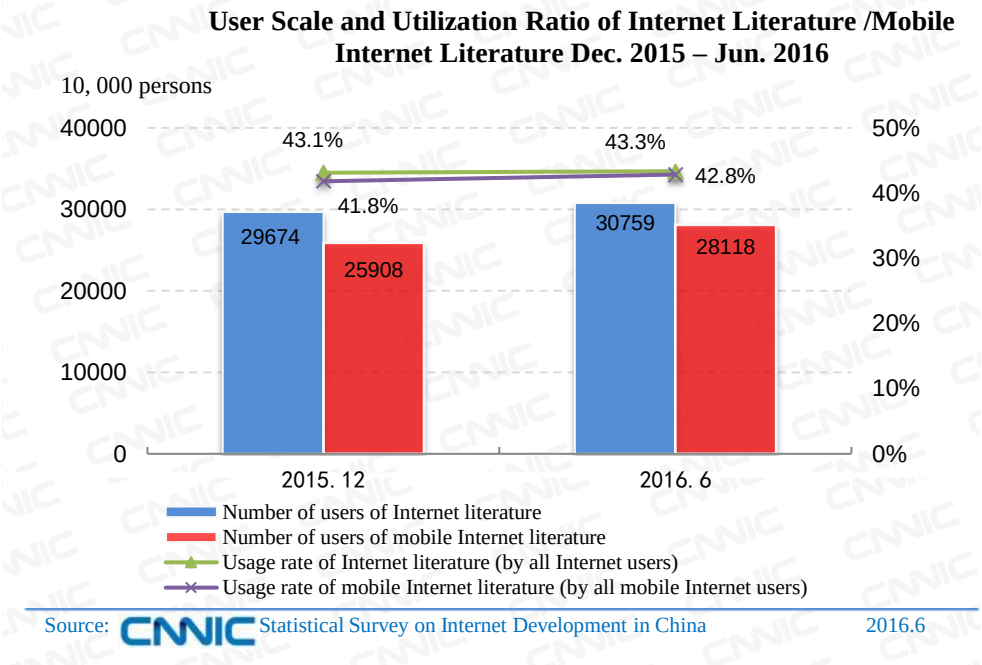


Figure 29 User Scale and Utilization Ratio of Internet Literature /Mobile Internet Literature Dec. 2015 – Jun. 2016

After nearly two years of M&As and restructuring, the Internet literature market formed a relative clear pattern. It showed two characteristics in the first half of 2016.

First, the IP-based Internet literature industry took shape and the modes of profitability were diversified. At the forefront of the pan-entertainment IP industrial chain, Internet literature works, relying on low-cost dissemination on the Internet, have attracted a large number of loyal readers, who represent enormous economic value when Internet literature works are adapted into films, TV dramas or games. Meanwhile, instead of solely depending on user payment as it did in the past, the Internet literature industry has diversified the sources of income, which now include content production and user payment.

Second, the standardization of Internet literature copyrights advanced. Since the emergence of Internet literature, pirate websites have long disturbed the market order with their low-cost advantage. Given their large number and small scale, it is difficult to eliminate such websites, and is costly for copyright owners to safeguard their rights. With the formation of Internet literature groups, large platforms have more resources to take action against pirate websites according to related laws and regulations, and this to some extent alleviates the difficulty of authors in safeguarding their rights.

4.3 Online videos

Up to June 2016, China had 514 million online video users, an increase of 10 million over the end of 2015, and the utilization ratio was 72.4%, a slight fall from the end of 2015. In particular, mobile video users numbered 440 million, an increase of 35.14 million or 8.7% over the end of 2015, and the utilization ratio was 67.1%, up 1.7 percentage points.

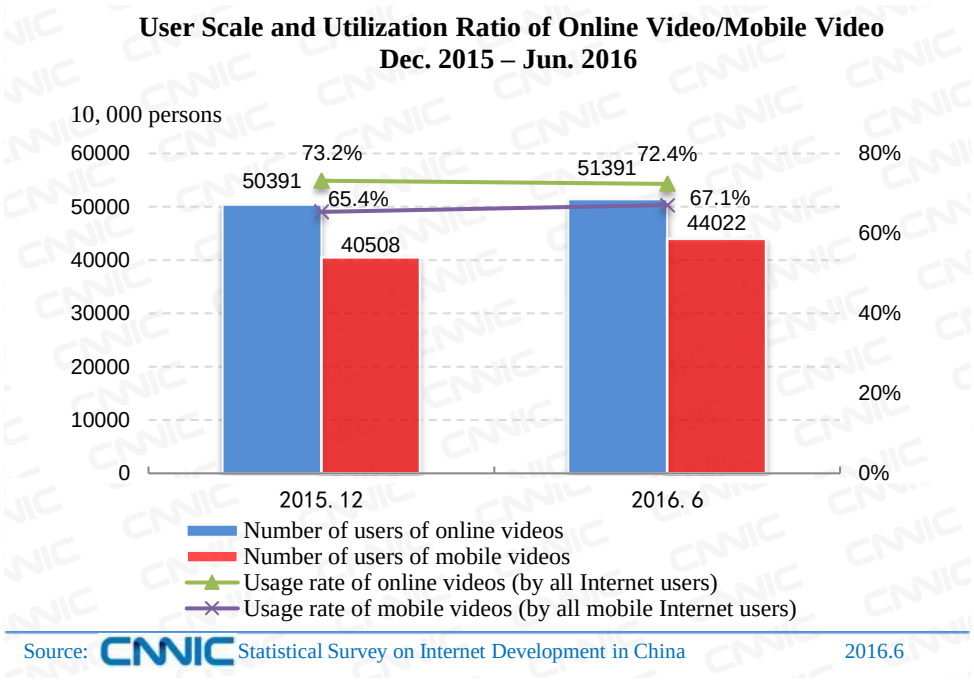


Figure 30 User Scale and Utilization Ratio of Online Video/Mobile Video Dec. 2015 – Jun. 2016

In the first half of 2016, major video websites cooperated with the entertainment sector to build the entertainment industrial chain. The online video industry showed the following characteristics in terms of devices, contents and business modes.

