

Content Delivery Platforms in a Converging World



Meeting of High-Level
Experts on

Competitive Platforms for
the Delivery of Digital
Content

**Cristina Bueti
&
Marco Obiso**

21-22 June 2007

International Telecommunication
Union

Agenda

- Context
- Factors shaping the market
- Emergence of new platforms
- Market trends
- Challenges:
 - Digital divide
 - Cybersecurity
- Conclusions

Building an inclusive Information Society

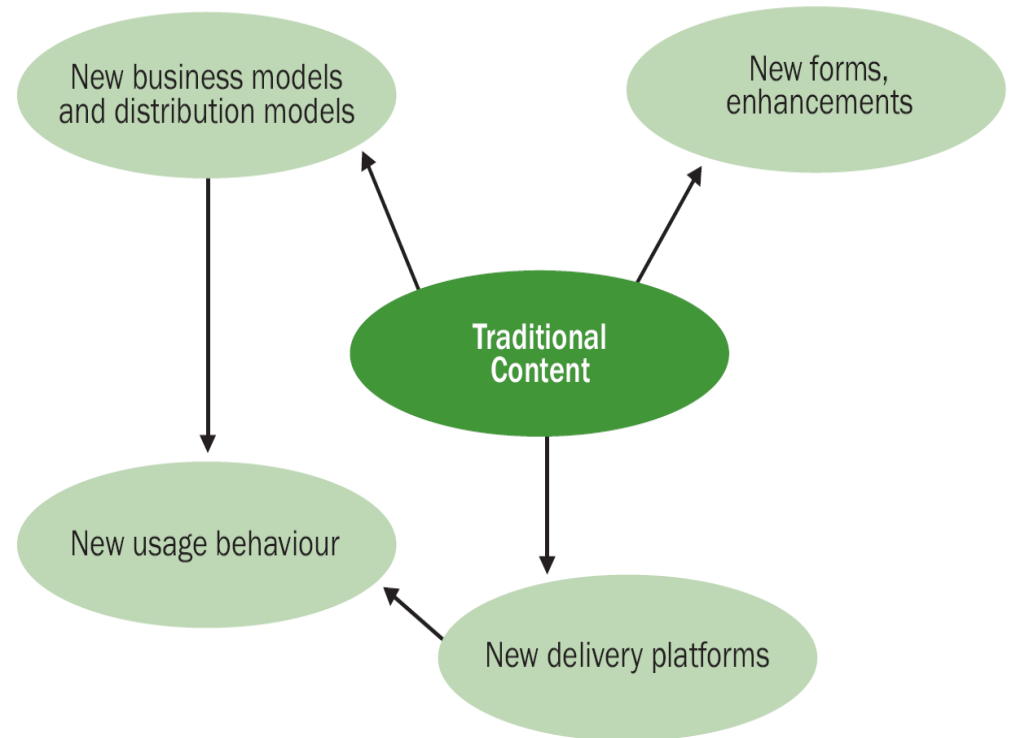
A global challenge in the new millennium

*"...the common desire and commitment to **build a people-centered, inclusive and development-oriented Information Society, where everyone can create, access, utilize and share information and knowledge, enabling individuals, communities and peoples to achieve their full potential in promoting their sustainable development and improving their quality of life...**" (WSIS Declaration of Principles, Paragraph 1)*



Evolving scenario...

- The inexorable, accelerating proliferation of content choice and supply
- Content is increasingly personalized and tailored to a customer's specific needs, both for early adopters and the mass market
- Companies are finding ways of repurposing content delivery mechanisms. The emphasis will be on giving consumers what they want; when they want; where they want.



An important distinction

■ Digital Content

- Content created, used, accessed and saved in a digital format
- Two main types:
 - digitized content – not meant to be accessed originally through digital platforms
 - “born-digital” content – native content conceived in digital form

■ Digital Content Delivery

- How can content be delivered digitally through different platforms like mobile, interactive digital TV and online
- Anywhere, anytime accessibility

What is shaping the market ?

- ***User requirements***
 - on-the-go access to information
 - communication & file sharing
 - thirst for multimedia
- ***Innovation and Content***
 - continued need of regulation
 - security and privacy
 - standards to address the challenges of multi operator environment
- **ICT innovation**
 - take-up of broadband and wireless
 - increased use of portable and palmtop computers, and multimedia devices
 - converging platforms
- **Connecting the unconnected**



May require a re-visiting of content issues...

