

China's Online Population Explosion What It May Mean for the Internet Globally... and for U.S. Users

By Deborah Fallows, Senior Research Fellow, Pew Internet & American Life Project

There are now an estimated 137 million internet users in China,¹ second in number only to the United States, where estimates of the current internet population range from 165 million to 210 million.² The growth rate of China's internet user population has been outpacing that of the U.S., and China is projected to overtake the U.S. in the total number of users within a few years.³

The influx of tens of millions of new online participants each year can be expected to have far-reaching consequences for the Chinese population, for China itself and for the larger world. At the very least, the internet will offer ever greater numbers of Chinese a much more sophisticated information and communications world than the one they currently inhabit. And because the Chinese share a single written language, despite the multiplicity of spoken tongues, it could have a unifying effect on the country's widely dispersed citizenry. An expanding internet population might also increase domestic tensions that could spill over into China's relations with the U.S. and other countries while the difference between Chinese and Western approaches to the internet could create additional sore points over human rights and problems with restrictions on non-Chinese companies.

Before considering these and other possible impacts, it is important to gain an understanding of the size and direction of growth of China's online population.

Who are China's internet users now?

In China, just over 10% of the population uses the internet, according to the latest government accounting. Users are relatively young, male, urban, and are disproportionately composed of students. Just over 70% of the user population is under age 30 and almost 60% are men. The penetration rate in urban areas is about 20%, compared with just over 3% in rural areas. Among occupations, students make up nearly a third of Chinese internet users, and business workers account for 30% more. The rest are a mixture of self-employed, non-profit workers, the unemployed, teachers, government workers, and army personnel. Peasants or farmers account for only about 0.4% of the online population.

By way of comparison, the Pew Internet Project reports an internet penetration rate (among Americans ages 18 and over) of about 71%. About 30% of the U.S. user population is 18-to-29 years of age; men and women go online in roughly equal numbers, and 70% of adults who live in cities go online, compared with 61% of those who live in rural areas.

How will China's internet population grow?

According to the China Network Information Center (CNNIC), the country's internet population grew at double-digit rates over the past three years: by 18% in 2004 and 2005, and 23% in 2006.

China seems to be racing along the internet development continuum, and is currently somewhere between the “early adopter” and “early majority” phases. By comparison, the internet growth rate among adult American internet users has been in the single-digit range for years, reflecting its more mature stage of internet development. In China, the growth rate translates into 26 million new users in 2006, and 57 million over the past 3 years. By comparison, in the U.S., growth since 2005 has amounted to roughly seven-to-nine million adults and teenagers. CNNIC projects a sustained growth rate would bring the total number of users in China to 210 million by the beginning of 2009.⁴

Who are the new Chinese users likely to be? People all across the board. But one of the most interesting and dynamic points to watch – if all goes according to China’s plans – will be the influx of users from the rural areas of China.

Making change happen

Almost two-thirds of the 1.23 billion Chinese who are NOT online now identify two main reasons why. More than one in three say they lack the skills to use the computer or internet, and nearly another third say they lack internet access. In addition, just under 20% say they have no time to spend online, while smaller numbers cite no interest, no use, or insufficient money to go online.⁵ Several factors already in play in China address the biggest obstacles -- lack of skill and lack of access -- which lie between potential users and the internet.

Expanding access opportunities

Most Chinese who cite lack of access to the technology as their reason for not going online are from rural areas. Some 37% of rural Chinese non-users say this, compared with 26% of urban Chinese. Current efforts to expand access opportunities in rural China, which represents only 17% of the user population now, aims at this audience of potential users.

The successful mobile phone expansion effort by China Mobile demonstrates a precedent for rural expansion of a technology in China. New rural subscribers represented half of China Mobile’s 53 million new mobile phone subscribers in 2006, which now account for upwards of a staggering 300 million China Mobile phone accounts nationwide.⁶

Bringing internet service to rural users is obviously more challenging than expanding mobile phone use, but in an effort to replicate such a success for the internet, government and industry have been trying to ramp up the construction of internet networks and damp down the costs of hardware and user fees. Bridging the rural/urban digital divide has been a government goal since at least 2001, yet the impact so far has been small. Current rural penetration has increased only to 3.1%, including an increase of 0.5% during 2006. The goal appears again as part of the 11th Five Year National Plan for 2006.

Another option for rural expansion would leapfrog over the problems of building internet infrastructure and providing computers, and instead go straight to access via wireless phones.⁷ Currently, only 12.4% of Chinese users access the internet via mobile phones, compared with the U.S., where most wireless phones have internet capability, and some 34% of all internet users say they use wireless connections at least occasionally.⁸

Prospects for the unskilled

More than one-in-three (36%) non-users say their lack of computer skills keeps them away from the internet. Again, more rural Chinese (41%) cite this reason than urban Chinese (29%). While this is the most frequently cited reason people offer for not going online, it is also the only major reason whose frequency is decreasing over time, a trend that suggests people are at least beginning to learn about computers and the internet.⁹

Targeting China's youth, the Ministry of Education has established guidelines for 2007 to improve internet skills and digital education. Teaching computer skills, even without internet access, is one way to prepare children to hit the ground running when internet access does become available.¹⁰

If you build it, will they come?

