การรู้สารสนเทศในโลกยุคดิจิทัล:
นโยบายและมุมมองในมิติเทคโนโลยีสารสนเทศ
งานประชุมวิชาการประจำปี 2556 สวทช

1 เมษายน 2556

กษิติธร ภูภราดัย

ฝ่ายวิจัยนโยบาย

สำนักงานพัฒนาวิทยาศาสตร์และเทคโนโลยีแห่งชาติ

Presentation Outline

- "Information" in the digital world
  - The amount of information production and consumption
  - The speed of information flow
  - User-generated contents – Information producer vs Information consumer - Prosumers
  - Unrestricted access by youth
  - Information and Media Manipulation
- Thailand ICT Policy and Initiatives
- ASEAN ICT Policy of ASEAN
- Challenges

Information in the Digital World

ICT impact

- The amount of information production and consumption
- The speed of information flow
- User-generated contents – Information producer vs Information consumer - Prosumers
- Unrestricted access by youth
- Information and Media Manipulation

Global numbers of individuals using the Internet, total and per 100 inhabitants, 2001-2011

- Individuals using the Internet (in millions)
- Individuals using the Internet per 100 inhabitants
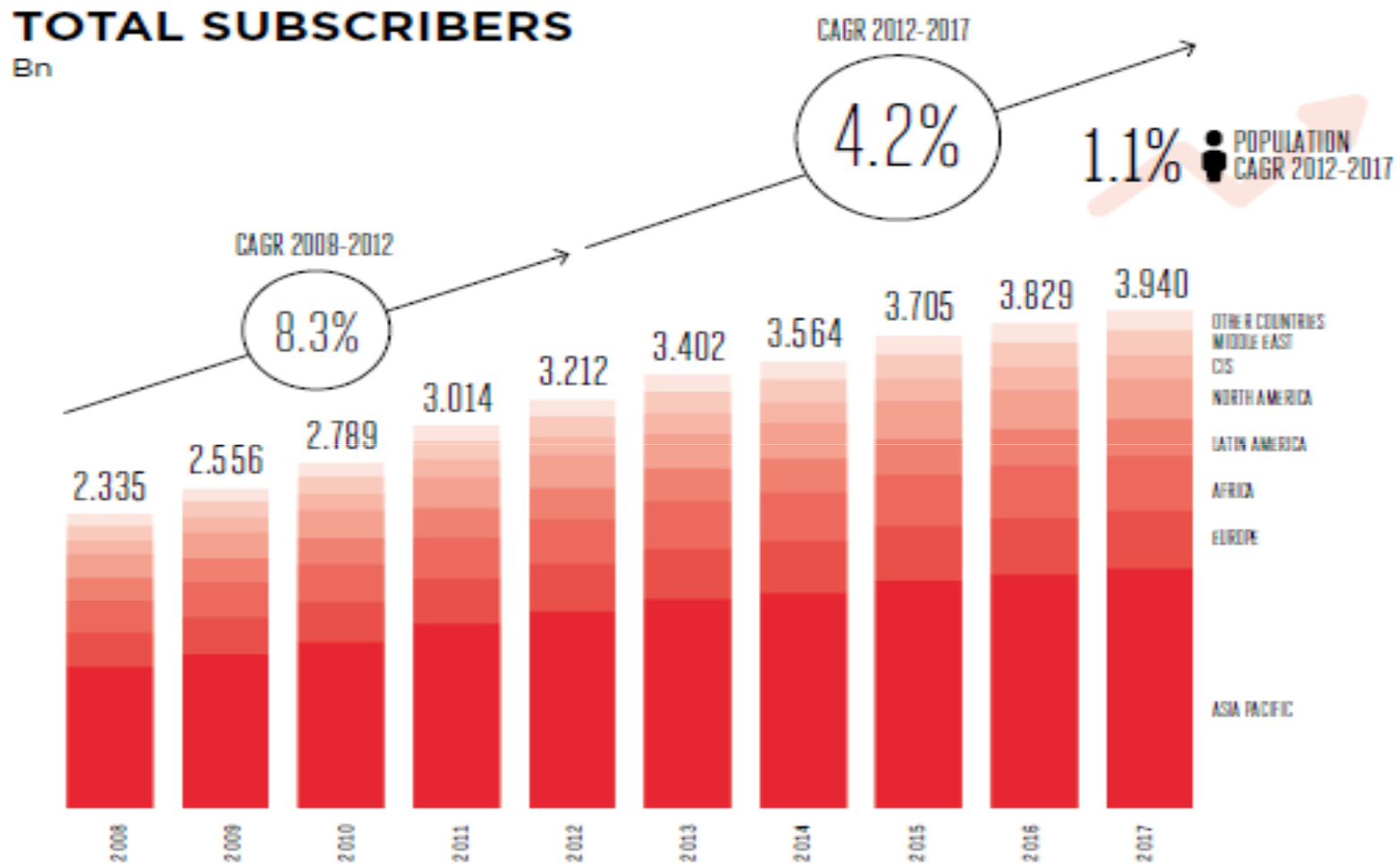
Source: http://www.itu.int/ITU-D/ict/statistics/
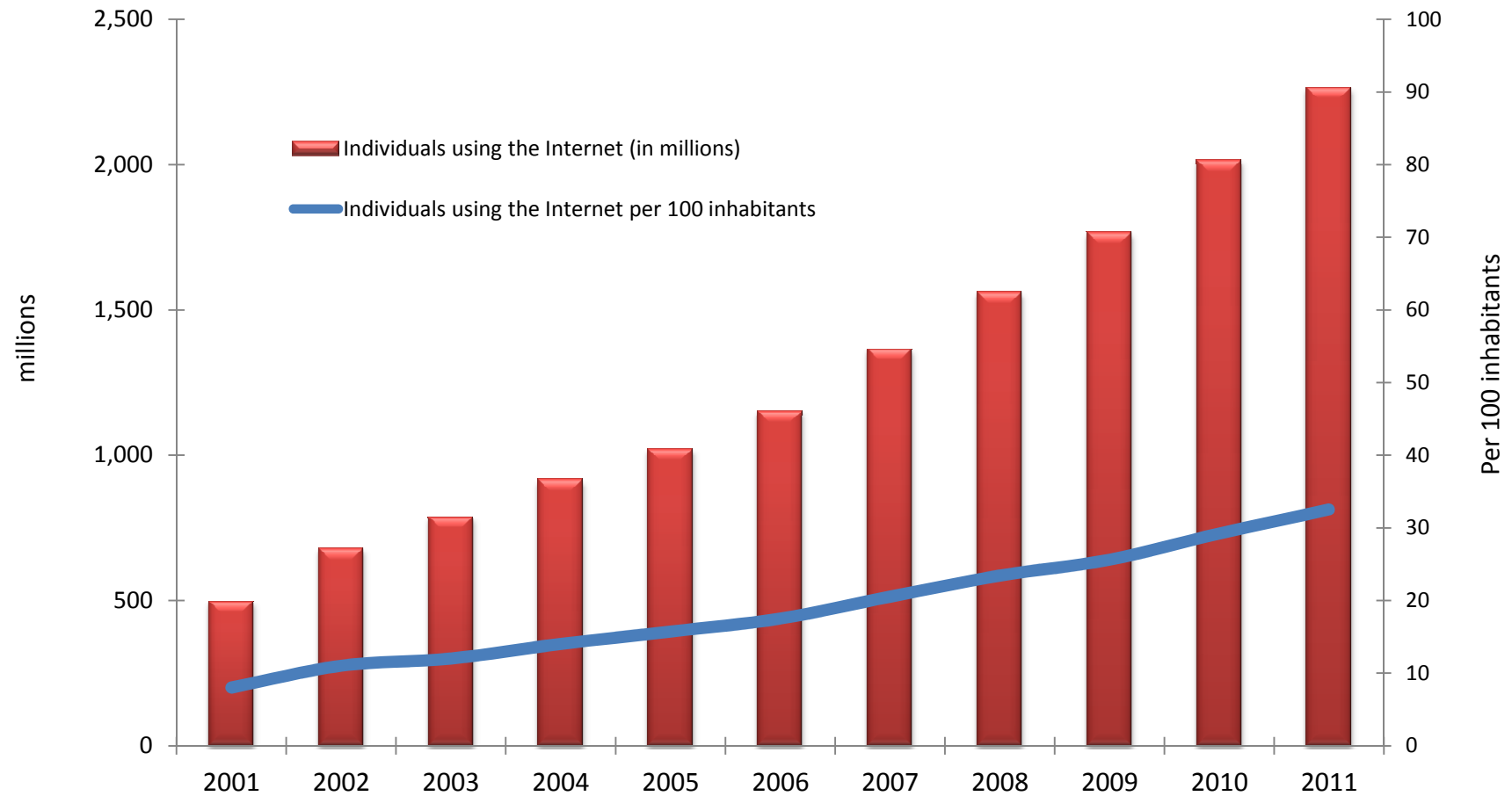
Fixed (wired)-broadband subscriptions per 100 inhabitants, 2001-2011
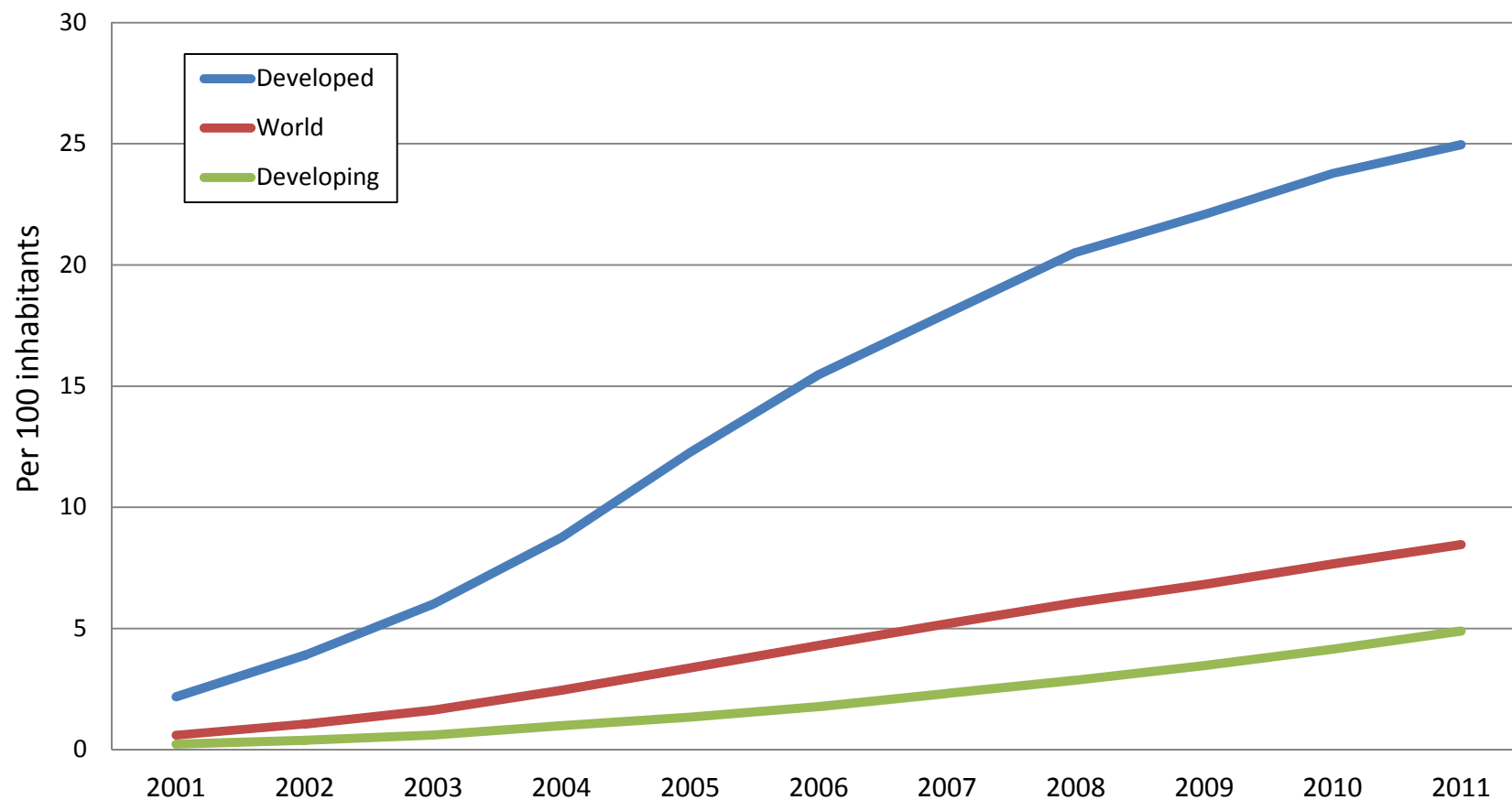
The developed/developing country classifications are based on the UN M49, see:
http://www.itu.int/ITU-D/ict/definitions/regions/index.html
Source: ITU World Telecommunication /ICT Indicators database

