

# 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)

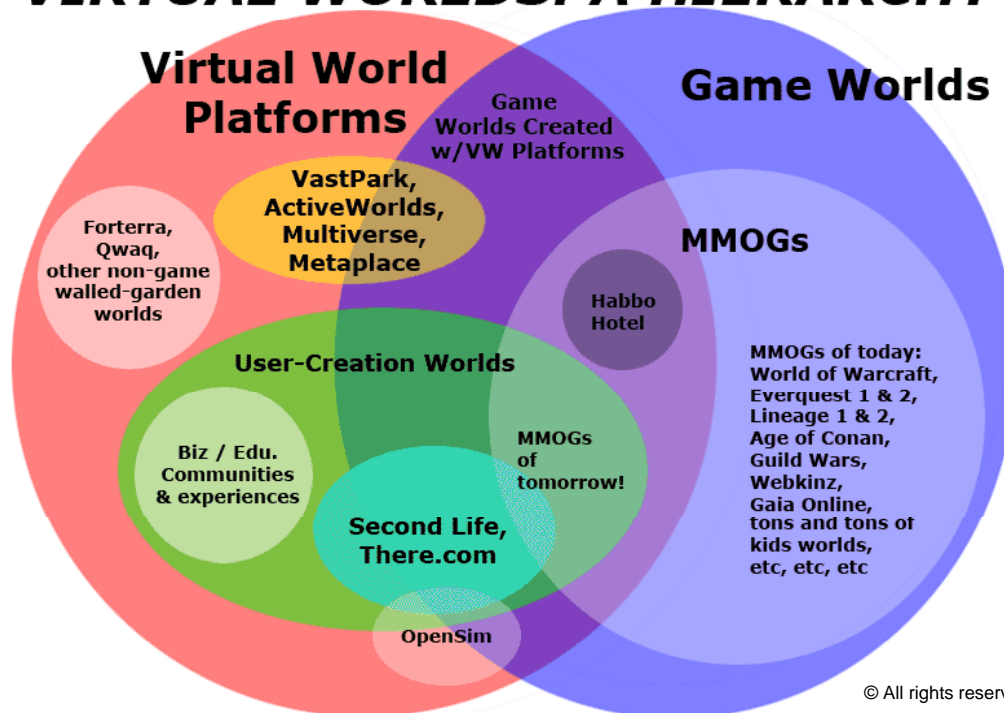
## Virtual Worlds

- 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 WORLDS: A HIERARCHY***



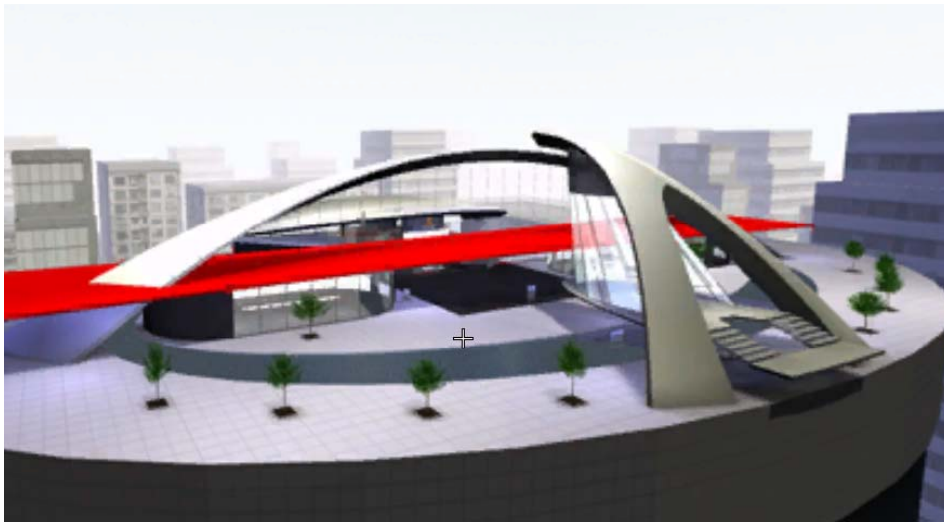
# Virtual World Options

- Public
  - SecondLife
  - There.com
  - Whyville
  - ~~Google Lively~~
- Private
  - SecondLife Grid
  - OpenSim
  - Nortel web.alive
  - Sun Wonderland
  - Protosphere
  - Qwaq
  - 3DXplorer
  - Forterra
  - VastPark
  - ActiveWorlds

