Global / China Internet Trends

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Outline

- Attributes of Winning Companies
- Global Internet
- China Internet
- Your Questions
Attributes of Winning Companies
Attributes of Winning Companies…

1. Large market opportunities - it is better to have 10%, and rising, market share of a $1 billion market than 100% of a $100M market

2. Good technology/service that offers a significant value/service proposition to its customers

3. Simple, direct mission and strong culture

4. Missionary (not mercenary), passionate, maniacally-focused founder(s)

5. Technology magnets (never underestimate the power of great engineers)

6. Great management team / board of directors / committed partners

7. Ability to lead change and embrace chaos

8. Leading/sustainable market position with first-mover advantage

9. Brand leadership, leading reach and market share

10. Global presence
...Attributes of Winning Companies

11. Insane customer focus and rapidly growing customer base
12. Stickiness and customer loyalty
13. Extensible product line(s) with focus on constant improvement and regeneration
14. Clear, broad distribution plans
15. Opportunity to increase customer “touch points”
16. Strong business and milestone momentum
17. Annuity-like business with sustainable operating leverage assisted by barriers-to-entry
18. High gross margins
19. Path to improving operating margins
20. Low-cost infrastructure and development efforts
Internet Data Points: Global…

Global

- N. America = 23% of Internet users in 2005; was 66% in 1995

S. Korea

- Broadband penetration of 70%+ - No. 1 in world

China

- More Internet users < age of 30 than anywhere
### Internet Data Points: Communications

<table>
<thead>
<tr>
<th>Category</th>
<th>Data Point</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Broadband</strong></td>
<td>179MM global subscribers (+45% Y/Y, CQ2); 57MM in Asia; 45MM in N. America</td>
</tr>
<tr>
<td><strong>Mobile</strong></td>
<td>1.1T SMSs sent with $50B in revenue in 2004 (Informa 5/05); more emails sent in Japan via mobile than PC (DoCoMo 2005)</td>
</tr>
<tr>
<td><strong>VoIP</strong></td>
<td>61MM registered Skype users (10/05) - fastest product ramp ever?</td>
</tr>
<tr>
<td><strong>Denmark</strong></td>
<td>VoIP minutes &gt; landline voice minutes</td>
</tr>
<tr>
<td><strong>Tencent</strong></td>
<td>16MM peak simultaneous Instant Message users, China, CQ2</td>
</tr>
</tbody>
</table>
### Internet Data Points: Content

<table>
<thead>
<tr>
<th>Category</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Google</strong></td>
<td>7.6B global searches (+74% Y/Y, 5/05); 384MM global unique visitors (+36%, 5/05) per comScore</td>
</tr>
<tr>
<td><strong>Personalization</strong></td>
<td>40MM+ estimated My Yahoo! users</td>
</tr>
<tr>
<td><strong>Blogging</strong></td>
<td>27% of US Internet users read blogs, 11/04</td>
</tr>
<tr>
<td><strong>Yahoo!</strong></td>
<td>~1.6B streaming video (music…) sessions (+100% Y/Y, CQ3)</td>
</tr>
<tr>
<td><strong>Digital Media</strong></td>
<td>695MM cumulative iTunes as of 9/05; 7MM iPhones sold in CQ3:05 (+220% Y/Y); 1MM videos sold in 20 days (10/05)</td>
</tr>
<tr>
<td><strong>Ringtones</strong></td>
<td>$3B annualized ringtone sales (Informa 5/05) - vs. $495MM cumulative iTunes sales (7/05)</td>
</tr>
</tbody>
</table>
…Internet Data Points: Payments

PayPal ➔ 87MM accounts (+53% Y/Y, CQ3); 25MM users (+41% Y/Y)

Mobile Payments ➔ 4MM+ NTT DoCoMo wallet phone users (CQ1) in Japan
Top 5 Global Internet Market Cap Leaders

Google + Yahoo! + eBay + Yahoo! Japan + Amazon.com

- $2B = market value - pre-2000 IPO
- $178B = market value - Nasdaq peak – 3/10/00
- $32B = market value - Nasdaq trough – 10/9/02
- $273B = market value - 10/28/05

For Google we include $100MM in post-money valuation
## Significant Infrastructure Builds…

