Internet Development in China

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The Other Early Efforts

• The science and technology community of China has paid great efforts to get their computers connected to the world.

• I’d mention a few examples of these efforts besides the successful story of the collaboration with our German colleagues which I have mentioned yesterday in my greeting speech.
The “Virtual Connection”

• Early 1980s is considered to be the initial period of the very early history of China’s virtual connection to international computer networks. In March 1980, headed by Chinese Academy of Construction Research, with efforts of information institutes of 11 Chinese Ministries, an international online retrieval terminal had been established in Hong Kong. It then provided trial retrieval services to Chinese institutions.

• In mid December of 1981, the Information Institute for Computer Application set up an international online terminal through fax lines in Beijing. This line linked the TYMNET or TELENET through leased satellite lines, then connected to ARPANET, and finally reached DIALOG database system.

• In October 1983, the former Institute of Information of China (now the Institute of Science and Technology of Information of China) made connection to the Europe Space Agency Information Retrieval System through international communication satellite, and through Italy PDN connected to US Public Data Network. The institute then successively connected to 12 major public information service systems of different countries.

• According to incomplete statistics, China had set up over 50 international online retrieval terminals by the end of 1985.
International Collaboration in Science
Bred the Telnet in China

• Early 80's of the 20th century, Institute of High Energy Physics of CAS launched a joint project with European Organization for Nucleus Research (CERN), formed the ALEPH project team. Due to the need of speedy communication between the 2 institutes, establishing a connection between computers in IHEP and CERN became an urgent objective.

• July 1st, 1984, IHEP used microwave to connect its Time-Sharing terminal (TST) with the M-160 in China Institute of Water Resources and Hydropower Research (IWHR), thus made its TST a distant terminal of that M-160. The reason to do this is the IHEP did not have its own computer suitable for large scale modelling.

• August 25th, 1986, the researchers in IHEP used an IBM PC in Beijing Institute of Information and Control, logon to the central server of CERN via the TELEPAC network, and sent an email to Prof. Stemberg, the head of the ALEPH.

• 27th of March 1987, the M-160 distant terminal of the IHEP was transferred to Beijing Institute of Information and Control, and succeeded in the distant connection with CERN.
Fast Growth of the Internet in China
The Growth of Internet Users

• People online: 162 million by July 2007
The Scale of Development

The Average Penetration Rate in China: 12.3%

The internet user penetration comparison between China and other countries

- Whole world: 17.6%
- Ice Island: 86.3%
- Europe: 39.8%
- USA: 69.9%
- Japan: 67.1%
- Korea: 66.5%
- Germany: 61.1%
- China: 12.3%
- India: 3.7%
Imbalanced Penetration Rates

Rural penetration rate: 3.1%
Urban penetration rate: 21.6%

Penetration rate for male: 13.1%
Penetration rate for female: 11.5%
Features of Internet User

Gender feature:
Male: 54.9% ; Female: 45.1%

Age Composition of Internet Users

Under 35: 80.7%
18~24: 33.5%
25~30: 19.4%
31~35: 10.1%
36~40: 8.4%
41~50: 7.2%
51~60: 2.7%
Above 60: 1.0%
Connection Methods

- Broadband users: 122 million, 75.6% of all users
- Wireless: 55 million, among them mobile phone connection: 44 million
IPv4 Address

IPv4 address: 118 million

The growth of IPv4 addresses

Million

2002 2003 2004 2005 2006 2007.6

29 41 60 74 98 118

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Websites

Website numbers exceeded 1.3 millions
Location for Accessing

- **Home**: 73.8%
- **Internet Bar**: 37.2%
- **Work Place**: 31.2%
- **School**: 12.2%
Internet Usage in China

- Stock: 14.1%
- Online banking: 20.9%
- E-journal: 3.9%
- Online sales: 4.3%
- Online shopping: 25.5%
- Online education: 24.0%
- Look for jobs: 15.2%
- Internet games: 47.0%
- Online video: 61.1%
- Online music: 68.5%
- Email: 55.4%
- Instant message: 69.8%
- Write Blog: 19.1%
- Search Engine: 74.8%
- News: 77.3%
Internet Impact on People’s Life - Compare with U.S.

