IEEE-GEM 2015 Program
October 14-16, 2015
University of Toronto, Chestnut Conference Centre

Wednesday, October 14

8:30- 11:30 **Tutorials and Workshops**
Workshop   Game UI Design, Evaluation, and User Research (Giovanni)
Tutorial   Gamification: How to Gamify Learning and Instruction (Lombard)
Tutorial   Gaming & Law – It´s part of the game, so what should I know (Elm)

11:30- 12:30 Lunch

12:30- 3:30 **Tutorials and Workshops**
Workshop   Smartphones and Interactive Story Development (Giovanni)
Tutorial   Rapid Advanced Multimodal Multi-Device Interactive Application
            Prototyping with Max/Jitter, Processing, and OpenGL (Lombard)

3:30- 4   Coffee Break

4- 4:30   **Opening of Conference and Art Show** (Giovanni)
            Elena Bertozzi, Conference Chair
            Joe Lillie, IEEE Consumer Electronics Society
            Bill Kapralos, Conference Co-Chair
            Nahum Gershon, Conference Co-Chair

4:30- 5:30 **Steve Mann Keynote "Augmediated Reality Gaming"** (Giovanni)
            Chair: Elena Bertozzi
5:30- ??   Phenomenal Augmented Reality Portraiture – An Immersive Demo of
            the History & the Future - Steve Mann & Ryan Janzen (Elm Room)
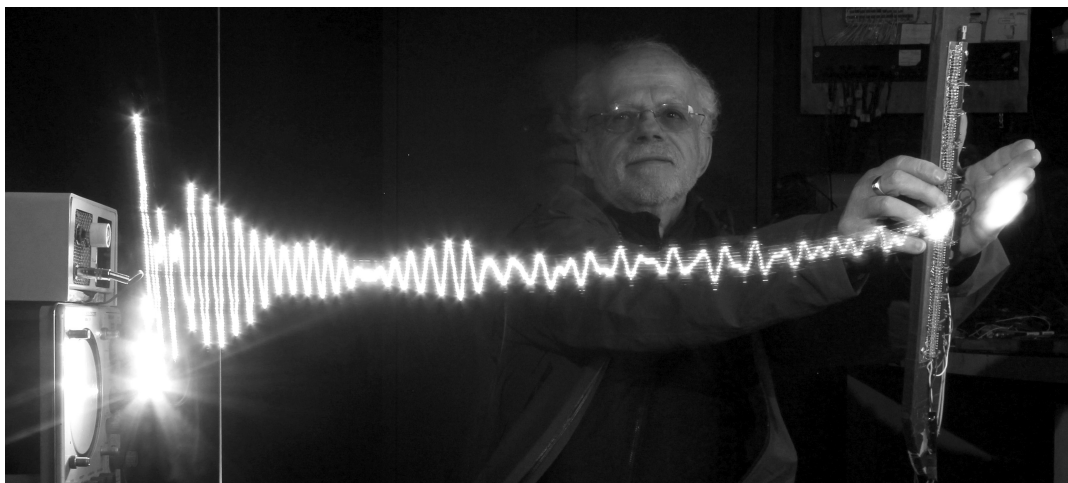
Thursday, October 15

8:30 - 10:45	**Paper Sessions**
Track 1:	**Human Factors, Interaction, and Game User Research** (Giovanni)
	Chair: Bill Kapralos
8:30 -9:00	Meng Luo and Mark Claypool - Uniquitous: Implementation and Evaluation of a Cloud-based Game System in Unity
9:00-9:30	Brent Cowan, Saad Khattak, Bill Kapralos and Andrew Hogue- Screen Space Point Sampled Shadows
9:30-9:50	Farjana Eishita, Allain Esquivel and Kevin Stanley - Quantifying the Differential Impact of Sensor Noise in Augmented Reality Gaming Input
10:00 -10:30	Margaree Peacocke, Robert Teather, Jacques Carette and Scott MacKenzie - Evaluating the Effectiveness of HUDs and Diegetic Ammo Displays in First-person Shooter Games
10:30-10:45	[short paper] Steve Mann and Ryan Janzen - "SQUEAKeys": a friction idiophone, for physical interaction with mobile devices

