

INSTANT REPLAY

Future Directions of GI Research Impact

WINTER 2024



This Winter 2024 term, the project teams from the [Spring 2022 seed funding competition](#) finally had the opportunity to showcase the fruits of their labour during the GI Seed Symposium. The Symposium, was a smashing success with over 70 guests from the UW community and beyond. Attendees were able to experience the, as Executive Director **Dr. Neil Randall** (English Language and Literature) put it, “weird and wonderful” ways that GI members are advancing interdisciplinary research in interactive and immersive technologies.

We are always looking to support young interdisciplinary scholars and their developing careers. Alongside the GI Seed Symposium, this term we sat down with GI graduate **Ana Lucia Diaz de Leon Derby** (Systems Design Engineering) to discuss her research and experience at the GI as master’s student. International PhD scholars like **Eléa Thuilier** and **Bruna Oliveira** highlighted their respective research and expertise in using immersive technologies. Eléa discussed using augmented reality (AR) for the rehabilitation of patients with osteoporosis, while Bruna presented her findings on ethnographies of childhood play. We also saw two new edited collections published from the Palgrave Games in Context Series, “Disability in Video Games” and “The Chinese Video Game Industry”.

All this and more in this latest edition of Instant Replay!



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DESIGNING FOR ACCESSIBILITY

How a Graduate Student Makes Haptics Research Accessible



It can be very daunting for international students to leave their home countries, communities, friends, and families – upending their lives to further their education.

For **Ana Lucia Diaz de Leon Derby**, finding a

community during her master's degree was crucial to her mental health and well-being.

Much of the GI membership is comprised of international graduate students. An integral part of the GI's ecosystem of support is ensuring a productive and respectful environment for enhanced student experience. This means not only providing a workspace for members to use, but also building supportive community. With social events like the weekly Coffee and Games, members are encouraged to join in on a quick game of *Mario Kart* or *Just Dance* and even playtesting a game prototype. Even the termly Research Speed Dating intends for GI members to connect over their different research disciplines or discover where they have similarities. It's these structures that, for international students like Ana Lucia, give them the opportunity to connect with new people and build networks while far away from their home and communities.

Ana Lucia began her master's in May of 2021, still deep into the COVID-19 pandemic when the University of Waterloo was struggling with an entirely virtual educational experience. She was supervised by **Dr. Oliver Schneider** (Management Science and Engineering), and was a member of his Haptics Experience (HX) Lab, one of the in-house labs at the

GI. At the time she was still in her home country of Mexico, but she had plans of moving to Canada to continue her education once the pandemic restrictions were lifted. Her only knowledge of the GI was filtered through the perspective of other HX Lab members during online meetings.

What Ana Lucia loved most about the GI, when she arrived, was the carefully curated layout of the facility design to support interdisciplinary research, numerous labs, serendipitous conversations, collaboration, and a variety of equipment. The HX Lab encourages students to experiment through research creation. Here they can build, tinker, and 3D print to produce physical prototypes of their research. As Ana Lucia was working in haptics, this space provided invaluable opportunities for her research.

“What I loved about it was having such a big network of people you can always ask for advice or help with your research,” she said, recalling being pulled in as a subject matter expert on multiple occasions for different projects and helping people from other disciplines with their study designs.

“From what I've seen at other spaces it's very one sided. People at the GI are very open to help you out. It's a nice community.”

GI members are encouraged to not only participate in interdisciplinary research, but also in cross-cultural exchanges. Ana Lucia connected with **Marco Moran-Ledesma** (Systems Design Engineering) and **Dr. Hector Perez (A)**, a postdoc at the time (both also originally from Mexico), to collaborate in building an altar for Dia de las Muertos (Day of the Dead) within the GI as a way to celebrate this significant holiday while far from

home. They encouraged other GI members to participate and were pleasantly surprised with how quickly the altar filled up.

“It was really nice to be embraced for our culture,” she said. “Now that it keeps happening every year and that people have continued the tradition at the GI, each year it just gets better.”



[Left to right: Ana Lucia Derby, Sahand Ajami, Marco Moran-Ledesma]

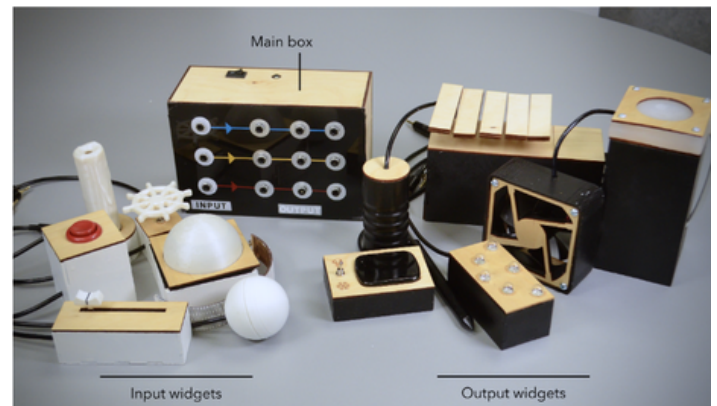
This has been a consistent theme of Ana Lucia’s journey at the GI. She has often found herself building systems from the ground up, creating guidelines for others to use in the future so they aren’t also starting from scratch. Her master’s thesis *Tickle Trunk: a Toolkit for Communication and Brainstorming Between Hapticians and Non-Hapticians* does just this.

Ana Lucia’s thesis comes out of a need to better communicate what haptics is as a fledgling research field. Having emerged out of disability studies, haptics uses physical feedback in technology, like vibrations in cellphones or game controllers, to create meaning. As with most research, people outside of the discipline find it hard to understand. One of the core concepts that emerged from Ana Lucia’s thesis was that people need to actually experience haptic technology to better understand it. Once they understand the enhanced immersive experience that haptics creates, they can see how its application makes things, such as interactive exhibits, more accessible and dynamic.

In being supported by the GI and its facilities, Ana Lucia was able to run participant studies and work with people directly to receive critical feedback on haptic technologies from non-hapticians. This is what

formed the backbone of her master’s thesis, and the prototype development of the toolkit itself called the Tickle Trunk. With the HX Lab’s 3D printer, Ana Lucia designed and printed input sensors that users would interact with by touching, twisting, or shaking. The sensors were connected to ‘output actuators’ that were controlled by the input sensors and delivered a physical sensation like a gust of wind through a fan, a feeling of warmth, or an additional texture change.

