

# The Digital Divide: Implications on the Forest Products Industry in the Developing World

Kofi Poku

And

Richard Vlosky

Forest Products Marketing Program

Louisiana State University



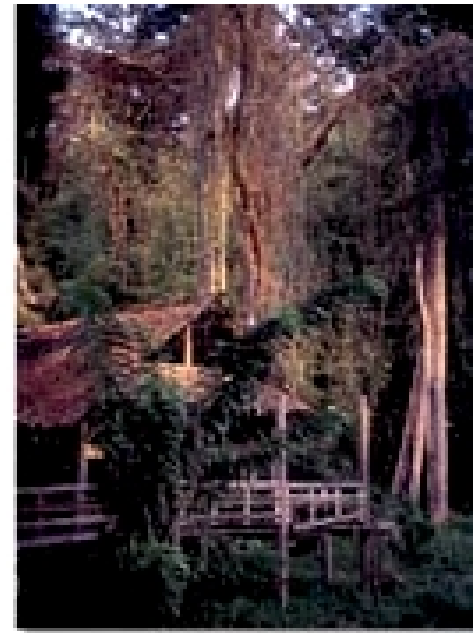
# What is Digital Divide?

- The Gap between people with and without access to information communication technology (ICT)
- Internet connectivity differential



# Characteristics of the Developing World

- Majority of population live in rural areas
- Limited purchasing power
- Limited information flow
- Paper-based documentation
- High cost of business transactions



# Some Characteristics of the Developing World

- Abundant natural resources
- Deforestation
  - Poverty, mismanagement, obsolete technology, inefficiencies
- Causes: farming, bush fires, fuel wood, wasteful logging practices, mining and quarrying



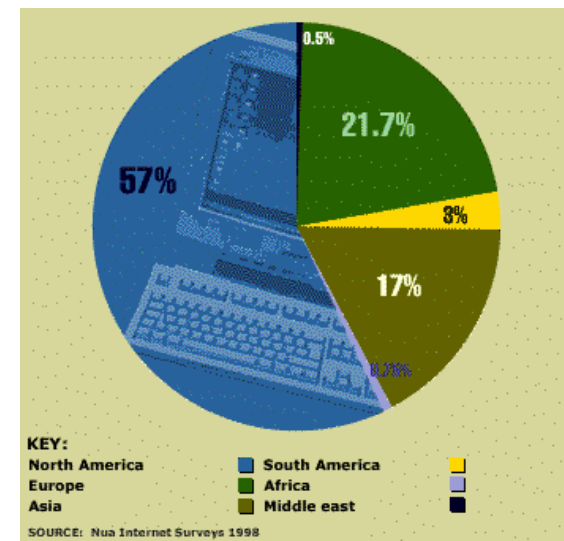
# Connectivity

- Information gap is growing
- 180 Million global users
- Only 14% users from developing countries
- Telephone density:
  - 52.3 per 100 persons in industrialized countries
  - 5.2 per 100 persons in developing countries



# Connectivity

- E-commerce for B2B and B2C
  - U. S. leads the world
  - Europe lags behind by 2 to 3 years
  - Developing countries lag at least 5 years