Track 2:	**Art, Music and Experiments** (Lombard)
	Chair: Jim Parker
8:30 -9:00	Miao Song, Serguei Mokhov, Jilson Thomas and Sudhir Mudur – Applications of the Illimitable Space System in the Context of Media Technology and On-Stage Performance: a Collaborative Interdisciplinary Experience
9:00-9:30	Mikael Fridenfalk - Algorithmic Music Composition for Computer Games Based on L-system
9:30-10:00	Daniele Loiacono, Renato Mainetti and Michele Pirovano - Volcano: An Interactive Sword Generator
10:00-10:30-	Mei Si and J. Dean McDaniel - Creating Genuine Smiles for Digital and Robotic Characters: An Empirical Study
10:30-10:45	[short paper] Dave Pape, Sarah Bay-Cheng, Josephine Anstey and Dave Mauzy - WoyUbu: Experiments with Video-gaming in Live Theatre

10:45- 11	Break

11 - 12	**Dan Scherlis Keynote : "Bringing games from lab to marketplace: Best practices for successful commercialization" (**Giovanni)
	Chair: Elena Bertozzi

12 - 1:30	**Lunch - Posters and Demos** (Giovanni & Lobby)
	Phenomenal Augmented Reality Portraiture – An Immersive Demo of the History & the Future - Steve Mann & Ryan Janzen (Elm Room) – Other times by appointment

1:30 - 3:45	**Paper Sessions**
Track 3:	**Game Technologies** (Giovanni)
	Chair: Mikael Fridenfalk
1:30-2:00	Ryan Janzen and Steve Mann - Swarm Modulation: An algorithm for real-time spectral transformation in multimedia user-interfaces
2:00-2:30	Ryan Janzen and Steve Mann - Sensory Flux from the Eye: Bio-Veillametrics for 3D Augmented-Reality Media Environments
2:30-3:00	Tony Morelli - Presenting a Standard Slot Machine as an Interactive Racing Game
3:00-3:30	Alexander J. G. Patrick, Curtis Gittens and Michael Katchabaw- The Virtual Little Albert Experiment: Creating Conditioned Emotion Response in Virtual Agents
3:30-3:45	[short paper] Raphaël Robert-Bouchard, Jerome Dupire and Pierre Cubaud Designing Indoor Tangible Games based on Fuzzy Localisation

Track 4:	**Game Studies and Education** (Lombard)
	Chair: Nahum Gershon
1:30-2:00	Katrin Becker, Habon Bair, Louis Cheng, Darla Gunson, Michelle Hayden-Isaak and Christine Miller - Gamifying an M.Ed. Course: A Post-Mortem
2:00-2:30	Laura Lenz, Katharina Schuster, Anja Richert and Sabina Jeschke - Are Virtual Learning Environments Appropriate for Dyscalculic Students?
2:30-3:00	Katrin Becker - 4PEG: A Structured Rating System for Games for Learning
3:00-3:15	[short paper] Victoria Mcarthur and Robert Teather - Serious Mods: A Case for Modding in Serious Games Pedagogy
3:15-3:30	[short paper] Anna Loparev and Christopher Egert - Toward an effective approach to collaboration education: A taxonomy of collaboration
3:30-3:45	[short paper] Karthik Sankaranarayanan, Fredderico Filho and Pejman Mirza-Babaei - Video Games to the rescue: Can game design make software based lab experiments engaging?
3:45- 4:45	**Special Panel Session : Lindsay Grace, Max Saltonsall, Justin Berry and Rubaiat Habib, moderated by Johannes DeYoung** (Giovanni)
4:45 - 5	Break
5- 6pm	**Keynote: Azam Khan - "Synthius: Toward a Synthetic Human"** (Giovanni)
	Chair: Nahum Gershon
6- 8pm	**Reception** (Giovanni)

Friday, October 16

8:30- 11:30 **Paper Sessions**
Track 5: **Game Design** (Giovanni)
Chair: Pejman Mirza-Babei
8:30 -9:30 Tony Morelli and Taylor Ripke - Back-Pointer - Fitts' Law analysis of natural mobile camera based interactions
9:00-9:30 Geneva Smith, Robert Teather, Jordan Lass and Jacques Carette – Effects of Interior Bezel Size and Configuration on Gaming Performance with Large Tiled Displays
9:30-10:00 Robert Teather, Jacques Carette and Manivanna Thevathasan - Uniform vs. Non-Uniform Scaling of Shooter Games on Large Displays
10:00-10:30- Daniele Gravina and Daniele Loiacono.- Procedural Weapons Generation for Unreal Tournament III

