Open Universities Australia investigates Nortel web.alive virtual world technology

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Overview

• Background
• Project objectives
• Specifications
• Preliminary design
• Next steps
Background

• Who is Open Universities Australia (OUA)?

• How do students experience studying through OUA?

• Challenges of open and distance education

Problem:

How to connect remote students with each other and their teachers?

Solution:

Understand the broad range of available communication technologies and how these may be utilised appropriately.
Communication technologies

• Type of communication required:
  – Synchronous vs Asynchronous
  – Text / Audio / Video / 2D virtual / 3D virtual
  – One-to-one, one-to-many, many-to-many

• User considerations
  – Fixed-location (phone / room-based video-conferencing) vs Online (client / browser)
  – Ease of use, Familiarity

• Bandwidth considerations

• Security considerations (non-standard port requirements, peer-to-peer traffic)

Virtual Worlds

• Synchronous
• Supports one-to-one, one-to-many, many-to-many
• 3D virtual, audio and text
• Online (but computer needs to be capable of rendering the 3D world)
• Can be steep learning curve for users
• Relatively low bandwidth (initial download of 3D content, but then subsequent traffic is similar to synchronous audio)
• Requires non-standard ports
Virtual Worlds

- Differentiation from other synchronous communication technologies (eg tele / video / web conference)
  - Pros:
    - Sense of presence
    - Ad-hoc conversations
    - Economical bandwidth
  - Cons:
    - Not able to show facial expressions or body language, limited range of “emote” actions

Virtual World Options

- **Public**
  - SecondLife
  - There.com
  - Whyville
  - Google Lively

- **Private**
  - SecondLife Grid
  - OpenSim
  - Nortel web.alive
  - Sun Wonderland
  - Protosphere
  - Qwaq
  - 3DXplorer
  - Forterra
  - VastPark
  - ActiveWorlds

Nortel web.alive

- **Strengths of private virtual worlds vs public:**
  - Security
  - Fitness for purpose

- **Strengths of web.alive vs other private virtual worlds:**
  - Ease of use
  - Seamless integration with the web
  - Spatial audio
  - Software-as-a-Service model meets OUA's needs
Nortel web.alive - demo

Nortel web.alive analytics
Project Objectives

• OUA’s research project aims to answer the following questions:
  – What is the current state of virtual world technology?
  – What Teaching and Learning centered applications could be enabled or enhanced through this technology?
  – What business processes and change management will be required?

Project Activities

• Complete
  – Review current state of Virtual World technologies
  – Select a Virtual World technology for the research project (Nortel web.alive)

• In progress
  – Identify pilot applications
  – Develop business processes and change management
  – Specifications for virtual world

• Future
  – Develop virtual world
  – Run pilot and gather data
  – Document outcomes
Specifications

• Overall look and feel for the world:
  – OUA key brand values: FLEXIBILITY, CREDIBILITY, ACCESSIBILITY
  – OUA students are very diverse, their study fits in around the rest of their life
  – Choice of setting: indoor vs outdoor want to avoid representing a campus but still give the feeling of a study-oriented environment

Proposed Applications

Teaching and Learning Areas
• Small rooms for group collaboration
• Scenario rooms for learning in context
  – Market
  – Café
  – Court room
  – Executive boardroom
  – Interview and observation rooms

Community Areas
• Lounge area for community activities (along the lines of a physical Learning Center)
• Large auditorium, possibly able to be configured into multiple smaller auditoriums – for career speakers, provider showcase events, etc

Marketing and Admin Areas
• Sampler organised around the areas of study, able to seek advice/assistance from student advisors during business hours
• Small rooms for counseling & interaction with student advisors
Preliminary Design

- An indoor environment, although open to the air to avoid feeling enclosed
- Modern but not too futuristic
- Curves and pathways give a flexible feel

Conceptual Layout

Level 1: entry area, public, access to general and community areas although some rooms such as the lounge may be restricted to registered OUA users

Level 2: teaching & learning areas, private – for registered OUA users, also rooms may be booked for specific classes which will restrict further to enrolled students

Level 3: auditorium, large event space, possibly sub-dividable
OUA Interior second floor – exterior ramp to auditorium

OUA Auditorium
OUA Auditorium

Lenovo - meeting room
Next Steps

• Finalise:
  – Details of identified pilot applications
  – Business processes and change management
  – Specifications for virtual world
    • Room placement and interiors
    • Scenery and views
Questions?

• To find out more, contact:

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