At least three pieces of evidence -- from past, present and future -- suggest that without the obstacles of lack of access and skills, many rural Chinese could be drawn to the internet, just as urban Chinese have been:

From the past: Few rural Chinese, like urban Chinese, cite lack of relevance or interest in the internet as factors in deterring their use. Only 8% of rural people say they "have no need," for internet use, compared with 9% of urban dwellers; 7% of rural people say they "have no interest," compared with 10% of urban dwellers.

From the present: CNNIC found that today's rural users find sufficient reason to spend a considerable amount of time online, over 13 hours/week, compared with 18 hours/week by urban users.

And from the future: some 15% of all Chinese non-internet users say they will definitely or possibly go online over the next 6 months. Even if only the 4% who answered "definitely" (a rise from 1% a year earlier) do become users, this would amount to 49 million new internet users, or a 36% increase.

Nonetheless, the challenge to building enthusiasm for the internet among the 85% of Chinese who declare no intention of going online soon is evident, and the challenge is strongest among the rural population. Twice as many urban non-users, 23%, say they will possibly or definitely go online, compared with 11.5% of rural non-users. Conversely, 70% of rural non-users say they will definitely NOT be online within 6 months, compared with 55% of urban non-users.

Getting real

Evangelizing the internet goes beyond simply presenting people with computers and internet connections. And reality about the future of China's internet use goes beyond projecting user population based on what people say they intend to do. For internet use to become ubiquitous, a way must be found to make the internet real, particularly to rural Chinese. One farmer in Shandong province made this vivid to researchers, saying, "To us farmers, a computer is no different from an aircraft carrier, because neither has a bearing on our life."¹¹

Real-life stories abound of both successful and failed attempts to bring the internet to rural China. So far, most reports of rural internet expansion have been based on small-scale and targeted efforts of a motivated or benevolent person or group. One such is a growing project in the Yellow Sheep River area of western China, the vision of one businessman, which has set in motion a comprehensive education and economic development plan. The plan includes establishing an R&D center to build inexpensive computers, training and educational outreach through schools and libraries, and introducing information and networking technology to the agricultural sector.¹²

Some early observations of this project suggested that the internet's influence so far, while real, was also proceeding very slowly. One interesting development came as the first wave of teachers who went online ended up acting as internet gatekeepers for the community. They filtered and chose content they deemed appropriate, only then disseminating it to others. And they resisted efforts from a group of farmers to set up an internet café in the area, revealing a general wariness about exposing students to unrestricted internet use.¹³

Another successful small scale rural effort introduced computer and information literacy programs in eight remote public school libraries.¹⁴ World organizations have reached out as well; UNICEF and the National Center for Education Technology have expanded a distance learning program in 50 under-connected rural and poor areas. There are many other small-scale examples like these.

What will a big influx of users mean for China, for the internet globally, and for American users?

The internet continues to surprise us all as it evolves in directions we couldn't even dream up before they happened. No doubt, the arrival of so many new internet users will spell changes well beyond our imagination now. Here are a few possibilities:

The internet will offer ever greater numbers of Chinese a much more sophisticated information and communications world than the one they currently inhabit. Current users in China demonstrate very different information gathering habits than those of non-users: When asked about their main sources of information, 85% of internet users said the internet, 66% cited TV, and 61% said newspapers. Among non-users, 90% said TV and 33% said newspapers.

An expanding internet population could well increase domestic tensions that will also spill over into China's relations with the U.S. and other countries. The Chinese internet population already functions under a system of oversight and regulation that is fundamentally different from, and much stricter than, what applies in most of the rest of the world. In China, censorship, monitoring, rules, and enforcement make for a much more controlled internet. Within China, maintaining this situation already requires tens of thousands of internet police and many layers of accountability and potential punishment. (To give one relatively unpublicized example: ISPs convicted of hosting pornographic sites are in principle eligible for the death penalty.)

Internationally, the difference between Chinese and Western approaches to the internet has already created sore points over human rights and problems with restrictions on non-Chinese companies. And in the most recent, highly-publicized twist, Yahoo! has been sued in the U.S. by

the wife of a Chinese dissident for revealing his identity to Chinese authorities, which led to his arrest and incarceration.¹⁵

From another angle, what might the presence of so many more Chinese users mean to the global internet? Although some of China's new users will speak English, virtually all of them will speak Chinese (the exceptions being speakers of Tibetan and other regional languages). In a recent survey on the "Future of the Internet" by the Pew Internet & American Life Project,¹⁶ experts addressed the question of shifting language balance and use on the global internet. Opinions varied about the future of language use on the internet. Some experts suggested that English would remain dominant; others said that language dominance might shift to another language, like Chinese; others thought that a few languages would share a big online presence.