In being able to play with the toolkit and experience haptic technology, Ana Lucia’s research became an important part of a much larger interdisciplinary research project. Her supervisor, Dr. Schneider, brought Ana Lucia onto the project *Digital Oral Histories for Reconciliation (DOHR)*. DOHR is an interdisciplinary virtual reality (VR) experience involving different disciplines like history, communication, engineering, education, law, game design, theatre. The team also worked closely with survivors and victim advocates.



[Tickle Trunk components]

Another important facet of DOHR is also the sensitive nature of the research itself in how it approaches testimonies regarding experiences in the Nova Scotia Home for Coloured Children (NSHCC). Former residents share their testimonies, and with such a large and diverse team, it was important that everyone understood the technology and methods used in designing a VR experience. Especially as the purpose of DOHR is to educate high school students on the history of the NSHCC and its surviving impact.

When presented with this opportunity, Ana Lucia had project members and former residents of the NSHCC interact with the Tickle Trunk to provide them with

an understanding of what haptics is and what it is capable of. It showed to them how these sorts of technologies can be incorporated into VR experiences and be used in ways that are specifically geared towards matters of social justice, highlighting the voices of marginalized communities.

This is only one part of what the Tickle Trunk is capable of when introducing people to haptics, and Ana Lucia hopes it will continue to broaden people’s understanding of this field of study. As she leaves the GI to focus on her career within industry, her legacy is a comprehensive toolkit that will continue to inform future hapticians and non-hapticians on the accessibility and novelty of haptic tools.



[Ana Lucia Derby (left) testing the Tickle Trunk with a workshop participant]

If you’re interested in staying up to date with Ana Lucia’s work and research, be sure to check her out on LinkedIn!

“DISRUPTING DISCIPLINARY DIVIDES FOR DIGITAL FUTURES”: The GI’s Research Symposium

In 2022, the GI held a seed grant funding competition and on April 19th, the awarded project teams had a chance to present their prototypes, research findings, and future directions during the GI Seed Symposium. The project teams combined their varied expertise to tackle real-world problems facing Indigenous communities, multi-lingual households, healthcare workers, mothers facing homelessness, and more by creating local solutions to global problems.



All eight presentations discussed the challenges and outcomes of working in an interdisciplinary team. The project teams spoke to their fellow GI members, the wider UW community, external guests, and industry professionals about their research—including the nuanced care that goes into working with marginalized communities to design innovative solutions for complex problems.



[Symposium participants]

A detailed list of project titles and teams is on the next page for review.

The seed funding competition and ensuing research symposium would not have been possible without the herculean support and commitment from GI administrative staff, the review committee, and volunteers who made it all possible.

Thank you to the following...

GI Staff:

- **Pamela Maria Schmidt** (Interdisciplinary Research Project and Communications Manager) for managing the administrative workload during the active part of the research process last year, and planning the entire event from the ground up including logistics, tasking and delegation, volunteer coordination, and risk management, ensuring that most of her sanity was left in tact.
- **Dr. Emma Vossen** (Knowledge Mobilization and Research Impact Officer) for moderating, building a combined slide deck of 214 slides; and translating the knowledge from these projects to a level appropriate for the informed and curious but, nevertheless, general audience.
- **Sid Heeg** (Social Media Manager) for sharing live updates about the research symposium as it happened, and for all the ‘tall-person’ and ‘long-arm’ tasks behind the scenes.
- **Sebastien Plante** and **Sofia Santos** (Operations Coordinators) who managed all logistics before, during, and after this event including but not limited to: registration, creation of collateral, website updates, setup and tear-down, volunteer coordination, and much more.

GI Seed Funding Review Committee*:

- **Dr. Emma Vossen** (Knowledge Mobilization and Research Impact Officer)
- **Dr. Gerald Voorhees** (Communication Arts)
- **Dr. Mark Hancock** (Associate Director, Management Science and Engineering)
- **Dr. Michael Barnett-Cowan** (Kinesiology and Health Sciences)
- **Dr. Neil Randall** (Executive Director, English Language and Literature)
- **Dr. Shana MacDonald** (Communication Arts)
- **Dr. Ville Mäkelä** (Stratford School)

Volunteers*:

Special thanks to all the volunteers for ushering guests, helping to set up and tear-down the space, and acting as ambassadors of the GI:

- **Adeshola Ogunsanya** (Arts and Business)
- **Amandeep Kaur** (Computer Science)
- **Anchit Mishra** (Computer Science)
- **Andrea Ma** (Undergraduate Research Assistant)
- **Bruna Oliviera** (Visiting Scholar)
- **Jacob Teng** (Systems Design Engineering)
- **Derrick Wang** (Systems Design Engineering)
- **Jalaja Shanmugalingam** (Management Science and Engineering)
- **Jay Smith** (English Language and Literature)
- **Kaushal Senthil Nathan** (Systems Design Engineering)
- **Dr. Leia Homaeian** (Systems Design Engineering)
- **Lili Choong** (Computer Science)
- **Nadia Formisano** (English Language and Literature)
- **Nicholas Hobin** (English Language and Literature)
- **Sahand Ajami** (Mechanical and Mechatronics Engineering)
- **Zoya Randhawa** (Undergraduate Research Assistant)

Technical Volunteers*:

- **Ali Rizvi** (Management Science) as photographer
- **Joseph Tu** (Systems Design Engineering) as photographer and videographer
- **Toben Racicot** (English Language and Literature) as sound engineer



*Names in alphabetical order by first name.