Firstly, the multi-screen trend was obvious, with mobile phones and smart TVs gaining a strong foothold. On the one hand, more netizens were using mobile phones to watch online videos, and this group accounted for 85.7% of online video users. The growth of mobile video users was higher than that of online video users, and the mobile end generated about 70% of the total traffic of mainstream video websites, signifying that mobile phones have become the most important device for individual users to watch online videos. On the other hand, with the popularization of smart TVs, 21.1% of Chinese netizens connected their TVs to the Internet and the number is still growing, providing a new space for the growth of video users. In the future, virtual reality (VR) devices will be another kind of hardware that witnesses the competition among video manufacturers.

In terms of video contents, major video websites softened the competition in purchasing copyrights, and started to focus on producing quality and differentiated contents of their own. With the online video industry turning mature, almost all mainstream video platforms have

engaged in upstream content development and production, and professional operations have greatly improved the quality of self-produced contents. For the moment, the number of self-produced programs of video websites is likely to overtake that of copyrights bought by them. Video websites keep investing a lot in super IP and online variety shows while strengthening content construction in vertical fields such as sport, finance, cartoon and music, in an effort to build differentiated content platforms.

As to business models, quality contents promote the habit of paying for contents to take root in video users, who have a great potential of consumption. Since 2015, driven by multiple factors, the number of paying consumers has increased rapidly, subscription revenue has accounted for a growing proportion in the total revenue of video websites. Currently, mainstream video websites mainly attract users to pay through differentiated scheduling of hit TV dramas or programs. In the future, the in-depth operation and mining of members' demand based on big data will give rise to more value-added services. In addition, the live broadcast channels/products and We Media channels of video websites will also promote the development of value-added service modes, and diversify the sources of income.

4.4 Online music

Up to June 2016, the number of online music listeners reached 502 million, an increase of 770,000 over the end of 2015, accounting for 70.8% of all Internet users. In particular, the number of mobile music listeners reached 443 million, a half-year increase of 27.07 million, accounting for 67.6% of mobile Internet users.

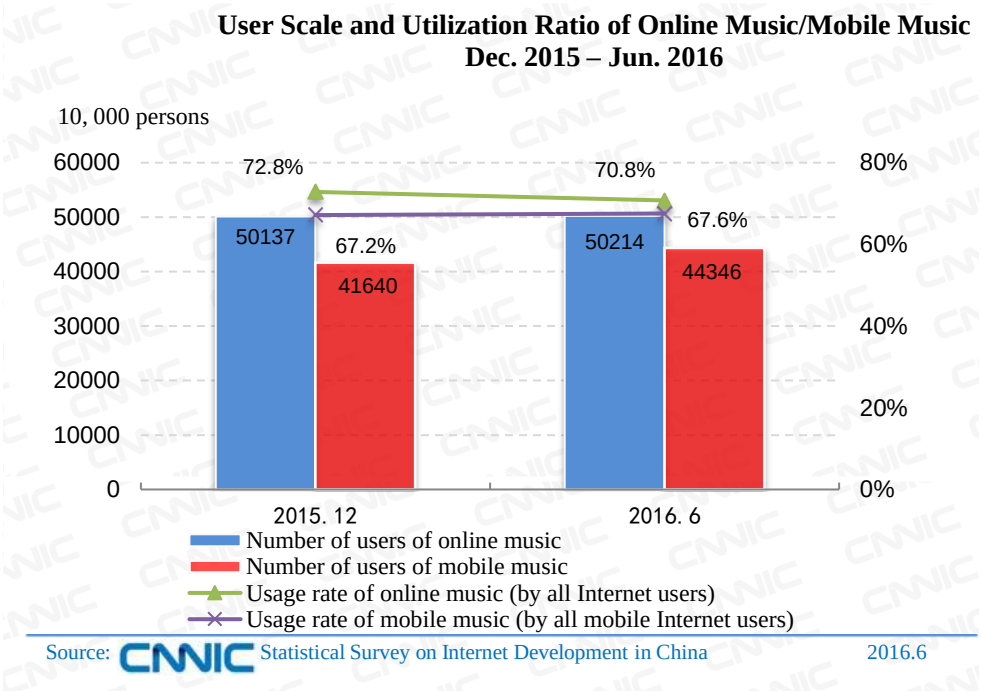


Figure 31 User Scale and Utilization Ratio of Online Music/Mobile Music Dec. 2015 – Jun. 2016

In the first half of 2016, the online music market made great progress in the following aspects.

First, the special campaign on online music copyrights provided a policy basis for the healthy development of the industry. Since the National Copyright Administration of China required "online music service providers to stop giving access to unauthorized musical works", music copyright infringements have been reduced considerably. Online music platforms started to cooperate with each other in the form of sublicensing. This approach ensures the legitimate source of music while bringing revenue to platforms, and also promotes the healthy transfer of copyrights, so it is a great mode conducive to the healthy development of the online music industry.

Second, the sources of online musical works were diversified. On the one hand, catering for the growing demand for overseas music, large online music platforms such as QQ Music and Ali Music Group invested heavily in overseas music and entertainment companies to introduce overseas music resources to China while expanding their own market competitiveness. On the other hand, the emerging original online music platforms provide an opportunity for music lovers to demonstrate their original works, reflecting the enormous potential of the domestic original

music market.