Source: http://www.itu.int/ITU-D/ict/statistics/

The Growth of Mobile Communications

TOTAL SUBSCRIBERS
Bn

CAGR 2012-2017

4.2%

1.1% ● POPULATION CAGR 2012-2017

CAGR 2008-2012

8.3%

2.335 | 2.556 | 2.789 | 3.014 | 3.212 | 3.402 | 3.564 | 3.705 | 3.829 | 3.940

OTHER COUNTRIES
MIDDLE EAST
CIS
NORTH AMERICA
LATIN AMERICA
AFRICA
EUROPE

ASIA PACIFIC

2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017
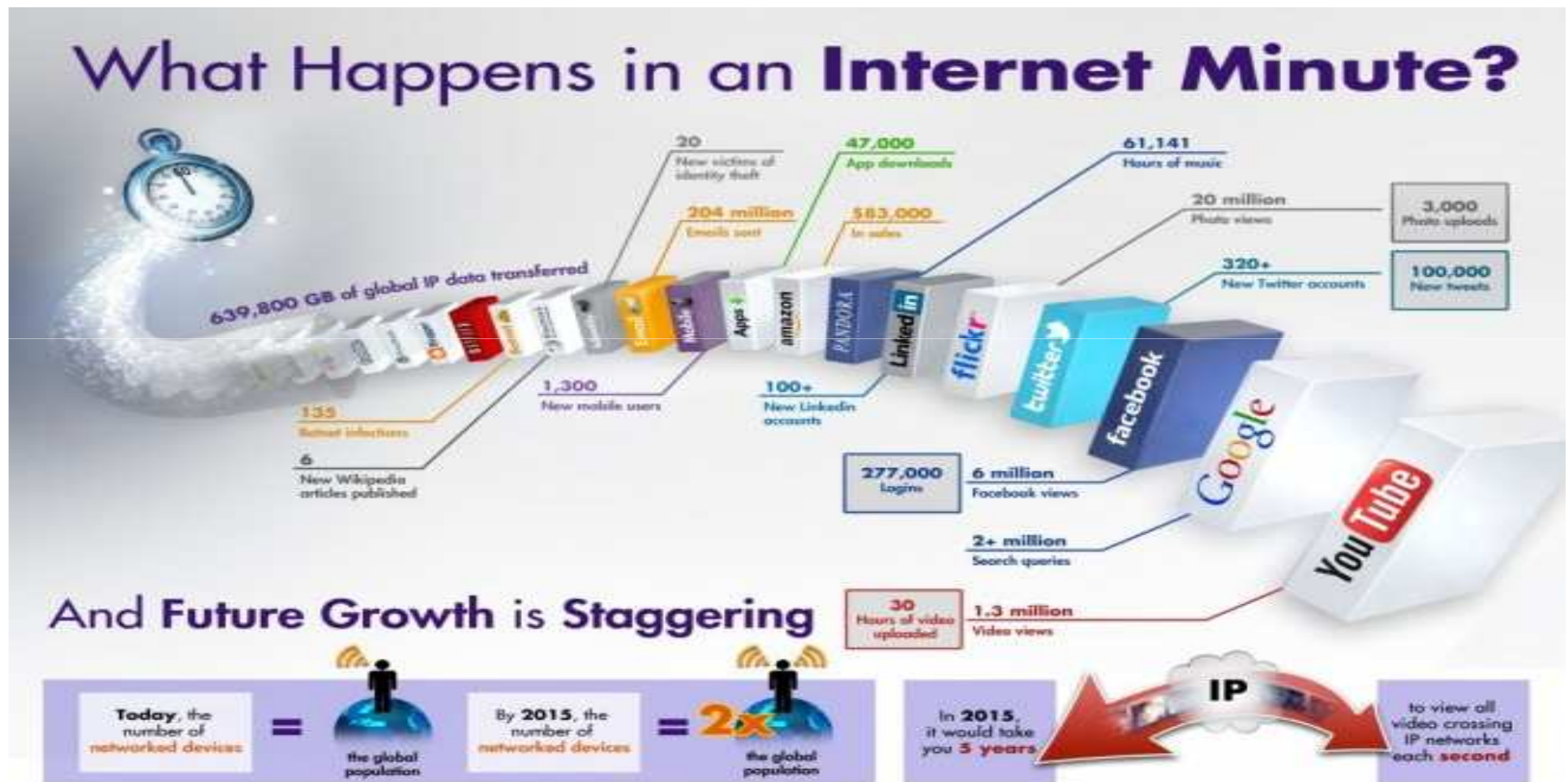
Source: The Mobile Economy 2013

From Voice to Data Communications
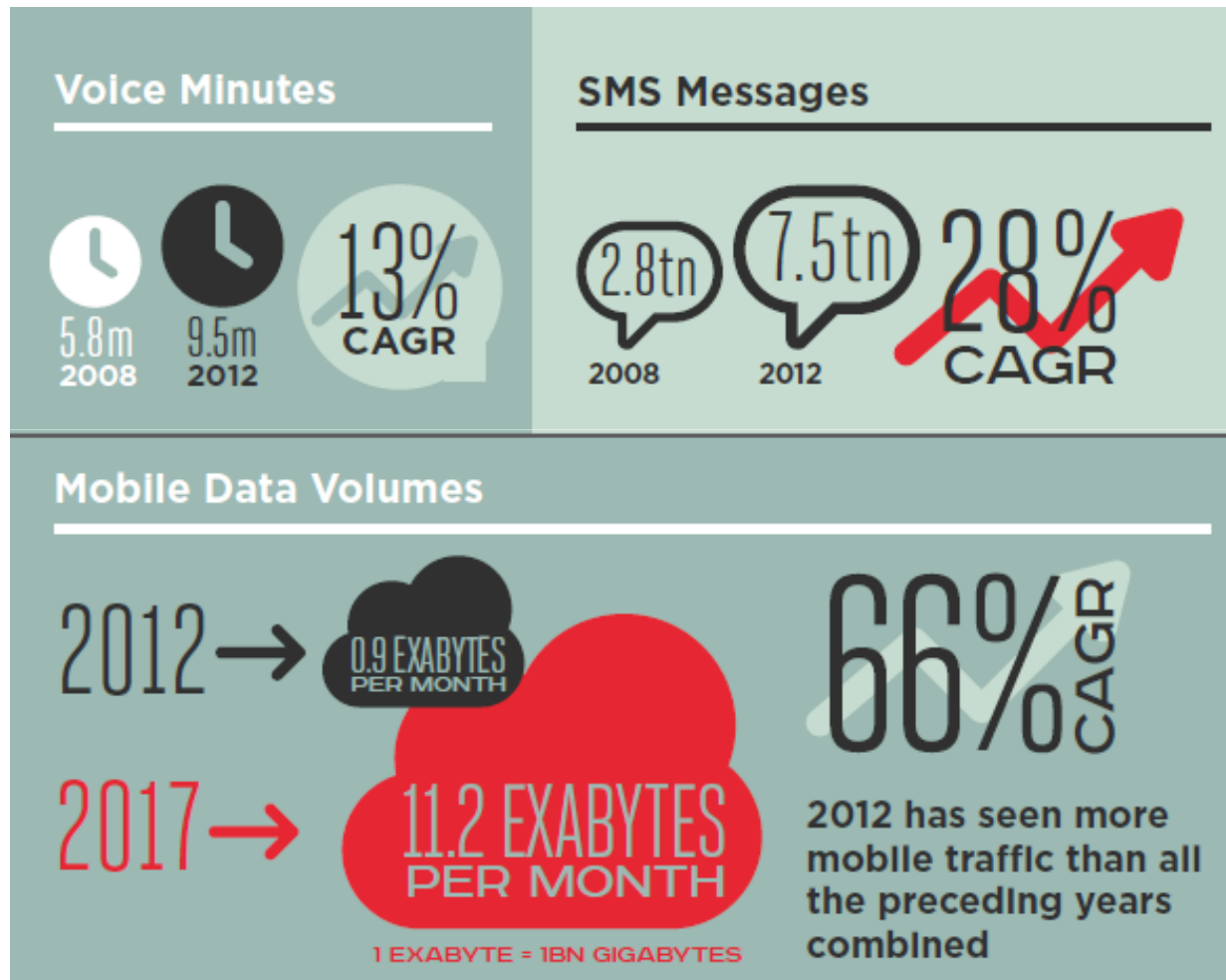
Source: The Mobile Economy 2013