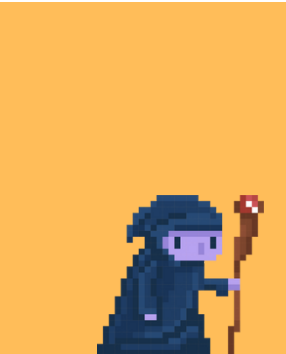
Projects	Team Members
The Reality of Social Virtual Reality: Towards an Understanding of the Design and Use of Social VR	Dr. Eugene Kukshinov (Stratford School), Dr. Daniel Harley (Stratford School), Jonathan Baltrusaitis (English Language and Literature), and Dr. Lennart Nacke (Stratford School)
Dementia Friendly Edu-action for Indigenous First Responders	Dr. Hector Perez (A), Dr. Lili Liu (School of Public Health Sciences, Dean of Health), Dr. Antonio Miguel-Cruz, Dr. Noelannah Neubauer, Isabella Rose Chawrun (School of Public Health Sciences), and Cathy Conway
Marillac Place - Gamifying the "Praise with a Raise" Program	Dr. Cayley MacArthur (Stratford School), Dr. James Wallace (School of Public Health Sciences), and Veen Wong (Public Health Sciences)
"Let Me Say That Again": Exploring the Psychological Factors Involved in Voice Assistant Interaction Studies	Emily Shiu (Psychology), Leo Qi, and Dr. Katherine White
Privacy in Immersive Extended Reality: Exploring User Perceptions, Concerns, and Coping Strategies	Hilda Hadan (Systems Design Engineering), Dr. Lennart Nacke (Stratford School), and Dr. Leah Zhang-Kennedy (Stratford School)
Free-range game sourcing a rhetorical figure database	Dr. Randy Allen Harris (English Language and Literature), and Dr. Olga Vechtomova
Exploring Digital Feminist Futures: Creating Media Tools and Interventions for the Resistance	Dr. Brianna I. Wiens (English Language and Literature), Dr. Shana MacDonald (Communication Arts)
Interactive Training Tool for Injury Assessment of a Human Joint	Dr. Oliver Schneider (Management Science and Engineering), Dr. Mark Hancock (Management Sciences and Engineering), Rob Burns, Marco Moran-Ledesma (Systems Design Engineering), and Emily Shiu (Psychology)



[Drs. Brianna Wiens and Shana MacDonald]



[Dr. Randy Harris, Adeshola Ogunsanya, and Rency Luan]



[Dr. Hector Perez (A) and Dean of Health, Dr. Lili Liu]



[Ali Rizvi and Dr. Cayley MacArthur]

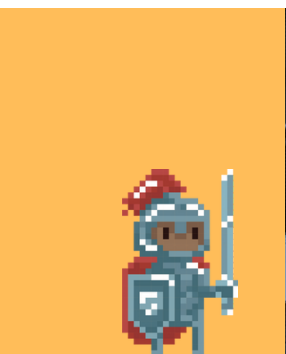
SYMPOSIUM: CAPTURED!



[GI member volunteers]



[GI Executive Director, Dr. Neil Randall]



[Drs. Emma Vossen and Eugene Kukshinov]

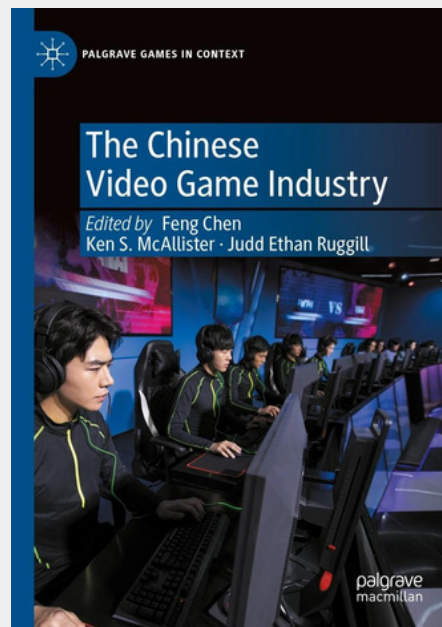
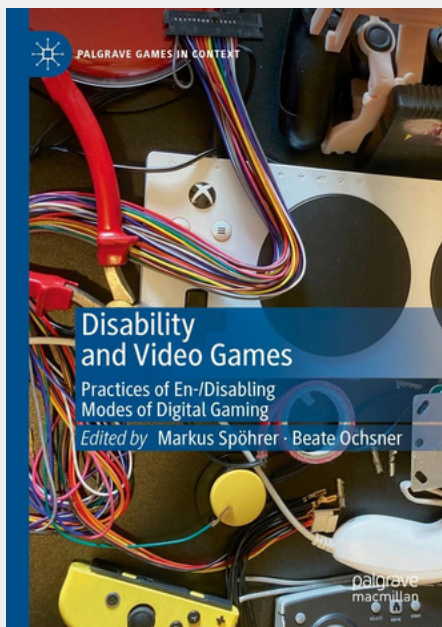


[Symposium participants and GI members]

The GI Podcast published four new episodes this term, exploring knowledge translation, game literacy, and designing games with equity in mind. Be sure to take a listen on your preferred podcast platform!

- [A Year in Gaming – 2023 Edition](#)
- [Knowledge Translation and Mobilization in Game Studies and Beyond with Dr. Emma Vossen](#)
- [Mechanically Achievable Gameplay with Sasha Soraine](#)
- [Equity in Games Research and Design with Dr. Gerald Voorhees](#)

New Publications in the Palgrave Games in Context Series



Series editors **Drs. Neil Randall** (Executive Director, English Language and Literature) and **Steve Wilcox (A)** have already published two new edited collections as part of their *Palgrave Games in Context* series this year. Previous publications in the series have spoken on aspects of feminism within games, theory and practice within tabletop roleplaying communities, and critical reflections on games like Minecraft. The two latest additions to the series continue the critical examination of games within the context of our culture, technology, politics, and more.

Published in January, *Disability and Video Games: Practices of En-/Disabling Modes of Digital Gaming*, edited by *Markus Spöhrer* and *Beate Ochsner*, functions as an introduction to the growing body of research focused on accessibility and disability in games. The twelve chapters, interviews, and roundtables demonstrate the way ability and disability, both through gameplay and mechanics, are recreated in digital games. The collection also looks closely at hardware with a focus on adaptive controllers that allow players to customize their games to their different abilities and disabilities.

The Chinese Video Game Industry, published in February and edited by *Feng Chen*, *Ken S. McAllister*, and *Judd Ethan Ruggill*, offers a critical perspective of the development of the Chinese video game industry. China has emerged as a major influence as to how games are designed, developed, and consumed due to their market being the largest in the world by gross revenue. The collection features thirteen chapters by twenty different authors outlining the historical, cultural, and economic impacts of the Chinese games industry to establish how it has grown to have such an impact on how games are played across the globe.

