Applying the Digital Opportunity Index to the Philippines

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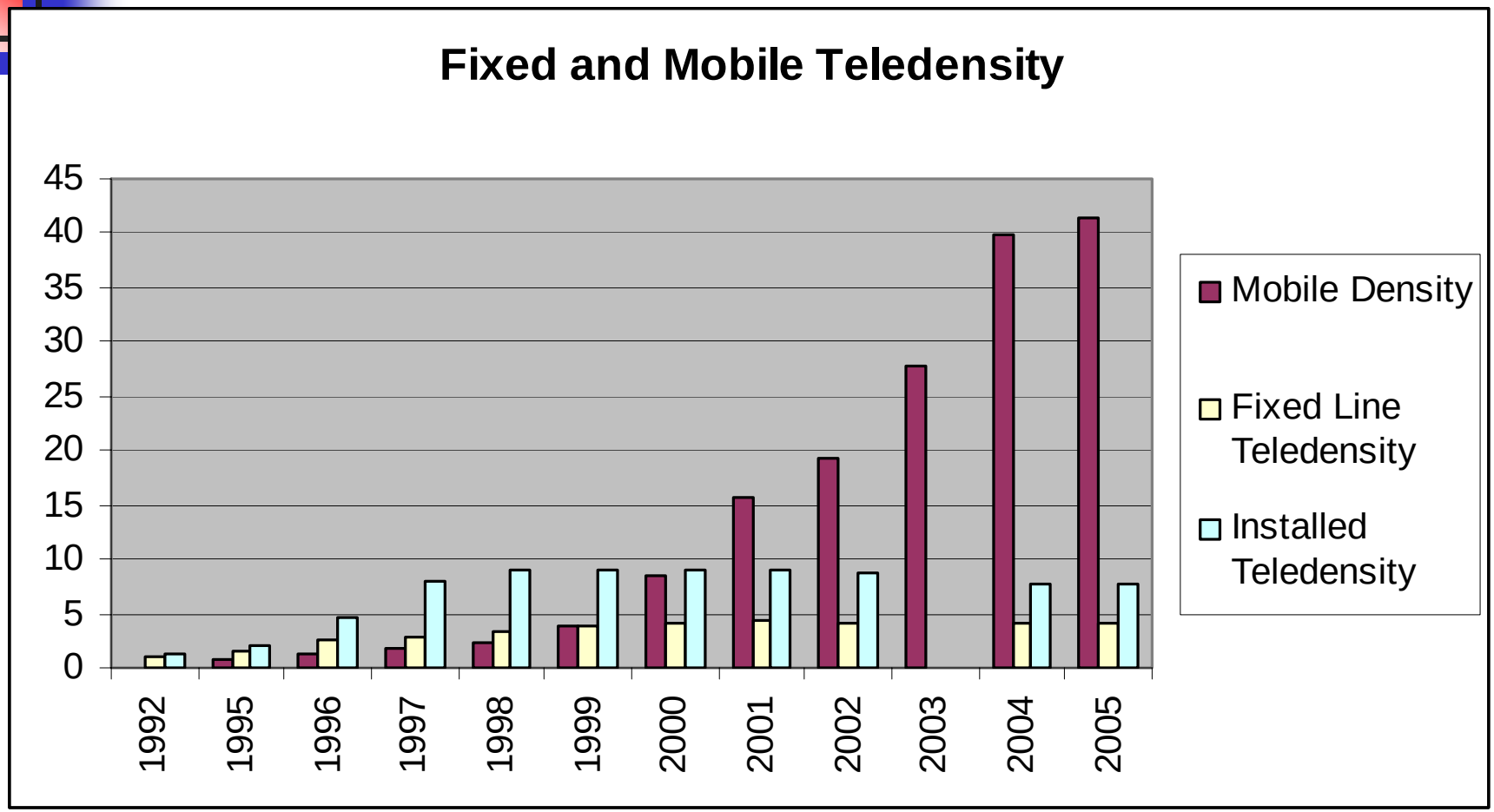
Presentation Outline

- Introduction
- Philippine ICT sector context and background
  - Reforms
  - The case of SMS use
- Applying the DOI to the Philippines
- Supplementing the DOI?
- Reflections and Conclusions

Pre- reform market structure

- Industry dominated by the Philippine Long Distance Telephone Company (PLDT), a virtual private monopoly owned by a politically influential family.
- + 60 provincial telephone co., a gov't phone system, and 2 international submarine cable co.

