

Collaboration Patterns for Knowledge Sharing and Integration in Second Life:

A Classification of Virtual 3D Group Interaction Scripts

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Knowledge Sharing and Integration

- Knowledge Integration needs a **process**
 - Interaction is required
 - Email is insufficient
- *Ikujiro Nonaka*:
 - „Knowledge Management needs a **space (Ba)**“
- Important for
 - All kinds of **teams** and **groups**
 - Especially when **dispersed**

Collaboration Patterns for Knowledge Sharing and Integration in **Second Life:**

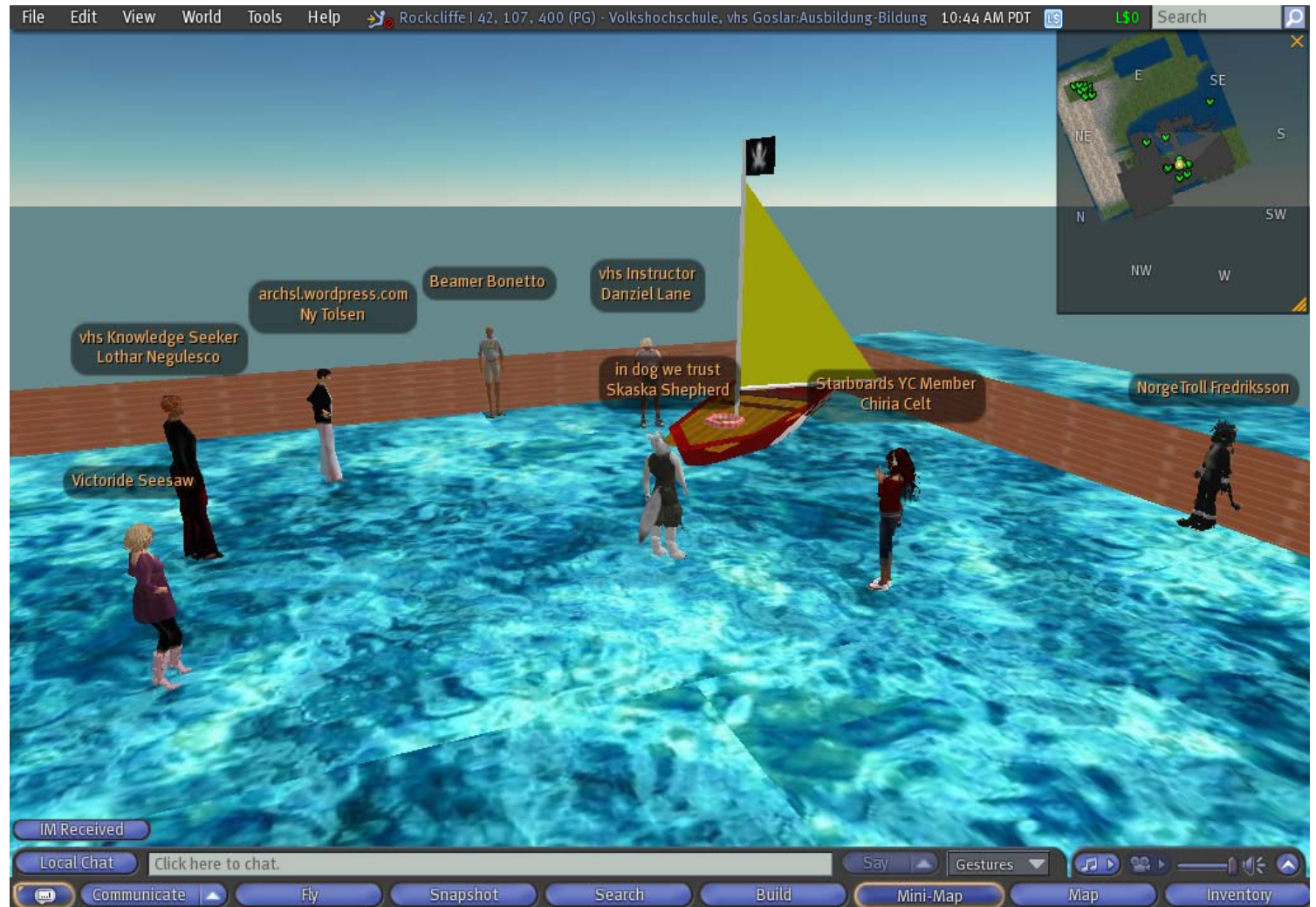
A Classification of Virtual 3D Group Interaction Scripts

Second Life – the origins

- CVE – Collaborative Virtual Environments
 - concept of space, movable objects
 - navigation, communication
- MUVE – online Multi-User Virtual Environments
 - 3D, embodied, persistent, accessible from anywhere
 - **dynamic interactive** approximation of physical reality
immersion virtual presence **organization in space**
awareness **co-presence** usage policies affordances
user content engaging privacy social space **fun**