Dr. Jennifer Whitson co-authors article about rising game industry layoffs in The Conversation

Despite its financial success in 2023, the video games industry laid off at least 10,500 employees. As of January 2024, 5,900 games industry employees have already been laid off, indicating that layoffs will be worse this year despite predictions that games industry profits will continue to rise.

PhD candidate *Kenzie Gordon*, **Dr. Jennifer Whitson** (Sociology and Legal Studies), *Dr. Johanna Weststar*, and *Dr. Sean Gouglas* published an op-ed in *The Conversation* to unpack why these layoffs are happening and who is benefiting. All writers are members of The First Three Years Project– which tracks 207 post-secondary student’s career trajectories in the games industry and also had a chance to present this work during the ADE Speaker Series in their workshop “Building Equitable and Sustainable Game Development Education”.



[Dr. Jennifer Whitson]

In their article “The video game industry is booming. Why are there so many layoffs?”, the team lays out how post-secondary programs that train students for the games industry have developed rapidly over the past 15 years. Despite this growth in trained workers, corporate takeovers have resulted in layoffs that are explicitly attempting to improve profit margins for shareholders, impacting not just young workers but also senior talent.

The authors argue for the importance of unions that can advocate for better labour practices and call for the companies laying off large amounts of their workforce after a project is completed to be held accountable. They conclude that if we want to fix these problems “we ultimately must ask who benefits from layoffs in a booming industry and systematically remove those benefits.”

Dr. Shana MacDonald Discusses Kate Middleton Photo Controversy on Global News



[Dr. Shana MacDonald]

On March 16th, **Dr. Shana MacDonald** (Communication Arts) spoke with *Joe Scarpelli* on *Global News* about the recent social media controversy surrounding Kate Middleton Princess of Wales. Concern was sparked when a heavily edited photo of Middleton and her children was retracted by multiple news outlets. Dr. MacDonald unpacked why exactly Middleton had been surrounded by much public and online scrutiny in what she called “a right place, right time” situation due to the slow celebrity news cycle and the intensity of international relations.

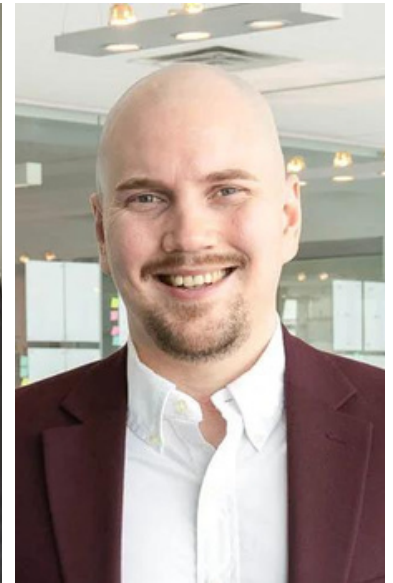
Dr. MacDonald pointed to how the Princess of Wales is the face of the new rebranding of the monarchy, and that people paid attention to this issue because they are looking for distraction from current issues.

The interview concluded with Dr. MacDonald commenting on the current lack of trust in public news sources. Due to the emergence of new technologies like artificial intelligence (AI), MacDonald feels this distrust indicates that people are thinking critically about the information they are consuming.

GI faculty members secure over \$500,000 of Tri-Agency funding

Congratulations to the following GI faculty members for securing \$565,580 in Tri-Agency funding for their research projects!

- **Dr. Adan Jerreat-Poole** (Communication Arts) received an Insight Development Grant for their project "Disabled Feminists and Digital Storytelling: Zine-Making Pandemic Lives" (\$21,330).
- **Dr. Lai-Tze Fan** (Sociology and Legal Studies) is a collaborator on the Insight Development Grant "Digital Imaginations and the Decameron Storyworld" (\$66,750).
- **Dr. Lennart Nacke** (Stratford School) received an NSERC Discovery Grant for his project "Engineering Novel Game Technology To Improve People's Lives" (\$260,000).
- **Dr. Ville Mäkelä** (Stratford School) received an NSERC Discovery Grant for his project "Developing Technologies for Bringing Physical Objects into Virtual Reality" (\$205,000 + \$12,500 for a Discovery Launch Supplement).

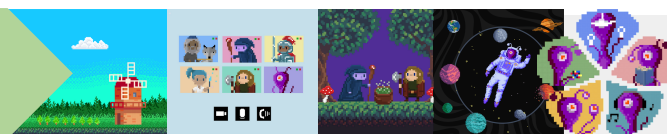


[Left to right: Drs. Adan Jerreat-Poole, Lai-Tze Fan, Lennart Nacke, and Ville Mäkelä]



After the smashing conclusion of the [ADE Speaker Series](#) during the Fall 2024 term (bringing the total year count of GI hosted events to 40), this term the goal was to bring the focus back onto our GI members and the research they do. Make no mistake, this did not mean the GI had a slower term as the Seed Symposium proved, but it allowed GI administration to return to basics by supporting membership research, networking, and knowledge mobilization efforts such as with guest lectures from visiting PhD candidates Bruna Oliveira and Eléa Thuilier, touring industry professionals and providing demonstrations during AIMday, and even hosting Ontario Tech University scholars showing off their latest projects at the GI!

Dr. Lai-Tze Fan Speaks on Artificial Intelligence



GI Faculty Member and Canada Research Chair (CRC) **Dr. Lai-Tze Fan** (Sociology and Legal Studies) recently appeared on a panel hosted by the [TRuST Scholarly Network](#) in collaboration with the Perimeter Institute and on the CTV news show [The Mike Farwell Show](#) to discuss her work on the ethics of artificial intelligence (AI). Dr. Fan's research on AI is concerned with the ethical implications of this emerging technology and design flaws such as racist facial recognition, sexism in voice assistant programs, and other societal inequalities that are reinforced.



[Dr. Lai-Tze Fan]

During the panel Dr. Fan highlighted how AI systems are inherently biased due to what groups of information have been used to train them and what information have been systematically excluded. Diverse voices and perspectives from marginalized communities have been missing from the datasets needed to train AI. Dr. Fan explained that if AI is to be made in a more equitable way, things would have to change from the design stage to ensure that these diverse voices and perspectives are built into the system from the very beginning.