The Liberalised Telecoms Sector



Reforms

- Executive Order 59 – Mandatory Interconnection policy
- Executive Order 109 – Service Area Scheme
- Republic Act 7925 – Telecommunications Act of 1995

Post- Reform market structure

- 11 international gateway
- 7 mobile telephone – now 3
- 14 inter-carrier
- 74 local exchange services providers
- 382 VAS

Outcomes

- economic and social gains for both corporate and individual users
- telecommunications sector a growth engine for the country's development
  - provision of necessary infrastructure for economic growth
  - huge capital investments
- Provision of connectivity to Overseas Filipino Workers

SMS Explosion

- in the 1990s, analogue mobile phones
- Shift to 2G technologies and by 1999 GSM as technological standard
- Short Messaging Service (SMS) or texting first introduced in 1994 by Globe Telecoms as a free service
- SMS and mobile phones took off in 1999 when prepaid mobile services was launched with texting as a **free** added feature

SMS Explosion

- By 2005, mobile teledensity of 41.30
- Yet, mobile not used for voice calls but for text or data
- In 2005, an average of 250 million text messages sent per day (6 messages per person each day)
- In 2005, Smart, earned P36.8 billion (US$707 M) from data services, while voice services totalled P34.3 billion (US$ 659 M)

Why the SMS Explosion?

- texting is cheaper than voice calls : US 2 cents each SMS while voice calls cost between US 9-15 cents per minute
- Culture of sociability and keeping in touch
- texting allows for more privacy than a phone conversation
- boon to the 8-10 million overseas Filipino workers

Implications

- Texting the equivalent of email and instant messaging in a country where computer and internet penetration remains very low
- Texting now a vital and indispensable tool for daily communication whether for social relations, corporate or government transactions
- .. a formidable political weapon

Implications

- "People Power 2" as the *first e-revolution* -- texting as mobilising medium that was convenient, confidential, and instantaneous
- the same tool used for less lofty purposes—such as coup rumours and destabilisation plans—which are afflicting the current Administration

Applications

- texting government agencies to report crimes, polluting vehicles, or corruption;
- the use of SMS to book a movie ticket or an airline ticket;
- to guide rescue operations
- sending remittance money and passing on credit

Speculations

- “Text Capital of the World”
- Ready for 3G due to people’s adeptness and agility in using mobile phones?
- majority of Filipinos see their mobile phones as devices to send text messages, access information, play games, and other entertainment services-- not merely as telephones

Applying the DOI to the Philippines

- Some caveats: data unavailability
- Why?
  - Services yet to be launched or are still too young, eg. fixed broadband and broadband mobile usage
  - Very low use due to limited coverage and high cost

Sometimes data is available but...

- it is not collected by the regulator or the statistical agency;
- it is not reported by the telcos and other players
- frequency of data gathering is not the desired frequency
- measurement is not yet applicable to the country's context
- Lack of government funding

DOI for the Philippines, 2005

DOI	**0.36**
Opportunity	**0.93**
Infrastructure	**0.13**
Usage	**0.03**
World Rank	**94**

Opportunity = 0.93

- Percentage of population covered by mobile cellular telephony = 0.85
- Internet access tariffs as a % of per capita income = 0.98
- Mobile cellular tariffs as % of per capita income = 0.96

Infrastructure = 0.13

- Mobile cellular subscriber per 100 inhabitants = 0.38
- Proportion of HH with a fixed line telephone = 0.15
- Proportion of HHs with a computer = 0.08
- Proportion of HH with internet access at home = 0.04
- Mobile internet subscribers per 100 inhabitants = 0.003