- Look for jobs: China 15.2%, America 46.0%
- Online education: China 24.0%, America 25.5%
- Online shopping: China 71.0%
- Online sales: China 4.3%, America 15.0%
- E-journal: China 3.9%, America 63.0%
- Online banking: China 20.9%, America 43.0%
- Stock: China 14.1%, America 13.0%
The Impact to Life
-first source of news

• The Internet has become the first place news resource for Chinese people;
• 76.3% of the 160 million online people consider the Internet as first source where they look for important news;
• 90.4% of the people online go to the Internet when they need any information
The Impact to Life - Instant Message

- 51.1% of the people online consider the Internet is the best entertainment.
- Instant Message is the topmost pop chosen by Chinese Internet users.
The Impact to Life
-E-Commerce growth

• Total amount of e-commerce revenue of 2005 was 740 billion RMB;

• The estimated market scale for 2007 is over 1700 billion RMB (about 250 billion USD)
  – The single day’s track record for online deal of the TaoBao since May 2006 has achieved 47 million RMB, exceeded the single-day’s total amount revenue of all 56 multiple-shops of WalMart in China.
  – The Internet economy is growing faster than the Nation’s economy in general.

Source: China Economy Information; www.cei.gov.cn
The TaoBao and its partner ZhiFuBao started to develop the market in collaboration with China Bank for its over 470 million members and much more potential users who do not have a chance go abroad yet want to buy goods in foreign shops. The users can purchase online across the border, paying back with Chinese currency.

By incomplete statistics, there are over 30 million Chinese people opened their sales shops on the TaoBao website.
The Impact to Life
- Build democratic and legal system

• The Internet is serving as a media between the grass-root level and top leaders of the country
  – In March 2006, on the press conference in honor of the annual meeting of the Chinese People’s Political Consultative Conference the prime minister Wen Jiabao said: “comments on the affairs of State put on the Internet to myself and to the government achieved several hundreds thousands. Chinese government support the development and wide application of the Internet in our country. The government should listen to the people, accept their surveillance, including over the Internet.”
The Impact to Life
-E-Government and public service

• The website of China Central Government (www.gov.cn) was set from Jan. 1, 2006

• By the end of 2006, there are 11000 websites who’s domain names end up with “gov.cn”

• Currently the websites penetration rate for the governments at different level is 85.6%

• The target is: open government affair, more effective online public service, convenient interaction between people and government etc.
The Impact to Life
-Popularization of Science

• The Internet is pushing the popularization of science:
  • In Nov. 2005, the websites “China Science Expo”, (http://www.kepu.net.cn), hosted by the CNIC, Chinese Academy of Sciences, and “Tianfu Agriculture”, (http://www.101109555.com), hosted by China Unicom Sichuan Branch, won the “2005 WSIS Prize”
  • Online Expo, Digital Library and others also attracted great number of readers.
The Impact to Life
-Internet for disabled and others

- People who suffer from incurable diseases succeeded to form their communities with the help of Internet. To have a community and make communication with colleagues do mean a great deal for their lives.

- Many examples and touching stories when disabled people got jobs, better quality of lives due to the Internet.
For them, the Internet means life

A PC was donated to him

- The boy can move only his right hand
- His only wish is to get online communicate with people
Obstacles to further development

- Lack of facility for connecting the Internet;
- Lack of knowledge and skill to use the Internet;

Reasons for not using the Internet

- Have no necessary skill: 43.3%
- Have no facilities/internet connections: 31.1%
- Have no time: 18.0%
- Too old/young: 10.3%
- Consider it useless or have no demand: 8.8%
- Too expensive: 5.9%
- Have no interests: 7.8%
- Worry about being negatively affected: 4.6%
- Prohibited by parents/teachers: 1.8%
The Imbalanced Development

Internet penetration rate for the country is 12.9 %
East China is 15.6 %
West China is 7.0 %
North China is 7.0 %
Existing Problems-1

- Application in commerce, public service, and cultural life etc. is still primitive;
- Legal system for the Internet governance is underdeveloped;
- Lack of credit record system for the cyber-world: by the investigation, there is only 35.1% of the people online expressed certain trust to the Internet transactions.
Existing Problems-2

• Network and Information Security

Annual statistics on the Internet accidents
Existing Problems-3

- Malicious information
- Network crimes and false pretences
- Spam
- Addiction in the network games, especially among the youngsters
Thank you for Attention!