To explore these issues further, Dr. Fan [has received funding from the Canadian Foundation for Innovation](#) to build The Unseen-AI (U&AI) Lab and [has been appointed as a Tier 2 CRC](#) in Technology and Social Change.



Designing Exergames for Patients with Osteoporosis with Eléa Thuilier



[Eléa Thuilier]



[Dr. Lili Liu]

On February 29th, **Eléa Thuilier**, visiting PhD student at the University of Galway in Ireland, who is working with **Dr. Lili Liu**, presented her research on designing and assessing virtual rehabilitation through augmented reality (AR) based Exergames for people with Osteoporosis.

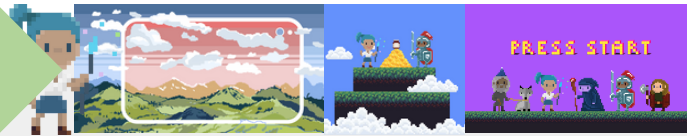
Osteoporosis is a disease that decreases the density and mass of bones, which can lead to chronic pain and discomfort, reduced mobility, and increased risk of bone

fracture. Eléa explained that issues with rehabilitation arise when people with Osteoporosis lack the time or motivation, feel a sense of boredom or fear, or have financial concerns that prevent them from exercising.

Eléa's research uses AR equipment to allow the users to see any hazards in their environment and prioritize safety while also allowing the game interface to be on display. Eléa has designed AR exergames to promote more regular physical activity and her design prioritized a user-friendly interface, adaptation of difficulty, and motivational feedback. She also emphasized the importance of customizable exergames to strike a balance between "what they need to see and what they want to see" to keep users engaged. Following the theme of customizability, Eléa's AR designs include three types of targeted exercises that promote balance enhancement, strength building, and improved coordination. In total, there are six different exercises/variations that participants can engage in. She hopes to test these designs in an upcoming study to assess the physical and emotional outcomes of the participants and to see if exergames can improve physical ability, confidence and engagement.

You can watch Eléa's full talk on the [GI's YouTube channel](#).

Building a Connective Ethnography with Children Engaged in the Digital Age



On April 4th, GI member and visiting PhD candidate **Bruna Oliveira** presented her ongoing PhD research into exploring how children use digital technologies and how it impacts their understanding of play and building friendships. Through her research, and work in Canada alongside **Dr. Gerald Voorhees**, Bruna demonstrated how children are seeking their place in contemporary digital cultures, notably through the use of mobile devices, playing a variety of games with friends and accessing social networking platforms, resulting in interconnected performances in a digital setting. She conducted an ethnography to collect data about children's interactions in groups online. Chat logs and text, as well as in-person interviews, helped to build an understanding of the interactions between children in both physical and digital spaces during playtime with peers.

You can watch Bruna's full talk on the [GI's YouTube channel](#).



[Bruna Oliveira (left) and Dr. Gerald Voorhees (right)]



[Bruna Oliveira presenting to audience]

Games Institute Alums Present at this year's Game Developers Conference

The GI is no stranger to the Game Developers Conference (GDC), and this year is no different with two GI alumni, **Alexandra Orlando** (A) and **Tina Chan** (A), lead sessions about their ongoing work within the games industry.

Orlando was the former Editor-in-Chief of *First Person Scholar* during her time at the GI as an English PhD student. Currently, she works as the Community Manager at Kitfox Games. Her session was titled “The Hidden Costs of Transparency and the ‘Dwarf Fortress’ Community”. She detailed the long path the game



[Alexandra Orlando (left) and Tina Chan (right)]

Dwarf Fortress took to being published, first, on itch.io and later graduating to Steam. This lengthy process was only successful due to the enormous community support the studio received, thanks to the respectful and active relationship Kitfox Games nurtures with its fans.

Chan was a former graduate student at the GI, completing her Master’s of Science in the School of Public Health Sciences. Now, as a Senior User Experience (UX) Researcher at Respawn Entertainment, Tina presented “UX Summit: De-Coupling Studies to Embed User Research on a Live Game”. She unpacked her research on the game *Apex Legends*, a free-to-play battle royale shooter. Chan’s talk focused on the complexities of conducting user research on live games. For her, the greatest challenge is attempting to learn what it is that players need and want to enhance the overall experience during active gameplay.



[Tina Chan presenting on stage (Source: Celia Hodent)]

This term's Coffee and Games social was arguably the most enthusiastic, euphoric, and energetic iteration of the social that the GI had ever seen. It was all thanks to the W24 GI Operations Coordinators **Sebastien Plante** and **Sofia Santos**. The duo added their spin on the weekly one-hour social by rotating games on a biweekly schedule. They used this system to ease members from playing sit down games such as *Super Mario Party*, into the more active *Kinect Sports*, before finally working up to the chaotic and rhythmic *Just Dance*. When tired and needing a break from all the dancing, *Mario Kart 8* was always a favourite and sparked some boisterous and friendly competition. There was even a chance to play test **AC Atienza's** new crowdfunded board game *One Hit Heroes*!

GI Member reviews for the termly social are as follows:

"10/10, would recommend." – Kaushall

"Thrilling, there is always a variety of games, so you never know what you're going to find." – Marco

"Despite everyone's busy schedule, it was nice to see people play together." – Bruna



[GI members playing *Mario Kart 8*, *Kinect Sports*, and *One Hit Heroes*]

Research Speed Dating

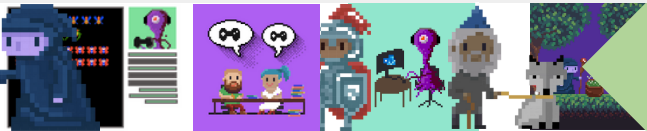
On March 22nd, new and seasoned GI members came together to meet each other and discuss their research at the W24 Research Speed Dating event. After the conversation, everyone sat together to enjoy food from a taco station and mingle with newfound friends. New exclusive buttons were being handed out if attendees talked to Executive Director, **Dr. Neill Randall** and Knowledge

Dr. Randall also gave buttons to anyone who read a verse from *The Lord of the Rings*.

