### Designing learning activities in Second Life for student engagement

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Designing Learning Activities in Second Life for Student Engagement

Ahmad John Reeves and Shailey Minocha
Department of Computing
a.j.reeves; s.minocha@open.ac.uk

3D Virtual Worlds (Second Life)

- Avatar-based interactions in Second Life
- Real-time (synchronous) interactions [text-chat, Instant-messaging; voice]; asynchronous interactions
- A more 'human' experience than other 2D environments
- Social setting similar to a F2F setting (variety of locations)
- http://gallery.me.com/shailey.minocha#100016 (Album)
• Facilitates socialisation and collaboration
  – Sense of presence; being in the same place
  – Flexibility to design and develop learning activities and
    simulations which may be difficult or impossible in real-life
  – Ease of visiting locations and simulations in other islands
• Obstacles: Demanding system requirements – graphics card, memory, broadband, although the situation is changing

How we started: PhD supervision meetings

• Regular meetings in Second Life [alongside e-mail
dialogue]
• Sense of visual presence and a sense of place: [“as if I
have met my tutor”]
• Transcript of the text-conversation; or, audio-record the
conversation
Feedback from PhD students

- I get a feeling of meeting you face-to-face...even though I engage with avatars, I am aware that behind them there is a real person...
- Sense of realism which is hard to match in other online environments
- Feeling of space, context and environment persists and this makes a very real-experience
- I particularly enjoyed meeting in the library as it was fitting to the topics under discussion

Course (M150): Data, Computing and Information

- 5-6 students in each group (2 tutor groups)
  - tutorials, tours in Second Life to locations which were related to course concepts
  - group activities followed by panel discussions
- sense of fun, as if I have met my tutor while in my study at home
- Problem with students not being able to come in for synchronous sessions (attendance was an issue)
- Technology was a barrier: problem with voice, not having headsets
Course M253: Team working in distributed environments

- 5-6 students in each group (3 groups in all)
  - meet in Second Life once or twice a week
  - discuss group project, plan the next steps, take decisions

- sense of team involvement and commitment, sense of fun
- no whiteboard, too much to learn to just participate in meetings
- In video-conferencing, you can actually see the other participant's faces and gauge reactions and emotions and avoid the nagging feeling that someone at the other end has wandered off (either physically or mentally)

Problem description

- Little guidance on how to design Second Life activities
- And how to relate the design of activities to the design of the 3D learning spaces
- Our research is aimed at deriving design guidelines for educators and designers
Research questions

• RQ1 What do we mean by a ‘learning space’ in a 3D virtual world?
• RQ2 How does the pedagogy influence the design of a learning space and vice-versa?
• RQ3 Does the level of visual realism of a learning space influence the experiences of a learning activity, and why?

Methodology

• Online survey with educators and designers in UK HE and FE: for familiarity with initiatives and colleagues
• Recruitment through survey, Second Life groups and mailing lists
• One-to-one interviews and focus groups
  – with students, educators and designers
  – within Second Life except for one phone interview
• Visits to educational islands (tours with tutor-colleagues)
RQ1: Learning spaces in Second Life

- Indoors vs. outdoors
- Entire island
- The whole of Second Life
- Task-oriented (dedicated) learning spaces: matching the learning space with the learning activity
- Open spaces (and sandboxes) for workshop-like settings: for building/scripting and socialisation

RQ2: Pedagogy and design of learning space

- Authority of the educator: attire and spatial arrangement
- Synchronous vs. Asynchronous use of the spaces
- Formal vs. Informal Learning
- Pedagogy comes first or does the design of the space influence the design of the activity?
- Design to build a sense of community
- Manage the learning sessions (free from interruptions)
RQ3: Level of visual realism of a learning spaces

- Photo-realism: historical recreation
- Artistic realism for familiarity and comfort
- Real world metaphors (metaphorical or functional realism)
- Abstract + functional realism (hybrid): Art and design

Conclusions – potential and design considerations

- Facilitates synchronous collaboration and networking: meetings, interviews and events
- Opportunities for students: learning through collaboration, by interacting, through visual 3D simulations, by exploring
- Opportunities for informal learning (combine formal learning areas with social spaces)
- Designing the learning spaces from realistic to abstract and to fantasy – balance the level of visual realism with the activity
- Co-design learning spaces with students