

# Measuring the Internet in South East Asia

Michael.Minges@itu.int



*When you measure what you are speaking about and express it in numbers, you know something about it, but when you cannot express it in numbers your knowledge about is of a meagre and unsatisfactory kind."*  
—Lord Kelvin

The Internet in South East Asia  
Bangkok, 21-23 November 2001



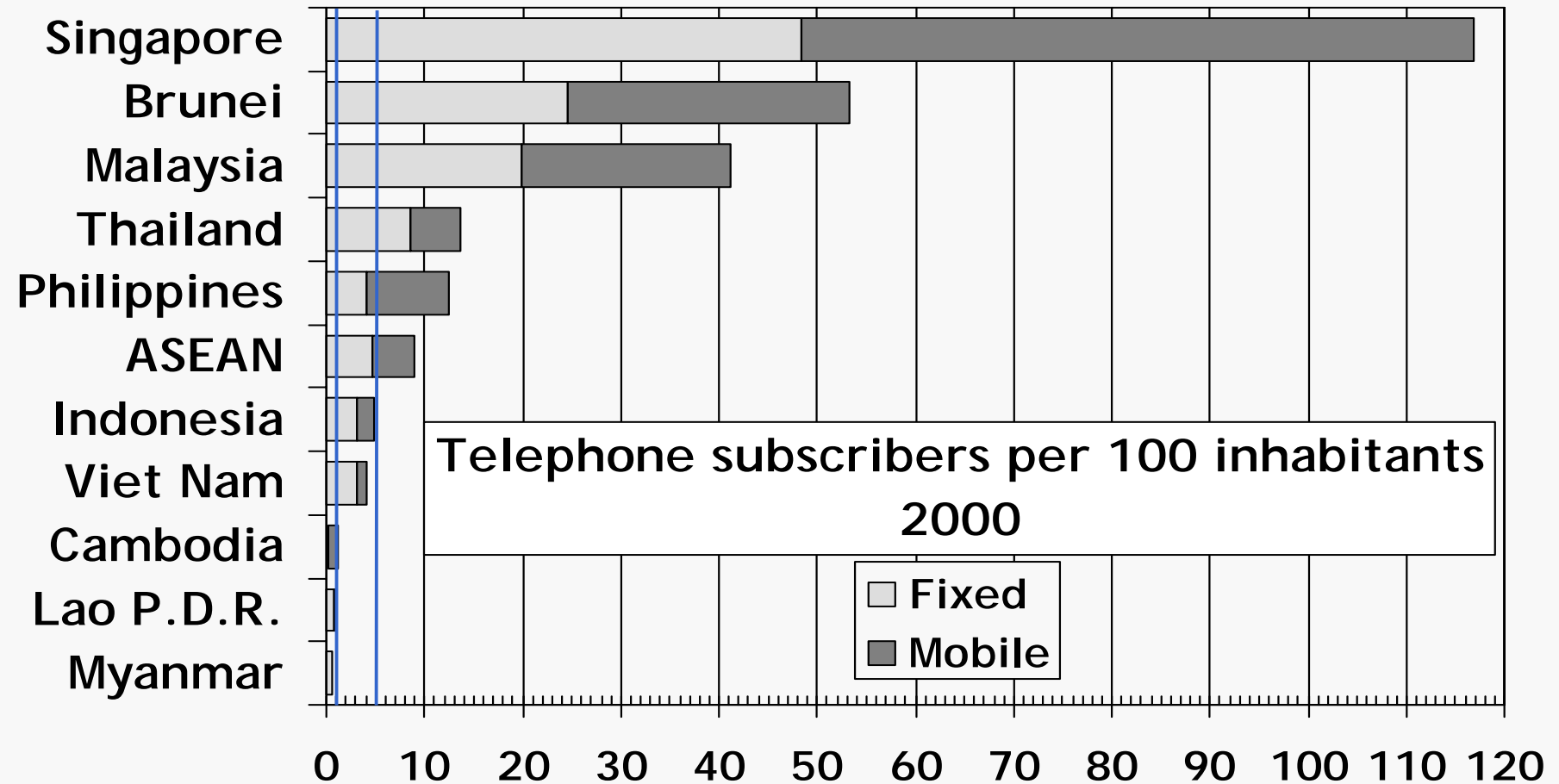
# Overview

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- # Conventional comparisons
  - # Useful ICT indicators
