Fostering Globally Accessible and Affordable ICTs

by

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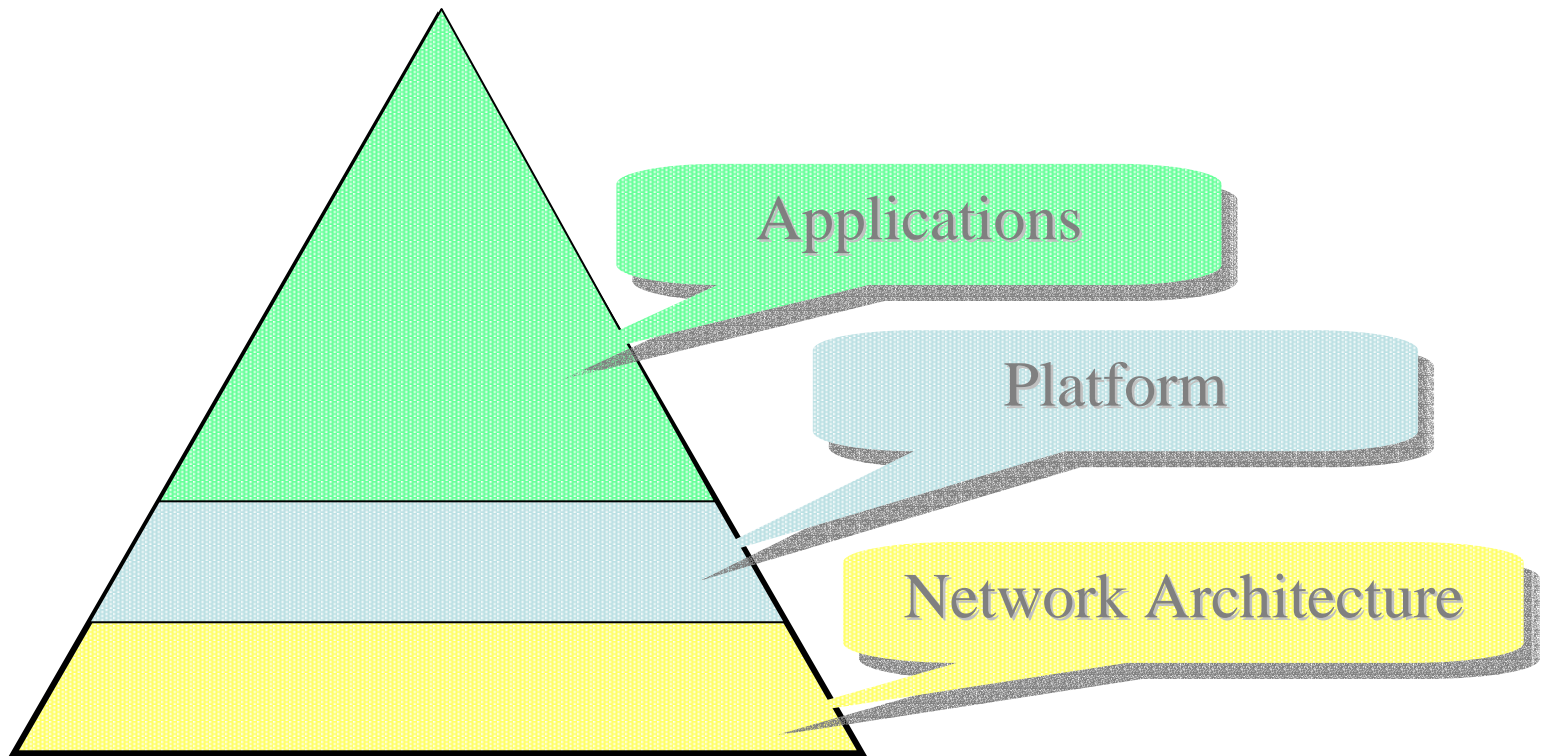hayashi@u-air.ac.jp

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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

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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

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For more discussion, please see

Toshihiko Hayashi,

"Fostering globally accessible and affordable ICTs",

International Telecommunication Union, 2003.

Downloadable from the web site

http://hayashiland.com/article.html

Thank you.