

Semiannual Survey Report on the Development of China's Internet (2000.7)

China Internet Network Information Center

The statistics on the development of China's Internet, which includes the total number of hosts and users, the distribution of users and traffic pattern, the registration of domain names and so on. These are quite important for government to make some concerned policies and valuable for commercial enterprises to decide their business decision. In 1997, the former Informatization Office of the State Council and the Steering Committee of China Internet Network Information Center (CNNIC) determined that the survey on the development of China's Internet should be carried out by the CNNIC, in cooperation with other four major network organizations in China.

In the past two years, the CNNIC had published four survey reports (concerning the development of China's Internet) respectively in November 1997, July 1998, January 1999 and July 1999. These survey reports were well accepted and widely cited by the public both domestic people and people overseas. Furthermore, users, government organizations, enterprises and news media eagerly request the CNNIC to issue the latest statistics. To systemize the survey and to make it regular, the CNNIC decided to conduct the survey semiannually, and issue the report in January and July each year.

It should be pointed out that **the Telecom Administration affiliated to the Ministry of Information Industry and the State Informatization Office** had signed a file, which requests relative organizations to cooperate with the CNNIC's survey. Supported by those Internet units and other relatives such as ISPs and ICPs, the survey on China's Internet development carried on smoothly.

The content of the current survey includes: the total number of users and hosts, the number and distribution of domain names, the international bandwidth of each network, and the total number of Websites. The survey analyzed the distribution, general information and characteristics of domestic users, and also provides users' information about their access situation, behavior, custom, even their views toward certain relative hot issues.

The scheme of this survey was researched and finally set by the topic group that was composed of the CNNIC and the International Statistic Information Center of the National Bureau of Statistics. In accordance to the statistics theory and International conventions, we integrated the experiences of previous five surveys, adopting many methods such as online auto search, online survey and spot check. (delaminating combines with multistage). We use online survey and spot check simultaneously to compare and validate the results. The CNNIC had conducted its online survey during May 22 – June 30, 2000. Our survey questionnaires had already been catenated to many famous domestic Websites. The survey was strongly supported by numerous well-known Chinese ISPs and ICPs. The online survey had received 1,629,361 responses. Among them, 573,902 responses were valid. The number of valid questionnaires in spot check is 3,679. The survey was ended on June 30, 2000.

This statistic report is composed of three parts:

- The General Develop Situation of China's Internet;
- Results of the Survey on Internet Users' Behavior and Opinion;
- The development of Internet in recent years

I. The General Develop Situation of China's Internet

A. Computer Hosts in China: 6,500,000. Among them, 1,010,000 are connected through leased lines and 5,490,000 are through dial-up connections.

B. Internet Users in China: 16,900,000. Among them, 2,580,000 are through leased line connections, 11,760,000 are dial-up users and 2,560,000 use both. Besides computer users, people who use other equipment (e.g. mobile terminals and information electrical appliance) are 549,000.

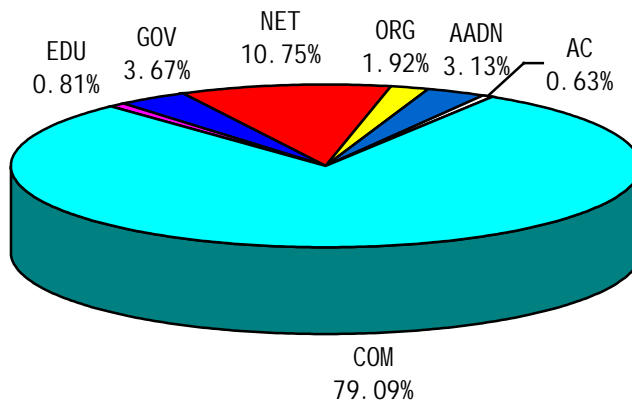
Annotation: CNNIC defined the Chinese Internet users as Chinese citizens who posses private or shared computer hosts or accounts.

