INTRODUCING GaLA: SERIOUS GAME POTENTIALS, CHALLENGES AND TEL-RELATED ISSUES

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Experience - coordinator of EU DELTA project (1988)

Recently:
• Partner in 10 EC projects (coordinator of 4)
• Presently in 4 Networks of Excellence
  – Technology Enhanced Learning - STELLAR
  – Serious Games - GaLA
  – Virtual museums & cultural heritage – Vmust.net
  – Assistive ICT - ETNA
Serious Games are…(digital) games designed - or usable - for purposes beyond entertainment, and especially for learning

GaLA’s main aims:
• overcome fragmentation in the SG field
• shape and boost the SG research sector
• address challenges facing European SG stakeholders
• disseminate knowledge, best practices and tools internationally
• set up a Virtual Research Environment
• establish the European Society of Serious Games (ESSeG)
Areas of investigation

- SG mechanics
- Personalisation & Artificial Intelligence
- SG architecture
- Human-computer interaction
- Interoperability & semantics
- Assessment
- Psychology
- Pedagogy (coordinated by ITD-CNR)
- Neuroscience

Transversal field of application

- Education

Specific fields of application

- Business & management
- Engineering & manufacturing
- Health & fitness
- Security, safety & crisis management
- Humanities & heritage
- Personal and social learning & ethics
Why SGs?

• Engagement in fun, motivating, immersive learning experiences that present safe challenges & generate effective learning
• Learner centred activities fostering situated knowledge construction
• Opportunity to enact innovative pedagogical approaches: exploratory & inquiry learning, situated learning, collaborative learning, etc.
• New modes for presenting & interacting with knowledge…..

…… these pose challenges.

Some glimpses at the SG field…
Off-the-shelf entertainment games in school education
Professional recruitment & training

- military
- commerce
- medical
Tackling serious issues

International conflict

Social conflict & violence

Climate change

nutrition
Curricula domains - disciplinary & interdisciplinary

- entrepreneurship
- physics
- history
Hot topics in GaLA / SGs & resonances in TEL

Gameplay & learning dimension
Opportunities for enhancing learning
Assessing outcomes & effectiveness
Designing for SG based learning
Personalisation
Interoperability
Hot topics - Gameplay & learning dimension

• Does learning have to be serious?
• Is gaming just for fun?
  – Is it “sugaring the pill” (gamification of routine drill & practice); a marketing trend?
• How to strike a successful balance between fun/motivation/immersion & effective learning?
Hot topics - Opportunities for enhancing learning

• Identifying & leveraging real opportunities for enhancing learning processes of different kinds. What added value?
• Formal & informal learning - What differences? What challenges?
• Can games support different learning paradigms – collaborative learning, exploratory learning, etc.?
  – If so, what kind of games are needed?
  – What is the role of SG in innovative ways of learning and new pedagogic styles?
• What about creativity?
Hot topics - Assessing outcomes & effectiveness

- How best can we assess acquisition of disciplinary knowledge / competencies, transversal skills (reasoning etc.)?
- How to ascertain transfer to real world (e.g. training with SGs & simulations)?
- How can we relate gaming success to learning success?
- How can we respect different learner types wrt. appropriateness of games?
- Can we meet expectations & justifying costs (resource investment, disruption)
Hot topics - Designing for SG based learning

• How best to deploy SGs & orchestrate learning processes?
• How can we design effective learning paths & flexible environments?
• How do we cater for & respond to contextual constraints (e.g. in school education)?
• What pedagogical / technological / contextual parameters have to be met?
• How to include SG in general educational paths?
• What are the new roles educators and learners play? How do we embrace these?
Hot topics - personalisation

• Can we really provide personalised learning opportunities?
  – What about learning profiling?
  – Freedom of choice and individual learning paths?
• How can we respond to Europe’s language/cultural diversity?
  – Are SGs a help or a hindrance?
• What about e-inclusion & accessibility?
  – Can we shift from lip-service to design-for-all
  – How to tackle these issues with different game types?
Hot topics - Interoperability

- How to facilitate the move towards shared specifications and standards
  - authoring / learning processes / learner portfolios
  - How do SGs fit in?
Hot topics in GaLA/SGs & resonances in TEL - 1/2

Fun & engagement vs. effective learning?

Meeting expectations & justifying (high) costs - ROI

Assessing actual learning outcomes

Grasping the real opportunities for enhancing learning – added value

Formal & informal learning

SGs & innovative learning paradigms – exploratory, collaborative etc.
Fostering learner (and educator) creativity

Designing & deploying SG-based learning paths – orchestrating learning

New roles entailed in SG adoption

Personalised learning opportunities

Europe’s language/cultural diversity

E-inclusion & accessibility

interoperability - shared specifications and standards