

Impact with Imagination

2021 Annual Report



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Territorial Acknowledgement

The Games Institute and its members 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.

We acknowledge that the land on which we work and live today is the traditional land of the Attawandaron (Neutral), Anishinaabeg and Haudenosaunee peoples. The University of Waterloo, where we work, 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.





Letter from the Executive Director

Please accept my warmest appreciation for taking an interest in our 2021 Annual Report. It is, to be honest, flat-out impossible to convey how decisively the COVID-19 situation impacted the work of our faculty, students, and staff, but what amazes me as I look back is how resilient, active, and productive the Games Institute remained throughout. I am immensely proud of everyone associated with the GI, and I encourage you to read through this report and see it all for yourselves.

Part of this activity mirrored the world of games itself. Entering the pandemic, the games industry was already reported as being larger than the film industry and professional sports combined. Yes, combined. In 2021, the player base of games – digital and analogue alike – increased with the dependence by many, many people on the social offerings of the online world. As isolation, closings, and the lethargic progression of multiple attempted openings continued – in Canada and many other parts of the world – people turned to the Internet to engage with other people. Not all of this interaction was good, of course, but we learned early in the pandemic not only that games have a great deal to offer but that people – parents, partners, and professionals – were more willing to understand how. Online play took off during 2020 and 2021, and every prediction is that this trend will continue.

But playing online – even if it's research – differs from working online, and Games Institute residents felt the effects throughout the year. We managed well, as did pretty much everybody else, and for some people, of course, working from home proved highly positive. But the GI was built for in-person collaborations, brainstorming sessions, research talks, and events, and shutting down was dramatic. The work went on – as it did everywhere else – but adjusting to the changed environment meant more than just firing up Teams / Zoom / Webex / Slack / Discord / or whatever. It meant changing our most important interactions with one another.

And adjust we did. As this annual report clearly demonstrates, our research thrived, our events attracted strong numbers, and our growth continued apace, in both membership numbers and rich initiatives. Most successfully of all, the Games Institute gained more life. Much of the first third of the year was spent compiling the five-year report required by Senate for centres and institutes, and in the meeting of April 19, Senate approved the GI's five-year renewal. The report covers the years 2015-2020 but also looks ahead to the plans of the next five years. This annual report contains highlights of the report, but I invite you to explore the full write-up to see the sheer scope of the activity.

The year was, despite the strangeness brought on by the pandemic, undeniably successful. I attribute this success to the extraordinary work of the faculty members, the students, and the staff that propel the GI forward continually and masterfully. To all of these great people I can only say, once again, thank you!

Neil Randall
April 2022

Executive Summary

This report highlights the critical contributions the Games Institute and our researchers made in 2021. As the title states, the aim of this report is to showcase the ways that our team of internationally recognized interdisciplinary researchers are creating imaginative and impactful work every single day. While this work includes books and journal articles, we also produce games, apps, art, and so much more. The Games Institute is a research community that welcomes anyone and everyone studying games at the university and beyond. In 2021 alone we welcomed 50 new members to our community, despite the ongoing pandemic. It has been our mission to make our community as equitable, accessible, and appealing as possible to people of all genders, races, religions, orientations, and abilities. Our International Conference of Games and Narrative (page 27) demonstrates all these goals and more.

Equity, diversity, and inclusion (EDI) are at the forefront of cultural conversation currently, but these issues have been discussed at the GI since day one, over ten years ago. We formalized this process in 2021 with the formation of the Games Institute Committee on Anti-Racism, Decolonization, and Equity, Diversity, and Inclusion (ADE Committee). Importantly, this diverse committee has faculty, staff, and student members to represent all the perspectives of our growing community. Additionally, in 2021, we continued to host events that spotlighted researchers from a variety of backgrounds doing impactful research about EDI and technology. See our spotlight on Dr. Cayley MacArthur (page 14-16) and our events page (page 28) for examples of the sort of research we support and promote.

Throughout this report you will notice discussion of research that crosses many departments and disciplines. That is because the Games Institute is a research centre founded on the idea of day-to-day interdisciplinarity. All research, from all backgrounds, is considered equal in our eyes. We offer researchers much more than just facilities, we are a place where they can imagine the trajectory of their work beyond a single discipline. See our Spotlight on new initiatives on pages 22-27 for examples of this type of work. The work done at the GI is playful, it is imaginative, it is important and most importantly, it is impactful.

Lastly, but most notably, 2021 was the year that Senate formally approved the 5-year renewal of the Games Institute after reading the 5-year Senate Report that our staff composed with the help of our members. This renewal means that the Games Institute is just beginning another five years of operations and we are moving forward toward the next phase of the GI. We have been slowly expanding the GI's roster of researchers to include those who examine a whole variety of technological topics in addition to games. You can read more about our future plans, including our "Network for the Virtual Future" (page 30) in the concluding section of this report. We have accomplished so much in the past ten years, but really, we are just getting started.

The Story of our Five-Year Renewal

In April of 2021, UW Senate approved a five-year renewal of the Games Institute. This approval was extremely welcome, and we were excited about presenting the package, but the road to renewal wasn't exactly an easy, straightforward process.