Information Consumption in Digital Era

Source: http://scoop.intel.com/what-happens-in-an-internet-minute/

Growth of Data – Storage Needed
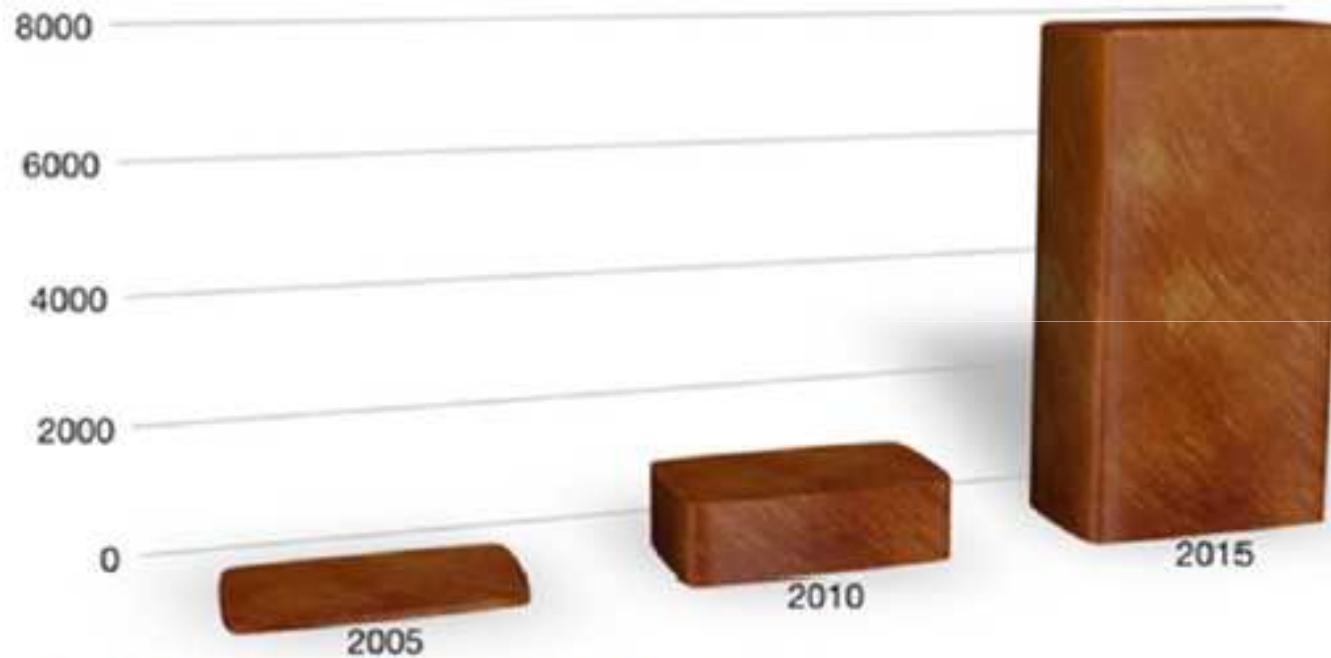
Source: IDC (2011), Extracting Value from Chaos

Internet is not a secure place

- Pornography
- Violent Games
- Gambling
- Meeting with strangers

Case from Internet for Development Foundation

An eight-years old boy, with two friends who were 11 and 12 respectively, played games at Internet café in 2008. They observed and joined a group of teenagers watching porno. After that, they seduced a seven years old girl, who happened to be in the same Internet café to "play the game" they saw on Internet. This game went on for around 3 time before the boys invited more friends to play along, some refused to do so and the whole story broke out to the girl's parents.

Table 2: Online risks encountered by children

% who have	Age				All
	9-10	11-12	13-14	15-16	
Seen sexual images on websites*	5	8	16	25	14
Been sent nasty or hurtful messages on the internet*	3	5	6	8	6
Seen or received sexual messages on the internet*	n/a	7	13	22	15
Ever had contact on the internet with someone not met face-to-face before	13	20	32	46	30
Ever gone on to meet anyone face-to-face that first met on the internet	2	4	9	16	9
Come across one or more types of potentially harmful user-generated content*	n/a	12	22	29	21
Experienced one or more types of misuse of personal data*	n/a	7	10	11	9
Encountered one or more of the above	14	33	49	63	41
Acted in a nasty or hurtful way towards others on the internet*	1	2	3	5	3
Sent or posted a sexual message of any kind on the internet*	n/a	2	2	5	3
Done either of these	1	3	4	8	4

EU Kids Online

Media & Politics in Thailand

Everyday mass media are conveying ideological and value message to the audience, therefore having serious social and political implications for a country with **ongoing political crisis** like Thailand

Both traditional media (newspaper, radio, television) and non-traditional (online newspaper, satellite TV, Internet TV, social media) in Thailand are now fanning political issues to support their causes and (many times) their financial backers. On the audience side, **stereotyping of audience, heavy viewing of highly-biased media and hate speech have become common**.

Can we trust information in the Digital World?

- Social media is an open platform where anyone can join and set up their own account, as Facebook revealed this year that 8.7% of Facebook account are fake (Ullah Hassan, 2012)

- Cases of persons impersonating high-level public figures (The Hindu, August 24, 2012).