  - # Defining access to ICT
  - # Frameworks
  - # Sources
  - # Conclusions
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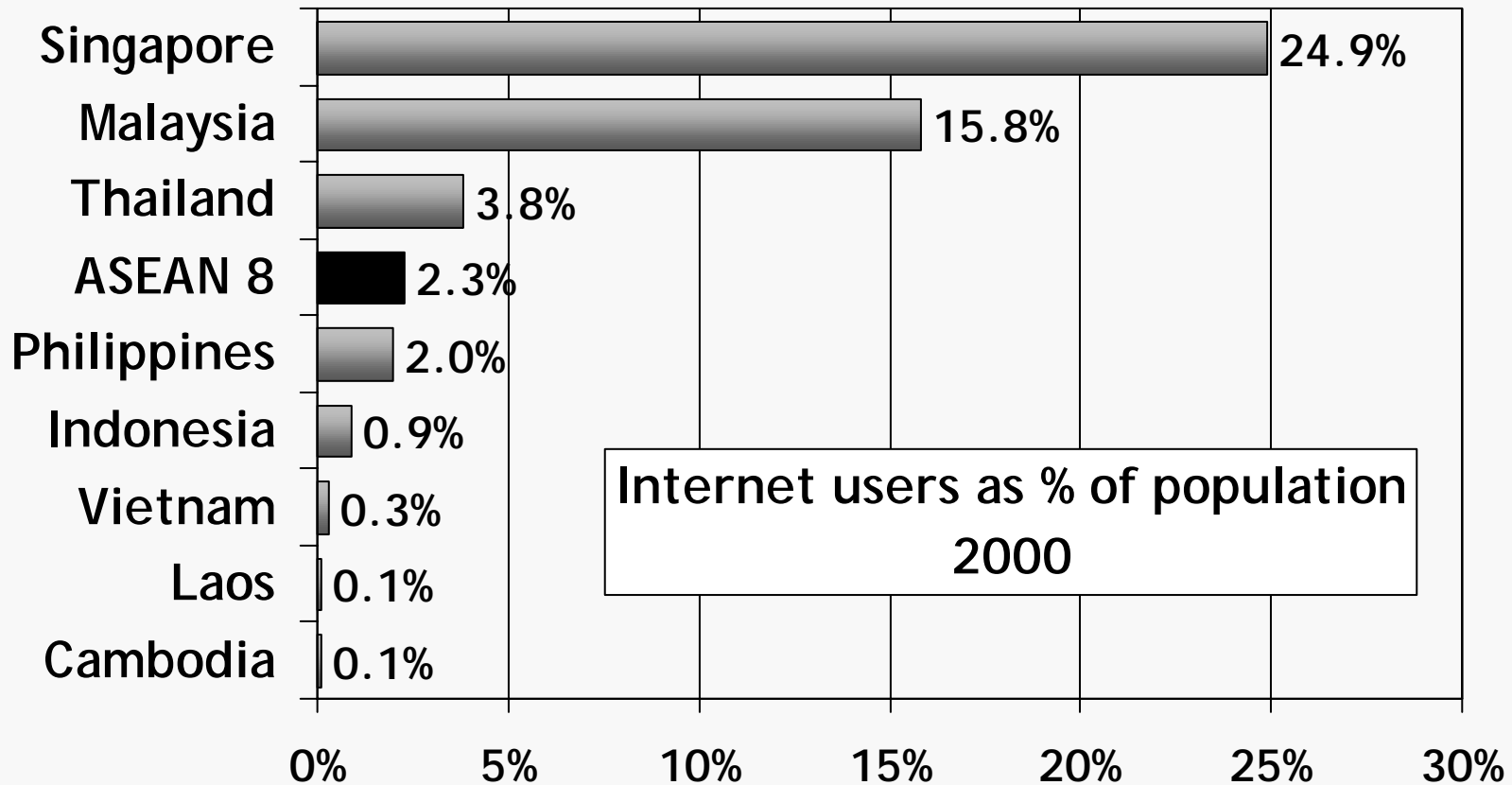


# The SE Asia Digital Divide I





# The SE Asia Digital Divide II



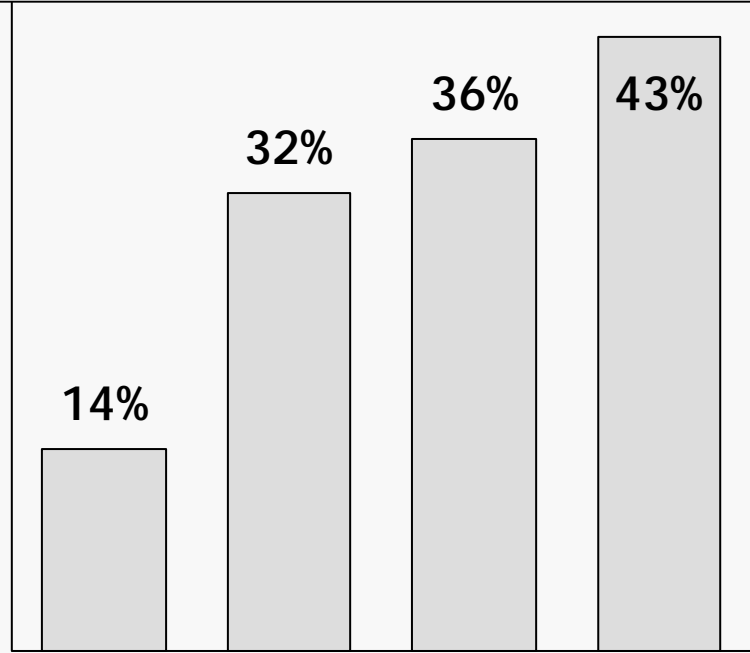


# How many Internet users?

## Who knows...

- # What is a user?
- # Regular surveys are only conducted in Singapore
- # In other countries, estimates based on subscribers
- # That such an important indicator should be so unmethodological is shocking!

