



# Internet in Taiwan:

## Facts, Opportunities, and Challenges

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# Agenda

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- Current Status
  - What's Internet looks like in Taiwan
- Opportunities
  - What would be Taiwan's chance to lead
  - Other advantages
- Challenges

Note: This presentation was prepared for private information sharing only, and may or may not reflect TWNIC's official viewpoints.



# ..In the History Book

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- Internet starts in TANet, or Taiwan Academic Network, of MOE, in early 1990
  - .tw: delegation in 1989 (contracted w/ ICANN in 2003)
  - Connection to NSFNET: 1991
  - IP address allocation: 1992
  - First www server: 1993 by Yam Technology (www.yam.com)
- Internet Service
  - 1992: Seednet, founded by III, MOEA
    - Commercialized in 1995 (1st Commercial ISP in Taiwan)
  - 1994: Hinet, a subsidiary of Chunghwa Telecom
- TWNIC
  - 1994— A 2-year project in TANet
  - 1996—under Computer Society of ROC
  - 1999— Institutionalized and Financially Independent
  - 2001— Regulated by Taiwanese Telecom Act



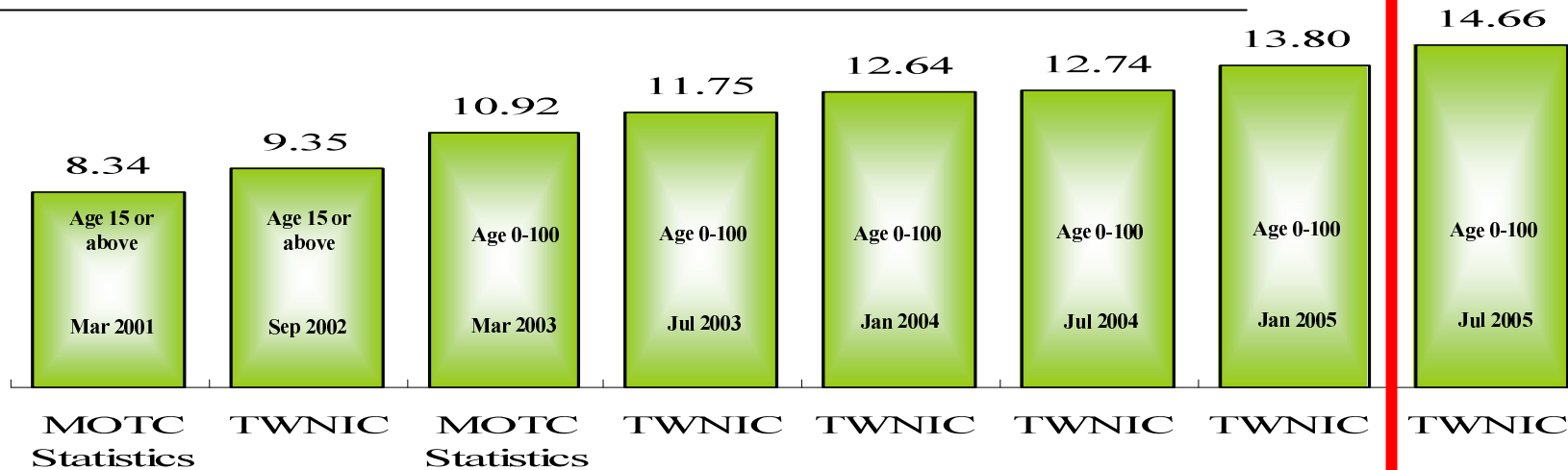
## Quick Fact

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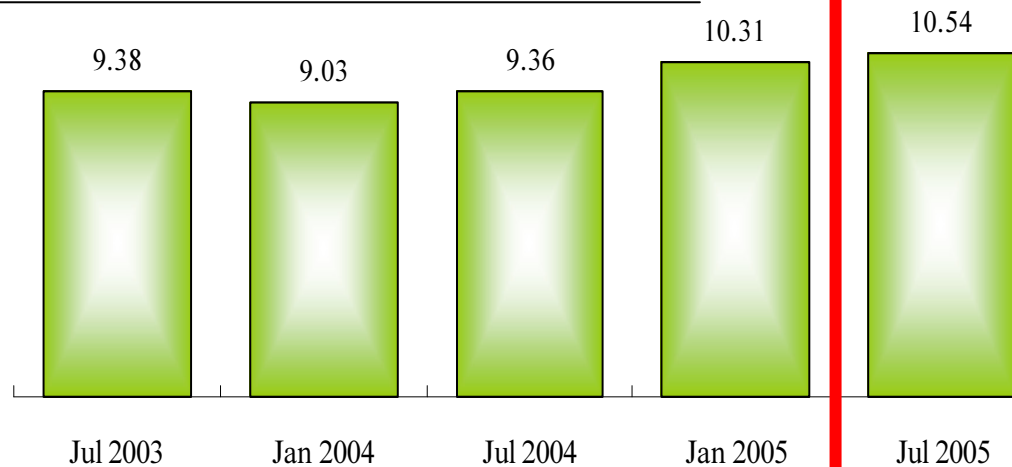
- Internet Users: 14.66 million (as of July 2005)
- Mobile Phone Penetration: 108%
- E-commerce: NTD 35 billion (year-end 2004)
- Skype User: 2.2 million (as of July 2005)
- Blogs: 400,000 (rough estimate, MSN, Yahoo excluded)