Third, the online music industrial chain extended. The online music industry was increasingly integrated with other online entertainment forms. More and more music composers participated in music production for online games and videos, making online music a source of musical materials for other online entertainment industries. Meanwhile, the online music industrial chain extended, covering performances, fans operation, marketing and ticketing platforms, among others.

4.5 Live broadcasting

Live streaming services[10] received high attention in the first half of 2016, and achieved rapid development driven by capital. Up to June 2016, China had 325 million live streaming users who accouted for 45.8% of all netizens.

In the first half of 2016, host live shows and live game broadcasting developed rapidly under the impetus of capital, and their users accounted for 19.2% and 16.5% of all netizens. Due to the high promotional cost, bandwidth cost and fees for contracted hosts, live streaming services are still exploring the appropriate business models since the income from users buying virtual gifts and advertising is not sufficient for their expansion. In April 2016, the Ministry of Culture launched a campaign against violations of live streaming platforms, requiring real-name authentication of online hosts. The supervision over live streaming will be further tightened in the future.

The live sport broadcasting market saw intensified competition for broadcasting rights. Unlike live game or reality show streaming, live sport broadcasting attracts users solely with sporting events, so broadcasting rights is a key area of competition among live sport broadcasting platforms. In the first half of 2016, enterprises such as Xiaomi, Letv and Baofeng reached cooperation agreements on live broadcasting international well-known sporting events in a move to enhance their own competitiveness with unique resources.

As a new type of concert broadcasting, live concert streaming is still at the stage of exploration. Up to June 2016, the utilization ratio of live concert streaming was 13.3%.

[10] Live streaming services surveyed for this report include live sport broadcasting, host live show, game streaming, and live concert streaming.

Compared with traditional forms, live concert streaming not only breaks the space constraints, but also allows the audience to interact with performers via "bullet screens", vote for their favorite songs, and others. In addition, the VR technology, when it becomes mature, can greatly improve the experience of the audience and promote the development of live concert streaming.

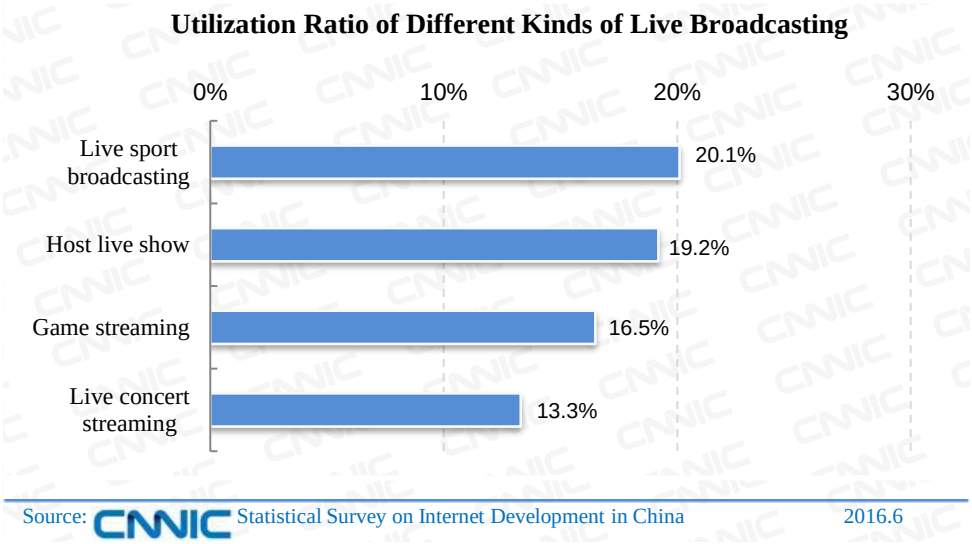


Figure 32 Utilization Ratio of Different Kinds of Live Broadcasting

(Ⅴ) The Development of Public Service Applications

5.1 Online education

Up to June 2016, China had 118 million online education users, an increase of 7.75 million or 7.0% over the end of 2015, and the utilization rate stayed basically stable at 16.6%. In particular, mobile education users numbered 69.87 million, a half-year increase of 16.84 million or 31.8%, and the utilization ratio was 10.6%, up 2 percentage points from the end of 2015.

