



Space City, OSGrid



Campfire & Media Centre
Space City, OSGrid

Travelling in the Metaverse

Defining Your Travel Outfit and Travel Pack



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Travel Outfit and Travel Pack...



For the Metaverse I would like to see...

- Notion of a single Metaverse
- With various locations, platforms or worlds
- Interconnected parts where feasible
- with a single instance (shard) world
- with unique locations accepting duplication for scale.
- Where travel is possible with a common identity
- and shared avatar appearance via a “travel outfit”



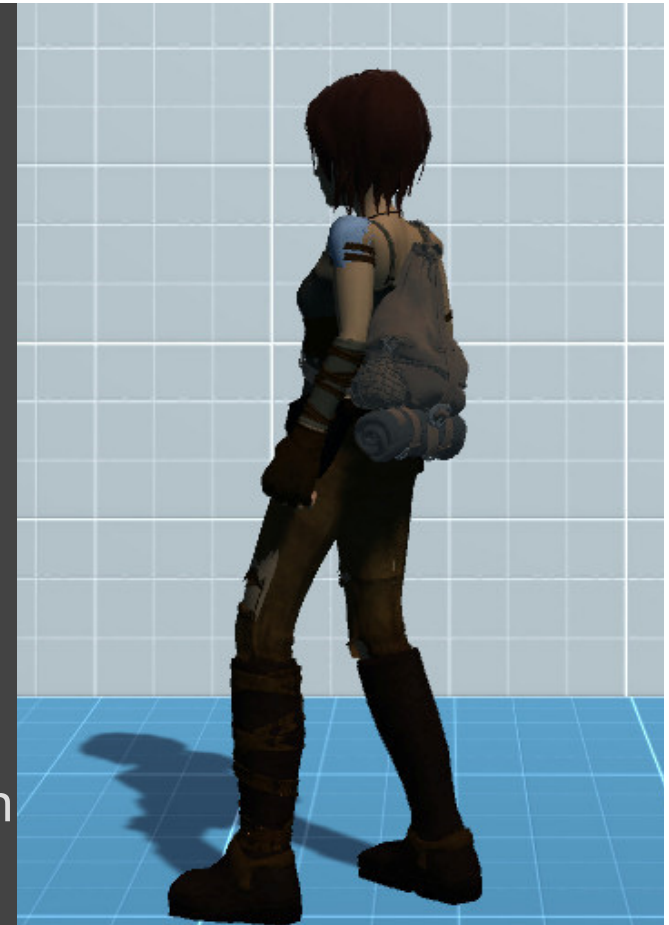
Travel Pack...



- Carrying a suitable “travel pack” or “suitcase” (intelligently filtered, permissions-based and adapted as needed between source and destination).
- Where radically different (or newer) technologies and user interactivity modalities can be introduced alongside legacy facilities
- Which can gradually build strong communities and shared content.

Travel Pack Might Contain...

- One initial outfit worn for the trip
- Other outfits for the destination (evening party wear, business meeting attire, space suit or scuba gear).
- Travel ID/credentials
- Travel wallet and funds, cryptocurrencies
- Other objects (gifts to use at the destination or space for souvenirs obtained there).
- The pack protocol might allow for appropriate export checks from the source location/platform, conversion requirements, and entry checks to the destination.
- We can even envisage a pre-travel pack checking service to advise on compatibility of the contents.



Travel Pack Might Contain...

- Initial outfit for the trip.
- Other outfits for the destination (evening party wear, concert gear, business meeting attire, space suit or scuba), Fallback Avatar
- Travel ID/credentials, wallet and funds/crypto.
- Other objects (gifts to use at the destination or space for souvenirs obtained there).
- Comms Hub to indicate presence, handle synchronous & /asynchronous comms, etc.
- Cache
- Add-on “packs” or “pockets”
- The pack protocol might allow for appropriate export checks from the source location/platform, conversion requirements, and entry checks to the destination.
- We can even envisage a pre-travel pack checking service to advise on compatibility of the contents.



Things to Consider...

- Concept of a “Home Base” for the user.
- Form of user or avatar “presence” on home grid when travelling.
- Mitre CVW idea of IMPs (Intelligent Multimodal Participants) that could co-exist in virtual spaces to monitor activity, give assistance in the room, or relay information to users whose attention was elsewhere.
- “Travel Kit” specific to a type of destination could be intelligently managed to allow items to be obtained and used at destination, but packed safely for storage when returning home.