How consumers view digital content: choice, convenience, control

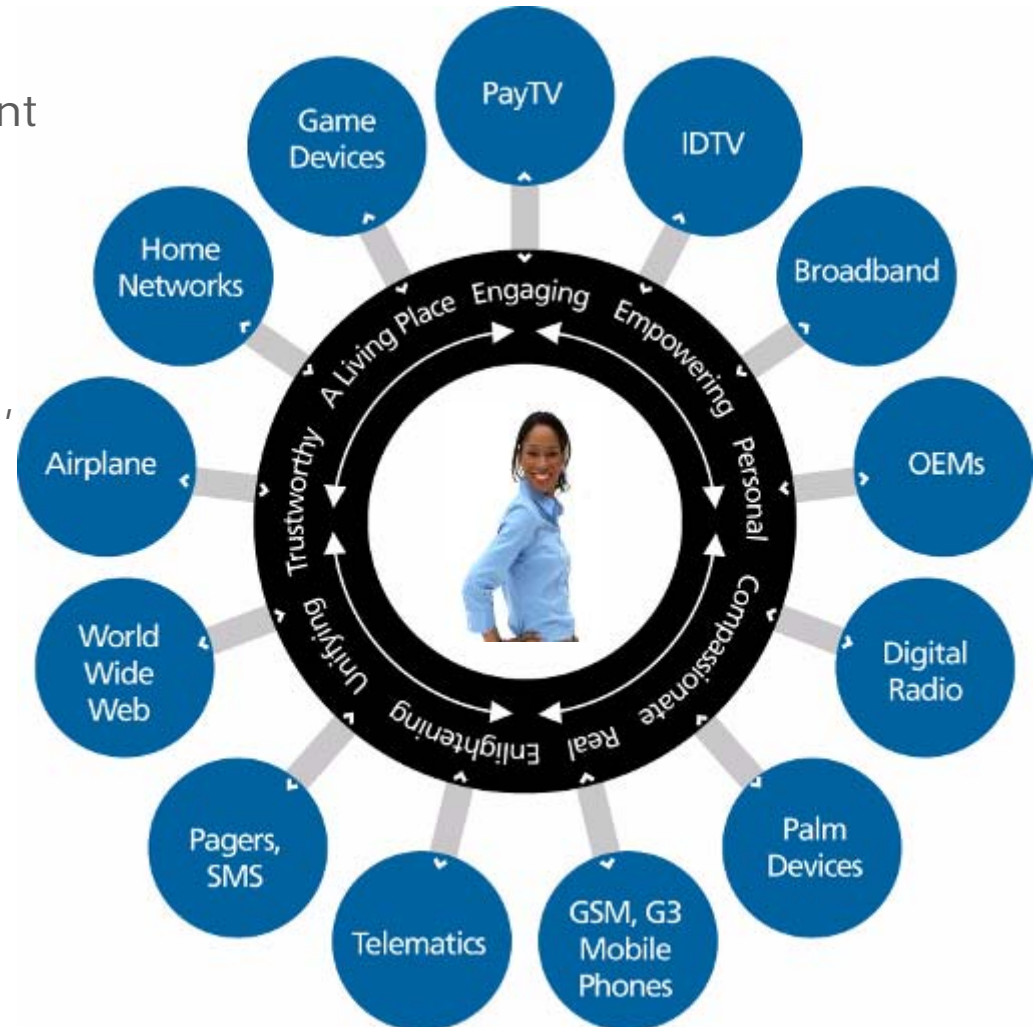
- Technology and access has created a new paradigm where consumers choose what they want and how they want it:

➤ *What they want:*

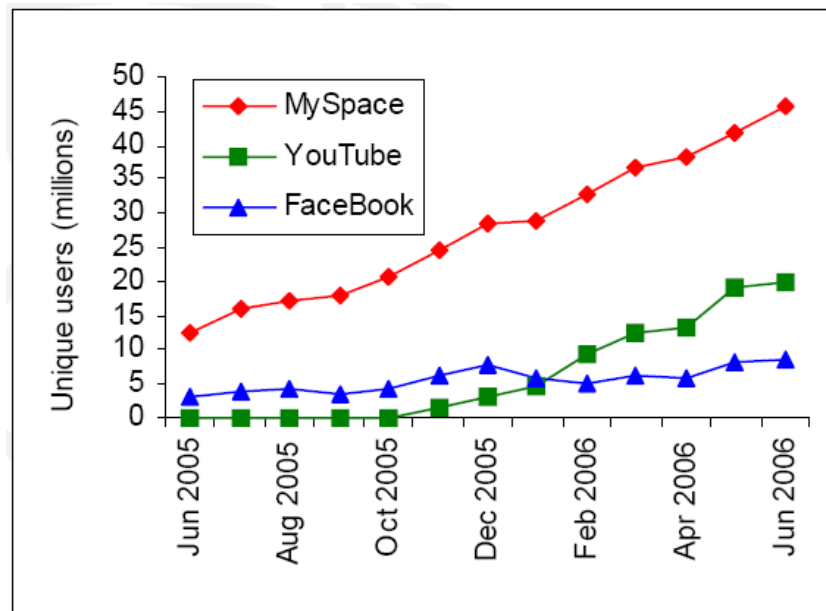
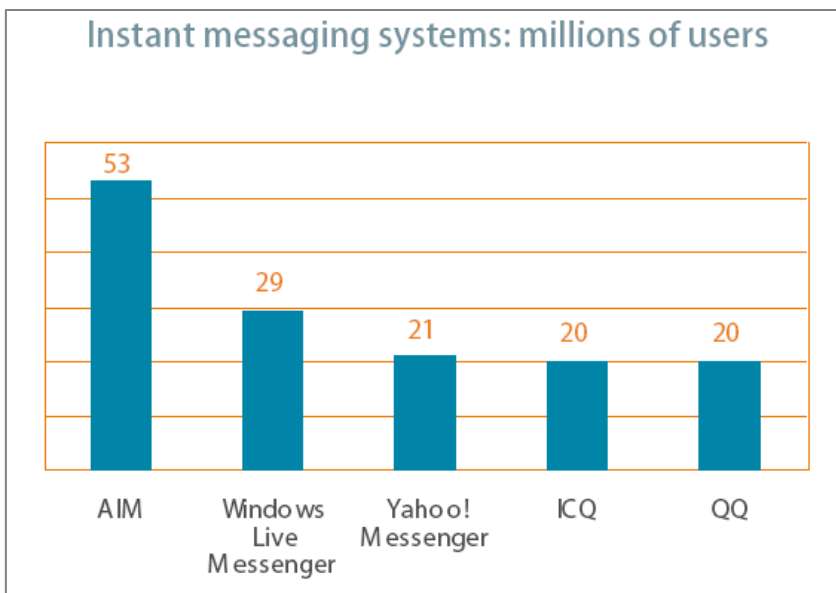
- News, Stories, Fads, Gossip, Dating, Trends, Chats, Rants,
- Trailers, Highlights, Shopping, Info, Advice, Friends, Dish, Tips, Recipes