<table>
<thead>
<tr>
<th></th>
<th>Capital Expenditures</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Google</td>
<td>$177</td>
<td>$319</td>
<td>$796</td>
<td></td>
</tr>
<tr>
<td>Y/Y</td>
<td>375%</td>
<td>80%</td>
<td>150%</td>
<td></td>
</tr>
<tr>
<td>Yahoo!</td>
<td>$117</td>
<td>$246</td>
<td>$405</td>
<td></td>
</tr>
<tr>
<td>Y/Y</td>
<td>128%</td>
<td>109%</td>
<td>65%</td>
<td></td>
</tr>
<tr>
<td>eBay (1)</td>
<td>$365</td>
<td>$293</td>
<td>$381</td>
<td></td>
</tr>
<tr>
<td>Y/Y</td>
<td>163%</td>
<td>(20%)</td>
<td>30%</td>
<td></td>
</tr>
<tr>
<td>Amazon.com</td>
<td>$46</td>
<td>$89</td>
<td>$200</td>
<td></td>
</tr>
<tr>
<td>Y/Y</td>
<td>17%</td>
<td>94%</td>
<td>124%</td>
<td></td>
</tr>
</tbody>
</table>

Source: Company filings, Morgan Stanley Research. Figures exclude capital expenditures from acquired companies.
(1) C2003 includes $125.1MM purchase of additional office space.
E = Morgan Stanley Research estimates.
To organize all the world’s information and make it universally accessible and useful.

- Google’s Mission Statement
Pace of innovation across communication devices, services and networks continues to rise.
Communications = 44% (& Rising) of US Online Usage

Source: comScore Media Metrix, based on average minutes per visitor by category (8/05). Browsing / Other includes general web-surfing activity not listed in other categories, including anything from news sites (cnn.com) to retail (Amazon.com) to job sites.
Hierarchy of Needs?

1943 - Maslow

- Self-actualization
- Esteem
- Belonging
- Safety
- Physiological

2005 - ? ;)

- Internet / Mobile Phone
- Shelter
- Food / Water

Created for discussion purposes and perhaps a bit of humor. Not intended to discredit Maslow's hierarchy of needs which we believe to be accurate.
Global Users / Innovation

### Internet Users – 1B
C2005E (1)

- Asia Pacific: 36%
- Europe: 24%
- N. America: 23%
- ROW: 12%
- South America: 5%

### Mobile Subscribers – 2B
C2005E (2)

- Asia Pacific: 41%
- Europe: 19%
- N. America: 11%
- ROW: 18%
- South America: 11%

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(1) Source: Morgan Stanley Research.
(2) Source: Morgan Stanley Communications Equipment Research: Scott Coleman, John Marchetti.
4 major computing cycles over past 50 years

Mainframe → Minicomputer → PC → PC Internet (Narrowband)

In / entering 2 most profound cycles ever

PC Internet (Broadband) → Mobile Internet

Why now?

1) Broadband becoming pervasive
2) Internet-enabled mobile devices becoming pervasive - in effect, becoming small / functional computers
3) Global technology innovation may be at all time high
Broadband Becoming Pervasive

Broadband Ramp in 25-30% Penetration Sweet Spot…

US Residential Broadband Households (MM)

US Residential Broadband Households

% of Total US Households

Morgan Stanley Research.
Mobile Broadband in Early Stages

Global 2.5G / 3G Penetration

- **2.5G Subscribers**
- **3G Subscribers**
- **% 2.5G Penetration**
- **% 3G Penetration**

Source: Morgan Stanley Telecom, Internet Research.
Broadband vs. Mobile Internet Revenue Composition?

**Top 10 Internet Companies - Revenue Composition**
- **CQ2 Annualized - $28B**

- Commerce: 61%
- Advertising: 36%
- Payments: 3%

**Revenue Composition - Mobile Internet**
- **C2005E - $19B**

- Personalization (1): 35%
- Music & Video: 4%
- Games: 10%
- Gambling: 1%
- Other Info & Infotainment: 24%
- Search / 411: 16%
- Enterprise Services: 10%

Source: Left Chart - Morgan Stanley Research estimates: includes revenue from Google, eBay, Yahoo!, Yahoo! Japan, Amazon.com, T-Online, InterActive, Time Warner (AOL only), Microsoft (MSN only), and Rakuten. Right Chart – Morgan Stanley Research estimates, Global Data. Informa (5/05), Ovum (5/05). (1) Personalization includes ringtones, wallpapers, and screensavers. If SMS / MMS were added to Mobile Internet—it would add $55B to total revenue and would account for 74% of total revenue.
Global Internet Thesis

10-15% user growth

20-30% usage growth

30%+ monetization growth
China Internet
Fastest growing economy (19x GDP expansion over past 20 years)

Most consumers (1.3B)

Potential to reach more Chinese consumers than other industries

Fastest growing industry in China

= Size

= Growth
Growing Faster than Other Markets…with More Potential

- China leads world in mobile subscribers
- China ranks No. 2 in Internet users
- More Internet users under the age of 30 than any other country
- Growth drivers for Chinese Internet have been / are robust
# China Internet is Mobile vs. PC-Centric

