

xR HEAD

eXtended Reality Health Economic Acceleration and Development



SieVRt - Clinical Workflow Integration of a Virtual Reality Radiology System

PROJECT FAST FACTS

PARTNERS: Luxsonic Technologies Inc. and Pureform and PureKids Radiology

AWARD: \$250,000

THE PROBLEM

Canadian radiologists spend an average of 38.6 hours per week providing diagnostic patient care. This involves analysis of medical imaging data, often in a dimly lit radiology reading room, to provide a detailed medical report. In a private clinic, a hospital, or even a physician's private residence, the radiology reading room uses up significant physical space, is a fixed architectural structure, and can cost upwards of \$100,0000 to set-up and maintain. It is the foundation of the daily medical imaging workflow but it hasn't evolved in the last two decades.

THE SOLUTION

SieVRt is a full, virtual reality based, radiology reading room. The software application enables medical imaging professionals to visualize, manipulate, annotate and report on 2D and 3D medical imaging data in an immersive virtual environment.

By simulating components of the radiology reading room environment (medical imaging displays, workstation, collaboration and communication technology, workflow software, and information systems) in an all-in-one virtual reality application, SieVRt addresses the challenge of portability and cost of traditional reading rooms. SieVRt eliminates the need for large, space-inefficient, physical medical imaging displays that can cost 2 to 3 times more than SieVRt.

By virtualizing system components, SieVRt overcomes the limits associated with physical space; SieVRt users can visualize medical imaging data on three large simulated displays, while requiring less space than a single physical display and workstation.

PROJECT OBJECTIVES

- To create a test bed for this exciting innovation in Alberta, and then to integrate the technology into daily practice in the healthcare system.
- Significantly reduce operating costs while improving flexibility and user experience for clinicians, thereby improving access to medical imaging for patients.
- Commercialization within the Alberta market and beyond.

ABOUT xR HEAD

In partnership with the Alberta Chapter of the Virtual Reality / Augmented Reality Association (VRARA), Alberta Innovates is proud to announce the eXtended Reality Health Economic Acceleration and Development (xR HEAD) program. This program will be a first-of-its-kind opportunity for stakeholders in Alberta's virtual, mixed, and augmented-reality (collectively 'xR') health innovation ecosystem to come together in a coordinated way to jointly develop xR innovations that can enhance patient care or support the training of health professionals. These opportunities will be co-identified and co-developed by health innovation stakeholders and will align to Alberta Innovates' four research and innovation priorities, the Alberta Research and Innovation Framework (ARIF), and will create economic and health system economic value.

Learn how

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