



**University  
of Victoria**

Graduate Studies

Notice of the Final Oral Examination  
for the Degree of Doctor of Philosophy

of

**KAREN-MARIE PERRY**

MA (Simon Fraser University, 2010)

BA (Simon Fraser University, 2006)

**“Virtual Reality and the Clinic: An Ethnographic Study  
of the Computer Assisted Rehabilitation Environment  
(The CAREN Research Study)”**

Department of Anthropology

Monday, April 16, 2018

2:00 P.M.

Clearihue Building

Room B017

Supervisory Committee:

Dr. Lisa Mitchell, Department of Anthropology, University of Victoria (Supervisor)

Dr. Alexandrine Boudreault-Fournier, Department of Anthropology, UVic (Member)

Dr. Arthur Kroker, Department of Political Science, UVic (Outside Member)

External Examiner:

Dr. Janelle Taylor, Department of Anthropology, University of Washington

Chair of Oral Examination:

Dr. Xuekui Zhang, Department of Mathematics and Statistics, UVic

## **Abstract**

At the Ottawa Hospital in Ontario, Canada, clinicians use full body immersion virtual reality to treat a variety of health conditions, including: traumatic brain injuries, posttraumatic stress disorder, acquired brain injuries, complex regional pain syndrome, spinal cord injuries, Guillain-Barré Syndrome and lower limb amputations. The system is shared part time between military and civilian patient populations. Viewed by clinicians and the system's designers as a value neutral medical technology, clinical virtual reality's sights, sounds, movements and smells reveal cultural assumptions about universal patient experiences. In this dissertation I draw from reflexive feminist research methodologies, visual anthropology and sensory ethnography in a hospital to centre the body in current debates about digital accessibility in the 21<sup>st</sup> Century. 40 in-depth interviews with practitioners and patients, 210 clinical observations and film and photography ground research participant experiences in day-to-day understandings of virtual reality at the hospital. In this dissertation I address an ongoing absence of the body as a site of analytical attention in anthropological studies of virtual reality. While much literature in the social sciences situates virtual reality as a 'post-human' technology, I argue that virtual reality treatments are always experienced, resisted and interpreted through diverse body schemata. Furthermore, virtual reality cannot be decoupled from the sensitivities, socialities and politics of particular bodies in particular places and times. The Ottawa Hospital's Computer Assisted Rehabilitation Environment (CAREN) system features a digitally enhanced walk-in chamber, treadmills on hydraulic pistons, surround sound audio, advanced graphics and user feedback utilizing force plates and a dynamic infrared motion capture system. The CAREN system utilizes hardware and software reliant on specific assumptions about human bodies. These assumptions, for example, are echoed in depictions of race, gender, class, and indigeneity. Patients using virtual reality technologies can experience more than one disability or health condition at a time, further disrupting the idea of universal user experiences. As clinicians and patients confront the limitations of body normativity in the CAREN system's interface design, they improvise, resist and experience virtual reality in ways that defy design agendas, ultimately shaping patient treatments and unique paths to healing and health.