# Growth of Internet and Broadband Users in Taiwan

## Growth of Internet Users in Taiwan (including dial-up)



## Growth of Broadband Users in Taiwan

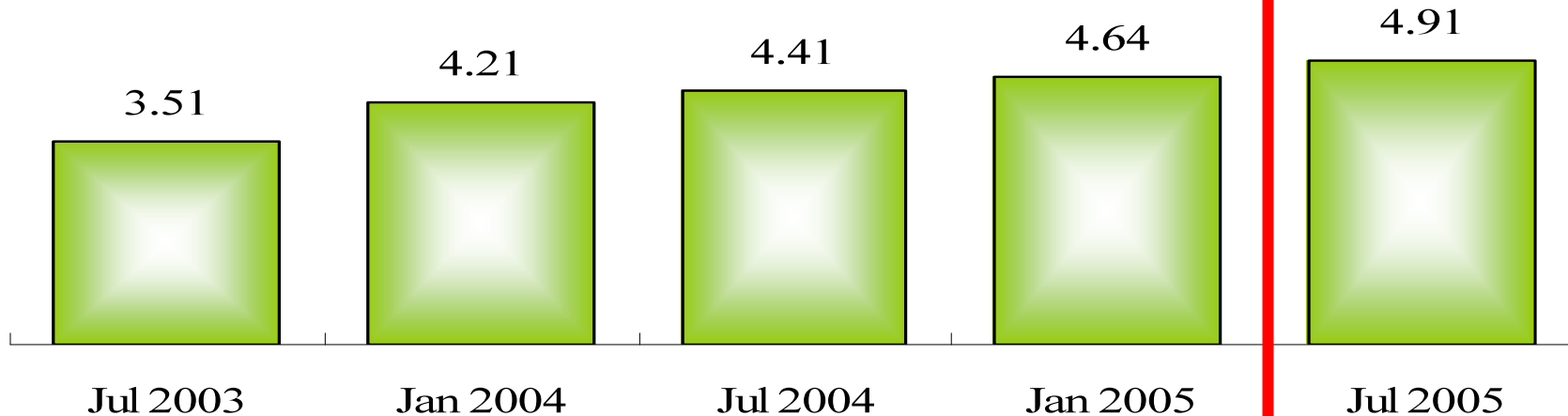


Unit : Million

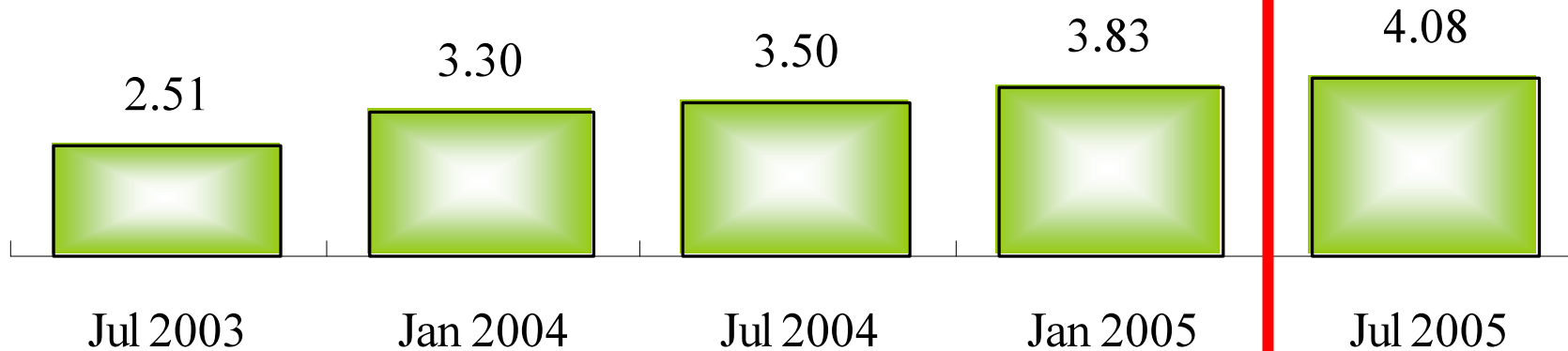
Source : TWNIC Survey, & The Statistics Department of the Ministry of Transportation & Communication

# Growth of Internet and Broadband Households in Taiwan

## Growth of Internet Households in Taiwan (including dial-up)



## Growth of Broadband Households in Taiwan



Unit : Million

Source : TWNIC Survey, & The Statistics Department of the Ministry of Transportation & Communication

# Estimated Population and Penetration Rate of Internet and Broadband Households

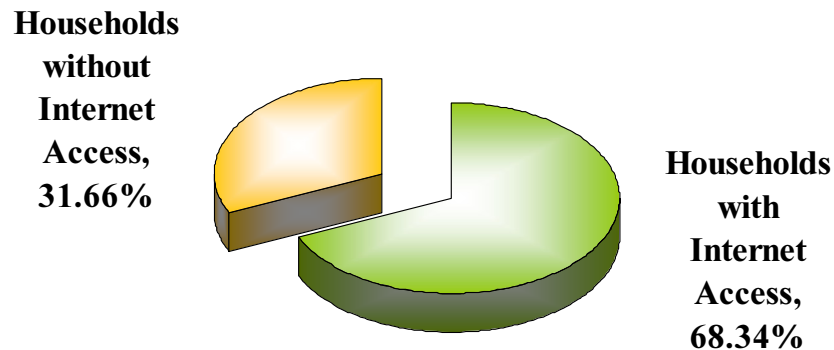
(1) 68.34% (4.91 Million) of the households in Taiwan have access to the Internet.

(2) 56.84% (4.08million) households in Taiwan are broadband subscribers.

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**Percentage of Internet Households in Taiwan**

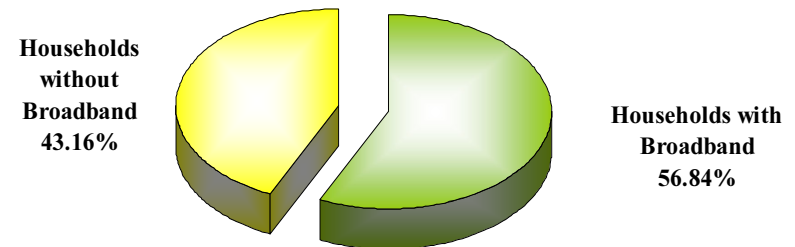
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**Percentage of Broadband Households in Taiwan**