A virtual world scene at sunset. A person with brown hair, wearing a dark green jacket, is sitting on a large, textured rock ledge in the foreground, looking out over a city. The city is built on a hillside and features modern, multi-story buildings with flat roofs and large windows. Some buildings are illuminated from within, casting a warm glow. In the center of the city, there is a large, open plaza with a central structure that looks like a fountain or a monument, surrounded by smaller structures and greenery. The sky is a mix of orange, yellow, and blue, with the sun low on the horizon, creating a long, shimmering reflection on the water in the background. The overall atmosphere is serene and futuristic.

Social Web + Agents + Plans + Virtual Worlds



Social Networking

Collaborative Systems

Instant Messaging

Community Knowledge

Agent Presence

Semantic Web

Content Management

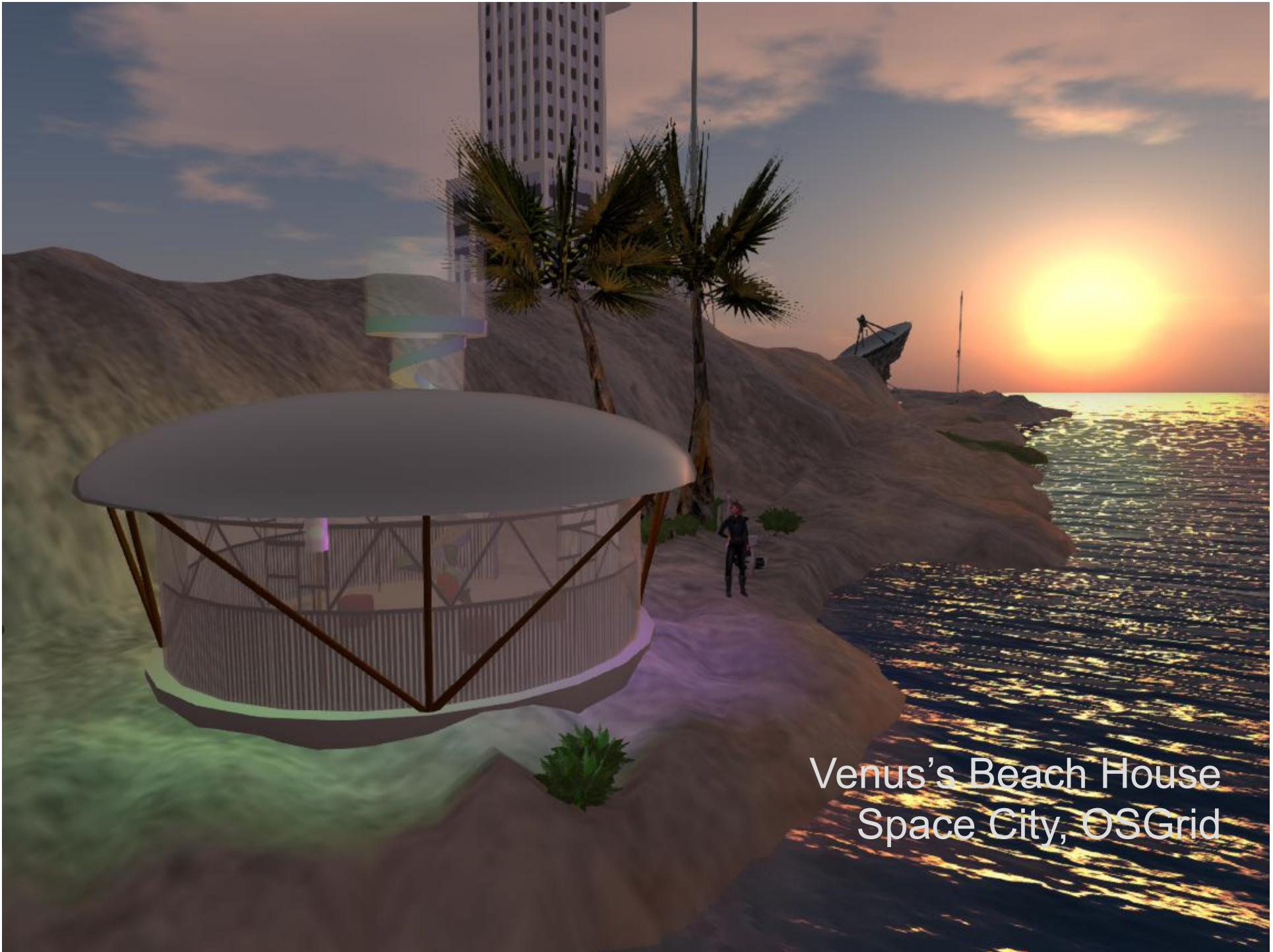
Teleconferencing

Intelligent Agents

Web Services

3D Views onto the Internet

VoIP



Venus's Beach House
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Other Slides...

