



Using USF & other Financial schemes for Broadband Demand Creation

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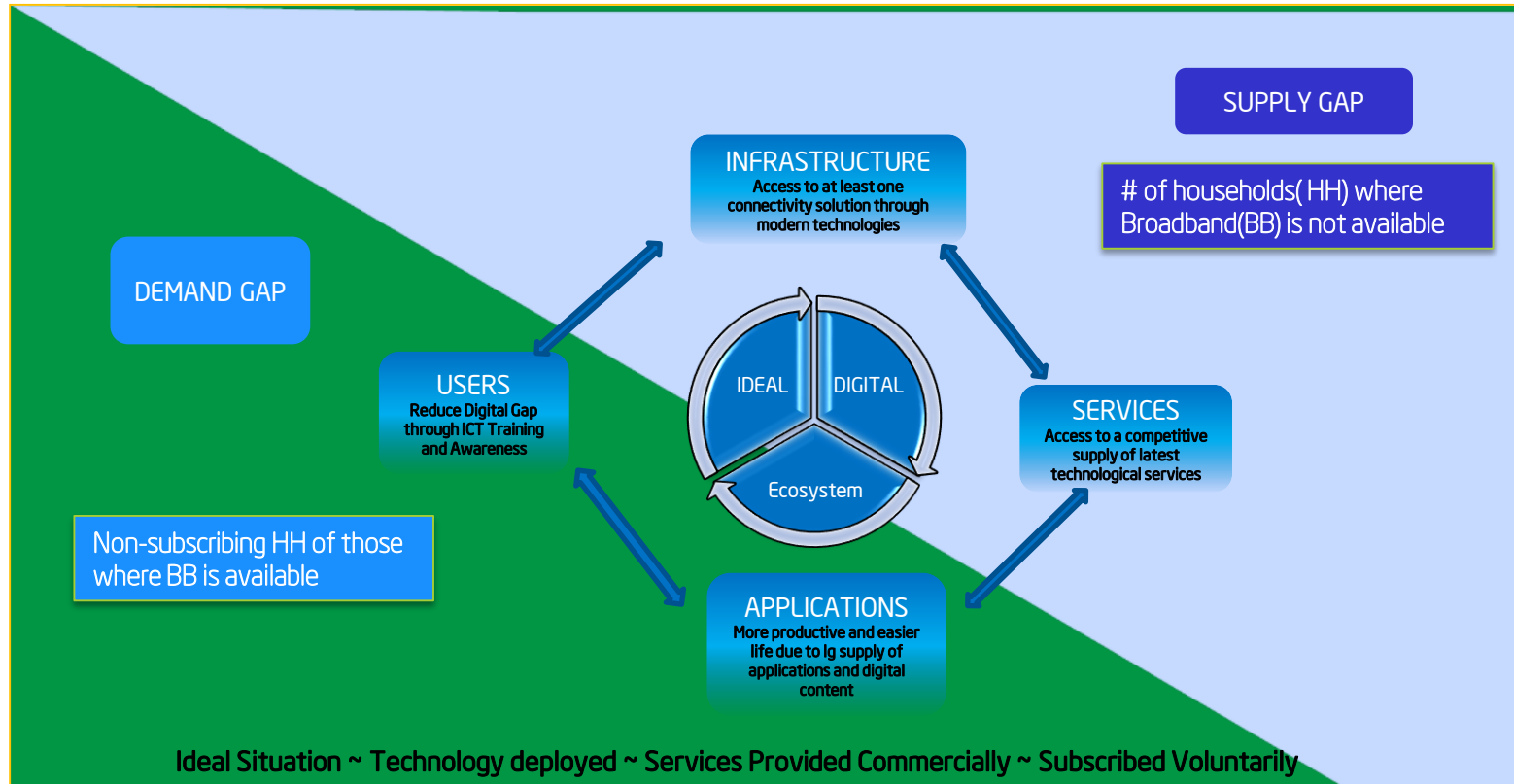
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Relationship Between Supply and Demand Gap



Source: World Bank "Building broadband Strategies and policies for the developing world", Enero 2012
Source: Driving Demand for Broadband and Networks and Services, " Dr. Raul Katz

Broadband Demand Gap

In social stratum levels 1 and 2 the main barriers are the high cost, lack of computer and the lack of usage knowledge

Why don't you have Internet at home?