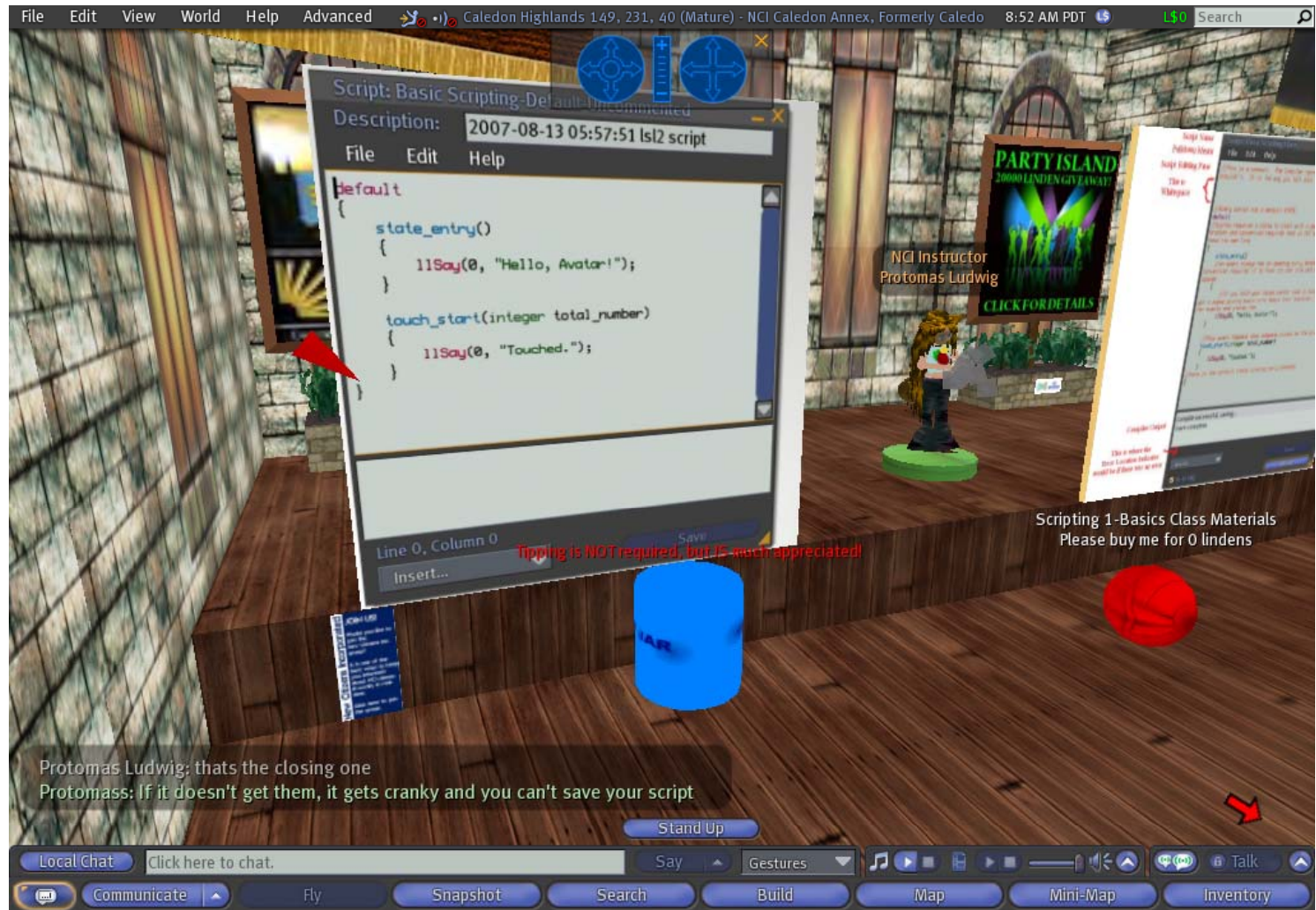
Second Life

Sailing course in Second Life



Second Life

Scripting course in Second Life



Second Life

- Characteristics:

- online, persistent Virtual World / MUVE
- extremely customizable avatars with identities
- group and private chat, object sharing
- launched in 2003, hyped in 2007
- over 13 million registered users as of April 2008

- Other MUVE:

- OpenSim, Google lively, ActiveWorlds, There.com, Open

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Collaboration Patterns

- Pattern: „description of a **known solution** to a specific type of **problem**“
- Collaboration Pattern:
 - „**technique, behavior** or **activity** for people who share a common goal of **working together in a group**“
 - + **requirements** for the virtual setting

Collaboration Patterns

- Why patterns?
 - Right type of **reproducibility**
 - Right type of **granularity**

Other concepts/models/theories?

