New Ways of Learning with Social Computing

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*The views expressed by the authors are not necessarily those of the EC*
1. The Context of the Research Project
2. The Impact of the Web 2.0 on Learning
3. Opportunities of Learning 2.0 for E&T
4. Challenges
5. Conclusions
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”
Social Computing take-up in EU27

**Social Computing (SC) Users**
- 26% users
- 74% non-users

**Internet Users**
- 64% users
- 36% non-users

Source: EUROSTAT 2008 & Flash EB N.241
Social computing applications are becoming mainstream internet use...

Source: Social Media Tracker, Universal McCann
... for those already connected!
### Learning 2.0 – Innovating formal Education & Training

**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 informal ICT-enabled Learning Communities

**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 as well as learning through
  - **individuals’ networked activities**

**Methodology**
- Literature and resource review
- In depth case studies (12 cases)
- Expert Workshop (March 2009)
- Synthesis and Assessment
The Impact of Web 2.0 on Learning

**Content**
- access
- diversity

**Creating**
- sharing
- modifying
- recommending

**Connecting**
- bridging distance
- networking
- help & support

**Collaborating**
- joint production
- pooling resources
Greater access to learning content...

> 8348 videos, 6062 lectures, 5379 authors, 291 events
> 1500 videos from MIT, Stanford, Berkeley, Harvard, Princeton, and Yale
Top rated courses, lectures, instructors
Kanab Creek Wilderness—Lower jumpup springs to camp

Show your favorite trails

Upload your trail »

Discover new trails

Google Earth (KML)

- Mirror Lake & Lone Eagle Peak (United States)
- Jasper Skyline Trail (Canada)
- Ruta del Cares (España)
- Volcan Ceboruco (Mexico)
- Mount Haruna cycling (Japan)
- Aconcagua (Argentina)
- Platia to Rohart (Greece)
- Guzelbahce-Balcova (Turkey)
- Col de Balme – Le Tour (France)
- Páskafjord, Landmannalaugar og Vatnajökull (Iceland)
- Titan Desert Mountain Bike Race (Morocco)

Find trails

108513 more »

Examples: "New York", "Moab" or "Jasper"

http://www.wikiloc.com/wikiloc/home.do

worldwide
> 100,000
walking and
mountain bike
trails
uploaded
by users
Online community ("a safe venue") for sharing instructional videos for teachers, schools, and home learners

- About 800,000 visitors every month; 220,000 regular users and more than 54,000 videos (launched in 2007)
- Most popular: teacher rapping about the math concept of perimeter (355,000 hits) and top 10 list of "things you do not learn about teaching in college" (227,000 hits).
- Top 1 video is "Pay Attention" (820,000 hits) (Cf infra)
5800 members; mean age 38; 62.6% female; more than 40% with university degree.
Livemocha is the world's largest language learning community with over 3,000,000 members from over 220 countries, speaking over 100 different languages.

Livemocha members completed over 2.2 million language learning activities in May 2009.

Livemocha members who submit a spoken or written language exercise receive an average of 3 reviews from native speakers.

Livemocha has a global footprint, with paying customers in 76 countries.

(plantb.com/news/home/20090625005822/en)
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

http://www-01.ibm.com/software/uk/web20/
Collaborating on a school subject

Visit Welker's Wikinomics [Econ Blog](http://welkerswiginomics.com/home.html) and [Netwibes Universe](http://welkerswiginomics.wetpaint.com/)

Welcome to Welker's Wikinomics, winner of the 2007 EduBlog Awards "Best Educational Wiki" for students and teachers of Economics.

**NEWS:** Welker's Wikinomics Study Guides are available for download over at the blog. CLICK HERE to get the latest, pdf study guides for AP and IB Economics or to order the SMART Notebook files of the originals for use in your own class.

**Introduction:**
An experiment in learning the WiN 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

Visit Welker's Wikinomics [Econ Blog](http://welkerswiginomics.com/home.html) and [Netwibes Universe](http://welkerswiginomics.wetpaint.com/)

Wenger's Wikinomics Blog
- A Classroom Experiment in Socialism
- Guns and Butter - a dangerous combination
- Luxury goods: the biggest rip off in the world or the "must have" items for any self-respecting

Winner of "Best Educational Wiki" 2007 awarded the 2008 Golden Pixel Star award for
Learning Opportunities outside formal E&T

The four different drivers for participation:
...the learning processes supported:
... and some examples ...

- **Lifelong learning**: Effective learning opportunities complementing and supplementing initial training
- **New ways & formats for acquiring knowledge**
  - Learning through narratives
  - New opportunities for reflection
  - Experiential learning
  - Inquiry-based learning
- **Motivating & personalised social environments for learning**
  - Active peer support
  - Connecting experts and novices
  - Learning by observing others

...providing new opportunities to learn *transversal skills*
Opportunities of Learning 2.0 for formal E&T

New and innovative ways of Learning
- new multimedia tools change learning processes
- new teaching methods & skills
- new learning & teaching paradigms, pathways & skills

Individual performance enhanced by
- addressing different sensory channels
- new models of assessment
- reflective organisation
- increasing motivation, participation, reflection & self-directed learning

Networking & Community Building give rise to
- new modes of connecting & of establishing presence & identity
- borderless learning communities;
- teacher & staff collaboration
- new models for collaboration & knowledge exchange

Web 2.0 can broaden horizons
- bridging distance by creating virtual presence;
- intercultural exchange
- inter-institutional cooperation;
- personalisation, ownership & authorship

Learning can be re-integrated into its societal context
- Multiple channels for access & participation
- transparency & accessibility;
- inclusion & equity
- embedding life experiences into E&T

new ways, tools & methods for learning
re-creating teaching & learning practice
empowerment of the learner
Addressing the digital divide:
- **Content**
  - access
  - basic ICT skills
  - critical skills
- **Creating**
  - sharing
  - modifying
  - recommending
  - quality
  - safety
  - reliability
  - of user generated content
- **Connecting**
  - supporting
  - networking
  - privacy
  - security
  - identity
- **Collaborating**
  - joint production
  - pooling resources
  - ownership
  - copyright
Web 2.0 has changed learning patterns and pathways by making content available; allowing the creation of content; providing virtual networks connecting learners; and supporting collaboration.

Web 2.0 opens up innovative opportunities to effectively acquire key competences in a lifelong learning continuum.

Web 2.0 can facilitate innovation in formal E&T, thus improving quality and efficiency.

However,

- Learning organisations, E&T systems, learners and teachers will have to actively adapt to seize the opportunities offered.
- More research is needed to identify and develop adequate (pedagogical) concepts and methodologies to facilitate mainstream deployment.
- Policy support is needed to raise awareness, provide assistance to educators and institutions, and to promote networks for knowledge exchange across Europe.
Thank you very much for your attention!

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