

The Internet in China

Mary Meeker – October 2004

Full report online at http://www.morganstanley.com/institutional/techresearch/2004_China_Report.html

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Internet as Change Agent for China

- **Most populous country** – 1.3B people (21% of world)
 - 1850 – 33% of global GDP
 - 1991 – < 2% of global GDP
 - 2003 – 4% of global GDP (or 13% using PPP)
- **Top priority for China's leaders is long-term, sustainable economic growth with relatively high levels of employment**
- **Technology is the designated vehicle for driving growth and Internet is at core of technology innovation**
 - Internet connectivity may help Chinese companies more effectively utilize labor and resource base locally and globally
- **Many disruptive forces / challenges / risks in China**

Technology Adoption

Illustrated for Global Market / Innovators... Not All Made in America

- **China Internet** – 87MM+ users; #2 in world, likely #1 within 5 years
- **S. Korea** – Broadband penetration of 70%+ is higher than any other country
- **Shanda Networking** – 236MM registered gamer accounts (non-unique) in China
- **Ringtones** – \$3B+ annual market
- **Picture phones** – 1 of 6 mobile phones sold globally in 2003
- **Apple** – 70%+ market share of online paid-music market
- **Yahoo!** – 1B+ streaming sessions in 12 months, mostly music videos
- **Google News** – 7MM global visitors/month, 5K sources, zero human intervention
- **eBay** – facilitated CQ2 trades of \$8B, up 42% Y/Y with 45%, and rising, outside US
- **VoIP** – Japan leads with 4MM+ subscribers via Softbank / Yahoo! BB

Internet & China

11 Points

Number of Connected Users Is Significant / Growing Rapidly

TMT Category	China Global Ranking	China 2002 Units (MM)	China 2002 Growth
Mobile Phones	1	207	43%
Cable TV Subscriptions	1	100	10
Telephone Lines	1	214	20
Internet Users	2	59	75
Installed PCs	4	29	21

Source: Morgan Stanley Global Market Sizing of TMT Products and Services, 9/03; <http://www.morganstanley.com/techresearch>.

Relative Web Site Usage Momentum Is Strong

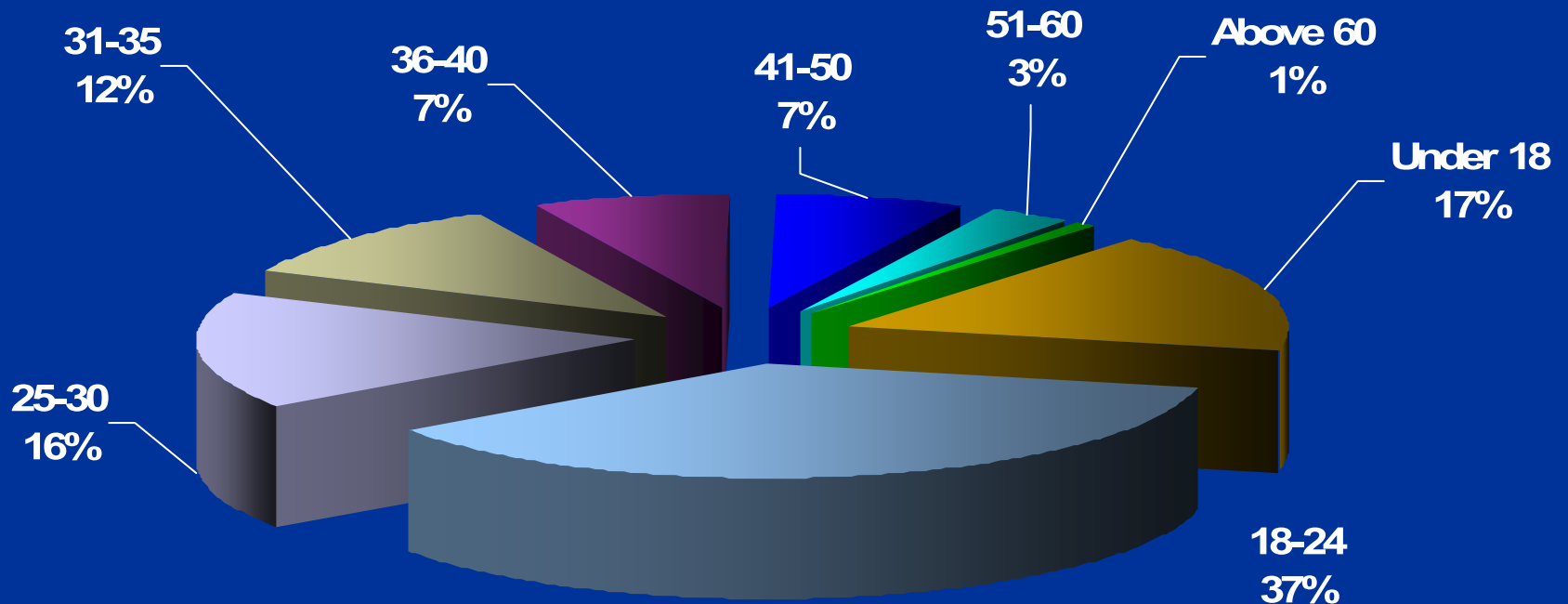
~Half of Alexa's Top 25 Trafficked Global Sites are in China