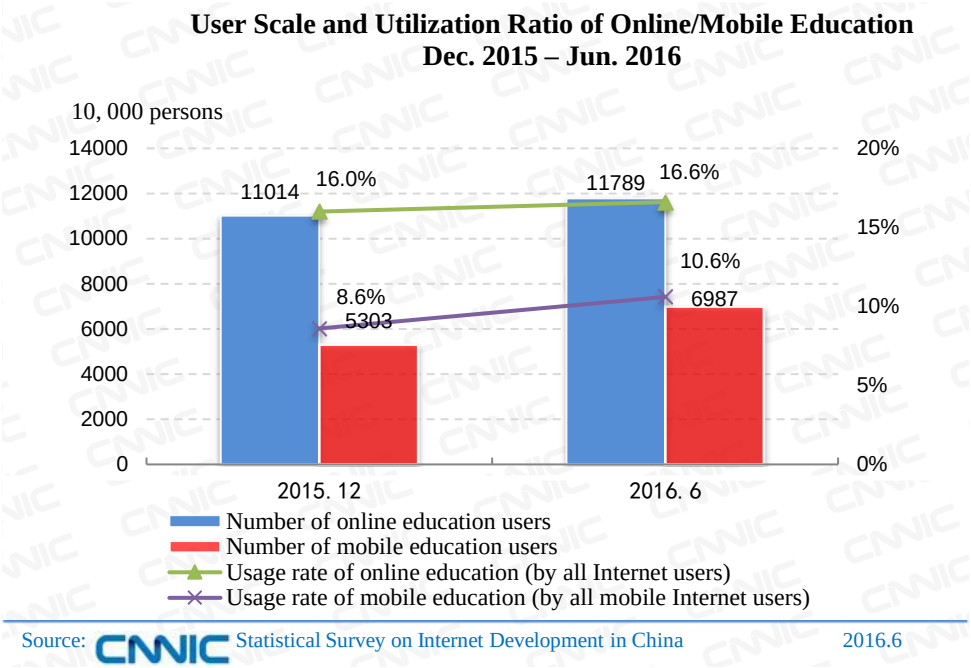


Figure 33 User Scale and Utilization Ratio of Online/Mobile Education
Dec. 2015 – Jun. 2016

With the development of the Internet, the great importance the country has attached to education, the application of cloud computing and other technologies, and the public demand for knowledge and skills together promoted the rapid development of the online education market. From the perspectives of market segments, access terminals and technical support, the online education industry shows the following trends.

Online vocational education has a robust user demand and a broad development space. With economic development and accelerated pace of knowledge update, the society has a growing demand for skilled talents, so the development of vocational education is a general trend. Meanwhile, to enhance their own competitiveness, people are willing to receive skill training, and can afford it. With well-defined target groups and mature profitability modes, online vocational education will enjoy a broad prospect if it can integrate resources with enterprises to establish the one-stop model of "Internet + education + employment".

Mobile education has become a mainstream form of online education. This survey finds that 59.3% of online education users used mobile phones for educational purposes, up 11 percentage points over the end of 2015. Compared with PC-end education, mobile education can provide individualized learning scenarios, and create more personalized interaction scenarios with the

help of touch screens and voice output of mobile devices to make learning fun. Therefore, it is especially suitable for question bank, digital reading, and audiovisual educational products. In the long run, educational products based on mobile terminals and with quality and fun contents will get an upper hand in the market.

Digital technology helps to improve online education experience. Through the big data mining technology, online education platforms get to know the personal attributes, educational attainment, income, consumption, and other aspects of users, as well as user demand and learning motivation. In this way, they are able to pinpoint specific groups and recommend customized contents to them, thus improving the profitability of the platforms. In addition, the development of VR and AR technology and related hardware will make immersion teaching possible, and create real-life scenarios for online education, especially in courses like architecture, physics, medicine and biology. That will increase interactions and improve learning efficiency.

5.2 Online cab/car rental

In the first half of 2016, China had 159 million users of online taxi booking service who accounted for 22.3% of all netizens and 122 million users of online car-hailing services[11] who accounted for 17.2% of all netizens.

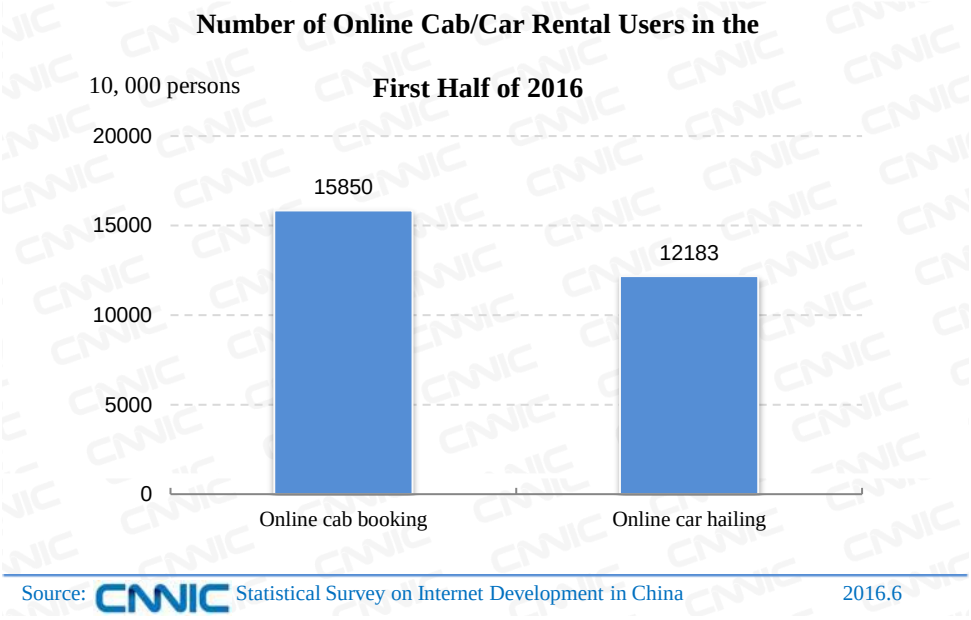


Figure 34 Number of Online Cab/Car Rental Users in the First Half of 2016

[11] Online car-hailing services include private car booking and carpooling services.

On the one hand, online cab booking service promoted the transformation and upgrading of the traditional taxi industry. It improved the taxi hailing efficiency and made up for the service area beyond the reach of traditional taxi services. At the same time, taxi-hailing apps feature real-time sharing of driving routes, helping to ensure the safety of passengers. With the application of the Internet technology, the taxi industry is also seeking innovations and breakthroughs in a market-based manner to cater for the needs of users.

On the other hand, online car-hailing services enriched the market segments, and became a typical pattern of sharing economy. Online car-hailing services include private car booking and carpooling services, serving as a good supplement to the traditional market. Users are now used to online car-hailing services. While meeting the personalized travel needs of users, online car-hailing services can also save social resources. However, the policy environment remains somewhat murky, and the access requirements, legal status and regulatory mechanism of online car-hailing services still need to be specified. Meanwhile, the online car-hailing service industry itself needs to improve service quality and strengthen the safety and trust mechanism with the help of big data.

