

The Digital Divides or the third industrial revolution: concepts and figures

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Questions to (try to) answer...

- **Food or Technology (ICTs)?**
- **Digital Divide: a matter of infrastructures?**
- **Digital Literacy: plug & play?**
- **Should the rich be scared of the Digital Divide(s)?**

First Part: General concepts

NEW Information and Communication Technologies

- **Old ones:**
 - **radio**
 - **phone**
 - **TV**
 - **printed press**
- **New ones:**
 - **Internet (e-mail + WWW)**
 - **mobile phone**
 - **satellite**

INFORMATION and COMMUNICATION Technologies

- **Information:**
 - **databases**
 - **knowledge management**
- **Communication:**
 - **broadcasting**
 - **p2p**
 - **networking**
- **Technologies**
 - **multiplatform**
 - **multichannel**

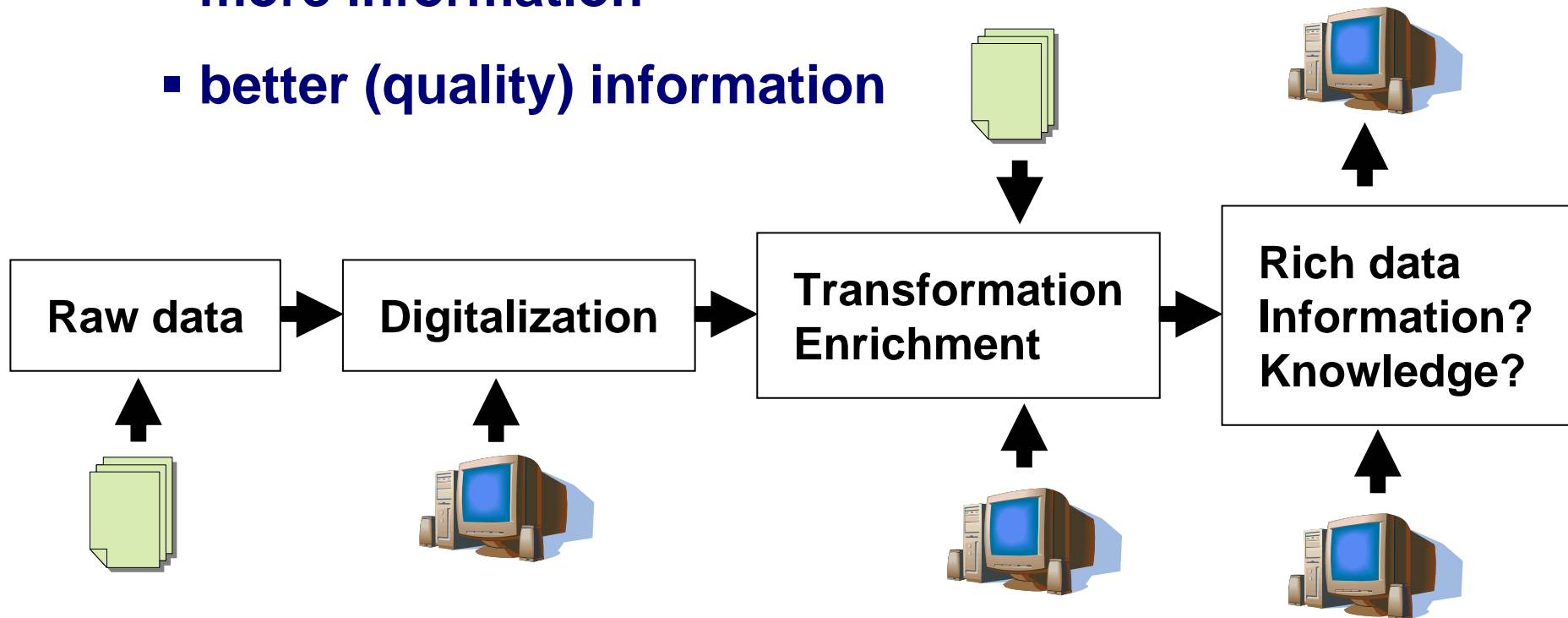
Information Society? (1/2)

(back to the) Production function

- **Labour (and land)**
- **Labour and Capital**
- **Labour, Capital and Knowledge/Technology/...**

Information Society? (2/2)

- **Information as input, tool and output**
- **Use information to get**
 - **more information**
 - **better (quality) information**



THIRD industrial revolution?