Track 6: **Health, Exergames and Rehabilitation** (Lombard)
Chair: Alvaro Uribe
8:30 -9:00 Adrian Schneider and Nicholas Graham- Pushing Without Breaking: Nudging Exergame Players While Maintaining Immersion
9:00-9:30 Victor Fernández Cervantes, Eleni Stroulia, Claudio Cesar Castillo Rojas, Luis Edgar Oliva Amezquita and Francisco Javier Gonzalez Siordia - Serious Rehabilitation Games with Kinect
9:30-9:45 [short paper] Robert Shewaga, David Rojas, Bill Kapralos and John Brennan - Alpha Testing of the Rapid Recovery Kayaking-Based Exergame
9:45-10:00 [short paper] Mark Claypool - Surrender at 20? Matchmaking in League of Legends
10:00-10:15 [short paper] Mario Andres Vargas Orjuela, Alvaro Joffre Uribe Quevedo, Norman Jaimes and Byron Perez Gutierrez - External Automatic Defibrillator Game-based Learning App

10:30- 11 Break

11 - 12 **Jason Della Rocca Keynote "Independent Entrepreneurship: The Tension Between Starving Artist and Selling Out"** (Giovanni) (Giovanni)
Chair: Bill Kapralos

12 - 1:30 **Lunch - Posters and Demos** (Giovanni & Lobby)
Phenomenal Augmented Reality Portraiture – An Immersive Demo of the History & the Future - Steve Mann & Ryan Janzen (Elm Room) – Other times by appointment

1:30 - 3:30   Paper Sessions
Track 7:   Games Everywhere I (Giovanni)
                 Chair: Miguel Garcia
1:30-2:00   Curtis Gittens and Paul Christopher Gloumeau - Does a Segmented
                 Health Bar Increase Player Preference for a Game? A Pilot Study
2:00-2:30   Bryan Sarlo and Michael Katchabaw - Artificial Society Generation for
                 Modern Video Games
2:30-2:45   [short paper] Katie Seaborn, Deborah I. Fels and Peter Pennefather A
                 cooperative game for older powered chair users and their friends and
                 family
2:45-3:00   [short paper] Ryan Janzen and Steve Mann - Fluid Input Devices for
                 Multimedia Computing
3:00-3:15   [short paper] Mark Claypool - Measurement-based Analysis of the
                 Video Characteristics of Twitch.tv

Track 8:   Games Everywhere II (Lombard)
                 Chair: TBD
1:30-2:00   Kei'Ichiro Yamamoto and Victoria Mcarthur - Digital Economies and
                 Trading in Counter Strike Global Offensive: How Virtual Items are
                 Valued to Real World Currencies in an Online Barter-Free Market
                 Hybrid Economy.
2:00-2:30   John McCormack, Joseph Prine, Bradley Trowbridge, Adriana
                 Rodriguez and Ryan Integlia - 2D LIDAR as a Distributed Interaction
                 Tool for Virtual and Augmented Reality Video Games
2:30-3:00   Imran Khaliq and Blair Purkiss - A Study of Interaction in Idle Games
                 and Perceptions on the Definition of a Game
3:00-3:15   [short paper] Engie Natalia Ruge Vera, Alvaro Joffre Uribe Quevedo,
                 Norman Jaimes and Byron Perez - Convulsive Treatment Game-based
                 Training App
3:15-3:30   [short paper] Ingridh Ochoa-Casas, Gerardo Tibamoso, Lizeth Vega-
                 Medina, Byron Perez-Gutierrez and Alvaro Uribe-Quevedo - Detection
                 Of Central Venous Access Anatomic Regions Of Interest Using
                 Augmented Reality Game-Based Learning

3:30- 4:30   **Artists Presentation of Work by: Justin Berry, Jeffrey Scudder,
                 Jim Parker, Rebecca Aston, Rubaiat Habib moderated by
                 Johannes DeYoung** (Giovanni)

4:30 - 5   Break

5pm- 6pm: **Wearables, Humans, And Things: The Veillance Games People
                 Play** (see full description below) (Giovanni)
                 Dr. Steve Mann, University of Toronto. The "Father of Wearable
                 Computing"
                 Dr. Marvin Minsky, MIT. The "Father of AI" (Artificial Intelligence)
                 Dr. Joseph Ferenbok, Department of Psychiatry, University of Toronto

Neil Harbisson, Artist and cyborg activist
Dr. Martin A. Katzman, Clinic Director: START (Stress, Trauma, Anxiety, Rehabilitation and Treatment) Clinic for the Mood and Anxiety Disorders, Univ. of Toronto
Dr. Nahum Gershon, The MITRE Corporation