Mobilization and Research Impact Officer, **Dr. Emma Vossen** during the event. Even **Dr. Clark Dickerson**, GI member and CBB Executive Director, joined in on the fun and made sure to get a button from Dr. Randall!

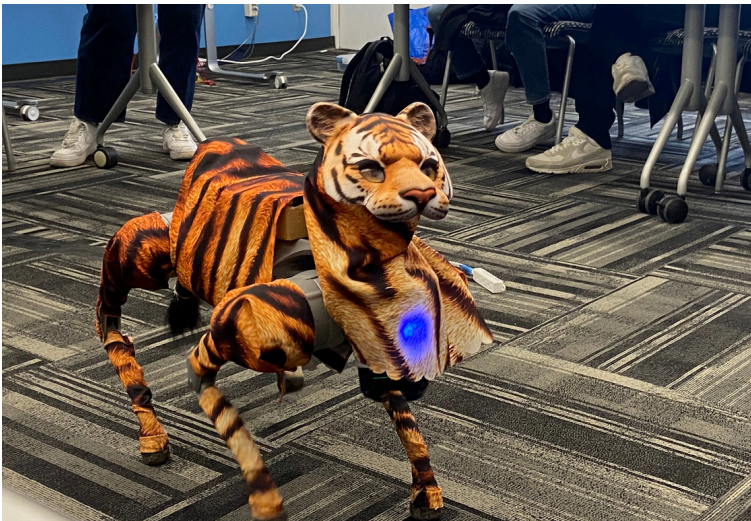


[From left to right: GI members during research speed dating, Drs. Neil Randall and Clark Dickerson, Anchit Mishra and Amandeep Kaur]



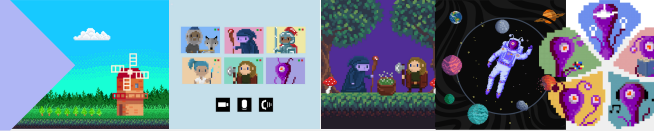
Visit and Research Demonstration by Students from Ontario Tech University

On March 11th, faculty members and graduate students from Ontario Tech University visited the GI to present their ongoing research in robotics to the HCI Games Group. HCI Games Group members had a chance to experience the robots in person by watching them leap, jump, and even wave a paw.



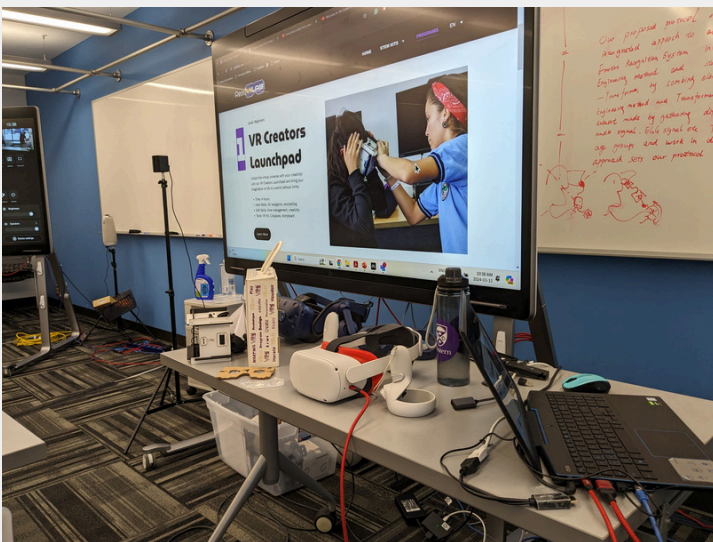
[Robot tiger demonstration in front of HCI Games Group members]

The GI and Engineering Outreach's VR Workshop for STEM Youth



On March 15th, the Games Institute (GI) in collaboration with Engineering Outreach hosted a collaborative event that turned the GI into a vibrant workshop for young virtual reality (VR) enthusiasts. This special occasion, called the "VR Creators Launchpad", was designed to inspire the next generation of technology pioneers by introducing them to the fascinating world of immersive technologies. Under the guidance of **Dr. John E. Muñoz** (Systems Design Engineering) and the Engineering Outreach Instructors, two enthusiastic groups of children from grades 2-6 — young makers and technology aficionados—had the unique opportunity to delve deep into the world of VR. This hands-on workshop allowed them to assemble their own VR headsets (DIY wooden headsets) and engage directly with the technology, fostering not only understanding but also sparking their curiosity and imagination.

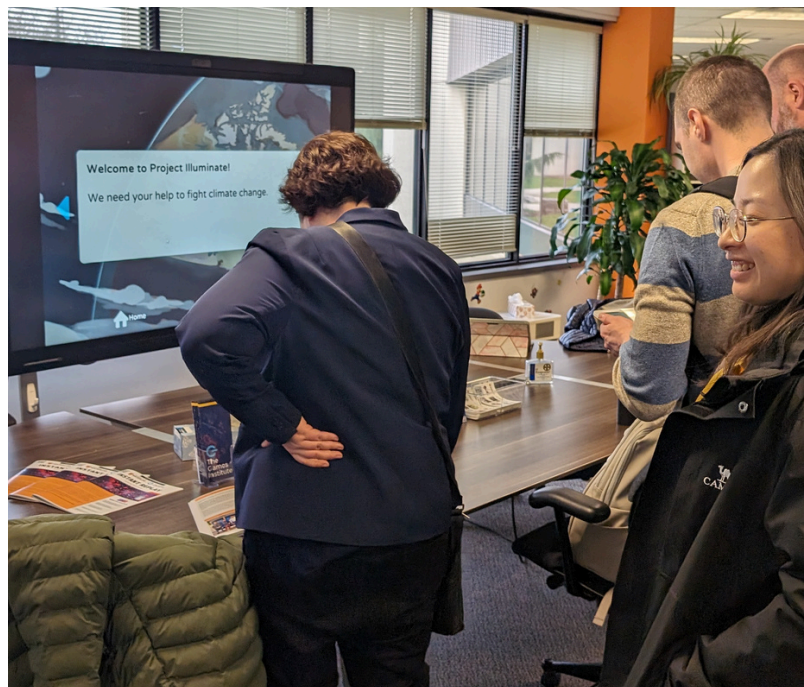
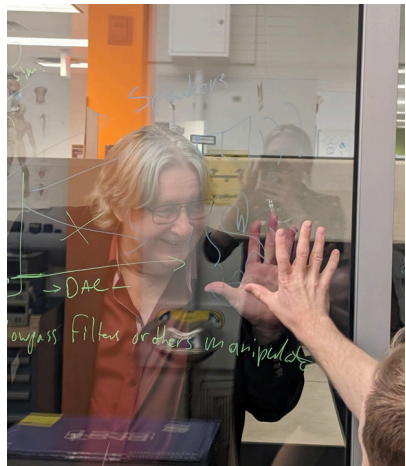
This initiative by the GI and the Engineering Outreach exemplifies the educational potential of VR and its ability to merge entertainment with hands-on learning. The VR Creators Launchpad is a starting point for young minds to explore and develop an interest in science, technology, engineering, and mathematics (STEM). By engaging with VR, these young enthusiasts are laying the groundwork for future educational and career paths in technology and innovation. The success of the VR Creators Launchpad workshop underscores the importance of innovative educational tools in nurturing the problem-solvers and innovators of tomorrow.*