- Case of the US government creating and manipulating fake Facebook accounts to steer public opinions (WebGuild, March 3, 2011).

Initiatives in Thailand

ICT Development Program

Flagships and Infrastructures in IT 2010

Economy		Society
e-Industry e-Commerce	**e-Government**	**e-Society e-Education**

Science and Technology, R&D, Knowledge

Information Development, IT Literacy, IT HR

Telecommunication Infrastructure

Quantity		Quality
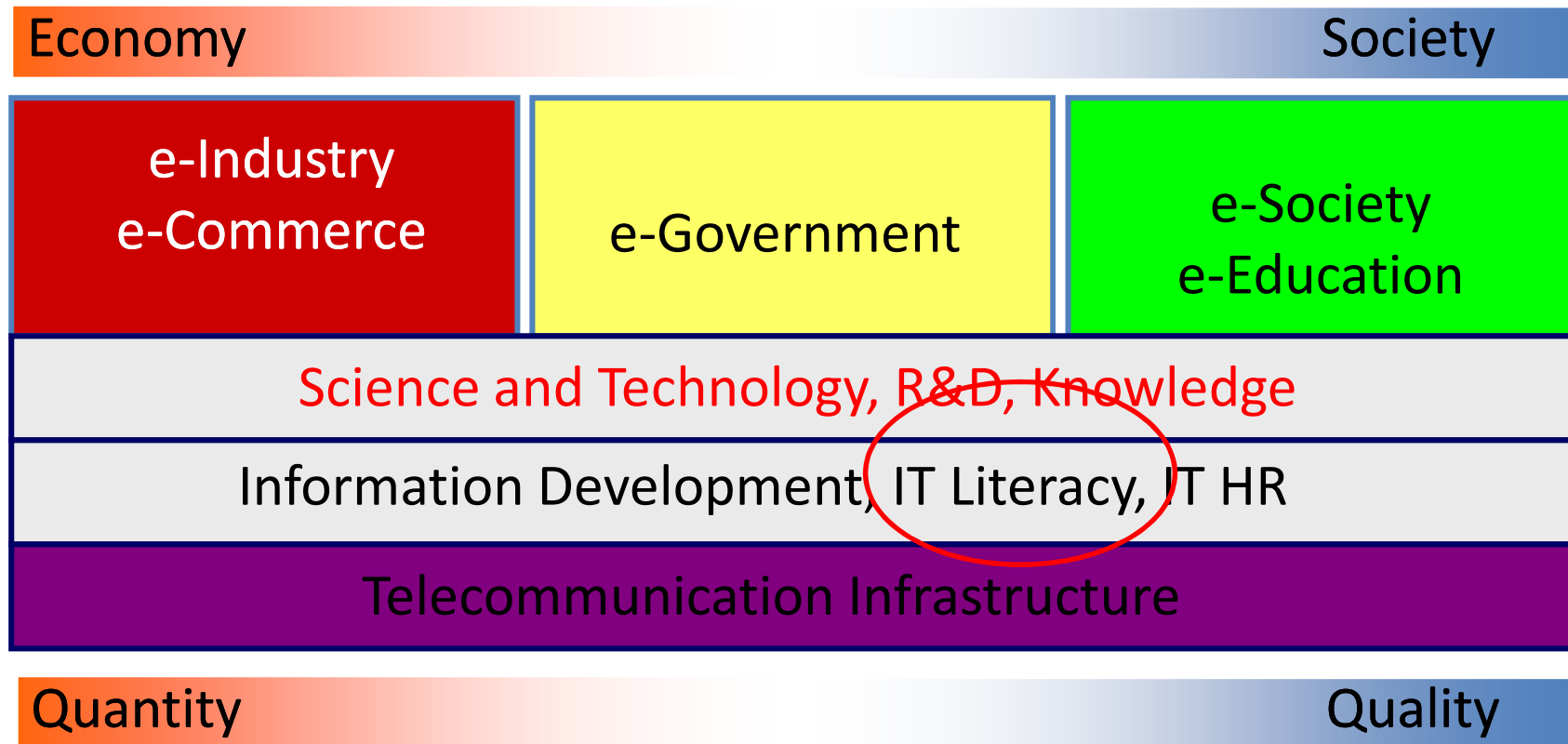
MIL in the 2nd ICT Master Plan only IL

- Goal: 50% Information Literacy rate
- refers to UNESCO conceptual framework as guideline: It is the capacity of people to (i) recognise their information needs; (ii) locate and evaluate the quality of information; (iii) store and retrieve information; (iv) make effective and ethical use of information, and (v) apply information to create and communicate knowledge.
- Measures focus principally on the children in formal education,
  - extend the scope of existing measures that schools need to provide ICT or technical skills for students to learn how to use computer and Internet.
  - the upgrade in ICT skills of teachers should be undertaken in conjunction with curriculum reform to improve skills in thinking, analyzing and problem-solving by using ICT as a tool.
  - Ethics of using ICT should also be taught as part of the required curriculum at all levels.

MIL in ICT2020

- Goal of ICT2020 mentioned only the information literacy to maintain consistency with the Master Plan, but its strategies and measures include the 3 Ls which are media literacy, information literacy and information technology literacy.

- Measures in ICT2020 also focus on students in the formal education including the need to create opportunities in accessing and using ICT in education for children and youth in order to prepare the future workforce to have knowledge and skills in using ICT.

  - Content or curricula should be improved at the primary and secondary level, particularly content which builds skills in using ICT in a manner suitable for learning, living and working in the 21st century.

  - Curricula and content concerning values and ethics of ICT usage, along with knowledge, understanding and awareness about the impacts of ICT on the environment should be introduced in all grades.