- **Industrial revolution:**
 - **iron**
 - **steam engine**
- **Second industrial revolution:**
 - **steel**
 - **internal-combustion engine**
- **Digital revolution**
 - **information**
 - **computers**

Second Part: Development

Development: General concepts

- **Humanitarian action/aid**
- **Development and Capacity building**
 - **Cooperation for Development**

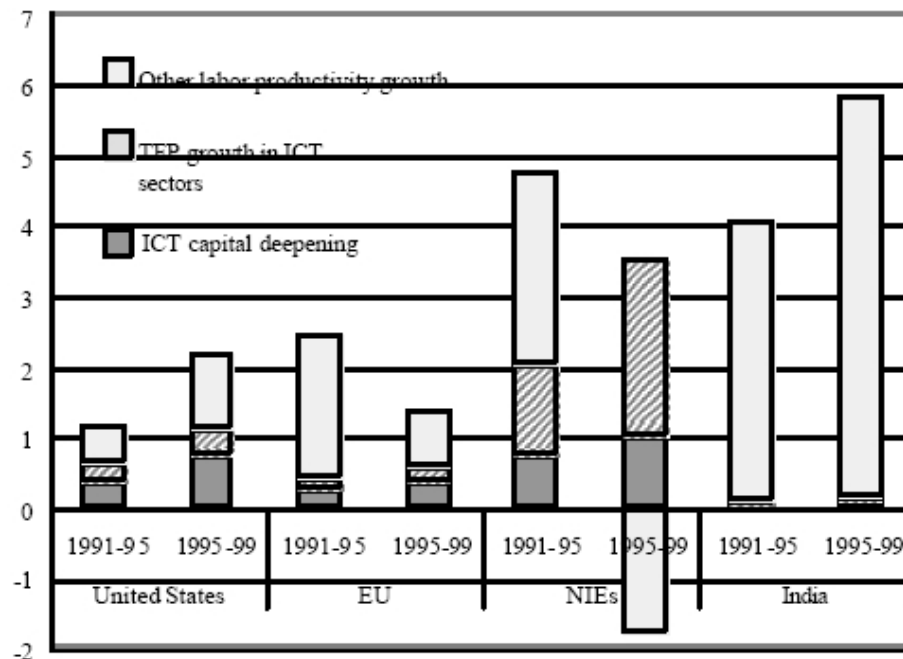
ICT and Development

- **Efficiency (efficienza)**
- **Efficacy (efficacia)**

- **PRODUCTIVITY**

ICT's contribution to development