Usage = 0.03

- Internet user per 100 inhabitants = 0.06
- Ratio of fixed broadband internet to total internet subscribers = 0.03
- Ratio of broadband mobile subscribers to mobile internet subscribers = 0

Observations

- Of the 11 indicators, 8 are available while 3 are not available:
  - mobile internet subscribers per 100 inhabitants
  - ratio of broadband internet subscribers to total internet subscribers
  - ratio of broadband mobile subscribers to mobile internet subscribers

High Opportunity

- High score in all three indicators that measure Opportunity:
  - a high percentage of population covered by mobile service
  - affordable mobile cellular
  - Affordable internet tariff
- A result of liberalisation

Low Infrastructure

- Very low score in Infrastructure indicators, except in mobile teledensity
- Low fixed line phone subscription
- Low PC ownership
- Low internet subscription at home
- Low/NA mobile internet subscription

Very Low Usage

- lack of updated information, the number of internet users per 100 inhabitants
  - ITU's TMG estimate is 6 per 100
  - 2003 NSO Functional Literacy, Education and Mass Media Survey (FLEMMS) survey says 20% of the country's population aged 6 years old and over (about 13.8 million Filipinos) use the internet as a source of knowledge and information, with 7.4% of the said users accessing information from the internet everyday.
  - Need a better picture of internet cafes and the telecenters for a more realistic calculation

Very Low Usage

- The high mobile subscription has not translated to more people using their mobile phones for the internet due to high cost of use and availability of internet capable handsets
- Is there a possibility of measuring data use and value added service or application use of the mobile phone that is beyond voice calls in the DOI?

Comments

- On usage -- commendable to use internet **user** as opposed to **subscriber**
- **User** is more inclusive than a **subscriber**, and does not imply or assume personal or household ownership of a pc and a phone.

Comments

- The DOI measures Infrastructure availability through personal or household ownership which are limited in developing country context
  - need to supplement the measure of infrastructure with public access points.
  - data availability a challenge