5.3 E-government services

Up to June of the year, 176 million people or 24.8% of all netizens received e-government services, which has a great prospect. Specifically, the utilization ratio of government WeChat public accounts was 14.6%, which became the most popular way of using e-government services; the utilization ratio of government Weibo was 6.7%, and that of apps was 5.8%.

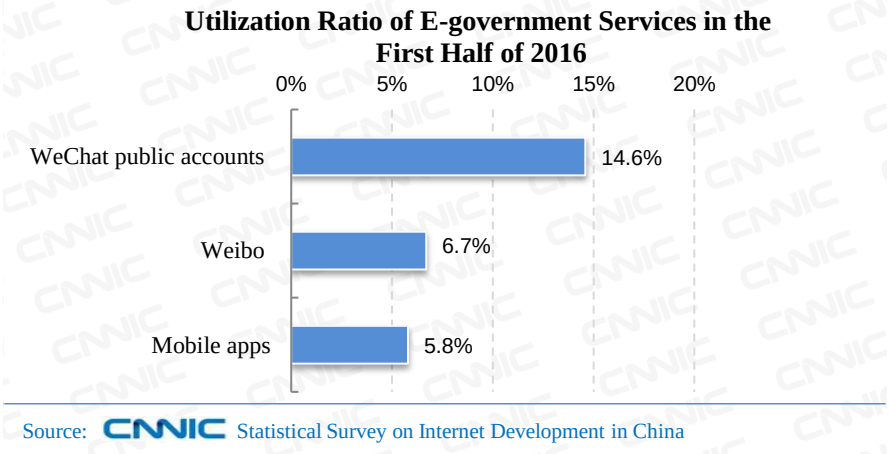


Figure 35 Utilization Ratio of E-government Services in the First Half of 2016

The contents and forms of government services provided online became diversified. On the one hand, the government introduced policies supporting the development of E-government. In March 2016, Premier Li Keqiang vowed in his report on the work of the government to "carry out the 'Internet + government services' model and promote better information sharing between government departments". To achieve information sharing between government departments in different regions and at different levels by making use of the Internet, the information technology and the advantage of the Internet in interaction and sharing is a key task in "Internet + government services". On the other hand, government-enterprise cooperation accelerated, and E-government service platforms were available around the country. For example, many government departments delivered services via WeChat public accounts. Having access to service information of government departments through media platforms of Internet companies promoted the growth of E-government service users.

Mobile apps became a main direction of E-government services. With the popularization of the Internet and the growing use of mobile devices, users had higher demand for all-round government services available on the mobile end. Relying on new media such as Weibo, WeChat public accounts and apps, government departments made active explorations on integrated services including reservation, preliminary review, processing and inquiry to meet the demand of mobile netizens. To enrich the scenarios of application and enhance the recognition and sense of engagement of users will be a main objective of E-government service.

Appendix 1 Survey Methodology

I. Survey Methodology

i. Survey on Individual Internet Users

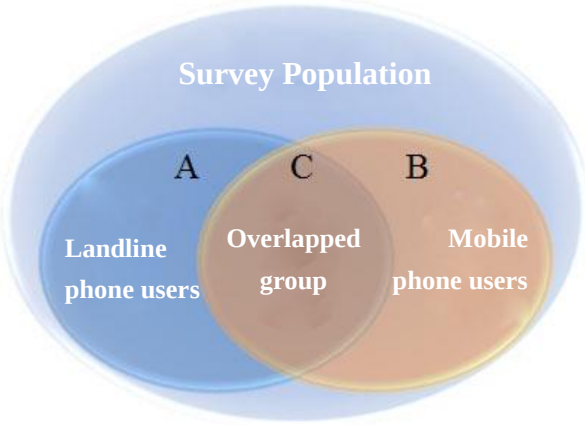
1.1 Survey Population

Permanent residents at the age of 6 or above who have landline telephones (including home phones, PHS and dormitory telephones) or mobile phones.

◇ Sample size

The overall sample size was 30,000, including 15,000 for landline telephone users and the other 15,000 for mobile phone users, covering 31 provinces, autonomous regions and municipalities directly under the Central Government in Mainland China.

◇ Division of survey population



The survey population can be divided into three categories:

Subpopulation A: Survey subpopulation using landline telephones (including residents with home phones, PHS users, students with dormitory telephones, and other users with dormitory telephones);

Subpopulation B: Survey subpopulation with mobile phones;

Subpopulation C: Survey subpopulation with both fixed-line telephones and mobile phones (there is an overlap between subpopulation A and subpopulation B, and the overlapped part is subpopulation C), C=A∩B.

1.2 Sampling Method

CNNIC surveys subpopulation A, B and C. Double sampling is adopted for the survey so as to cover as many Internet users as possible. The first sampling frame is subpopulation A, the people with landline telephones. The second sampling frame is subpopulation B, the people with mobile phones.

For the survey population with landline telephones, stratified two-stage sampling is adopted. To ensure the sufficient representativeness of samples, the whole country is divided into 31 tiers according to the province, autonomous region and municipality directly under the central government. The sampling is made independently at each tier.

The self-weighted sampling method is adopted for each province. The sample sizes are allocated for each district, city and prefecture (including the governed districts and counties) in accordance with the proportion of the people at the age of 6 or above in the city covered by landline telephones in the total population covered in the whole province.