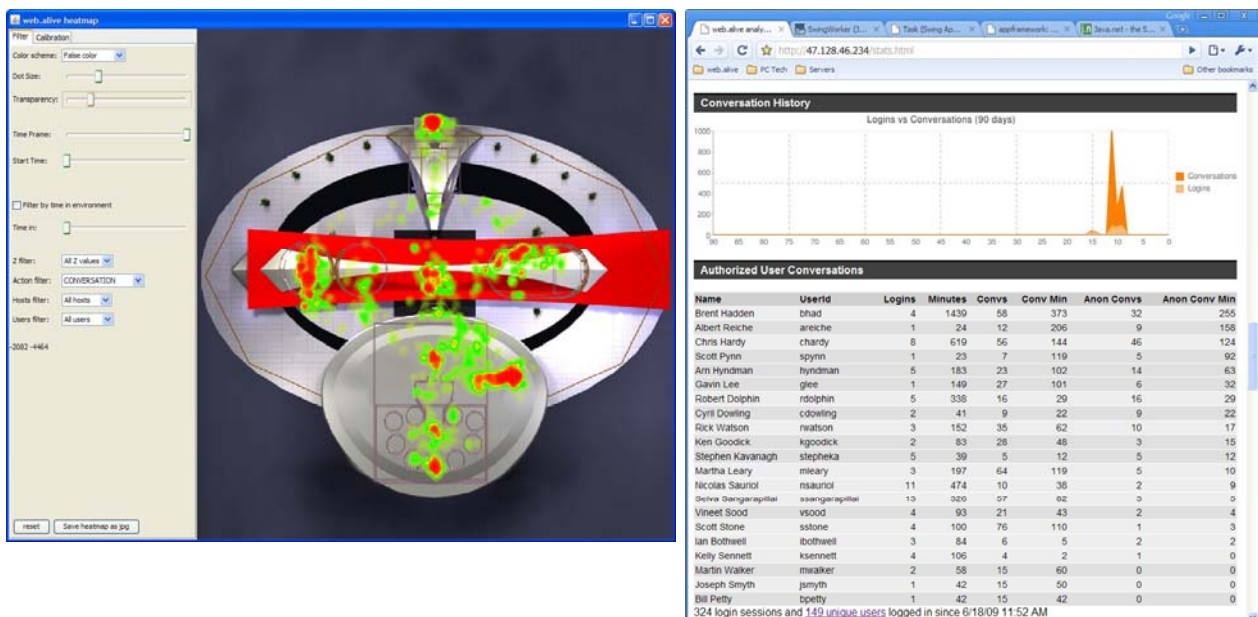
## Nortel web.alive

- 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

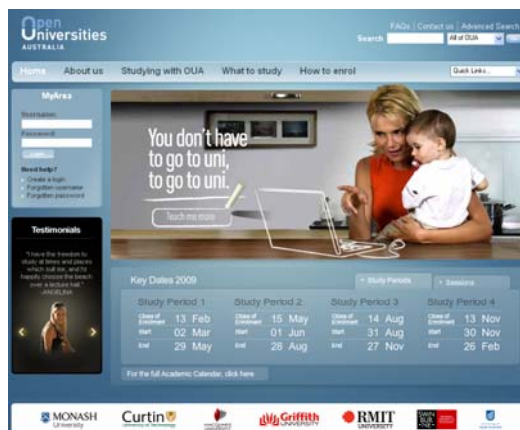
- OUA's research project aims to answer the following questions:
  - What is the current state of virtual world technology?
  - What Teaching and Learning centered applications could be enabled or enhanced through this technology?
  - What business processes and change management will be required?

