

Metaverse U Conference 2009, Stanford University, Palo Alto

Sense-making and user-driven innovation in Virtual Worlds 2008-2011

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- new market dynamics and management,
- social and cultural innovation,
- knowledge construction

Supported by The Danish Strategic Research Council, KINO

Roskilde University
CBIT
Denmark



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RESEARCH

the research project

- research team:
 - 1 professor, 2 associate professors, 2 ph.d. students, 2 post.doc, 1 project manager
- partners:
 - Roskilde University, research group on communication forms, and knowledge production
 - Copenhagen Business School, LIKE: leadership, innovation, knowledge, and entrepreneurship
 - Innovation Lab, consultancy
 - UNI-C, Centre for Education and Research



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the research project

associate partners:

- Saxo Bank in Second Life and real life
- Second Life business Wonderful Denmark, SL RL
- Second Life business Power-Match, SL RL
- Roskilde Library
- Danish Library Center
- Info Island Denmark, Second Life libraries, SL RL
- Øresund University, Entrepreneurship Academy
- Knowledge Centre Vestsjælland
- Tag-art, Virtual Move Statens Museum for Kunst SL

future:

- Danish Architectural Firms
- Virtual Archaeology
- Virtual Robotics



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the research project

- case studies
 - Wonderful Denmark, Power-Match, Info Island Denmark, Library Hangouts, Metanomics (coming) and Innovation Lab (coming)
- participatory observations
- video-interviews
- sense-making moment by moment interviews
- experiments using Sense-Making Methodology
- focus groups
- online dialoguing
- design as research



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Metrotopia: a laboratory

- design aimed at the study of:
 - communication
 - media reception
 - social interaction
 - design
 - innovation
- [RUC school of experimental studies that employs virtual worlds as laboratories](http://worlds.ruc.dk)



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Metrotopia: the design

- coming from an industrial design background
- traveling into Second Life, how they design virtual products and spaces inworld
- [video clip of the design process](#)
- snapshots of three concepts in action
 - collaborative designing
 - designing by walking around
 - designing for interaction



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Metrotopia: the experiment

- explore how make sense of 3 types of virtual worlds as potential sources of entertainment
- quasi-experiment structure, using surveys, interviews, observations
- compare & in-depth experiences with 4 media products: movie; video game; MMOG; MUVE.
- content held standard by using superhero genre – universal and popularized by Hollywood films



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Metrotopia: the experiment

- during each session, respond in real time
- after each session, completed quick survey
- after all sessions, interviewed
- movie watched at home
- other sessions, came into lab, where engagements were recorded – as the following mock-up examples show



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Metrotopia: the experiment

- first, mock-session how engage with virtual world & researcher on reactions while engaging
 - [Nintendo Wii game Spider-Man: Friend or Foe](#)
- second, mocking a session with Second Life.
 - had to create own superhero themed island...[Metrotopia, City of Superheroes](#)
- not shown – City of Heroes MMORPG



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Metrotopia bot experiments

- Existing bots

- Pikkubots, SL-bots, Eliza & Pandora chatbots
- simple and stereotype
 - collect info
 - exchange messages
 - gatekeepers
 - shop and bar assistants
 - simple question answers
 - simple dialogues and behaviours



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helpers and provocateurs

- bots in the MMORPGs
 - actant model
 - project axis (subject – object)
 - communication axis (giver – receiver)
 - conflict axis (helper – adversary).
 - immediate occasions for sense-makings, attention and motivation is provided by the project, and the helper and adversary bots.
 - complexity of the programming
 - simple and stereotyped behaviours



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helpers and provocateurs

- bots in e.g. Virtual Worlds
 - openness: no immediate project axis or axes of communication and conflict
 - uncertainty and complexity
 - no immediate occasions for sense-makings, motivation, intentional and attentional navigation
 - simple and generic in the programming
 - ??? complexity in behaviors and interactions



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possible future applications

- bring our bots into fields, islands, sims, etc. aimed at innovation practices
 - for instance, in the field of leadership and innovation processes
- to act as the provocateurs – the adversaries of the actant model – in the field of creative leadership of innovative practices
- to provoke and initiate the development of methods
 - to help initiate and train creative and collective leadership and self-leadership



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