Singapore: Internet users as % of population, mid-2000



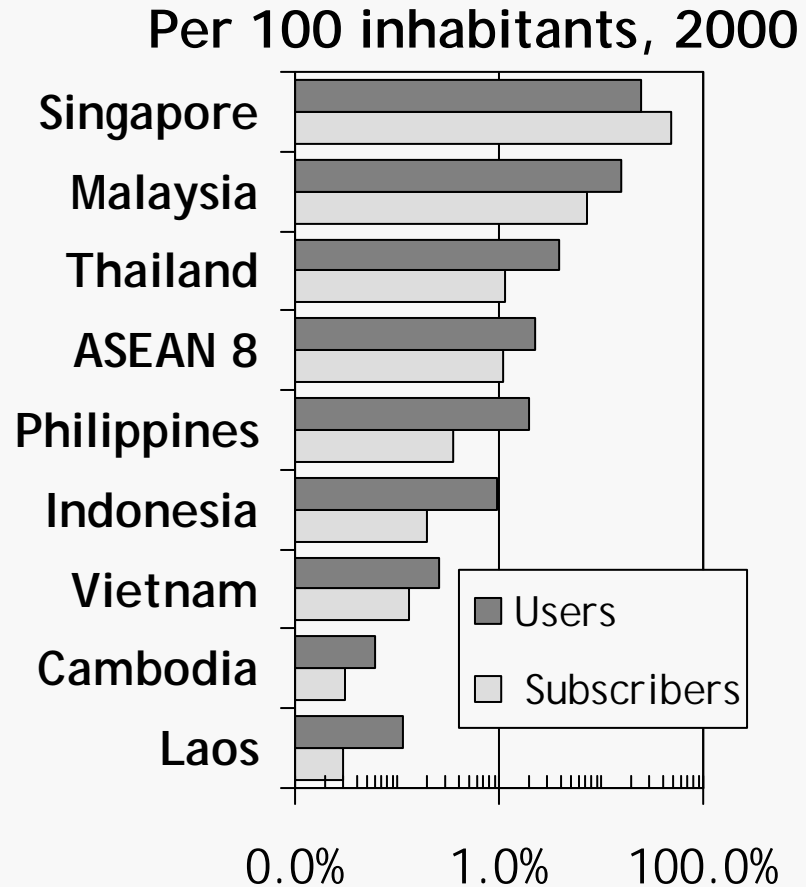
Nielsen\*NetValue IDA Nielsen\*\*

Note: \* Used in last month. \*\* Total universe.  
Source: ITU adapted from sources shown.



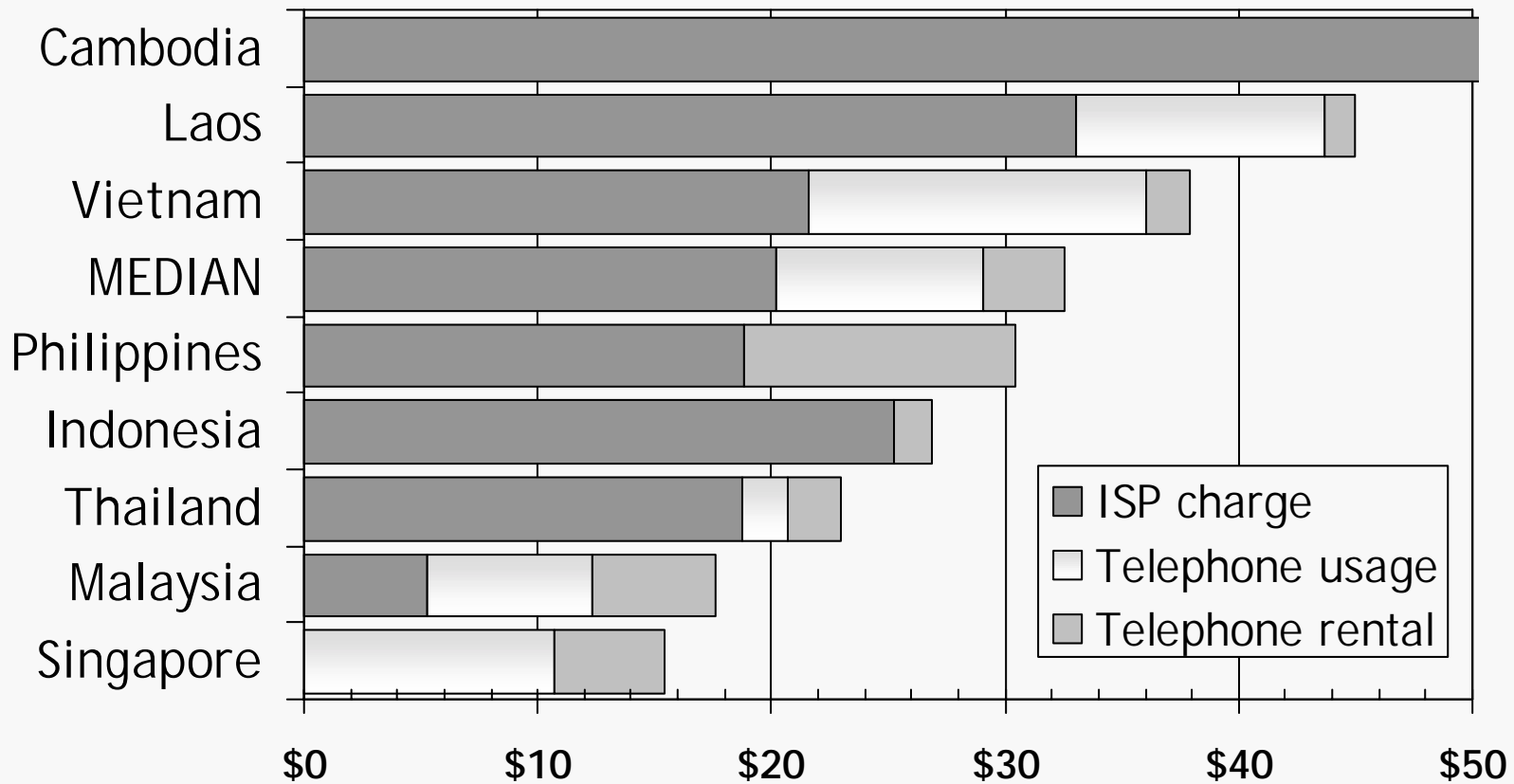
# Internet subscribers

- # Not all countries compile (Thailand & Philippines)
- # "Free" access distorts (Singapore)
- # How to account for access-on-demand and pre-paid cards?