➤ *How they want it:*

- Personal
- Custom
- On demand
- Ownable
- Sharable



Catering for changing user habits...



- ## Multi-dimensional Impact

- Social networking, communities and local and wider knowledge bases
 - Business models and revenue streams
 - Legal and social implications

Innovation & Content: the "Big Deal"

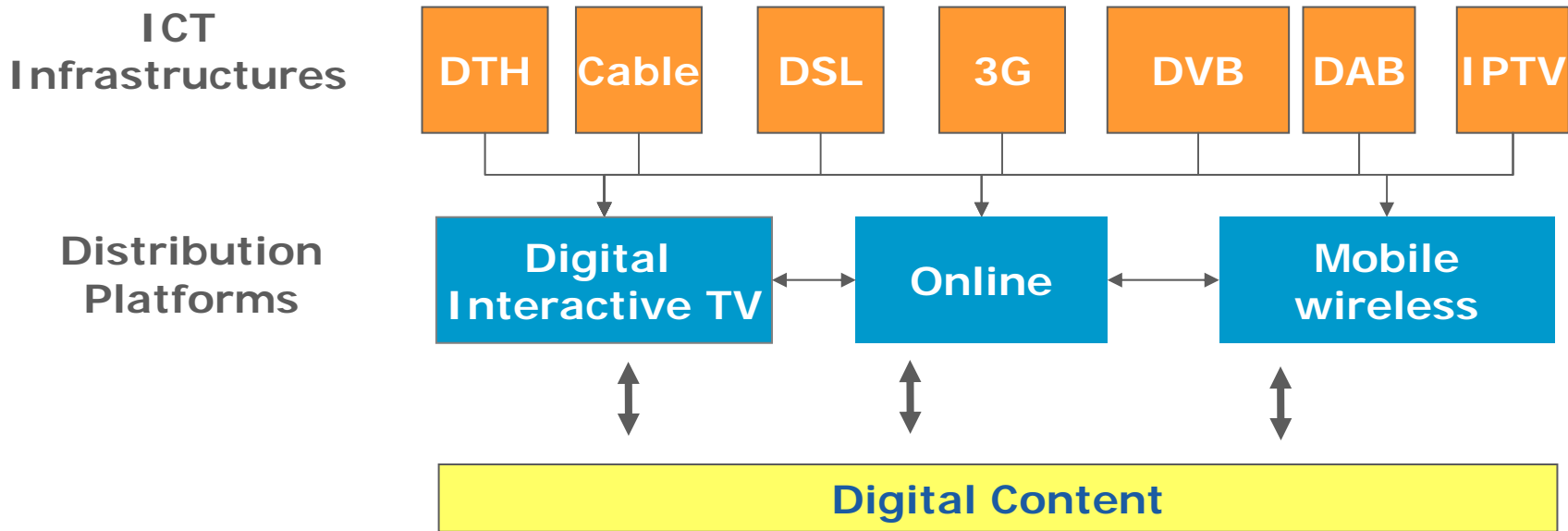
Continued need of regulation, standards to address the following challenges of multi operator environment

- technological challenges & innovation
- interconnectivity and interoperability
- appropriate migration scenarios to next generations
- enhancing performance and lowering costs
- legal & political aspects, fair competition
- intellectual property rights
- security & privacy



