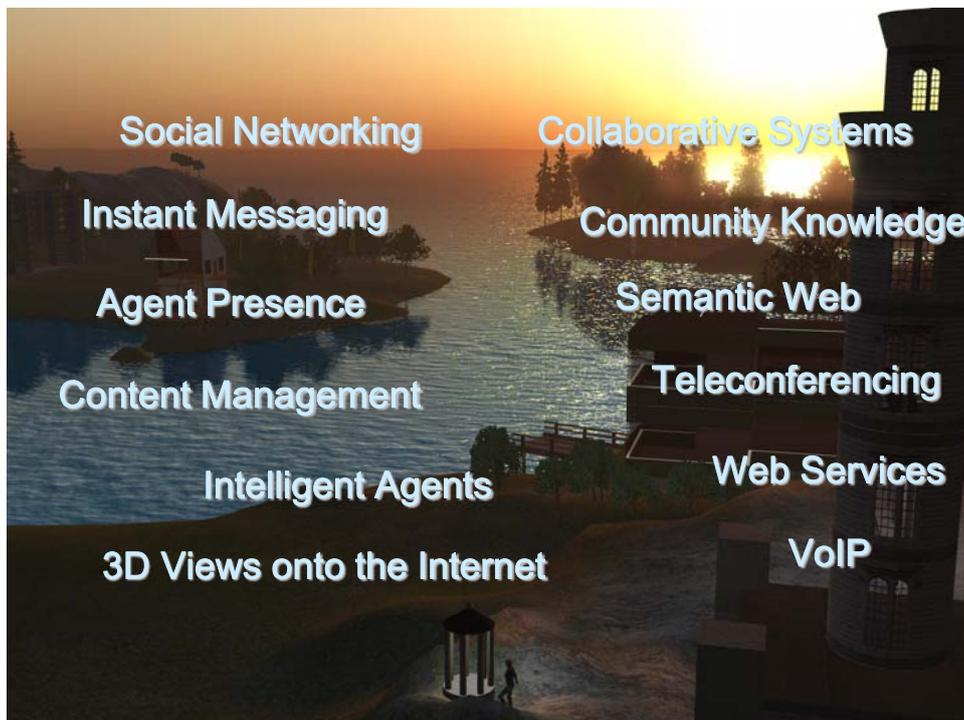


## I-Room: a Virtual Space for Intelligent Interaction

Low cost, simple setup, mixed-reality meetings spaces and operations centres



<http://openvce.net/iroom>



## I-Room Introduction

- I-Room provides a 3D virtual space with multiple work zones, designed for collaborative and brain storming style meetings
- I-Rooms are used in the I-X research on intelligent collaborative and task support environments
- The main feature of the I-Room is the link up with external web services, collaboration systems and intelligent systems aids



## I-Room: a Virtual Space for Intelligent Interaction

Distributed collaborative team support for production and review in the creative industries – with Slam Games and international partners

Tutorial and commercial spaces – with The Whisky Shop, Scotand



## I-Room: a Virtual Space for Intelligent Interaction

Operations Centres, Brainstorming Spaces, Team Meeting Rooms,  
Training and Review Areas – USJFCOM, US Army, DARPA



## I-Room: a Virtual Space for Intelligent Interaction

Operations Centres for Mixed Agency Operations – with EADS/Airbus



<http://vue.ed.ac.uk/associates/eads/>

## I-Room Applications

- Virtual collaboration centre
- Business teleconferencing
- Team Meetings for project and product reviews
- Product Help Desks
- Design to Product - product lifecycle support
- Environment, building and plant monitoring
- Health and safety at work, disability awareness
- Intelligent tutors, guides and greeters
- Active demonstration pavilions