# 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

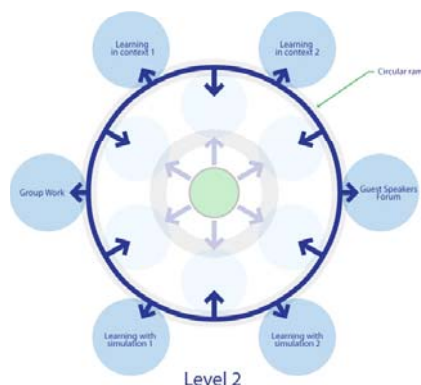
# Preliminary Design

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

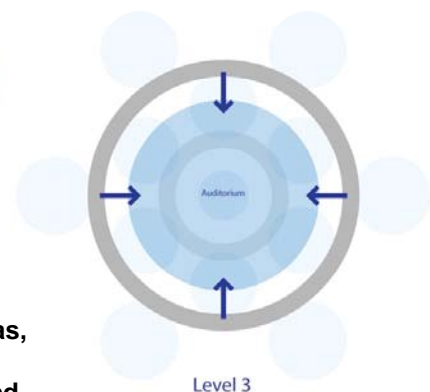
## Conceptual Layout



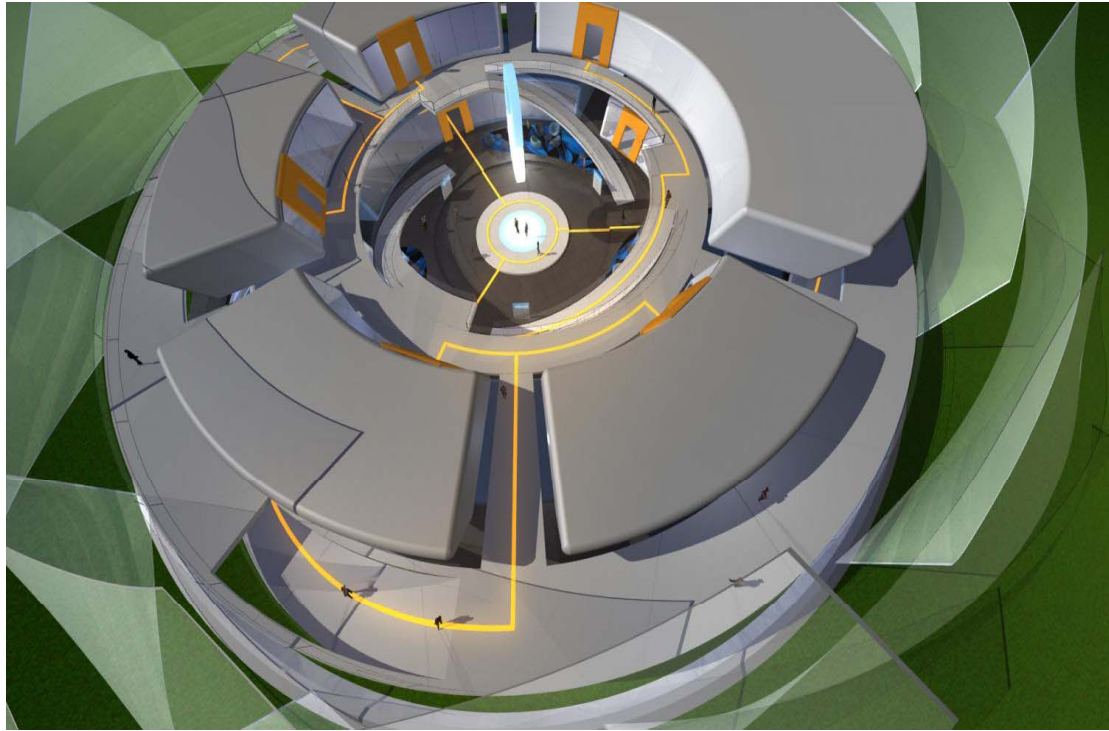
**Level 1: entry area, public, access to general and community areas although some rooms such as the lounge may be restricted to registered OUA users**