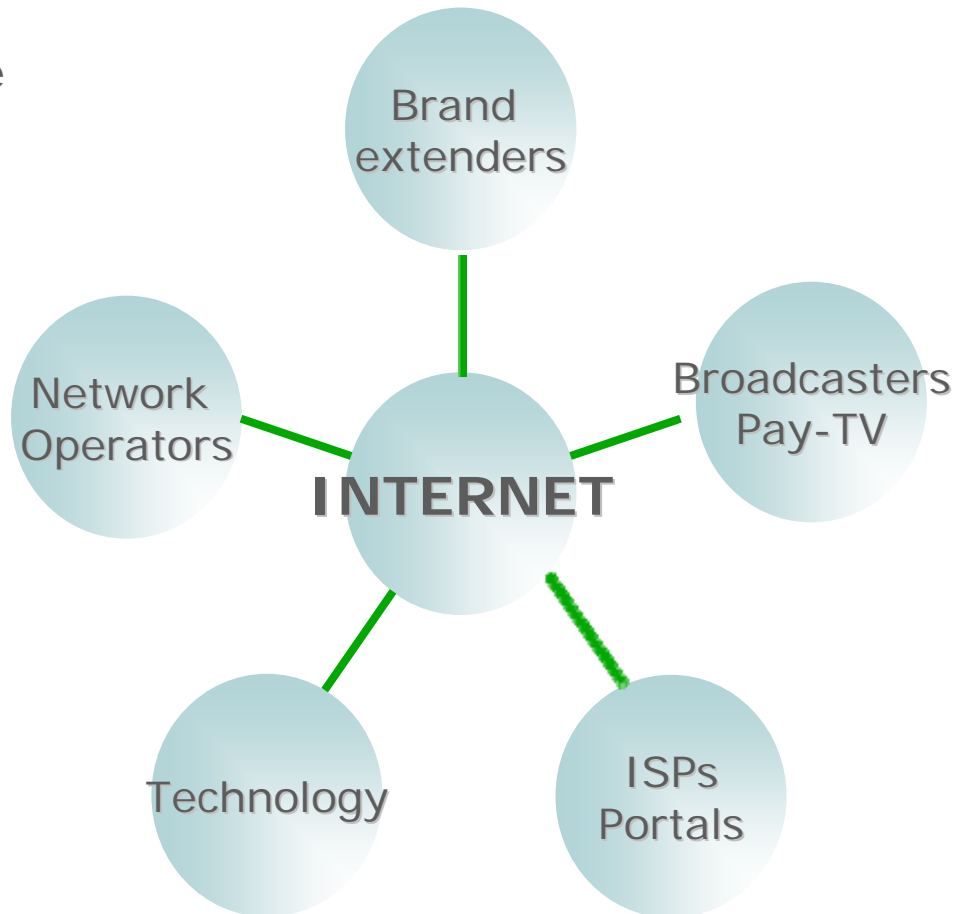
Aiming for technologically-neutral policies?

What are the platforms ?

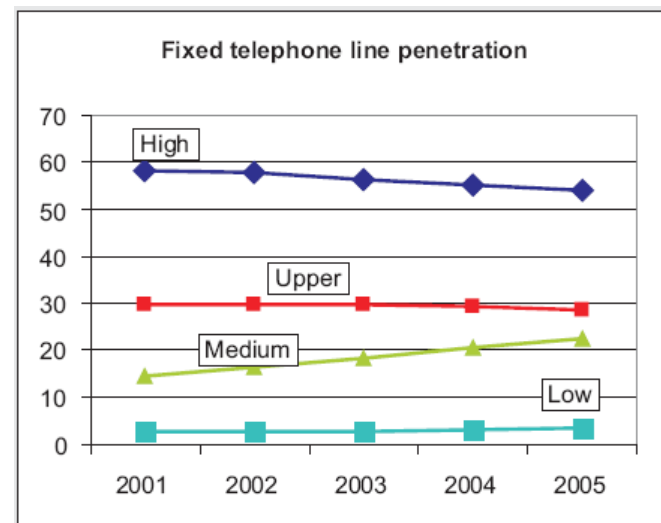
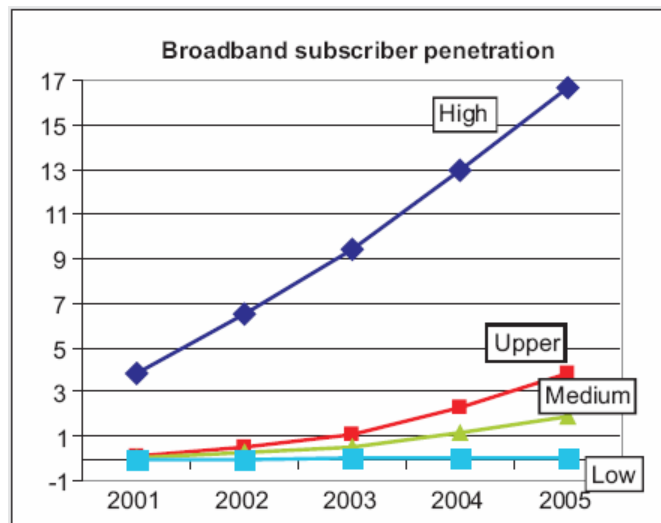
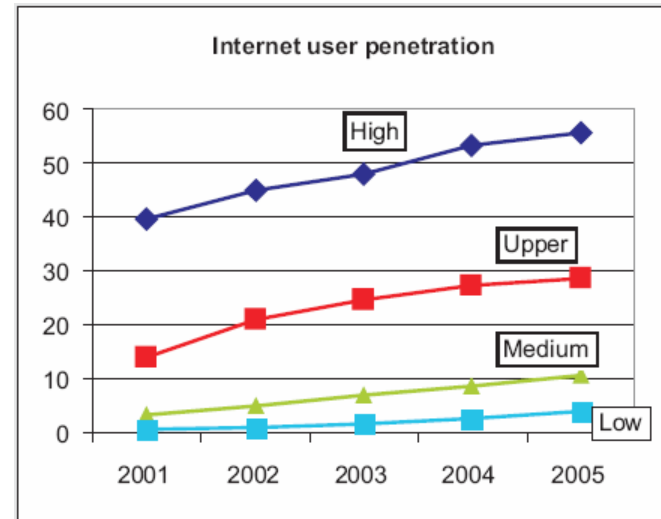
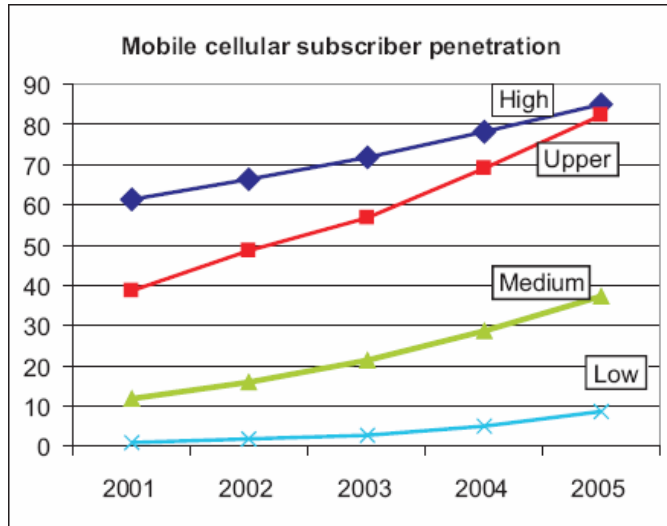


