

## Joint Research Centre (JRC)

# Learning 2.0

## Promoting Innovation in Formal Education and Training in Europe



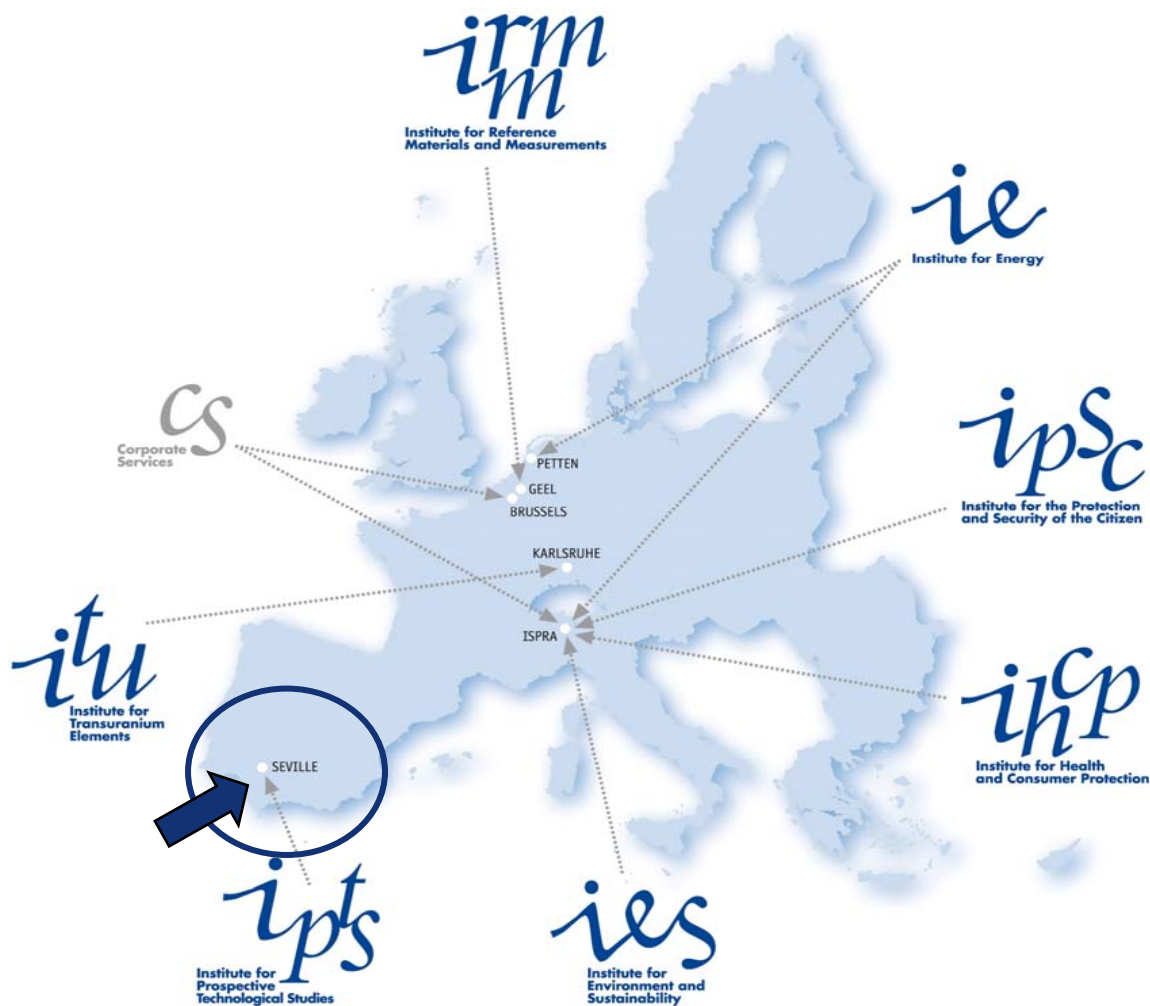
**Christine Redecker & Yves Punie**

**IPTS - Institute for Prospective Technological Studies**

*Seville - Spain*

<http://ipts.jrc.ec.europa.eu/>

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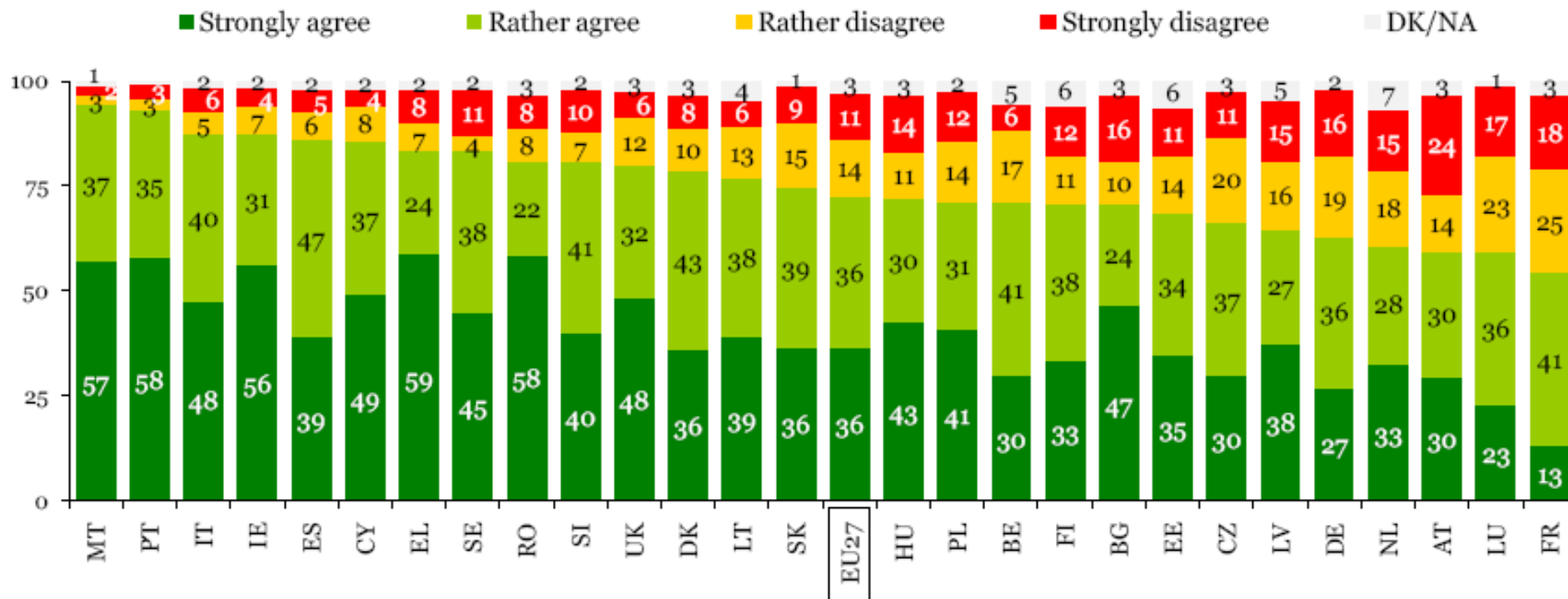