Comments

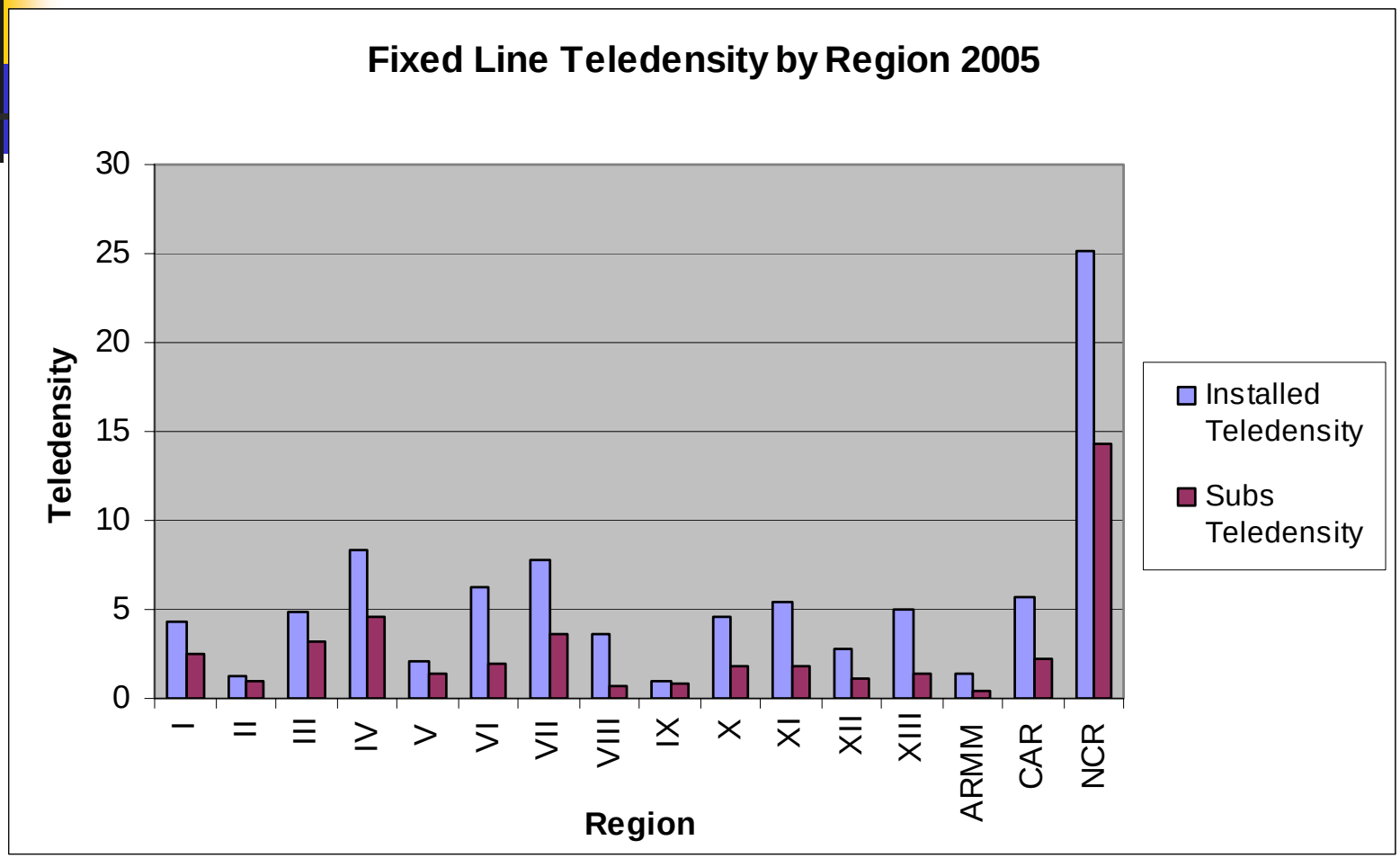
- The DOI seems to privilege mobile broadband technologies which are still not available in developing countries. Would implementing a benchmark that countries still don’t have unwittingly create another digital divide in the process?

Comments

- Why is fixed line cost not calculated as part of the Opportunity segment for the DOI given that it is part of the Infrastructure measure? What if strategies are hybrid and people decide to use mobile for voice/text and fixed line for internet? How does the DOI capture this?

Supplementing the DOI

- Household data in measuring the availability of Infrastructure, an improvement over individual access as category
- yet still do not fully capture the spatial character of the digital divide as well as the importance of public access points in developing countries


Fixed Line Teledensity by Region 2005
Teledensity
30
25
20
15
10
5
0
I
II
III
IV
V
VI
VII
VIII
IX
X
XI
XII
XIII
ARMM
CAR
NCR
Region
Installed Teledensity
Subs Teledensity

Supplementing the DOI

- Urban-rural and regional disparities are not captured when using household as the category level in measuring infrastructure
- using household level data also misses out on the role of public access points for communication needs in a developing country.

Supplementing the DOI

- Broadband fixed and mobile internet measured at the household level does not make much sense in a situation where these services are not yet available
- Need to count public access points but lack of data

Supplementing the DOI

- with its emphasis on broadband and mobile internet usage, the index misses out on measuring current 2G data applications which, in the case of the Philippines, have developed countless political, social, and economic functions.
- 2G services continue to be profitable... which is probably a reason for the slow deployment of 3G

Conclusion

- The DOI seems to have a bias towards broadband and wireless technologies that are not yet available in developing countries
- Is it relevant to measure a country's performance in something that it does not yet have?

Conclusions

- The DOI seems to assume that technology will always be used in the same way in different contexts
- Yes, social contexts shape what technologies people accept and how they use them-- path-dependence shaping further choices

Conclusion

- while using household-level data is a step towards a more versatile and context-sensitive measure, it must also be accompanied by other indicators

Conclusion

- the DOI -- important tool in measuring and generating comparative data that tracks progress in building an information society
- DOI must be complemented with local government level or regional level data as well public access points, not merely household level data

Thank you very much

for your attention!