Closing

Posters & Demos

Miguel A. Garcia-Ruiz and Pedro C. Santana-Mancilla - Development and Usability Testing of Simulated Wind in a Racing Video Game
Robinson Diaz, John Prieto, Jeferson Pardo, Camilo Zambrano, Alvaro Joffre Uribe Quevedo, Enit Godoy and Byron Perez-Gutierrez - Development of a First Person Shooter Game Controller
Ryan Janzen and Steve Mann - Ambiguized and obfuscated vision in games, security, and everyday life
Weina Jin and Diane Gromala - Serious Game for Serious Disease: Diminishing Stigma of Depression via Game Experience
Xin Tong, Dr.Diane Gromala and Christopher Shaw - Encouraging Physical Activity with a Game-based Mobile Application: FitPet
Carlos Soto, Hugo Vega, Alvaro Joffre Uribe Quevedo, Norman Jaimes and Bill Kapralos - Stereoscopy and Haptics Human Eye AR App
Steve Mann, Ryan Janzen and Additional Authors - Bright Ideas: A wearable interactive "Inventometer" (brainwave-based idea display) for idea games
Mikael Fridenfalk - The Introduction of a Quantum Mirror in the Game of Life Cellular Automaton
Bradley Trowbridge, Joseph Prine, Ryan Integlia and Johm McCormack - Game motivating exercise
Tony Morelli Face Race - Face Down Extreme Virtual Reality Racing Game
Demos / Art
Victor Fernández Cervantes, Eleni Stroulia, Claudio Cesar Castillo Rojas, Luis Edgar Oliva Amezquita and Francisco Javier Gonzalez Siordia - Serious Rehabilitation Games with Kinect
Jonah WarrenFactor - A Game About Matching Common Factors
Lorene Shyba - Giving in to Temptations (of Consuming Electronics)
J.A. Rueda - Beating Drugs with Games
Miao Song, Serguei Mokhov, Jilson Thomas and Sudhir Mudur - Spatial UI Experience and ProjectionMapping on Stage with ISSv2
Miao Song, Serguei Mokhov, Sudhir Mudur and Jean-Claude Bustros - Demo: Towards Historical Sightseeing with an Augmented Reality Interactive Documentary App
Deschanel Li and Miao Song - Video artwork – its only a game
Joseph R. Fanfarelli - Teaching the Brain through Games - Medulla

Panel on
Wearables, Humans, And Things: The Veillance Games People Play

The Internet of Things (sensors for things), like the game box that captures pictures of you in your underwear in your living room, and streams encrypted data back to the "mother ship", is surveillance. "Surveillance" is a French word that means, in English, "oversight" (over-watching, or watching over). The other veillance (sight) is undersight ("sousveillance", more recently known as "Quantified Self", "Body Hacking", "biohacking", or "transhumanism"). WHAT (Wearables, Humans, And Things) happens when we put oversight (surveillance) and undersight (souveillance) together(?) WHAT is veillance(?) Games are not always formal and they don't always require a computational device. In real life, we also play games, as popularized by Eric Berne's seminal book, "Games People Play".

Consumer electronics devices, such as a known game box, spy on us, yet are often of a "closed source" design so we can't look back at them (e.g. it is difficult for us to understand what's happening inside them).

"Veillance Games People Play" since the relationship between the surveilled and the surveillors may be thought of as human relationships gone awry as outlined in the field of Transactional Analysis. For example, in stores that use surveillance cameras but do not allow the customers to take photos themselves, the store or security guard takes on the role of "Parent" and this causes an inherent clash when an "Adult" enters the space and doesn't want to be an "I'm not OK, you're OK" child. The best situation is "I'm OK, You're OK", which can never happen with surveillance. See: http://wearcam.org/declaration.pdf

Panelists
Dr. Steve Mann, University of Toronto. The "Father of Wearable Computing"
Dr. Marvin Minsky, MIT. The "Father of AI" (Artificial Intelligence)
Dr. Joseph Ferenbok, Department of Psychiatry, University of Toronto
Neil Harbisson, Artist and cyborg activist
Dr. Martin A. Katzman, Clinic Director: START (Stress, Trauma, Anxiety, Rehabilitation and Treatment) Clinic for the Mood and Anxiety Disorders, Univ. of Toronto
Dr. Nahum Gershon, The MITRE Corporation

A New Type of a Conference Panel
This panel will be different from the usual conference panels since the discussion will not be limited to just an hour during the conference. The panel discussion will start before the conference, continue face-to-face at the conference, and continue

after the conference. The pre-conference discussion will take place in a Facebook blog format - see: https://www.facebook.com/WHAT2016. The conference attendees will be invited to write papers about these topics after the conference. Following a review, the accepted papers will be published in a journal, magazine, or in a book.