Sampling in subpopulation B is the similar to that in subpopulation A. The whole country is divided into 31 tiers according to the provinces, autonomous regions and municipalities directly under the central government, and sampling is made independently in each tier. Samples are allocated in accordance with the proportion of the residents in each district or city to make the sample allocation in each province conform to the self-weighting method.

To ensure the residence landline telephones are taken with almost the same probability in each district, city or prefecture, that is, the local number with more residence landline telephones will more likely be taken, and for easier operability in the visit and implementation work, the residence fixed-line telephone numbers in each district, city and prefecture are taken according to the following procedures:

For mobile phone user groups, all local mobile area number in each district, city and prefecture are sampled; a certain quantity of 4-digit random numbers are generated according to the effective sample size randomly in combination with the valid sample size in each district, city or prefecture, and then combined with the local mobile area number in each district, city or prefecture to form a number library (local number + the random 4-digit number); randomly order the number library; dial and visit the randomly ordered number library. Survey of the subpopulation with landline telephones is similar to that of the subpopulation with mobile phones:

a random number is generated to form a telephone number with the local number, and then these numbers are dialed and visited. To avoid repeated sampling, only the people with landline telephones are visited.

1.3 Survey Method

The computer-assisted telephone interviewing (CATI) system is adopted for the survey.

1.4 Differences between Survey Population and Targeted Population

A study for the population who are not covered by telephones at the end of 2005 by CNNIC shows that Internet users are very few in this subpopulation. Currently, the subpopulation is downsizing gradually with the development of our telecom industry. In this survey, there is an assumption, i.e.

Internet users who are not covered by landline telephones or mobile phones are negligible.

iii. Online Survey

Online survey focuses on the use of typical Internet applications. CNNIC conducted online survey from June 1 to 30, 2016. The questionnaire is on the CNNIC website, and the links are available on major websites of China. Internet users voluntarily participated in and filled out the questionnaire.

iv. Automatic Online Search and Data Report

Automatic online search is used to conduct technical statistics about the quantity of domain names and websites, and their geographical distribution. Statistical data for reporting mainly includes the number of IP addresses and international Internet gateway bandwidth.

4.1. Total Number of IP Addresses

The data of IP addresses counted by provinces come from the IP address databases of Asia-Pacific Network Information Center (APNIC) and CNNIC. Registered data that can clearly distinguish the provinces of the addresses in each database were added respectively by province to generate data of each province. As address allocation is a dynamic process, the statistical data are only for reference. The Ministry of Industry and Information Technology, as the national competent department for IP addresses, will require our IP address allocation organizations to report the IP addresses they own biannually. To ensure the accuracy of IP data, CNNIC will compare and verify APNIC statistical data and the reported data to confirm the final quantity of IP

addresses.

4.2. Total Number of Domain Names and Websites in China

Total numbers of domain names and websites in China were derived from:

The number of domain names: The number of domain names with .CN and .中国 comes from CNNIC database. Domestic registrars assisted in providing the number of gTLDs in China.

The number of websites: It is worked out by CNNIC according to the list of domain names. The list of domain names with .CN and .中国 comes from the CNNIC database, while the list of gTLDs comes from relevant international domain name registries.

4.3. International Internet Gateway Bandwidth

Through the reporting system, the Ministry of Industry and Information Technology can obtain on a regular basis the number of total bandwidth of Internet connecting Chinese carriers with other countries and regions. The reported data are included in the Statistical Report on Internet Development in China.

II. Definitions of Terms in the Report

◇ **Internet Users or Netizens:** Chinese residents at the age of six or above who have used Internet in the past six months.

◇ **Mobile Internet Users:** Internet users who have used mobile phones to access and surf Internet in the past six months, but not limited to those surfing Internet via mobile phones only.

◇ **Computer Internet Users:** Internet users who have used computer to access and surf Internet in the past 6 months, but not limited to those surfing Internet via computers only.

◇ **Rural Internet Users or Rural Netizens:** Internet users who have been living in rural areas of China in the past six months.

◇ **Urban Internet Users or Urban Netizens:** Internet users who have been living in urban areas of China in the past six months.

◇ **IP Address:** As the basic resource in Internet, the IP address functions to identify online computers, servers and other devices on Internet. Connection with the Internet can be realized only when an IP address (in any form) is acquired.

◇ **Domain Name:** Domain name in the Report only refers to the English domain name, which is a string comprised of numbers, letters, and hyphens (-) and separated by dots (.). It

is a hierarchical structural Internet address identifier corresponding to the IP address. Common domain names are divided into two categories: country code top-level domain (ccTLD), such as the domain names ended with ".CN" which represent China; and generic top-level domain (gTLD), such as the domain names ended with ".COM", ".NET" and ".ORG".

◇ **Website:** It refers to the web sites with domain name itself or "WWW. + domain name" as the web address, including the web sites under the Chinese ccTLD ".CN" and gTLD as long as the registrant of the domain name is within the territory of P.R.C. For example: for the domain name of "cnnic.cn", it has only one website and the corresponding web address is "cnnic.cn" or "www.cnnic.cn". Other web addresses like "whois.cnnic.cn" and "mail.cnnic.cn" with such domain name as the suffix are regarded as different channels of the website.

◇ **Scope of Survey:** Unless otherwise expressly indicated, data in this Report only refer to mainland China, excluding Hong Kong, Macao and Taiwan.

◇ **Deadline of Survey Data:** The deadline of the statistical survey data is June 30, 2016.