  - Secondary and tertiary educational institutions at all levels should have testing in basic ICT literacy as well as English language before students graduate, to ensure that all secondary and tertiary graduates have a command of ICT and English at an acceptable level that is comparable with international standards.
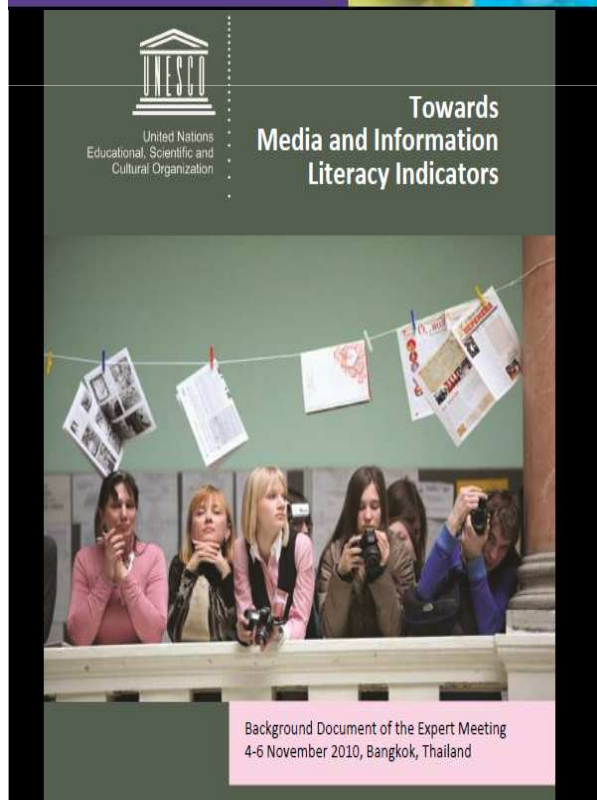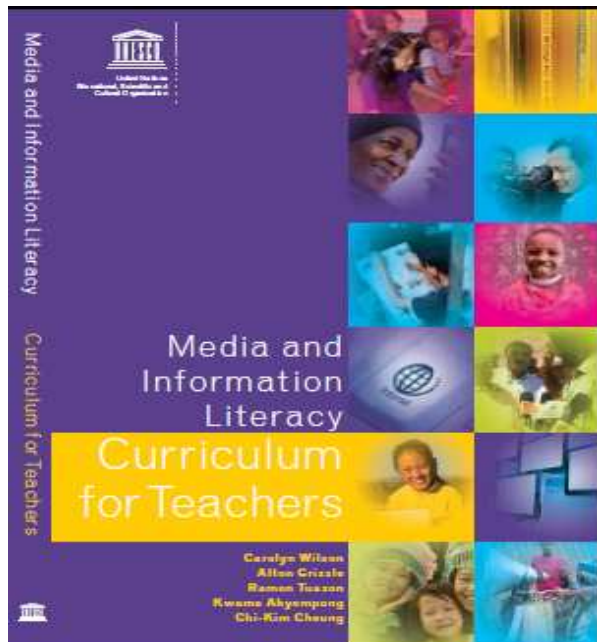
Driving MIL internationally: UNESCO

FEZ DECLARATION ON MEDIA AND INFORMATION LITERACY

- Reaffirm their commitment to initiatives relating to MIL for All
- Dedicate a week as World Media and Information Literacy Week (proposed that this should be celebrated on 15-21 June every year)
- Integrate MIL in educational curricula both in the formal and non-formal systems, in order to (i) ensure the right of each and every citizen to this new civic education, (ii) capitalize on the multiplier effect of educators to train learners for critical thinking and analysis, (iii) endow both teachers and learners with MIL competencies to build up media and information literate societies, setting the stage for knowledge societies;
- Include the production and distribution of user generated content (UGC), particularly youth-produced media, as part of the overall framework of MIL;
- Conduct research on the state of media and information literacy in different countries so that MIL experts and practitioners would be able to design more effective initiatives;
- Foster MIL for development of local cultures and as a platform for intercultural dialogue, mutual knowledge and understanding;
- Ensure that media and information ethics are embedded in all curricula, and advocate for ethical values on the part of communication, information, and media providers;
- Endorse the setting up of a regional MIL Institute or Centre
- Convene biennial meetings of the International Forum on MIL to provide a venue for continuing interactions on MIL across borders, cultures, fields of study and professional practice.

Driving MIL on a national scale

Driving MIL on a national scale

ThaiTelecentre Overview - Mozilla Firefox

File Edit View History Bookmarks Yahoo! Tools Help

http://thaitelecentre.org/en/index.php?option=com_content&view=article&id=33&Itemid=4

Yahoo

Most Visited   Getting Started   Latest Headlines

WEB SEARCH

ศูนย์การเรียนรู้ ICT ชุมชน

ThaiTelecentre Overview

- ThaiTelecentre.Org
- ThaiTelecentre Academy
- Thai-ASEAN HomeWorkes
- E-Women
- Contact us

News and Activities

- Activities
- Local News
- Local Newsletter
- International News
- International Newsletter

Login

Username

Password

Remember Me

Login

Forgot your password?
Forgot your username?
Create an account
Login with an OpenID
What is OpenId?

The Evolution and Future Path of Thaitelecentre.org

Thailand as one of the developing countries that also can not avoid the modern world's situation of ICT which evidently being one of the vital component for the "new economy" even of its high disparity of ICT accessibility between the rural and the urban as well as "the have" and "the have not" since its initiating till currently. The disparity among the three groups : the well served, the under-served, and the un-served keep increasing as observable called "digital gap".

Then Thai government has launched its ICT policy to apply ICT in social and economic development : the IT 2010 policy continuing from the ICT Master Plan 2002-2006 as well as clearly posted in the present 10th National Economic and Social Development Plan of the country under its 3 main categories : 1) Knowledge Management ; 2) Access to Information and Knowledge ; 3) Knowledge Application for Self-sufficiency and Sustainable Development under five 5 main national strategies : 1) e-Government, 2) e-Commerce, e-Industry, e-Education, and e-Society.

Yet despite the drastic increase of ICT activities in Thailand, the rural community which is majority of the country still quite slow in the ICT adoption. Under year of 2000, the National Electronic and Computer Technology center (NECTEC) as of its ICT direct Government agency at the times had started its first four community telecenter as well as other agencies such as 6 telecentres by Loxley company supported by Canadian International Development Agency : CIDA called "The Thailand Canada Telecentre Project", 4 telecentres by NGO : The Community Organization Development Institute : CODI, 4 telecentres by Chulalongkorn University and local agencies as well as business

Done

One paused download

EN   7:24

เว็บหลัก สสส. เว็บองค์กร สสส. ศูนย์ข้อมูล สสส. ค้นหาโครงการ สสส. เว็บคอมมูนิตี้

เปลี่ยนการแสดงผล **ก** **ก** **ก** **C** **C** ป้อนคำที่ต้องการค้นหา 🔍

สสส
สำนักงานกองทุนสนับสนุน
การสร้างเสริมสุขภาพ

สาระสุขภาพ ▼ เพื่อนสร้างสุขภาวะ

ขณะนี้คุณอยู่ที่: หน้าแรก » สาระสุขภาพ » คอลัมน์สร้างสุขกับ สสส. » เรียนรู้ให้เป็น วิ่งเร็วให้ทัน 'MIL' หลักสูตรรู้ทันสื่อเพื่อครู

เรียนรู้ให้เป็น วิ่งเร็วให้ทัน 'MIL' หลักสูตรรู้ทันสื่อเพื่อครู

โดย kittipanan | วันที่ 12 กันยายน 2554

👍 Like | ✆ 3 people like this. Be the first of your friends.