[Dr. John E. Muñoz VR workshop with grade 2-6 students]

*News bite written by Dr. John E. Muñoz.

AIMday (or Academic Industry Meeting Day) is a special meeting format developed and trademarked by Uppsala University in Sweden. Tagged as “the Swedish synergy made possible” the purpose of this pseudo-event is to match the needs of organizations for new knowledge with academic expertise to find novel approaches to real-world challenges. On May 19th, potential industry partners attended UW’s first AIMday to learn about the ongoing research into interactive and immersive technologies. This event was co-organized by the GI and UW Office of Research. As part of the agenda, the visitors toured the GI and enjoyed demonstrations of research projects like *Seas the Day*, an interactive model of a human knee, the educational simulation game *Illuminate*, and *Quantum Cats*!



[AIMDay GI tour and demonstrations of projects]

New Members

Welcome to all the following faculty, researchers, and other individuals who have joined us this term!

- **Amandeep Kaur** (she/her) is a Computer Science Master's student supervised by Dr. Jim Wallace. Her present research delves in the field of Topic modelling using Large Language Models (LLMs) and conducting user studies.
- **Bruna Oliveira** (she/her) is a visiting scholar and research assistant for Dr. Voorhees. She is a PhD Candidate in Education specializing in children's digital cultures, examining aspects such as children's learning with digital games, their playful experiences with digital technologies, research methodologies involving children in the digital era, and their role as content producers.
- **Eléa Thuilier** (she/her) is a visiting PhD candidate, assisting Dr. Lili Liu. Her research focus on developing a set of exergames for physical therapy for older adult diagnosed with Osteoporosis.
- **Jesse Wang** (he/him) is an undergraduate student in Recreation and Sports Business. He is on a co-op term working for Warriors Recreation and Athletics as an eSports events coordinator.
- **Dr. Jian Zhao** (he/him) is an Assistant Professor in Computer Science at the University of Waterloo. He directs the WatVis (Waterloo Visualization) research group and affiliated with the WaterlooHCI lab. His research aims to boost the efficiency of human-data interaction with exploratory and explanatory interfaces that tightly integrate the flexibility and creativity of users with the scalability of algorithms and machine learning.
- **Kaushal Senthil Nathan** (he/him) is a master's student in Systems Design Engineering working with Dr. Lennart Nacke. The main goal for his research is enhancing the medium of video games. He is a member of the HCI Games Group.
- **Kevin Joseph** (he/him) is a master's student under the supervision of Dr. Yue Hu in the Active and Interactive Robotics (AIR) lab in the Mechanical and Mechatronics Engineering department. As part of his research, he aims to develop a system that provides grasping assistance for operators who are attempting to control robots remotely through VR.
- **Dr. Kimi Ce Zhong** (he/him) is a postdoctoral fellow at the WatVis Lab at the University of Waterloo. Advised by Dr. Jian Zhao, his current research is to creatively utilize AI as a design material to physicalize digital sound data.
- **Rency Luan** (she/her) is a PhD student in English, supervised by Dr. Jay Dolmage. Rency's research examines the intersection between mental health, immigration, and race to explore the ways in which [mental health] discourse is circulated within an intergenerational level. She is working with Dr. Randy Harris on the Rhetoricon project.

- **Vanessa Duong** (she/her) is an undergraduate health sciences student working with Dr. Jim Wallace as an USRA. Her research looks into aging parents and the process of aging with children. Using computational analysis, Reddit posts will be able to be analyzed for further research purposes.
- **Dr. Yetunde Tola** (she/her) is postdoctoral fellow at the School of Public Health. She works under the supervision of Dr. Lili Liu and Dr. Antonio Miguel-Cruz, in the Aging and Innovation Research Program. Through her research work, she is contributing to improving access to affordable and quality healthcare technologies that will improve the quality of life of older adults and their caregivers.
- **Dr. Yue Hu** (she/her) has been an Assistant Professor at the Department of Mechanical and Mechatronics Engineering at the University of Waterloo since September 2021, where she is the Head of the Active and Interactive Robotics Lab. Her research interests include physical human-robot interaction, collaborative robots, robot teleoperation, humanoid robots, optimal control.

Farewell to...

It is always bittersweet to have members graduate and leave the GI. We are so proud of them and excited to see what they do next after their time at the GI!

- Congratulations to **Jay Smith** (they/them) on completing their MA in English Language and Literature with the publication of their thesis "Representational Queerness Within Marvel's Loki: Liminality through Identity, Genre, and Medium." They look forward to continuing their academic pursuits in areas of Queer Theory and Representation in modern media.
- Congratulations to **Sahand Ajami** (he/him) for successfully defending his master's thesis "The Relationship Between Embodiment Perception and Motor Learning in Virtual Reality-based Interventions"! He will be graduating with a Master's in Mechanical and Mechatronics Engineering.
- Congratulations to the freshly minted **Dr. Elise Vist** (they/them) for successfully defending their PhD dissertation in English Language and Literature "The Intimate Fandoms of Men's Hockey Real Person Fanfiction"!

No matter how long members have been with us, whether it's a few weeks to a few years, we always like to recognize their time with us. Thank you to all the co-ops, interns, visiting scholars, and (U)RAs!