Appendix 2 Tables of Fundamental Internet Resources

Table 1 The Number of IPv4 Addresses in Different Regions of China

Region	Number of Addresses	Equivalence
Mainland China	337608448	20A+31B+127C
Taiwan	35496192	2A+29B+161C
Hong Kong SAR	12510976	190B+231C
Macau SAR	333056	5B+21C

Table 2 Allocation of IPv4 Addresses among Organizations in Mainland China

Organization	Number of Addresses	Total Number of IPv4 Addresses
China Telecom	125763328	7A+126B+255C
China United Network Communications Corporation	69866752 [1]	4A+42B+21C
CNNIC IP Address Allocation Alliance	60737280 [2]	3A+158B+199C
China Mobile Communications Corporation	35294208	2A+26B+140C
China Education and Research Network	16649728	254B+14C
China Tietong Telecommunications Corporation	15796224 [3]	241B+8C
Others	13500928	206B+2C
Total	337608448	20A+31B+127C

Data sources: APNIC and CNNIC

Note 1: The addresses of China United Network Communication Limited include the addresses of former China Unicom and former China Netcom. Specifically, the IPv4 address 6316032 (96B+96C) of former China Unicom is assigned by CNNIC;

Note 2: As a national Internet registry (NIR) approved by APNIC and national competent authorities in China, CNNIC has organized ISPs, enterprises and public institutions of certain size in China to set up IP Address Allocation Alliance of China. So far, the total number of IPv4 addresses held by the members of CNNIC IP Address Allocation Alliance is 82,849,536, equivalent to 4A+240B+47C. The IPv4 addresses of the members of IP Address Allocation Alliance of China listed in the above table do not include those IPv4 addresses already assigned to former China Unicom and Tietong.

Note 3: The IPv4 addresses of China Tietong Telecommunications Corporation are assigned by CNNIC;

Note 4: Statistical data above is up to June 30, 2016.

Table 3 The Number of IPv6 Addresses in Different Regions of China

Region	Number of Addresses
Mainland China	20781 blocks/32
Taiwan	2360 blocks/32
Hong Kong SAR	279 blocks/32
Macau SAR	5 blocks/32

Table 4 IPv6 Address Allocation in Mainland China

Organization	Number of IPv6 Addresses (/32 1)
CNNIC IP Address Allocation Alliance	6056 [2]
China Telecom	4099
China United Network Communications Corporation	4097
China Mobile Communications Corporation	4097
China Tietong Telecommunications Corporation	2049 [3]
China Education and Research Network	18
China Science & Technology Network	17 [4]
Others	348

Data sources: APNIC and CNNIC

Note 1: /32 as shown in the IPv6 address allocation table is a method to present IPv6 addresses, and the corresponding number of addresses is $2^{(128-32)}=2^{96}$.

Note 2: At present, the total IPv6 addresses held by the members of IP Address Allocation Alliance of CNNIC are 8,122 block/32. The IPv6 addresses held by the members of IP Address Allocation Alliance listed in the above table do not include those IPv6 addresses already assigned to China Tietong and CSTNET.

Note 3: The IPv6 addresses of China Tietong Telecommunications Corporation are assigned by CNNIC;

Note 4: The IPv6 addresses of CSTNET are assigned by CNNIC;

Note 5: Statistical data above is up to June 30, 2016.

Table 5 The Proportion of IPv4 Address in Each Province/Autonomous Region/Municipality Directly under the Central Government

Province/Region/Municipality	Proportion
Beijing	25.48%
Guangdong	9.53%
Zhejiang	6.46%
Shandong	4.76%
Jiangsu	4.50%
Shanghai	4.90%
Liaoning	2.85%
Hebei	3.34%
Sichuan	2.64%
Henan	2.39%
Hubei	2.78%
Hunan	1.94%
Fujian	2.37%
Jiangxi	1.63%
Chongqing	1.66%
Anhui	1.21%
Shaanxi	1.38%
Guangxi	1.68%
Shanxi	1.22%
Jilin	1.05%
Heilongjiang	1.74%
Tianjin	1.28%
Yunnan	0.98%
Inner Mongolia	0.78%
Xinjiang	0.60%
Hainan	0.47%
Gansu	0.44%
Guizhou	0.48%
Ningxia	0.24%
Qinghai	0.18%
Tibet	0.13%
Others	8.92%
Total	100.00%

Data sources: APNIC and CNNIC

Note 1: The above IP address statistics are for the provinces/autonomous regions/municipalities where the IP address owners are located.

Note 2: Statistical data above is up to June 30, 2016.

Table 6 Number of Domain Names, .CN Domain Names and .中国 Domain Names by Province