เทคโนโลยีในโลกปัจจุบันเรียกได้ว่าวิ่งตามกันแทบไม่ทัน ในแต่ละวันจะมีนวัตกรรม และสิ่งใหม่ ๆ ออก

✗ สาระสุขภาพ

▶ เกาะติดสถานการณ์
▶ ก้าวทันกระแส
▶ สำนักข่าวสร้างสุข
▶ สร้างสุขกับ สสส.
▶ ข่าวสุขภาพ
▶ บทความ
▶ เคล็ดลับคนดังสุขภา
▶ เกร็ดความรู้
▶ โพลสุขภาพ
▶ เว็บบอร์ดสร้างสุข

ASEAN – ICT Policy on Information Literacy

ASEAN – Digital Statistics

	Population (2012 Est)	Internet users (30/6/2012)	Internet Penetration (%)	FB Users (31/12/2012)	FB Penetration (%)
Brunei Darussalam	408,786	318,900	78.0	254,760	62.3
Cambodia	14,952,665	662,840	4.4	742,220	5.0
Indonesia	248,645,008	55,000,000	22.1	51,096,860	20.6
Laos	6,586,266	592,764	9.0	255,880	3.9
Malaysia	29,179,952	17,723,000	60.7	13,589,520	46.6
Myanmar	54,584,650	534,930	1.0	n/a	n/a
Philippines	103,775,002	33,600,000	32.4	29,890,900	28.8
Singapore	5,353,494	4,015,121	75.0	2,915,640	54.5
Thailand	67,091,089	20,100,000	30.0	17,721,480	26.4
Vietnam	91,519,289	31,034,900	33.9	10,669,880	11.7

Source: Internet World Stats: Usage and Population Statistics

Philippines – Digital Strategy
"Investing in People: Digital Literacy for All"

- Raise digital literacy in the country to enable a culture of competent, confident, responsible, and participatory use of ICT;

- Improve access to and increase participation in the development of relevant and appropriate local content

- Expand the role and importance of ICT in improving the quality and delivery of education and lifelong

- Produce more globally competent workforce, possessing 21st century skills, through the use of ICT;

- Improve the capacity of government workforce to effectively develop and manage government ICT

Singapore:
Develop an Infocomm-savvy Workforce and Globally Competitive Infocomm Manpower

- Targets

  - Boost the number of infocomm jobs from by 55,000 to 170,000

  - Plus non-infocomm jobs in infocomm industry 25,000

  - Total impact on employment = 80,000 jobs

Towards the 2015 Manpower Vision

To develop infocomm competencies
In key economic sectors

**Infocomm-savvy General Workforce
and Business Leaders**

To develop globally competitive
infocomm professionals

**Highly Valued Infocomm
Professionals**

Students

Foreign Talent

To develop, attract and retain infocomm talent

ASEAN ICT Masterplan 2015

"Towards an Empowering and Transformational ICT: Creating an Inclusive, Vibrant and Integrated ASEAN"

Pillars

1 Economic Transformation

To promote trade, investment and entrepreneurship in the ICT sector; and to build an ICT engine for sectorial transformation

2 People Empowerment & Engagement

To enhance quality of life through affordable and equitable ICT

3 Innovation

To nurture a creative, innovative, and green ICT sector

Foundations

4 Infrastructure Development

To provide the next generation infrastructure backbone, and enabling policies and legislation

5 Human Capital Development

To develop a skilful ICT workforce and knowledgeable community

6 Bridging the Digital Divide

To elevate countries and people through ICT capabilities

Key Outco

- ICT as an **eng** **growth** for AS countries

- **Recognition** f ASEAN as a g ICT hub

- Enhanced qua life for **people** ASEAN

- Contribution to ASEAN **integr**

5: Human Capital Development

Human capital development is a foundation thrust that focuses on helping citizens in ASEAN to build the skills necessary to fully leverage ICT, enabling a competent ICT workforce and a knowledgeable community. This involves two main areas: ICT training and ICT skills certification.

Initiative 5.1: Build Capacity

ACTION	DESCRIPTION
Develop a registry of experts and innovators	• Establish database of ICT experts and innovators within ASEAN • Forecast ICT manpower demand
Create ASEAN ICT Scholarship Programme	• Develop scholarship criteria and identify funding sources • Encourage and attract ASEAN talents to make ICT their career of choice • Support individuals with strong aptitude for ICT

Initiative 5.2: Develop skills upgrading and certification

ACTION	DESCRIPTION
Establish MRA for skills certification	• Develop ICT skill standards for ASEAN to ensure quality of ICT talents • Promote movement of ICT human capital within ASEAN
Develop ICT certification and skills upgrading programme	• Adopt certification of ICT skill sets (e.g. certification of cyber-security experts and trainers) • Promote marketability of certified ICT experts • Develop a competitive ICT workforce through skills upgrading to meet the demand for ICT resources

Challenges

- Information Literacy as ASEAN agenda?

- Convergence ….
  - Information Literacy

  - Digital Literacy

  - Media Literacy

  - IT Literacy

- How to measure Information Literacy at national scale?

Informācijpratība   Alfásimíná Información   مهارات المعلومات   Literasi Maklumat

Информационна грамотност   Inligtingsgeletterdheid   資訊素養

정보활용능력   Alfabetizació Informacional   Informacijska pismenost

Informationskompetence   Information Literacy

Ynformaasjebetûftens   情報リテラシー   Informaatiolukutaito

Информациска писменост   Maîtrise de l'information

Informationskompetenz   Informatievaardigheden

Destrezas de información   Πληροφοριακή Παιδεία

Infopädevus   การรู้สารสนเทศ   Competenza Informativa

Upplýsingalæsi   Bilgi okuryazarlığı   Axborot Savodxonligi

אוריינות מידע   Informasjonskompetanse

Informacinis raštingumas   مهارات معلوماتی

सूचना साक्षरता   Kompetencje informacyjne

Edukacja Informacyjna   Competência em Informação

Literacia de Informação   Literacia informacional

Informačná gramotnosť   Alfabetización Informacional

Năng lực thông   Информационная грамотность   Informationskompetens

Competencias Informacionale   Desarrollo de Habilidades Informativas

Llythrennedd Gwybodaeth

Borutegi bja tshedimoso   Informační gramotnost   Kaalaman sa Impormasyon

Informācijpratība   Axborot savodxonligi

Thank you
kasititorn@nstda.or.th

www.nstda.or.th/prs
www.ict2020.in.th
www.milthailand.org

Backup

One Year Agenda for the Department of Electronics and Information Technology (2013)

National Policy on IT

- National Rollout of Mobile Service Delivery Gateway (MSDG)
- National Information Infrastructure (NII 2.0)
- National Cloud Computing Initiative (Phase I)
- Setting up of a National e-Governance Academy
- Scheme for IT Mass Literacy
- Common Man Interface (Dial.Gov)
- Setting up of 10 New STPI Centres
- eGov App Store
- National Cyber Security Policy

To make one person e-literate in each house hold.

