

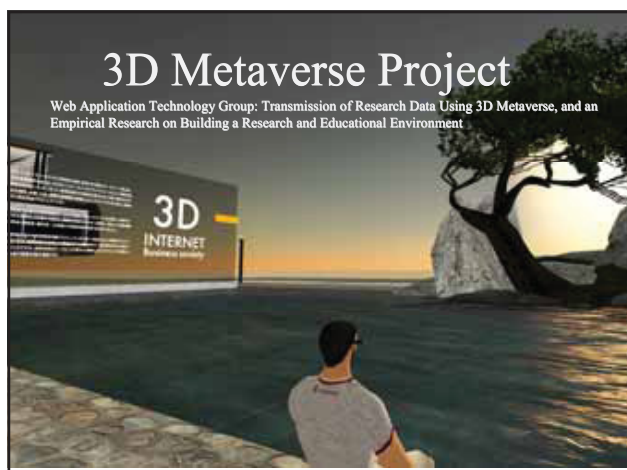
# Web Technology Group

Project Leader

Kōichi Hosoi

(Professor, Graduate School of Policy Science, Ritsumeikan University)

## Transmission of Research Data Using 3D Metaverse, and an Empirical Research on Building a Research and Educational Environment



### Research Themes

(1) Examine the Current Status of the Virtual World and the Metaverse Technology

Metaverse, a technology represented by *Second Life*, provides a comprehensive test site of future information technology. This project examines whether the Metaverse technology provides an effective environment for research projects such as those at the Digital Humanities Center for Japanese Arts and Cultures, particularly in its ability to make the research subjects visible through 3D technology, and to test the possibilities of the research subjects as interactive and high-level tactile media. More specifically, the research comprehensively investigates various 3D Metaverse technologies in the world, such as *Second Life* by Linden Lab.

(2) Use of *Second Life* in Transmitting Research Results and Providing Research and Educational Environment

*Second Life* is representative of the 3D Metaverse technology. This project examines the effectiveness of *Second Life* as a medium for transmitting our Center's research results, and for testing the possibilities of virtual environments for research and education. We construct SDM for empirical tests.

1. Identify the patterns of contents of our research practice and results. Sort out the information and explore how it can effectively be made the contents of the 3D Metaverse and its data transmission designs.
2. Apply typical research results to *Second Life*, and analyze the effectiveness and problems on sending and receiving sides in terms of log base and participant-observation base.

### Research Topics

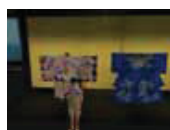
Survey Research on Current Status of the Virtual World and Metaverse Technology

- 1) Research on Metaverse in the World
  - Crockett (University of Minnesota)
  - Internet Adventure - iA (SEGA)
  - Multi-Player Online Game (MMORPG)
- 2) Research on the Principles of Avatar-Based Communications
- 3) Examination and Evaluation of Social Applications of Metaverse



Use of *Second Life* in Transmitting Research Results and Providing Research and Educational Environment

- 1) Reproduction of the internal world of the Noh stage, and production of Noh costumes for avatar
- 2) Development of a Noh dancing-board using motion-capture data
- 3) Effectiveness and issues of Metaverse as a space for exhibiting academic contributions, and behavior of the viewers



### Noh Stage Area

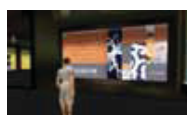
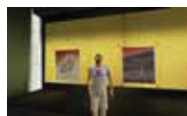


<http://slurl.com/secondlife/rits-gcoe-jdh/>

### Archival Center (Exhibition Room)



<http://slurl.com/secondlife/rits-gcoe-jdh/>



### Research Project Staff

【 Project Leader 】 Koichi Hosoi  
【 Ritsumeikan Research Collaborators 】 Akinori Nakamura and Kazufumi Fukuda  
【 Visiting Researcher 】 Toru Fujimoto  
【 Visiting Researcher Overseas 】 Prevost Laurent (Swiss)  
【 Research Assistant 】 Keisuke Asada (Ph.D. candidate)



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