

# Skills acquisition and knowledge appropriation through computer and videogames

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OECD expert meeting on video games and education  
7th session

The industry and the future of videogames :  
exploring the potential for cooperation in education

Santiago August 26-28, 2007

- ▣ Interactive Software (IS) recognized unanimously as a playful way to acquire ICT skills
- ▣ There is more to it though on considering motivational and social aspects of playing games for learning.
- ▣ Serge Tisseron on the 4 main attractions of (online) gaming :
  - ▣ IMMERSION
  - ▣ INTERACTION
  - ▣ RECOGNITION
  - ▣ NEGOTIATION

## Diapositiva 2

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**MSOffice1** playful signifie selon moi "espiègle" plutôt que ludique. Il me semble plus adéquat d'utiliser simplement "play".  
, 17-09-2007

**MSOffice2** ces deux aspects positifs de l'apprentissage par les jeux peuvent être mis en avant lors de la présentation orale.  
, 17-09-2007

## Bottom up learning through interaction

- ❑ Problem-solving has an inherent intellectual value supplementing passive intake of knowledge (self teaching).

MSOffice4

- ❑ Challenged to “think on their feet”, gamers develop a taste for rewarding experiences, thus build up self-esteem.

MSOffice5

- ❑ Learning through peers, friends, family members (albeit rarely parents).
- ❑ Tangible results and constant critical feedback are directly relevant to professional work (John C. Beck, University of Southern California, in “Got Game” H B S Press).

### Diapositiva 3

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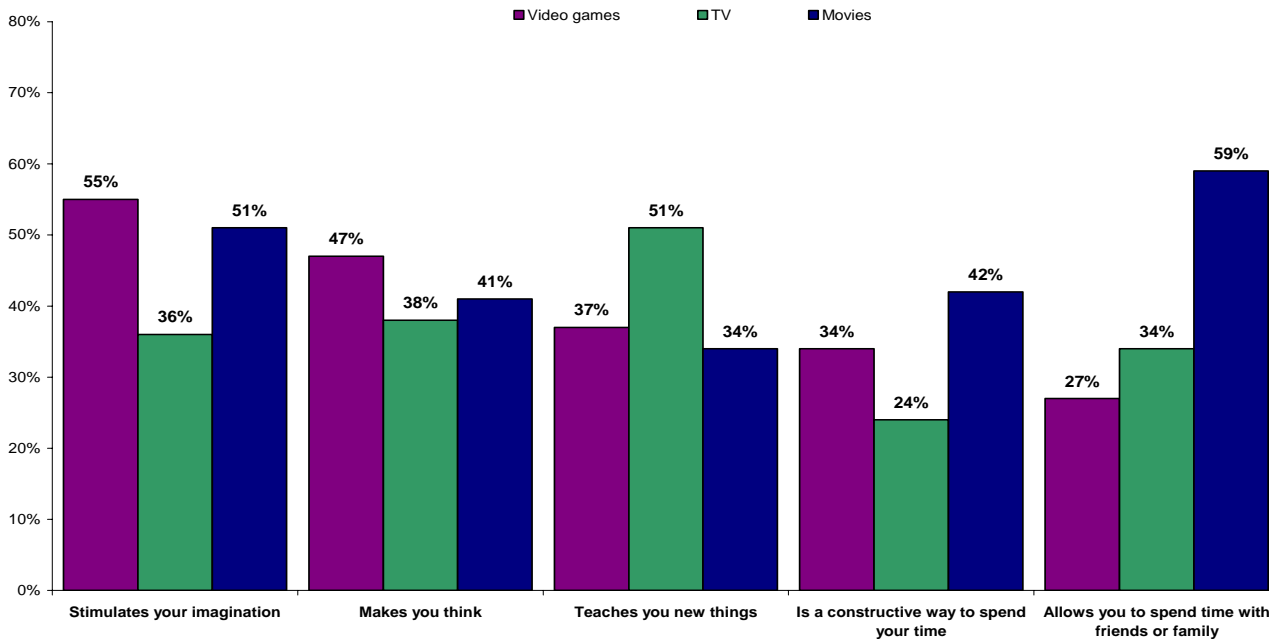
- MSOffice3** interactivity (interractivité) inclut l'intermédiaire ou l'usage de la machine au sein d'une relation, alors que l'interaction est un terme utilisé plus fréquemment lorsqu'il s'agit uniquement de la relation entre les individus.  
, 17-09-2007
- MSOffice4** l'"auto apprentissage est récurrent pour les jeunes (et moins jeunes) qui se familiarisent avec les nouvelles technologies. Je crains que la notion de passivité soit mal interprétée. Vous pouvez également expliquer qu'il s'agit, dans le cas présent, d'un apprentissage informel, c'est-à-dire, qui ne se transmet pas selon un modèle scolaire.  
, 17-09-2007
- MSOffice5** l'apprentissage se fait également par les pairs, que ce soit sur des forums, ou simplement lors de conversations entre amis. Les joueurs recherchent souvent une estime à travers les avatars ou les personnages qu'ils incarnent dans le jeu plutôt qu'à partir de "ce qu'ils sont vraiment".  
, 17-09-2007

## Nielsen on the perceived benefits of IS

### Total European Gamers

Please indicate whether you agree with each statement using a 1 to 5 rating scale, where a 5 stands for Agree Strongly, and a 1 stands for Disagree Strongly

- Total agreement (5 plus 4)



## Beyond perception

- ▣ Appropriation suits better than acquisition the process whereby I turn knowledge into my own.
- ▣ The former sounds more action-oriented and personal, the latter more fit for rote learning and mimicry.
- ▣ IS therefore affords students a unique tool MSOffice6 to grow their ability to appropriate and create knowledge.