Who are the distributors of online content?

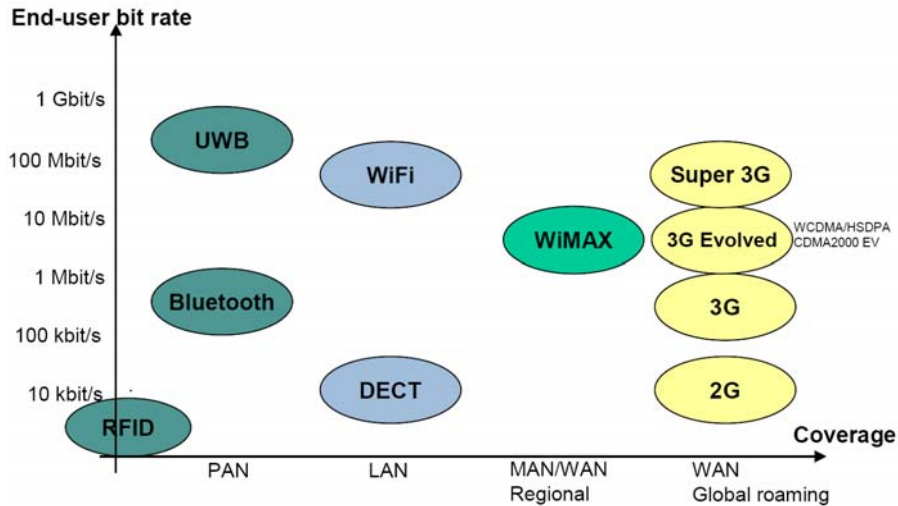
- **Network Operators:** telcos, mobile operators, cablecos, fibre operators
- **Technology firms:** device manufacturers, software solutions
- **ISPs/Portals:** broadband service providers, e-commerce businesses
- **Broadcasters/Pay-TV:** rights holders, content aggregators, linear broadcast companies
- **Brand extenders:** supermarkets, publishers, retailers