C. Domain Names Registered Under the Top-Level Domain "CN":

	AC	COM	EDU	GOV	NET	ORG	AADM	TOTAL
Number	624	78878	812	3665	10719	1912	3124	99734
Percentage(%)	0.63	79.09	0.81	3.67	10.75	1.92	3.13	100

AADN: Administration Area Domain Name

The proportion is demonstrated as follows:



1. The Distribution of Domain Names (geographic locations/ provinces)

	Beijing	Shanghai	Tianjin	Chongqing	Hebei	Shanxi	Inner Mongolia
Number	37786	8457	1595	965	1631	641	439
percentage	38.22%	8.55%	1.61%	0.98%	1.65%	0.65%	0.44%
	Liaoning	Jilin	Heilongjiang	Jiangsu	Zhejiang	Anhui	Fujian
Number	2365	661	890	4217	4062	735	2418
percentage	2.39%	0.67%	0.90%	4.26%	4.11%	0.74%	2.44%
	Jiangxi	Shandong	Henan	Hubei	Hunan	Guangdong	Guangxi
Number	381	4164	1956	1714	898	13702	778
percentage	0.39%	4.21%	1.98%	1.73%	0.91%	13.85%	0.79%
	Hainan	Sichuan	Guizhou	Yunnan	Tibet	Shaanxi	Gansu
number	1753	1515	236	1365	80	1238	319
percentage	1.77%	1.53%	0.24%	1.38%	0.08%	1.25%	0.32%
	Qinghai	Ningxia	Xinjiang	Hongkong	Macao	Taiwan	
Number	54	204	684	956	0	4	
percentage	0.05%	0.21%	0.69%	0.97%	0	0.01%	

2、The Number of Chinese Domain Name: 71727 (approximately)

D. The Number of Websites in China : 27289 (approximately)

E. The Total Bandwidth of Leased International Connections: 1234M. Countries directly interconnected to China's Internet include the United States, Canada, Australia, Britain, Germany, France, Japan, South Korea, etc. The detailed distribution among Interconnecting Networks is as follows.

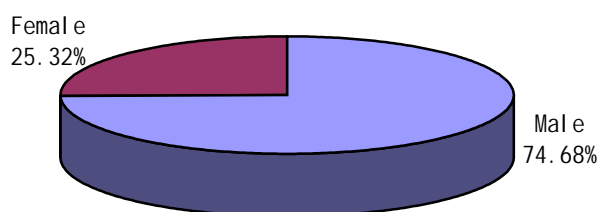
- CSTNET: 10M
- CHINANET: 711M – Beijing 170M, Shanghai 214M, Guangzhou 327M
- CERNET: 12M
- CHINAGBN: 69M – Beijing 49M, Guangzhou 12M, Shenzhen 8M
- UNINET: 55M – Shanghai 47M, Guangzhou 8M
- CNCNET: 377M – Beijing 4M, Shanghai 365M, Guangzhou 8M

The Total Bandwidth for IP Telephone in China: 56M

II. Results of Online Questionnaire:

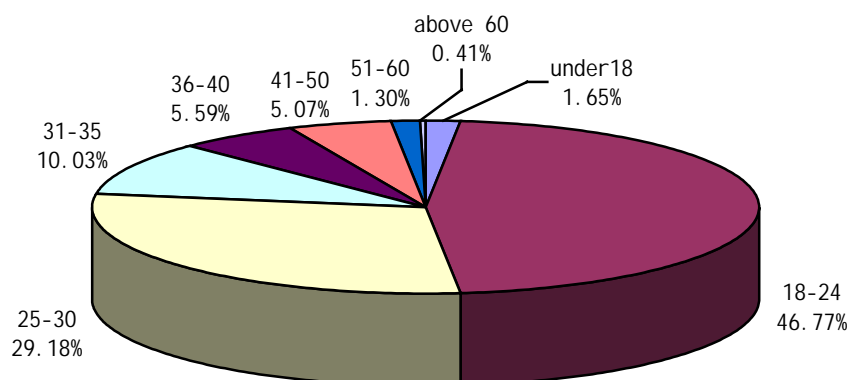
A. Users' Personal Information:

1. Gender: Male, 74.68%; Female, 25.32%

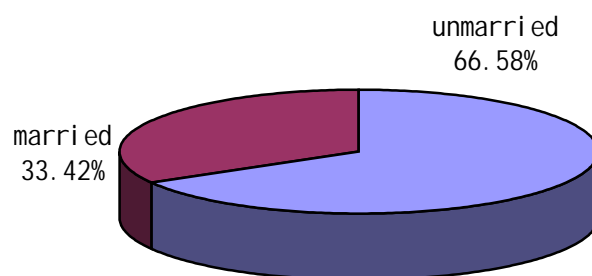


2 . Age:

Under18	18-24	25-30	31-35	36-40	41-50	51-60	Above60
1.65%	46.77%	29.18%	10.03%	5.59%	5.07%	1.30%	0.41%



3. Marital Status: unmarried, 66.58%; married, 33.42%

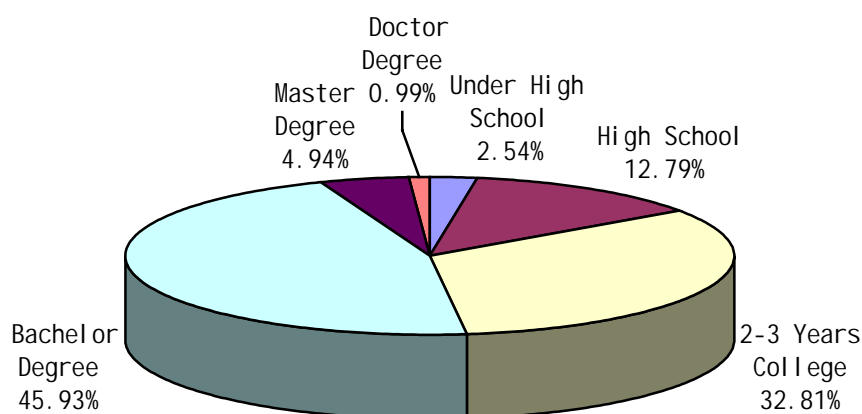


4. Geographic Distribution (Province):

Beijing	Shanghai	Tianjin	Chongqing	Hebei	Shanxi	Inner Mongolia
18.72%	10.79%	2.79%	1.84%	2.22%	0.95%	0.43%
Liaoning	Jilin	Heilongjiang	Jiangsu	Zhejiang	Anhui	Fujian
3.34%	1.40%	1.67%	6.76%	4.92%	1.16%	1.94%
Jiangxi	Shandong	Henan	Hubei	Hunan	Guangdong	Guangxi
0.91%	8.53%	2.22%	4.64%	2.05%	12.82%	0.91%
Hainan	Sichuan	Guizhou	Yunnan	Tibet	Shaanxi	Gansu
0.27%	3.35%	0.36%	0.70%	0.03%	2.83%	0.56%
Qinghai	Ningxia	Xinjiang				
0.07%	0.18%	0.64%				

5. Education Attainment:

Under High School	High School	2-3Years College	Bachelor Degree	Master Degree	Doctor Degree
2.54%	12.79%	32.81%	45.93%	4.94%	0.99%



