
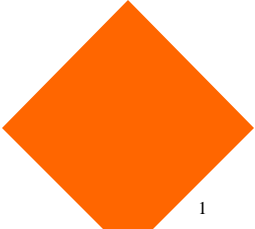


The 3 Digital Divides

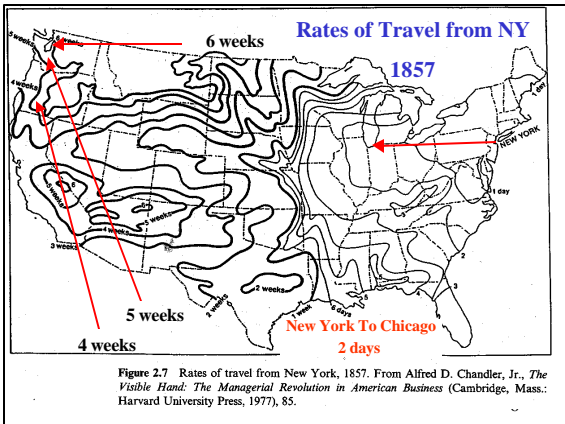
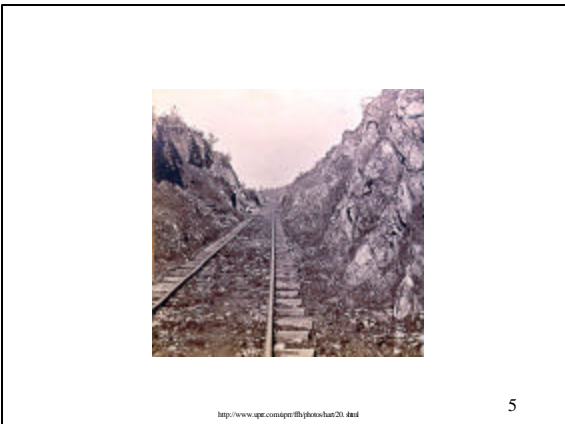
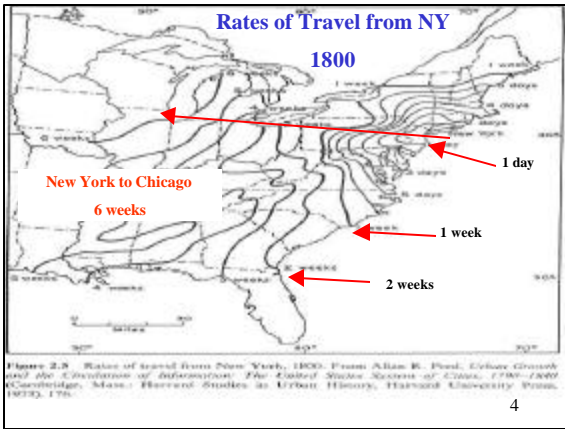
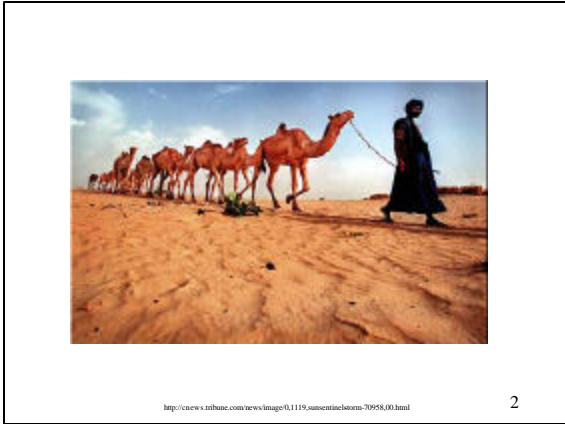
Eli M. Noam

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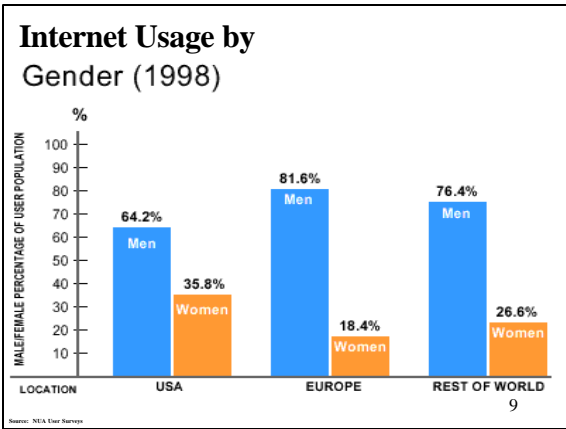




