The Human Dimension in Information Society Measurements
The Human Dimension in Information Society (IS) Measurements

Dr. Imad Hoballah
Acting Chairman and CEO
Head of Telecommunications Technologies Unit
*Telecommunications Regulatory Authority (TRA)*,
Lebanon

EGM on Standardizing Information Society Measurement in the ESCWA Region
Beirut, 3-4 May, 2011

Outline

- Overview
- ICT Measurements Focus on Technical Aspects of IS
- Threats of “Bad Habits” Linked to ICT
- Non-Technical ICT Measurements are Needed
- Candidates for Non-Technical Measurements
  - Child Protection and E-Safety
  - Privacy and Data Protection
  - Copyrights
  - Spam Fighting
  - Educational Processes & Learning
  - Cultural Heritage Preservation
- Summary
Overview

Technology makes our lives so much easier and simpler

BUT

it also has challenges that should be seriously managed

ICT Measurements Focus on Technical Aspects of IS
A snapshot of ICT measurements:

- A7 - Percentage of the population covered by a mobile cellular telephone network
- HH4 - Proportion of households with a computer
- B5 - Proportion of businesses with a web presence
- ICT1 - Proportion of total business sector workforce involved in the ICT sector
- ICT3 - ICT goods imports as a percentage of total imports
- ED6 - Proportion of learners who have access to the Internet at school

Source: Core ICT Indicators 2010

This helps decision makers to set the policies for IS development and abundance from the technical side.

However, it falls short of measuring and addressing the impact of ICT on non-tangible aspects of the Society.

The human dimension should be tackled and additional, non-technical measurements must be developed to track this dimension.

The latter should lead to a course of actions meant to optimize the benefits and reduce the threats that confront the information society development in the “right” direction.
Threats of “Bad Habits” Linked to ICT

A recent survey on youth students in Lebanon, Jordan and UAE showed the following:

- Participants trusted new media at alarming levels, and had little concern about privacy or surveillance threats.
- More than half of surveyed said they used media for over three hours per day for entertainment purposes.
- The majority (55%) agreed that the Internet distracts them from work or school work.

Source: Media Habits of MENA Youth: A Three-Country Survey - By: Jad Melki (AUB)
Threats of “Bad Habits” Linked to ICT (cont’d)

A study about “Video Game Addiction Among Adolescents” showed that the game addicted adolescents revealed:

- More reports of involvement in physical fights
- More arguments with friends and teachers
- Higher hostile attribution scores
- Lower grades

Source: Video Game Addiction Among Adolescents - Marny R. Haage & Douglas A. Gentile - Minnesota

Education and Multi-Tasking

Case studies reveal that students used to multitasking and hopping from link to link will have difficulty tackling complex texts and college-level reading

- If students have grooved for many years a reading habit that races through texts, as is the case with texting, e-mail, Twitter, and other exchanges, 18-year-olds will have difficulty suddenly downshifting when faced with a long modernist poem.

- Schools should continue to experiment with educational technology, but it should also preserve a crucial place for unwired, unplugged, and unconnected learning

Source: ASCD.org - Too Dumb for Complex Texts?
Non-Technical ICT Measurements are Needed

A New Set of Non-Technical ICT Measurements Should be Developed to Cover Vital Human Aspects of the IS

“Non-Technical ICT Measurements” is being used due to the lack of other appropriate terms; suggestions are welcome!

A new set of indicators (+ others) are needed to measure:

- Child protection
- Privacy and data protection
- Copyrights (even economic)
- Cultural heritage preservation
- Spam fighting
- Educational processes & learning
- Etc.

Decision makers must optimize ICT policies to ensure not only ICT technical development but also a safe society development in the “right” direction
Some Candidates for Non-Technical Measurements

e-Safety is NOT an ICT issue alone, or a technical issue, although it touches both

**e-Safety covers, but is not limited to:**

- Child protection
- Cyber bullying
- Grooming
- Unintentional attack (virus/malware)
- Intentional abuse/attack
Bad social behaviour in the home

- PC in a “private” place
- No control on social networking sites
- Unsecured wireless networks
- ISP child controls not active
- No or ineffective anti virus/malware protection.
- A culture of “don’t tell”

Action:
- Need e-Safety measurements that drive policies to teach safe practices to children and sets out clear expectations for parents, take-carers and staff

Measurements (Examples):
- # complaints of Cyber harassment filed by internet users in the country per month
- % ISPs (Users) using parental control software
- Etc.