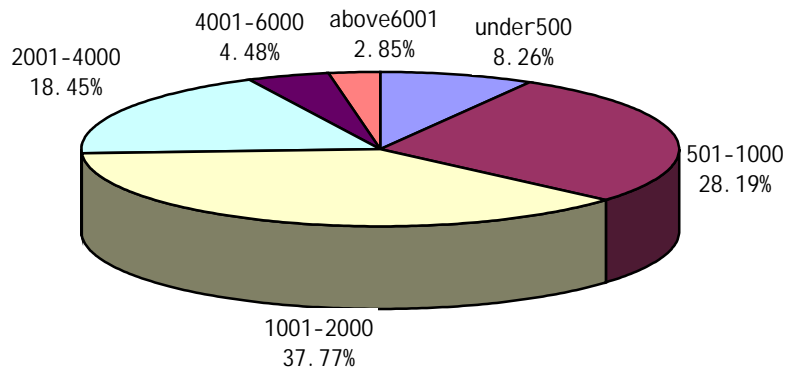
6. Occupation/Industry:

Government	Business & Taxation Administration	Transportation	Trade & Commerce
5.09%	2.78%	2.80%	9.13%
Financial & Insurance Industry	Information and Consultation	Service Industry	Police, Censorate & Court
5.04%	4.58%	4.48%	1.53%
Entertainment and Sports	News and Advertising	Science research And Education	Postal Service & Communication
2.76%	2.26%	12.63%	2.83%

Computer Industry & IT Industry	Mining, Manufacturing	Agriculture	Others
13.60%	3.50%	0.62%	26.37%

7. Monthly Income per Capita: (RMB)

Under500	501-1000	1001-2000	2001-4000	4001-6000	Above6001
8.26%	28.19%	37.77%	18.45%	4.48%	2.85%



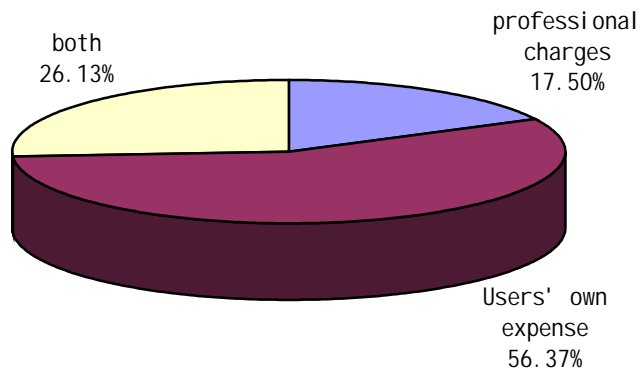
B. Use and Access:

1. Main Access Locations: (results of multiple choices)

Home	Organizations & Schools	Internet Cafe	Others
58.84%	42.96%	20.89%	8.82%

2 . Access Expenditure: (results of multiple choices):

Professional Charges	Users' Own Expense	Both
17.50%	56.37%	26.13%



3 . Monthly Accessing Fees that Users could Bare:

RMB100	RMB200	RMB300	RMB500	RMB600	RMB1000
34.08%	35.64%	18.06%	7.96%	2.29%	1.97%

4. Hours of Internet Use per Week: 16.54 hours (average)

Within 1 h	1—5 h	6—10 h	11—20 h	Above 20 h
0.02%	20.70%	26.01%	30.72%	22.55%

5. The First Daily Login Time:

0、 1 O'clock	2、 3 O'clock	4、 5 O'clock	6、 7 O'clock
3.37%	1.85%	2.33%	7.55%
8、 9 O'clock	10、 11 O'clock	12、 13 O'clock	14、 15 O'clock
27.79%	7.69%	7.09%	3.59%
16、 17 O'clock	18、 19 O'clock	20、 21 O'clock	22、 23 O'clock
3.90%	9.79%	16.30%	8.75%

6. Time Period of Most Likely Keeping Online (Results of Multiple Choices):

0、 1 O'clock	2、 3 O'clock	4、 5 O'clock	6、 7 O'clock
24.00%	11.05%	6.38%	13.02%
8、 9 O'clock	10、 11 O'clock	12、 13 O'clock	14、 15 O'clock
43.10%	37.38%	36.15%	38.77%
16,17 O'clock	18、 19 O'clock	20、 21 O'clock	22、 23 O'clock
32.94%	42.96%	75.57%	62.56%

