communications convergence and the new global village

lara srivastava
strategy & policy unit, ITU

International Telecommunication Union

IMC Conference on Communications Convergence
mumbai, india
16-17 march 2007

shifting gears

Image: NASA

transitions & transformations

distance   ⟶   <u>proximity</u>

slow   ⟶   fast

sporadic   ⟶   perpetual

fixed   ⟶   mobile

single   ⟶   multiple

stability   ⟶   uncertainty

user   ⟶   producer

real   ⟶   virtual

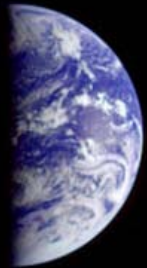local   ⟶   <u>global</u>

image:NASA

trends and tendencies

- growth of mobile wireless: more than 1 mobile phone for every 3 humans on the planet

- growth of high-speed broadband access infrastructure

- promotion of "always-on" access, e.g. blackberry, mobile internet

- advances in computing to render information even more "ubiquitous"

- continued expansion of the internet as a platform of information, communication, entertainment, and creativity

convergence at many levels is a key enabler of these trends

considering
convergence

Image: NASA

defining convergence

- the action or fact of converging; movement directed toward or **terminating in the same point** *(OED)*

- the approach toward a definite value, as time goes on, or to a definite point, a common view or opinion *(wikipedia)*

- the process by which **originally distinct technologies** may become **more compatible or integrated** as they develop *(OED, draft additions 2003)*

- convergence (converged environments/networks) defines a **multimedia environment** and/or network where signals **regardless of type** (i.e. voice, quality audio, video, data, etc.) and encoding methodology may be **seamlessly exchanged** between independent endpoints with similar characteristics *(wikipedia)*

its many flavours

- **devices/terminals**
  TV, gaming console, PC, mobile, PDA, MP3 player, RFID
- **network/transport**
  fixed, wireless, broadcast, satellite, IP (towards all-IP and NGN)
- **content/services (media)**
  voice, data, audio, video, e/m commerce, education, software, portals…

- **industrial**
  media, software/computing, consumer electronics, telecommunications
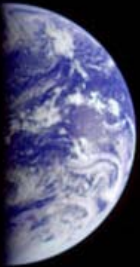- **corporate**
  business models, mergers, consolidation
- **policy and regulatory (institutional)**
  broadcast regulation, content regulation, utilities regulation, competition regulation, telecommunication regulation, consumer protection

- **social**
  disparate groups, interests, collective welfare, collective thinking

a multiplicity of devices
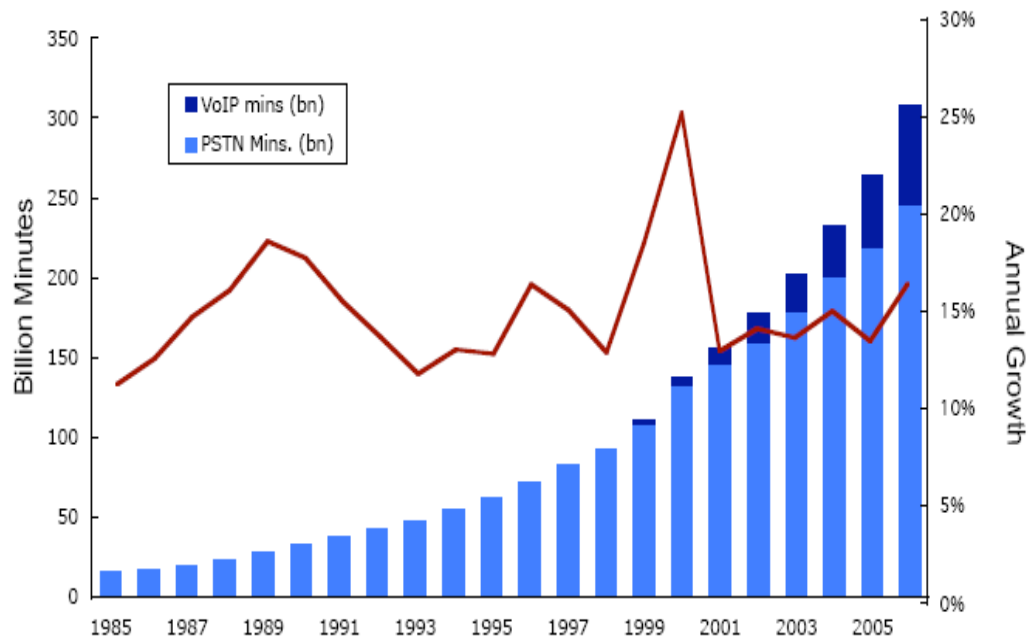
flickr/dan dickinson