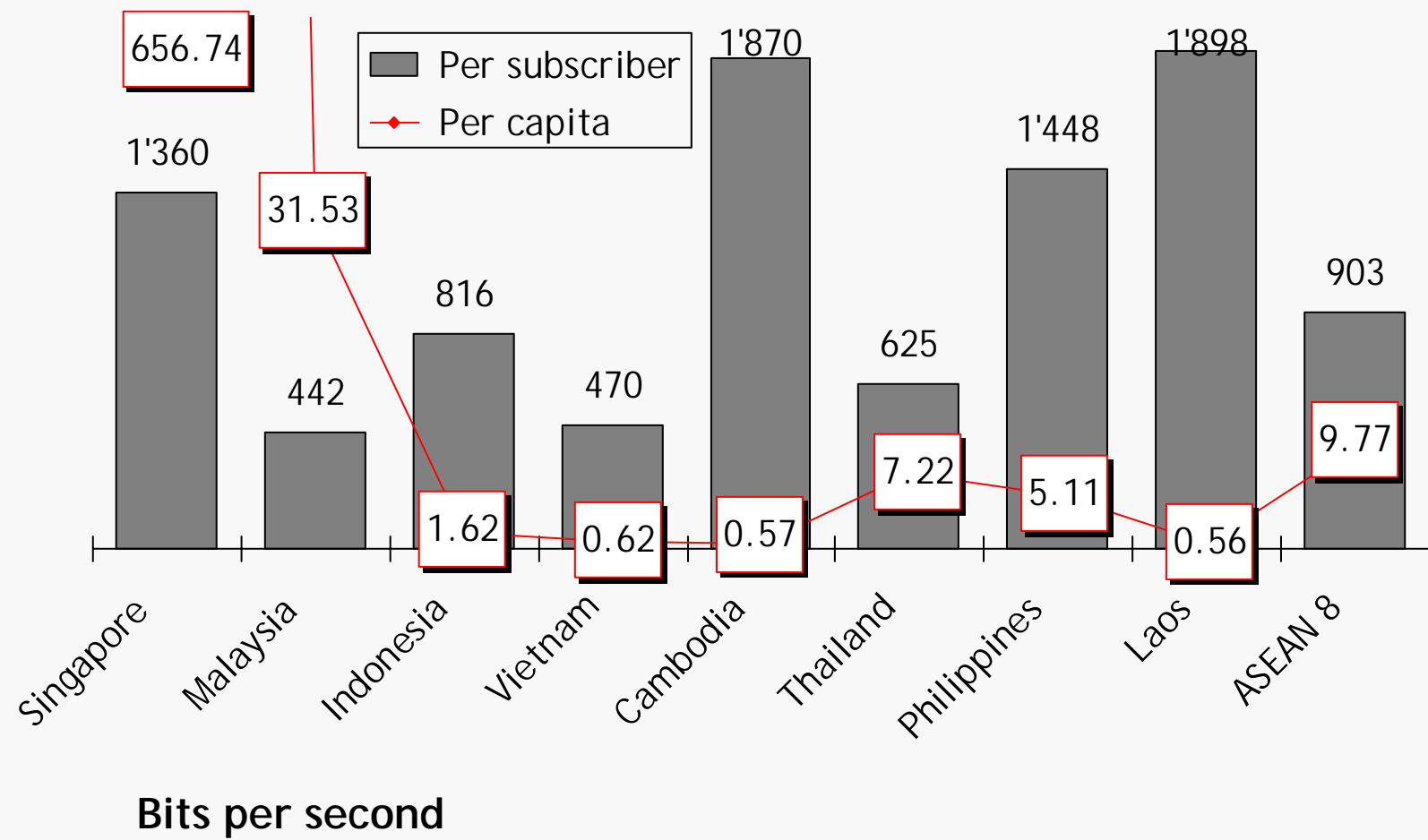
# Internet pricing



30 hours of Internet access, US\$, October 2001



# International Internet bandwidth





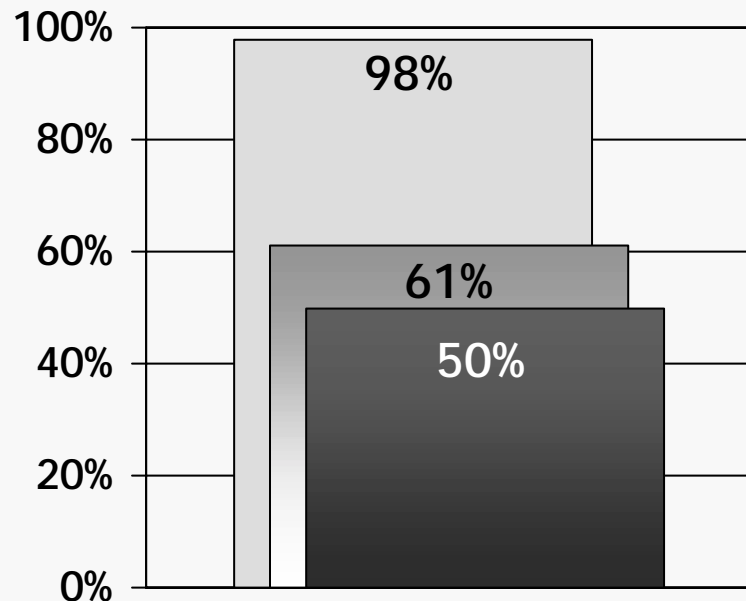


# Definition: ICT Universal Service

- # Universal service to Information & Communication Technology is defined as household access to the Internet