Figure 3. Contribution of ICT to Labor Productivity Growth (% of GDP)²



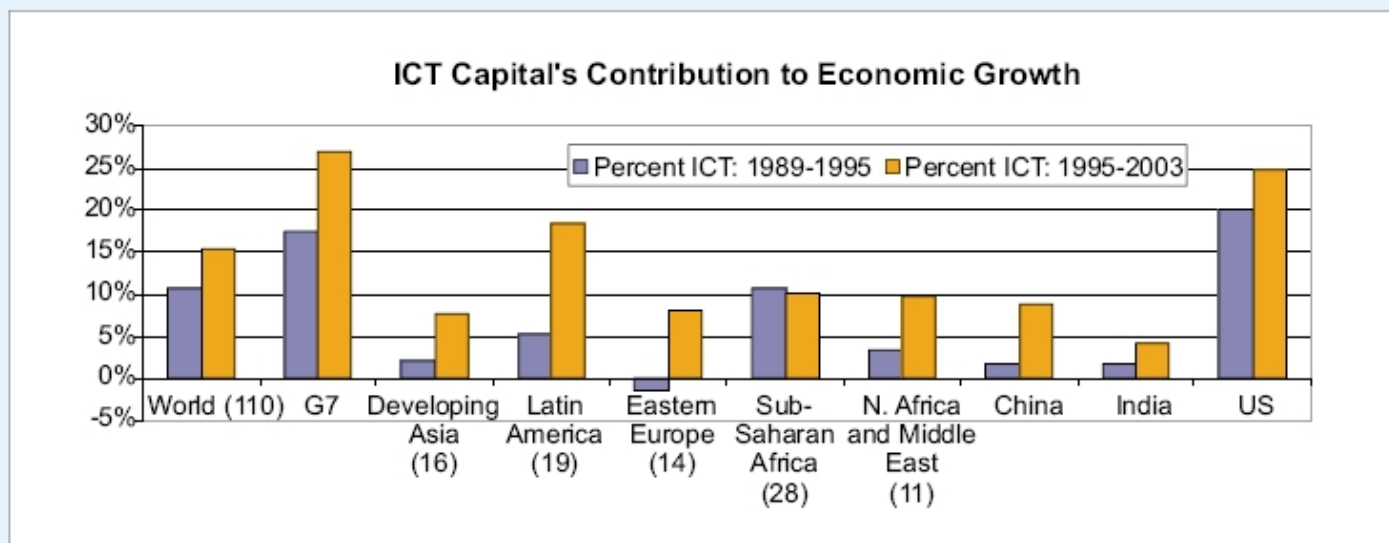
Source: Based on findings from Van Ark et al. (2003) and Lee and Khatri (2003).

Christine Zhen-Wei Qiang, Alexander Pitt and Seth Ayers.
World Bank (2003) ICT & Development

ICT's contribution to development

Figure 4.1: ICT's contribution to economic growth

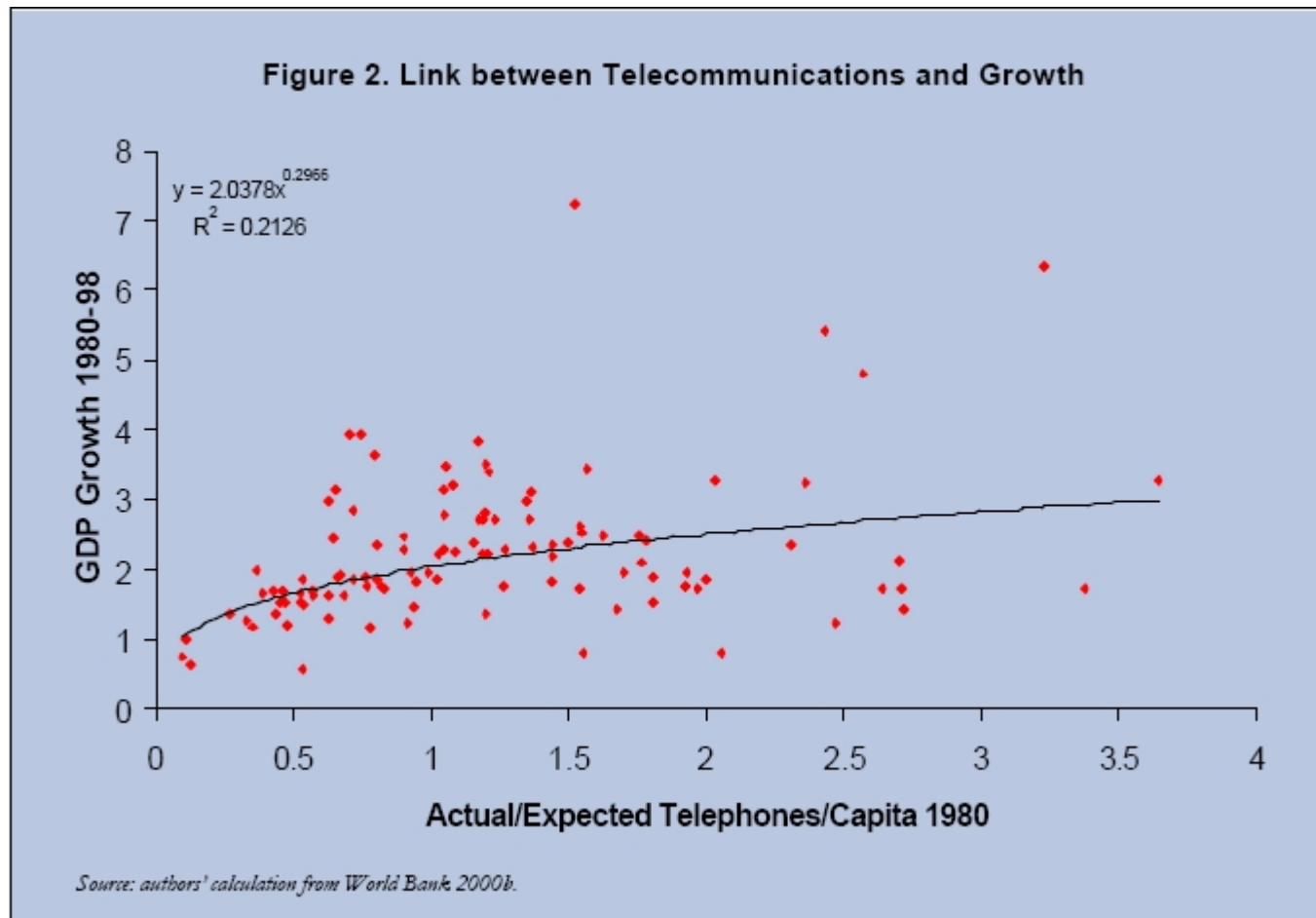
ICT capital contribution to economic growth, in percent, by region, 1989-1995 and 1995-2003



