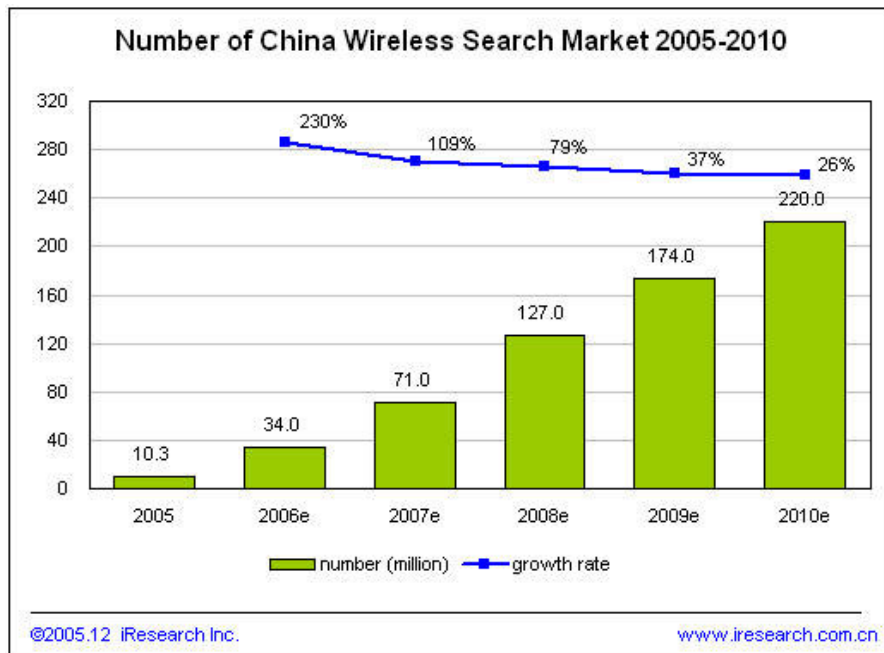


China Trends

Interview with Will Stewart, Founder & Chairman, Asia Pacific Ventures

What are some interesting trends you are seeing in the China IT market?

Stewart: I just recently returned from Beijing and no doubt the mobile phone explosion in China is very impressive. As I was walking through Tiananmen Square and just sitting outside the Forbidden City the other morning watching people walk by, I was completely taken by the large number of young Chinese teenagers using mobile phones. Interestingly, most of these young teenagers are from outside Beijing visiting the Chinese capital from rural areas and most of them were carrying mobile phones. The average annual income in the rural Chinese regions is just over \$400/year. In the past couple years the overall mobile market has exploded with over 435m mobile phone subscribers in China today. China Mobile, the state owned mobile carrier, is adding over 5m new customers a month or one new customer every 2 seconds. China Mobile has over 65% of the total market in excess of 300m subscribers with the average revenue per user at over \$11.00 per month. China Mobile has a market capitalization of \$198B, making it the most valuable mobile carrier in the world today. China Unicom, which is listed on Hong Kong Exchange and also state owned, is a distant second in the mobile market with just over 140m subscribers. Interesting side note: Nokia sold more than 51 million mobile phones in China in '06, representing 13% of the company's total sales in the global market. At present, Nokia holds 35% of the handset market share in China, ranking tops among all mobile phone manufacturers.



It is estimated that the number of wireless search users in China was approximately 34 million in '06, which is 230% more than that of 2005. Influenced by 3G commercial application and gradual maturation of wireless search mode, the number of China wireless search users will reach 127 million and the high growth rate will continue. The wireless search industry will enter its mature development stage in 2010 and the growth rate will slow

down. iResearch estimates that the number of wireless search users in China will reach 220 million with a growth rate of 26% in 2010.

Interestingly enough, mobile phone penetration in the major cities of Beijing, Shanghai, and Shenzhen is approaching 100% market penetration. In rural China, with over 900m people, just over 1-in-10 people have a mobile phone so the real market potential lies in the rural areas. Another interesting trend to note is the fact in '06 for the first time we witnessed China Mobile stepping outside the China borders in acquiring 89% of Paktel (one of Pakistan's largest mobile carriers) as well early last year it acquired Hong Kong's #4 mobile carrier, People's Telephone. Just last summer China Mobile attempted to purchase Luxembourg's Millicom International, which has mobile networks in Africa and Latin America, for \$5B. China Mobile is becoming very aggressive in the emerging markets. I believe this is a very important trend to watch as state owned Chinese companies are starting to make significant cross border acquisitions as well as entering international markets with their products and services.