**IPTS:** Part of Joint Research Centre of the EC: 7 Research Institutes across Europe

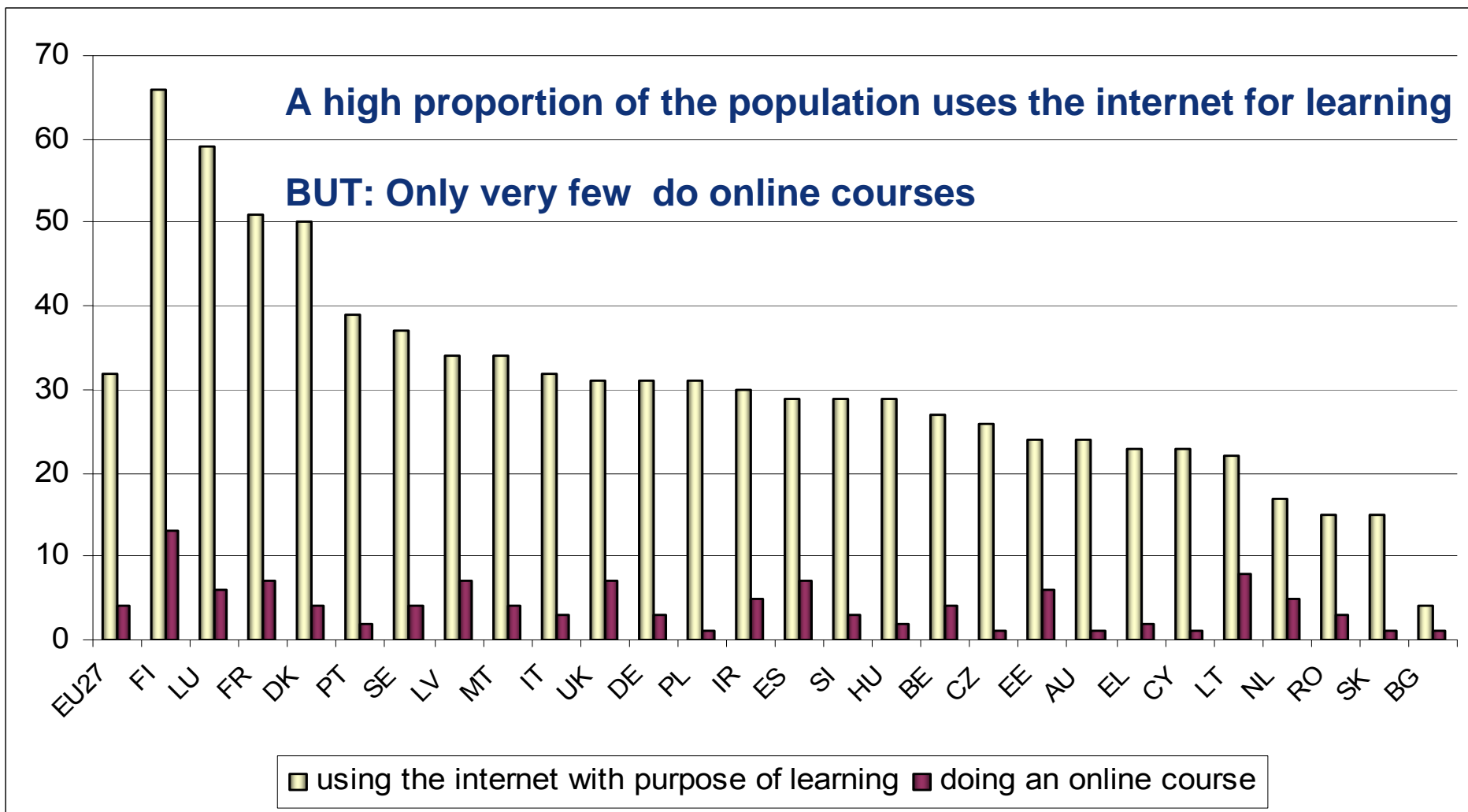
**Mission:** "to provide customer-driven **support to the EU policy-making process** by developing science-based responses to policy challenges that have both a **socio-economic** as well as a **scientific/technological** dimension"

# Why study Learning 2.0?

*The Internet has improved your opportunity to learn*

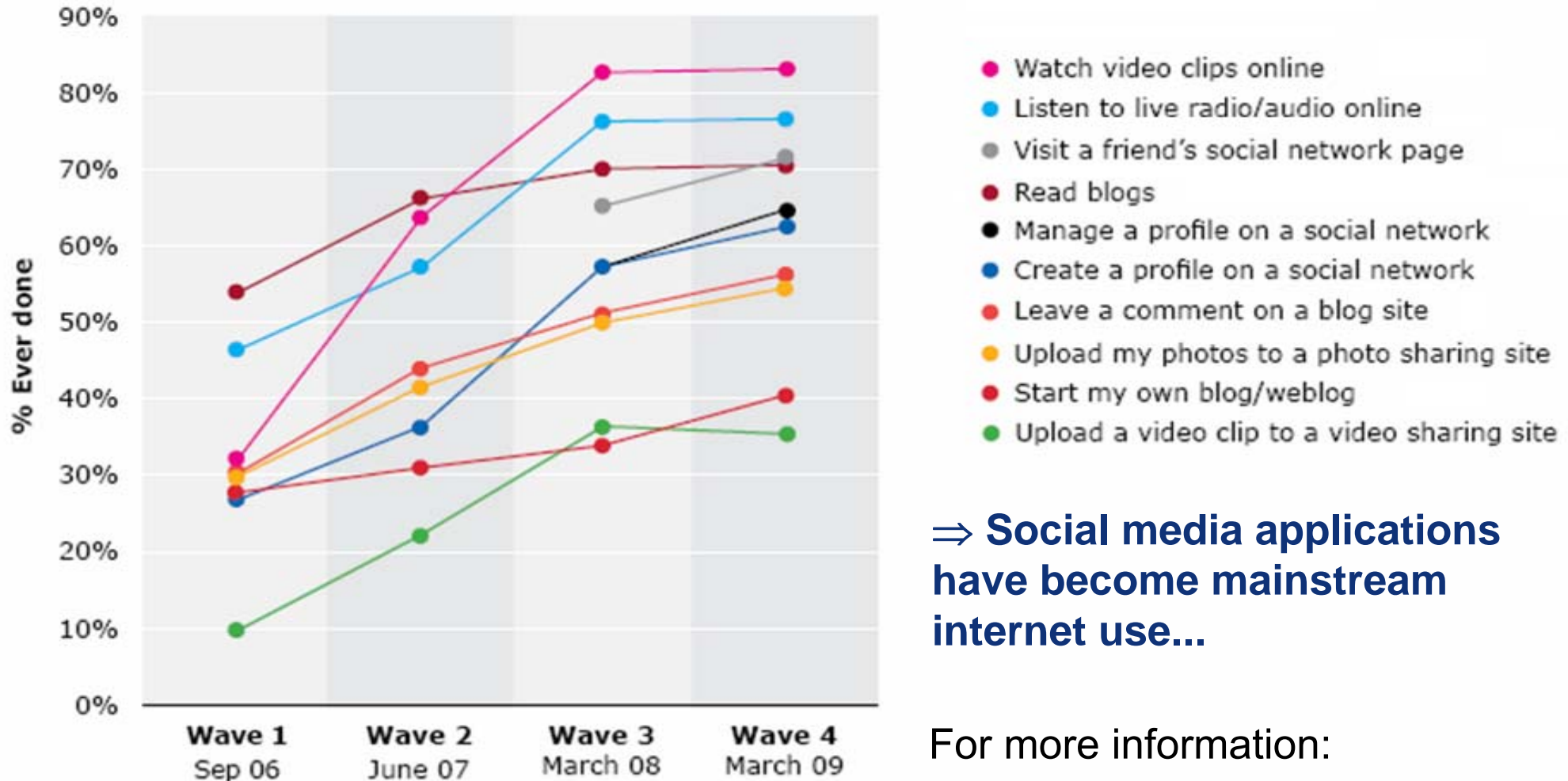


**Q6. Based on your personal experience, to what extent do you agree with the following statements about the Internet: do you strongly agree, rather agree, rather disagree or strongly disagree that the Internet has improved:**  
*Base: who used the Internet in the last 3 months*  
*% by country*



