Schools and Education in the Digital Era
EU overview and the Finnish Case

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Structure of the Presentation

1. Setting up the problems
2. 21st Century Skills
3. Generational clash and Digital Natives
4. School engagement and SEL
5. Play, Arts, Music, Sports, Handicraft
6. Assessment
7. Some promising innovations
1. Problem: Well-being and Engagement
2. How to create innovative work cultures
Work calls for collaborative knowledge creation

- We need creative, innovative EU citizens, able to solve fuzzy problems in teams.
- Physical spaces and technologies either hinder or scaffold our activities.
- Knowledge practices are personal, social or institutional routines guiding our work.
- School engagement is declining drastically - to be reflected in work engagement.
- Are we alienating our youth with our old practices?

Presentation for the Committee on Culture and Education
The Finnish 21st Century Skills

1) Thinking skills and learning to learn
2) Cultural competencies, communications skills and self-expression
3) Taking care of oneself and everyday skills
4) Multiple literacies
5) ICT competencies
6) Work life skills and entrepreneurship

Basis for National Core Curriculum 2016 to be implemented in school-specific curricula locally.
3. Generation Clash?

- **Baby Boomers**
- **Generation Y**
- **Generation X**
- **Digital Natives Z**
Digital Natives

The alleged practices of digital natives (Prensky, 2001):

- Multi-tasking
- Reading from screen
- Chatting
- Gaming
- Socio-digital networking
- Constantly online
- Dependent on mobile devices

Selfie. The word of 2014
The socio-digital revolution

**Socio-digital technologies:**
- By socio-digital technologies we refer to recently emerged integrated systems of novel technological tools, social media, and the Internet that enable constant and intensive online-interaction with information, people, and artefacts (Rheingold & Weeks, 2012).

**Socio-digital participation:**
- As a emerging new concept, we refer to the students’ informal, socio-digitally mediated participatory practices as socio-digital participation (SDP).
Are there digital natives in Finland?

Findings from the Mind the Gap -project:

- Real readiness for advanced use of technology appears to be quite rare among young students – especially regarding schoolwork.
- Most students appear to engage only in ”basic” use of technologies, with little or no building of complex expertise as suggested by the “digital natives” –concept.
- A preliminary study of Finnish 6th graders (n = 687, presented in International Conference on Motivation, 2014)
  - **Basic participators (66.5%)** – engage in SDP the least, mostly friendship-driven hanging out or for entertainment.
  - **Gaming-oriented participators (23%)** – engage in SDP mainly for gaming.
  - **Creative participators (n=71, 10.5%)** - the most multi-dimensional engagement, exceptional scores in especially media composing and sharing.
- Similar results also from high school students, a follow up of multiple cohorts in progress (by PhD candidate Lauri Hietajärvi, for doctoral dissertation).
Mind the Gap!

**SDP and academic performance:**
- Creative participators were more likely to report lower grades than the Basic participators in mathematics and English.

**SDP and academic well-being:**
- Gaming-oriented and Creative participators reported lower school value and higher cynicism than Basic participators.
- The Creative participators were also the most likely to experience exhaustion and feelings of inadequacy.

(by PhD candidate Lauri Hietajärvi, doctoral dissertation in progress)
The gap between digital natives- (typical in workplace) and school practices

**Socio-digital participation**
- Flexible use of digimedia
- Multi tasking
- Intellectual ICT tools
- Internet searches
- Socio-digital networking
- Working on screen
- Making and sharing in groups
- Extended networks
- Knowledge creation

**School practices**
- Traditional media, e-mail
- Linear and sequential
- Pure mental performance
- Limited textbook content
- Off line working, F2F
- Paper and pencil
- Individual performance
- Closed classroom community
- Knowledge acquisition
Engagement of Finnish 12 yr. olds

Engaged: 50%
Stressed: 4%
Risk of Burnout: 5%
Cynical: 15%
Risk of Cynicism: 26%

Presentation for the Committee on Culture and Education
What Does SEL Address?

(Adapted by Lintunen & Gould (2014) from Elias & al. (1997) / Casel)

- Clear expression of feelings, beliefs, and thoughts by using I-messages
- Managing emotions and behaviors to achieve one’s goals
- Showing understanding and empathy for others
- Active listening
- Recognizing one’s emotions and values as well as one’s strengths and limitations
- Responsible decision-making
- Making ethical and constructive choices about personal and social behavior
- Problem solving skills, taking responsibility for collaboration
- Forming positive relationships, working in teams and dealing effectively with conflict
- Group skills

Self-awareness
Self-management
Social awareness
Relationship Skills
Social & Emotional Learning
The importance of play, handicraft, sports, music and art – fostering well-being and brain/cognitive development and SEL
Over 50% of BAs facing problems in USA

"Good students turn into bad innovators."

Ted Dintersmith 2015  www.edu21c.com

Multiple-choice testing that encourages rote learning directs students towards superficial learning – they remain without worklife skills or SEL
Assessment – the tail that wags the dog

• Assessment is an integral part of learning
• Authentic assessment supports authentic learning (e.g. DigiAbi in Finland)
• Assessment practices are often the major obstacles to educational transformations

-> The need to develop new practices, tools and pedagogical models to support deep-level learning and engagement
Some promising innovative practices

- Engaging Learning Environments
- Inquiry-, Problem-, Case-, and Phenomenon-based learning
- Flipped classroom
- Playful learning and Gaming
- Video of WWW.UBIKO.EU

https://www.youtube.com/watch?v=5BR7hFt6izo
Engaging learning environments in teacher ed: physical, virtual, social, mobile and mental spaces of learning
blogs.helsinki.fi/mindthegap

facebook.com/mindthegaptutkimus

http://vimeo.com/hufbs/timelapse

www.wiredminds.fi/projects/

facebook.com/wiredmindshub

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www.rym.fi
Some publications