Privacy and Data Protection

- Privacy can be described as the power to control
  - what others can come to know about you and
  - to determine the entry rules for your own private space

- With ICT advancement (fixed and mobile networks, devices, internet, applications, content, etc.), personal information can be transferred with greater ease (and even largely invisibly)
Privacy and Data Protection (cont’d)

Actions:
Need privacy and data protection measurements to drive policies that:
- Put the user in control of his/her own personal information and private sphere
- Set a clear, enforceable legal framework guaranteeing the individual's right to privacy

Measurements:
- # complaints of privacy breaches filed by internet users in the country per month
- # complaints of incidents where personal data has been misused or compromised by others (also $s lost)

Copyrights

- The digital era has made it possible to make illegal copies of digital content and distribute them to millions around the globe at the click of a mouse
- It has undercut sales of digital content such as books, music CDs, DVDs and other content from legitimate suppliers
- Clear policies must be developed and implemented to stimulate digital content and manage copyright in the digital age
Copyrights (cont’d)

Actions:
Copyrights measurements are needed to initiate policies that:
✓ Set the right approach to Digital Rights Management (DRM) technologies
✓ Ensure interoperability of DRM technologies that allow end users to access content lawfully however/whenever they want

Measurements:
✓ # complaints of digital copyright infringement filed in a country
✓ % users of unlicensed digital content (through surveys)
✓ $s lost through copyright infringement

Spam Fighting

✓ Threats such as spam, spyware and malware undermine the confidence in, and the security of, the Information Society
✓ Unsolicited e-mail has become increasingly fraudulent and criminal in nature. A prominent example is the use of phishing e-mails that lure end users into giving up sensitive data such as passwords and credit card numbers.
Spam Fighting (cont’d)

Actions:

Spam fighting measurements are required to drive policies that:
- Ensure national and international cooperation including governments and industry (vendors, ISPs..)
- Make users aware of the spam problem and how to fight it

Measurements:
- % reported victims of fraudulent and criminal spam (which could be compared to a regional average)
- Proportion of inhabitants who are aware of, and have basic knowledge to, fight the Spam threat

Educational Processes & Learning

Dominant curricular and organizational patterns in school were not designed for the Internet age, and often inhibit its effective use

ICT offers some gain for traditional curriculum delivery, but its full educational potential cannot be realized without radical changes in educational/school structures and methodologies
Education Processes & Learning – (cont’d)

Actions:
Educational processes and learning measurements are needed to initiate policies that ensure:

 ✓ Diversity of teaching strategies
 ✓ Teacher pre-training in the use of ICT as a learning and teaching tool
 ✓ Multiple opportunities for learning (tutorials, programming, word processing, drill & practice,..)
 ✓ The student, not the teacher, is in "control" of learning
 ✓ Optimized peer learning: heterogeneous are groups more effective than homogeneous groups but both more beneficial than working alone
 ✓ Optimized feedback: research, discussions, explanations and remediation are more useful than simply providing answers

Measurements:

 ✓ Ratio of average of # violent actions (in all schools) to the Average Grade Score (in all schools)

 ✓ Ratio of % students (in a school district) reporting being engaged in ICT distracting activities (games, chat rooms, media, etc.) to Average Grade Score (in the same school district)
In ancient times, the library of Alexandria was said to contain up to 70% of all human knowledge.

The challenge for the digital age is to do even better than that and make the result last longer.

Digital libraries should be created to make all cultural resources and scientific records (books, journals, films, maps, photographs, music, etc.) accessible and beneficial to all, and preserve it for future generations.

Need for cultural heritage preservation measurements that initiate policies to focus on two areas:

- **Cultural heritage** – creating electronic versions of the materials in libraries, archives and museums, making them available online, for work, study or leisure, and preserving them for future generations.
- **Scientific information** – making research findings more widely available online and keeping them available over time.

**Actions:**

- # digitized items (books, music, etc.) pertaining to the country’s culture (increase of digital content)
- # people who prefer to communicate using social media such as (Social Networking, IM, etc.) rather than face-to-face communications
- Etc.
Summary

- ICT measurements address technical aspects of IS development

- The abundance of ICT services and applications falls short of addressing the impact of ICT on human (and some economic) aspects of the Society

- New, non-technical ICT measurements should be introduced to target vital human concerns

- Human-oriented policies and actions must be derived from the latter measurements in order to help steer the Information Society in the “right” direction

Thank you

www.tra.gov.lb