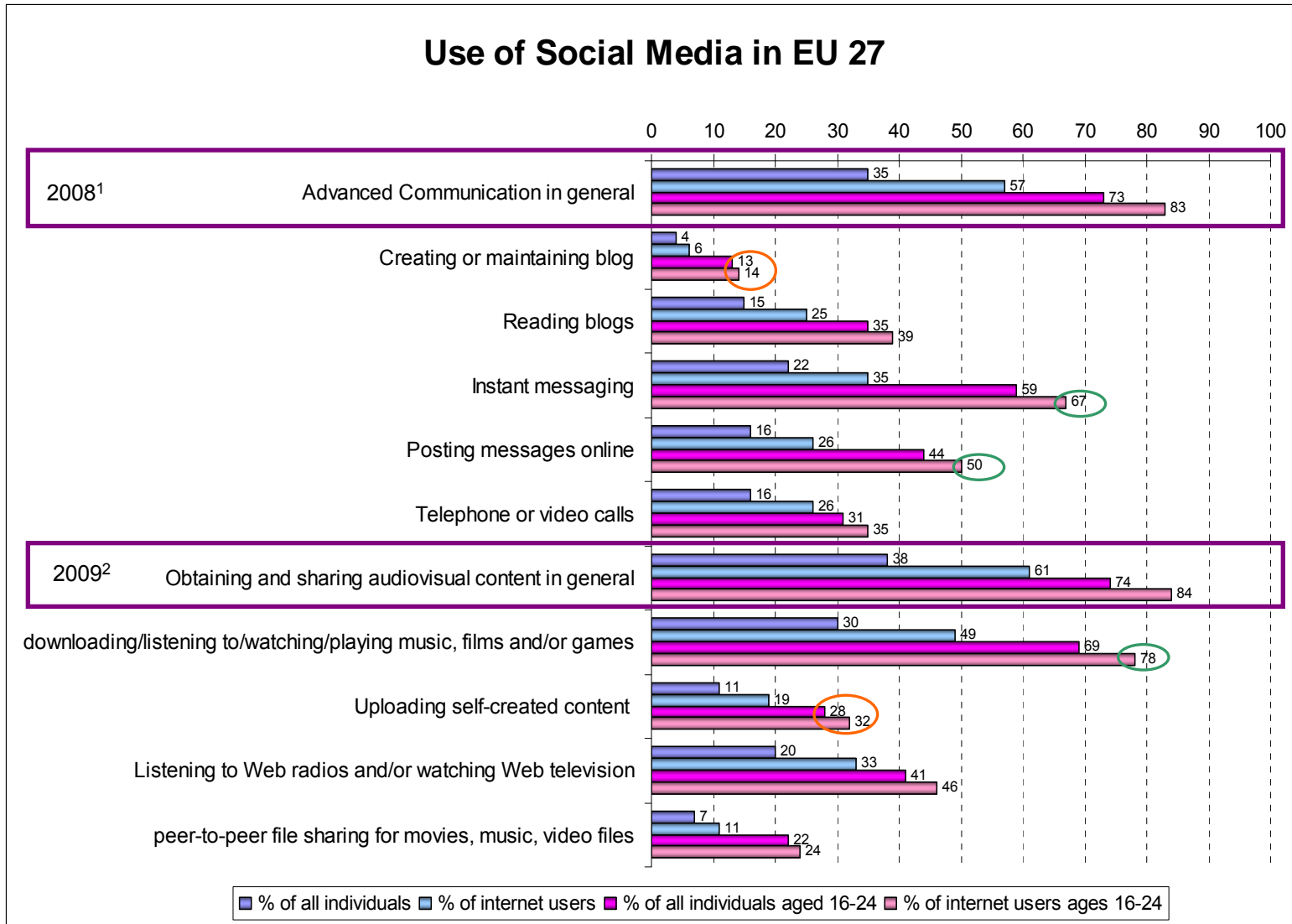
## Reach over time

**Active internet users:** "Thinking about using the internet, which of the following have you ever done?"



⇒ **Social media applications have become mainstream internet use...**

For more information:



Source: Eurostat information society statistics: <sup>1</sup>Eurostat 2008: Special module on individual's use of advances communication services; <sup>2</sup>2010 benchmarking indicators, data of the 2009 household survey

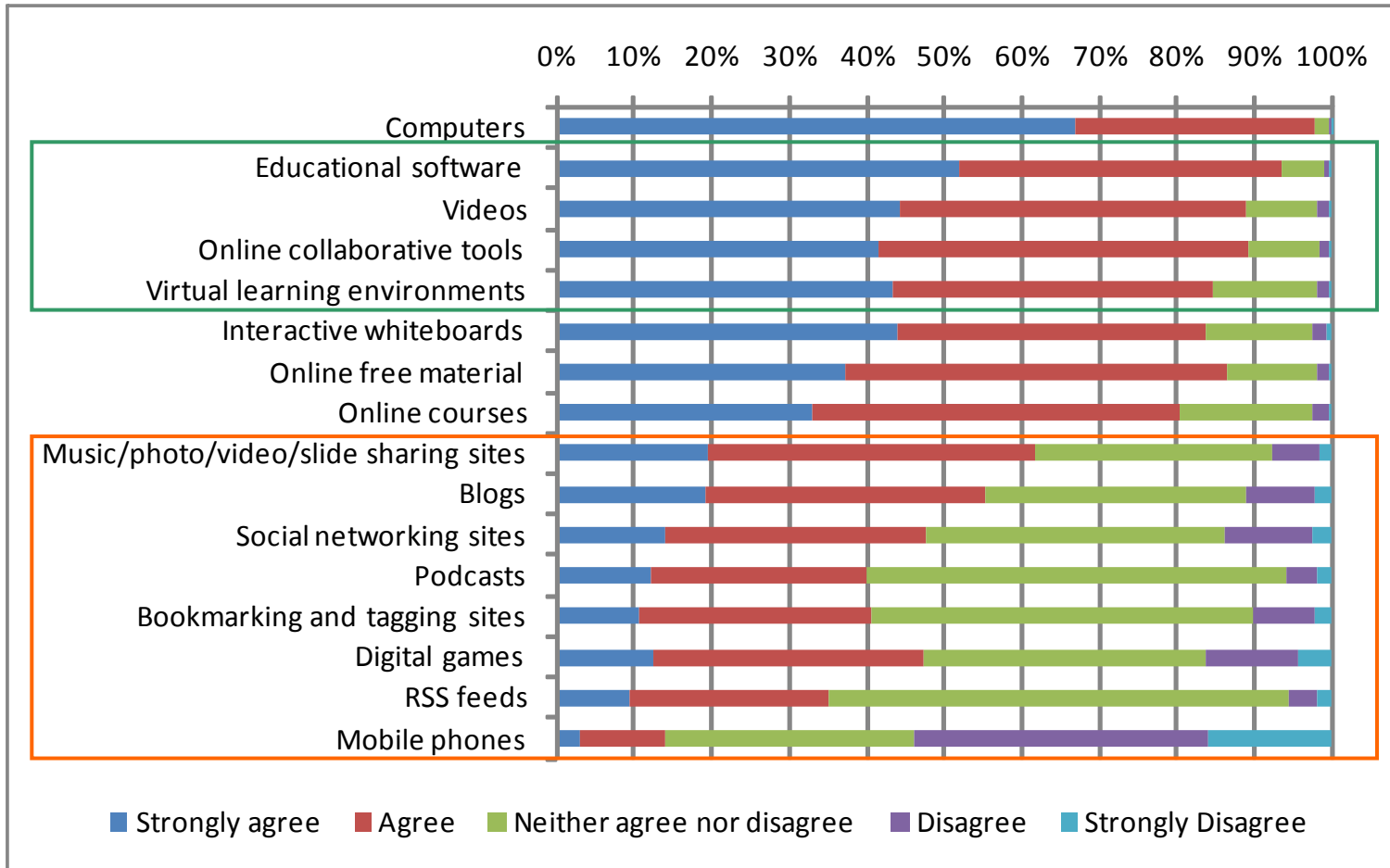
# What is happening in schools and universities?



Do you consider these technologies to be important for learning?

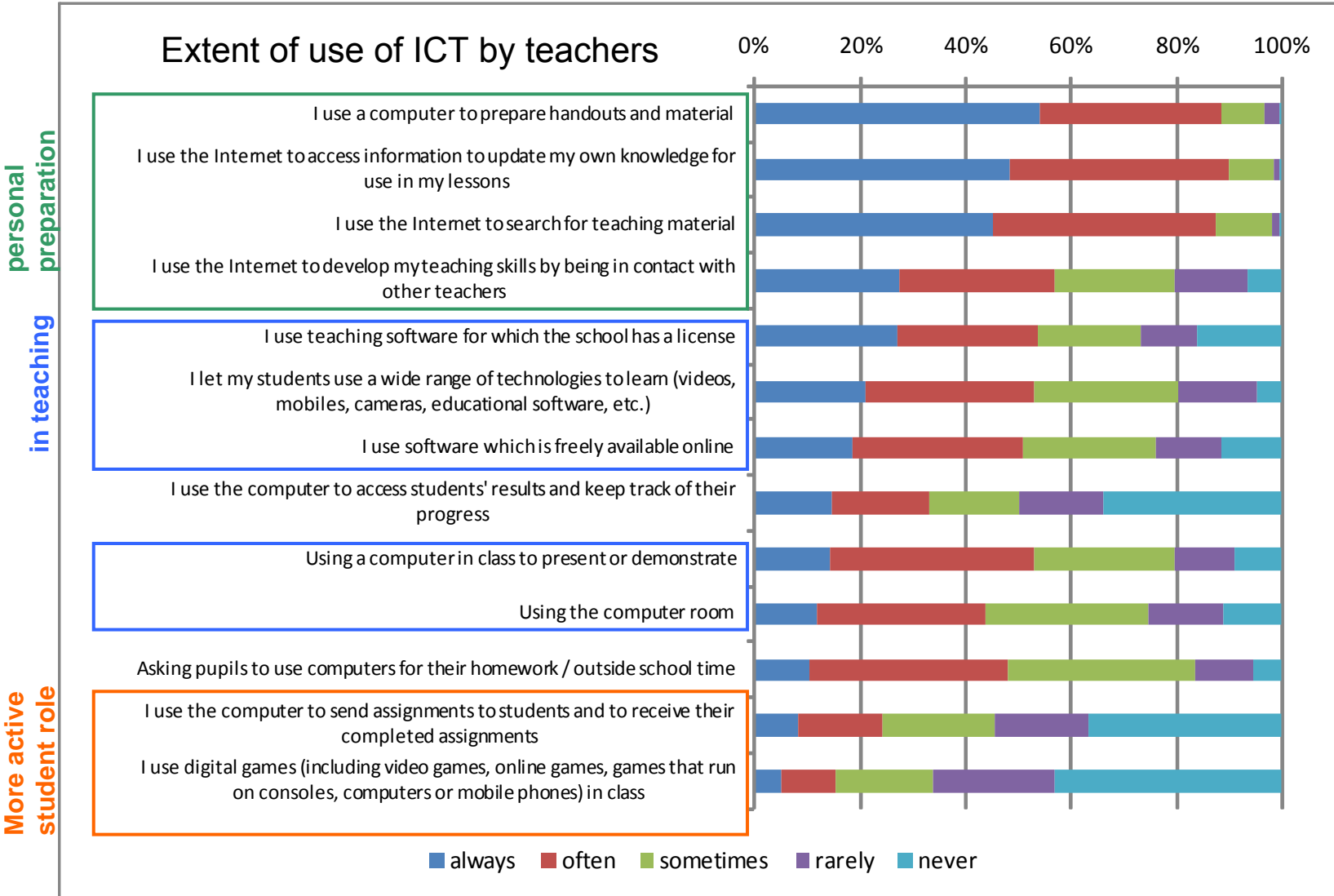
High expectations  
"classical" ICT  
solutions