7. Amounts of E-mail Accounts: 65,000,000
Among Them, Free Mail Accounts: 56,100,000

8. E-mail Received per Week: 18
E-mail Send per Week: 10

9. The Frequency of Changing the E-mail Password:

■ 1 month	11.36%
■ 3 to 6 months	23.64%
■ 6 to 12 months	18.45%

■ Never 46.55%

10. Personal Webpage ownership:

■ Yes 25.49%

■ No 74.51%

11. Primary Reason for Accessing the Internet:

■ Gathering Information 56.11%

■ Education (Learning computer and other new technologies) 10.89%

■ Entertainment 10.77%

■ Work/Business 6.98%

■ Gathering Free Information 6.38%

■ Communicate with Others 4.10%

■ Accessing Stock Trading and Information Retrieval 2.51%

■ Saving/Reducing Communication Costs 1.21%

■ Jumping on the Bandwagon 0.31%

■ Others 0.74%

12. Services that were Used the Most Frequent (Results of multiple choices):

■ Email 87.65%

■ Search Engine 55.91%

■ Software Downloading and Uploading 50.69%

■ Information Gathering 49.28%

■ Online Chatting 38.81%

■ Newsgroups 25.37%

■ BBS Services 21.17%

■ Online Paging 20.72%

■ Free Personal Website Hosting 19.68%

■ Online Game and Entertainment 17.70%

■ Stock Trading and Information Retrieval 14.64%

■ Online Purchasing and Trading 14.09%

■ IP Telephone 9.63%

■ Online Payment 3.67%

■ Other Services 11.01%

13. Primary Information Gathered Online (Results of Multiple Choices):

■ News 82.00%

■ Computer Hardware and Software 59.08%

■ Entertainment Information 50.88%

■ Electronic Books 45.99%

■ Science and Education Information 40.16%

■ Financial Information	31.07%
■ Job Listings	26.11%
■ Trade and Commerce Information	23.28%
■ Travel Information	19.33%
■ Advertisement	15.23%
■ Medical Information	14.48%
■ Matchmaking Services	12.09%
■ Others	17.61%

14. Information Focus:

■ Domestic Information	70.69%
■ Foreign Information	10.31%
■ Both	19.00%

15. The Invasion of Hackers:

■ Have not been invaded	20.40%
■ Have been invaded	58.43%
■ Unknown	21.17%

C. Users' Opinions Toward Some Hot Issues:

1. Primary Considerations in Choosing ISPs:

■ Bandwidth/Connection Speed	39.57%
■ Serve Quality	26.20%
■ Price	23.13%
■ Name Recognition	7.91%
■ Others	3.19%

2. Criteria for a Successful Website:

■ Profuse of Information, Timely Update and Attractive Services (e.g. Free Email, Shareware Downloading, Free Stock Market Information, etc.)	72.01%
■ High-speed Navigation within the Website	16.15%
■ Facilitate Interactions Allowing Visitors to Communicate with Each Other	6.89%
■ Well Designed Web Pages (Valuable for Others to Learn)	3.78%
■ Others	1.17%

3. Most Serious Problems in China's Internet:

■ Slow Access Speed	48.54%
■ High Price	35.67%
■ Insufficient Chinese Information	6.11%
■ Unable to Protect Personal Privacy	3.00%

■ Hard to Use (Require Many Computer Skills)	2.81%
■ Poor ISP Service Quality	2.36%
■ No Gain from Accessing the Internet	0.58%
■ Others	0.93%

4. Users' Needs that Still Can Not Be Fulfilled : (results of multiple choices)

■ Electronic Books	35.17%
■ Science and Education Information	27.91%
■ Computer Hardware and Software	26.10%
■ News	25.24%
■ Medical Information	21.74%
■ Job Listings	19.62%
■ Entertainment Information	19.56%
■ Travel Information	17.67%
■ Trade and Commerce Information	17.55%
■ Financial, and Stock Market Information	14.80%
■ Advertisement	8.98%
■ Matchmaking Services	8.72%
■ Others	12.00%