Province/Region/Municipality	Domain Name		Including: .CN Domain Name		.中国 Domain Name	
	Number	Proportion in total domain names	Number	Proportion in total CN domain names	Number	Proportion in total .中国 domain names
Guangdong	5116578	13.8%	2285932	11.7%	35893	7.2%
Beijing	5360095	14.5%	2822139	14.5%	291209	58.1%
Zhejiang	3775592	10.2%	1831430	9.4%	14639	2.9%
Shanghai	2135468	5.8%	1125236	5.8%	13771	2.7%
Fujian	4329072	11.7%	2243501	11.5%	10463	2.1%
Shandong	2155462	5.8%	1427862	7.3%	14996	3.0%
Hubei	888450	2.4%	534351	2.7%	4871	1.0%
Jiangsu	1624130	4.4%	536586	2.8%	17842	3.6%
Sichuan	1077531	2.9%	351756	1.8%	11259	2.2%
Henan	1042026	2.8%	462011	2.4%	4996	1.0%
Heilongjiang	170342	0.5%	64912	0.3%	7976	1.6%
Hebei	567717	1.5%	195484	1.0%	5688	1.1%
Hunan	652064	1.8%	281449	1.4%	3618	0.7%
Anhui	537289	1.5%	183071	0.9%	3248	0.6%
Liaoning	415678	1.1%	171685	0.9%	8747	1.7%
Guangxi	398951	1.1%	237489	1.2%	2767	0.6%
Jiangxi	321214	0.9%	139415	0.7%	3888	0.8%
Tianjin	236526	0.6%	91583	0.5%	2389	0.5%
Chongqing	303003	0.8%	100466	0.5%	6052	1.2%
Shaanxi	316285	0.9%	109456	0.6%	3972	0.8%
Hainan	96842	0.3%	41178	0.2%	481	0.1%
Shanxi	180088	0.5%	73701	0.4%	2607	0.5%
Yunnan	323863	0.9%	140046	0.7%	5177	1.0%
Jilin	122181	0.3%	46492	0.2%	2387	0.5%
Gansu	79464	0.2%	27894	0.1%	627	0.1%
Guizhou	122976	0.3%	59395	0.3%	1639	0.3%
Xinjiang	109242	0.3%	52979	0.3%	1054	0.2%
Inner Mongolia	87426	0.2%	43949	0.2%	1849	0.4%
Ningxia	29805	0.1%	13667	0.1%	441	0.1%
Qinghai	15037	0.0%	6865	0.0%	180	0.0%
Tibet	10061	0.0%	5263	0.0%	262	0.1%
Others	4376559	11.8%	3788258	19.4%	16314	3.3%
Total	36977017	100.0%	19495501	100.0%	501302	100.0%

Note: The total number of domain names by provinces does not cover .EDU.CN.

Appendix 3 Organizations Supporting the Survey

We would like to express our heartfelt thanks to the following organizations (listed below in no particular order) which have provided strong support for the availability of online questionnaires for this survey and the collection of the fundamental resources data.

China Telecom

China International Electronic Commerce Center

China Education and Research Network Center

Network Center of CSTNet

China United Network Communications Limited

China Mobile Communications Corporation

Government Organ and Public Institution Domain Name Registration Network

Beijing Guoxu Network Science and Technology Co., Ltd.

MainOne Group

Beijing Wangzun Technology Co., Ltd.

Beijing XinNet Interconnection Software Services Co., Ltd.

Beijing XinNet Digital Information Technology Co., Ltd.

Sanfront Information Technology Company

Beijing Zhongwan Network Technology Co., Ltd.

Beijing Zhongxitaian Technology Service Co., Ltd.

Beijing Zihai Science and Technology Co., Ltd

Chengdu Feishu Science and Technology Co., Ltd

Chengdu West Dimension Digital Technology Co., Ltd

Chongqing Zhijia Information Technology Co., Ltd.

Foshan Yidong Network Co., Ltd

Fujian Litian Network Co., Ltd

Guangdong Huyi Science & Technology Co., Ltd.

Guangdong Jinwanbang Technology Investment Co., Ltd.

NiceNIC International Group Co., Ltd.

Guangdong Eranet International Limited

GZ.COM

Guizhou Eric Enterprise Corporation

CNDNS.CN

Jiangsu Bangning Science and Technology Co., Ltd

ORAY

WWW.CHINAFU.COM

CNDNS.COM

OWEB

Shanghai Yovole Computing Networks Co., Ltd.

NAWANG.CN

Xiamen 35.com Technology Co., Ltd

Xiamen Shangzhong On-line Technology Co., Ltd (its brand Bizcn)

Xiamen ZZY Network Service Co., Ltd

Xiamen eName Technology Co., Ltd

DNSPod, Inc.

22net, Inc.

WWW.59.CN

Zhengzhou Zitian Network Technology Co.,

Alibaba Cloud Computing Co. Ltd, Alibaba Group

Ejee Group

Zhongqi Power S&T Co., Ltd

Appendix 4 An Introduction to China Internet Data Platform

cnidp.cn -- Open and Shared Internet Data and Services

- Launched and run by CNNIC
- Providing Internet statistical data and services free of charge
- Reflecting the situation of Internet development in China objectively and timely

Website Address of the Platform: www.cnidp.cn

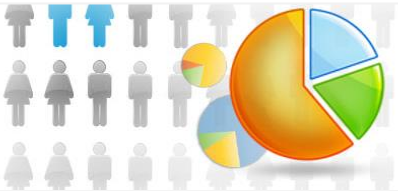
Introduction to the Platform

China Internet Data Platform, launched and run by CNNIC, adopts the research method of fixed sample panel to reflect multiple facets (macro and micro) of Internet development situation in China and provide multifaceted decision-making support for the participants of the Internet industry through the collection of Internet using behavior data of Chinese Internet users samples by the survey clients continuously in real time and by analyzing those data statistically.

Function Demonstration

Statistical Data

The report provides weekly, monthly, quarterly and semi-yearly statistical data on several indicators such as the coverage, visits, web page views, and visit duration about mainstream websites/software in China, and the data update interval is no more than 3days.

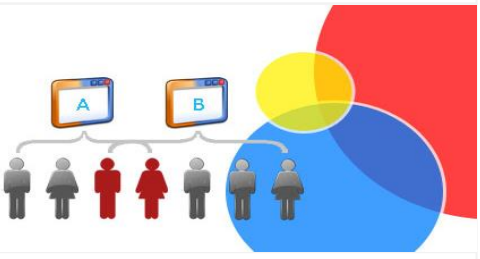


Users' Features

The report provides data on multi-dimensional structural distribution including sex, age, educational background, profession, income, location and the tier of city about mainstream websites/software in China.

Overlap Analysis

The report reflects the overlapping of user groups and the structural distribution of different user groups of different websites/software.



Trend Comparison

The report provides detailed historical statistical data that accurate to the day to reflect the historical change trend of mainstream websites/software in China.

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