ENLACES-OECD EXPERT MEETING ON VIDEOGAMES AND EDUCATION
Santiago, Chile

SUMMARY AND CONCLUSIONS

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Why worry about video games

1. They are increasingly important in young generations' lives

- 53% of OECD students age 15 play games frequently ("almost every day" or "a few times a week")
- Some studies in the US show that teenagers are spending more time playing computer games and other digital media (e.g. Computers and the Internet) (Grunwald, 2004)
- An average American teenager will have spent 10,000 hours playing computer games by the time he/she completes compulsory schooling (Carrington, 2004)
- 70% of children in the UK play digital games every week (Facer, 2001)
- Youngsters in Korea play 3-5 hours per day

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Why worry about video games

2. Interest in them reveal a wider cultural change

- Ubiquitous presence of digital technologies in people's every day lives
- New generation called Millennials, Net Generation (Oblinger&Oblinger, Yapscott, 1999), Gamer Generation (Carstens & Beck, 2005), Digital Natives (Prensky, 2001)
- Students might have changed radically: new values, notions of communication, knowledge management, learning skills and EDUCATIONAL EXPECTATIONS

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Why worry about video games

3. Relevance of lifelong learning in 'knowledge societies'

- It is assumed that social and economic valuable learning can take place anywhere: in school, at home, with friends, in front of the computer, etc.

- Out-of-school use of digital resources traditionally viewed as leisure activities (i.e. not educationally valuable) become an important matter of educational research and policy concern (Patrice Chazerand)

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The claims

- Videogame scholars, researchers, and designers (represented here) diagnosis of education:

  - Youngsters are different and they are *learning* differently (ubiquitous technology in their lives, computer games included)
  - Traditional education systems are not well prepared for this 'new student' (they are still preparing for industrial society)
  - Instead, commercial initiatives like computer games industry are "winning the competition for the hearts and minds of the young" (Sefton-Green, 2003)
  - Traditional systems should adapt to 'knowledge society' and close the gap between the classroom and realities of life.

The claims

- Videogame scholars, researchers, and designers (represented here) approach to education:

  - ‘Progressive’ and ‘post-progressive’ ideas regarding nature of knowledge and learning
  - John Dewey: from teacher-centered to child-centered learning where learner has an active role.
  - From learning based in a set of knowledge transfered by the teacher to:
    - Learning by doing: learning through experience about ‘real-life’ situations
    - Learning as a social process: social negotiation of meaning, peer-to-peer collaboration
    - Child engagement/emotions: foster learning

- Video games are good mediums or learning environments for lessons based in progressive principles

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What we know

- Learning outcomes:
  - No clear effect has been established in academic learning (John Dowell)
  - Maybe standardized tests are not the correct way to measure
  - More evidence in learning of skills:
    - Perceptual and motor learning
    - ICT skills
    - Higher order thinking skills:problem-solving, strategic thinking.
    - Collaboration skills

What we know

- How does learn happen through video games.

  – They are fun/engaging/produce a state of 'flow'.
    - This happens when:
      - Games offer clear goals, direct and immediate feedback and reward (Fernando Castillo)
      - Games offer challenge, reward and sense of mastership (Carlo Fabricatore)
    - Problems with the term 'fun': satisfaction/ 'hard fun'(Papert)

  – When there is thinking about real-life situations and problems in virtual professional worlds: epistemic games (David Shaffer)

  – When there is exploration, discovering game rules and objectives, strategy and planning (John Dowell)

  - When games are embedded in a pedagogical methodology/model with clear learning (Jaime Sánchez, Miguel Nussbaum, Pablo Dartnell)

  - When supporting main curricula activities (Baek Youngkyun)

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What we don't know well

- What needs further study and clarifications

  Concerns about social and psychological effects

  – Violent video games have an effect in violent thoughts, feeling and behaviors (Karen Dill)

  – Gender: males are twice as likely as females to play video games (70% and 35% respectively (PISA, 2003)

    - Values: negative female stereotyping
    - Potential disadvantage of girls if video games become relevant to schools and learning
    - Male-oriented educational policies Classifications of games from an educational perspective: what game is good for learning what.

  – Game addiction: when someone can be considered a game addict

What we don't know well

- What needs further study and clarifications
  In the educational setting

  – How do we make schools more motivating, engaging learning environments

  – Better classification and more research on learning outcomes through video games.

  – How do video games integrate into the classroom situation and combine with other school learning activities/ for what learning objectives do video games show to be more effective

  – How to prepare and support teachers in using video games with their students

  – Should transformations be made to the curriculum to incorporate valuable learning in video games and other digital technologies.

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Next steps…

- .....Francesc!