- Emergence of Standards
- OpenSimulator Contribution
- Social Web + Agents + Plans + Virtual Worlds

Emergence of Standards...

- Standards need to allow for radical growth and should not ossify current ideas.
- Open and developing standards needed.
- Beware of industry driven limitations.

- VERY early stage for standards.
- Consider approach taken for other N \leftrightarrow M interoperability scenarios (e.g. NIST Process Specification Language)...
- Use an Intermediate Interchange Format (see PIF)
- Allow for development by version numbers.



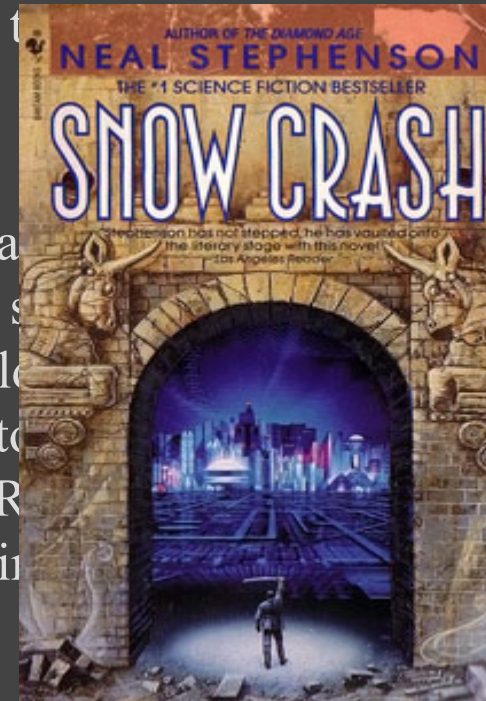
Emergence of Standards...

- **LibOMV – LibOpenMetaverse** – is a collection of .NET libraries written in c# for interacting with 3d virtual world simulators. The core library implements the protocol, networking and client functionality.
- **OpenSimulator** – <http://opensimulator.org> – OpenSimulator is an open source multi-platform, multi-user 3D application server.
- **OpenMetaverse Roadmap Group** – <https://www.metaverseroadmap.org> – Wiki from 2006 onward.
- **Open Grid Protocol** – [Proposals 2008 \(Linden Lab Wiki\)](#)
- **3D Web Think Tank** – [Brainstorming – Kick Starting the Future of the Metaverse](#) – Blog Post on May 5, 2013
- **Open Metaverse Interoperability Group** – <https://omigroup.org> – Bridging virtual worlds by designing and promoting shared protocols.
- Consider **Ontology** of terms and concepts involved.

[From <http://opensimulator.org>]

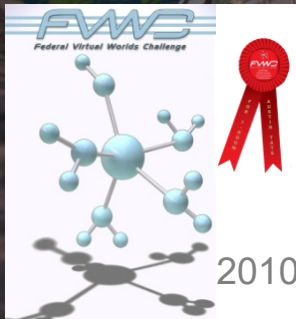
- OpenSimulator is an open source multi-platform, multi-user 3D application server. It can be used to create a virtual environment (or world) which can be accessed through a variety of clients, on multiple protocols. It also has an optional facility (the Hypergrid) to allow users to visit other OpenSimulator installations across the web from their 'home' OpenSimulator installation. In this way, it is the nascent distributed Metaverse.

- Out of the box, OpenSimulator can be used to simulate environments similar to Second LifeTM, given that it supports SL's messaging protocol. As such, these virtual worlds can interact with the regular SL viewers. However, OpenSimulator can also become a clone of the Second Life server platform. Realtime aims to enable innovative feature development for virtual worlds and the Metaverse at large.



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/>

This presentation is available on-line at:
<http://www.aiai.ed.ac.uk/~ai/resources/>

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