Rank	Site Name	Country	Rank	Site Name	Country
1	Yahoo!	USA	14	Newsgroup.com.hk	HK
2	MSN	USA	15	eBay	USA
3	Sina	China	16	Tom Online	China
4	Google	USA	17	Offeroptimizer.com	USA
5	Sohu.com	China	18	Naver	Korea
6	NetEase	China	19	Taobao	China
7	Baidu.com	China	20	Nate	Korea
8	3721 / Yahoo!	China	21	Allyes.com	China
9	Yahoo! Japan	Japan	22	Chinaren (Sohu)	China
10	Passport.net (Microsoft)	USA	23	EachNet (eBay)	China
11	Microsoft	USA	24	Amazon.com	USA
12	Tencent	China	25	21CN.com	China
13	Daum.net	Korea			

Source: www.alexa.com, 10/1/04. Note that Alexa's traffic rankings are based on usage patterns of opt-in users of Alexa's downloadable toolbar. Alexa's results may be skewed owing to inclusion of Alexa toolbar with ISPs in China.

Next-Generation Very Active on Internet...

70% of Internet Users in China are Below Age 30 (vs. ~30% in US)



Source: CNNIC, 13th Statistical Survey Report on the Internet Development in China (Internet User Demographics (1/04)). Pew Internet & American Life Project, "The Ever-Shifting Internet Population" (4/03).

Online Media Development in Early Growth Stages

- Historical governors on media (from TV to print to entertainment) have created an especially fertile environment for emerging online media
- Internet (with / without mobile phones) able to deliver info that simply could not be sent / received / interacted with before
- In market that had been cut off from news flow for years, ability to receive information *and* ability to express oneself should not be underestimated

Wireless Messaging Services Ramping Quickly, Although Transitions Occurring...