To see how it all came together, we need to look at the GI's past. The Institute began in the fall of 2010 with Senate approval as a centre based in the Faculty of Arts. In 2015, I compiled a report for Senate covering the first five years and requested a renewal until 2020. We were approved, and it was also suggested at that time that we put ourselves forward to become a university-level research centre, at which point we would no longer be under Arts but rather under the Office of Research. In 2018, we gained our new status as University Centre. The timing of the approval meant that we would need to apply for our next five-year renewal after only three years in this status; how, I wondered, should we represent this somewhat hybrid existence?

The answer proved quite simple, at least in concept. The 2015-2020 report would outline to Senate (and hence the University) what we had accomplished over that exciting and exacting period of growth and change. This meant digging back into the past to ensure that the report captured all our activity and, in the process, emphasized what we considered our major strengths: interdisciplinarity, student experience, and equity, diversity, and inclusion. And to show how we'd built these crucial things into a research ecosystem that worked hard to practice what we preached.

We also wanted to show that we considered the Games Institute as a true value-add for the GI's faculty and students for their current and projected research activities. Each researcher is part of the Games Institute but each researcher is part of the GI and is also part of a department and a faculty at the University. What the GI has offered from the beginning is a collaborative space in which interdisciplinarity forms the basis of daily interactions and discussions at all levels. The renewal document explained the challenges of this kind of research and activity while simultaneously demonstrating what our researchers have gained from forging truly interdisciplinary, collaborative paths.

For that, we needed proof, and we got it, decisively, by asking the membership for their own individual takes on how the Games Institute has helped them – both inside their own disciplines and across those represented at the GI. The result was a set of comments that thrilled us in showing us how the GI's vision has held. You can see these comments scattered throughout the report, and the report naturally and clearly used them as a highly encouraging basis. We were immensely pleased that the Deans and Senate agreed, extending our mandate to 2026.