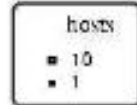


# Connectivity

The Matrix Jan 1997



The Internet

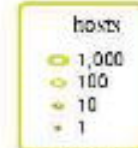


BITEARN

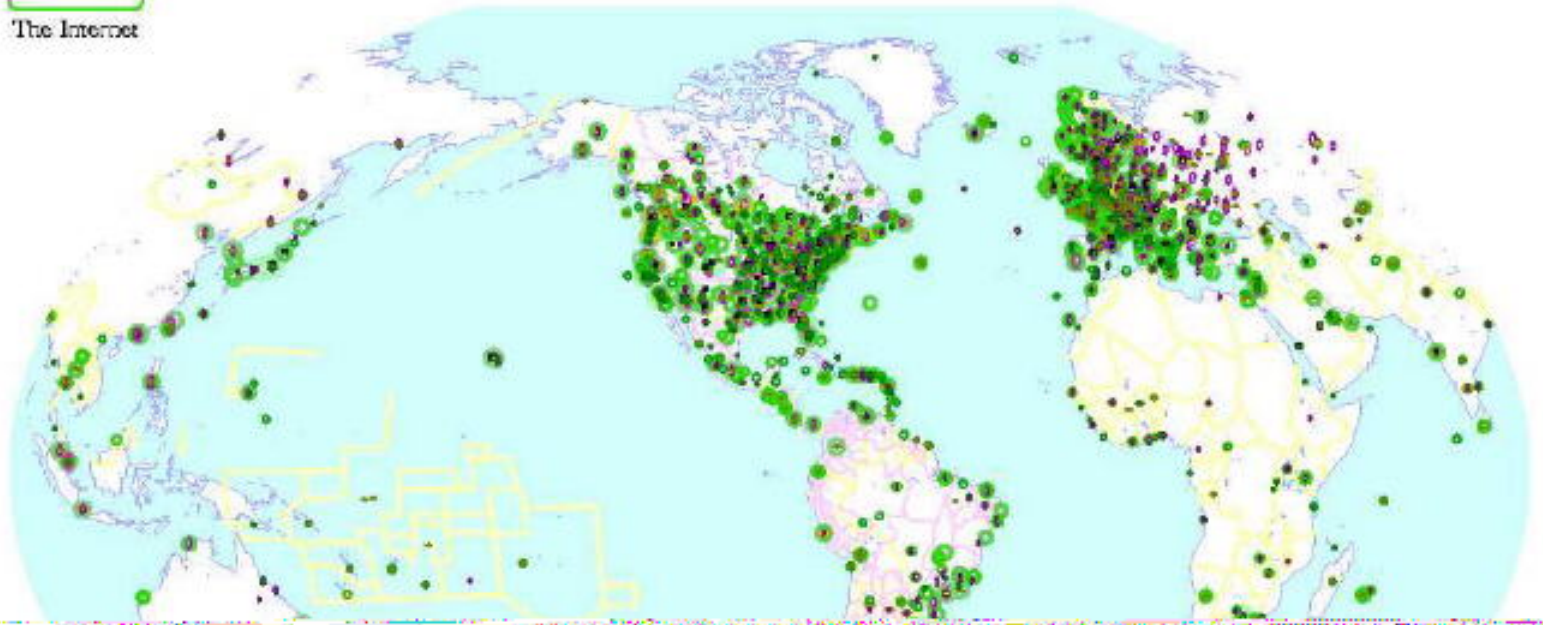


FidoNet

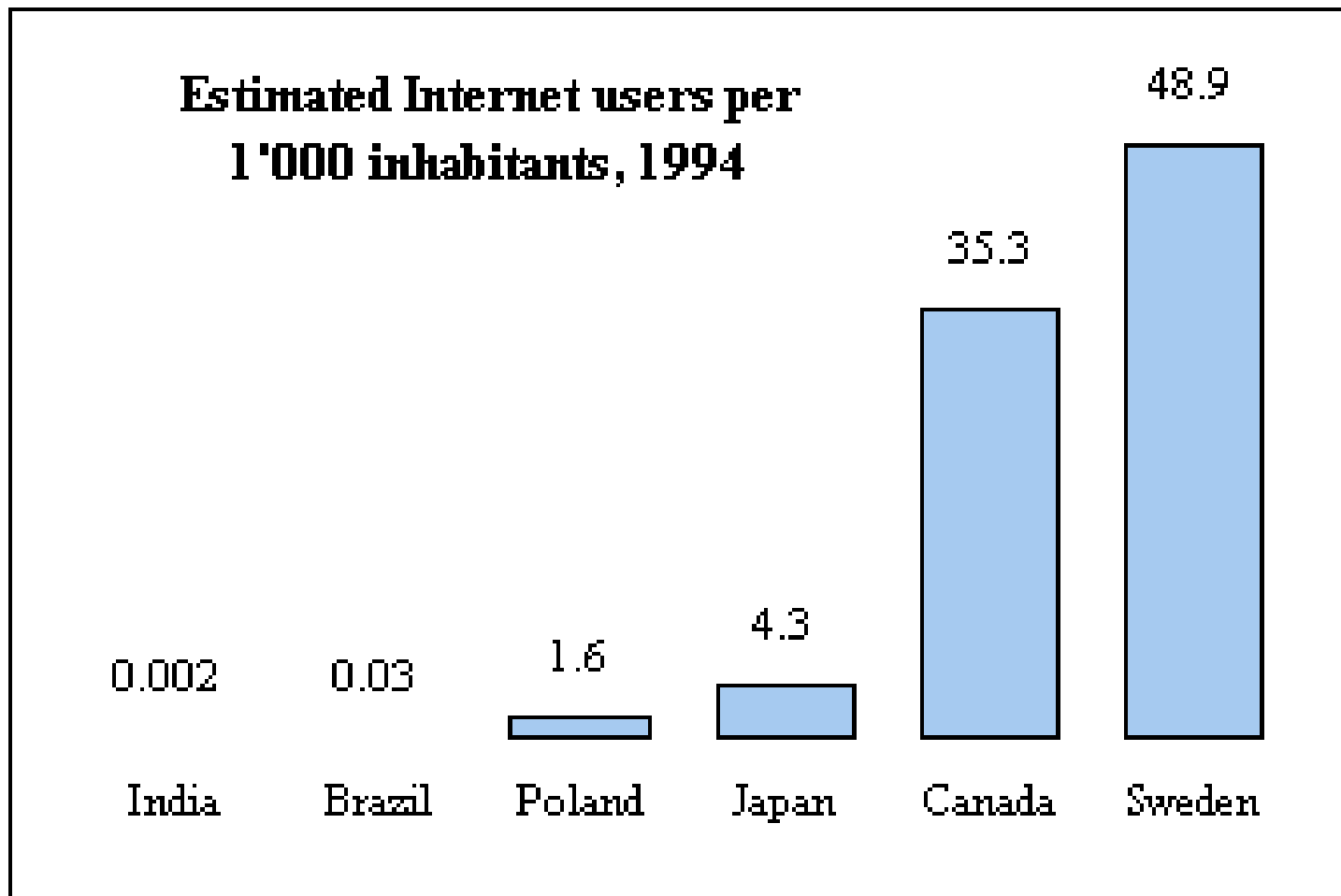
The World



UUCP



# Connectivity



Source: <http://www.itu.ch/WTDR95/c1c.htm>



# Connectivity

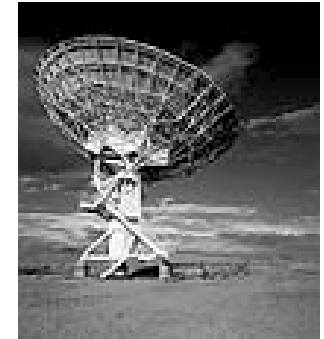
<b>Country</b>	<b>Inhabitants Per Telephone</b>	<b>Consume of Electricity Per Person In KWh</b>
<b>China</b>	60	593
<b>India</b>	200	324
<b>Brazil</b>	16	1589
<b>Nigeria</b>	Hardly any private lines	109
<b>Germany</b>	2	5683
<b>Japan</b>	2	6262
<b>USA</b>	2	11236

Source: CIA The World Fact book 1995

# Problems that Foster the Digital Divide

## Communications Infrastructure

- Lack of direct connections between many countries
- Government monopolies in communication industry
- Unreliable telephone system with low teledensity



# Problems that Foster the Digital Divide

## Costs

- High telephone call charges
- Internet charges based on ISP & high international tariffs by telecom services
- Telecom cost constitutes about half of an ISP's operating cost
- High cost of computers
- Energy cost and supply

# Problems that Foster the Digital Divide

## Know-How

- Lack of ICT experts.
- Lack of know-how to build and run the ICT infrastructure and systems
- Lack of know-how to use the internet

# Problems that Foster the Digital Divide

## Business Culture

- Face-to-face relations
- Bargaining
- Language barriers
- Credit card transactions



*MasterCard  
International*



# Benefits of Digital Participation

- Advantage of leapfrogging technology