<table>
<thead>
<tr>
<th>Country</th>
<th>Mobile Users (MM)</th>
<th>Internet Users (MM)</th>
<th>Mobile Phone to Internet User Ratio</th>
<th>Installed PCs (MM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>363</td>
<td>100</td>
<td>3.6:1</td>
<td>53</td>
</tr>
<tr>
<td>US</td>
<td>177</td>
<td>211</td>
<td>0.8:1</td>
<td>207</td>
</tr>
<tr>
<td>Japan</td>
<td>88</td>
<td>78</td>
<td>1.1:1</td>
<td>55</td>
</tr>
<tr>
<td>Germany</td>
<td>69</td>
<td>51</td>
<td>1.4:1</td>
<td>39</td>
</tr>
<tr>
<td>UK</td>
<td>54</td>
<td>37</td>
<td>1.5:1</td>
<td>26</td>
</tr>
<tr>
<td>Italy</td>
<td>54</td>
<td>32</td>
<td>1.7:1</td>
<td>16</td>
</tr>
<tr>
<td>S. Korea</td>
<td>37</td>
<td>32</td>
<td>1.2:1</td>
<td>27</td>
</tr>
</tbody>
</table>

Euromonitor, CNNIC, World Bank, Morgan Stanley Research (July 2005)
### Internet Helps Bring About Cultural Evolution

<table>
<thead>
<tr>
<th>Pre-Internet Age</th>
<th>Post-Internet Age</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Status</strong></td>
<td>Filling in holes</td>
</tr>
<tr>
<td><strong>Information</strong></td>
<td>Portals (Sina, Sohu)- alternative news sources</td>
</tr>
<tr>
<td><strong>Entertainment</strong></td>
<td>New entertainment formats, such as Online Gaming (Shanda, NetEase)</td>
</tr>
<tr>
<td><strong>Interaction</strong></td>
<td>Instant messaging (Tencent) and MVAS (TOM Online, Sina) offer connectivity</td>
</tr>
<tr>
<td><strong>Gaping holes</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Regulated (Top 10 Newspapers all state-owned)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Only 8 model movies during the Cultural Revolution</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Deficient due to one-child policy</strong></td>
<td></td>
</tr>
</tbody>
</table>

*Source: Morgan Stanley Research.*
### Foreign Interests Accelerating

<table>
<thead>
<tr>
<th>Foreign Entrants</th>
<th>Local Targets</th>
<th>Dates</th>
<th>Transaction Type</th>
<th>Market Position of Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>eBay</td>
<td>EachNet</td>
<td>Jul-03</td>
<td>Acquisition</td>
<td>No. 1 in online auction</td>
</tr>
<tr>
<td>Yahoo!</td>
<td>3721.com</td>
<td>Nov-03</td>
<td>Acquisition</td>
<td>No. 2 in paid search</td>
</tr>
<tr>
<td>Google</td>
<td>Baidu</td>
<td>Jun-04</td>
<td>Bought 3% Stake</td>
<td>No. 1 in paid search</td>
</tr>
<tr>
<td>InterActive</td>
<td>eLong</td>
<td>Jul-04</td>
<td>Bought 30% Stake</td>
<td>No. 2 in online traveling</td>
</tr>
<tr>
<td>Amazon.com</td>
<td>Joyo</td>
<td>Aug-04</td>
<td>Acquisition</td>
<td>Leading ecommerce store</td>
</tr>
<tr>
<td>Monster.com</td>
<td>ChinaHR</td>
<td>Feb-05</td>
<td>Bought 40% Stake</td>
<td>No. 2 in online recruiting</td>
</tr>
<tr>
<td>Yahoo!</td>
<td>Alibaba</td>
<td>Aug-05</td>
<td>Bought 40% Stake</td>
<td>No. 1 in B2B marketplace</td>
</tr>
</tbody>
</table>

*Source: Morgan Stanley Research (Market positions were based on our estimates on the dates of transactions)*
Mergers and Acquisitions Active

Vertical integration

• **TOM Online** bought Puccini
• **Sina** acquired Memestar & Crillion

-China Internet-

‘Hostile’ share purchase
**Shanda vs. Sina**

• **Sohu** acquired ChinaRen, Focus.net, and 17173.com
• **Shanda** purchased PC game/ mobile game/ casual game companies