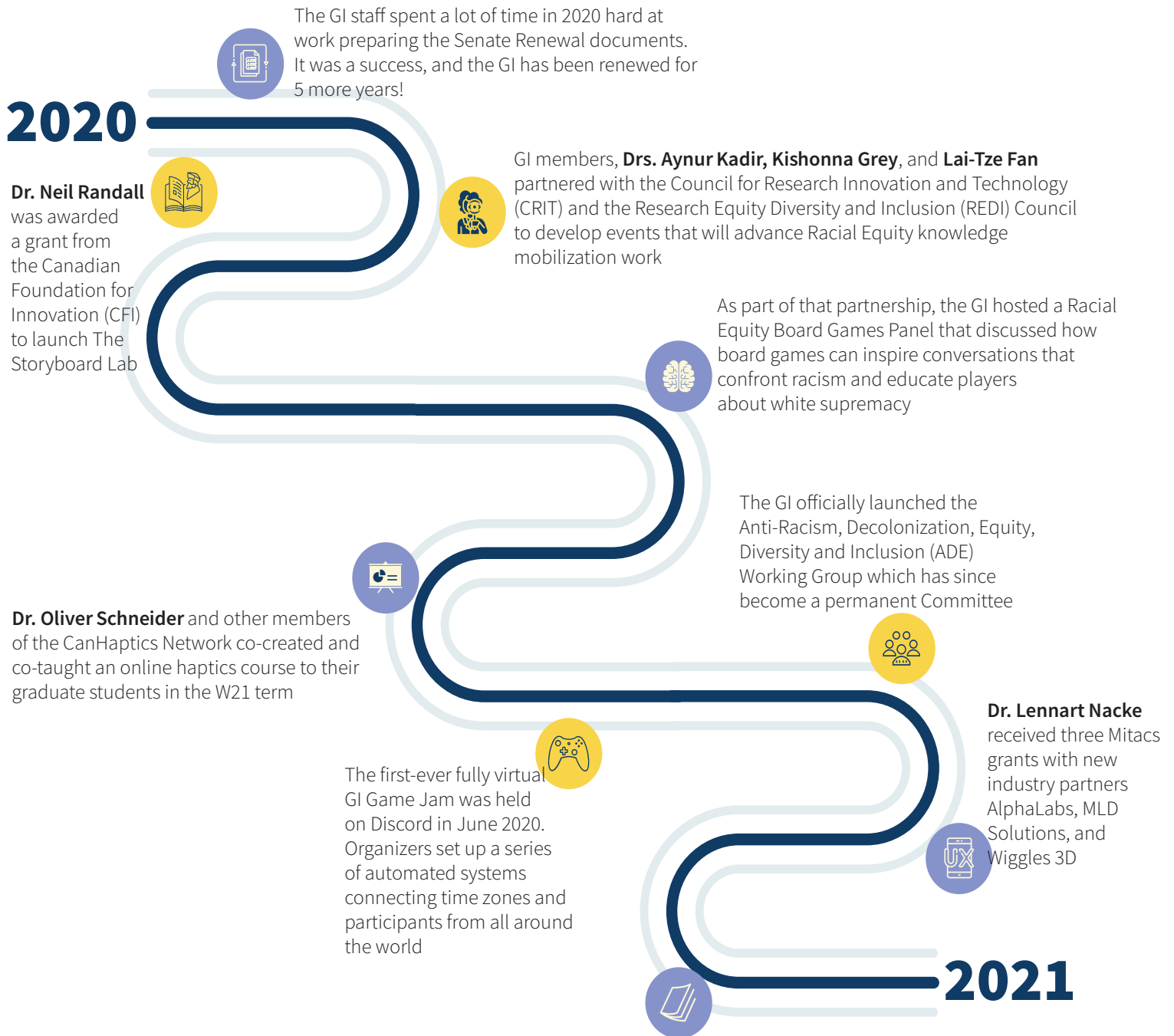
by Dr. Neil Randall, Executive Director



The Road to 2021

2020 Snapshot of the GI

2020 was an interesting year for the world, and for our members. Despite the hurdles, a lot was accomplished, but many research projects were also understandably delayed. Progressing any research at all during a global pandemic is a feat. Before we dive into 2021, we want to highlight a few of the most important moments from 2020.



First Person Scholar published an Indigenous Games Special Issue Guest edited by Michelle Lee Brown that showcased writing by Indigenous game designers, developers, and scholars

The GI and UWaterloo's Strategic Plan

Researchers at the Games Institute are, as The University of Waterloo's strategic plan puts it, "connecting imagination with impact" every single day. The GI was founded and designed to support impactful cutting-edge research that crosses disciplinary boundaries and connects talent and knowledge to the real world. Single-disciplinary work is most certainly welcome, but we strongly encourage research that fosters new types of interdisciplinary and, ideally, transdisciplinary collaboration. From English to Computer Science, to Engineering, to Communication, to Health Sciences, the researchers at the Games Institute are using virtual worlds and cutting-edge technologies to imagine a better, more equitable world.



The founders of the GI established it with one straightforward principle: if you are a graduate student, postdoctoral fellow, or faculty member focusing on games or game-like interactions within media, you are welcome. That principle still holds ten years later, and the overarching "welcome" embraces the principles of equity, diversity, and inclusion that the University of Waterloo espouses. We support and enable researchers of all backgrounds to create a solid and sustainable diverse community; this is just one way the GI exemplifies Waterloo's goal to develop talent for a complex future.



The GI, like the University of Waterloo, is built for change. The GI supports research across the broad field of interactive, immersive technologies and experiences. This field includes games, but it has expanded to incorporate virtual and augmented reality, large interactive and collaborative displays, smartphones and tablets, and any other device where game-like interactions drive the user experience. The GI is constantly looking to the future, at emerging technologies and experiences. Every day, our researchers explore, critique, and design the forward trajectory of the field, driving societal, environmental, and economic change.



As a university research institute, the GI's primary goal is to explore, process, produce and disseminate top-quality research with global impact. The GI has consistently, and continually delivered on this goal. The GI has been built and implemented as a place where the researchers themselves – students and faculty alike – conduct their research in a setting where their ideas, creativity, personalities, and identities are empowered, valued, and rewarded. We have created a sustainable, supportive environment for living, learning, working and discovery that is worthy of our students and University community.



The GI is about the researcher, with a holistic view of how research works and how researchers make it happen. We value all stages of the research process, from brainstorming rough ideas to disseminating polished research. Research is not created in a vacuum; it exists within the contexts of researchers' lives, teams, communities, and cultures. This perspective on work and research, in which we take risks, embrace new approaches, and value new types of work, is integral to the University's efforts leading the intersection of society, health and technology both globally and nationally.



Keep an eye out for strategic plan symbols in this document!

Vision, Mission, and Goals

The Games Institute seeks to advance the study, design, and purpose of immersive technologies and experiences through an interdisciplinary and transdisciplinary approach to research.

