The Internet Economy

As more firms integrate technology into their operations, lives are becoming increasingly digital as ICTs become increasingly pervasive.

What are the policies that need to be adopted to ensure that the digital opportunity does not become a digital divide?

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(A) What are the opportunities in the digital opportunity?

The transformation of businesses – especially B2C – greater business efficiency, more accurate matching of consumer needs to goods and services, easier entrepreneurship journey (less friction)

How did early Internet change business?

Early Internet History -- The Internet Economy then...

Empowering, exciting, (accidentally) entrepreneurial, experimental

C2C

- eBay "I can sell my stuff 2ndhand to you"

- ("surely there's a better, less risky way way to pay than bank transfers, or cash on delivery" -- PayPal)

- Yahoo! Auctions

Gave birth to the early Net-preneurs – BlogShops

- LiveJournal communities "I've got a great source of clothes/accessories, let's buy together" or "Buy from me"

- C2C, very personal connections; communications were over "stronger interpersonal ties" platforms like email addresses, SMS, phone calls deliveries to individual houses; hobbies suddenly became viable sources of income if you had enough passion

What were the drivers and limiters of the early Internet economy?

- The Dot-Com boom, driven by private sector offerings (usually international companies): "Freemium" Digital Tools available then – Hotmail, Geocities, LiveJournal, Xanga, Friendster, MySpace, "e-everything and e-@nything"
- Public sector decisions: telco liberalization, national policies on developing Internet availability – 56.6kbps modems, ADSL/DSL connections over copper
- Technology development: desktop-computer bound; limited individual computing power – empowering the unexpected "accidental entrepreneur"

[Early (hidden) adopters, experimenters in B2B – airports, warehousing, logistics, supply-chain management (think DHL, FedEx, UPS, SingPost and other postal systems, Amazon) – identified as the "just in time (JIT)" approach – these are trailblazers in today's digital economy discussions because they were the original "cross-sector enablers" – in their job functions as well as when seen in digital form]

What are the opportunities in the digital opportunity today?

Internet History: Present Day

C2C, B2C, B2B – easier to grow, faster to go to market, more accurate matching of needs to products, services

The transformation of businesses – especially B2C – greater business efficiency, more accurate matching of consumer needs to goods and services

What drivers and limiters are there in today's digital economy?

C2C – continues to be personal transaction in nature , but can quickly scale easily because freemium offerings are more readily available –
(1) platforms and marketplaces are nearly "anywhere" now (eBay, CraigsList, Hardwarezone, etc,
(2) easy/cheap to contact C2C – social media chats, messengers,
(3) payment – continues to be risky and/or expensive, oftentimes limited to domestic players,
(4) delivery – e-service delivery is easy, although quality is an issue; physical goods are still dependent on logistics and supply chains
-expectations are moving faster than delivery in many instances
-- easier move to entrepreneurship, the move from C2C to B2C

Where can we observe this so-called "business transformation" and efficiency gains?

o Greater business efficiency
- Outsourcing of administrative services – think of the growth of the BPO sector in the Philippines as a prime example
- Shared computing resources – business efficiency services from Microsoft/Office 365, Dropbox, Box, Google/Apps for Business, QuickBooks, Xero, WaveApps

o Better business matching opportunities
- GrabTaxi/GrabBike, Uber, AirBnB, FoodPanda, Grain

o Transformative power here – opportunities for local equivalents to fill gaps in the market which
(1) may not be commercially-viable for international companies;
(2) may not be known/observed yet.
- Some say "copycats" but these are very locally-tailored – see Ola in India, GrabBike in Thailand/Vietnam vs Uber in San Francisco, food courier services in Indonesia

Where are the possible digital divides? Where are the current challenges?