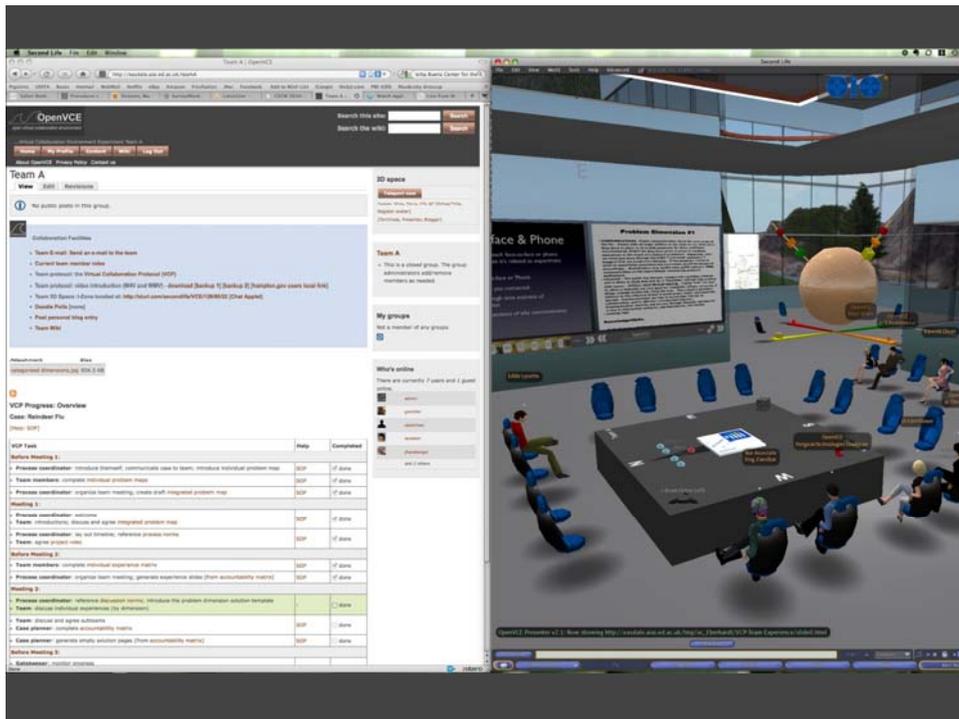
## Requirements for Effective Distributed Task-centric Collaboration

- Mix of physical operations centres and remote access
- Bring in experts for improved analysis and option generation
- Mix of synchronous and asynchronous activity
- Share community knowledge and experience
- Share Standard Operating Procedures and Lessons Learned

Communication, Collaboration and Task & Process Centric Activities

## Open Virtual Collaboration Environment

- Web-based Collaboration Portal
  - Drupal CMS
  - Also explored Facebook, Google Groups, Yahoo Groups, Ning Groups, Groups, Joomla, Linkups to external web services and widgets
- Virtual World 3D Space
  - Second Life™
  - OpenSim (allows for secure use, potentially behind a firewall, e.g. US government)
- Virtual Collaboration Protocol
  - Standard Operating Procedures
  - FAQ and Tips
  - Collaboration Protocol (Rob Cross, University of Virginia)
- Community Tools
  - AIAI I-Room – a Room for Intelligent Interaction
  - CMU Catalyst Community Knowledge Base
  - Concept Maps, and Experimental 3D Model Visualizations



## Virtual Worlds for Simulation & Training

- MOSES – Military Metaverse, US Army  
other US government agencies  
<http://moses.militarymetaverse.org>  
<http://blog.inf.ed.ac.uk/atate/moses>



- VOICCE – Virginia's Operational Integration  
Cyberspace Center of Excellence  
<http://openvce.net/voicce>



- International Virtual Emergency Exercises (IVEE) and  
Multinational Planning Augmentation Team (MPAT)  
<http://openvce.net/event-ivee1> <http://openvce.net/mpat>

- Simudyne SimuGrid in OpenSimulator








# Helpful Environment



Tate, A. (2006) The Helpful Environment: Geographically Dispersed Intelligent Agents That Collaborate, Special Issue On "The Future of AI", IEEE Intelligent Systems, May-June 2006, Vol. 27, No. 3, pp 57-61. IEEE Computer Society.

The creation and use of **task-centric virtual organizations** involving people, government and non-governmental organizations, automated systems, grid and web services working alongside intelligent robotic, vehicle, building and environmental systems **to respond to very dynamic events** on scales from local to global.

- Multi-level emergency response and aid systems
- Personal, vehicle, home, organization, district, regional, national, international
- Backbone for progressively more comprehensive aid and emergency response
- Also used for aid-orientated commercial services
- Robust, secure, resilient, distributed system of systems
- Advanced knowledge and collaboration technologies
- Low cost, pervasive sensor grids, computing and communications
- Changes in codes, regulations, training and practices

**Vue – Virtual University of Edinburgh  
OpenVCE – Virtual Collaboration Environment  
I-Room – a Virtual Space for Intelligent Interaction  
Blog Posts of Simulation and Training Exercises**

**Social Web + Agents + Plans + Virtual Worlds**



<http://vue.ed.ac.uk>  
<http://openvce.net>  
<http://openvce.net/iroom>  
<http://blog.inf.ed.ac.uk/atate/>