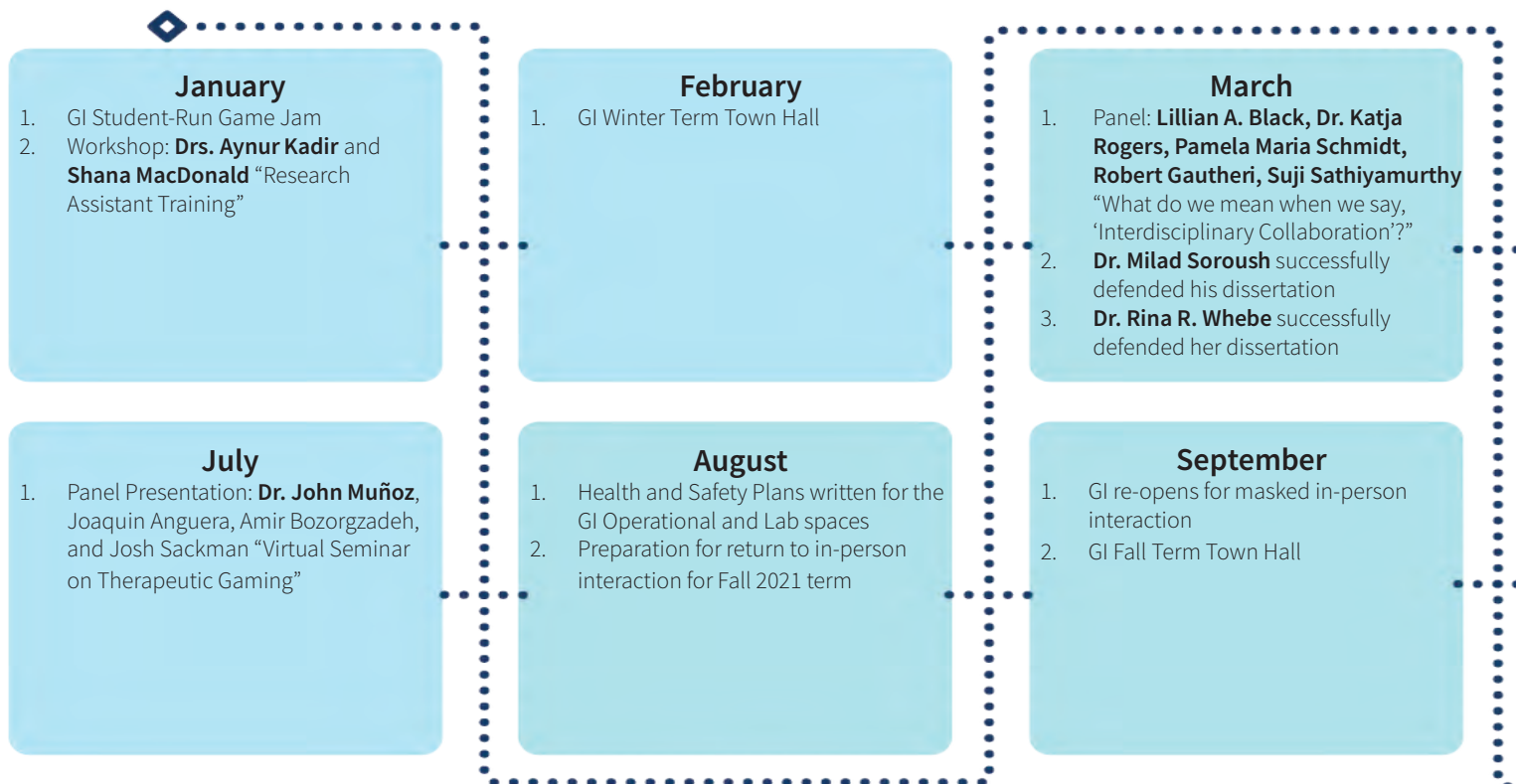
Vision: To be the leading centre on games, interactive immersive technologies, and experiences research.

Mission: To foster an inclusive ecosystem of research, education, knowledge dissemination, outreach and collaboration on interactive immersive technologies and experiences.

“As part of an inter-university and interdisciplinary research team funded through the GI through an MA coop position and partnership, I helped design and present a transboundary water governance card game, Hustle and Flow, at a policy conference in 2016 in Toronto. The GI also provided an opportunity to attend an international Games and Education conference in Scotland later the next year. In summer 2018 I also returned to the Hustle and Flow project at the GI to archive its materials and iterate on its design. Without the GI as a hub of games research at UW this would not have been possible.”

**– Alex Fleck, PhD Candidate,
English Language and Literature**

2021 Timeline



Goals: To be the central hub for games and interactive technology related research in Canada by establishing strong academic and industry research projects.

- **Education Goals:** Support and promote innovative, cross-disciplinary graduate **training and mentorship** in all aspects of game and immersive technology development.
- **Outreach Goals:** Encourage **public understanding** of the importance of games and interactive immersive technologies through outreach activities.
- **EDI Goals:** Continually improve the understanding of issues of **equity, diversity, and inclusion** across the Institute itself and the broader industry.

“The GI leadership has created a unique, world-class training environment that cannot be reproduced anywhere else on campus. Students from across campus contribute different perspectives and expertise, and the GI has created an environment where that knowledge is shared freely to everyone’s benefit. I believe that this is only possible because students are seated together and assigned space not “by faculty” or “by discipline”, but with the intention of cross-pollination.”

– Dr. Jim Wallace, Associate Professor, School of Public Health and Health Systems

Timeline



Membership

Human-computer interaction
Digital humanities
Media studies
Textual analysis
Rhetorical analysis
Discourse analysis
Ethnography
Game design
Interaction science
Narrative studies
Audience studies
Simulations
Fan studies
Cultural studies
Multimodal
Multisensory
Research creation
Haptics
Wearable computing
Representation
User experience
Usability
Interface design and research
Physical Interaction
Machine Learning
Social movements
Social practices

Administrative support
Technological development
Storytelling
Gamification
Health sciences
Games for health
Games for change
Interactive immersive technologies
Touch-interactive displays
Gambling
Physiological sensors
Virtual reality
Alternative reality
Industry studies
Labour studies
3D printing
Feminism and technology
Gender equity and technology
Social relations
Economics
Legal studies
Play studies
Surveillance studies
Platforms
Communication
Critical theory
Emergent narratives



148 members
all 6 Faculties
20 departments
10 research centres
108 academic staff
experiential

o Breakdown

Members
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Peace and conflict studies
Biology
Public health communication
Classical studies
Pop culture studies
3D modeling
Environment
Sustainability
Archeology
Exergames
Flight simulation
Exercise therapy
Ethical design
Statistical analysis
Natural sciences
Disability studies
Accessible game design
Psychology
Music studies
Sound studies
Kinesiology
Gerontology
Game studies
Board game design
Audio technologies
eSports
Fan communities
Game jams and social gaming
Sexuality and technology
Emergent narratives
Persuasive games
Empathy games
DIY games and culture
Game mechanics
Physics
Quantum technology
Co-operative games
Critical theory
Studio studies
Oral history
Urban planning
Indigenous groups reconciliation
Decolonization
Settler colonialism
History
Pedagogy
Games and learning
VR learning environments
Artificial Intelligence
Social media
Podcasting
Roleplaying game design
Linguistics
Hybrid collaboration