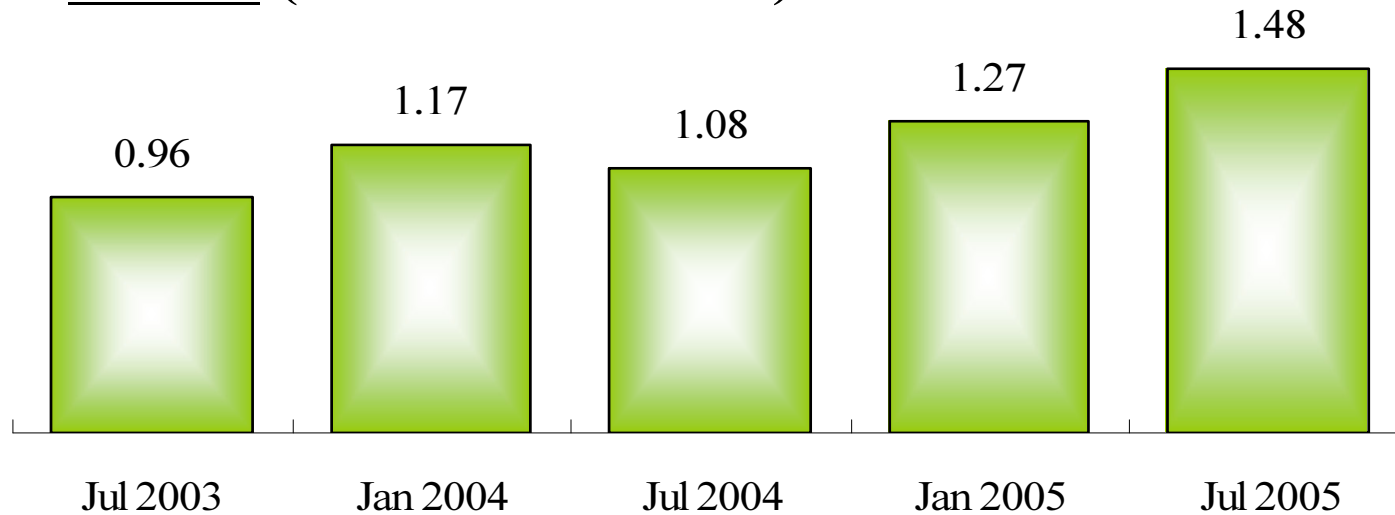
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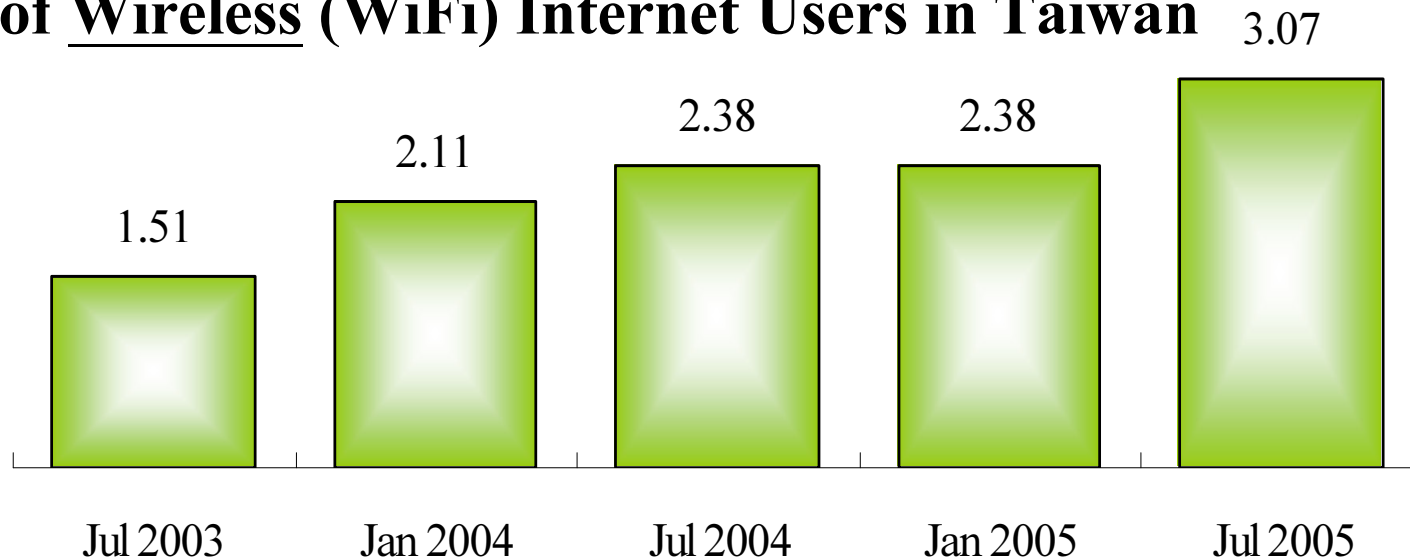
\*The data is based upon the strata of the 23 cities/counties in Taiwan.

\*Sampling Error :  $\pm 1.77\%$  (Confidence level 95%)

## Growth of Mobile (GPRS/GSM/PHS) Internet Users in Taiwan



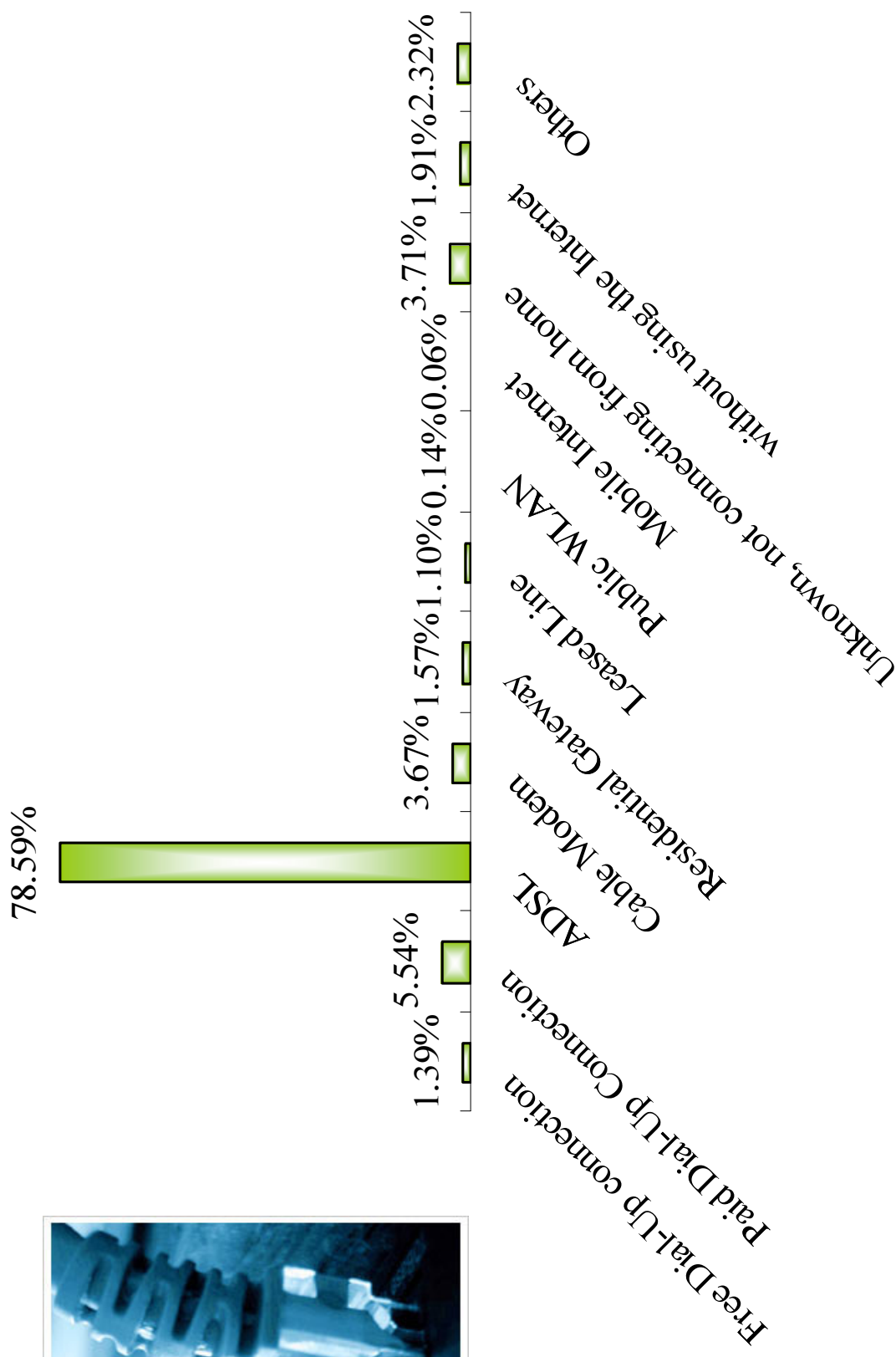
## Growth of Wireless (WiFi) Internet Users in Taiwan