Where is the internet market in China today?

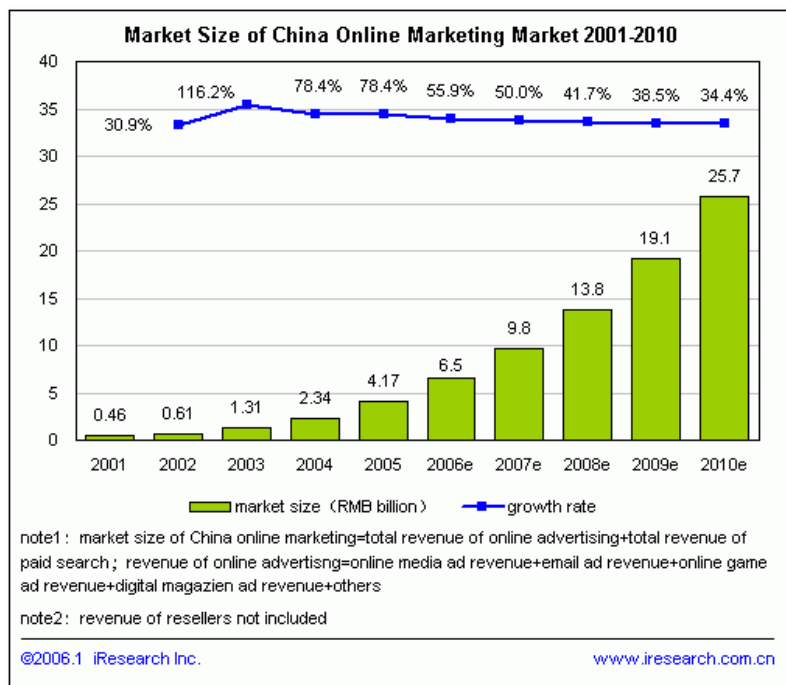
Stewart: The China Internet Network Information Center (CNNIC), a government-linked researcher just last month published "the 19th Statistical Survey Report on Internet Development in China". The report stated that by the end of 2006, the number of Internet users in China reached 137 million, accounting for 10.5% of China's entire population. The Internet penetration in Beijing exceeded 30% for the first time. The total number of domain names in China increased remarkably. Over 1.8 million .CN domain names had been registered. The registration increased 64.4% in just one year. Over 75% of Chinese Internet users, or 104 million people, use broadband connections that include xDSL, Cable Modem and leased line.

Comparing to the same period last year, the number of China's Internet users increased by 26 million, a growth rate of (23.4%) and just think about 210 million out of 300 million Americans are online - a figure China will most likely surpass in the next 24 months if it keeps growing at this pace.

The report newly added a survey of network resources of domestic webpage numbers and bytes of total website content. The results show that by the end of 2006, China had 4.47 billion web pages and 122,306 GB of web page content, the annual growth rates of these two are 86.3% and 81.7% respectively. Along with vast growth of these domestic Internet resources, the total websites and IPv4 addresses in China also grew rapidly and reached 843 thousand and 98 million respectively.

Online search revenue in China is estimated to increase more than 15-fold to \$1.4 billion in 2011 from \$91 million in 2005, according to a recent report by the Credit Suisse Group. Sales of online ads on Web sites may rise more than fivefold to \$1.7 billion in 2011 from \$319 million in 2005, it said.

In the US, roughly 70% of the internet users are over 30 yrs of age. In China, it is just the opposite. Over 70% of the internet users in China are under the age of 30yrs. In addition, the majority of these young users turn to the internet for entertainment whereas in the US the majority of users turn to the internet for information. The 2007 China Internet Survey Report revealed that China had more than 20 million online bloggers by the end of year 2006. More than three million of these bloggers regularly update their blogs on the internet. The report further stated that the average Chinese web user spent 170 Yuan (US \$22 dollars) every month on the Internet. This has increased from 150 Yuan in 2005.



Instant messaging and game-playing are major obsessions, now central to Chinese culture. IDC's statistics are optimistic about China's online game industry. IDC estimates that from 2006 to 2011, China's online game industry will grow at a compound rate of 30.2% and the whole market value will reach RMB 24.43 billion (US\$3b) by 2011.