One linguistic change is already underway: The development of text translation tools makes it possible even now to translate web pages from one language to another. This means that English users can get at least the gist of the contents of Chinese blogs, news reports, articles, etc. And of course, this works the other way around, potentially opening up the wealth of English language postings to Chinese users.

This phenomenon opens up not only a world of shared information and content, but also tremendous global social networking possibilities: What if Americans and Chinese could communicate with the aid of translation tools? Imagine the opportunities for human contact from tens of millions of new internet users, particularly ones who are only just now taking the first step by connecting with the outside world via mobile phones.

Finally, the particular case of Chinese language presents an opportunity for an unprecedented linguistic situation. The Chinese diaspora, with about two-thirds of its population living in mainland China and about one third spread around the rest of the world, includes speakers of Mandarin, Cantonese, and many, many other Chinese dialects. The languages are mutually unintelligible in their oral forms, but are virtually identical in their written form. That is, speakers of Cantonese and Mandarin cannot understand each others' spoken language, but they can read each others' written language. The internet, by offering a shared use of the common written system, makes it possible for all the far-flung speakers of a multitude of Chinese dialects to communicate with each other through their written language. The internet would offer an unprecedented vehicle for people with different native languages to communicate with each other thus creating a new, coherent, virtual community among the now disparate Chinese diaspora.

¹ January 2007 Statistical Survey Report on Internet Development in China, from the China Internet Network Information Center, (CNNIC).

² Population projections from the surveys of the Pew Internet & American Life Project show that about 140 million adults (those 18 and older) are online and about 25 million youth ages 12-17 use the internet. Nielsen/Netratings estimates there are 210 million internet users in the U.S. <http://www.nielsen-netratings.com/>

³ Comparing internet user numbers across countries is a popular exercise, but one muddled by definitions and methodologies. China's quasi-official and highly recognized source of internet data, the China Internet Network Information Center (CNNIC) defines an internet user as someone who is "at least 6 years old and who goes online for at least an hour a week." The Pew Internet & American Life Project, by contrast, defines an internet user as someone who answers "yes" to the question "Do you use the internet, at least occasionally?" or "Do you send or receive email, at least occasionally?" Many nettlesome questions of

survey design and administration blur comparisons even further: the how, where, and when of data collection and recording, just for starters.

⁴ Estimates of growth rates vary, just as headcounts of internet users vary. Less optimistic growth figures, including a JP Morgan study has projected a more modest rise to 190 million Chinese internet users by 2010. It is worth noting that JP Morgan underestimated China's growth rate in 2005 by 14%.
http://www.chinadaily.com.cn/china/2007-01/24/content_790804.htm

⁵ In a Pew Internet Project survey in the spring of 2005, 32% of non-internet users said they were not interested in going online, 31% said they did not have access, 7% said they were too busy to go online, 6% said getting access was difficult or frustrating, and 5% said it was too expensive to go online. Please see: "Digital Divisions" available at http://www.pewinternet.org/PPF/r/165/report_display.asp.

⁶ <http://www.chinamobileltd.com/op.php?menu=3>

⁷ http://www.chinadaily.com.cn/cndy/2007-01/24/content_790665.htm

⁸ John Horrigan, Pew Internet & American Life Project, "Wireless Internet Access." Available at: http://www.pewinternet.org/PPF/r/203/report_display.asp

⁹ For example, numbers for "no skills" dropped from 40% in 2004, to 39% in 2005, to 36% in 2006. For "no access", they rose from 26% in 2003, to 29% in 2005, to 31% in 2006.

¹⁰ The author visited a public elementary school in a poor section of Shanghai, where students were learning computer skills in an attractive school lab, which was well-equipped with several dozen desktop computers. There were no plans to introduce internet skills until middle school. It was also interesting to note that while the school was outfitted with computers, there was no heat supplied to any of the classrooms. Shanghai is a city with roughly the same winter weather as Washington, DC or Richmond, VA. The lack of indoor heating is a holdover tradition from an early edict prohibiting indoor heating in regions south of the Yangtze River.

¹¹ Zhao Jinqiu, Hao Xiaoming & Indrajit Banerjee, School of Communication and Information Nanyang Technological University. "The Internet Adoption and Usage: A Study of Farmer Users at Shandong."

¹² <http://www.yellowsheepriver.com/>

¹³ Download PowerPoint slides for more details on rural internet introduction:
[http://islab2.sci.ntu.edu.sg/sirc/Panel%205%20-%20Chao%20Naipeng.ppt#310,14,Basic questions and preliminary conclusions](http://islab2.sci.ntu.edu.sg/sirc/Panel%205%20-%20Chao%20Naipeng.ppt#310,14,Basic%20questions%20and%20preliminary%20conclusions)

¹⁴ <http://www.clir.org/PUBS/reports/pub130/pub130.pdf>

¹⁵ <http://www.npr.org/templates/story/story.php?storyId=9678505>

¹⁶ Available at: http://www.pewinternet.org/PPF/r/188/report_display.asp