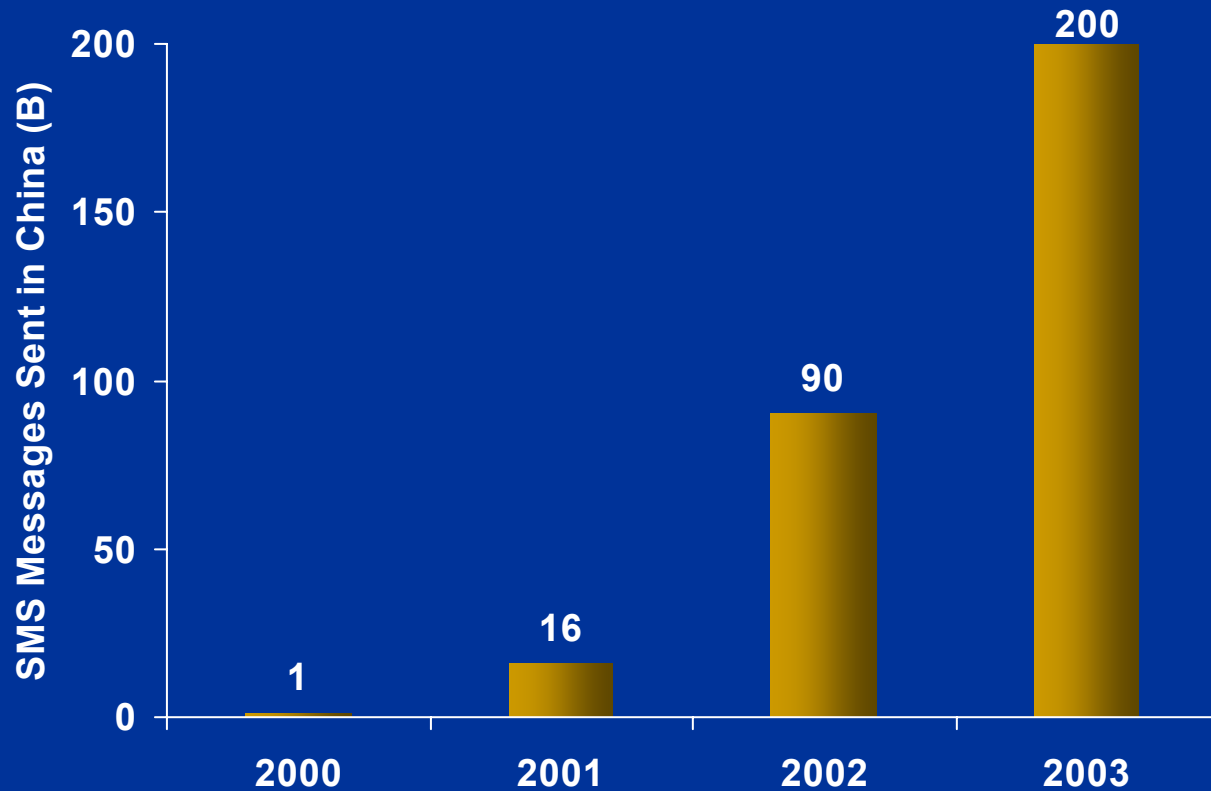
China Leads in Ratio of Mobile Phones to Internet Users

Country	Mobile Phones (MM)	Internet Users (MM)	Mobile Phone to Internet User Ratio	Installed PCs (MM)
China	207	59	3.5 : 1	29
US	141	162	0.9 : 1	198
Japan	79	53	1.5 : 1	49
Germany	60	34	1.8 : 1	36
UK	49	32	1.5 : 1	24
Italy	49	20	2.5 : 1	12
South Korea	32	26	1.2 : 1	13

Source: Morgan Stanley Research – Global Market Sizing of TMT Products and Services – 9/03; 2002 year-end data.

...Wireless Messaging Services Ramping Quickly,
Although Transitions Occurring...