Dr. Cayley MacArthur's Interdisciplinary Journey at UWaterloo



Knowledge Integration to Rhetoric and Communication

From Environment to English to Systems Design Engineering (SYDE), GI faculty member Dr. Cayley MacArthur exemplifies the GI's mission to become multi-disciplinary. Cayley first heard about the GI when she was doing her undergrad in the Knowledge Integration (KI) program in the Faculty of Environment at UW. She was attracted to KI because of its interdisciplinarity and flexibility; it allowed her to dip her toes in many topics and even study at Concordia for a year. Cayley didn't know what she wanted to do with her life, but she thought she might become an art historian... or maybe a medical doctor. In other words, everything was on the table. While medicine didn't end up being the place for Cayley, she feels that KI was the right program for her as it gives students skills to "relabel and repackage" for any job or field. Cayley credits KI for setting her up to "talk the talk and walk the walk" no matter the subject area.

Around this time, Cayley started taking classes in the English department and was especially interested in identifying connections between technology, language, and design. She went to talk to Dr. Neil Randall about the relationship between rhetoric and design, and Neil encouraged her to write a thesis pulling these two fields together. Cayley did just that and her undergrad thesis explored the power structures and persuasive design of social media platforms where people engage with music.

The research involved looking at the affordances of different platforms, and how communities form on them. In other words, Cayley had found her niche where community, technology, and language meet design--but she didn't know it yet. In reality, after her undergrad thesis, Cayley felt like she wasn't specialized enough to do a master's degree. Luckily, Neil is exceptionally persuasive, and he encouraged her to apply. Cayley applied to do a Master of Arts in English in the Rhetoric and Communication Design (MA-RCD) stream. Around this time, she started learning about Human-Computer Interaction (HCI) but felt she didn't have the coding skills to get into an HCI program. Her favourite part of the MA was thinking through the big-picture design problems presented in the Experimental Digital Media courses and getting the time to dig into theory in her RCD classes.

How do You do Two MAs?

When it came time to work on her MA thesis, Cayley wasn't sure what exactly she wanted to write about until former GI member Adam Bradly came to talk in her Visual Rhetoric class. Adam spoke to the grad students about doing HCI research while doing a joint PhD in English. Cayley was extremely curious about the specifics of doing a joint degree where she could run studies and do hands-on research while still studying rhetoric: "I wanted to build up the skills, and credibility, through learning how to write in the manner of an HCI scholar." Cayley's main question for Adam was how to go

about getting two supervisors. The solution? Take Mark Hancock's class in SYDE and corner him after class. That worked surprisingly well, and Cayley ended up taking seven courses across English and Engineering, writing a thesis, doing two TA-ships and a co-op to satisfy the requirements of both departments.

Interdisciplinary Struggles

It wasn't easy; Cayley wishes interdisciplinary research was less complicated for grad students. She didn't particularly want to do two degrees simultaneously, she wanted to do one degree that was a combination of both fields, but there wasn't a process for that. In the end, "the easy way out is just to satisfy the requirements for both" departments "rather than finding common ground" and deciding "what is reasonable to accomplish." Cayley says that the distribution of funding was "the process of finding her fit when seeking scholarship funding was challenging" that needs to be improved for future interdisciplinary researchers. She felt that "neither department want[ed] to take ownership" of her, and each department was always hoping she would acquire funding from the other. Administratively, supervision was also complicated and involved a lot of "going back and forth" and "keeping paper trails", even with two great supervisors who love supporting interdisciplinary work. These are just a few areas that could improve to better support future interdisciplinary graduate researchers like Cayley.

Cayley's co-supervisors just happened to be the Executive Director (Neil) and Associate Director (Mark) of the Games Institute, which was being established at this time. The GI offices were a "game-changer" for Cayley. She had a "real community" where she could finally "be around people from both departments." She loved having a quiet place to work which was very different from her English office. At the GI she didn't have to worry if someone she didn't know

would be sitting at her desk or turn off the lights on her while she was still working: "these were small things that made a massive difference to my comfort level." While at the GI, Cayley finished her MA thesis studying implicit bias in the language used in HCI. "The Effects of Ambiguity: A Feminist Study of Human Signifiers in Human-Computer Interaction" found that words like user, participant, person, designer, or researcher have a "tendency to be perceived as male among a male audience." In contrast, women have a more balanced perception of what these people could look like. Cayley handed in her MA thesis on Christmas Eve of 2015 and started her PhD in January of 2016.