Source: ITU adapted from Jorgenson and Vu. 2005.

Note: The Group of 7 (G7) refers to the following countries: Canada, France, Germany, Italy, Japan, UK, and US.

ICT's contribution to development



**Source: Charles Kenny and Christine Zhen-Wei Qiang
World Bank (2003) ICT & Development**

COOPERATION for Development & ICTs

Why ICT is key for achieving the MDGs? (Shoji Nishimoto & Radhika Lal)

- **ICT is necessary for investment, livelihood support and entrepreneurship**
- **ICT facilitates cost-effective public and private services**

and

- **ICT increase NGOs' efficacy, efficiency... productivity**

Third Part: Digital Divides

Digital Divide: concepts

- **Digital Divide: Simon Moores (1996)**
- **e-Readiness**
- **e-Awareness**

Digital Divide or The Four types of the Digital Divide

- **Infrastructure**
- **Capacitation (Digital Literacy)**
- **Content and Services**
- **Legal framework**

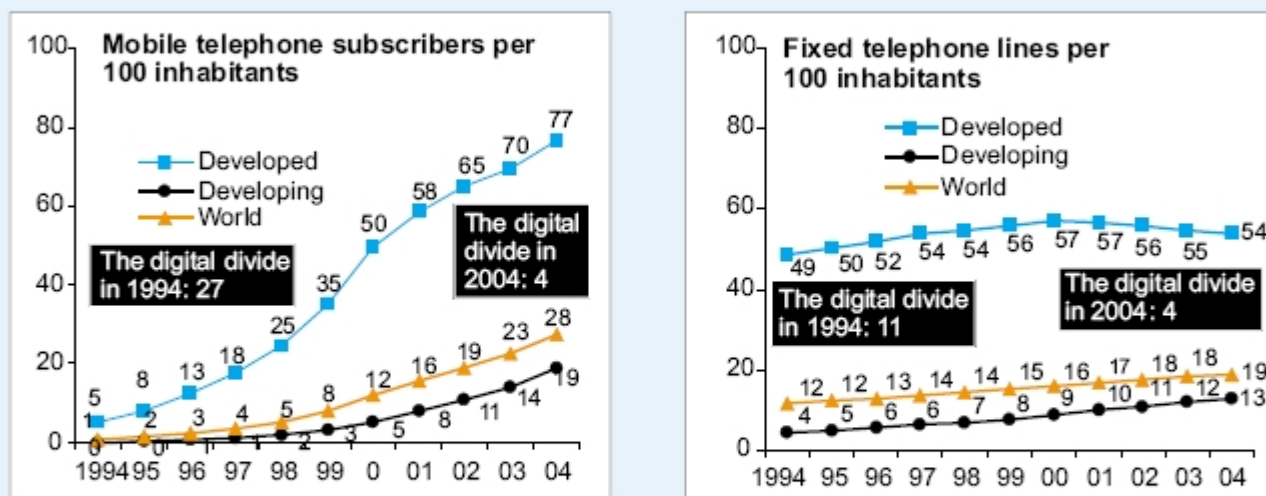
Digital Literacy

- **Technological literacy**
- **Informational literacy**
- **Functional literacy**
- **e-Awareness**

State of the Digital Divide