5. Users' Opinions toward the Advertisements on Internet:

■ Click quite often	8.46%
■ Click sometimes	46.14%
■ Click rarely	34.35%
■ Never Click it	6.20%
■ Disgusting, for it costs more time to load the page	4.85%

6. Which Banner Will Be Clicked (results of multiple choices):

■ Encouraging Sales Promotion	49.24%
■ News	47.86%
■ Commonwealth Activity	45.21%
■ Entertainment Information	38.94%
■ Science Activity	29.94%
■ Commodity Information	27.67%
■ New Web Site Issuance	24.39%
■ Visualize Advertisement	23.17%
■ Business Organization	12.77%
■ Others	9.64%

7. The Most Attractive Advertisement Form:

■ Animation	59.77%
■ Banner	14.17%
■ Window	9.78%
■ Character	7.68%
■ E-mail	6.55%
■ Inter cut	2.05%

8. Do you Like to Receive Advertising Mails as References to Purchase Goods and Services:

■ Affirmative	33.06%
■ Negative	49.43%
■ Unknown	17.51%

9. The Click Frequency of Certain Icon that Catenate Other Websits:

■ Sometimes	48.85%
■ Often	30.66%
■ Rarely	18.74%
■ Never	1.75%

10. From your opinion, which kind of advertising carrier is more effective: (results of multiple choices)

■ Internet	45.54%
■ Television	41.34%
■ Outdoor Ads	4.48%
■ News paper	3.94%
■ Magazines	2.04%
■ Throwaway and Ads letters	1.70%
■ Broadcasting	0.96%

11. The Frequency of Accessing the E-business Websites :

■ Constantly	24.50%
■ Sometimes	47.96%
■ Rarely	23.99%
■ Never	3.55%

12. Have you ever purchased Commodities or services via Internet last year:

■ Yes	16.28%
■ No	83.72%

13. Have you ever purchased commodities via auction websites last year: :

■ Yes	8.09%
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- No 91.91%

14. The Purpose for Users to Purchase Online (results of multiple choices):

- Saving Time 45.51%
- For Fun 39.49%
- Convenient Operation 32.57%
- Reduce Costs 30.49%
- Looking for Rare Commodities 29.21%

15. If you still have no the experience of online purchase, what do you worry about:

- The Security of Trade Online 46.01%
- Whether the Information Online is Reliable 16.81%
- After Service 12.29%
- The Punctuality of the Delivery 9.84%
- Whether the Price is Cheap 7.28%
- Whether the Interface of the Trade is Easy to be Understood 3.94%
- The Brand of the Commodity 1.31%
- Others 2.52%

16. Product (Service) that Users Had Purchased (results of multiple choices)

- Books and Magazines 45.05%
- Computer Appliance 37.22%
- Communication 17.08%
- AV Equipment 15.57%
- Living and Housing 12.11%
- Present Delivery 11.23%
- Educational Services 10.15%
- Ticket Ordering 9.62%
- Family Electrical Appliance 9.36%
- Clothing 7.68%
- Photographic Equipment 7.45%
- Sports Equipment 6.96%
- Medical Services 4.91%
- Financial and Insurance Services 4.64%
- Others 11.13%

17. Product (Service) that Users Hope to Get from Internet (results of multiple choices)

- Computer Appliance 47.03%
- Books and Magazines 46.70%
- Educational Services 34.57%
- Communication 30.72%

■ Present Delivery	29.81%
■ AV Equipment	29.68%
■ Ticket Ordering	29.66%
■ Living and Housing	28.75%
■ Family Electrical Appliance	25.20%
■ Financial and Insurance Services	23.58%
■ Sports Equipment	20.81%
■ Medical Services	19.91%
■ Clothing	19.48%
■ Photographic Equipment	15.46%
■ Others	12.11%

