COMP-SCI 5542 (SP17) - Big Data Analytics and Applications

**Paper 12 Presentation**

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**This is Dayu Wang. I am presenting part 4 of the paper. In this part of the paper, the author talked about the methods behind the experiments.**

**In this paper, the author mentioned two procedures of the design of present study. One is the TMBA, which stands for The Machine to be Another; the other is the SL, which stands for the Second Life. The study evaluated the perception of presence, and the impact of feeling in another body. The high-level environment is that a person is immersed in another virtual environment, captured from the real world through a video camera. For head-controlled illusion, immersion is provided in a virtual environment. And we have head-mounted display, the HMD. Also, the performer can see his body. And theoretically there is no difference between a real person and a virtual avatar. For the full body swap illusion, participant experiences full body control with the same HMD. However, his body cannot be seen, though he can freely move his head.**

**Two experiments were set up. Experiment 1 is to that it is possible that immersion in another person’s body and subject impact is to be evaluated. Experiment 2 examined the effects of body image, as well as of body agency. For experiment 1, I can see other person’s body from my perspective, with head and body agencies. For experiment 2, I can freely move my head, but no body agency, and no virtual body can be seen. Both experiments use the same group of participants, and they entered experiment 1 first then experiment 2. Questionnaire included subtle adaption to the context.**

**The experiment chose 13 out of a group of 16 people, 5 females and 8 males, with the average age of 22.26 and standard deviation of 3.78. Some exclusions are “under 18”, “pregnant”, etc. The body swap procedure includes a 2-minute exploration, in which slow more was taken and they can see their own body, a 2-minute explore touch with 2 assistants, in which they touch the hand palms at same location of both the performer and the user, a 3-minute narrative with object, in which an orange was placed on their hands and they can move the orange freely, and 3-minute a face-to-face handshake, in which performer and the user can see each other.**

**Questionnaire, taken immediately after the experiments, was a qualitative method. Using SPSS 22.0 in Windows, they evaluated the presence induction efficacy, which repeatedly measured TBMA procedure and SL procedure.**