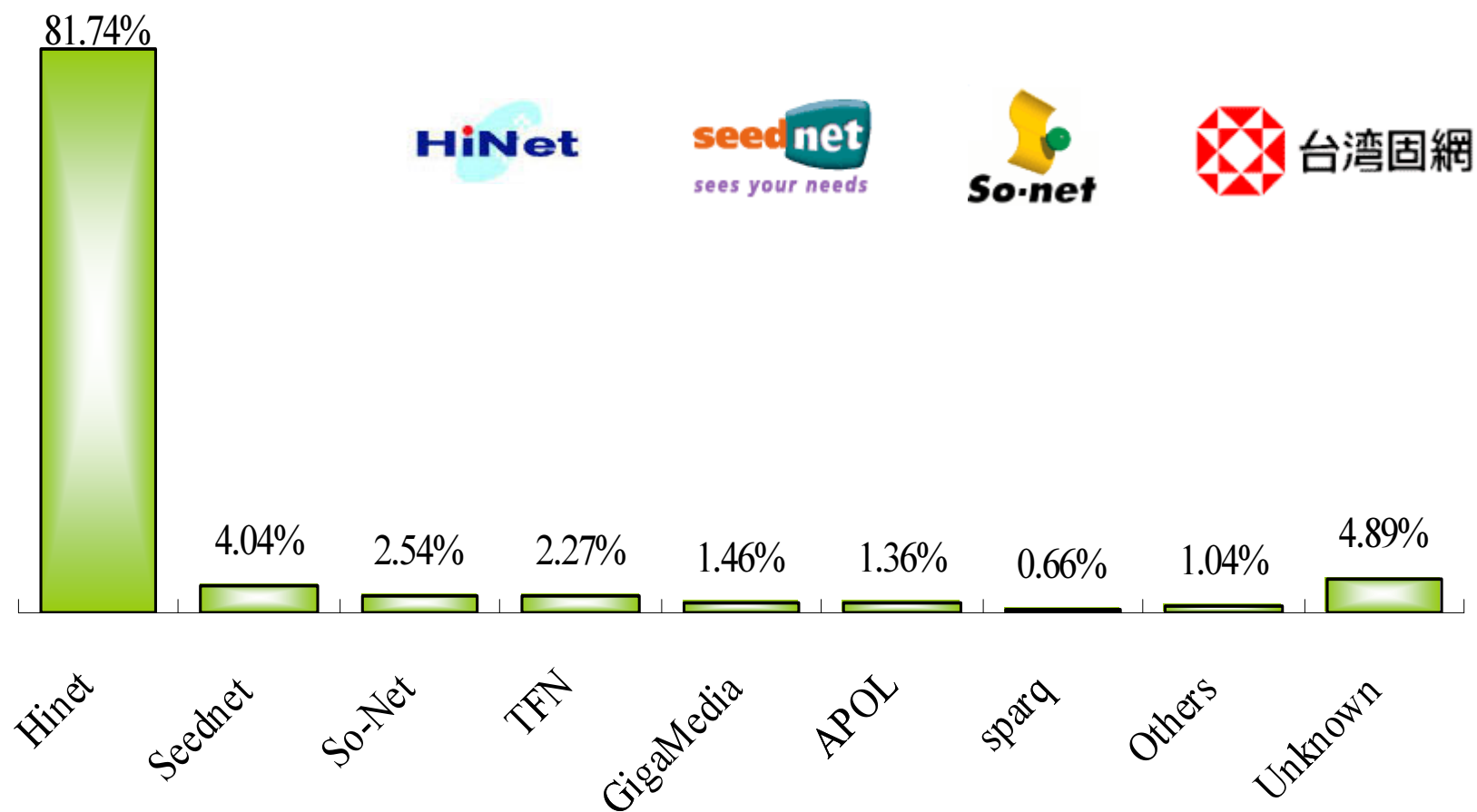
Unit : Million



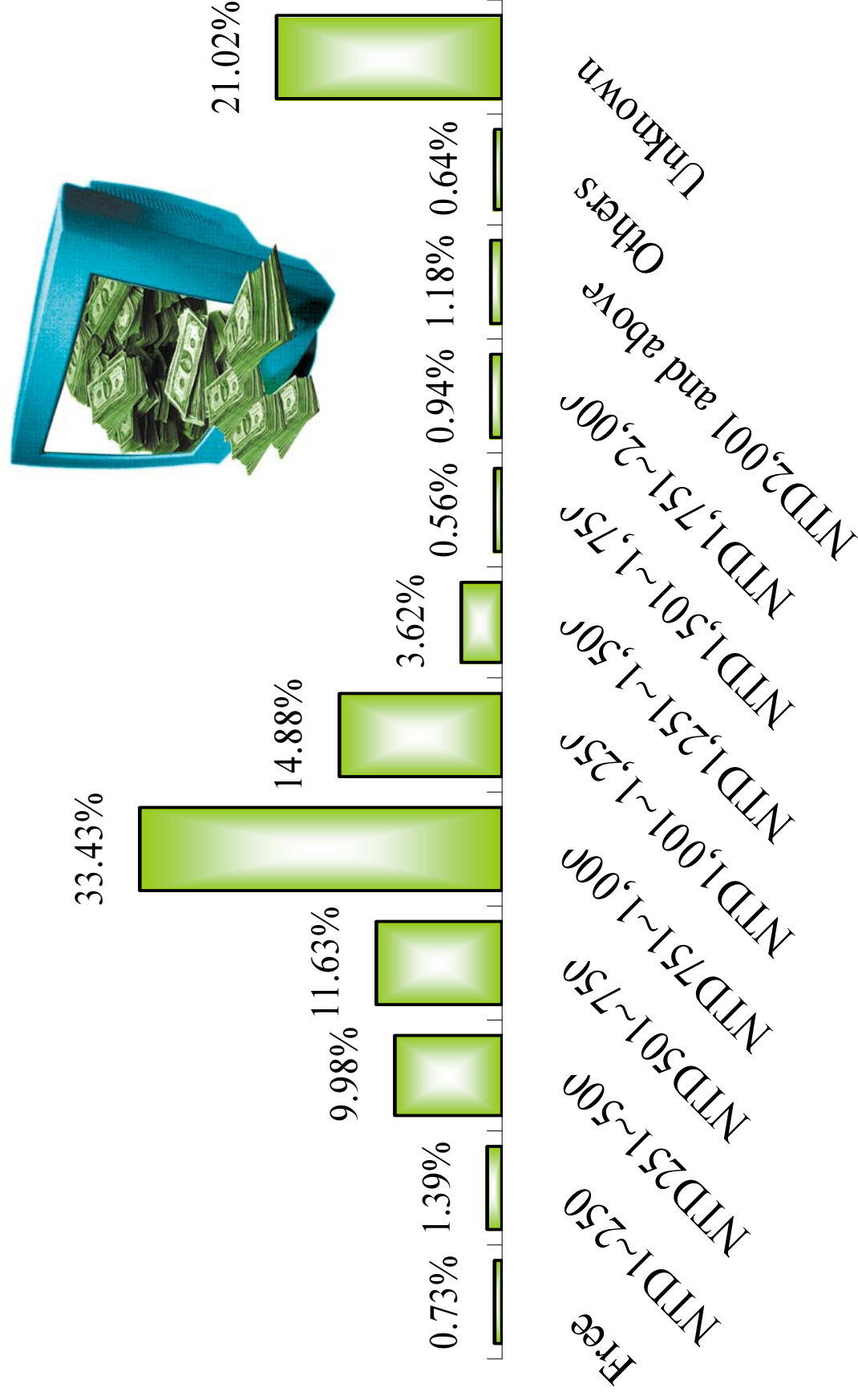
# Options for Internet