- # Problem is, only Singapore has the information

Singapore  
% of households

2000



Survey on Infocomm Usage in Households 2000

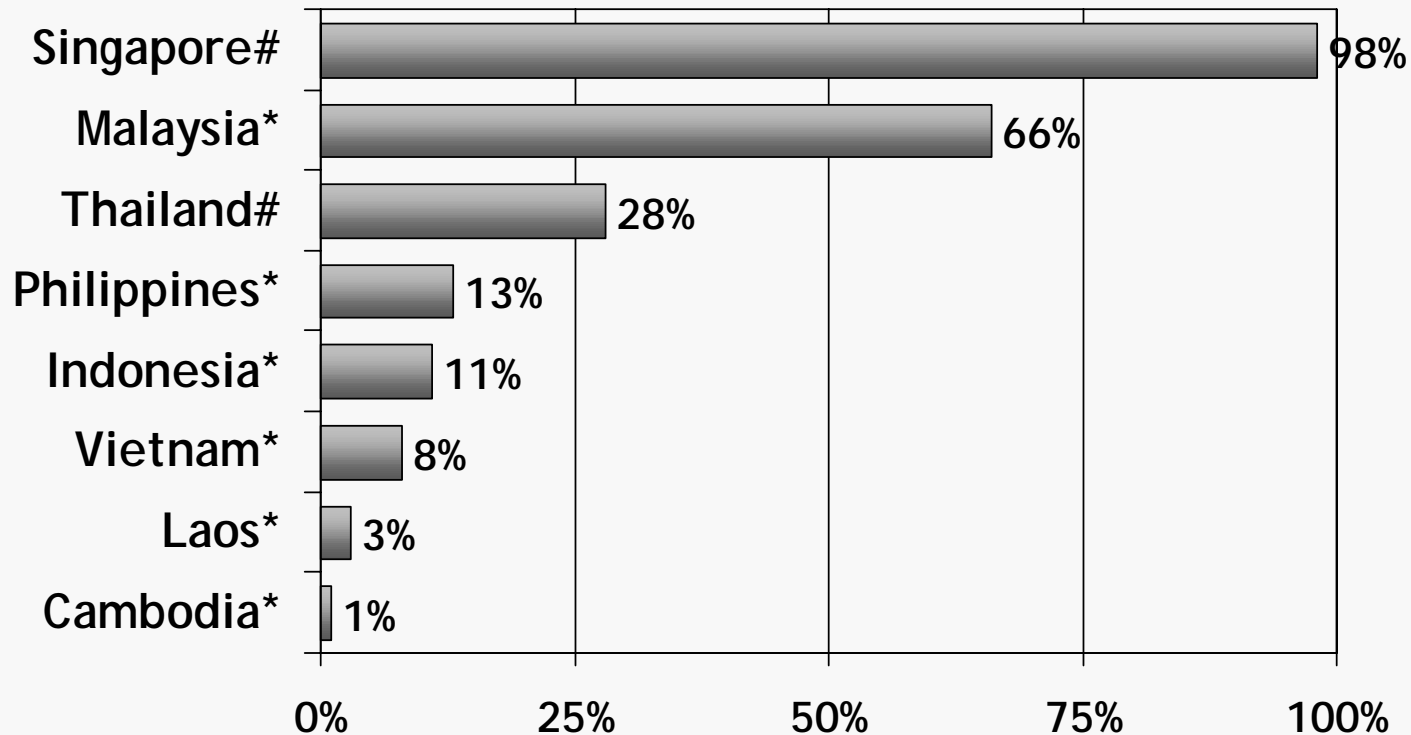
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# Household telephones

% of households with a telephone, 2000



Note: # = Census data. \* = Derived from residential fixed telephone lines.

Source: ITU.



