Fostering Globally Accessible and Affordable ICTs

by

Toshihiko Hayashi
hayashi@u-air.ac.jp
http://hayashiland.com
Global Information Society

- Technology
  - From ICT Revolution to Ubiquitous Communications
  - Transmission Speed from Megabits, Gigabits to Googabits per Second

- A Great Migration toward the Digital Continent
Network Social Infrastructure

- Applications
- Platform
- Network Architecture
Architecture

Accessibility
- Choice of technology
  - Wired
  - Wireless
  - Keitai (mobile)
- Investment

Affordability
- Government subsidy
- Regulated tariff
- Facility-based competition
- Universal service fund
Platform

Accessibility
- Development
- Standards
- Security, privacy, decency
- Harmonization of tax, settlement, regulation, intellectual property

Affordability
- Nexus technology
- Nexus institution
- “lock-in” effect avoided
Applications

Accessibility
- Computer literacy
- Deregulation
- Cultural impediments
- Cyber society convention

Affordability
- Competitive industry
- Fair-use copyright
Increasing Accessibility

- Evolving Notion of Universal Service
  - Physical connectivity
  - Active participation

- Digital Empowerment
  - Transfer of property rights, A revolution
  - Economic, political and social inclusion
Increasing Accessibility

- Competition or Regulated Monopoly?
  - Facility-based competition
  - Auctioning frequency band
  - Regulation on access charge

- Viable Infrastructure Development
  - Marginal cost pricing and stranded cost,
    Price cap or structural separation
Increasing Accessibility

- Global universal service fund proposed
  - Expand the basic concept of universal service fund in US and Japan
  - Affordable accessibility
  - Platform standards
  - Information literacy
Affordability

- Choice of Infrastructure
  - Wired technology
  - Wireless infrastructure

- Pricing Strategy for Fast Penetration
  - Internet subsidy
  - Strategic introduction price, or predatory pricing
Affordability

- Government subsidy and WTO principle
  - Cost incentive, subsidy on investment and R&D
  - Flying geese or leap-frog
  - Infants that grow too fast

- Affordability for Whom?
  - 20% of population; a rule of thumb
  - Make room for those who refuse to ride on
Governance of GIS

- Cyber Space Convention
  - Platform, copyright, security, tax, global currency, decency, privacy

- Conformity and Diversity
  - Physical and cyber world
  - Diverse paths to future
  - Efficiency, equity and sustainability
Policy Agenda for GIS

- Global Universal Service Fund
- Geneva Convention for GIS
- Cyber Security Council

Toshihiko Hayashi
hayashi@u-air.ac.jp
http://hayashiland.com
http://www.stanford-jc.or.jp/research
For more discussion, please see


Thank you.