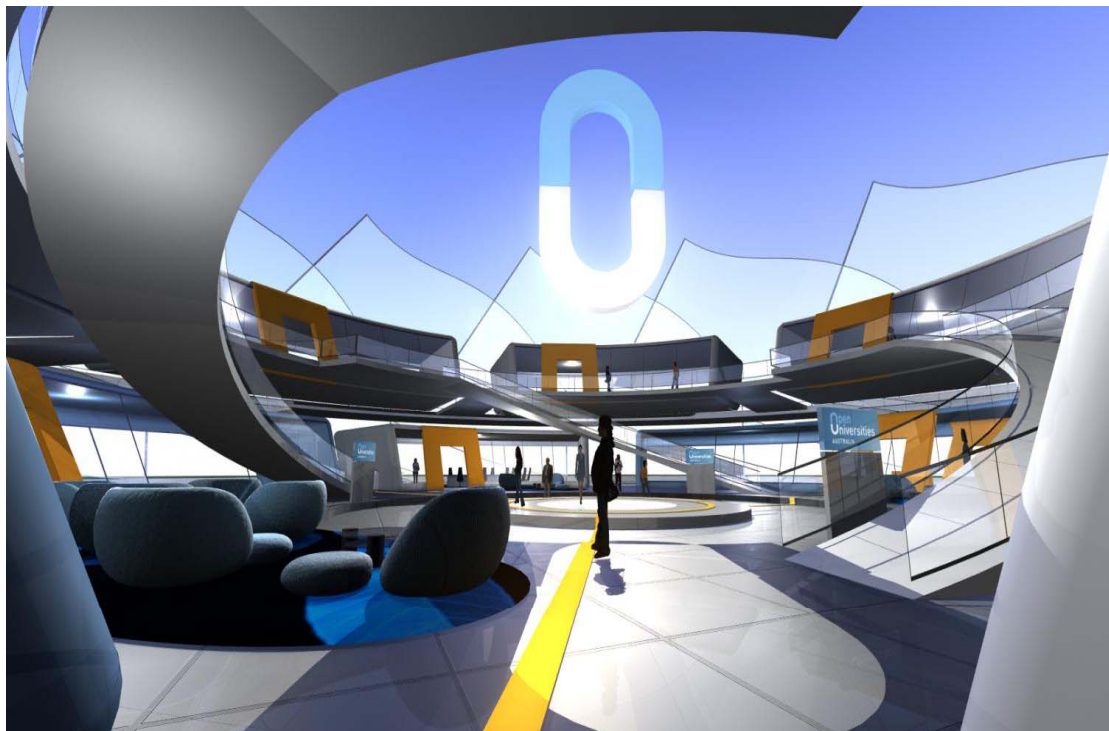
**Level 2: teaching & learning areas, private – for registered OUA users, also rooms may be booked for specific classes which will restrict further to enrolled students**



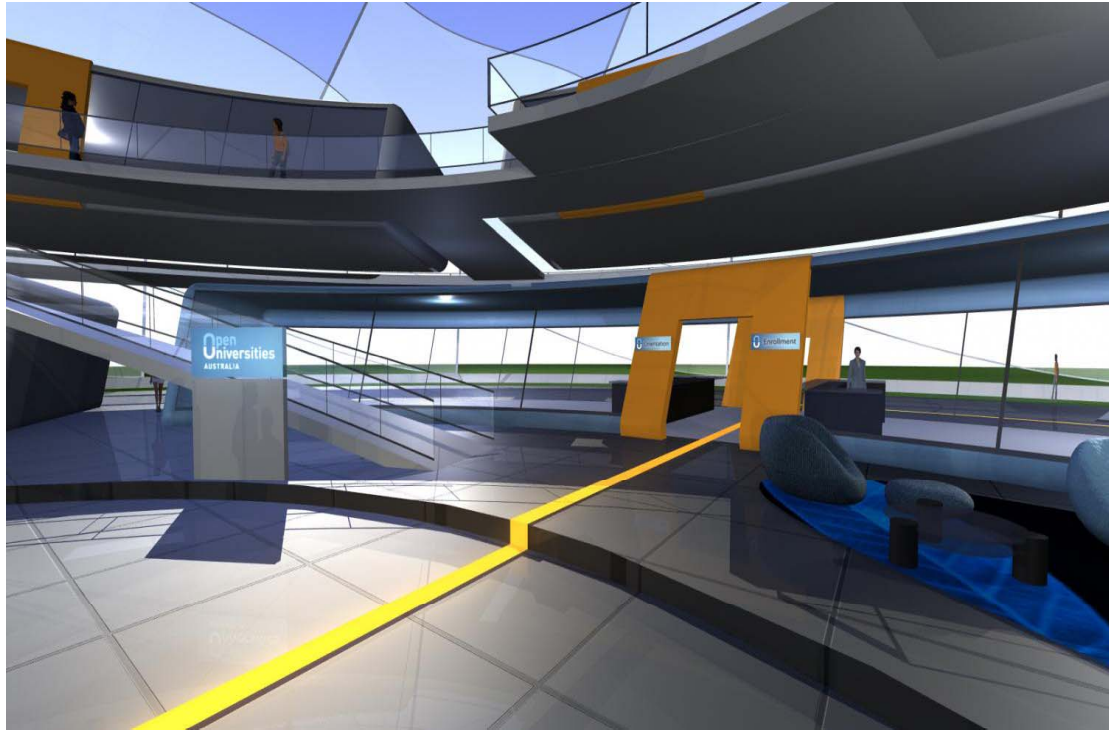
**Level 3: auditorium, large event space, possibly sub-dividable**