Collaboration Patterns

Pattern Name		
Usage Situations		
Objective		
# Participants		
Interaction Intensity		
Typical Duration		
Required Artifacts		
Avatar Actions		
Risks		
Design Scope		

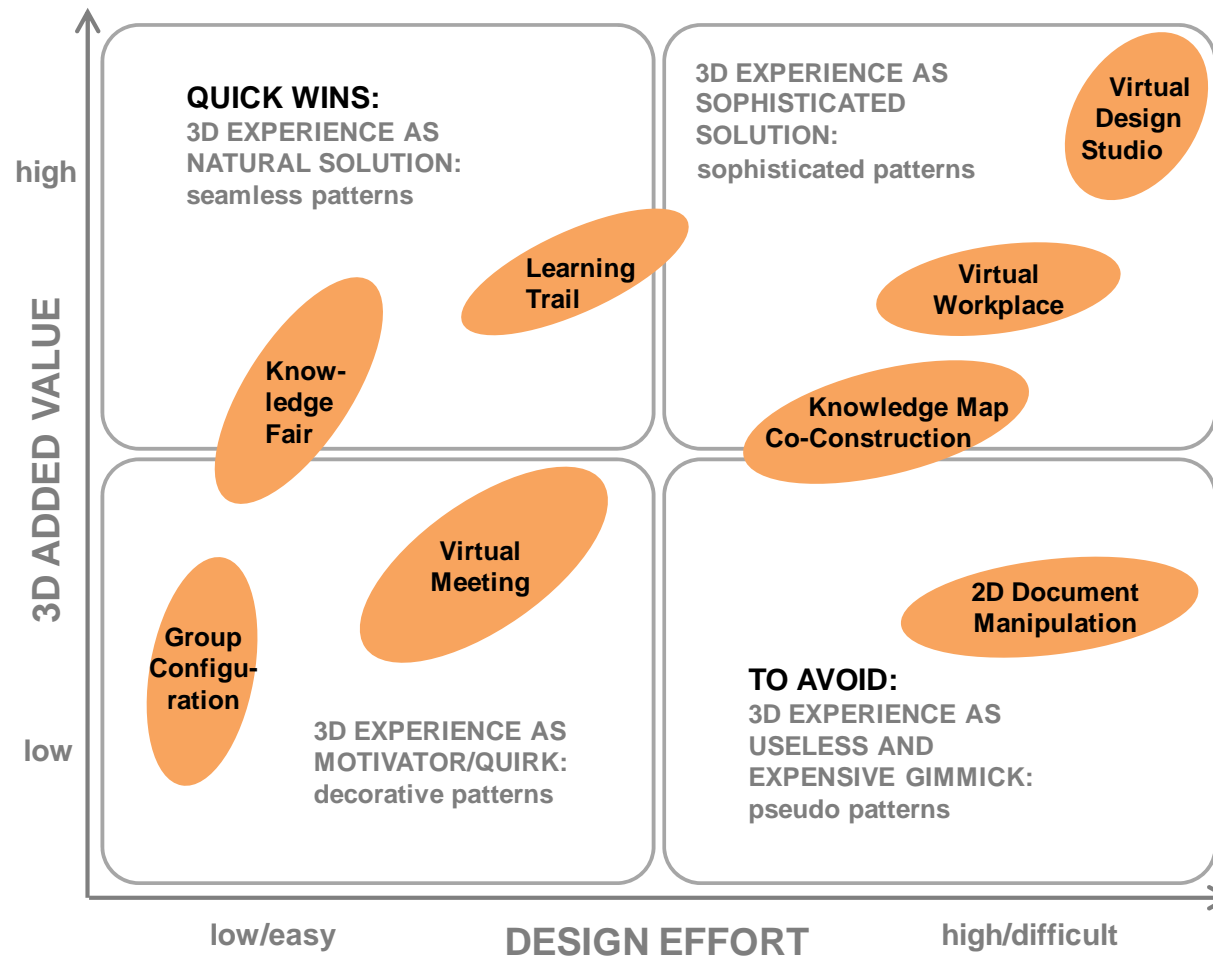
Collaboration Patterns

Pattern Name	Virtual Meeting	Virtual Design Studio
Usage Situations	project meeting, team meeting	product development/ design, architectural design
Objective	knowledge transfer and decision making	design of a physical (or virtual) object
# Participants	< 15	< 5
Interaction Intensity	low to medium	high
Typical Duration	up to 1 hour	up to 4 hours
Required Artifacts	places to sit, info displays	design/sketch tools, plans
Avatar Actions	chatting, showing	modeling, design/sketching
Risks	not making use of 3D features	design limited by VDS
Design Scope	medium: room design, projections	very high: design/sketching tools; interaction design

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A **Classification** of Virtual 3D Group Interaction Scripts

Classification of Collaboration Patterns



Conclusion

- Usages / Benefits
 - **sensitize designers**: „added value is not always proportional to development effort“
 - **detect features** leading to high-value patterns
- Future Research
 - definition of **additional patterns**, refinement
 - **different classification** approaches
 - development of **guidelines**

Question

- Is the pattern approach practicable?
- Other ideas:
 - Scripts
 - Nothing (compile a set of solutions)
 - ... ?

Contact

- Further information and contact:

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