Figure: 1.1: Overall, the digital divide is shrinking...

Mobile telephone subscribers per 100 inhabitants, 1994-2004 (left) and fixed telephone lines per 100 inhabitants, 1994-2004 (right)



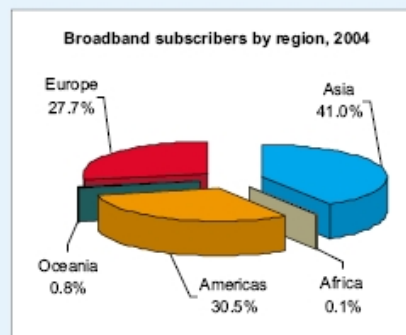
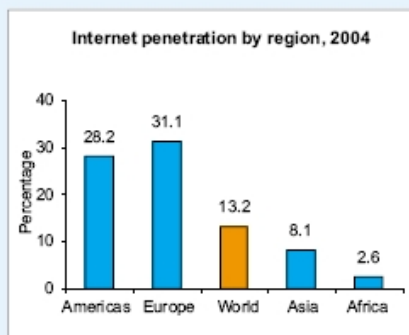
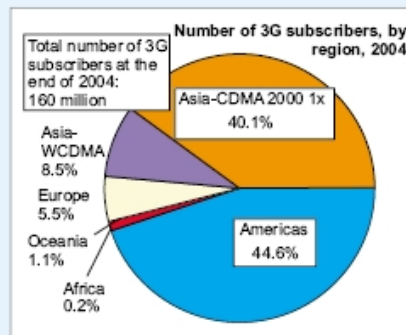
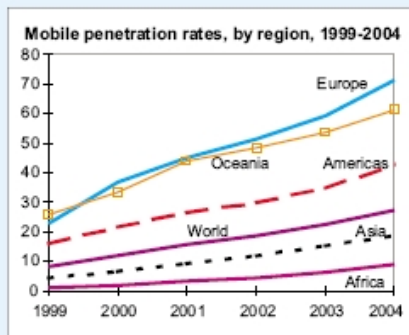
Source: ITU World Telecommunication Indicators Database.

Note: In these charts, the digital divide is calculated by dividing the penetration rates in the developed world by the penetration rate in the developing world. Penetration rates are rounded, whereas the digital divide is calculated based on actual numbers. For this reason, the digital divide results do not always correspond to the figures indicated in the graph.

State of the Digital Divide

Figure 1.2: ...but major disparities remain

Mobile cellular penetration, by region, 1994-2004 (top left) and distribution of the 160 million 3G subscribers at the end of 2004, by region (top right); Internet penetration by region, 2004 (bottom left) and distribution of broadband subscribers by region, 2004 (bottom right)