ICT Trends

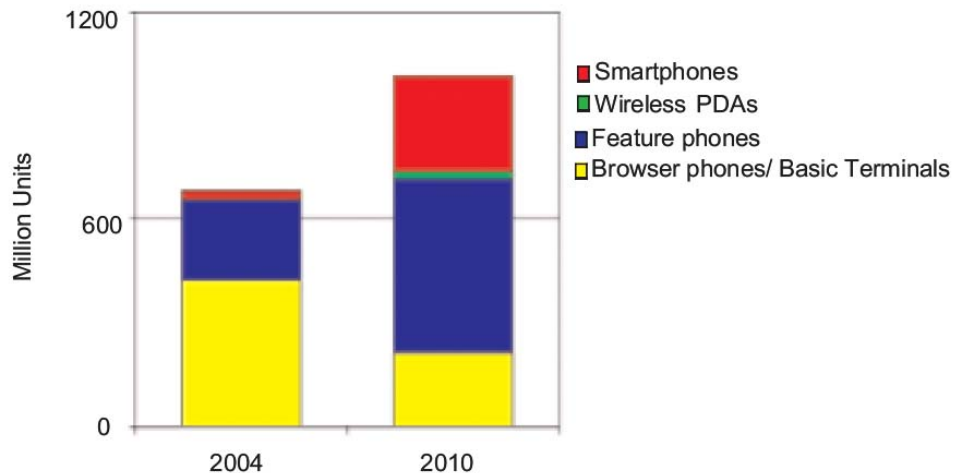


More bandwidth, more access, better content

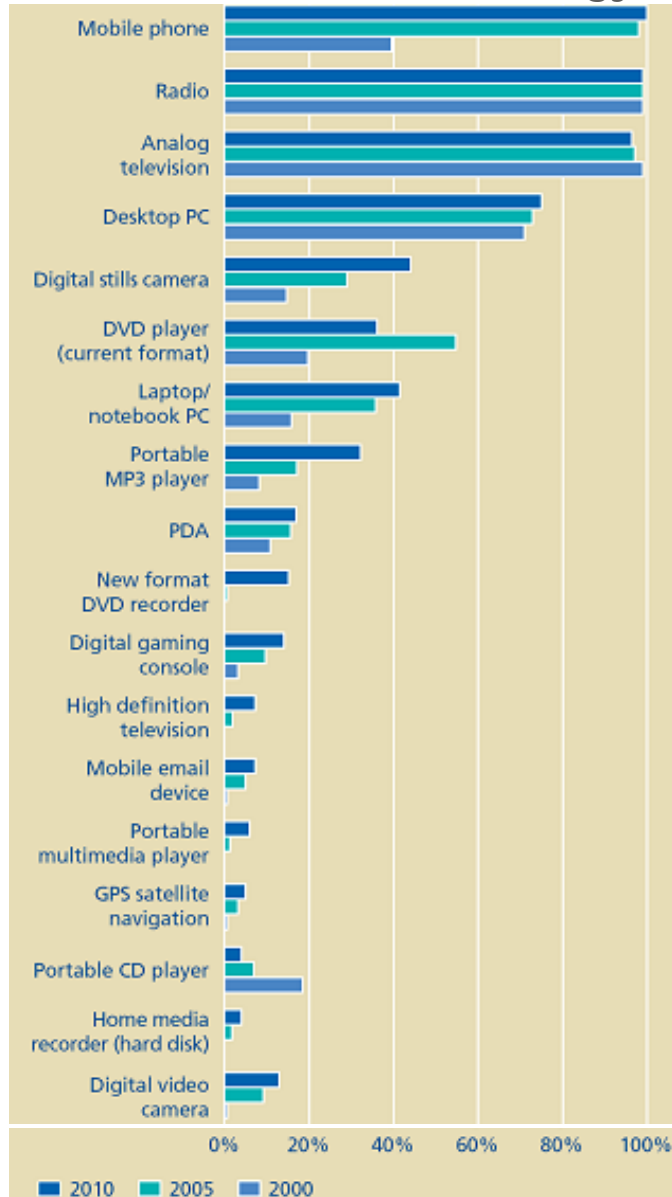


- Interactive, integrated content requires more bandwidth
- Wireless ICT infrastructures with wider bandwidth capabilities

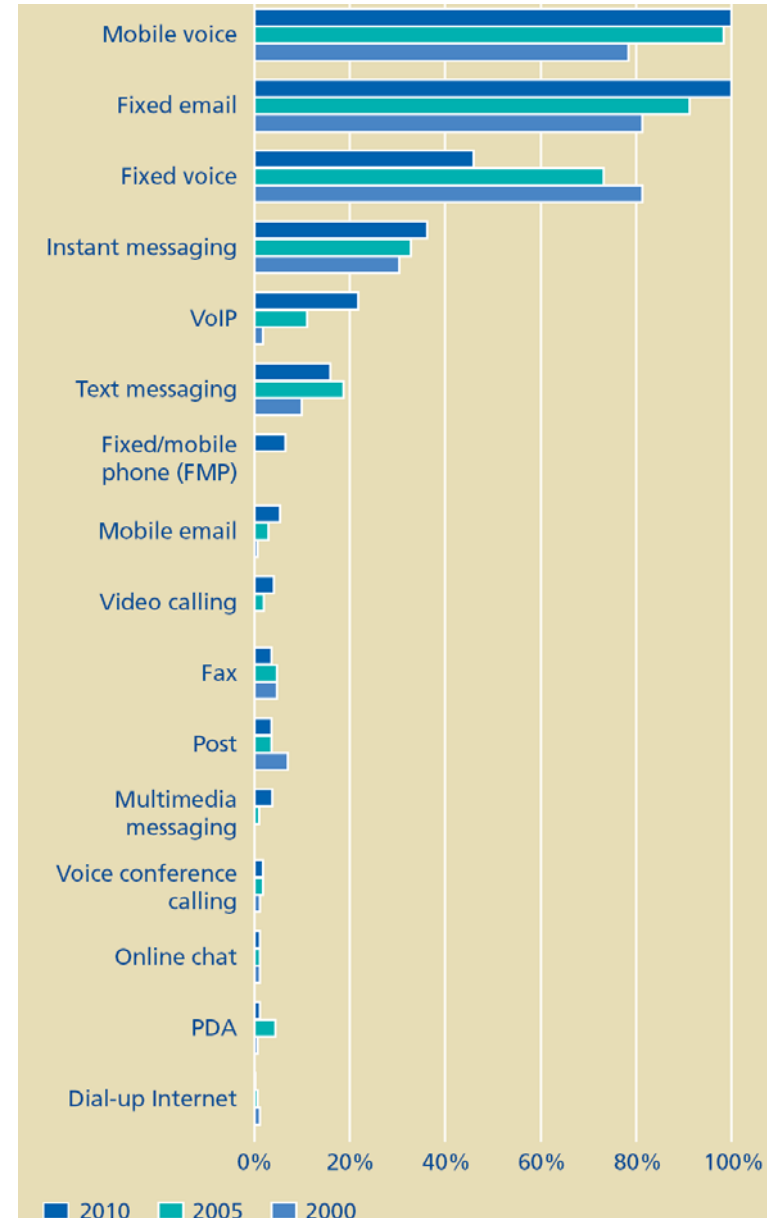
- Convergence and mobility encompasses always-on, anywhere, any-time
- Trends show an evolution towards multipurpose mobile devices