National Policy on Electronic Initiatives

- Electronics Manufacturing Clusters (EMCs)
- Approval of MSIPS Units
- Setting up of Semiconductor Wafer Fabrication (Fab) Manufacturing Facilities in the country
- Scheme to give thrust to Research in areas of Electronics System Design and Manufacturing (ESDM) and IT/IT Enabled Services (ITES)
- Scheme for financial assistance for setting up of Electronics and ICT Academies in States/UTs for faculty development.
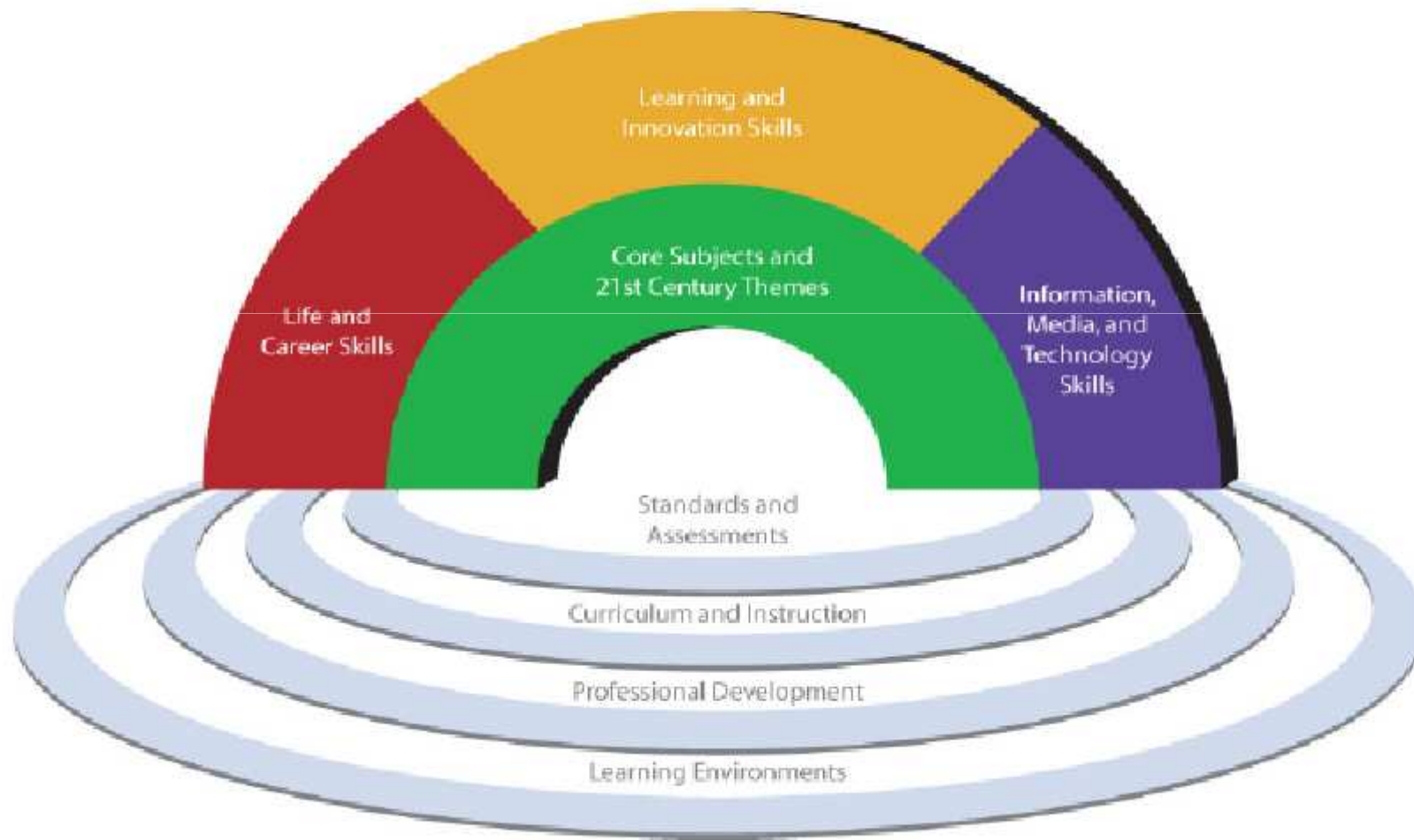- Electronic System Design Manufacturing (ESDM)

Development of People Oriented IT Solutions

- Personal Safety Device
- Sports Connect Portal
- Digitization of Indian Folklores

21st Century skills

21st Century Student Outcomes and Support Systems

21st Century Student Outcomes

CORE SUBJECTS AND 21ST CENTURY THEMES

Core Subjects

- English, reading or language arts
- World languages
- Arts
- Mathematics
- Economics
- Science
- Geography
- History
- Government and civics

21st Century Themes

- Global awareness
- Financial, economic, business and entrepreneurial literacy
- Civic literacy
- Health literacy

Learning and Innovation Skills

- Creativity and innovation sk
- Critical thinking and probler solving skills
- Communication and collaboration skills

Information, Media and Technology Skills

- Information literacy
- Media literacy
- ICT (information and communications technology literacy

Life and Career Skills

- Flexibility and adaptability
- Initiative and self-direction
- Social and cross-cultural ski
- Productivity and accountabi

INFORMATION LITERACY

Access and Evaluate Information
- Access information efficiently (time) and effectively (sources)
- Evaluate information critically and competently

Use and Manage Information
- Use information accurately and creatively for the issue or problem at hand
- Manage the flow of information from a wide variety of sources
- Apply a fundamental understanding of the ethical/legal issues surrounding the access and use of information

MEDIA LITERACY

Analyze Media
- Understand both how and why media messages are constructed, and for what purposes
- Examine how individuals interpret messages differently, how values and points of view are included or excluded, and how media can influence beliefs and behaviors
- Apply a fundamental understanding of the ethical/legal issues surrounding the access and use of media

Create Media Products
- Understand and utilize the most appropriate media creation tools, characteristics and conventions
- Understand and effectively utilize the most appropriate expressions and interpretations in diverse, multi-cultural environments

ที่มา: www.p21.org

ICT (Information, Communications and Technology) LITERACY

Apply Technology Effectively

- Use technology as a tool to research, organize, evaluate and communicate information
- Use digital technologies (computers, PDAs, media players, GPS, etc.), communication/networking tools and social networks appropriately to access,

  manage, integrate, evaluate and create information to successfully function in a knowledge economy
- Apply a fundamental understanding of the ethical/legal issues surrounding the access and use of information technologies

ที่มา: www.p21.org