China Leads in SMS Messaging

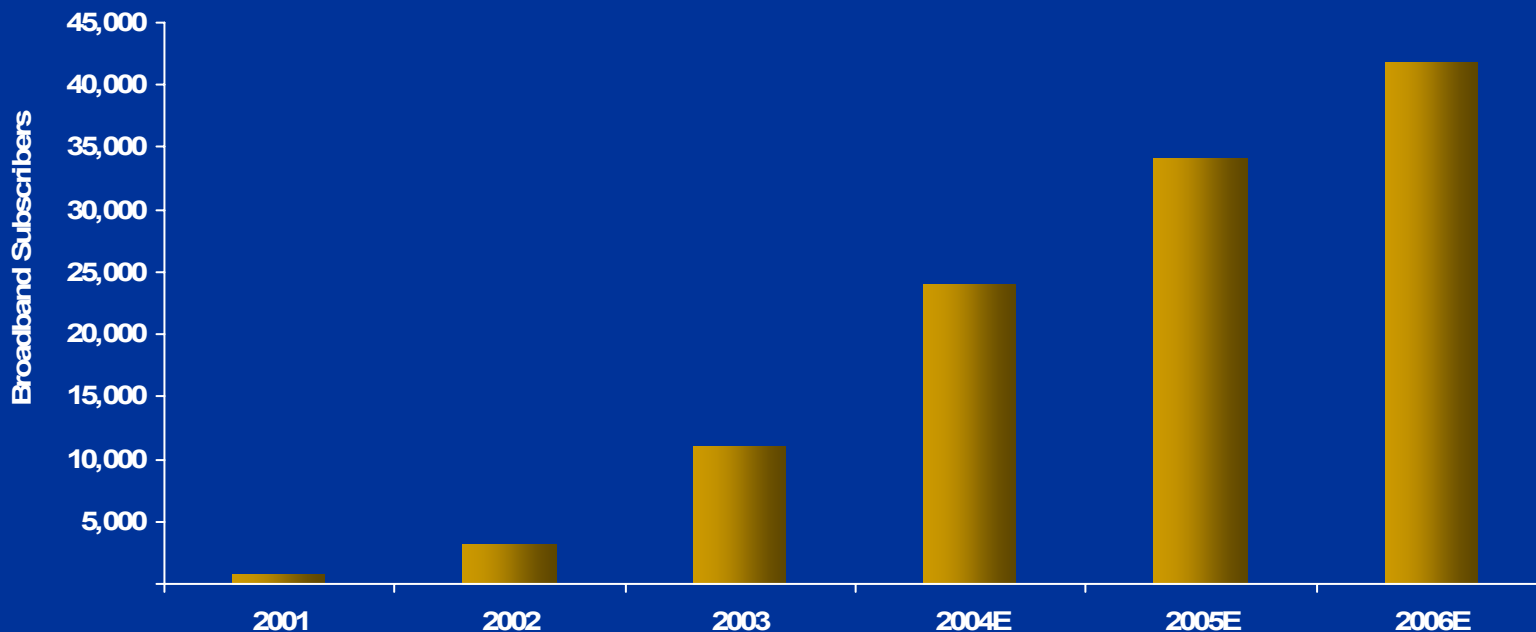


Source: Morgan Stanley Research.

Broadband Acceptance Is Growing Rapidly...

24MM Chinese Broadband Subscribers (up 118% Y/Y) for 2004E

(Subscribers in Thousands)



- 15MM estimated online gamers in China are key users of broadband

Source: CNNIC, Lina Choi. E = Morgan Stanley Research Estimates. The ratio of broadband subscribers to users was 63% at YE2003.

eCommerce in Very Early Stages and Governors Exist...

China lags in eCommerce:

- 1) Poor credit / payment systems
- 2) Inefficient logistic / distribution / transportation systems
- 3) Low levels of trust
- 4) Low PC installed base
- 5) Low levels of disposable income

Challenges for Multinational Companies Create Opportunities for Chinese Companies

- Chinese market is complex, especially for non-China companies
- Foreign investment is restricted and structuring and legal issues can be daunting
- Internet is highly regulated
- Entry into WTO is helping, but still long way to go...
- Muscle flexing by local companies can have significant impact – China Mobile and China Unicom in WVAS...

3rd Generation Internet Entrepreneurs Are Impressive, though Broad-based Experience/Leadership Still Not Abundant

- Chinese Internet leaders have proven to be fast followers relative to their global peers
- When will we see China's Bill Gates, Michael Dell or Larry Ellison?