Social networking is also a major obsession, a natural fit in a country full of young people without siblings. The latest report issued by technology research and consulting service provider Analysys shows that China had 118.72 million instant communications users in 2006.

Analysys reported that the Chinese instant messaging industry continued to see a user increase in 2006 with an annual compounded increase rate of 50.73% from 2002, and instant messaging users accounted for 80% of the total internet users in China. Founded in China in 1998, no other Internet company in the world — not even Google — has achieved the kind of dominance in its home market that Tencent commands in China, where its all-in-one packaging of entertainment offerings and mobile instant-messaging service, "QQ," (www.qq.com), has reached more than 100 million users, nearly 80 percent of the entire market. Tencent combines aspects of the social networking of MySpace, video sharing of YouTube, and the online virtual world of Second Life. Tencent's rapid rise is one of the core reasons why America's biggest Internet companies, like Yahoo, Google and eBay, have largely failed in China.

Another key cultural difference is that few people in China have credit cards and they do not trust the Internet for financial transactions, which is the core reason why e-commerce is emerging very slowly. Chinese consumers, like those in other Asian countries, prefer to pay with cash. Only about 2.5% of China's 1.3 billion people own credit cards today. China had 45 million credit cards in use as of Sept. 30 2006, up from 20 million a year earlier, according to the China Banking Regulatory Commission. Bank and credit cards account for 14% and 3% of retail sales in China, according to Merrill Lynch. Most of the 1 billion bank cards used in China are debit or ATM cards, according to the China Banking Regulatory Commission. Affluent Chinese still go to ATMs to take out cash before making store purchases. Some consumers pull out a wad of cash from a backpack to buy luxury goods. Fact is, most Chinese consumers don't have credit histories. Many banks require cash deposits when issuing credit cards and that might be the case with up to half of the 45 million credit cards in China. China's regulators require that foreign companies co-brand credit cards with Chinese banks. In October, Wal-Mart launched a co-branded card with Shenzhen Development Bank and GE Money.

B2C E-Commerce Sales* for Select Countries in the Asia-Pacific Region, 2006 & 2010 (billions, % market share and CAGR)**

	2006	2010	% market share 2006	CAGR 2006-2010
Japan	\$33.5	\$61.9	65.4%	16.6%
South Korea	\$14.0	\$28.8	27.3%	19.7%
China	\$2.5	\$18.0	4.9%	63.7%
India	\$1.2	\$6.4	2.3%	50.7%

Note: converted at average annual exchange rates (projected for future years); *includes online travel; **CAGR=compound annual growth rate
Source: eMarketer, January 2007

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www.eMarketer.com

The fast-growing middle class makes a big target for credit card companies, banks and retailers. Many analysts define China's middle class as those with annual income of at least \$5,000 - about 50 million to 75 million people. That could swell to 290 million by 2015, according to McKinsey Co.

I only touched on these two technology segments – mobile and the internet as I constantly hear in the US that these two market segments have no boundaries but I beg to differ. Ask eBay or Verizon how they are doing in China today. Don't kid yourself, there are boundaries and they are being

drawn right now by the Chinese.

Many of the US internet companies have not done well in China, can you comment?

Stewart: The American internet companies continue to struggle in China partly because of regulatory restrictions that favor home-grown Chinese companies, but also because foreign companies often failed to understand China's Internet market, which is geared primarily to entertainment and mobile phones.

Actually, it is my personal opinion, but Google, Yahoo, eBay, AOL, and others really did a poor job early on and not only in China but in most of Asia. Granted, there are huge government regulatory restrictions. However, typical of many high growth US start-ups these companies rushed into the Asia markets, completely inexperienced, only attempting to apply advanced technology and business solutions in completely different cultural, business, and economic markets. Look at Yahoo--Japan is the largest internet company in Japan today with over 50m users but Yahoo (parent) owns a minority interest in Yahoo-Japan. Basically Yahoo gave one of the largest and most profitable internet markets in the world away very early on to a Japanese partner in Softbank. It is my personal opinion but Yahoo handed Masayoshi Son, Founder of Softbank, the entire Japanese market and he was real smart, he took it. Son-san invested in Yahoo (parent company) back in the fall of '95 and not only got equity in Yahoo (37%) but Son-san really got Japan and other parts of Asia for the exact same equity dollars. Son-san, in the past 10 years has built out his empire of Softbank in Japan and Asia largely on the leverage of both his Yahoo and Yahoo-Japan interests. Back in late '05, Yahoo paid \$1B for 40% of Alibaba in China (the Yahoo of China) and they bought the position mainly from Son-san (Son-san invested \$20M in Alibaba in '00 – nice return to Son again thanks to Yahoo).