1. The Internet Connectivity Divide - No Internet, Poor Internet, Expensive Internet
  • Telcos – incumbent telco, liberalization and privatization (competition and efficiency), next-generation broadband and fibre – universal service delivery vs private sector business models (OTT conundrum lies here)
  • New ways of connecting

2. Device Affordability – From Desktops to Devices, from Mobile-First to Mobile-Only
* We need statistics from the private sector (eg smartphone purchases as a proxy for penetration, 4G subscribers etc)

3. Demographic Divide – young and the youth, silver generation – wither inclusive growth?

4. Educational Divide – programming in schools, the "tween" generation in their 30s, compounding literacy/language issues

Characteristics of the next lap of policymaking – by businesses, by countries, by non-govt actors, by regional groupings?

1. **Multi-stakeholder** – problems need crowdsourcing – not just the purview of one institute –
a. Challenge to govt to navigate the needs and pressures in the private sector
b. Challenge to pte sector – especially large companies which are incumbents, market share – to work towards some level of corporate responsibility for the mindshare they control
c. Challenge to policymakers and regulators must balance the management of business hegemony with the needs of citizens

2. **Nimble** – need to move fast, govts and policymakers – everyone in the room – cannot afford to rest on our laurels – we need a plan to work together, and we needed it yesterday

3. **Operational** – aspirations need to be operationalized into implementable steps – practical solutions

What are some challenges you think exist today? What are some priority policies you/your organization are willing to work on together with us?

Let's chat!
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Supplementary slides with statistics

(D) What are the policies that need to be adopted to ensure that the digital opportunity does not become a digital divide?

1. Prioritize access to **wireless networks** by extending them to unserved and underserved areas;
2. Ensure **affordability of network access;**
3. Prioritize **affordability of devices**, including ensuring that device distribution and retail networks are fully competitive;
4. Promote **infrastructure sharing and equal access**, especially where resources are dominated by one or two carriers, to protect smaller new entrants and maximize services competition;
5. Plan for and promote the **transition to IPv6**;
6. **Promote interoperability** via voluntary agreements or state-supported clearance systems;

*From "Unleashing the Potential of the Internet for ASEAN Economies" - ISOC and TRPC, 2015*

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7. **Build interoperability into all service delivery** by adopting open Internet standards, which allows devices, services and applications to work together across a wide and disperse network independent of the actual platforms they run on;

8. **Lead in using ICTs**—potentially starting with health, education and disaster risk management services—extending **inclusion to marginalized communities** considered 'uneconomic' by the private sector;

9. Recognize that populations are **mobile-centric** and adjust Internet access and national digital economy plans accordingly; and

10. Involve populations that are marginalized by gender or disability in the planning process and distribute resources and **capacity building** to enable greater access and participation.

From "Unleashing the Potential of the Internet for ASEAN Economies" - ISOC and TRPC, 2015