Access



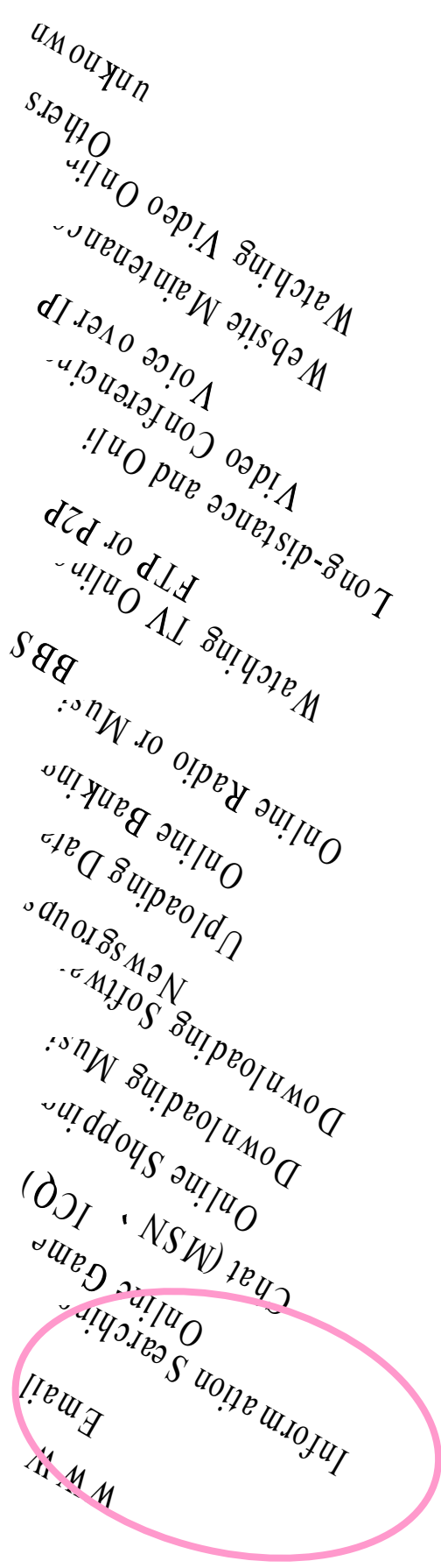
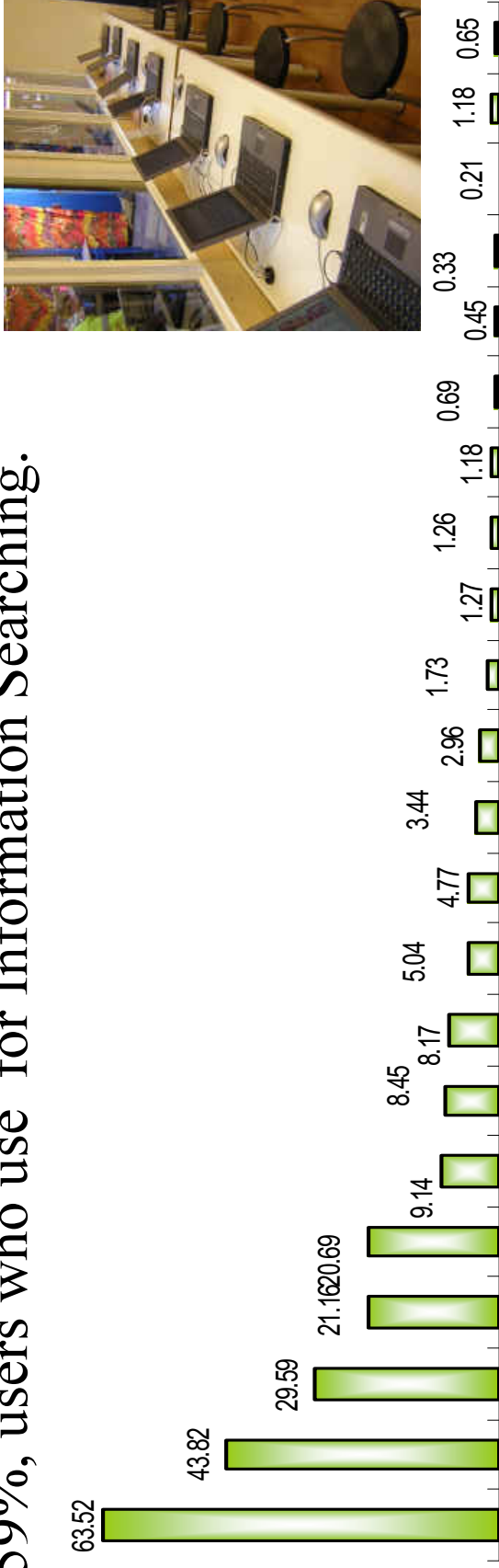
## Popular ADSL Service Providers