- ✓ Affordability
- ✓ Awareness
- ✓ Ability
- ✓ Lack of relevance or interest

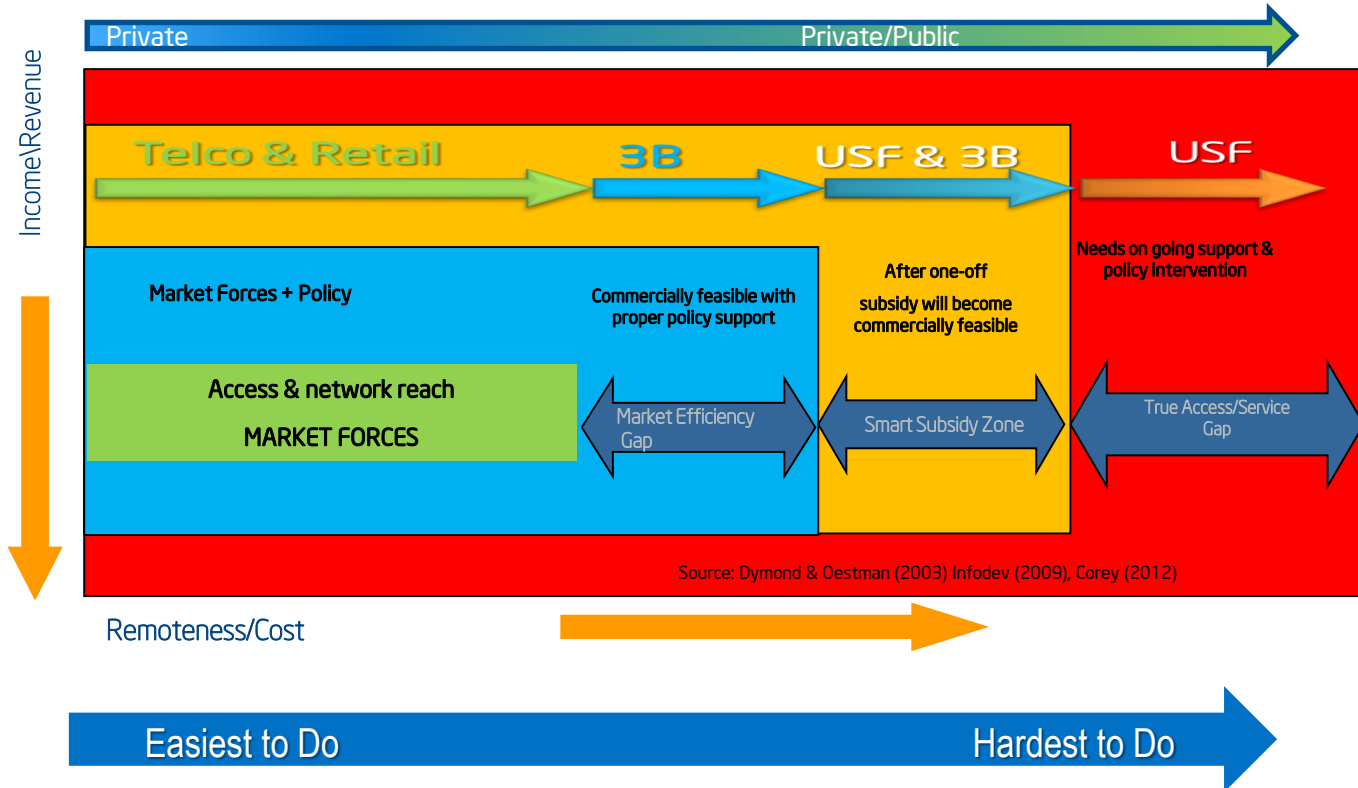


- ✓ Income Levels
- ✓ Education Levels
- ✓ Ethnicity

SOURCE: Market research for 2300 people of social stratum levels 1 and 2 in 43 municipalities, 2010

vive digital
Colombia

Program Assessment Framework
 Take the Market as far as possible...The State where needed



Source: Dymond & Oestman (2003) Infodev (2009), Corey (2012)

