Status and Overview of Official ICT Indicators for China

Since 2001, even before China joined the World Trade Organization (WTO), China has been experiencing a rapid growth in Information and Communication Technologies (ICT). The long period of steady economic growth was one of the factors that made it permissive for China to host the 2008 Olympic Games. It was only natural for ICT to play an increasingly important role in China today. In just a few years, China has become one of the top countries offering the most attractive market perspectives for most ICT products and services.

ICT Goods
• China is rapidly expanding its production of various types of ICT goods. Trade in ICT goods (both imports and exports) has gone up from just over 12% of total trade in 1996 to more than 27% in 2003. China is quickly becoming a major assembly line for ICT goods production. In 2003, more than 60% of imports of ICT goods consisted of electronic components, while almost four-fifths of exports of ICT goods were made up of computer, telecommunications, audio and video equipment. Wages in the ICT services sector are very high compared to that of other sectors, and stood at more than three times the national average in 2002.

Telephone Subscriptions
• Telephone subscriptions are increasing at a fast rate, with mobile phone subscribers overtaking fixed line subscribers in October 2003. By the end of March 2007, there were 480.65 million subscribers of mobile communication services in China representing 35.3% of China's population, according to statistics published recently by China's Ministry of Information Industry (MII). Data on the penetration of major durable goods in households show a huge gap between urban and rural households. The regional divide in PC ownership is improving, as the region with the lowest penetration rate in 2002 has a penetration level comparable to that of the fourth province in 1998.

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<thead>
<tr>
<th>Mobile cellular subscribers</th>
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<tr>
<td></td>
<td>CAGR per 100%</td>
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<tr>
<td></td>
<td>2002 2007 2002-07</td>
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<td></td>
<td>CAGR</td>
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<td>2007 2007</td>
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<tr>
<td>Afghanistan 95</td>
<td>25.0</td>
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<tr>
<td>Armenia 96</td>
<td>71.3</td>
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<tr>
<td>Azerbaijan 97</td>
<td>794.0</td>
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<tr>
<td>Bahrain 98</td>
<td>389.0</td>
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<tr>
<td>Bangladesh 99</td>
<td>1,970.0</td>
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</tbody>
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100 Bhutan     - 149.4 - 17.18 100.0 83.3
101 Brunei Darussalam 153.6 501.4 18.3 78.8 79.9
102 Cambodia    580.0 2,385.0 46.7 17.88 98.6
103 China       206,005.0 547,286.0 21.6 41.19 100.0 60.1
104 D.P.R. Korea - - - - -

The above table has shown that the compound annual growth rate (CAGR) for mobile cellular subscribers in China is about 21.6%, this means that every year, there is an average of 118, 213, 000 new subscribers, a number that is more than the total population of certain countries. This makes China the largest mobile phone market in the world.

Besides a raise in the income earned by the people in China, the price of the mobile phone itself has been significantly decreasing over the years. In the late 1980s, when mobile phones first appeared in China, one such gadget cost around 10000 - 20000 RMB. Now, the Chinese can easily obtain a 3G phone at around 1000 RMB on the market. The reason behind this steady drop in the price is the fierce competition for the mobile phone market in China. Other than the few world renowned mobile brands such as Nokia and Sony Ericsson, China has her own share of domestic brands. In order to compete with the foreign firms, some of the local brands formed alliance to accumulate and combine their resources and stay competitive.

China’s mobile subscribers accounts for about 43% of Asia-Pacific's mobile market. In China itself, around 35% of the population own a mobile phone.
The main telephone lines in China are growing at a CAGR rate of 11.3%. This shows that China is actively building the nation's basic communication infrastructure to provide greater access to the people. This data is in tune with China's Telephone Service in Each Village Project. The Chinese government wants to improve and speed up the telecommunication service in the rural areas.

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<thead>
<tr>
<th>Main Telephone Lines</th>
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<th>Main (fixed) telephone lines per 100 inhabitants</th>
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<td></td>
<td>(000s)</td>
<td>CAGR (%)</td>
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<tr>
<td>95 Afghanistan</td>
<td>33.0</td>
<td>81.2</td>
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<td>96 Armenia</td>
<td>542.5</td>
<td>594.4</td>
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<td>97 Azerbaijan</td>
<td>923.8</td>
<td>1254.0</td>
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<tr>
<td>98 Bahrain</td>
<td>175.4</td>
<td>194.2</td>
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<td>99 Bangladesh</td>
<td>605.9</td>
<td>1186.9</td>
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<td>100 Bhutan</td>
<td>19.6</td>
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<tr>
<td>101 Brunei Darussalam</td>
<td>81.3</td>
<td>80.2</td>
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<tr>
<td>102 Cambodia</td>
<td>55.4</td>
<td>37.5</td>
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<tr>
<td>103 China</td>
<td>214222.0</td>
<td>365448.0</td>
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<td>104 D.P.R. Korea</td>
<td>916.0</td>
<td>1180.0</td>
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<th>Basic Indicators</th>
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<td>Population</td>
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<td>(M)</td>
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<td>2001</td>
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<td>95 Afghanistan</td>
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<td>97 Azerbaijan</td>
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The GDP of China in 2007 (2773 billion USD) is more than double of the amount in year 2002 (1316 billion USD). The number of telephone subscribers in China as recorded in the year 2007 (912,734,000) is also more than double the amount recorded in the year 2002 (420,227,000).