# Definition: ICT Universal Access

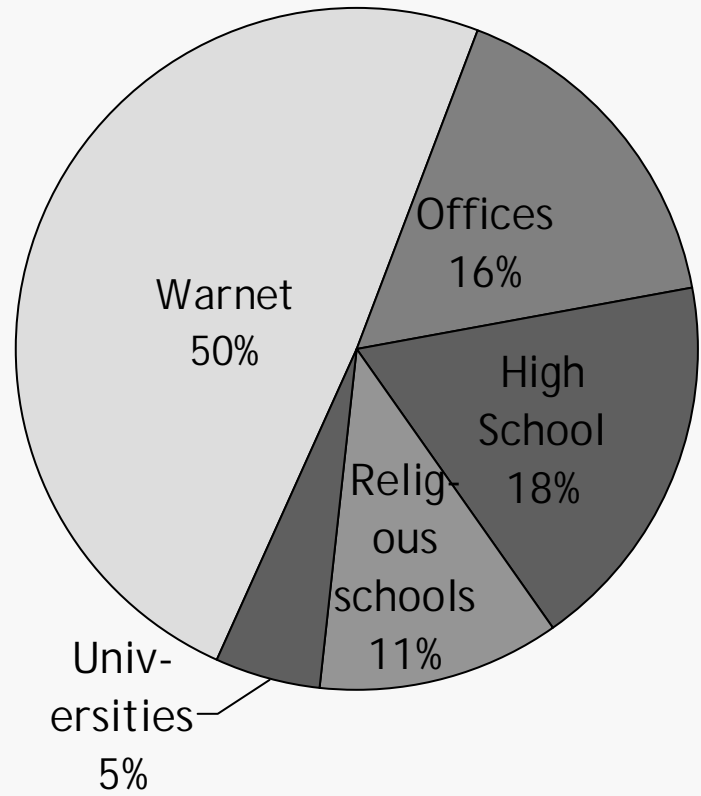
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- # Access to ICT
  - Physical ownership / availability
  - Affordability
  - Skills
- # “There will always be segments of any society that will not want to avail themselves of technology...”
- # “In essence, the real difference between the info-poor and the info-rich is the inequality of physical and financial access to ICT and in the actual usage of sources of information in a particular society.”



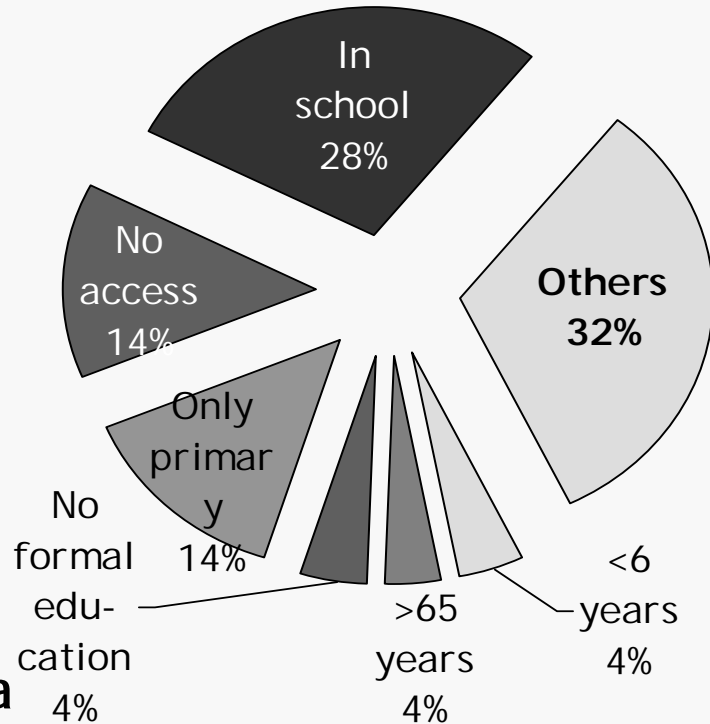
# Sizing the market

Source: Postel.



**Potential Internet Users in Indonesia**  
**Total: 61 million**  
**29% of 2000 population**

## Market segmentation in Malaysia, 2000



Source: NITA.