Strategies to promote Broadband Demand

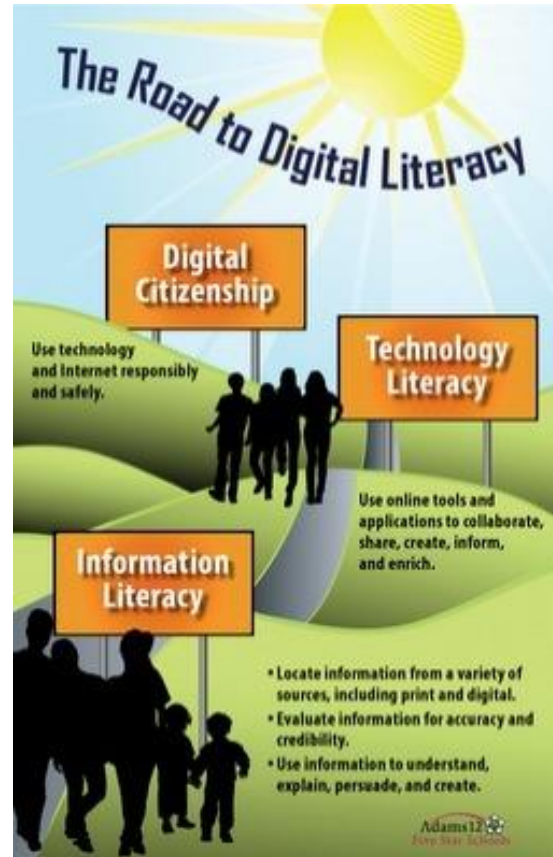
1. Setting up Adoption Targets to compliment Supply side Targets
 1. Marry coverage goals with adoption targets in terms of residential, social institutions, enterprises, public administrations.
2. National BB Plans have to identify specific policies to stimulate demand and bridge the gap
 1. Not Just Supply side
3. The sustainability concern – build in from the inception
 1. Program needs to continue until goals are reached
 2. Solid PPP's for Digital Literacy Programs for a higher chance of sustainability
4. Funding Mechanisms to reach Broadband and usage goals
 1. Market Gap Private side programs, Smart Subsidy, Tax Reductions ,USF, Spectrum Fee's, other Gov't subsidies.
5. Facilities based Competition – as far as the market can bear

Digital Literacy: Addressing the ability factor

What does digital literacy mean to you?

Digital Literacy is the ability effectively and critically navigate, evaluate, and create information using a range of digital technologies.

Digital literacy is a life long journey



Demand Creation: Motivation for technology adoption

“What do People want to use it for?”

Benefit of Personal/ Family Advancement



Education

Furthering your education, your career and providing benefits for the whole family



Connection

Staying connected to your friends, family and to what's going on in the world



Entertainment

Having the ability to access a PC anywhere, anytime for convenience and to keep your data safe

Lets Look at Market Gap and Smart Subsidy Demand Creation Programs that Transform



Addressing Affordability through Market gap Program

BB cost represents 2/3 of overall cost

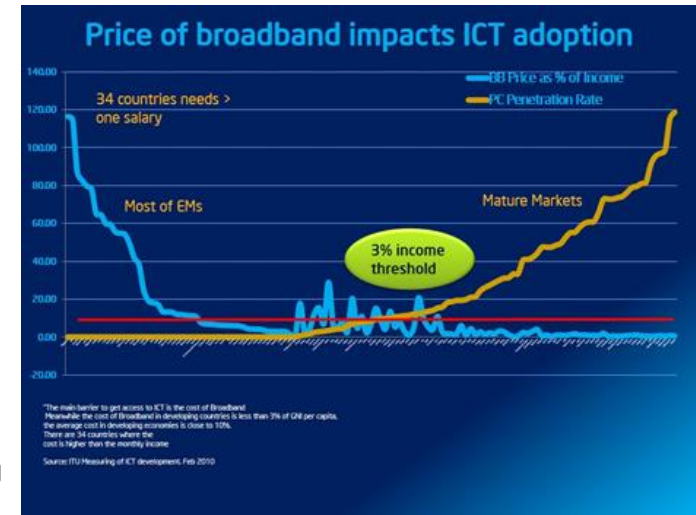
Apply pre-paid business model to Broadband