Internet

- There have been estimated 137 million of Internet users in China by the end of 2006, a number, which represents a penetration rate of 10.5%. China’s population of Internet users is the second largest behind U.S.A. Over the past seven years (2000-2007), the percentage growth in Internet users is 486% and it is expected that by 2009 China will surpass the U.S.A in the amount of Internet users. Furthermore, about 40% of Internet users are female, and the population belonging to the age segment under 35 has a share of over 80% of Internet users, down from almost 90% in December 1998. The education profile indicates that there is a rapid increase in the share of people with a lower education profile. There has also been a rapid increase in the share of people belonging to lower income profiles.

- The number of broadband subscribers in China is growing at an incredible 7% annually and is expected to reach 79 million in 2007. Analysts have forecast that the number of broadband connections in the U.S.A presently the world’s largest market with approx. 51 million, will be overtaken by China next year - becoming thus the world’s largest broadband internet market.

- The main primary objective of using the Internet has constantly been to “get information including news”, followed by entertainment purposes. About one-third of Internet users surveyed carried out business-to-consumer electronic commerce in December 2000, a share that went up to 40% in December 2004. In December 2004, almost 60% of those engaged in e-commerce bought books and about one-third of the people bought computer appliances. The most important barrier to buying on line in December 2004 was doubts about the quality of the product people would like to buy. This barrier gained importance over the last few years, as security fears and inconvenient payment modes have become less important, although security fears have been rising again in importance since July 2002.

- The geographical distribution of Chinese domain names shows a concentration in the municipalities of Beijing and Shanghai and the Eastern Coastal region of Guangdong, which together had a share of about 60% until 2002, dropping to under 50% in 2003. In terms of Internet users, there is a trend toward resolving the regional digital divide, with a decrease in the share of Internet users in the municipalities of Beijing and Shanghai as well as the Eastern Coastal provinces of Guangdong, with an increase in the share of the Western Region.

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<th>Internet</th>
<th>Internet</th>
<th>Broadband Subscribers</th>
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The top two tables have shown that over the last six years, from the year 2002 to 2007, the population of internet subscribers in China rose 169%, from 55,763,000 to 150,264,000 people. At the same time, the population of internet users in China rose from 59,100,000 to 210,000,000 people, a 255% increase.

The Chinese are earning a higher income and the price for a computer has been getting cheaper too due to better technology and a higher demand. As a result, internet is becoming more and more affordable to the population and no longer a privilege that only the rich can enjoy.

Other than the money issue, the language barrier has been slowly dissolving too. Many Chinese websites are observed on the internet and a lot of websites are often featured in both English and Chinese languages to cater to the Chinese population due to the fact that even the western firms have recognised the potential that can yield from the Chinese internet population.
Color TV/PC penetration

• By the end of 2005,
  - in the cities, color TV per family has reached 133% and computer per family has reached 33%
  - in rural areas, color TV per family has reached more than 60% while computer per family has reached only 1.1%
• All administrative villages can now receive radio and TV signals. 94.48% of the population have access to radio and 95.81% have access to TV broadcast, as compared to 86.02% and 87.68% in 1997 respectively.

Conflicting?
Despite the reports of increasing trends in China's adoption of the various ICTs, ICT penetration for a country like China, developing quickly and with such a large population is still considered relatively low, on the whole. Why is this so? Does China's history and her policies and laws have a role to play?

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<thead>
<tr>
<th>Information &amp; Technology</th>
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<th>Rank:</th>
</tr>
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<tbody>
<tr>
<td>Mobile cellular (per 100 population) [2001]</td>
<td>11.17</td>
<td>10</td>
</tr>
<tr>
<td>Internet hosts (per 10,000 population) [2001]</td>
<td>0.69</td>
<td>11</td>
</tr>
<tr>
<td>Internet users (per 10,000 population) [2001]</td>
<td>260.00</td>
<td>9</td>
</tr>
<tr>
<td>Number of PCs (per 100 population) [2001]</td>
<td>1.93</td>
<td>10</td>
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Limitations
The Chinese government recently passed legislation which restricts the collection of statistical data by foreign bodies, be they private or governmental. Therefore, the availability of other (non-official) statistical information is quite limited. An important barrier in collating economy-wide, consistent indicators is the vertical structure of the Chinese government, which limits the flow of information between the various ministries and with other institutions that are responsible for data collection. For these reasons, it is difficult to compile a complete set of indicators to compare China's ICT development with other countries.

Sources
1) http://www.oecd.org/LongAbstract/0,3425,en_2649_34451_34615814_1_1_1_1,00.html
2) http://www.eurochina-ict.org/bl.html
4) http://www.firstmonday.org/issues/issue7_10/press/
7) http://findarticles.com/p/articles/mi_hb5562/is_/ai_n22804061
8) http://www.american.edu/inibe/fl9577a/About%20China.htm