Proliferation of Technology



Communications



Enabling platforms

- Broadband wireless is likely to have greatest success as an extension to fixed broadband connection, rather than as a wireless local loop.
- Homes and offices will likely continue to increase their adoption of WiFi connectivity, as prices fall, security improves, installation becomes easier and reliability becomes progressively better.
- Municipal WiFi networks may also become widespread, as local authorities and governments strive to bridge the digital divide.
- WIMAX, is a potential competitor to established fixed and mobile broadband networks.
 - It may well become the most cost efficient approach to delivering broadband to rural areas that are too expensive to connect using wired or broadband cellular technologies.
 - It may also find a secondary role providing backhaul for metropolitan WiFi networks and other managed data networks.

New business models

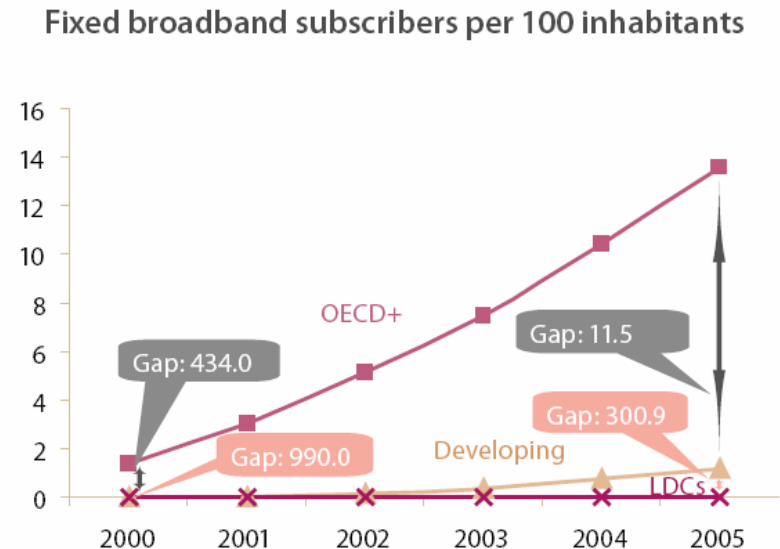
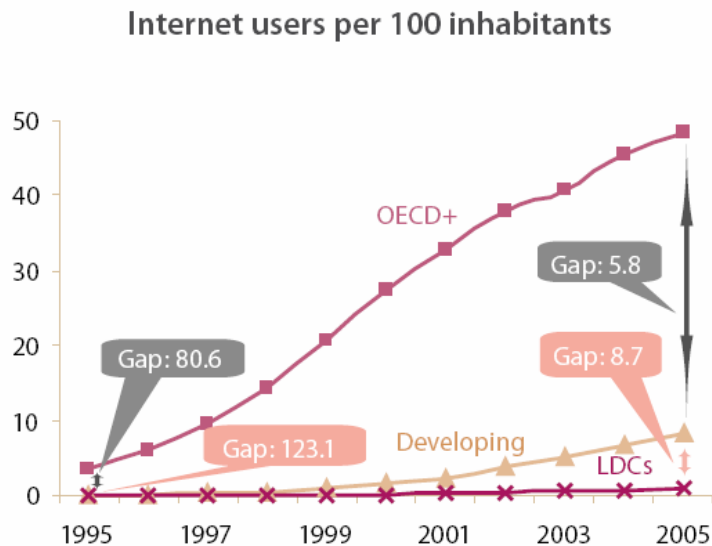
- **Understand the customer needs** - business model innovation should start with customer needs and work backward. Successful models are a direct response to real customer needs;
- **Gradual changes, transparent changes** - Many of the most successful business model innovations are evolutionary, incremental and additive – not revolutionary.
- **Learn from others** – Use best practices, successful experiences, multi-stakeholder approach

The digital divide: a gulf to be bridged

- Voice services - There are still up to 1.5 billion people without access to mobile voice services and over 800,000 villages may still lack basic connectivity.
- Mobile services: By 2008, more than half of the world's population will have a mobile phone
- Broadband connectivity - The majority of the world population does not have yet broadband services easily available, and where present without the required bandwidth to support a widening range of applications.
- Broadband affordability – Average monthly prices for broadband in Africa are more than ten times the level in high income economies

Shrinking the connectivity chasms

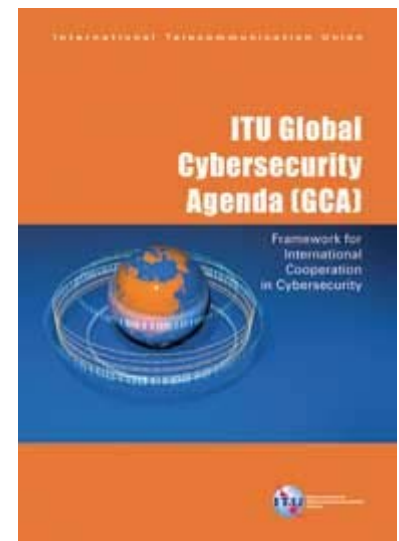
- Connecting the unconnected - The availability of a wider range of devices, networks and communications options in the next few years may encourage to communicate more overall.
- Least Developed Countries – many LDCs are failing to grow their fixed line networks, which may create problems for the future development of Internet access and broadband