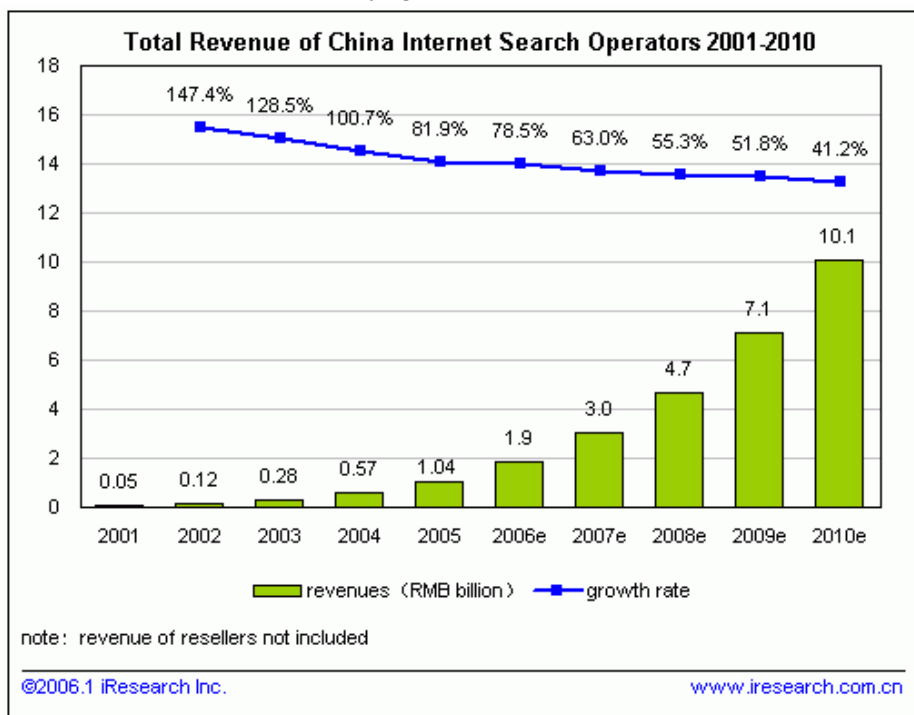
Yahoo, Google, and eBay have all done poorly in the China market. After years of struggling on their own, Yahoo and eBay have both handed over their Chinese operations to local companies. Yahoo recently transferred its operations to Alibaba. And eBay, even after buying one of its biggest competitors in China, has continued to lose ground and last December it handed its Chinese operations over to Hong Kong-based Tom.com in a joint venture. In addition, eBay is not operating in Japan as Yahoo Japan dominates the online auction space. Personally, I am concerned about eBay as it is clear today the company is practically non-existent in two of the largest internet markets outside of the United States.

Baidu, the local Chinese competitor to Google has handed Google their Chinese hat and pointed to the exit. Baidu has basically copied Google's clean-screen look, but the rest of the

Baidu game plan is original. It plays to Chinese nationalist advantage by attacking Google as a foreign invader. It promotes itself in such splashy ways as a huge neon sign on the banks of the Pearl River in Shanghai. And it has flourished by aggressively marketing itself in ways not accepted at Google: Baidu lets advertisers pay for placement in its search results.

The formula is working. Despite a huge marketing push from Google over the last year, Baidu is first choice by 62% of Chinese users, up 15% over 2005, according to a study released in September '06 by the China Internet Network Information Center. Google's share dropped eight points, to 25%. If Baidu keeps winning, local players elsewhere might copy Baidu's tactics, disrupting Google's plan to expand globally.

That said, when I was in Beijing last month China Mobile, one of the largest mobile operators in



the world, had inked a partnership with Google for providing mobile service and Internet based search services in China. This is a statement in the right direction for Google. Not only does it reinforce Google's commitment and direction in the China market, politically it is a real smart move partnering with one of the largest and most influential state owned companies in China – just a brilliant move by Google.

Aside from the cooperation between

China Mobile and Google, wap.iask.com, one of the largest wireless search engines in China, is also working to get more content providers to embed its mobile services into their applications.