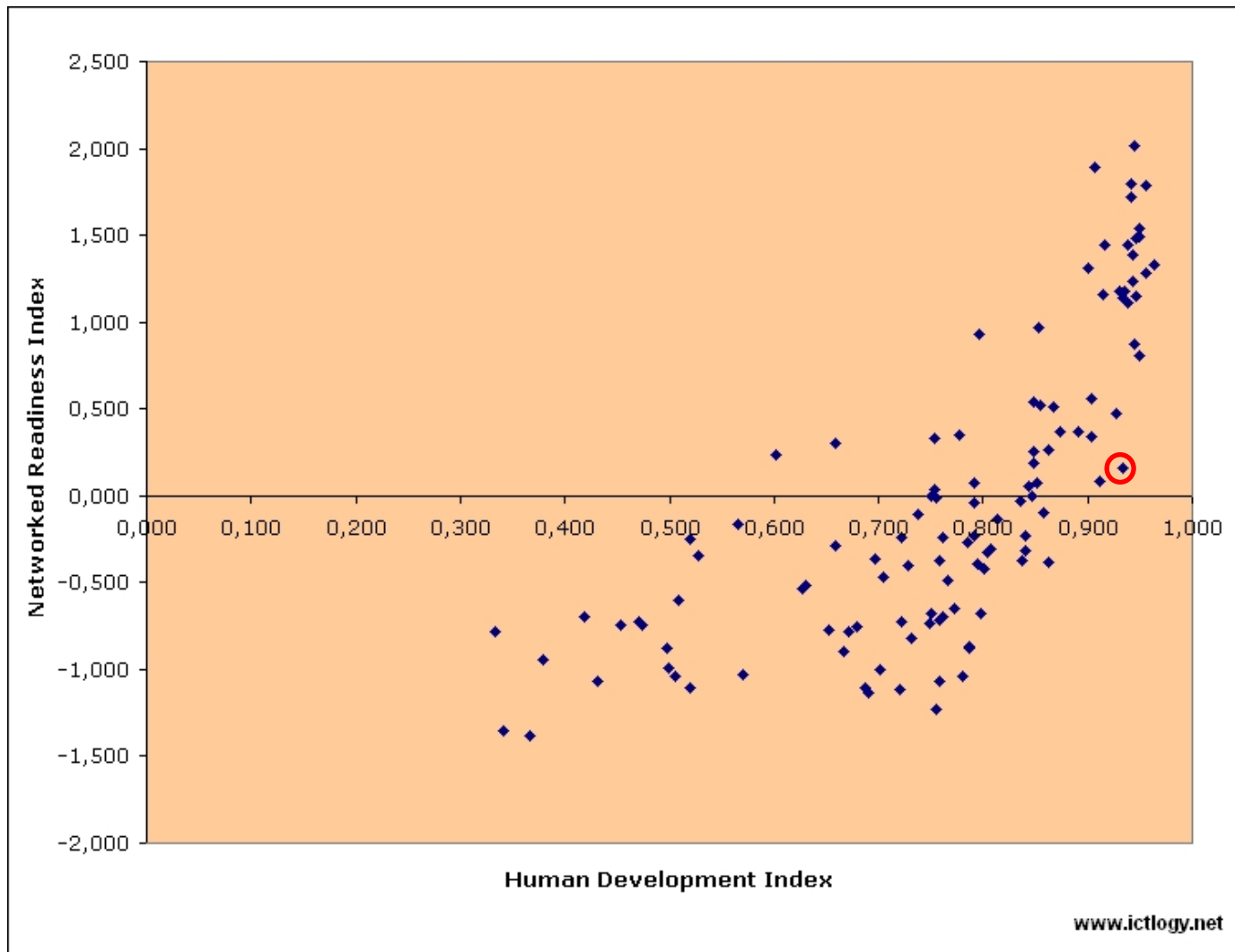


Source: ITU World Telecommunication Indicators Database (top left and bottom charts) and ITU adapted from 3GToday.com (top right).