Provide the appropriate device

Relevant Local Content and Training

Model is sustainable because is in Telco's interest

Need to address Affordability and Desirability



2012 BB Commission report

Education is #1 family motivation for technology adoption



Prepaid Broadband helping Education across 4 GEOs

Internet for Everyone - Indonesia

Background

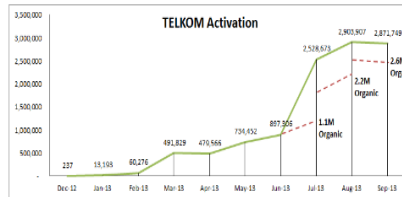
- 17,500+ islands, cost \$23.2B to implement NBP 2014-2019
- Broadband cost ~2/3 of PC + access over 3 years period
- 98% pre-paid subscriber with sachet business model for data:
 - Daily BIS for blackberry
 - Daily Internet rate
 - Day/Night quota segmentation



2013

FREE Wi-Fi Card for 6-mo Internet Access for any iA Laptop

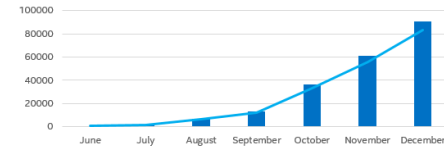
- Bundle with iA Laptop – built in Wi-Fi
- Cost Intel \$0.24/u for 6-mo 120 hr + 240 hr with \$0.50 top-up “Telkom” hot spots
- ~1M new subscribers to “Telkom” Wi-Fi business in first 3 months



2014

FREE SIM Starter Pack with 6-mo 12GB 3G Data for any iA Tablet

- Bundle with iA Tablet with 3G (Fonepad)
- Cost Intel \$2.5/u for 6-mo 12GB + unlimited WhatsApp + Free 6-mo 7 e-magz subscrp.
- ~100K new subscribers to “Indosat” 3G by Dec and counting up to April 2015



BB Usage schemes making it affordable

Example: Senegal College Student Program 2013

10x Increase in ownership 20,000 PCs



Senegal

<u>Concept</u>	<u>Before</u>	<u>After</u>
Laptop (prior to duties) 3 options..	~\$400	~\$270
Import duties on Notebook (30% went down to zero)	~\$120	\$0
Interest rate (1 year loan Reduced 14% → 5%)	~\$80	~\$13
Internet cost (Pre-paid offer for students)	~\$640	~\$46
Subtotal	~\$1,240	~\$430
Government subsidy (50% of overall cost from USF)		~\$215
Cost to students	~\$1,240	~\$215
Monthly payment fee for students (all students qualifies)	~\$100	~\$16

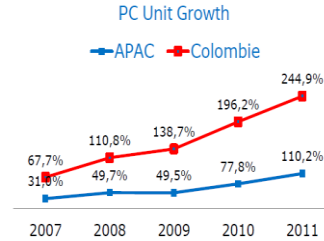
- Increased Volume, prices moving lower
- Import duties from 30% to zero
- \$1.5M Worldbank loan Guarantee to banks, all students
- Internet pre-paid, special for college students
- Government USF subsidy 50% of overall cost.

2,000 Students 2012 → 20,000 in 2013 with program

Smart Subsidy: Tax Reductions on ICT to Stimulate Demand

Colombia

- Colombia provides a particularly compelling example of the economic impact of PC tax relief, both because the country has eliminated its VAT on PCs for multiple years and because a consulting firm (IDC Colombia) conducted an in-depth analysis of the economic effects of the VAT exclusion.
- In 2007, Colombia reduced its 16 percent VAT to zero for the majority of PCs. The IDC analysis found that the tax reduction facilitated:
 - > A 110% increase in PC sales revenue from 2006 to 2008.
 - > A 83% tax revenue benefit for 2007 and 2008
 - > A 466% growth in Internet use from 2005 to 2008.