Finding a Home at the GI

Despite the struggles of her MA, Cayley was still interested in doing a PhD and wanted to stay at Waterloo. But considering everything, she would stick to one department this time, SYDE. Cayley considered doing her PhD in English but was discouraged by the comprehensive exams outside of her research area. While work on gender and HCI wasn't very well developed at the time, it's now a booming field, and Cayley spent her PhD trying to figure out where her work fit into that area of research. She spent a lot of time working on building her UX and HCI skills, "while still trying to keep an outsider perspective on the discipline." It was essential that she remained a multi-disciplinary thinker and didn't "get sucked in" to the point where she forgot where she came from and what makes her different from other researchers. The GI was integral to maintaining this balance: "I felt way more connected to the GI than to my department. The GI was my home."

After changing research directions a few times, Cayley was "voluntold" to captain one of the thrice-yearly GI game jams. She found this "terrifying" and "felt like a bit of a fraud," but it ended up being a defining part of her PhD experience. Her PhD supervisor Dr. Mark Hancock thought it would be good for her, and

he was right; Cayley ended up helping with many jams for years to come. While organizing the jams, she realized that the attrition of people who weren't white males was very high. She started counting and observing the patterns, what the teams looked like, and who ended up staying until the end. Cayley began to think about how to get people to stay and make the experience more valuable for them. She felt strongly that jammers needed to have goals other than just "winning" otherwise, they became so concerned about finishing the game that they didn't care about learning and growing along the way.

What Can Quilters Teach us About Accessibility?

It was around this time that Cayley became interested in other maker groups, especially crafting communities. She found there was a lot of value in comparing communities of quilters and game jammers. The quilters, she found, were very good at making their events accessible based on the needs of their members. For example, having events early in the day so that members with poor vision didn't have to drive in the dark. Cayley began implementing small changes to the GI Jams based on her fieldwork with the quilters. She explains that regardless of the type of making happening, "I just want people to come and have fun." Through this work Cayley found that while she loves designing technical solutions, sometimes problems could be solved more simply, "do we always have to build an app to solve the problem? Maybe it's organization. Maybe it's framing. Maybe it's an existing tool!"

At the same time, Cayley became interested in bias and exclusion in VR. She started reviewing the research of neuroscientists around cybersickness and other issues of VR accessibility. She was interested in how to fix people's problems with VR by designing solutions that made the experience more

comfortable and accessible. This work was cut short by Covid, but the pandemic opened up another avenue of study that became very important to her PhD research. Suddenly, maker groups needed to find new ways to communicate and create online. Cayley had discovered through her fieldwork with quilters and jammers that "making is good for people, especially if it's part of their identity and routine." Therefore, supporting maker groups remotely through the pandemic is vital to mental health. Cayley's dissertation "Making Spaces: Mapping Opportunities for Improved Equity in Gender-Imbalanced Maker Groups" was born from these opportunities facilitated by the Games Institute.

Finally, Faculty

The plot twist of this story is that during this time, Cayley had applied for a job at UW Stratford School of Interactive Design and Business. While she thought it was a long shot and was still working on her dissertation research, it was too perfect for her not to apply. The job talk she gave during her interview helped her finalize her dissertation's narrative and see how her work fit together through the themes of access and engagement. When Cayley was offered the job in April of 2021, she had to polish her dissertation very quickly! That English Master's degree would come in handy! She got that English degree along the way! She successfully defended her PhD in June of 2021 and started her Assistant Professor position only a month later in July. Cayley loves that her opportunities for interdisciplinary work are now so much more open: "I'm not limited anymore as far as where I can publish. I keep thinking, 'yeah, I can do that now!' I'm not performing HCI anymore, and I'm in the faculty of Arts now, which is a different environment. I have the skill of navigating different faculties, and that is helpful too." Cayley is now happily working at the GI as a faculty member with the FTT, Network for the Virtual Future, and The HCI Research Group. We can't wait to see what Dr. MacArthur accomplishes next!



Our Four

Diversity and Equity

The Games Institute has long focused the attention of its students, staff, and faculty on issues surrounding equity, diversity, and inclusion. Our goal is to create a safe, diverse, and inclusive space for all. With the help of The Games Institute Committee on Anti-Racism, Decolonization, and Equity, Diversity, and Inclusion (ADE), we have developed policies, procedures, and practices to help keep our members safe online and offline.



Interdisciplinary Research

The Games Institute was founded by an interdisciplinary, interfaculty team and set its initial mandate to foster and reward interdisciplinary and interfaculty research. GI members from across faculties work together in an environment of day-to-day interdisciplinarity both on campus, and online. The GI aims to help guide the future of games and interactive technologies by supporting and enabling research involving experts from as many perspectives as possible.



Priorities

Student Experience

For the past ten years, the Game's Institute has been a home for students straddling disciplinary boundaries and looking for support and community. Our students gain invaluable workplace and personal experience working at one of the GI's many labs, running our thrice-yearly Game Jams, or editing and writing for our publication First Person Scholar. The Games Institute is developing talent for a complex future by fostering an interdisciplinary environment to increase the impact of their work.



Knowledge Mobilization

The Games Institute considers the traditional academic means of research dissemination extremely important, but we also realize people outside the academy are interested in games and the research. Therefore, we disseminate accessible research stories to a broader audience via podcasts, videos, streaming, social media, and public events, and we translate our research into games and other interactive media to model complex ideas and theories in new and exciting ways.