Low awareness  
of the  
potential of  
web 2.0 for  
learning



Source: *Creativity in Schools in Europe: A survey of Teachers*. European Commission 2009.  
[http://ftp.jrc.es/EURdoc/JRC55645\\_Creativity%20Survey%20Brochure.pdf](http://ftp.jrc.es/EURdoc/JRC55645_Creativity%20Survey%20Brochure.pdf)

Note: For the online collaborative tool item Wikipedia was given as an example



Source: *Creativity in Schools in Europe: A survey of Teachers*. European Commission 2009.  
[http://ftp.jrc.es/EURdoc/JRC55645\\_Creativity%20Survey%20Brochure.pdf](http://ftp.jrc.es/EURdoc/JRC55645_Creativity%20Survey%20Brochure.pdf)

⇒ Different uses of ICT. BUT: little use of web 2.0 (or other innovative approaches)

# There must be more!

## Learning 2.0 – Innovating Formal Education & Training

02/2008 – 08/2009

### Key research questions

What is the potential of Learning 2.0 for **promoting innovation** in E&T in Europe?  
What is its potential for **promoting inclusion** by re-engaging groups at risk of exclusion?

### Scope

Investigate Learning 2.0 initiatives in **primary, secondary and tertiary E&T**; assess the potential for supporting technological, pedagogical and organisational **innovation**; identify & study projects for **inclusion**

### Methodology

Literature and resource review  
Case collection (250 cases)  
In depth case studies (8+8 cases)  
Expert Workshop (October 2008)  
Synthesis and Assessment

## Innovations in ICT-enabled Learning Communities

06/2008 – 08/2009

### Key research questions

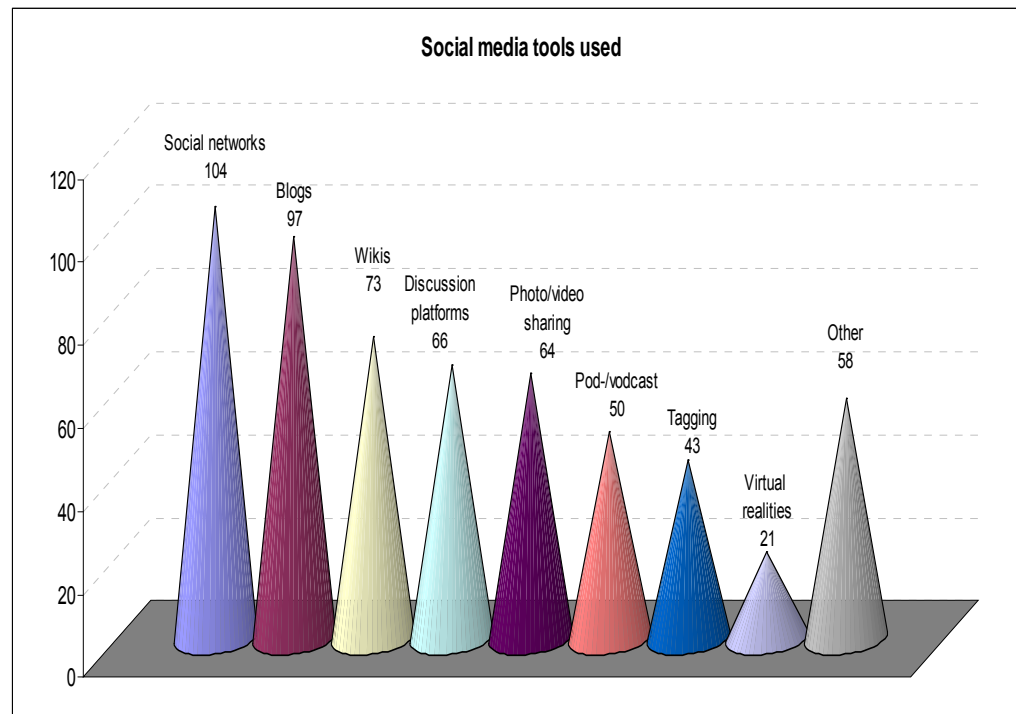
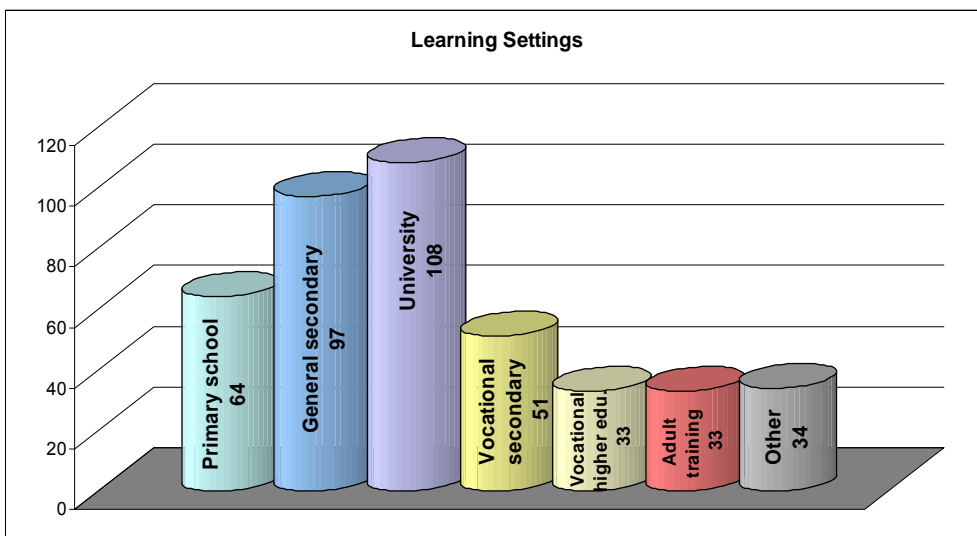
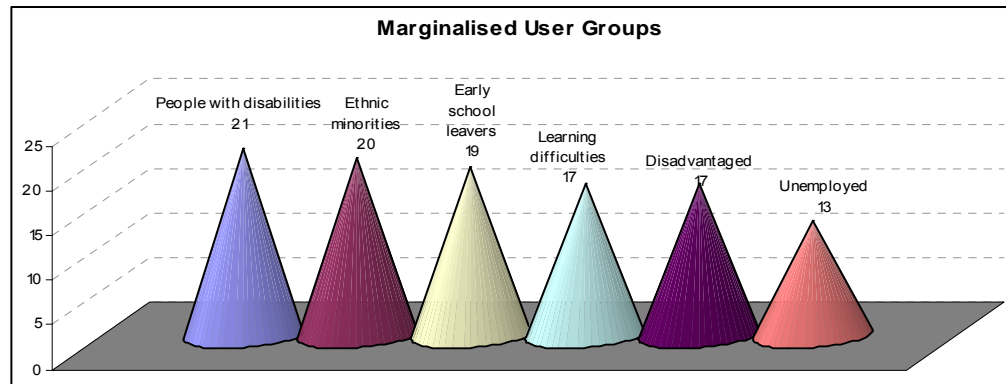
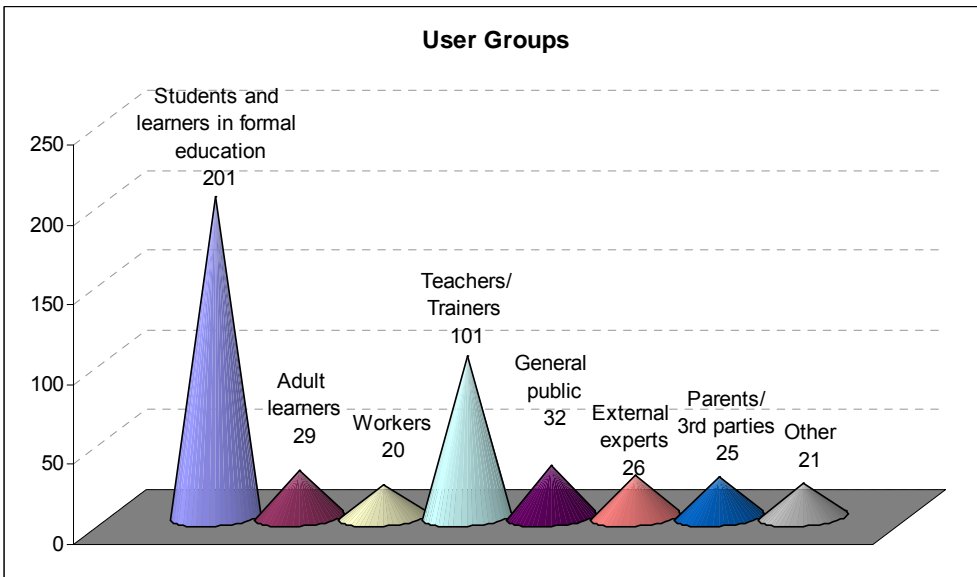
Can new **ICT-enabled communities** benefit **lifelong learning**? How?  
What can E&T systems learn from them?  
What are the risks and challenges?