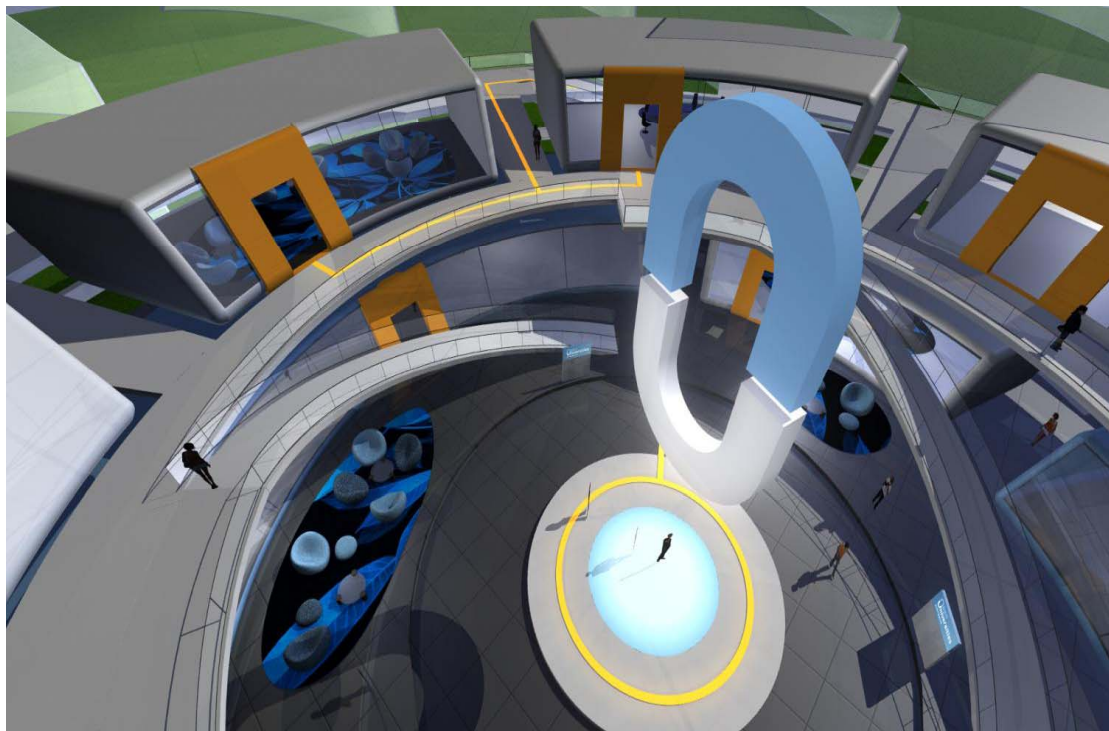
OUA Exterior – aerial view



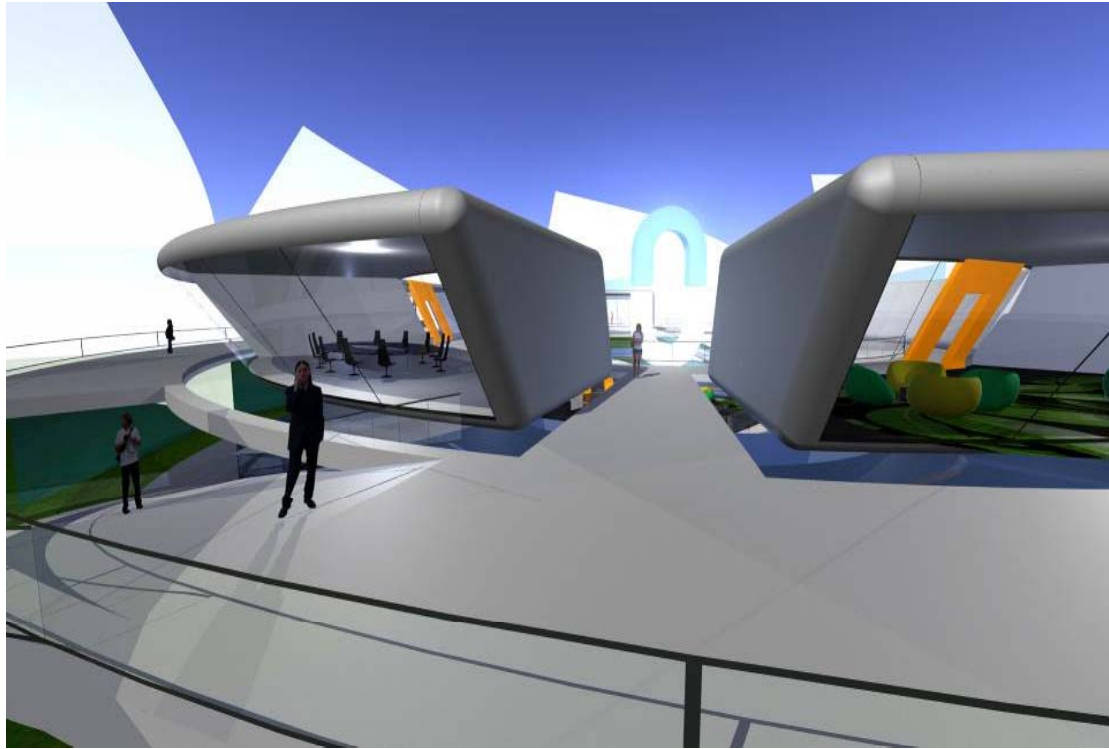
OUA Interior first floor



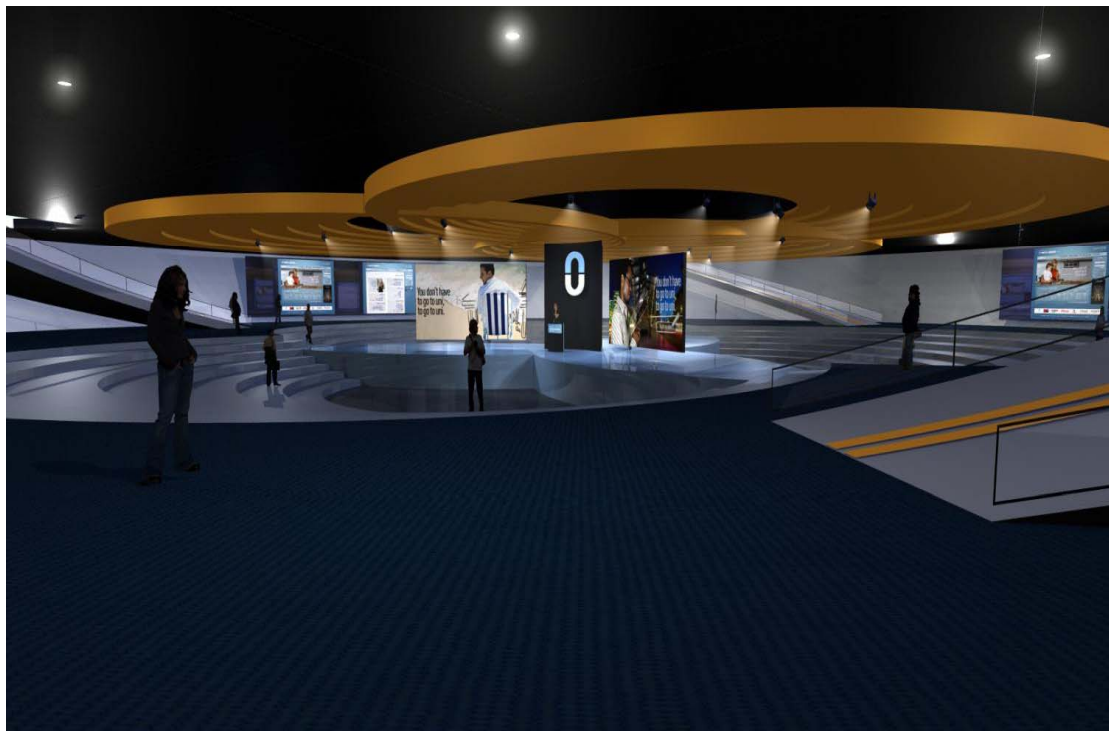