flickr/R26B

apple.com

flickr/Peter Kaminski

flickr/jilldav

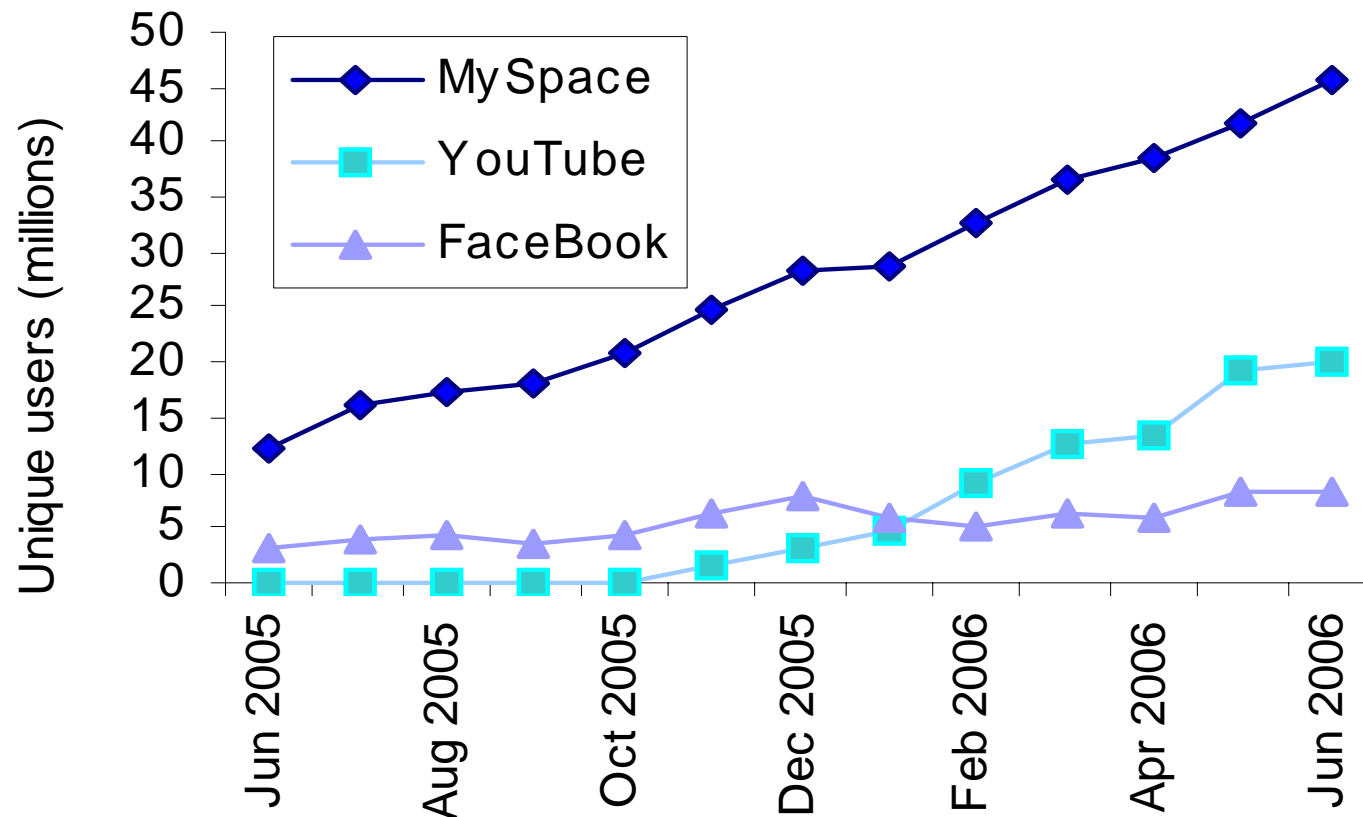# making