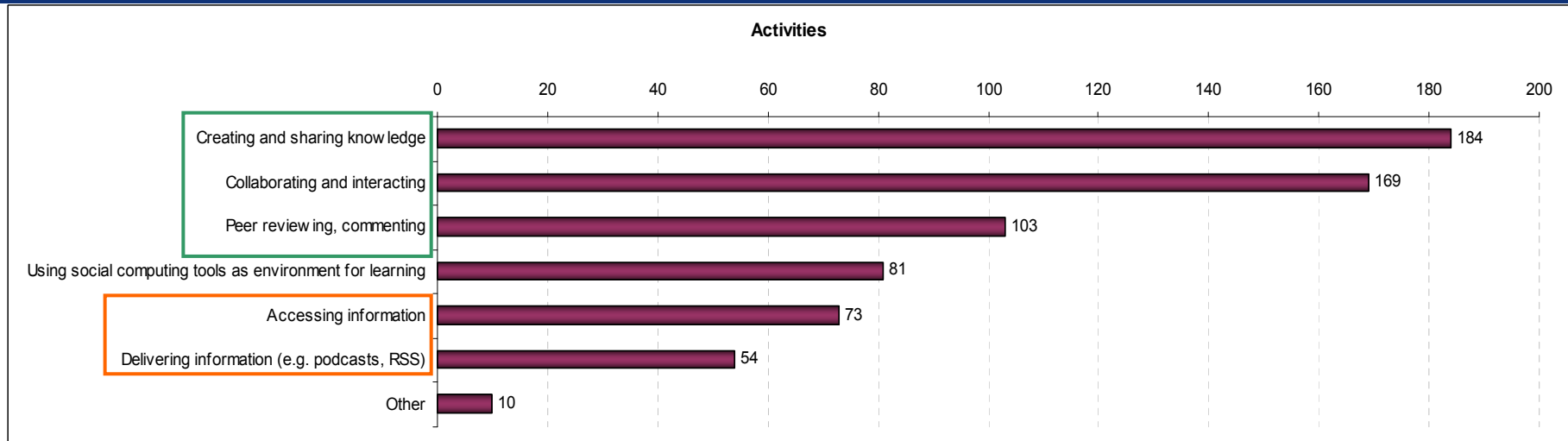
### Scope

Learning emerging in **online communities** consisting of (Preece 2000):  
*People*, who interact socially with a shared *purpose*;  
*Policies* that guide people's interactions;  
*Computer systems* to mediate social interaction;  
learning through individuals' networked activities

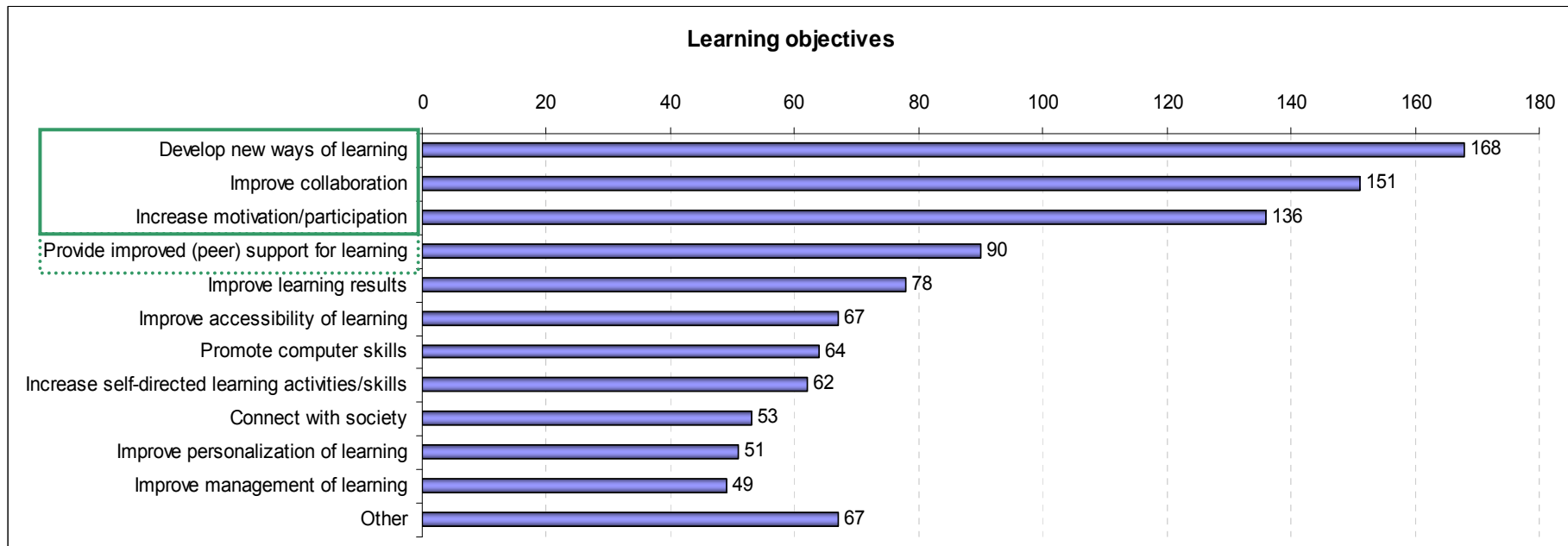
### Methodology

Literature and resource review  
In depth case studies (12 cases)  
Expert Workshop (March 2009)  
Synthesis and Assessment



