

# Augmented Reality for Return to Work Assessments

## Digital Media



### FUNDER:

Ontario Centres of  
Excellence

### INDUSTRY PARTNER:

Cyberworld Inc. - VR  
Society

### TIMELINE:

October - November 2018

### RESEARCH TEAM:

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### KEY STATS:

Complex RTW cases of  
health care workers  
represent significant  
resources and financial  
costs for WSIB and the  
employers. - *Mohawk  
Business Analysis HHS  
Project Management  
Review Spring 2018*

**Context:** In 2016, healthcare workers accounted for 16% of Workplace Safety & Insurance Board (WSIB) cases in Ontario at a total cost of \$9,000,000; complex return to work (RTW) cases comprised 8% of this total. There is currently no RTW assessment tool developed.

**Industry Challenge:** An effective RTW assessment tool would accurately measure a worker's interpersonal skills and their capacity for effectively returning to a team environment and providing services to clients. It is of great importance to ensure that healthcare workers are fully able to perform to ensure the wellbeing and safety of patients.

**Solution:** Following a user co-design methodology, there was input from case managers, nurses, directors by means of interviews to develop a script for the simulation prototype set in an Emergency waiting room using facial motion captures, a variety of stressors, and memory evaluation.

**Impact of the project:** The project developed an AR /Mixed Reality simulation that was modeled from the information found in the research. The team was able to recreate the common stressor cues in the simulation that were determined through the Hamilton Health Sciences team and in the previous research studies done by other research institutions. A workable prototype has been developed to begin initial trials for director and clinician feedback. The Industry Partner intends on using the prototype to apply for other grants that will help further commercialize the product.

**Mohawk's role:** Business Analysis students did a thorough business case and the findings supported a trial of AR/VR/ Mixed Reality Simulation. Mohawk College then leverage the skill sets of the Software Development and Animation 3D students. Media equipment from the College was also used to support the project. The outcome is an outstanding simulation exercise that could lead to greater buildout.