Public-Facing Publications



First Person Scholar



First Person Scholar (FPS) is a game studies publication with an editorial team composed of GI graduate students. FPS has published essays, commentaries and book reviews every Wednesday since its launch in 2012, roughly 50 articles per year. FPS also publishes the First Person Podcast, which recorded its 50th episode in 2021.

FPS is part of the Digital Gaming Communities Web Archive, which is part of library collections at Brown, the University of Chicago, Columbia, Cornell, Dartmouth, Duke, Harvard, Johns Hopkins, MIT, the University of Pennsylvania, Princeton, Stanford, and Yale.

In September of 2020 FPS co-Editors in Chief, Patrick Dolan and Sabrina Sgandurra started streaming on Twitch. In addition to the First Person Podcast, the podcast team also delved into tabletop RPG play on the FPS Twitch channel. FPS has provided opportunities and mentorship to graduate students seeking experience in the digital publishing industry for over ten years.

Please see the appendix for a full list of articles, editorials, interviews, and book reviews that FPS published in 2021.

Games Institute Podcast

The Games Institute Podcast consists of interviews with GI researchers about their research and was founded and hosted by former research communications officer Marisa Benjamin and is now run by GI students. The Podcast interviews scholars from a variety of disciplines including HCI, Computer Science, Game Studies, and English and boasts thousands of listeners across 17 different countries.

The podcast centres the researchers, not just the research, focusing on not only the projects themselves but also unexpected questions like what games guests played as children, and what inspired them to pursue their academic work.

Podcast Episodes

January

- January 22 - First Person Podcast Episode 42: Best Games Of 2020

February

- February 1st – “VR Exergames and Social Robots” with Dr. John Muñoz
- February 20 - First Person Podcast Episode 43: Parasocial Play on YouTube

March

- March 4th – “Haptic Research and the Haptiverse” with Pelisha Samithamby
- March 18th – “Child Computer Interaction and Games for Health” with Alessandra Luz
- March 17 - First Person Podcast Episode 44 - YouTube Game Analysis

April

- April 19 - FPS Podcast Episode 45: Content Gaming Videos

May

- May 12th – “The Origin Story of the HCI Games Group” with Dr. Lennart Nacke
- May 20th – “Narrative Structures and Gameplay in Role-Playing Games” with Sabrina Sgandurra
- May 24 - First Person Podcast Episode 46: Player-Narrative Dissonance

June

- June 24th – “Animal Studies and Untitled Goose Game” with Nicholas Hobin
- June 29th – “Dungeons & Dragons One Shot: Cryptid Nature Controversy” with Podcast co-host Toben who guides players Lindsay Meaning, Betsey Brey, Boris Ulyanskiy, and Leonid Moyzhes through an adventure during the International Conference on Games and Narrative’s online sessions.
- June 22 - First Person Podcast Episode 47: Queer Representation in Gaming

July

- July 13 - First Person Podcast Episode 48: Disco Elysium the Final Cut with Andrew Bailey, Francis B Parr, and Kacper Szozda

October

- October 27 – First Person Podcast Episode 49: Game Work and Unions with Dr. Daniel Joseph and Dr. Alison Harvey

November

- November 23rd – “Maker Groups and Inclusion” with Cayley MacArthur

December

- December 7th – “Anti-Colonialism and Academia Adventures” with Lindsay Meaning
- December 17th – First Person Podcast Episode 50: State of Game Studies with Dr. Emma Vossen
- December 28th – “So Long and Thanks for All the Fish” with Marisa Benjamin



Spotlight on New Initiatives in 2021

The Games Institute Committee on Anti-Racism, Decolonization, and Equity, Diversity, and Inclusion (ADE)

The Games Institute Committee on Anti-Racism, Decolonization, and Equity, Diversity, and Inclusion (ADE Committee) was established to ensure the continued awareness and expansion of understanding of issues of equity, diversity, and inclusion. The committee's role is to establish policies, practices, and education for Games Institute members, associates, partners, and colleagues. The Committee is composed of faculty, student, and staff members of the Games Institute and is supported by Games Institute Executive and Associate Directors and Games Institute Administration. The GI's ADE Committee aims to create, strengthen, and implement policies, procedures and culture aimed at ensuring Games Institute's activities, member composition, administrative and research processes withstand scrutiny in the areas of representation, equity, inclusion, and diversity.

In 2021 the committee created bylaws that define how they will operate in the larger GI ecosystem. The bylaws enshrine the committee's commitment to centering the experiences of Black and Indigenous members of the community as well as their commitment to work in consultation with marginalized members of the GI community. The committee also conducted an initial voluntary survey of GI members in the summer of 2021 to help better understand the GI community's composition. While there are many limitations on what demographic data can tell us, this information helps the committee develop an initial picture of the community as they continue to analyze the data and work towards strengthening equity diversity and inclusion at the Games Institute.



Dr. Oliver Schneider's CanHaptics Network and the Haptic Experience (HX) Lab

For the past few years, Dr. Oliver Schneider has been working hard to build a network of hapticians across Canada who “make technology more human by making it physical – pushing out from the screen to be graspable, holdable, and engage with all of your senses – and do so by putting people, not technology, first.”