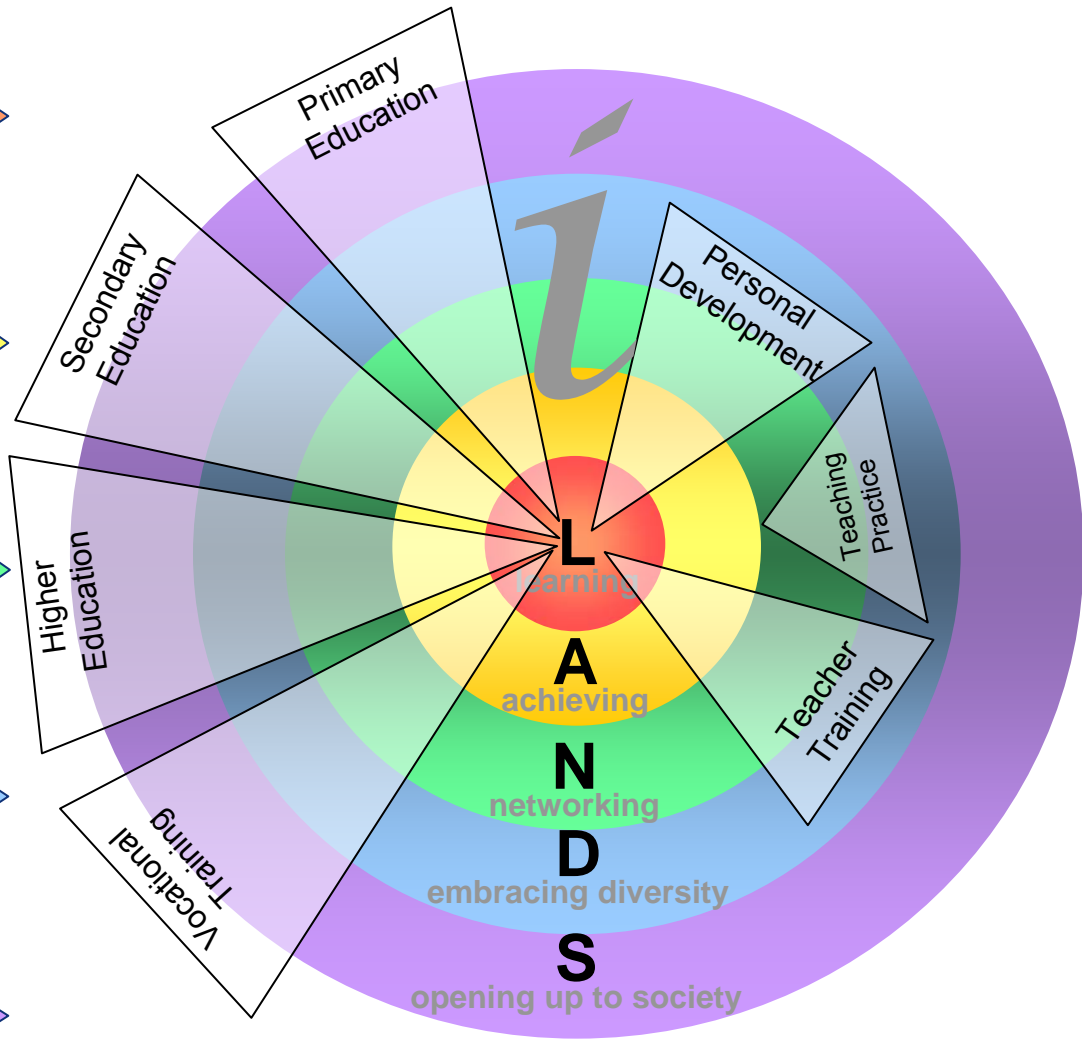


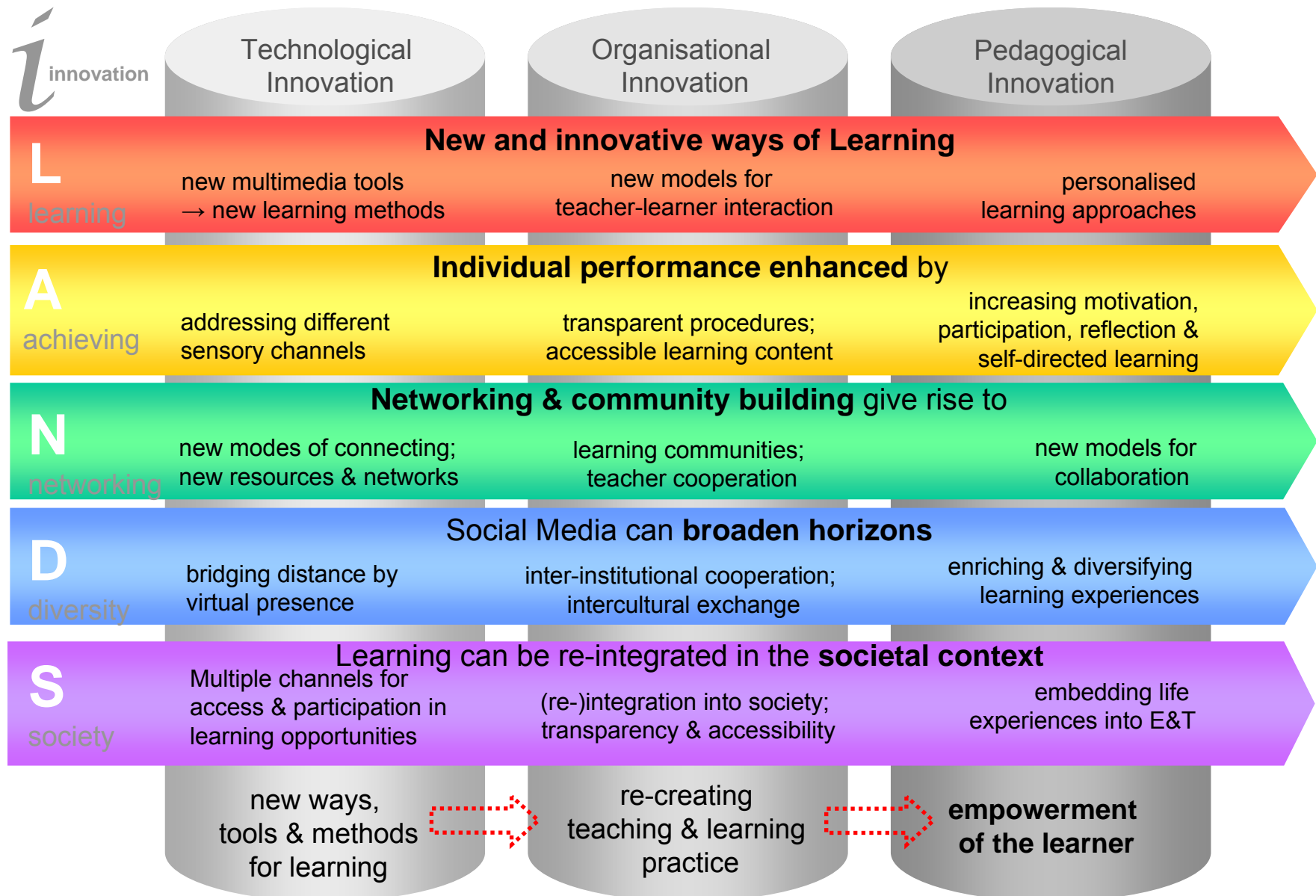
## Focus on more innovative and collaborative activities and learning objectives



*i*nnovation

- New and innovative ways of learning**
  - investigating & studying a subject
  - accessing & managing information
  - personalising learning pathways
- Individual performance raised by**
  - addressing different sensory channels
  - collaboration, personalisation
  - rise in motivation, participation, reflection
- Networking**
  - new modes of representation (3D)
  - new learning communities
  - new collaboration models
- Diversity: Social Computing can contribute to**
  - bridging distance by creating virtual presence
  - inter-institutional cooperation
  - personal development, civic competences
- Linking with Society: SC supports**
  - access, transparency & control
  - (re-)integration of E&T into society
  - shift of power towards the learner







<b>Case Contribution to Overall Findings</b> ‘++’ = strong contribution; ‘+’ = moderate contribution; empty cells indicate no contribution	Welker's	SecondReiff	Protonoulia	IBM	Kool	ELKOnet	LeMill	Netilukio
<b>Technological Innovation</b>								
Trend towards embedded or integrated solutions	+		++	++	++	++		
Near-future trends: Virtual worlds, mash-ups, integration		++		++				
<b>Organisational Innovation</b>								
New interfaces between formal & informal environments	++	+	++		+	+	+	+
Opening E&T organisations towards society	+		++	++	++			
Promoting institutional flexibility and openness	+		++		+		+	+
<b>Pedagogical Innovation</b>								
New ways of collaborative creation and exchange	++	++	++	++	++	+	++	+
New forms of communication for learners & teachers	++	++	++	++	+	++	++	++
More personalized and learner-centred environments	++	++	+	++	+			++
New forms of blended learning scenarios	++	++	++	+	++	+		++
Motivational advantages; learner's sense of ownership	++	++	+	++	++	+		+



United Kingdom [ change ]

IBM

Home Solutions Services Products Support & downloads My IBM

Welcome [ IBM Sign in ] [ Register ]

## Web 2.0 Goes to Work for Business

Social software - enabling the power of participation

**IBM internal knowledge exchange:**  
**Discussion forums: 400,000 entries, 150,000 threads**  
**Blogs: 13,000 blogs; 2,000 blogs frequent entries; 60,000 active contributors**  
**Wikis: 12,000 wikis with 190,000 pages; 65,000 daily users; 2/3 of staff use wikis actively**  
**Bookmark sharing: 550,000 links shared by 20,000 employees**  
**'Bluepages' networking tool: 580,000 profiles; 3 million queries per month**

A leader in Web 2.0 technologies, IBM has the software, services and hardware to help businesses gain value from Web 2.0 today.

Although there are many vendors touting their Web 2.0 products, IBM is one of a very few companies that is able to provide end-to-end Web 2.0 solutions for business. Our R&D labs have produced the award winning Web 2.0 innovations that we use every day to gain greater productivity and competitive advantages and now your company can take advantage of the same benefits. The IBM Web 2.0 vision combined with an extensive list of customer success stories will gain your confidence and trust that teaming with IBM is the best choice for tapping into the benefits of Web 2.0 technologies.