**MSOffice6** D'autres outils, tels les blogs par exemple, leur permettent également d'acquérir ce genre d'aptitudes. Il serait peut-être préférable d'utiliser le mot "relevant".

, 17-09-2007

Education is about making students fit for life

« *Tell me and I will forget  
Show me and I may remember  
Involve me and I will understand* »

Confucius

« *I hate whatever only increases my knowledge  
without enhancing or directly inspiring my action* »

Goethe

## How to make the most of IS ?

- ▣ Simon Egenfeldt-Nielsen in Beyond Edutainment
  - <http://www.itu.dk/people/sen/egenfeldt.pdf>
- ▣ “When thinking about making the educational qualities explicit in computer games one needs to recognize that computer games differ from other media. Primarily, computer games are about engaging and doing concrete things - not much different from any other physical activity like soccer. When playing soccer we will naturally draw on a number of important principles in the world, for example probability, force, movement, anatomy and social relations. All these elements are part of playing soccer, but during play we will not appreciate or explore these elements, and certainly rarely link them beyond the soccer field” .

## Beyond the soccer field

Simon Egenfeldt-Nielsen :

- ▣ “The formal characteristics of computer games have earlier been described as a set of rules with semantic content making up a game universe.
- ▣ Computer games can indeed provide strong and rich concrete experience, but we need a context where these can be transformed into something more - we need the coach from the soccer field” .

## Where is the coach? MSOffice7

- ▣ Issue = enhancing the value of games by setting them in a real world perspective
- ▣ Educators MSOffice8 seem to be naturals for delivering on this
- ▣ For them to meet this critical challenge is not as straightforward as it looks

## Diapositiva 9

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**MSOffice7** cette notion de coach est très intéressante. elle pose cependant beaucoup d'interrogations, selon le contexte au sein duquel ce coach sera pensé (à l'école, dans des lieux informels, etc?).  
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**MSOffice8** Il est utile de réfléchir à la manière dont ces éducateurs utiliseront les jeux. Il est préférable de faire découvrir aux jeunes ce qu'ils ne connaissent pas à propos des jeux (par exemple, les acteurs de la fabrication d'un jeux, le temps imparti, la campagne de marketing). Il est également intéressant de leur permettre de "fabriquer" eux-même leurs jeux (certains sites le permettent). il s'agit ici de pédagogie active.  
, 17-09-2007

## Teaching with games (TwG): main findings

### ▣ Generational divide :

- Teachers inform school environment
- Students more influenced by their home environment

### ▣ Students' motivation enhanced when able to use games familiar from home and given autonomy

### ▣ Recommendations to the industry :

- IPR management: licensing, copy protection
- Detailed guidance to schools' technical staff

## Mediappro: key findings

- ▣ Great gulf opening up between schools and their environment: all what matters to young people, most of what they learn happens outside
- ▣ Schools are “clearly not responding”: they restrict or ban access. “Worst, they fail to teach skills of information retrieval, search, site evaluation and creative production”.
- ▣ Nonetheless, the European youth expect teachers and educators to help, to « author » an explanation of the new, ICT-based environment. Those educators able to claim back this authorship may find their authority restored as a result.
- ▣ Industry advised to develop interactions with educational partners. MSOffice9

**MSOffice9** Ces interactions permettraient de faire converger certains intérêts commerciaux avec des intérêts pédagogiques et éducatifs.  
, 17-09-2007

## The way forward

MSOffice10

- ▣ To evaluate risks and opportunities of IS in education
- ▣ By providing a much-needed context to the entertainment use of IS, educators will enhance :
  - IS value as a relevant, playful MSOffice11 informal knowledge appropriation and brain stimulation
  - their own authority through authorship of the broader context to ICTs
- ▣ On giving up hope in the future, the youth make the future hopeless.
- ▣ So it's all hands on deck to address this critical challenge

## Diapositiva 12

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**MSOffice10** Il est intéressant de penser l'accès de sjeunes aux nouvelles technologies sous ces deux angles. En effet, on s'attarde plus souvent sur les dangers que sur les opportunités.

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**MSOffice11** plusieurs expériences ont démontré qu'un élève qui est revalorisé par ses aptitudes à utiliser les médias au sein de sa classe, aura tendance à obtenir de meilleurs résultats dans les autres matières scolaires.

, 17-09-2007

Three basic avenues explored so far :

1. Commercial games at school
2. Games developed by students
3. Bespoke games halfway between « boring » educational games and commercial games meant only for entertainment.

## Next steps envisioned by ISFE

- ▣ “Great Battles of Rome” (The History Channel-Black Bean Publishing).
- ▣ Working at a sequel to TwG with higher ambition: broader geographical scope, more teaching communities offered an expanded sample of games, etc.
- ▣ Multi-year partnership being considered with European Schoolnet, a network of 28 ministries of Education in Europe and Israel.



More research available at



[www.isfe.eu](http://www.isfe.eu)