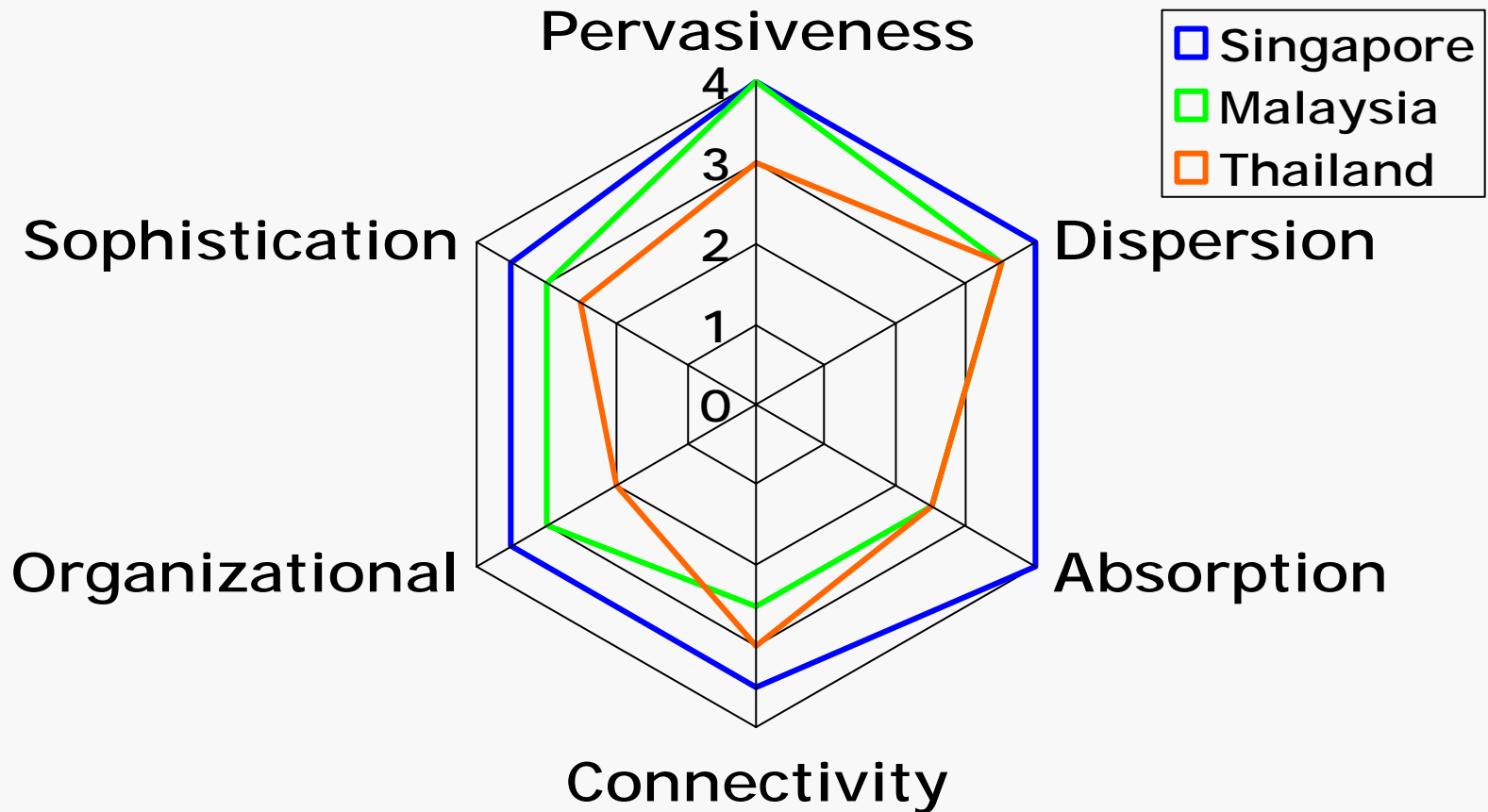
# Frameworks

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- # Growing number of indexes for measuring “e-readiness”
  - # Problem is many use same indicators
  - # How useful are they?
-



# Mosaic comparison





# Market research



	Statistical agency		Telecom regulator	
Indonesia	Statistics Indonesia <a href="http://www.bps.go.id">www.bps.go.id</a>		POSTEL <a href="http://www.postel.go.id">www.postel.go.id</a>	
Malaysia	Department of Statistics <a href="http://www.statistics.gov.my">www.statistics.gov.my</a>	√	CMC <a href="http://www.cmc.gov.my">www.cmc.gov.my</a>	√
Singapore	Statistics Singapore <a href="http://www.singstat.gov.sg">www.singstat.gov.sg</a>	√	IDA <a href="http://www.ida.gov.sg">www.ida.gov.sg</a>	√
Vietnam	General Statistical Office		DGPT	
Cambodia			MPTC	
Thailand		√	PTD	
Philippines			NTC	√
Laos	National Statistical Centre		MCPTC	



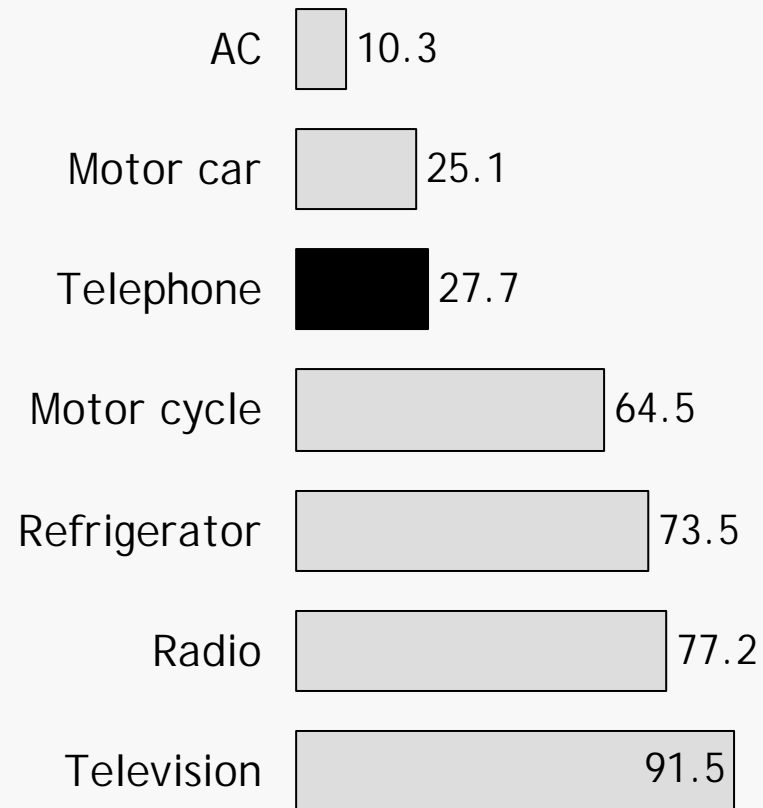
# Malaysia & Thai 2000 Census

Are the following items available for use by members of this Household:

- Radio / Hi-fi
- Television
- Video / VCD / DVD
- Fixed Telephone Line
- Mobile phone
- Personal Computer (PC)
- Internet Subscription