**Social computing for business**  
Businesses of all sizes are gaining a competitive edge by tapping into social computing benefits.



**Web 2.0 technologies for business**  
Bring together individuals, information and data to drive new market opportunities.



**Web 2.0 platform for business**  
Use the Web as a delivery platform to assemble new, unique and consumable applications.

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## Welker's Wikinomics

Resources for students and teachers of Economics



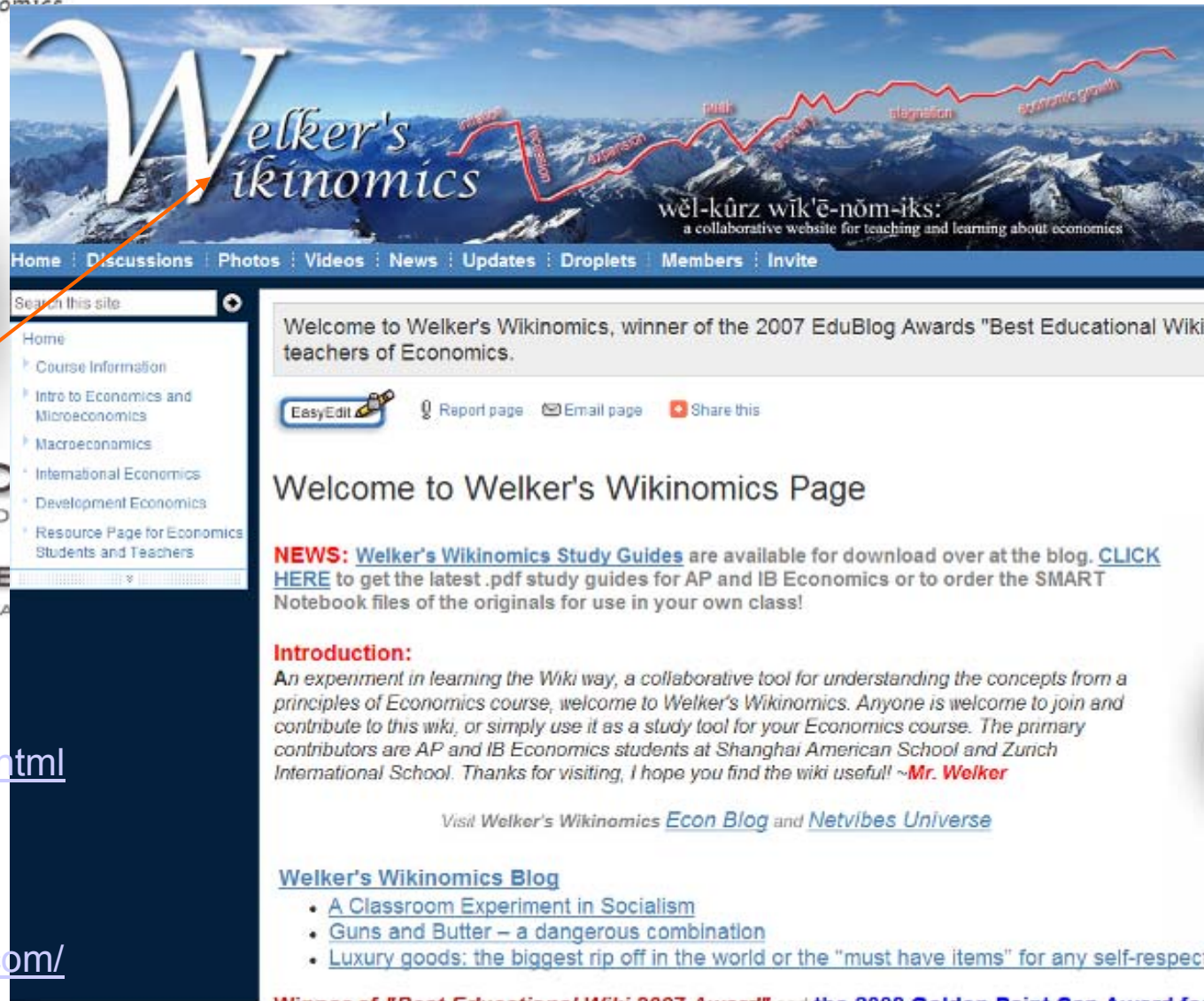
**BLOG** [READ]      **WIKI** [CREATE]      **FORUM** [DISCUSS]

**LECTURE NOTES** [TEACH]      **UNIVERSITY** [RESEARCH]

 Welker's Wikinomics by [Jason G. Welker](#)

<http://welkerswikinomics.com/home.html>

<http://welkerswikinomics.wetpaint.com/>



**Welker's Wikinomics**  
wēl-kūrz wīk'ē-nōm-īks:  
a collaborative website for teaching and learning about economics

Home | Discussions | Photos | Videos | News | Updates | Droplets | Members | Invite

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**Introduction:**  
*An experiment in learning the Wiki way, a collaborative tool for understanding the concepts from a principles of Economics course, welcome to Welker's Wikinomics. Anyone is welcome to join and contribute to this wiki, or simply use it as a study tool for your Economics course. The primary contributors are AP and IB Economics students at Shanghai American School and Zurich International School. Thanks for visiting, I hope you find the wiki useful! ~Mr. Welker*

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- [Guns and Butter – a dangerous combination](#)
- [Luxury goods: the biggest rip off in the world or the "must have items" for any self-respect](#)

Winner of "Best Educational Wiki 2007 Award" and the 2008 Golden Point-Of-View Award

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New forms of blended learning scenarios	++	++	++	+	++	+		++
Motivational advantages; learner's sense of ownership	++	++	+	++	++	+		+