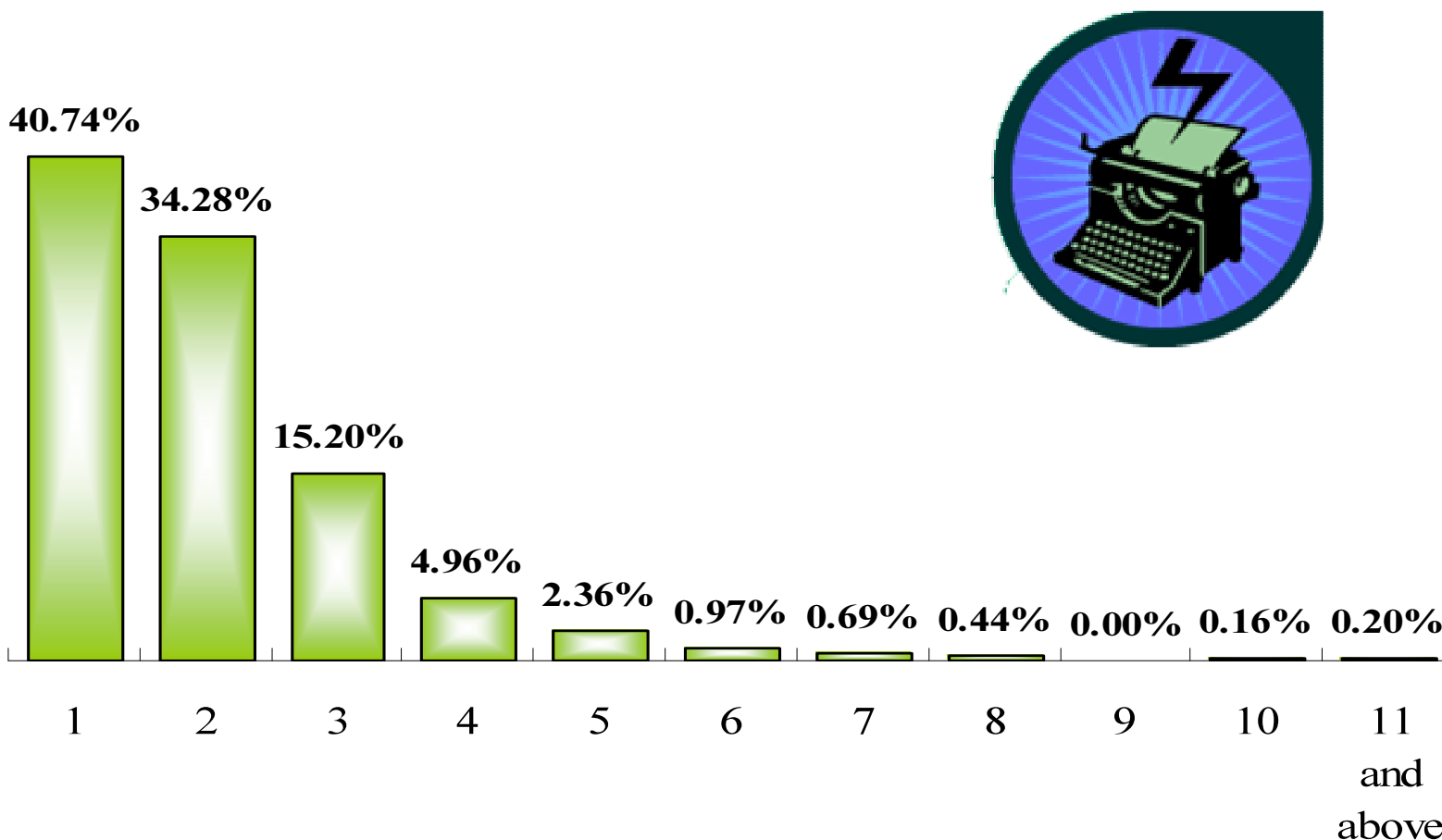
# Average Monthly Expenditures on Broadband



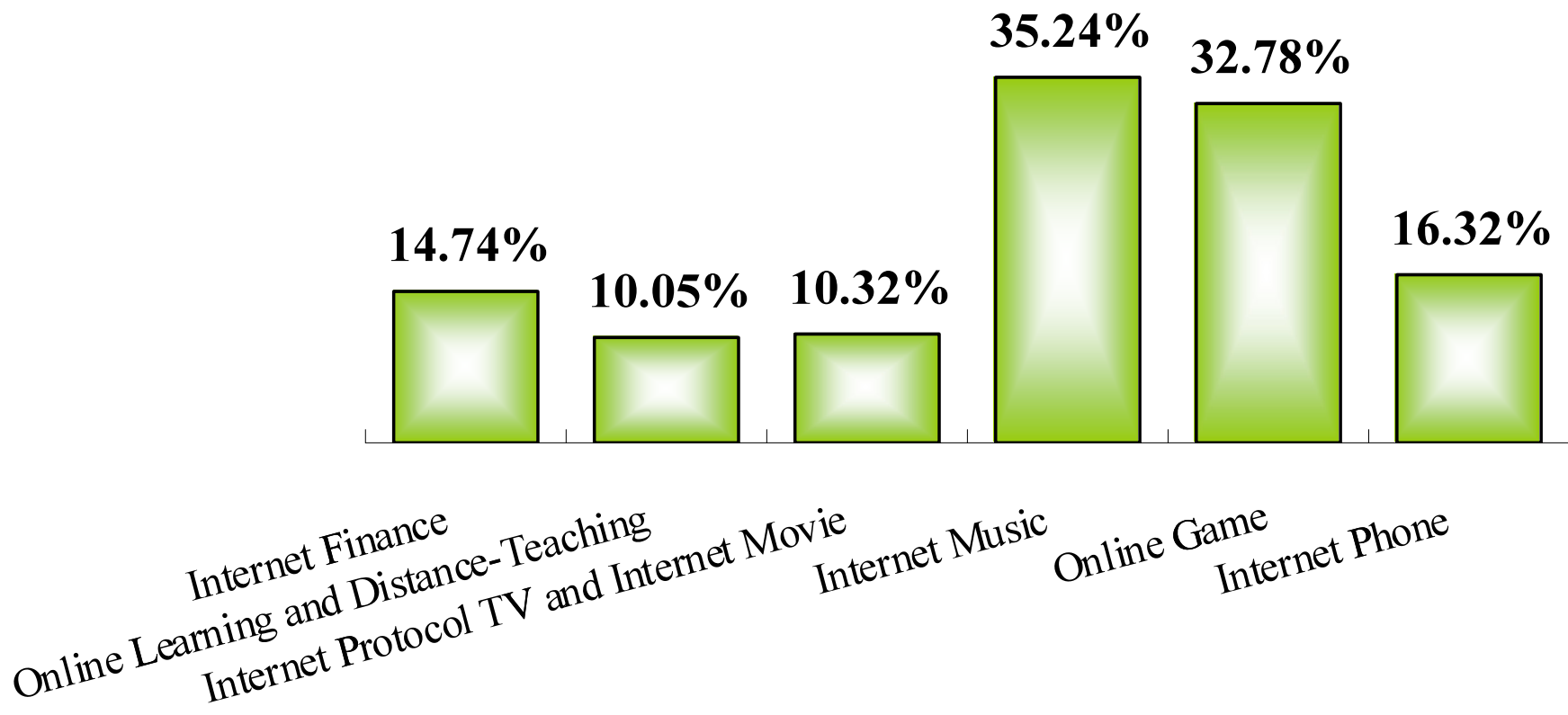
Among those who are Broadband users, 63.52% of them use it as a tool to browse web pages, 43.82% of them use it for E-mails, next follows 29.59%, users who use for Information Searching.



