Is there a digital divide?

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Outline

• What is the digital divide?
• Domestic divide
• International divide
• Conclusion
What is the digital divide?

The Oxford English Dictionary defines the “digital divide” as:

“The gulf between those who have ready access to current digital technology and those who do not; the perceived social or educational inequality resulting from this.”
Overview of Technology in the US

• Telephones

• Computers

• Internet Access (1998)
  ▪ 59.1% of population is online
  ▪ There are 166 million internet users in the US – this represents 27% of the world’s internet users
Notes on Technology in the US

• It is clear that the US has made great advances in technology
• The US has some of the highest internet penetration rates in the world
• How is the distribution of internet access within the US?
Factors determining computer ownership and internet access:

- Income
- Race/Origin
- Education
- Household Type
Income

• Households with an income > $75,000 are more 7 times more likely to have internet access than households earning < $10000
• Low income rural households have a 2.9% internet access rate compared to high income urban households 62%
Income (cont’d)

• Disparity exists even when race and family structure are the same:
  A two-parent hispanic family earning more than $35,000 is 6 times more likely to have internet access than a similar family earning <35,000
Race/Origin

• Computer ownership & Internet Access
  ▪ Asian/Pacific islander – 55% , 36.6%
  ▪ White Households       -46.6%, 29.8%
  ▪ Black Households       - 23.2%, 11.2 %
  ▪ Hispanic households – 25.5%, 12.6 %
Education

• Households with a college degree or higher are 16 times more likely to have internet access than those with elementary education

• Disparity greater in rural areas
  ▪ College degree holders are 26 times more likely to have internet access than those with elementary school education
Household Type

• Single parent households lag in computer ownership
  - 61.8% ownership in two parent households
  - 31.7% computer ownership in female headed households
Important Notes

• The digital divide is expanding
  ▪ The rate of internet access growth among leading groups is faster than those with lower access

• Education and Income are the main elements driving the digital divide
International Digital Divide

• Technology Disparities (1998)
• Internet Users and Personal Computers (2000)
• Africa vs. United States (2004)
• Factors Affecting the International Digital Divide
Technology Disparities

• Telephones
  – In 1998, there were 146 telephones (per 1000 people) in the world
    • 19 (per 1000) in South Asia
    • 3 (per 1000) in Uganda

• Mobile Phones (1998)
  – 55 (per 1000 people) had mobile phones worldwide
  – 1 (per 1000) in either South Asia or Uganda
Technology Disparities

• Computers (1998)
  – 70.6 PCs (per 1000 people) worldwide
    • 311.2 (per 1000) in developed countries
    • 2.9 (per 1000) in South Asia
    • 0.75 (per 1000) in Sub-Saharan Africa
    • 0.7 (per 1000) in Mali
World Network Map (1999)

Image removed due to copyright reasons.

Source: http://www.cybergeography.org
Technology Disparities (2000)

• Bandwidth
  – U.S. linked with Europe by 56 Gbps and with Asia-Pacific region by 18 Gbps
  – Africa linked with Europe with 0.2 Gbps and with U.S. by 0.5 Gbps

• Speed
  – 256Kbps internet connection in South Africa is speedy
  – DSL or T-1 (1.5Mbps) is a minimum small business connection in the U.S.
Percentage of Population Online by Major Region (2000)

Percentage of the Population Online by Major Region, 2000

Scandinavia: 51.5%
North America: 42.8%
Western Europe: 20.4%
Middle East: 7.6%
Central and Eastern Europe: 7.4%
Asia: 3.3%
South America: 3.1%
Africa: 0.5%

Source: Pippa Norris, Digital Divide
# Internet Users and PCs (2000)

<table>
<thead>
<tr>
<th>Region</th>
<th>Computers  (per 100 people)</th>
<th>Internet Users (per 100 people)</th>
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<tbody>
<tr>
<td>Sub-Saharan Africa</td>
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<tr>
<td>United States</td>
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</table>

*Source: http://devdata.worldbank.org*
Internet Users Worldwide (2000)

Internet Users Worldwide - 2000 (in millions)

- American: 154
- Asia-Pacific Region: 99
- Western Europe: 86
- Sub-Saharan Africa: 64
- Other: 3
## Percentage of Population Using New and Old Media (2000)

<table>
<thead>
<tr>
<th>Region</th>
<th>New Media Population</th>
<th>New Media Weighted Online</th>
<th>New Media Weighted Hosts</th>
<th>New Media Weighted PCs</th>
<th>Old Media Radios</th>
<th>Old Media TV sets</th>
<th>Old Media Daily Newspaper</th>
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<tr>
<td>Scandinavia</td>
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</tbody>
</table>

Source: Pippa Norris, *Digital Divide*
Comparison Between Africa and the United States (2004)

Image removed due to copyright reasons.

(per 100 people)  

Source: http://www.itu.int
Factors Affecting International Digital Divide

• Prices
  – Access costs are almost four times as expensive in the Czech Republic and Hungary as in the U.S.

• Access Speed and Cost
  – Phone calls are charged by the minute (i.e. slower internet connections → higher cost)

• Technical Training and Human Capital

• Relevance of Content
  – 78% of all sites and 96% of e-commerce sites are currently in English
References