learner as  
consumer

Content

learner as  
producer

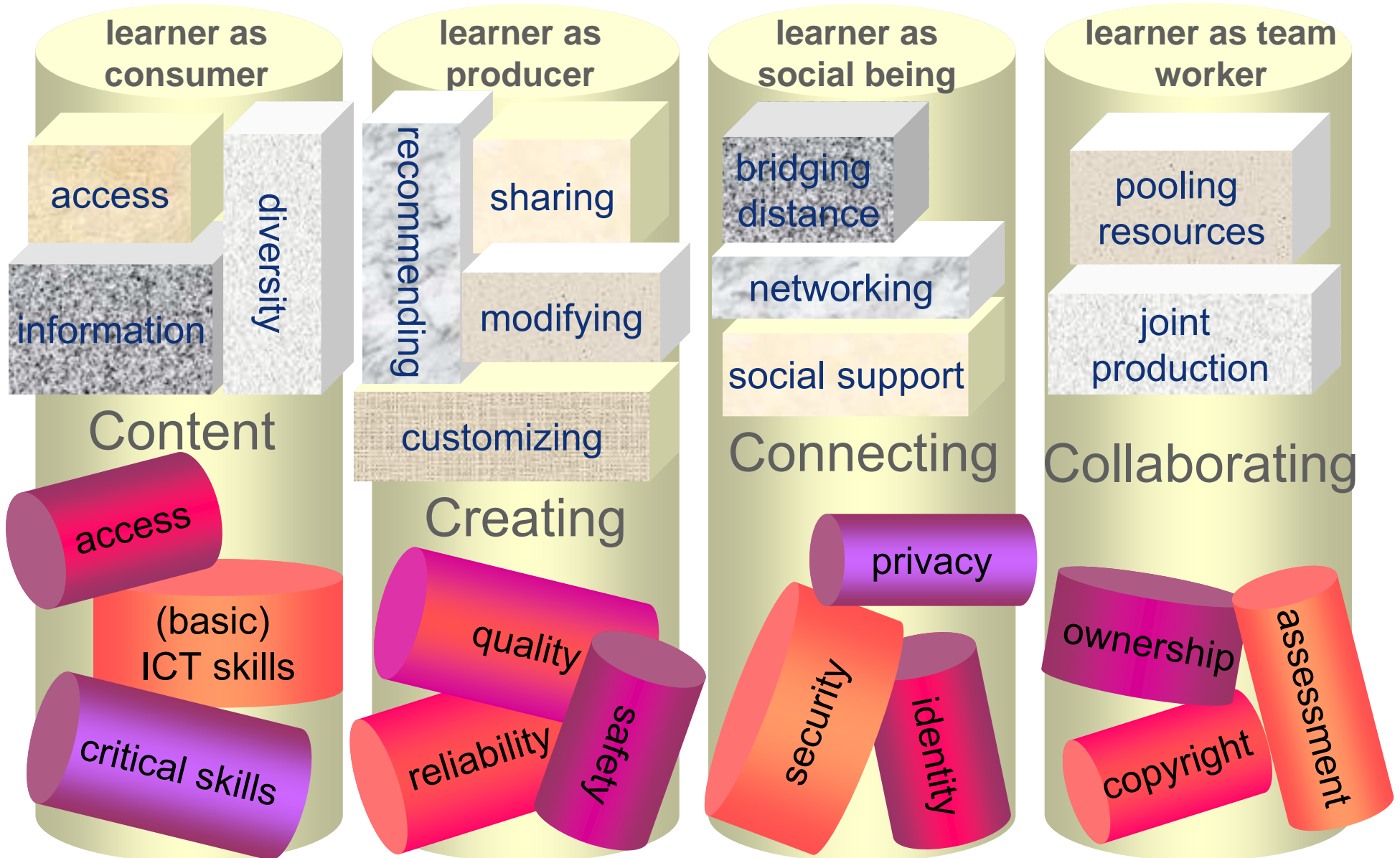
Creating

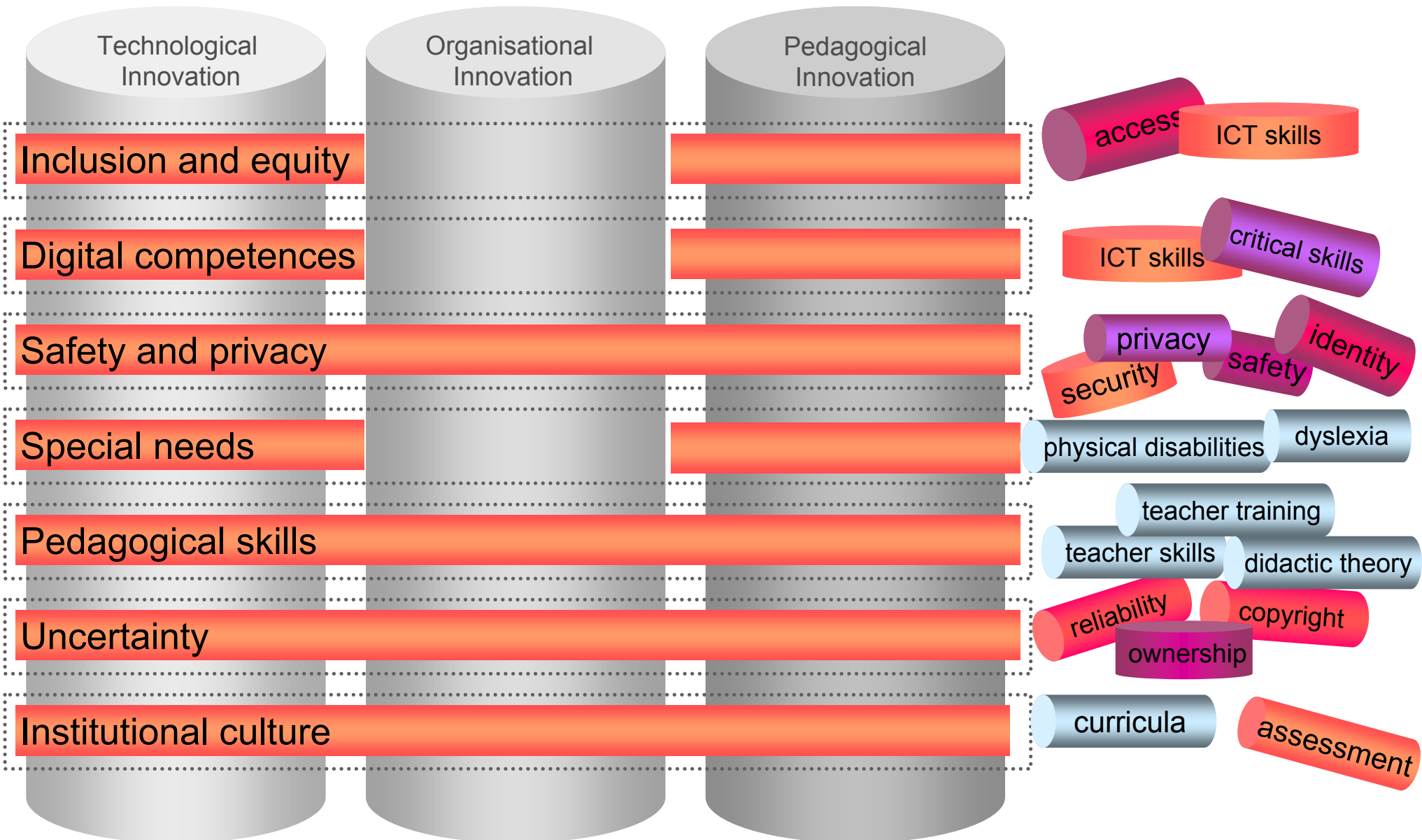
learner as  
social being

Connecting

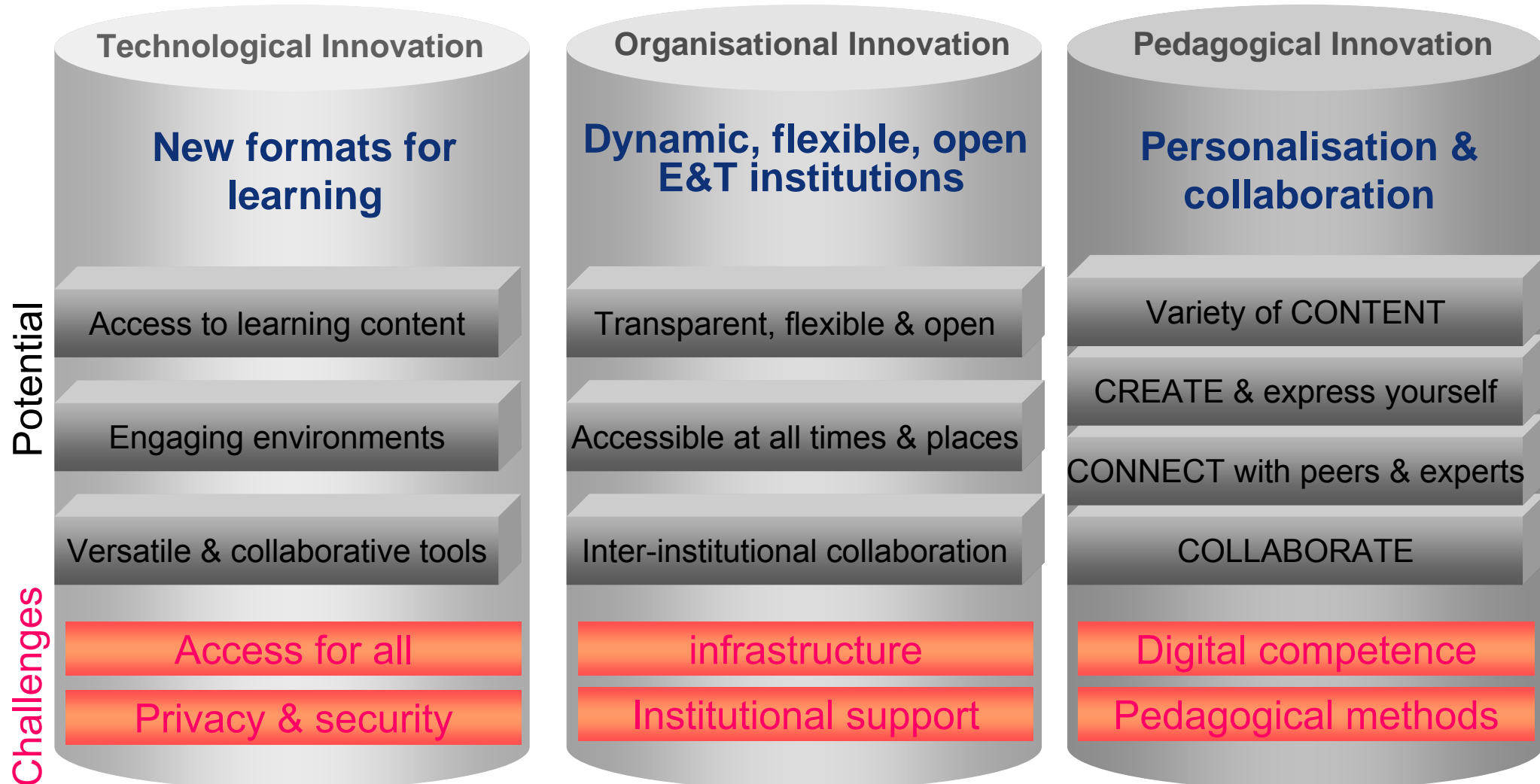
learner as team  
worker

Collaborating





Learning 2.0 both requires and facilitates innovation in formal E&T



→ Technological change must go hand in hand with pedagogical and organisational change



**Thank you very much for your attention!**

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<http://is.jrc.ec.europa.eu/pages/EAP/eLearning.html>