And ASEAN is ~~becoming~~ mobile-centric.
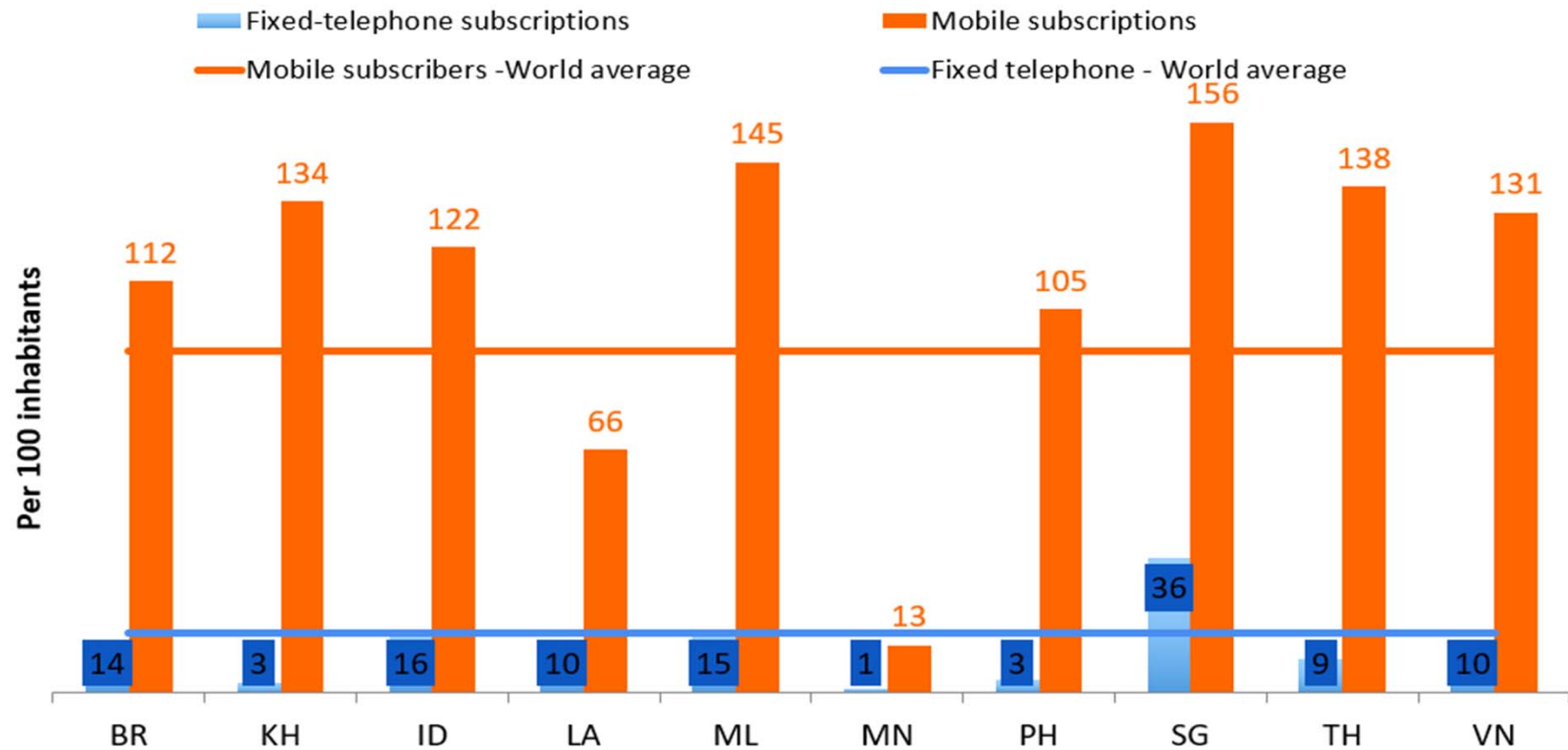
Source: ITU World Telecommunication/ICT Indicators database 2014

International bandwidth supply affects wholesale prices and national coverage.

Country	International Capacity per capita (kbps)	Fixed BB coverage	Mobile Wireless BB
Singapore	258.3	★★★★★	★★★★★
Malaysia	15.6	★★★	★★★★
Thailand	6.62	★★★	★★★★
Philippines	5.45	★★	★★★
Vietnam	5.15	★★★	★★★
Indonesia	1.03	★★	★★★
Cambodia	0.76	★★	★★
Lao PDR	0.38	★	★★
Myanmar	0.29	★	★
Brunei	n/a	★★★★	★★★

The resulting affordability varies greatly

Country	Fixed-BB monthly subscription (USD/ Mbps)	As % of GDP per capita	Affordability
Singapore	$1.7	0.04%	Affordable
Thailand	$1.3	0.30%	Affordable
Brunei	$52	1.60%	Moderate
Indonesia	$6.3	2.20%	Moderate
Malaysia	$28	3.20%	Moderate
Philippines	$11.7	5.10%	Moderate
Laos PDF	$35	25.50%	Expensive
Cambodia	$35	41.70%	Expensive
Myanmar	$100	138.20%	Unaffordable

Note: Broadband commission recommends the upper limit of 5% for communication expenditure as a % of GDP per capita (PPP)