Digital Divide and Development

- **leapfrogging**

State of the Digital Divide



Source: Ismael Peña. ICTIlogy.net

Fourth Part: Digital Inclusion (Digital Divides II)

Digital Divide and Digital Inclusion (1/2)

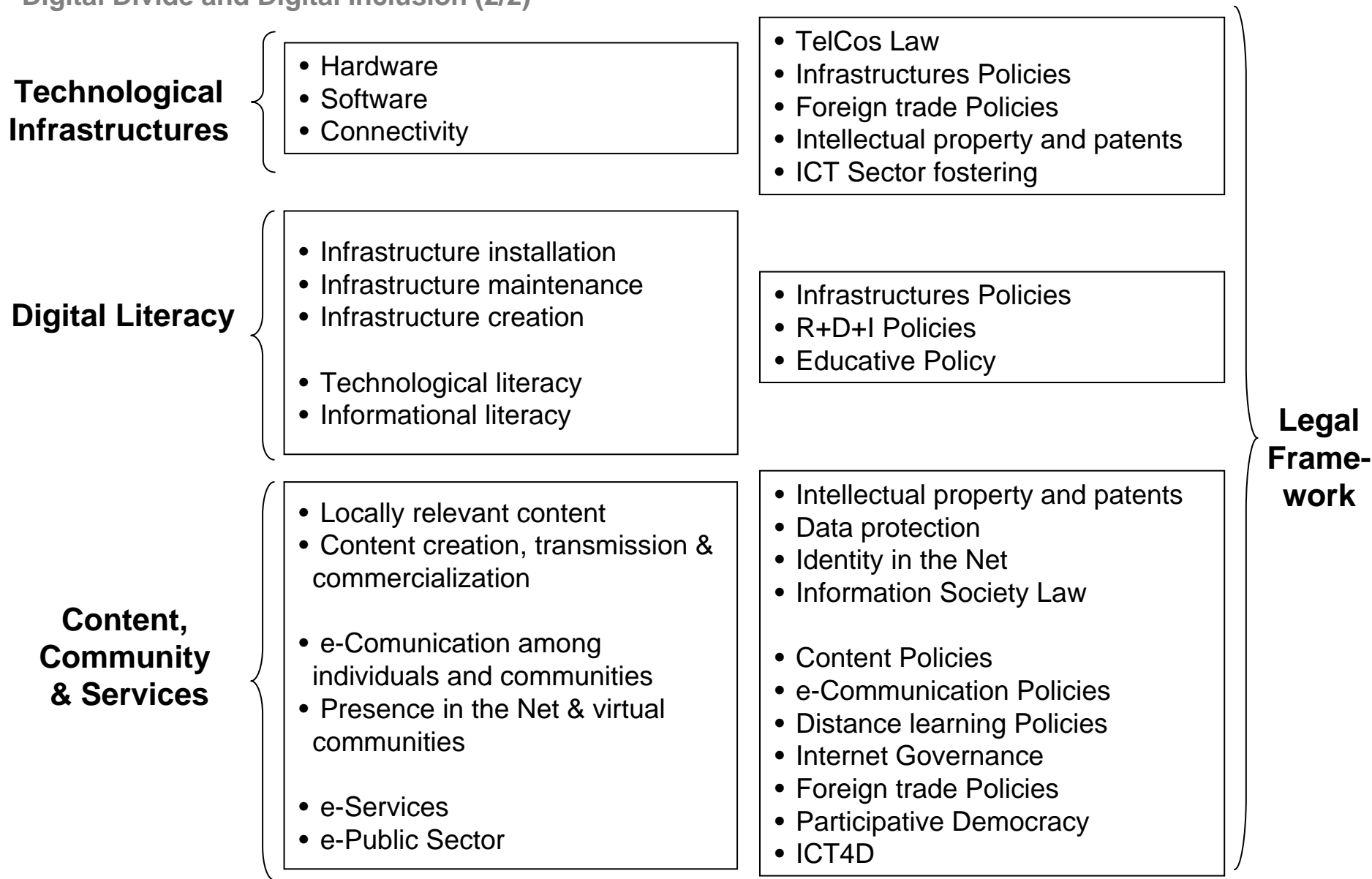
- **Infrastructure:**
 - **access (and quality)**
 - **affordability**

- **Capacitation: digital immigrants and literacy**

- **Content and Services:**
 - **local content**
 - **relevant services**

- **Legal framework:**
 - **ICT sector regulation (market)**
 - **Censorship**

Digital Divide and Digital Inclusion (2/2)



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