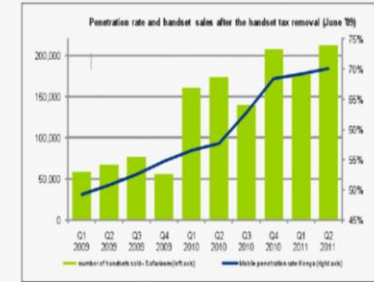
Turkey

- In 2009, Turkey's government provided \$100 million in financial support for ICT purchases by small and medium businesses, in addition to reducing the VAT on PCs from 18% to 8% for three months.
- By June 2009, just three months after the VAT was reduced, the benefits predicted by the ICT Economic Model were evident:
 - Increased nominal tax revenue for the government
 - Increased demand for ICT-related purchases due to favorable public responses to the price reductions
 - Greater local PC production, which increased 4.3% in April 2009
- Shortly after the initial three-month period expired, the policy's success convinced the government to extend the VAT reduction an additional three months.
- Turkey's ICT Economic Model is now being used to evaluate other stimulus-program options such as providing cash rebates to first-time PC buyers and subsidizing the cost of broadband for PCs purchased by teachers.



Kenya

- The cost of access has been widely recognized as a barrier to adoption and, in recognition of this, the Kenyan government exempted mobile handsets from VAT in 2009.
- In the three years following, the VAT reduction contributed to an increase in handset sales of 200% and a penetration rise from 50 to 70%.
- Over the same period, the contribution of mobile telephony to the Kenyan economy grew by almost 250%, while mobile-related employment has increased by 67%.
- Combined with wider market price reductions, the VAT exemption helped to increase access to a wide range of mobile services, with mobile usage increasing by 113%. This has been recognized as improving economic growth, productivity and economic/social equality.
- More recent government proposals to re-introduce VAT across the ICT sector have caused widespread concerns around the negative impact on rural poverty, mobile penetration and economic growth.



India

- Prior to the tax reduction, the ~40% local tax on PC was the highest in the Asia Pacific region and one of the highest in the world. The heavy tax burden was constraining the growth of the market with PC penetration tottering at less than 1% (less than 10 PCs for 1000 people).
- The Finance Minister announced a cumulative 19% tax slash on computers in February 2004. The sharp duty reduction placed India on par with other countries in the region.
- The significant duty reduction made PCs more affordable and helped boosting their sales in India with a record 37% year-on-year growth in 2004.



Mexico – smart Subsidy

CompuApoyo:

- Mexico program to bridge digital divide by delivering a PC + BB + Content (~\$550M USD from MoC)
- Thru a subsidy for the PC (\$80 USD), warranty fund to lower the interest rate (from 24% to 12%),
- Accessible broadband (from \$16 to \$8 USD, and 100% paid by the Gov for 3 months)
Delivering 70K public places with free Internet access (schools, hospitals, public buildings, parks, squares, etc.) and content for digital literacy and ICT relevance.



Presidente Felipe Calderón
3/6/2012

Government goal: 1.7Mu PC growth and ~15% BB penetration increase)

<http://www.compuapoyo.gob.mx/>



Broadband acceleration and Education Transformation through USF Zimbabwe

- Postal and Telecommunication regulatory Authority of Zimbabwe(POTRAZ)

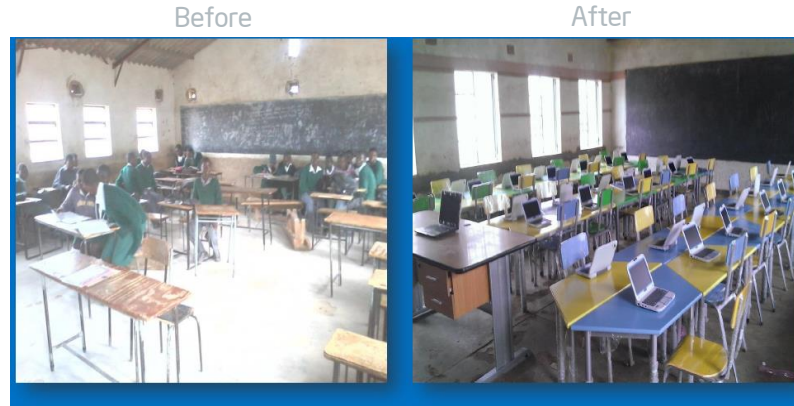
- Traditional USF were limited to universal access and connectivity
- PPP Initiative “Connect a School Connect a Community”
<http://connectaschool.org/>
- Bridge the Digital Divide using a holistic education transformation model
- \$10 m USF funding

- Program Sponsor – Office of the President

- Partner – eLearning Zimbabwe

- Scope – equipping 110 Schools/2,000 teachers/18,000 students

- 40 x Classmates, 40 Pentium Laptops, 10 I5 Teacher Laptops
- Education Appliance
- Trolleys
- Localised content from Leanthings
- Projector
- Solar powered system to run above
- Intel Teach Getting Started for teacher professional development
- POC done prior to tender



