

Mobile Communications

Yídòng méitǐ chuánbō de fāzhǎn 移动媒体传播的发展

Mobile phones are easily accessible and wildly popular in China. More than half the population uses mobile phones. The technology is improving and the telecommunications industry is growing to better serve the demands of China's enthusiastic mobile phone users.

In Guangzhou on 21 November 1987, a young man named Xu Feng became the first mobile (cell) phone user in China when he bought an NEC simulative mobile phone for ¥20,000 (about \$2,900). It did not take long after that for the popularity of mobile communications to soar in China.

The use of mobile phones in China exploded in the 1990s after Groupe Spécial Mobile, or Global System for Mobile communications (GSM), was introduced from Europe. GSM is the most popular standard for mobile phone use in the world. China is the largest GSM market in the world.

Millions of Users

China is the world's largest mobile phone market, judging by the sheer number of users. By August 2008, according to the Ministry of Industry and Information Technology, the number of mobile phone subscribers in China had reached more than 616 million, nearly half the population. China ranked low, however, in terms of the ratio of users. In 2008 there were 411.5 subscribers per 1,000 people, a

ranking of 121 of 222 countries surveyed. By comparison the United States had 890.3 subscribers per 1,000 people (ranked 68th); Taiwan, 1,060.3 (30th); Hong Kong, 1,503.1 (5th); and Macao, 1723.7 (1st).

By June 2008, there were 253 million Internet users in China. The number of people surfing the Internet with mobile phones had reached 73 million, about 29 percent of all Internet users.

The cost of mobile phones and subscription rates are high in China, compared to the charges in Western countries. But the booming mobile market and the battle for market share has spurred aggressive price cutting by the country's mobile operators.

Users' Choices

China's telecommunication enterprises provide the full range of services available in developed countries. Services include nationwide fixed-line telephone services; wireless application protocol (WAP) for mobile banking, stock trading, news, weather reports, and e-mail; and GSM and Code Division Multiple Access (CDMA) networks for data services for businesses, voice mail, call forwarding, call waiting, conference calls, Internet protocol telephony, multimedia message service (MMS), and short message service (SMS), also known as text messaging.

SMS is one of the most popular services among the Chinese people. During 2006 each mobile user in China sent an average of 967 text messages. Chinese mobile users sent more than 400 billion text messages between January and July 2008. Tianjin, a large city in northern coastal

China, launched the first Chinese-language mobile phone short message service in China in 1997. SMS and SMS-based information services began spreading rapidly after China Mobile, Ltd., a state-owned telecommunications enterprise, launched the Monternet Plan in November 2000. This was the first so-called mobile value-added service available in China. Monternet (Mobile+Internet) acts as a bridge between mobile devices and Internet-based and other digital information services.

SMS is popular in China because the number of Chinese mobile phone subscribers is large, the market for SMS services is well developed, and subscribers like to be able to obtain instant information at any place and at any time. In addition, SMS seems to fit in with the Chinese culture. Many Chinese of all ages are reluctant to leave voice messages but not text messages. And a new kind of popular literature has developed through SMS use. People are sharing gossip, news, views, and jokes (even political jokes) in ways unavailable before. The SMS and WAP lead to more freedom of expression in China, for it is impossible for government to control information that is conveyed almost instantly.

SMS also provides an economical way to communicate. The end-user price for sending and receiving a message is ¥0.10 (about 1.5 cents). A one-minute call costs ¥0.50 (about 8 cents) to ¥0.60 (about 9 cents), and the long distance charge for mobile service is ¥0.70 (about 10.5 cents) per minute.

Service Providers

A number of services providers have sprung up in recent year to serve China's growing mobile and Internet communication needs. Following are brief profiles of some of the most important providers.

China Mobile Communications Company (China Mobile) is the world's largest mobile phone company, by number of subscribers. The company had some 407 million GSM subscribers as of April 2008 and a 67 percent share of the Chinese mobile market. China Mobile is a state-owned enterprise established in 1997 as a spin-off from China Telecom, the largest fixed-line phone provider in China. China Mobile also owns Pakel in Pakistan and China Tietong, the third largest broadband Internet service provider in China. China Mobile was the first

enterprise from mainland China to be included in the Dow Jones Sustainability Index.

China Unicom (Hong Kong), Ltd., better known as China Unicom, was incorporated in 2000 in Hong Kong. As of June 2008, it had 127.6 million GSM subscribers. China Unicom is one of the largest publicly owned telecommunication providers in China. Its stocks are traded on the Hong Kong, Shanghai, and New York stock exchanges.