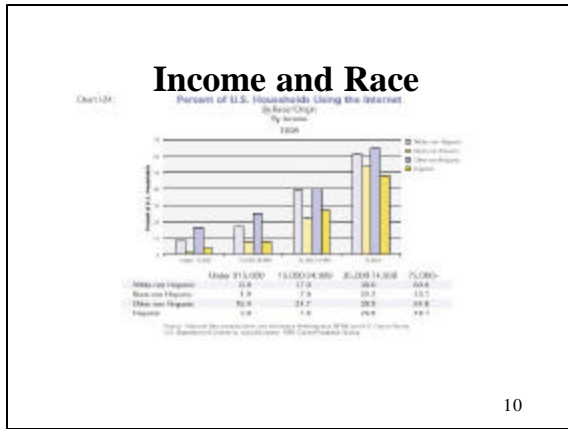
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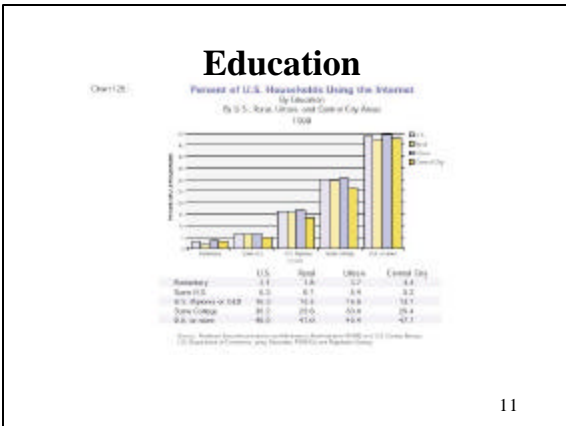
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- But the real digital divide issue is in the developing world.
- That gap will retard economic development. It will also inevitably lead to international trade conflicts

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- It is important to distinguish between three kinds of gaps

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3 kinds of digital gaps:

- The 1st gap is *telecommunications connectivity*.
 - That gap is being fixed by investment and policy reform.
 - Telephone penetration in developing countries has improved
 - Will prove to be the easy part



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- The 2nd gap is for *Internet access*. In 1999, only 3% of Internet computer hosts were in non-OECD countries.
- Progress is being made.
 - Latin American > 50% CAGR
- But this, too, is the easy part

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The Simputer, \$190



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- *Encourage flat rate pricing on local calls.*

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- 1st world does not stand still
- Now, residential broadband connections for Internet, raising speed by 30x.

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- This upgrade is expensive, and LDCs (and some Europeans), even as they catch up with narrowband networks, are about to fall behind in broadband.
- Even so, closing the Internet gap will prove to be the easy part.

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The 3rd Gap is in E-Commerce and E-content

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Developing World

- 5% of world commercial websites
- 2.4% of world internet commerce revenues

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The Myth: E-commerce enables easy entry



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The Reality

- E-commerce is harder than traditional business, not easier
- Economies of scale larger
- Entry barriers will become higher
- Especially hard for LDCs to compete and close the e-commerce gap

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3rd Gap, is E-commerce

- **Hardest to overcome**
- General societal **modernization**
 - Business system
 - Legal arrangements
 - Funding system
 - Logistics
 - Infrastructure
 - Education

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Dynamics of Global E-commerce

- 3 Factors:
 1. The price of international transmission is dropping rapidly.
 2. Domestic Internet penetrations are increasing rapidly in LDCs
 3. Most e-commerce applications have economies of scale.

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- Fixed costs are high, variable cost very low. This gives an advantage to being first and large.
- The implications are that e-commerce will be dominated by firms from the US and other electronically advanced countries.

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- What counts are not absolute cost reductions, but relative cost reductions relative advantage of e-commerce go to advanced countries

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- Overcoming the first and second gaps will exacerbate the third gap.
 - It opens the electronic highways to homes and offices.
 - To avoid a one-way flow, need to build e-commerce with priority

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A successful E-commerce policy must address “16 C”s

- Connectivity
- Capacity
- Critical mass by government
- Commerce priority
- Commercial law
- Cultural proximity
- Cross-border tele-working
- Customs, logistics, and taxes

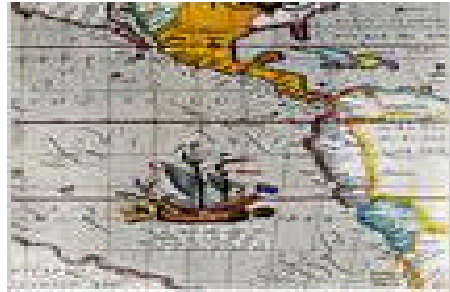
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- Credit system and investment
- Credit Cards
- Control and regulation
- Copyrights and patents
- Consumer protection
- Content
- Community creation
- Colleges and schools

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- These and similar initiatives are urgently needed, because LDCs are losing the protection of distance

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Anti-WTO Protesters



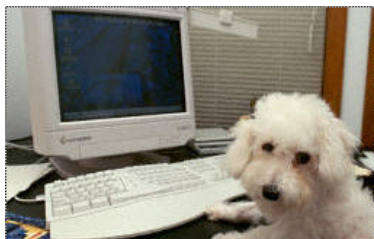
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- Challenge to developing countries to move beyond the first gap, that of telecommunications, by overcoming its policy squabbles,
- To close the second gap, that of the Internet
- And to focus on the 3rd gap, that of e-commerce

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The Myth: E-commerce enables easy entry



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End of Presentation

Thank you.

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