Click the link below to watch the video about the initiative



<http://we.tl/dUk33scG1K>

Colombia: 4 different strategies for device promotion

Vive Digital hits target of 8.8 million broadband users ahead of schedule

21 May 2014

Colombia

Colombia's Ministry of Information Technology and Communication (MinTIC) has announced that its 'Vive Digital' campaign has exceeded its target of increasing broadband subscriptions to 8.8 million, reaching its set goal ahead of its end-2014 deadline. ICT Minister Diego Molano Vega revealed that the strategy, which was launched in 2010 when there were just 2.2 million broadband connections, will see high speed broadband made available in all municipalities by the end of the year. 'Earlier this government only about 200 municipalities were connected to high speed internet, today more than 928 municipalities already have fibre-optics and in 2014 1,078 municipalities will be part of this network.' As well as assisting with the funding of national infrastructure projects, the Vive Digital plan has subsidised broadband services for 1.6 million low-income families, including providing or assisting with the purchase of devices. Further, the ministry has provided nearly two million computers and tablets to schools since 2010.

Colombia, Ministry of Information Technology and Communication, Broadband

vive digital
Colombia
300 mil millones
para subsidios de
Internet y
computadores en
estratos 1 y 2

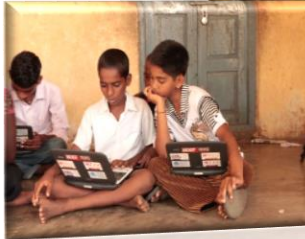


Vive Digital Program 2013-2014	BB + PC subsidies	4G auction tablets	Tablets for education	VAT + Tariff exemptions
Public budget	\$70 M. USD	0	\$80 M. USD	Revenue positive
Private budget	0	\$80 M. USD	0	0
Scheme	Subsidy to telco BB contracts	4G spectrum license obligation	Government reverse auction	VAT and tariff for PC under 500 USD SPP
Total Units	300k	560k	350k	2 Mu*
iA units	120k	40k	0k	1.6Mu

*Source: IDC

India's National Digital Literacy Mission

Follow the Fiber



NDLM Goals
Increase awareness on Usage models and Impact of technology
Accelerate public private partnership



National Digital Literacy Mission



Follow the Fiber Program

3 villages, Follow the fiber
100%+ individuals impacted

Scale ,focus on
adoption



Digital Literacy

11 cities, 10 partners,
450+ volunteers
16000+ individuals

Scale Digital Literacy
Week



Digital Literacy

Portal ready, content form Google, Intel
and Microsoft

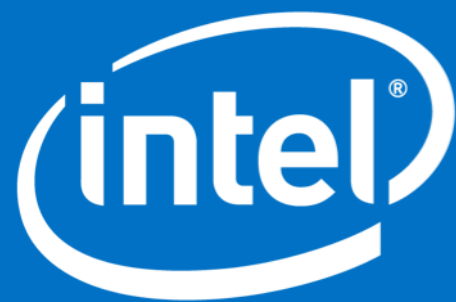
Content Stack, online
communities,

Significant Engagement with the Govt of India to drive common objectives

Summary

- ✓ The end game is adoption, not just supply
- ✓ National BB Plans have to identify specific policies to stimulate demand and bridge the gap
- ✓ Use all financial options available;
 - ✓ Market Gap, Smart Subsidy, Tax Reductions ,USF, Spectrum Fee's, other Gov't subsidies.
- ✓ Education transformation is one of the best options available for demand creation programs
 - ✓ Train Emerging Workforce, child-family training, maximizes local jobs & consumer surplus
- ✓ Public Private Partnerships with Gov't, Telecoms & Industry for sustainability
- ✓ There is a cost for Doing Nothing.....

Thank you!



Role Models of USF usage



Portugal – First 1 -1 Education, 3G funded



Turkey – Biggest 1 -1 Education -USF funded



Senegal – University PC, USF subsidy



Nigeria – Early adoption of PCs in Schools



India – PC Literacy, rural services



Venezuela – Rural PC penetration



Colombia – Low income citizens, education



Malaysia - > 1.5m netbooks w/bb low income students