global communications cheaper and more accessible
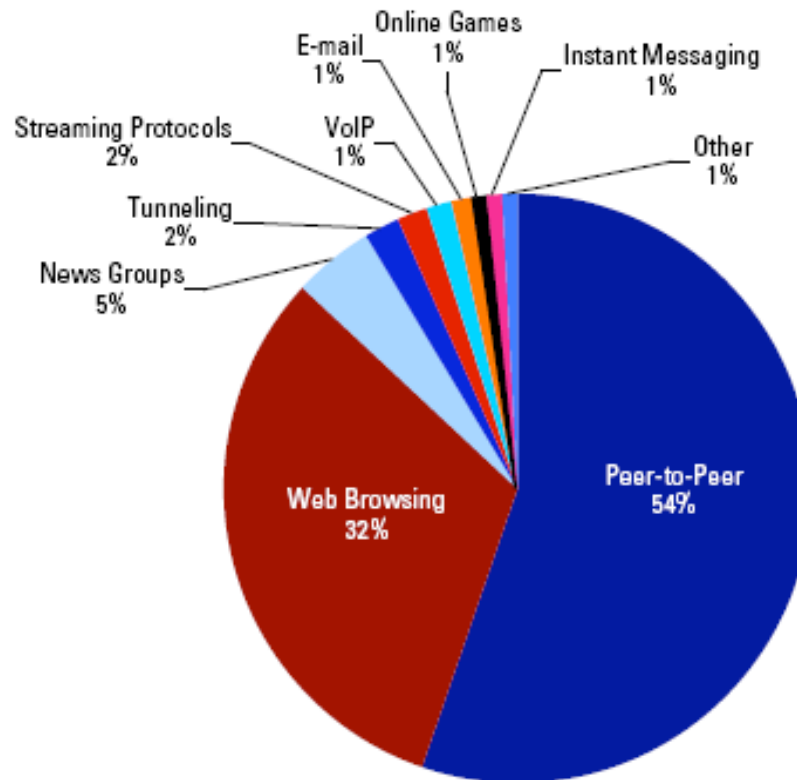

