## Research Activities Report - 2022 Overseas Research Experience Program -



Research Topic	Seamless Entertainment in Virtual Museum	Graduate School of
Host University	Uppsala University / Visby / Sweden	Information Science and Technology
Duration	From April 1 to June 29, 2022	TAKEUCHI Nao

## **Summary of the Research Activities**

A real-time 3DCG based virtual museum is being developed that users can freely walk through. One of the problems with the virtual museums is that visitors tend to stay shorter and leave earlier. To solve this problem, I propose a new method of incorporating an entertainment element into the museums. The museum is divided into two modes: a normal walkthrough viewing mode and a game mode, which allows a visitor to move seamlessly between the two modes in the same space. The virtual museum space can be used as it is, where a visitor can seamlessly transition to the games such as an adventure game and shooting game. If the user gets bored, they can immediately go back to viewing mode. The results of the evaluation experiment suggest that the seamless entertainment feature does not affect viewing time in normal mode, but improves overall satisfaction. Related Announcement: Masaki Hayashi, Nao Takeuchi, and Tomoko Koda. Seamless Entertainment in Virtual Museum

- Wanna Play a Shooting Game in an Authentic Museum Space? -, IEEE 11th Global Conference on Consumer Electronics (GCCE2022)



Appreciating Artworks (Normal walkthrough viewing mode)





Shooting

Game Mode

Adventure Game Mode

## College Life

Gotland is a famous tourist destination, Visby, the centre of the city, is a World Heritage Site. The campus is located in such a place. Most of the time was spent in the Learning Commons, interacting with local students. And finally, I participated in the GGC (Gotland Games Conference). It was a valuable experience.





## <u>指導教員講評</u>

His experience of studying at Uppsala University had fruitful outcomes as a virtual museum demo, a research paper, and a valuable experience. I am grateful to Dr. Hayashi at Uppsala for his tactful advice and hospitality.

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