- **Aster Penney** (he/they) worked as an undergraduate research assistant for Dr. Voorhees and Dr. Harley supervision on their ADE project to translate lectures into a readable format.
- **Federica Gini** (she/her) was a visiting scholar and researcher within the HCI Games Group. She has returned to her studies as a PhD Candidate in Cognitive Science at the University of Trento.

- **Stone Yao** (he/him) joined the GI as a co-op student working with the HCI Games Group on VR-related development. He will be continuing his studies as a Computer Science undergraduate student.

Conference Presentations and Talks

- **Dr. Lai-Tze Fan** (Sociology and Legal Studies). (January 18) "Access to and from Commercialized Platforms." ELO (Un)Conference.
- **Dr. Lai-Tze Fan** (Sociology and Legal Studies), *Jennifer Smith, Makhan Viridi, Anindya Sen, and Leah Morris*. (January 2024) "Artificial Intelligence: Should It Be Trusted?" Perimeter Institute.
- **Dr. Lili Liu** (School of Public Health Sciences), *Noelannah Neubauer, Tracey McGillivray, and Jennifer Campos*. (April 2024). "Unlocking the Potential of AgeTech to Support Autonomy and Independence." AGE-Well Public Webinar Series.

Publications

- *Alex Orchard* and **Dr. Marcel O’Gorman** (English Language and Literature). (February 2024) "Fostering responsible innovation with critical design methods." Journal of Responsible Innovation.
- *Julian Felipe Villada Castillo, Maria Fernanda Montoya Vega, Dr. John E. Muñoz* (Systems Design Engineering), *David Lopez, Leonardo Quiñones, Oscar Alberto Henao Gallo, and Jose Fernando Lopez* (January 2024). "Design of Virtual Reality Exergames for Upper Limb Stroke Rehabilitation Following Iterative Design Methods: Usability Study." JMIR Serious Games.
- *Kenzie Gordon, Dr. Jennifer Whitson* (Sociology and Legal Studies), *Johanna Weststar, and Sean Gouglas*. (February 2024) "The video game industry is booming. Why are there so many layoffs?" The Conversation.
- **Marvin Pafla** (Computer Science), *Kate Larson, and Dr. Mark Hancock* (Management Science and Engineering). (April 2024) "Unraveling the Dilemma of AI Errors: Exploring the Effectiveness of Human and Machine Explanations for Large Language Models." arXiv.
- **Dr. Reza Hadi Mogavi** (Stratford School), **Derrick Wang** (Systems Design Engineering), **Joseph Tu** (Systems Design Engineering), **Hilda Hadan** (Systems Design Engineering), **Sabrina Sgandurra** (English Language and Literature), *Pan Hui, and Dr. Lennart Nacke* (Stratford School). (March 2024) "Sora OpenAI’s Prelude: Social Media Perspectives on Sora OpenAI and the Future of AI Video Generation."
- **Samira Mehrabi** (Aging, Health, and Well-being), *Sara Drisdelle, Hanna Dutt, and Laura Middleton*. (January 2024) "“If I want to be able to keep going, I must be active.” Exploring older adults’ perspectives of remote physical activity supports: a mixed-methods study." Frontiers in Public Health.

Media and Interviews

- **Dr. Lai-Tze Fan** (Sociology and Legal Studies) was interviewed about issues concerning AI on The Mike Farwell Show on January 22nd.
- **Dr. Shana MacDonald** (Communication Arts) was interviewed about a recent controversy involving Princess of Wales Kate Middleton on Global News on March 16. Dr. MacDonald made another appearance on CBC News where she discussed fat shaming and Hollywood on April 11th.
- Knowledge Mobilization and Research Impact Officer **Dr. Emma Vossen** was interviewed about game accessories for ABC News on March 19th.
- **Dr. Leah Zhang-Kennedy** (Stratford School) was interviewed by Regina Ashna Singh about her research within cybersecurity as a member of the Cybersecurity and Privacy Institute on March 28th.
- **Dr. Lennart Nacke** (Stratford School) hosted a virtual workshop with Christopher Ngyuen where they discussed careers within user experience on April 9th.
- **Dr. Brianna Wiens** (English Language and Literature) was interviewed on CBC News to discuss political content and TikTok influencers on April 28th.

New Jobs

- **Dr. Lili Liu** (School of Public Health Sciences) was reappointed as the Dean of the Faculty of Health for a three-year term.
- **Dr. John E. Muñoz** (Systems Design Engineering) has founded a new company, Body Interface Labs, where he will continue his work in designing interactive and wearable technologies.

Awards and Grants

- **Dr. Adan Jerreat-Poole** (Communication Arts) received an Insight Development Grant for their project "Disabled Feminists and Digital Storytelling: Zine-Making Pandemic Lives."
- **Dr. Lai-Tze Fan** (Sociology and Legal Studies) is a collaborator on the Insight Development Grant "Digital Imaginations and the Decameron Storyworld."
- **Dr. Lennart Nacke** (Stratford School) received an NSERC Discovery Grant for his project "Engineering Novel Game Technology To Improve People's Lives."
- **Dr. Ville Mäkelä** (Stratford School) received an NSERC Discovery Grant for his project "Developing Technologies for Bringing Physical Objects into Virtual Reality."

Bolded names in this document denote GI members while *italicized names* denote collaborators and guests. Names marked with "(A)" denote former GI members. (Stratford School) denotes affiliation to the Stratford School of Interaction Design and Business. (Computer Science) denotes affiliation to the Cheriton School of Computer Science.

All names are listed alphabetically by first name.

The Games Institute and its members acknowledge that the land on which our community works and lives today is the traditional land of the Attawandaron (Neutral), Anishinaabeg and Haudenosaunee peoples. We recognize that the University of Waterloo, of which the Games Institute is part, is situated on the Haldimand Tract – the land taken without consent and subsequently promised to the Six Nations – that includes ten kilometers on either side of the Grand River.

We recognize the enduring presence and deep traditional knowledge, laws and philosophies of the Indigenous Peoples with whom we share this land today. As the Games Institute facilitates researchers of games, digital spaces, and interactive technologies, we undertake to make space for Indigenous scholars, designers, commentators and creators to uplift voices that are marginalized in the academic and gaming community.

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