18. Have you ever experienced that goods have not been delivered after your order and payment:

■ Yes	22.01%
■ No	77.99%

19. Are users satisfied with the dealing via Internet:

■ Yes	47.20%
■ No	52.80%

20. Payment Methods:

■ Cash and Carry	39.16%
■ Credit Card	19.87%
■ Post Offices Remittance	17.58%
■ Internet	12.54%
■ Bank Remittance	4.87%
■ EMS	3.35%
■ Bank Accounts	2.63%

21. Payment Method that Users Prefer When Pay for Over RMB1000:

■ Cash and Carry	48.74%
■ Credit Card	22.08%
■ Internet:	9.18%
■ Post Offices Remittance	5.63%
■ Bank Remittance	5.30%
■ EMS	4.90%
■ Bank Accounts	4.17%

22. Primary Obstacles of Online Purchase:

■ Security can not be guaranteed	31.76%
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- Quality of products, after service and credit of the producer can not be guaranteed 28.33%
- Inconvenient Payment 13.34%
- Delivery is time wasting, the channel is not expedite 10.14%
- Unattractive Price 7.74%
- Unreliable Information 7.28%
- Others 1.41%

23. Most Promising Online Business In the Future (results of multiple choices)

- Online Purchase 54.67%
- Online Communication 51.86%
- Online School 49.39%
- Online Stock Trading 44.55%
- Online For-Profit Information Services 40.71%
- Online Hospital 32.60%
- Virtual Community 28.81%
- Online Game and Entertainment Services 27.69%
- Online Program Ordering Services 26.29%
- Others 8.20%

24. Do you permit operators of Websites' to snatch users' personal data to develop their markets:

- Yes 17.66%
- No 74.43%
- Unknown 7.91%

III、 The Development of Internet in Previous Years:

A. General Information

1.Computer Hosts:

	Computer Hosts	leased line connections	Dial-up connections
1998.7	542,000	82,000	460,000
1999.7	1,460,000	250,000	1,210,000
2000.7	6,500,000	1,010,000	5,490,000

2.Internet Users in China:

	Users	Leased line	Dial-up	Both
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1998.7	1,175,000	325,000	850,000	—
1999.7	4,000,000	760,000	2,560,000	680,000
2000.7	16,900,000	2,580,000	11,760,000	2,560,000

3. Domain Names Registered Under the Top-Level Domain "CN":

	AC	COM	EDU	GOV	NET	ORG	AADN	TOTAL
1998.7	363	6559	414	561	657	229	632	9415
1999.7	502	22220	615	1663	2221	649	1175	29045
2000.7	624	78878	812	3665	10719	1912	3124	99734

4. Number of Websites in China:

	Number of Websites	Be increased by %
1998.7	3700	—
1999.7	9906	268
2000.7	27289	275

5. Total Bandwidth

	Total Bandwidth	Be increased by %
1998.7	84.64 M	—
1999.7	241 M	285
2000.7	1234 M	512

B. The Description of The Back Ground

- The difference in gender proportion decreases by 10% each year, while male users still maintain their dominance:

	male	female
1998.7	93%	7%
1999.7	85%	15%
2000.7	75%	25%

- The average age went up a little, while the majorities are still those users who are under 35.

	Under 35	Above 35
1998.7	91%	9%
1999.7	89%	11%
2000.7	88%	12%

- Bachelor degrees are the majority, and the proportion had shown the tendency of decreasing; the proportion of 2 - 3 years college students are increasing yearly.