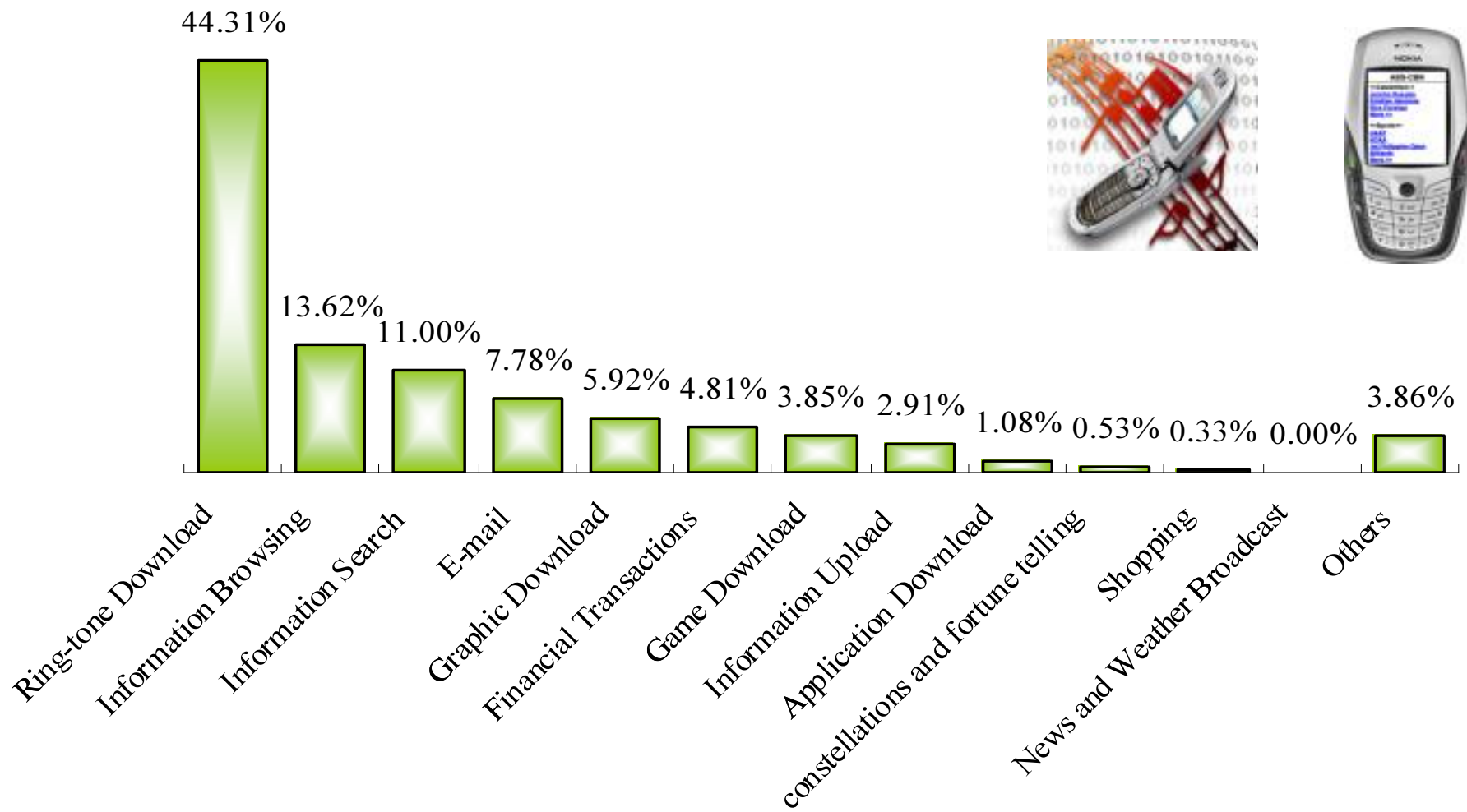
Among those who are Broadband users with e-mail address, 40.74% of them have one e-mail address, and 34.28% of them have two e-mail addresses.



Among those who are Broadband users, 35.24% of them have experience of using internet music, 32.78% of them have experience of using online game, and they pay for those services.



Among the Mobile Internet service users, the most frequently used service is “Ring-tones Download” with 44.31%, followed by “Information Browsing” with 13.62%



# IP, DN Statistics

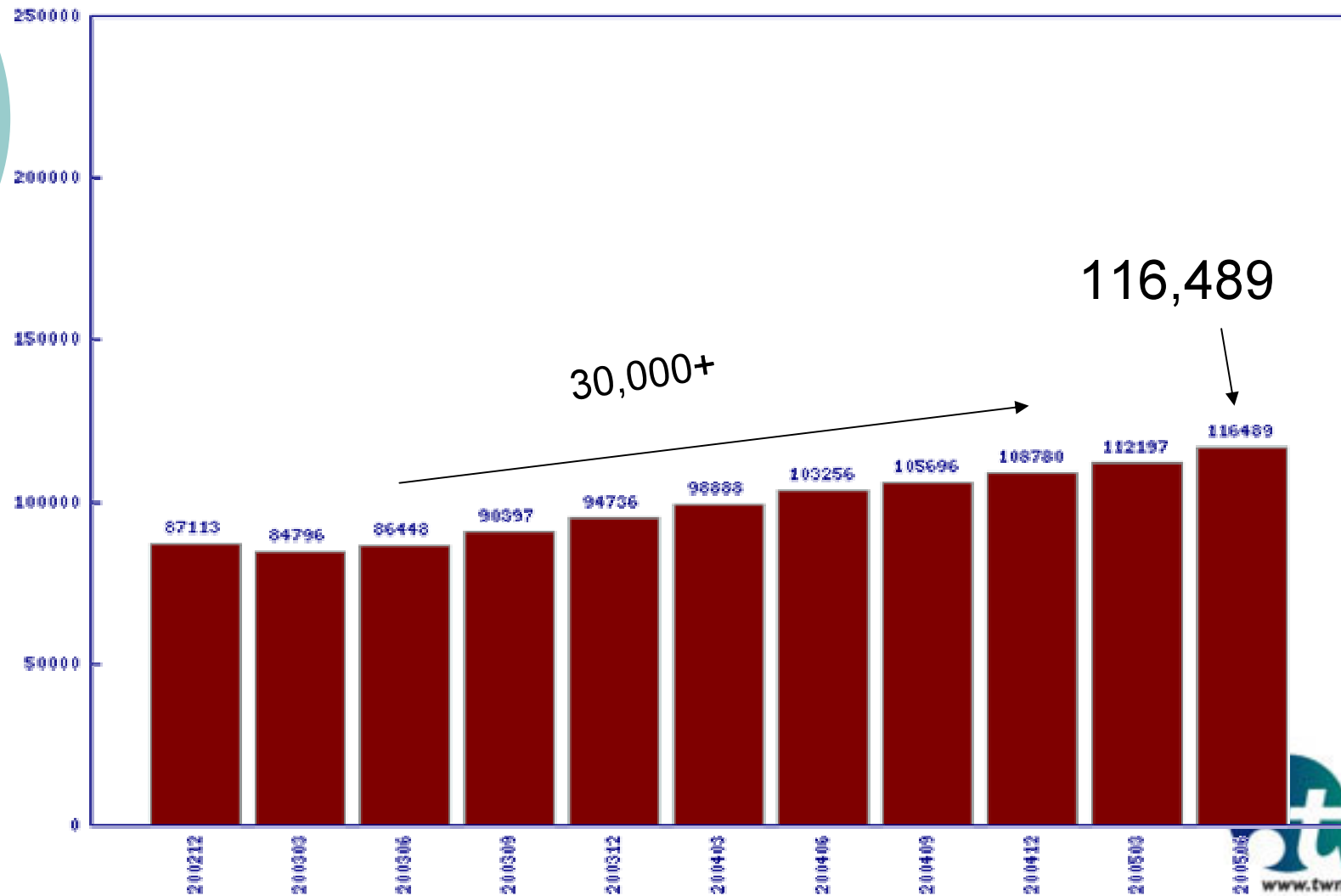
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- Number of all English .tw domain names: 157,531
  - .com.tw: 116,489
  - IDN.tw: 21,477
- Number of total IPv4: 15153152 (/32)
  - <http://trace.twnic.net.tw/ipstats/statsipv4.php>
- Number of total IPv6: 17 (/32)
  - <http://trace.twnic.net.tw/ipstats/statsipv6.php>