*Source: Question B7.  
Population and Housing  
Census Malaysia 2000*

% of households with durable appliance



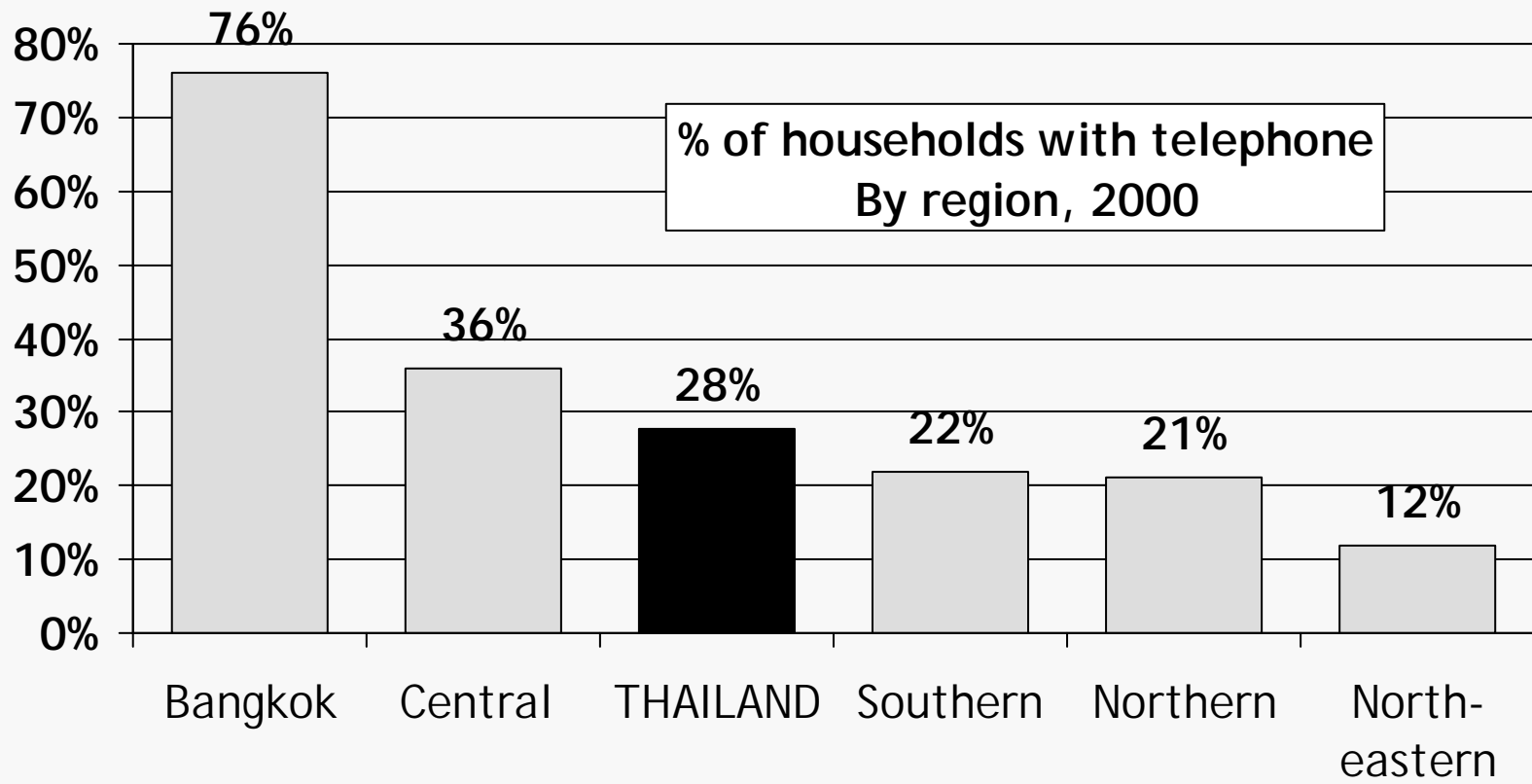
Source: Thailand 2000 Census

[www.nso.go.th/pop2000/pop2000.htm](http://www.nso.go.th/pop2000/pop2000.htm)





# Telephone distribution in Thailand



Source: Thailand 2000 Census

[www.nso.go.th/pop2000/pop2000.htm](http://www.nso.go.th/pop2000/pop2000.htm)



# Key indicators

Number of fixed telephone subscribers

Homes with a fixed telephone subscription (%)

Estimated Internet users

Internet subscribers

- Dial-up Internet subscribers
- Leased line Internet subscribers
- DSL Internet subscribers
- Cable modem Internet subscribers
- Other broadband Internet subscribers

Homes with an Internet subscription (%)

International Internet Bandwidth (Mbps)

- International outgoing Internet Bandwidth (Mbps)
- International incoming Internet Bandwidth (Mbps)

Total dial-up Internet traffic (minutes)

Number of Personal Computers

Homes with a Personal Computer (%)



# Market research for Singapore

## INTERNET USAGE STATISTICS FOR THE MONTH OF OCTOBER 2001

Number of Sessions per Month	15
Number of Unique Sites Visited	40
Time Spent per Site	21:33
Time Spent per Month	8:35:04
Time Spent During Surfing Session	33:30
Duration of a Page viewed	00:36
Active Internet Universe	871,938
Current Internet Universe Estimate	2,120,318



# Conclusions

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- # *Access* to ICT is not the same thing as *use*. Regulators should mandate ICT availability but can only encourage use.
  - # Regulators must work with national statistical agencies to include questions about ICT availability in annual household surveys.
  - # Regulators must use statistics to gauge ICT development in the country and evolve strategies for enhancing access.
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