	Under High school	2-3years college	Bachelor Degree	Above Master Degree
1998.7	7%	34%	50%	9%
1999.7	2%	39%	48%	11%
2000.7	2%	46%	46%	6%

- Geographic Distribution (Province): The proportion of North China, North-East China decreased, and the proportion of East China increased:

	North	North East	East	South	South West	North West
1998.7	32%	10%	29%	22%	4%	3%
1999.7	27%	7%	32%	21%	8%	5%
2000.7	25%	6%	35%	23%	6%	4%

C. Use and Access

- **Time:** Comparing with the past three years, the number of users who log-in for over 10 hours per week increased apparently:

	Within 10 hours	Over 10 hours
1998.7	59%	41%
1999.7	59%	41%
2000.7	47%	53%

- **Expenditure:** Most of users access at their own expenses, and the proportion is increasing tremendously:

	Professional charges	At users' own expense	Both
1998.7	35%	44%	21%
1999.7	28%	46%	26%
2000.7	18%	56%	26%

- There is no obvious change in Personal Webpage ownership, the number of people who have no Webpage is tree times as much as those Personal Webpage owners:

	Have	Have no
1999.7	24%	76%
2000.7	25%	75%

- There is no obvious change in users' primary access purpose:

	1999.7	2000.7
Getting Information	57%	56%
Study	10%	11%
Work	9%	7%
Entertainment	8%	11%
Getting Free Materials	7%	6%
Communication	5%	4%
Stock Trading	1%	3%

- Users' favorite Internet services are e-mail, searching engine, software downloading and uploading and Information inquiry. But they had shown the tendency of decreasing. Among them, the proportion of searching engine and software downloading and uploading decreased the most obviously:

	1999.7	2000.7
Searching Engine	66%	56%
Downloading & Uploading	60%	51%
BBS	28%	21%
Information Inquiry	55%	49%
E-mail	91%	88%

On the other hand, Internet services such as online chatting, online purchasing, online paging are growing relatively fast, while they have no advantages in absolute proportion:

	1999.7	2000.7
Online Purchase	3%	14%
Online Chattering	29%	39%
Online Paging	15%	21%
Stock Trading	10%	15%
News Group	21%	25%
Entertainment	16%	18%
IP Phone	8%	10%

- Information that users get from Internet such as job listing, financial ,travel, medical treatment, entertainment are growing fast, while information on computer software & hardware and electronic books decreased a little bit:

	1999.7	2000.7
Job Listing	19%	26%
Financial Information	26%	31%
Travel Information	14%	19%
Medical Information	10%	14%
Entertainment	47%	51%
Matchmaking	9%	12%
Software & Hardware	68%	59%
Electronic Books	52%	46%

News	84%	82%
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D. About Hot Issues:

- There is no obvious difference in successful Websites' criteria. The proportion of users who think that Websites should have good interactivity so that people can change views had increased by 2 percent:
- Slow speed and high price are still the two main aspects that users are unsatisfied. Comparatively speaking, the proportion of users who are satisfied with the amount of Chinese Information had increased by 3 percent:
- Factors in Choosing ISPs:

	1999.7	2000.7
Speed	43%	40%
Service	25%	26%
Price	22%	23%
Reputation	6%	8%

- Views Toward Advertisements:

	1999.7	2000.7
Click Constantly	6%	8%
Click Sometimes	19%	46%
Click Rarely	49%	34%
Never Click it	20%	6%
Disgust, for it costs time to load	6%	5%

- Primary Problems in Online Purchase:

	1999.7	2000.7
The delivery is time wasting and channels are not expedite	6%	10%
Security can not be guaranteed:	30%	32%
Inconvenient Payment:	22%	13%
Quality and after service can not be guaranteed	34%	28%
Unattractive Price:	8%	8%

- Users believe that Internet will have a glorious future, and the proportion of users who look highly of Internet careers increased remarkably

	1999.7	2000.7
Online Purchase	16%	55%
Online School	11%	49%
Stock Trading	8%	45%
Communication	20%	52%
Online Hospital	2%	33%
Online Game and Entertainment Services	6%	28%
Online Program Ordering Services	4%	26%
Online For-Profit Information Services	20%	41%
Virtual Community	9%	29%