Challenges & Choices in a Digital Society

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A glimpse of six Challenges & Choices as we look towards tomorrow
An unprecedented amount of stuff accessed by the masses, so what are the consequential societal changes & challenges?
Challenge #1  Finding, understanding & trusting

A Convoluted Labyrinth of Truths

Recent urges for truth
- Finance & Banking Crisis
- Swine Flu Pandemic
- Global Warming
- Catastrophe’s e.g. earthquakes, floods
- Renewable energy
  @ Global, Europe, National Regional & Local level

¿In who do we trust?
- Government authenticated
- Scientific evidence
- Persuasive lobbyists
- Collective peer wisdom
- Relatives & friends
- Google’s ranking

......and why?

How to discriminate, assimilate, incorporate?
Challenge #2  Forever learning
formal versus non-formal education?

- Information available is doubling every 2 years!
- ½ of what we think we know is out of date in 5 years!
- We *somehow* are preparing students for jobs that don’t yet exist!
- How does this impact primary-secondary-tertiary education systems?
- When 90% of our youth engage in networks - they can & do learn
- Informal (non-formal) learning is a powerful & under-utilised capacity
- How to balance / integrate formal & non-formal learning?
- New forms of certification / accreditation processes
- It’s not simply a question of acquiring “digital competences”.
  From here on we have the opportunity of a continuum of learning
  for all of us …. for all of enterprise and commerce ….. for life
- IPTS studies & foresight on future of learning & skills
What are people doing on-line?

- Watch video clips online
- Listen to live radio/audio online
- Visit a friend’s social network page
- Read blogs
- Manage a profile on a social network
- Create a profile on a social network
- Leave a comment on a blog site
- Upload my photos to a photo sharing site
- Start my own blog/weblog
- Upload a video clip to a video sharing site

Source: Social Media Tracker, Universal McCann
Motivations

Social innovation

Direct collaboration

Collective intelligence

Few

Many

Disclosure

Specialisation

Skills seeking

long-tail innovative activities & specialised communities

collaborative content creation

collaborative filtering

information sharing

social networking

Motivations
The rise of **networked individualism** (Wellman, et.al 2003)

People attribute **new meaning** to new media activities. Humans do not engage in activities that are meaningless. If you think you see people doing things you find meaningless, look again and try to understand what the activities mean for them. (Henry Jenkins, MIT Comparative Media)

The communication novelty in contemporary society is **mass self-communication** by “the creative audience” (in addition to interpersonal & mass communication) (Castells 2009)

The emergence of a new power struggle or **conflict** between the global corporate multimedia networks and the creative audience (Castells, 2009)

Web2.0 has given rise to a **new techno-deterministic optimism** that resembles the internet boom of the 1990s (Fuchs, 2009)
Stigmergic (collective intelligence)

Emergence of unfamiliar, unpredictable patterns

Trusting each other is the glue of the system

Beyond user centricity & on to “we”-centricity

Capacity of self-governance, self-determination, structural reconfiguration of familiar social order
Traditionally, **community** was measured by **locality**

Today, **emotionally near** may be **geographically far**

We are shifting from **locational** to **relational** communities

The Dunbar-number (1992) estimated social contacts are limited to 150

Our personal networks are mobile, dislocated, dynamic, hierarchical

We self-organise our many cliques & sympathy groups at a size of ~50

BUT we need tools to carefully manage our communities & groups
“People's privacy and the integrity of their personal data in the digital world is not only an important matter, it is a fundamental right, protected by European law”

Viviane Reding, EU Commissioner, November 2009

- IPTS (with DGs-INFSO & JUST) will launch a citizen survey (Dec2010)
- 27 MemberStates, 1000 respondents per country
- Building a fresh evidence base in support of upcoming legislation changes
Challenge #3
me & my shadow!
the good, the bad and the ugly?

Digital Shadows

😊 Freedom to express views
😊 Blogging is easy
😊 Building a reputation is also easy
😊 Managing multiple identities!
😊 Uncontrollable replication
😊 Theft of identity & content
😊 Not tamper proof
😊 Cannot retrieve or delete copies

Picture source: http://photopostsblog.com/
Governance

- **People are empowered**
  - but are their interlocutors?

- **Constituency boundaries?**
  - who can comment on what?

- **Unequal Constraints**
  - to public & enterprise employees

- **Coping with the dynamic?**
  - e.g. social computing is largely self-governing
  - Experiment with new “comfort zones”

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Come senators, congressmen
Please heed the call
Don’t stand in the doorway
Don’t block up the hall
For he that gets hurt
Will be he who has stalled
There’s a battle outside
And it is rarin’
It’ll soon shake your windows
And rattle your walls
For the times they are a-changin’.

Bob Dylan 1963
Challenge #4 in a digital society

who governs who?

Source: IPTS / CROSSROADS – roadmap for governance and policy modeling
Public expenditure on health & long-term care absorbs 6.8% EU GDP, some (€800B) (OECD average)
Extrapolates to 2x in 2050 (demographics) & with shrunk workforce
ICT for personal health, monitoring & care systems helps to contain costs while improving clinical outcomes and can facilitate assisted, dignified, active ageing & possible extended economic activity.

Many pilot schemes all over the EU but there is a lack of consensus on hard economic & clinical evidence that is hampering policy decisions & wider diffusion

IPTS research will use available data combined with sophisticated agent-based & CGE modeling platforms to create macro-scenarios for 2020 for chronic issues (e.g. heart, asthma, diabetes) in order to evaluate a range of policy options

We are ready to collaborate with professionals wanting to contribute to building these 2020 scenarios – contact us
When I was a boy, before global warming, seasons happened. Winters were freezing, spring was wonderful, summer meant……

FRESH STRAWBERRIES!
& strawberry jam for the rest of the year

Today's networked, multi-continental logistics, instant market survey, just-in-time delivery, subsidised transport, demanding consumers……

YEAR ROUND STRAWBERRIES!
there's no thrill in strawberries anymore

A 250g serving of imported strawberries needs……
~250 liters of water & ~1 liter of oil to reach your table……
your daily food needs ~3,000 liters of water & ~3 liters of oil……

It takes really clever chips, fast networks and complex software to make all this happen……but it wasn't really our goal – was it?

Some challenges to face……some choices to make
Welcome to the IS Unit

Information and Communication Technologies (ICT) underpin all aspects of the economy and our society and fuel improvements in innovation, competitiveness, effectiveness and efficiency in the private and public sectors, and also provide opportunities for more inclusive society and economy. This is not a static picture: the underlying technologies continue to evolve at a formidable pace, and to spawn new applications. The work of the IS Unit contributes to addressing key EU challenges, for example, re-starting economic growth, ensuring long-term competitiveness, fighting unemployment and reinforcing social cohesion.

In particular, the work of the IS Unit focuses on the following areas:

- Economic Aspects of eHealth
- Digital Economy
- ICT Industry Analysis
- Social Computing
- Digital Living & Identity
- Inclusion & Cultural Diversity
- Learning & Skills
- eGovernance

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