Towards a global roadmap for cybersecurity

ITU Global Cybersecurity Agenda (GCA)

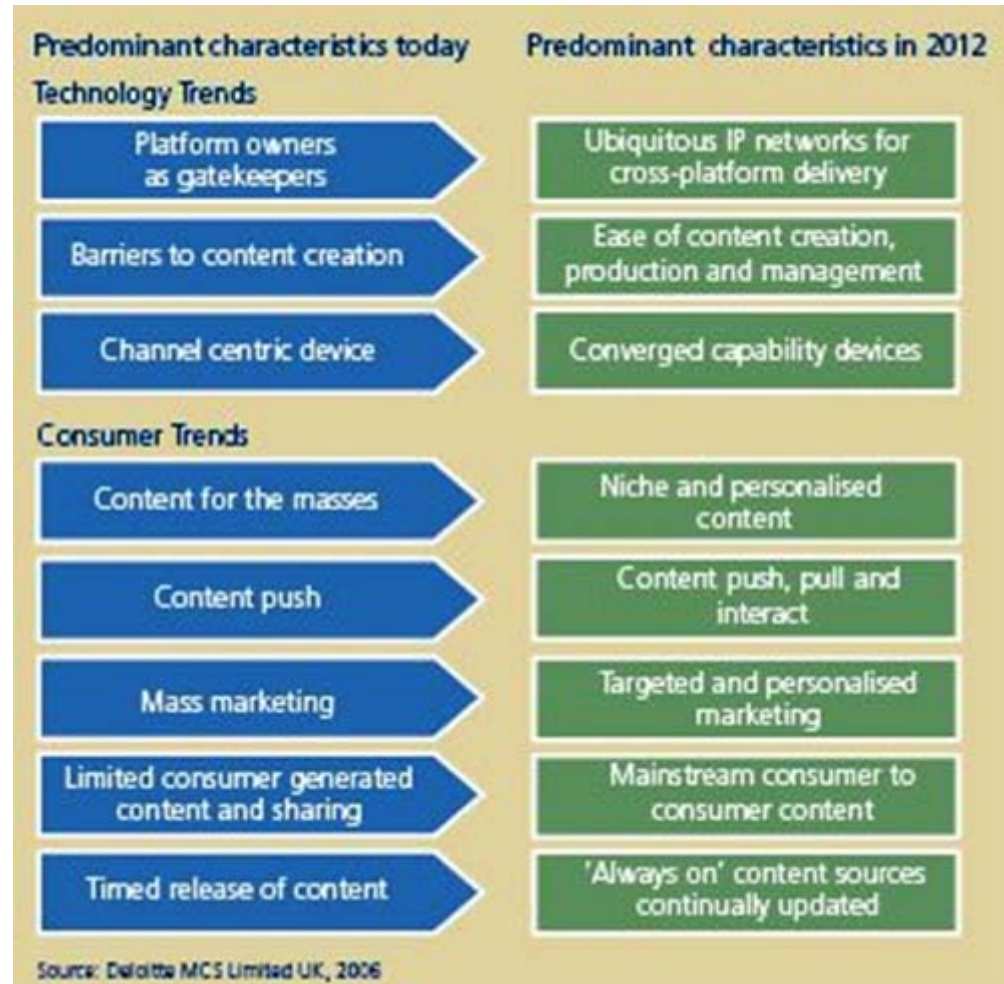
- Together with partners from governments, industry, international organizations and civil society, **ITU** is proposing a global framework for international cooperation aimed at providing concrete measures and solutions to enhance security and confidence in the information society.
- The Global Cybersecurity Agenda, which will have a two-year timetable, rests on five pillars:
 - Finding **technical solutions** for every environment
 - Developing interoperable **legislative frameworks**
 - **Building capacity** in all the relevant areas
 - Establishing appropriate **organizational structures**
 - Adopting effective **international cooperation** mechanisms



<http://www.itu.int/osg/spu/cybersecurity/gca>

Looking beyond....

- Convergence of technologies
- Convergence of services
- Convergence of and within firms
- Convergence of user perceptions
- Convergence of markets



Conclusions & perspectives

The unrelenting progress of technology, connectivity and digitization are expected to continue generating new opportunities

- Networks for adaptation to changing customer expectations
- Efficient Spectrum Management
- Mobility independent of technology and geographical boundaries
- Unified customer equipment & mobile handsets for all types of services

Digital convergence looks set to remain both a headline and a key influencer for many years to come !

Useful Links

- Meeting of High-Level Experts on Competitive Platforms for the Delivery of Digital Content
 - www.itu.int/digitalcontent
- Shaping Tomorrow's Networks Initiative
 - www.itu.int/stn
- ITU Global Cybersecurity Agenda
 - <http://www.itu.int/osg/spu/cybersecurity/gca>

Thank you for your attention!

- Cristina Bueti
 - cristina.bueti@itu.int
- Marco Obiso
 - marco.obiso@itu.int

International
Telecommunication
Union