There are probably over 100 companies in China right now trying to copy or imitate MySpace and probably another 200 Chinese companies trying to copy YouTube. YouTube attracts a higher proportion of international users. Approximately 88% of YouTube's user base is located outside the US, compared with 36% at MySpace. YouTube is owned by Google who has done very poorly in China so it should be interesting to see what real assistance Google can provide YouTube in China. Asia represents the next growth opportunity for MySpace. However, the company is tweaking its strategy by first targeting the Asian mobile internet market because of the high level of internet usage over mobile devices in Japan and South Korea. I find it very interesting that News Corp., who purchased MySpace back in '05 for over \$500M, could pay such a premium knowing that over 1/3 of the MySpace user base is outside the US but not knowing who those users are and if they would actually pay for the MySpace service. China and Japan represent the next largest internet markets in the world and MySpace has just put a toe into Japan and is non-existent in China. Granted, one would say China and Japan represent great opportunities for MySpace but it is difficult to spend properly in those markets when you already paid a premium to acquire the business. Roll the dice but my belief is first

strikes by both MySpace and YouTube in China will be completely wrong and very costly mistakes. Yet once again Son-san of Softbank captured another US partner in MySpace announcing a 50-50 joint venture in Japan last November.

China, like most Asian markets, sometimes requires foreign companies seeking to do business locally to simply take on a local firm as a partner. I constantly tell US entrepreneurs that when they land in China, park your ego at customs, and put on the Happy Coat and learn the ways of the local China market and if not, I strongly advise you don't get off the plane. In fact, don't bother getting on the plane.

What is the status of the China PC market?

Stewart: Another interesting trend is the fact that there is a great abundance of internet cafes. Fact is, on average 2~3 people share a PC in China today as PC's are simply too expensive for the average Chinese consumer. There are over 12 million PCs in over 120,000 Internet cafes throughout China today. PC's specifically made for Internet cafes cost between 3,000 yuan

China desktop PC market: 4Q 2006 shipment volume	
Brand	Market share
Lenovo (Domestic)	35.2%
Founder (Domestic)	12.4%
Tongfang (Domestic)	9.3%
Dell	7.5%
HP	6.4%
TCL (Domestic)	4.2%
Hisense (Domestic)	3.9%
Acer (Taiwanese)	3.8%
Hedy (Domestic)	2.0%
Others	15.3%

Source: compiled by DigiTimes.com, February 2007

(US\$375) and 20,000 (US\$2,500), depending on customer needs. This PC market segment is expected to further expand with the government's call for quality Internet cafes across the country. While China's Internet Cafes have a reputation as seedy firetraps, the one I walked into in Beijing last week really impressed me. Typically they are filled with students playing online games, watching movies, and instant messaging their friends. The Internet Cafe I walked into in Beijing had to have over 500 people on three floors at 2PM in the afternoon. Because Internet Cafes really cater to Chinese gamers who want to play the most up-to-date games, owners typically replace their PCs every two years or so. This market today is one of the largest PC segments in China with between 6~8 million PCs sold per year.

What is going on in the Venture Capital Market in China?

Stewart: Venture capital investment in companies headquartered in Mainland China reached the highest point in three years with 214 deals completed and \$1.89bn invested in 2006, according to the China Quarterly Venture Capital Report released by Dow Jones VentureOne and Ernst & Young. Deal flow was up 37% from 156 deals and the invested capital increased 55% from \$1.22bn 2005.

By industry, 131 IT companies were financed in 2006, receiving \$920.7m - an increase of 34 per cent from the \$86.4m in 2005. The business, consumer and retail industry category posted 57 deals and \$613.3m in investment in 2006, which is 40 per cent more capital than in 2005 (\$438.7m).

While healthcare is a relatively small investment industry in China, particularly in comparison to the US and Europe, it did see ten deals in 2006 and \$47.5m invested, up from six deals and \$5.8m

in 2005. The energy segment also climbed with ten deals, up from one in 2005, and \$212.6m invested, up from \$80m in the preceding year.

What are some concerns that you have?

Stewart: One only has to recall the early 1980's when we heard false alarms in the US about the potential Japanese dominance of the high-tech industries. I constantly hear from US entrepreneurs that China is not creative and simply applying US copied solutions in the local China market. On the surface, it may look that way. However, China is far more open to foreign investment coupled with greater cost advantages and more rigorous higher education. The literacy rate in China is over 80% and in the six years since 2001 China attracted \$345.6 billion in foreign direct investment (FDI), more than the \$323.3 billion that poured in over the nine years from 1992 to 2000. Over \$80 billion of FDI will land on China's soil this year and will represent over 65% of all the FDI in Asia. While the figures speak for themselves in terms of China's appeal to foreign investors, an underlying trend is the fact that investment from multinationals in the world's fastest growing economy is shifting from "made in China" to "sold in China." Baidu is not beating Google in China by copying Google, in fact, just the opposite. Baidu is applying unique search and advertising solutions to an internet market that is completely different than the US.