Source: Telegeography

it means communications takes on entirely new dimensions

ITU Internet Report 2006: **digital.life**

the driving force of peer to peer, person to person, user to user

Internet Traffic by Application

- Online Games 1%
- E-mail 1%
- Instant Messaging 1%
- Streaming Protocols 2%
- VoIP 1%
- Other 1%
- Tunneling 2%
- News Groups 5%
- Peer-to-Peer 54%
- Web Browsing 32%

Source: Sandvine, Telegeography, 2006

even entertainment
turns over a new leaf

flickr/another penny lane

flickr/aditza121

convergence...

divergence...

urban-rural convergence
urban-rural divergence

convergence of generations, divergence of generations

real-virtual convergence, real-virtual divergence

flickr/pathfinder linden

transition

and evolution...
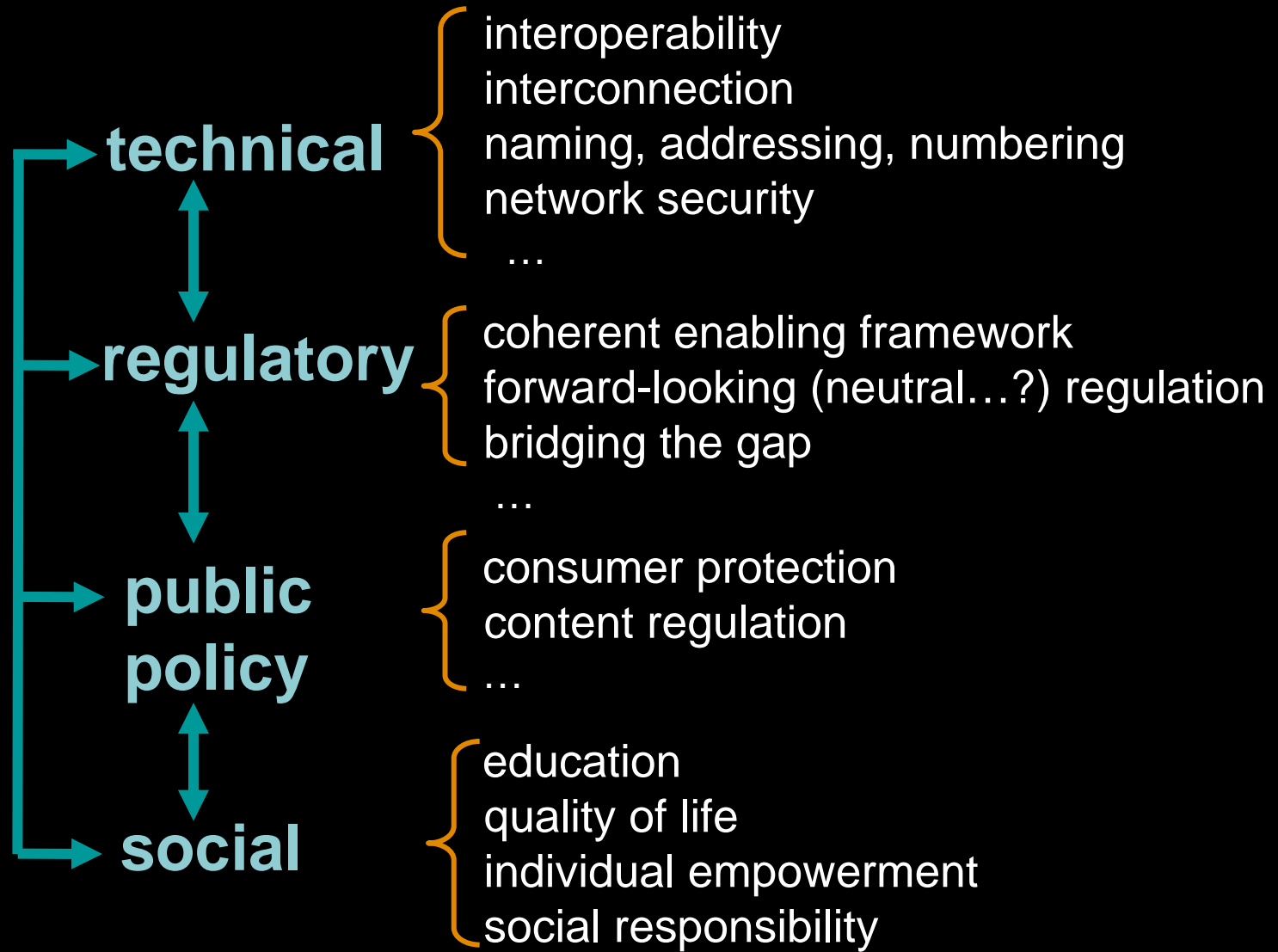
the converging web: 1.0, 2.0. 3.0?

- **web 1.0** characterized by one-way interaction between businesses and users

- **web 2.0** characterized by user-driven platforms and content (e.g. creation, re-use, sharing). - also a social phenomenon in its own right

- what might the 3rd generation of the web bring? **web 3.0** may combine web 2.0 with the fruits of convergence at many levels, leading to the creation of a truly ubiquitous and intelligent global web

what's next?

