

Presence, tele-presence and virtual presence in education

Enactive08 Special Session



A real virtual symposium!

- **Elena Pasquinelli, scientific coordinator of the Group Compas.** PhD in Philosophy of cognitive sciences, has participated to the Enactive Network since its birth. Her researches focus on the notions of illusion and believability in virtual and fictional worlds, and on the cognitive (broadly) function that are implied in the interaction with these forms of representations

Speakers

- **Bastien Guerry, member of Group Compas**, is also a member of several communities of development and diffusion of free software and wikis, as of One Laptop Per Child, an organization aimed at providing each child with a low-cost, connected laptop with content and software designed for learning.

Speaker

- **Roberto Casati, member of Group Compas**, is a tenured senior researcher with the French Centre National de la Recherche Scientifique (CNRS). He has worked on various research projects on philosophy of perception. He actually teaches at the Università di Torino. He has been the responsible, for Institut Nicod, of the Enactive NOE.

Speakers

- **Daniel Andler coordinator of Group Compas**, after specializing in model theory and teaching mathematics in various universities, he moved to positions in philosophy. He is now the professor of philosophy of science and epistemology at Université de Paris-Sorbonne (Paris IV). He writes mostly on the foundations of cognitive science, and its relation to the sciences of man.

Speakers

- What: Think tank on education, new technologies and cognitive sciences
 - Work groups, ateliers, seminars, blog, book
 - www.groupe-compas.net/
- Where: Paris
 - Institut de l'École Normale Supérieure
- Who: various disciplines and institutions
 - Daniel Andler, Roberto Casati, David Wilgenbus, Thierry de Vulpillière, Elisabeth Caillet, Gabriel Ruget, Bastien Guerry, Pierre Saurel, Richard-Emmanuel Eastes,
- Why:
 - Microsoft Partners in Learning

Group Compas

The continuing introduction of new technologies and new media adds little to the quality of most education.

Pro 44% / Con 56%

- But which technologies should be introduced?
- Is technology good per se?

The Economist, October 2007

- The encounter of new technologies and education is especially interesting when it produces new possibilities for learning, possibilities that could not be realized *without* new technologies
 - This is the case for the creation of simulation tools that allow users to do experiments which are not permitted in the real world
 - But also of tools that allow users (educators and learners) to share contents, create their contents and collaborate at distance

Position statement

- Both simulation-like digital technologies (virtual presence) and sharing-at-distance ones (tele-presence) affect the relationship between educators and learners
 - What is/should be/shouldn't be the role of the teacher?
 - What kind of intimacy and privacy is required for the students and teacher to feel like they are part of the same context and learning community ?
 - Is this bringing about a qualitative change in the way in which classmates or students and teachers communicate?

Educational issues: the position of the educator

- The notion of “learning by doing” is at the very heart of Enactive Interfaces (EI) based on action-perception loops, and more generally on the possibility for the user of modifying the aspect of the digital world and of perceiving the effects of her own actions on these representations
- Is the visual and interactive representation of the object interfering with processes of abstraction?
- and with attention towards the teacher’s explanations?

Educational issues: learning by doing

- What are the ethical effects of the association of make-believe environments and situations with non-make-believe tasks?
- Is there a need for a specific learning process: the learning of epistemic distinctions, as part of the deployment of virtual tools in everyday formal and informal learning?

Ethical issues

- Second Life: the most famous on-line virtual world
- 2003: date of birth
- 2008: the crisis. Max 450,000 users
 - 2008: accord with IBM. SL software enters industry for creating local, private virtual worlds

The case of Second Life

3D graphics
Social Networking
Modelling tools

- Distance and Flexible Education
- Presentations and Discussions
- Historical Recreations
- Language Learning practice
- <http://sleducation.wikispaces.com/>

Education in SL

- Over 200 educators from nearly as many universities and colleges use it for classes, research, learning and projects with their students, bringing a new dimension to learning.
- A large, active education community is engaged in the Grid. Harvard University, Texas State University, and Stanford University have set up virtual campuses where students can meet, attend classes, and create content together. Below are just some examples of various organizations that have incorporated the Second Life Grid in their educational programs.
- <http://secondlifegrid.net/slfe/education-use-virtual-world>

US Universities

- http://etc.princeton.edu/sl/component/option,com_frontpage/Itemid,1/
- Princeton's corner of the Second Life is intended as an experimental space for teaching, learning and exploration. Princeton's island includes a conference area, a museum of the arts, a performance hall, a store, and an information center. There are several visiting artists on the islands. A student activity area and a science museum are planned for the future. Princeton's island is part of a larger continent dedicated to higher education. The New Media Consortium (NMC) owns the central core of the island, and provides many benefits to neighboring universities, colleges, and libraries. Visitors to the Princeton island are asked to follow the same [code of conduct](#) that the NMC has adopted for their campuses.

Princeton



Princeton

- http://www.unito.it/second_life.htm
- <http://it.youtube.com/watch?v=Kt2jmSMda9Q>
- University Laval
- <http://technorati.com/videos/youtube.com%2Fwatch%3Fv%3DLg4R2tDts1o>

Italy, France, ...

- The Guardian, May 8 2007 : Universities discover SL
<http://www.guardian.co.uk/education/2007/may/08/students.elearning>
- Whether it has pedagogical power or not, UK universities are certainly starting to show an interest. Fifteen have already spent several thousand pounds on "land" in Second Life, its parent company Linden Lab reckons. Oxford University's computing service is running a six-month trial for university members. Leicester University bought "land" three weeks ago. Edinburgh and others beat them to it.

UK Universities

- But the number of academics using it for teaching and research is still thought to be in the hundreds rather than the thousands.
- "You get the odd interested lecturer or department, but I suspect that, by and large, it is not part of a university's strategy to have a presence on Second Life," says Andy Powell, head of development at Eduserv

Why SL is not a success (for education)?

- Access
- Never in good shape
- Disenchantment of public and media
 - SL is a bubble created by newspapers. When pub has stopped, SL has entered crisis
 - Los Angeles Times: commerce has never really started in SL
- No more gambling (first source of affairs in SL)
- Problems with sex and violence
- Confusion of activities and objectives:
 - a parallel, not a complementary world
 - no specific tools for specific activities
 - concurrency of specialized, local tools

Death of SL

- Dedicated, local tools for education
 - Developed by interdisciplinary communities that include educators
- Complementary and not substitutes to teacher
 - At distance situation: Teacher is responsible for the contents that are shared, partners in learning are clearly individuated
 - Classroom situation: Teacher “sits next to the child”
- That allow to share contents and to build contents together
 - Use of existing instruments such as wikis, blogs, platforms for e-conferences
- That use perceptual simulations only when it is useful
 - No narration if not needed, no 3D graphics if not needed, ...

What do educators and learners need?

- No digital teacher
 - Technology should not substitute the teacher: role of facilitator
 - Technology should not create confusion about who is teaching
- No digital world
 - Technology should not create a parallel world but complementary tools that can be shared between teacher and students and between mates
 - Specific tools for creating contents together, sharing contents, revising, simulating, practicing
- Clear frames
 - The role of technology must be explained and framed

From SL to Toolboxes

- Risk of confusion between reality and imagination
 - No Illusion of reality but difficulty to deal with the continuous shift between serious and pretending activities
 - High cognitive requirements
 - Possibility of confusion
- Effects on performances (of the teacher, of the learners)
- Effects on distinction between what can be done in reality and in imagination

Ethical advantages