After WWII and into the 1960's, if you had asked any U.S. manufacturer who were they were most concerned about competitively, at the time, the answer would have been the cheap import from Japan. In the 1970's and 1980's Japan was experiencing explosive growth globally. If you had asked the Japanese manufacturers back in the 1980's who they were most concerned about they would have responded with Korea, Taiwan, and South East Asian (ASEAN) manufacturers. Sure enough in the early-mid 1990's the Korean, Taiwanese, and South East Asian (ASEAN) manufacturers hit the global shores hard and gained significant market share across all industries largely at the expense of the Japanese. So really the China question being put forward today is best asked of the Korean's, Taiwanese, and South East Asians. Their answer, which is both their largest concern as well as their largest foreign investment, is China. There are over 1.5M Taiwanese living in and around Shanghai today.

According to the Organization for Economic Co-operation and Development, China has overtaken Japan to become the second biggest spender on research and development behind the US. China is expected to invest \$136B in research and development in '07 after growing by more than 20% in the past year, ahead of the the \$130B from Japan but still well behind the \$330bn the US will invest, the OECD said.

What is APV doing in China today?

Stewart: Consistent with our firm's history, we are assisting a number of US IT companies attempting to penetrate the China market. However, we have also made some direct investments in a couple China based IT start-ups. APV, over the past year, invested in as well assisted the China Seed Fund (www.cseed.cn) with key investor introductions for their early stage venture capital fund in Shanghai wherein one of the these introductions was the lead investor for the fund. I have personally taken a venture partner role with the China Seed Fund and today the venture fund has over a dozen successful early stage IT investments in China.

In addition, I am a personal investor and on the board of GlobStream (wenjun.luo@globstream.com.cn) headquartered in Beijing. Let's take a look at some real hard trends taking place simply by looking at GlobStream. The three top executives at Globstream are China born all with MBA's and PhD's from Berkeley, Beijing University, and Wharton in computer science. They are crammed in an office in Beijing no larger than my living room in

Atherton pumping out code and in six months, on less than \$500K in equity capital, GlobStream is going to launch in the China mobile market, both direct-to-consumer and with mobile carriers with their (patented) streaming solution.

One can hire a PhD with years of experience for less than what it would cost to hire a new college under-graduate out of Stanford. An estimated 700,000 engineers graduate annually from China's schools

Any additional concerns that you about China?

Stewart: Pollution is the leading cause of death in China today, killing more than 1m people a year. The primary cause of pollution is also the number one source of the energy: coal. To keep pace with the country's economic growth, China's local governments, utilities, and entrepreneurs are building, on average, one new coal fired power plant per week. Last November, the International Energy Agency projected that China will become the world's largest source of carbon dioxide emissions in 2009, overtaking the US nearly a decade earlier than previously anticipated. Coal is expected to be responsible for three-quarters of that carbon dioxide. I am extremely concerned with the fact that the problem will get worse before it gets better. Between now and the year 2020, a number of studies show that China's energy consumption will more than double. Since China has very little in the way of oil and gas reserves, its future is very dependent on coal.

What advice do you have for an American entrepreneur running an IT start-up in the US?

Stewart: If you are an American entrepreneur running a US IT start-up and have never been to China then I strongly recommend you get on the next flight. The competition today for any US IT start-up headquartered outside Boston on RT128 is not another US IT start-up west of the Mississippi. In fact the real competition is 8,000 miles away south of the Yahtze River and you can literally bet your company on the fact that your Chinese competitors are working 24/7, on 1/10th the budget, and will be on your doorstep knocking on your front door very soon – much sooner than you think.

China 2007 Predictions?

Stewart: I would like to think that with the Olympics coming to Beijing in '08 that China Mobile will officially launch 3G services in mid~late '07. However, it is clear in the trials now taking place with China Mobile, China Netcom, and China Telecom that Beijing is pushing the development of a homegrown 3G standard not used elsewhere in the world.

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US \$1.00 = 7.8 rmb

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