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

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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, Scotland
I-Room: a Virtual Space for Intelligent Interaction

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

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

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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
Sensing and Situation Analysis
Planning, Evaluation Option Argumentation
Briefing and Decision Making
Central Meeting Area
Sensing and Situation Analysis
Acting, Reacting and Communication
Acting, Reacting
and Communication
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, Grou.ps, 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 and 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
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

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