Sustainability of Internet-related Revenue and Profits Still Unproven, but Market Opportunity Is Large...

- Wireless messaging has been a blessing for the Internet pure-plays

...Sustainability of Internet-related Revenue and Profits Still Unproven, but Market Opportunity Is Large...

China Internet Portal Revenue Breakdown

(US\$ in Millions)	CQ2:04	% of Revenue			Operating
Company	Revenue	Messaging	Gaming/Other	Advertising	Margin ⁽¹⁾
Sina	\$49	67%	2%	32%	40%
Shanda	35	--	95	5	40
Tencent	33	95	--	5	43
Tom Online	31	93	1	6	35
Sohu	27	42	9	49	36
NetEase	25	7	78	16	49
Total	\$200	53%	28%	19%	40%

2 out of 3 top global mobile phone operators, based on CQ2 subscribers, were in China -- #1: China Mobile (159MM); #3: China Unicom (104MM)

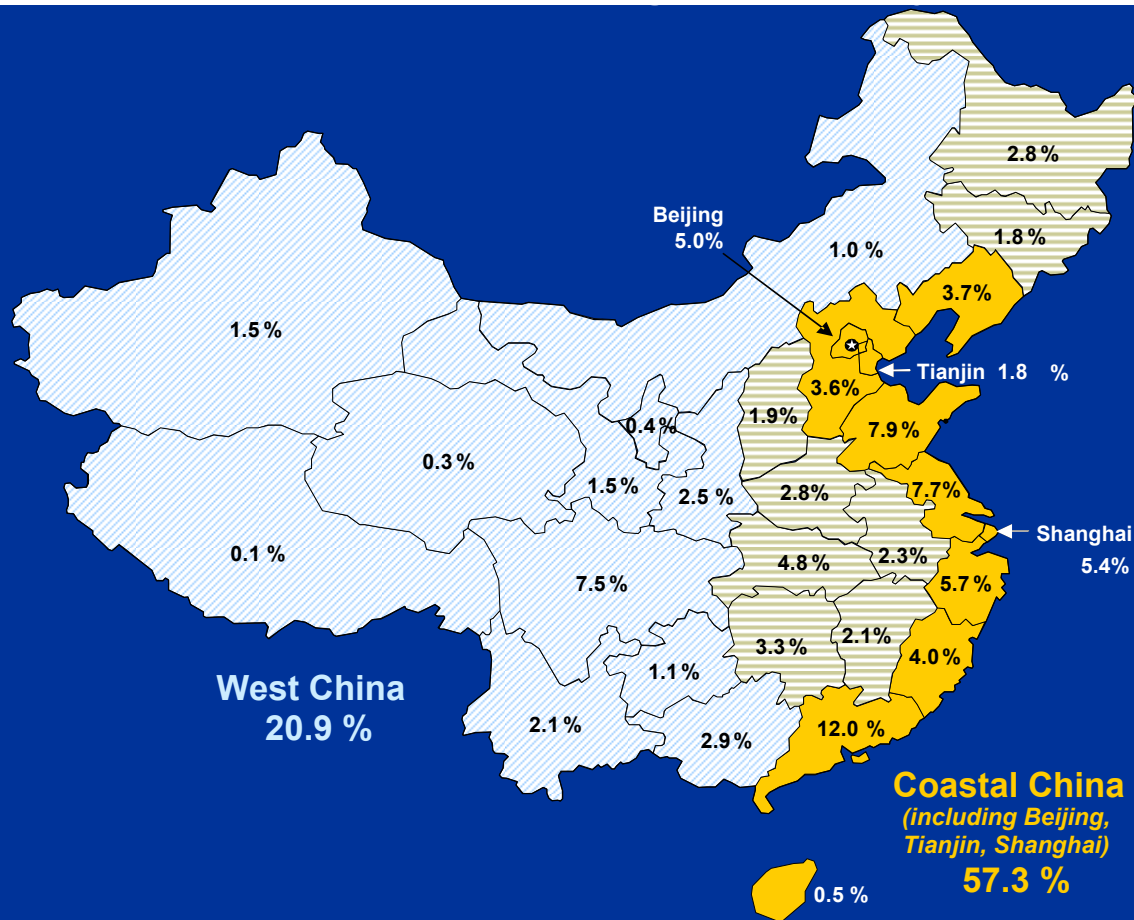
Source: Company Reports; totals may not add to 100% owing to rounding errors. (1) Excludes stock-compensation and amortization expense.