- Lowering of communication cost
- Breaking geographical borders/access to global market
- Information flow in real time
- Tools for international marketing
- Opening new opportunities for development and growth



# Digital Connection and Business Growth Potential

- Privatization of telecom services
- Mobile phones
- Governments support
- Cyber post office
- India - producing a sub-U.S.\$200 computer



# Opportunities in Developing Countries

- Untapped market
- Low cost
- Large pool of labor force
- Opportunities to train
- High potential for growth





# Capacity Building

## Stakeholder Partnership

- Co-operation of governments, business community, NGO's, International organizations
- Strengthen policy environment for disseminating ICT
- Develop ICT infrastructure
- Develop human resources to underpin dissemination of ICT
- Active utilization of ICT in the area of development assistance

# Capacity Building

## International Efforts

- The International Telecommunications Union seeks to develop e-commerce for developing countries
- Japan promise of U.S.\$15 billion in grants and loans for ICT
- Geek corps, a non-profit organization sends technology to developing countries including Ghana
- UNDP- Sustainable Development Networking Program

# Conclusion

..... a need for an effort that includes all stakeholders to provide a holistic coordinated approach to address ICT capacity building in the developing world.



# Conclusion

....which will create an environment to digitally empower forest products suppliers from the developing world and allow them to more fully and efficiently participate in the global market.

Questions???