

For immediate release
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Media Advisory

Attention: Technology/City/Life/News Editors

Mobility Games aims to change the way we play

What do you get when you combine a good old-fashioned game of capture the flag with players in power wheelchairs or scooters and a GPS-based smartphone app? The [Mobility Games](#). And it's coming to the [Toronto Accessibility Camp](#) at OCAD, 100 McCaul Street, this Saturday, November 16 from 1 to 2 p.m.

The concept of Mobility Games is this: developers map out a virtual capture the flag playing field, and players download an app that displays the field on their smartphone, which then tracks the GPS coordinates of the players in real-time as they move. Players simply snap their smartphone into a wheelchair accessible mount that essentially turns their smartphone into a side-mirror-level GPS. Players who can't interact with their smartphone directly can access the mobile devices using technology developed by [Komodo OpenLab](#), a startup based in the [Digital Media Zone](#) at Ryerson University. Their device, [Tecla Shield](#), is a wireless interface that allows users with disabilities to control smartphones and tablets using their wheelchair-driving controls or other type of assistive devices. (Detailed rules of the game are explained in a YouTube [video](#).)

The brainchild of innovators from Centennial College, Ryerson University, and Bridgepoint Active Healthcare, the Mobility Games is part of a broader body of research into inclusive technologies, being funded by the Natural Sciences and Engineering Research Council of Canada. Recognizing that technology often excludes people with disabilities, the team aims to create an inclusive virtual entertainment and technology solution that enables people in wheelchairs or scooters to actively participate in a traditionally non-inclusive social and physical activity.

Event details

When Saturday, November 16, starting at 1 p.m.

Where OCAD, 100 McCaul Street

What Mobility Games – a GPS-based game of capture the flag, with two teams of players in power wheelchairs vying for virtual victory

Changing the rules of the game

"Our scooter game takes advantage of smartphones' GPS sensors and mobile internet connection in a way that's not common to many mobile apps," says principal investigator Carmen Branje, Professor in the School of Engineering Technology and Applied Science at Centennial College. "It presents an opportunity for liberating, outdoor play for people with disabilities who don't wish to be confined by traditional gaming. Mixed and augmented reality gaming is an area ripe for innovation."

For Margot Whitfield, co-investigator, [Inclusive Media and Design Centre](#) at Ryerson University's Ted Rogers School of Management, the Mobility Games is an opportunity to better understanding of how scooter and wheelchair users can access mobile touch-screen technology for the purpose of entertainment and social play when, for instance, a person does not have use of their upper body.

Long-term, she hopes this will lead to developing virtual games that are equally accessible, regardless of the players' mobility level; the team is already planning another Mobility Games with participants in scooters later in October. "Engagement and entertainment factors are an important part of our research in inclusive mobility game design," she says.

Bringing a healthcare lens to the Mobility Games, Bridgepoint Affiliate Scientist Paula Gardner sees the health benefits of integrating this type of technology-enhanced recreation everywhere from hospital rehab to community recreation programs. More than 11 per cent of Canadians currently live with a physical disability¹, and mobility declines with age, so there's a growing need to change the landscape – physically and socially – to respond to changing mobility realities, she notes. "One of the participants in our Mobility Games pilot talked about how transformative it was to feel included. This is the kind of hands-on research that has the potential to make the difference between being alive and living, for people with mobility limitations."

About Bridgepoint Active Healthcare

Bridgepoint Active Healthcare manages, delivers, researches and teaches leading healthcare practices so that people with complex health conditions can live better. Bridgepoint Active Healthcare includes the Bridgepoint Hospital, Bridgepoint Family Health Team, Bridgepoint Collaboratory for Research and Innovation, and Bridgepoint Foundation. Learn more about Dr. Paula Gardner's work with the Bridgepoint Collaboratory for Research and Innovation at www.bridgepointhealth.ca/Paula

About Centennial College

Established in 1966, Toronto's Centennial College has earned a reputation for exemplary teaching, innovative programming and extensive partnership building. Centennial is recognized as one of the most culturally diverse post-secondary institutions in Canada. Funding for this project was provided to Centennial's Applied Research and Innovation Centre (ARIC) investigating "Technology Solutions for Healthcare Management and Health Research and Promotion," a CCI IE grant provided by the Natural Sciences and Engineering Research Council of Canada (NSERC).

About Ryerson University

Ryerson University is Canada's leader in innovative, career-oriented education and a university clearly on the move. With a mission to serve societal need, and a long-standing commitment to engaging its community, Ryerson offers more than 100 undergraduate and graduate programs. Distinctly urban, culturally diverse and inclusive, the university is home to more than 38,000 students, including 2,300 master's and PhD students, nearly 2,700 faculty and staff, and more than 140,000 alumni worldwide. Research at Ryerson is on a trajectory of success and growth: externally funded research has doubled in the past four years. The G. Raymond Chang School of Continuing Education is Canada's leading provider of university-based adult education. For more information, visit www.ryerson.ca

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¹ Human Resources and Skills Development Canada - www4.hrsdc.gc.ca/.3ndic.1t.4r@-eng.jsp?iid=40