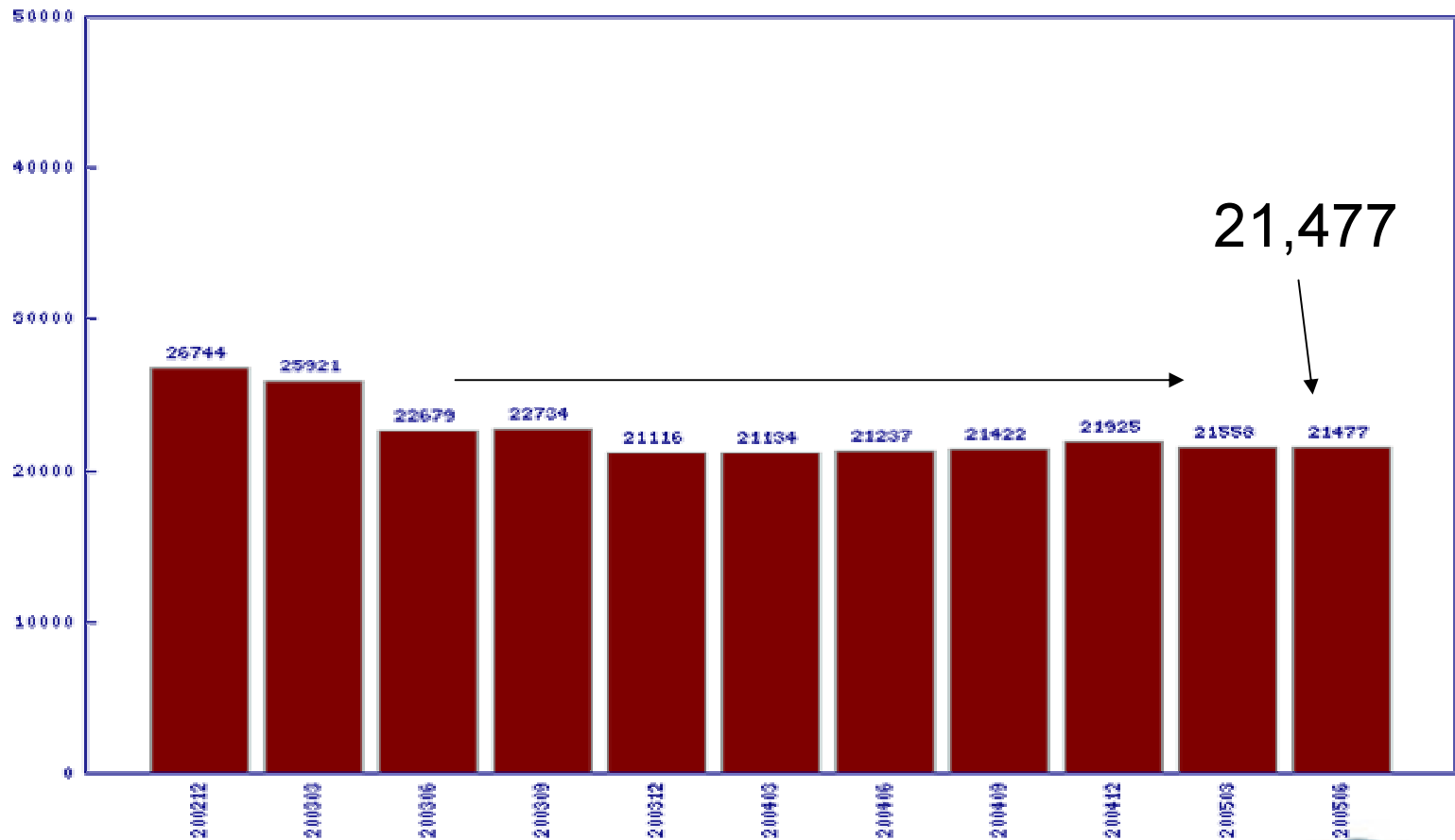




## .com.tw quarterly growth chart (2002.12~2005.7)



# Chinese.tw quarterly growth chart (2002.12~2005.7)



# Bandwidth

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- Total International Bandwidth: 87,772 Mbps
  - US: 43,234 Mbps
  - JP: 21,835 Mbps
  - HK: 11,223 Mbps
  - CN: 6,962 Mbps
  - NL: 2,488 Mbps





# Opportunities

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- Digital Content
  - Content business is a major government-sponsored industry
    - Hinet: Access first, Content later. Now Content is the king
    - Tax Exemption
    - The other is TFT-LCD Industry
  - Content Aggregator
    - IP Management
    - Long-tail effect
  - Consumer → Producer
    - Blogs / Moblogs
    - Podcast



# Opportunities

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- Mobile Internet over 3G
  - Healthy 2G market competition
    - Good business practices
    - 3P: PC→ PDA→ Phone. We have everything you need!
    - 3G: Game, Gamble, Girls. We have everything you want!
  - WiFi. OK, but limited
    - Hotspot is past-tence
    - WiMax is not there yet
  - Demand for data is increasing
    - Email. SMS. MMS
    - Cameraphone!
  - Number Portability is ready



# Opportunities

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- P2P services
  - Get in contact w/ real user
  - Hand device is getting popular
    - Two-hand vs. one-hand
  - Mass Marketing → Permission Marketing → Collaborative Marketing



# Challenges

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- Government Policy / Strategy
  - Although Taiwan ranks top 5 in worldwide e-readiness, we still need to handle problems like:
    - ISP Local Peering
    - SPAM / Net Security / Content Rating
    - Regulation on Convergence Network (NCC)
    - What is our fiber-to-home policy?
    - Web 2.0. Are we ready for this?
    - International issues..WSIS, ICANN, etc.



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Thank You!

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