rising to the
challenge

a sampling of the challenges ahead

technical
- interoperability
- interconnection
- naming, addressing, numbering
- network security
- …

regulatory
- coherent enabling framework
- forward-looking (neutral…?) regulation
- bridging the gap
- …

public policy
- consumer protection
- content regulation
- …

social
- education
- quality of life
- individual empowerment
- social responsibility
- …

educating the child in us

flickr/shashwat nagpal

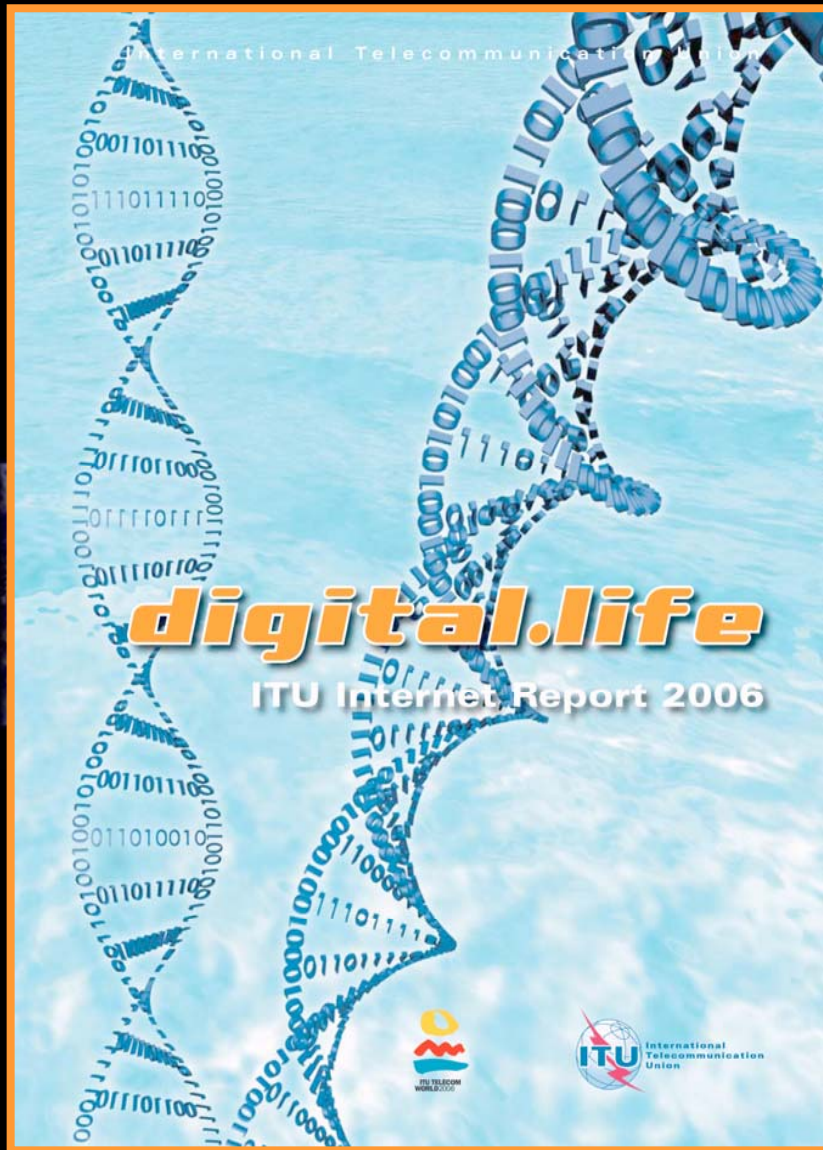# managing complexity

flickr/eli white

understanding identity

delaney/srivastava
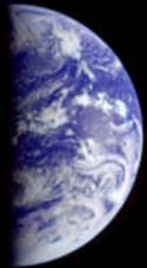
capitalizing on the local

ITU Internet Reports 2006

digital.life

I. going digital
II. lifestyles.digital
III. business.digital
IV. identity.digital
V. living the digital world

free download at:
www.itu.int/digitalife

Lara Srivastava, Mumbai, March 2007

World Telecommunication Policy Forum 2009

on Convergence and Emerging Policy Issues

www.itu.int/wtpf

WTPF – Geneva, March 2009

preparatory process begins now!

BE A PART OF THE FUTURE

nothing ever exists entirely alone
everything is in relation to everything else - buddha

thank you!

lara.srivastava(at)itu.int

Image: NASA