Sustainability of Internet-related Revenue and Profits Still Unproven, but Market Opportunity Is Large...

- **What's next blessing?**
 - Messaging extensions?
 - Gaming extensions?
 - Advertising and eCommerce?
 - eCommerce Verticals?
 - Cross-border trade?

Government's Focused on Ramping Internet, in Part, to Boost Domestic and Global Trade...

Internet Users Concentrated in Coastal Regions and Major Metropolitan Areas



Source: CNNIC 13th Statistical Survey Report on the Internet Development in China, 1/04.

...Government's Focused on Ramping Internet, in Part, to Boost Domestic and Global Trade...

Annualized Opex per Employee

- \$6.5K = China using Hang Seng Index – Labor surplus!
- \$73K = US using S&P500
- \$333K = Microsoft

GDP per Capita

- \$619 = China
- \$37K = US

Summary...

- Internet serving important role in helping modernize China and drive efficiencies
- Still, small revenue / profit levels for China Internet companies
- Like US in mid-1990s, we are at the beginning...but, in many respects, for China, impact may be greater
- Lots of opportunity with lots and lots of risk
- Andy Xie notes that... “In the middle of most small towns in Europe or the US stands a church; in China, it is usually a Kentucky Fried Chicken or a McDonald’s or both...”

China Internet Company Risks

- **General economic and social conditions**
- **Messaging-related revenue** – sustainability / consistency
- **Intramural competition** – differentiation can be difficult
- **High operating margins** – sustainability could prove challenging
- **Emerging business segments** – competition / monetization
- **Online advertising / eCommerce** – nascent
- **Content development** – nascent
- **Online billing/payment and logistics/distribution** – nascent
- **Vertical markets** – potential size / scope; good news often no incumbents
- **Rising competitive focus** – eBay and Yahoo!
- **China telecoms** – evolution of potential Internet efforts
- **Slowing Chinese economy**
- **Valuations**

China Internet Company Comparables

(US\$ in Millions, Except per Share Data)

Company	Price	Equity Value	2004E Revenue ⁽¹⁾	2004E Operating Income ⁽¹⁾	% Price Change ⁽²⁾	
					2003	2004YTD
Shanda	\$23.98	\$1,653	\$140	\$44	--	119%
Sina	25.49	1,397	188	70	419	(24)
NetEase	37.94	1,253	108	51	222	3
51job	20.75	1,145	--	--	--	--
Tencent	0.49	850	135	59	--	--
Sohu	16.63	671	108	38	367	(44)
Tom Online	11.29	550	129	42	--	(26)
Ctrip	34.70	524	39	16	--	2
chinadotcom	4.98	521	218	29	185	(38)
KongZhong	6.72	230	--	--	--	(33)
Linktone	8.25	206	50	15	--	(40)
Total		\$7,347				

Source: Based on Conversion Rates as of 9/30/04, 1 US\$ = 0.81 Euro, 1 US\$ = 7.8 Hong Kong Dollars; (1) Based on I/B/E/S Consensus estimates. (2) Based on return over IPO offering price for Shanda, Tom Online, KongZhong, and Linktone.

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	Count	% of Total	Count	% of Total IBC	% of Rating Category
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Equal-weight	785	44%	280	44%	36%
Underweight	375	21%	101	16%	27%
Total	1,779		643		

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