OUA Interior first floor 2



OUA Interior second floor – ramp to first floor



OUA Interior second floor – exterior ramp to auditorium



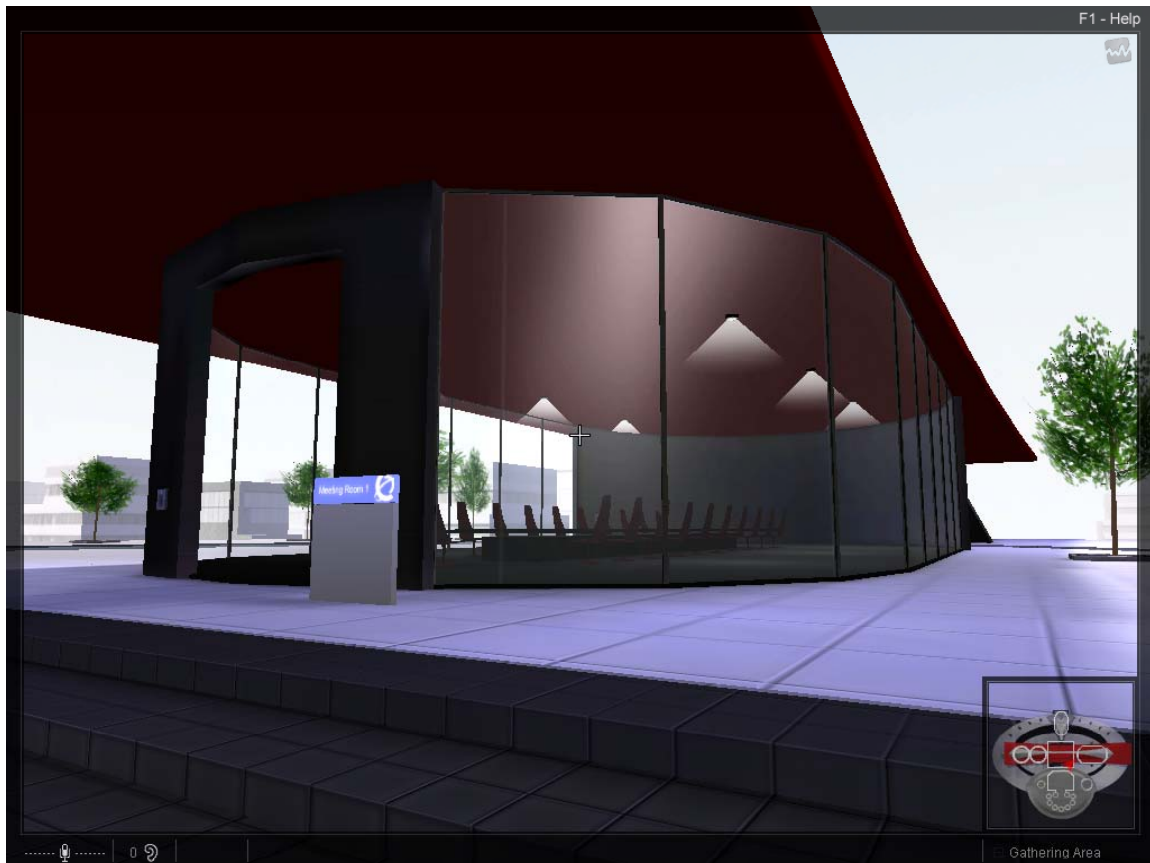
OUA Auditorium



OUA Auditorium



Lenovo - meeting room



Apex - 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?

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