‘Poison Pill’
**Sina vs. Shanda**

Horizontal integration
### A League of Big Players

<table>
<thead>
<tr>
<th>Industry</th>
<th>Companies</th>
<th>Industry Rank</th>
<th>Market Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online Advertising</td>
<td>Sina No. 1</td>
<td>30%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sohu No. 2</td>
<td>25%</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total share = 55% of industry rev</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Online Gaming</td>
<td>Shanda No. 1</td>
<td>39%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>NetEase No. 2</td>
<td>18%</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total share = 55% of industry rev</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MVAS</td>
<td>Sina No. 1</td>
<td>16%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tom Online No. 2</td>
<td>15%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tencent No. 3</td>
<td>10%</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total share = 41% of industry rev</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Instant Messaging (IM)</td>
<td>Tencent No. 1</td>
<td>77% of IM users</td>
<td></td>
</tr>
<tr>
<td>Online Auction</td>
<td>eBay EachNet No. 1</td>
<td>65% plus</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Alibaba/ Taobao No. 2</td>
<td>29% plus</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total share = 94% plus of GMV</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sources: Company date (2004), IResearch, Morgan Stanley Research; GMV- gross merchandise value
Leadership Positions Not Necessarily Secure

<table>
<thead>
<tr>
<th>Sales ($MM)</th>
<th>2Q2003</th>
<th>2Q2004</th>
<th>2Q2005</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MVAS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sina</td>
<td>14</td>
<td>31</td>
<td>23</td>
</tr>
<tr>
<td>TOM Online</td>
<td>-</td>
<td>29</td>
<td>41</td>
</tr>
<tr>
<td>as % of Sina</td>
<td>-</td>
<td>93%</td>
<td>180%</td>
</tr>
<tr>
<td><strong>Online Gaming</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shanda</td>
<td>17</td>
<td>35</td>
<td>56</td>
</tr>
<tr>
<td>NetEase</td>
<td>4</td>
<td>16</td>
<td>40</td>
</tr>
<tr>
<td>as % of Shanda</td>
<td>24%</td>
<td>46%</td>
<td>70%</td>
</tr>
<tr>
<td><strong>Online Advertising</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sina</td>
<td>10</td>
<td>16</td>
<td>20</td>
</tr>
<tr>
<td>Sohu</td>
<td>7</td>
<td>13</td>
<td>17</td>
</tr>
<tr>
<td>as % of Sina</td>
<td>72%</td>
<td>86%</td>
<td>83%</td>
</tr>
</tbody>
</table>

Sources: Company data, Morgan Stanley Research

Narrowing gaps or Change in leadership
# Purer Players Tend to Have Higher Market Share

<table>
<thead>
<tr>
<th>Industry</th>
<th>Companies</th>
<th>Rank in the Industry</th>
<th>Industry Business-line as % of company’s revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online Gaming</td>
<td>Shanda</td>
<td>No. 1</td>
<td>87%</td>
</tr>
<tr>
<td></td>
<td>NetEase</td>
<td>No. 2</td>
<td>83</td>
</tr>
<tr>
<td>Online Advertising</td>
<td>Sohu</td>
<td>No. 2</td>
<td>66</td>
</tr>
<tr>
<td>MVAS</td>
<td>TOM Online</td>
<td>No. 1</td>
<td>95</td>
</tr>
</tbody>
</table>

*Company date, Morgan Stanley Research (Estimates are based on 2Q2005 results)*
Regional Focus Can Vary

• Geographical concentration
  • Chinese Internet users are concentrated in coastal areas (56% of total, 2004, CNNIC)
  • Top 4 cities contribute 50% plus of advertising sales
  • Top 5 cities accounted for 60% of Ctrip’s hotel sales and 80% of its air ticket sales volume, 2004

• Geographical dispersion
  • IDC estimates that 80%+ of online gamers came from non-top tier cities (2003)
Content providers gaining pricing power

- TOM Online paying out 40-50% of revenue to music companies for distribution rights
- KongZhong paid 5x more for wireless distribution rights for leading blockbuster movie vs. 2 years ago
- Foreign game developers, such as Actoz and Blizzard, command multiple fold higher licensing payment vs. several years ago

Rollout of new wireless and broadband services creates demand for quality content

- China Mobile’s color ringtone users have expanded at quarterly compound rate of 90% over past 1.5 years
- Most popular song, ‘Mouse Loves Rice,’ downloaded 5MM times in 2004 with potential profits exceeding the best-selling CDs
- Content providers, such as MTV, may produce more revenues from MVAS than from pay TV in a few years
Challenges

• Ecommerce / payment adoption in China
• Economic hard landing or soft landing?
• Long-term value vs. short-term profit
• Expect the unexpected!
• China’s current business environment is more favorable to SOEs than start-ups, especially in areas like regulation and financing
• Hollowing of management – founder mentality
• Dearth of innovation
• Too much capital, too few good ideas
• All in, global / China, opportunities are significant as are dislocations and risks...
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