In 2008 China Unicom merged with China Netcom Group Corporation (Hong Kong), Ltd., or China Netcom, a major provider serving northern China that held about 109 million fixed-line phone users and 23.3 million broadband subscribers. The new enterprise integrates wireless and fixed-line services.

China Unicom sold its CDMA service to China Telecommunications Corporation (China Telecom) for ¥110 billion (about \$16 billion) in 2008. China Telecom has invested billions of yuan to upgrade its CDMA network.

Huawei Technologies Company, Ltd., and Zhongxing Telecommunication Equipment Company, Ltd., (ZTE Corp.) are two of the major suppliers of telecommunications equipment and networks. Huawei provides next-generation telecommunications networks and serves thirty-five of the world's top fifty operators. At the end of June 2008, Huawei had more than 87,000 employees, of whom 42 percent were dedicated to research and development. ZTE Corp. is one of the major equipment vendors for China Mobile's TD-SCDMA network, a homegrown third-generation (3G) mobile phone standard. TD-SCDMA, or Time Division-Synchronous Code Division Multiple Access, is a 3G mobile telecommunications standard, being pursued and designed in China by the Chinese Academy of Telecommunications Technology. TD-SCDMA will soon be put into commercial use encouraged by the Chinese government.

Fifth Medium

In China the mobile phone is known as the fifth medium, following newspapers, radio, TV, and the Internet. In recent years China's newspaper groups have set up SMS and MMS news services as an alternative way for traditional media to disseminate news. The *China Women Daily* was the first MMS newspaper in China. But SMS and MMS



A Nokia phone with Chinese text messages, and a Nokia phone with English text messages.

newspapers have not been attracting new subscribers, and expenditures for these types of services are high for providers. Nevertheless, the mobile phone industry's status continues to grow.

In 2002 the mobile phone SMS sector was even credited for saving the Chinese Internet. The three biggest portal websites in China were in danger of being removed from the NASDAQ, the largest U.S. stock market, because of slow business. Netease became the first profitable website in China with its network games and short message services. Shortly after, Sina, Sohu, Tom, and other websites were also able to generate high profits through short message value-added services. As a result, the Chinese value-added SMS market enjoyed five years of rapid development.

Now traditional advertisers flock to the mobile phone as the new medium. Third-generation audiences have become the target groups for advertising in recent years. The legality of sending advertisements to mobile subscribers

has been questioned, however. It is seen as the equivalent of sending junk e-mails and junk mail. If there is no solution for the issue of developing legitimate and ethical mobile phone-based advertising approaches, the market development of the mobile phone as a new medium may be greatly restricted.

Rules and Regulations

As expected, the mobile communications industry in China is highly regulated. In addition to many rules enforced by minor state agencies and local bureaus, the two main acts that govern the industry are the Regulations of the People's Republic of China on Telecommunications (telecommunication regulations) and the State Council's Measures for Administration of Internet Information Services (administrative rules), both promulgated in 2000. These regulations are important for a number

of reasons besides stipulating fair business practices. They fulfill China's commitment to World Trade Organization guidelines for the telecommunications industry. They opened the way for direct foreign participation in the telecom sector, which before 2000 was forbidden to foreigners. They established that the market would be competitive (no more state-owned monopolies). And they promoted development, transparency, fairness, and impartiality in the marketplace.

Future Communications

The future of mobile communications in China, as in most of the rest of the world, seems to lie in the so-called third-generation mobile phone technology (3G), which operates on a different radio frequency than earlier networks did and provides improved voice clarity and greater access to global roaming between networks. Also, 3G can support applications that require extensive bandwidth, such as video, full Internet access, and video conferencing.

But 3G technology and licensing have been slow to arrive, so China has created a network based on its own technology called Time Division Synchronous Code Division Multiple Access (TD-SCDMA). While this new technology has potential, it is not yet fully developed or operational, unlike its foreign rivals WCDMA and CDMA2000. Because the government is aggressively promoting TD-SCDMA, operators in China have not been allowed to build WCDMA and CDMA2000 networks.

China Mobile has been under increasing pressure to embrace TD-SCDMA technology. The company has been criticized for not giving full support to the homegrown standard. Nevertheless, China Mobile has invested ¥14.6 billion (about \$2.1 billion) to build a commercial trial network based on TD-SCDMA technology in eight cities. If the trial is successful, commercial applications would follow and give TD-SCDMA the upper hand in China, and possibly in other parts of the world. Once 3G phones are seen as being multimedia and networking devices as much as they are telephony tools, it is likely that their many advanced uses will proliferate and usership will increase.

The initial investments in new technologies are huge, but the prospect is exciting to China's telecommunication industry and its millions of subscribers. Mobile communications, which have become a fundamental part of Chinese life, will most likely become even more essential.

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Further Reading

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