The Covid-19 pandemic put haptic technology research between a rock and a hard place; how does one study human interaction with technology when physical touch is limited, if not prohibited? The result was “CanHaps 501” a cross-institutional graduate course on haptic information design presented to students from across Canada and internationally. In Spring 2021, the CanHaptics Network focused on expanding and building their reach by hosting a CanHaptics seminar series. With one seminar per month, the focus of this miniseries was to feature researchers and their labs from across the network. This included:



Ontario

- Dr. Oliver Schneider, University of Waterloo, leader of the Haptic Computing Lab

British Columbia

- Dr. Alissa N. Antle, Simon Fraser University, director of the TECI Lab
- Dr. Pourang Irani, The University of British Columbia (Okanagan), previously University of Manitoba
- Dr. Karon MacLean, The University of British Columbia (Vancouver), leader of the SPIN Lab

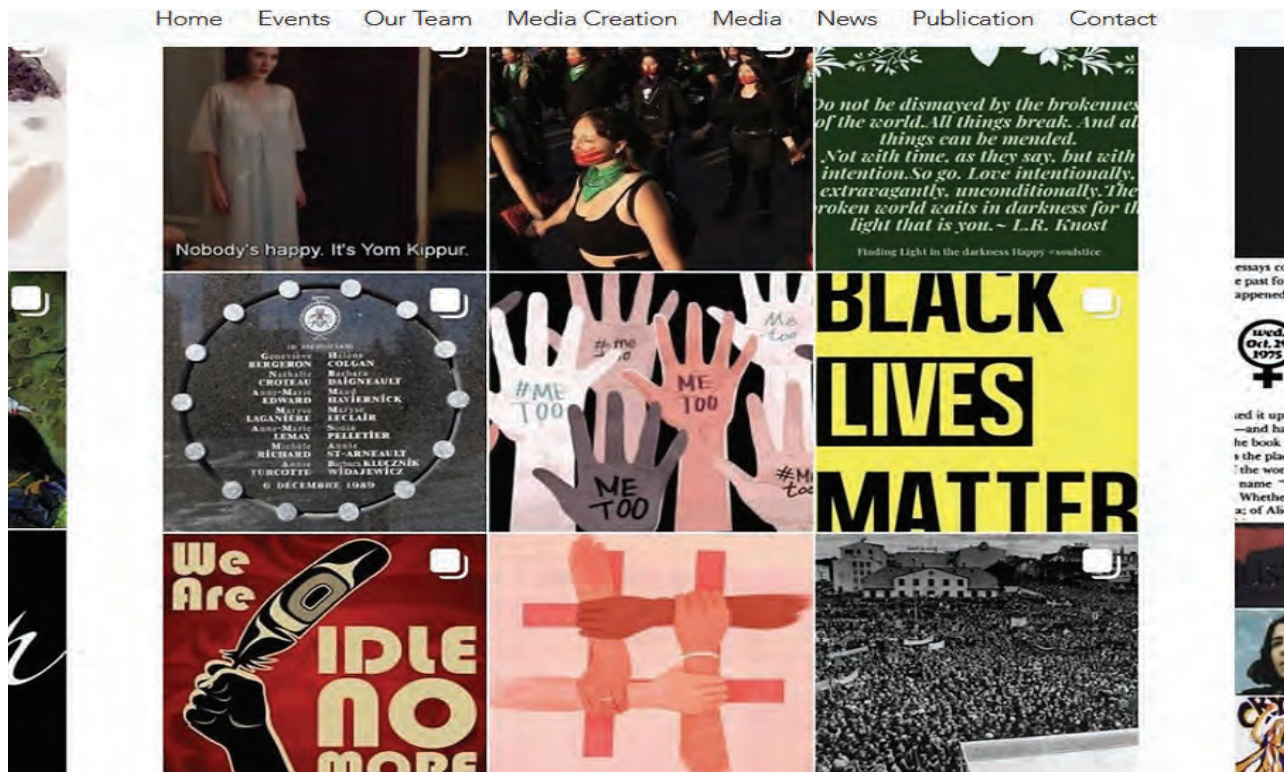
Québec

- Dr. Jeremy Cooperstock, McGill University, leader of the Shared Reality Lab
- Dr. Vincent Lévesque, École de Technologie Supérieure, leader of the Haptic User Experience (HUX) Lab
- Dr. Antoine Weill-Duflos, Haply Robotics

Additionally, construction on the Haptic Computing Lab, funded by Dr. Oliver Schneider’s Canada Foundation for Innovation (CFI)0grant, was completed in 2021 and is now in use by GI members.

“Without the GI, I would not be able to conduct my research. The way that the GI’s space – both physical and virtual - combines disciplines has allowed me to connect my work to new fields, including Games User Research and Social Justice in Education, and expanded the methods that my team has at their disposal. My group’s online collaboration is completely embedded in the GI’s virtual space, using its Slack. The GI support staff has helped me apply for grants, publicize our research, connect with potential industry collaborators. The GI also hosts my undergraduate students, including URAs, USRA students, and other coops, providing a space for them to work and for us to store our equipment while the Haptic Computing Lab is under construction. The GI provides a professional and social network for my students that enriches their experience and the resulting research.”

- Dr. Oliver Schneider, Dept. of Management Sciences, Faculty of Engineering
 Cross-appointments: Cheriton School of Computer Science (Math); Electrical and Computer Engineering (Engineering).



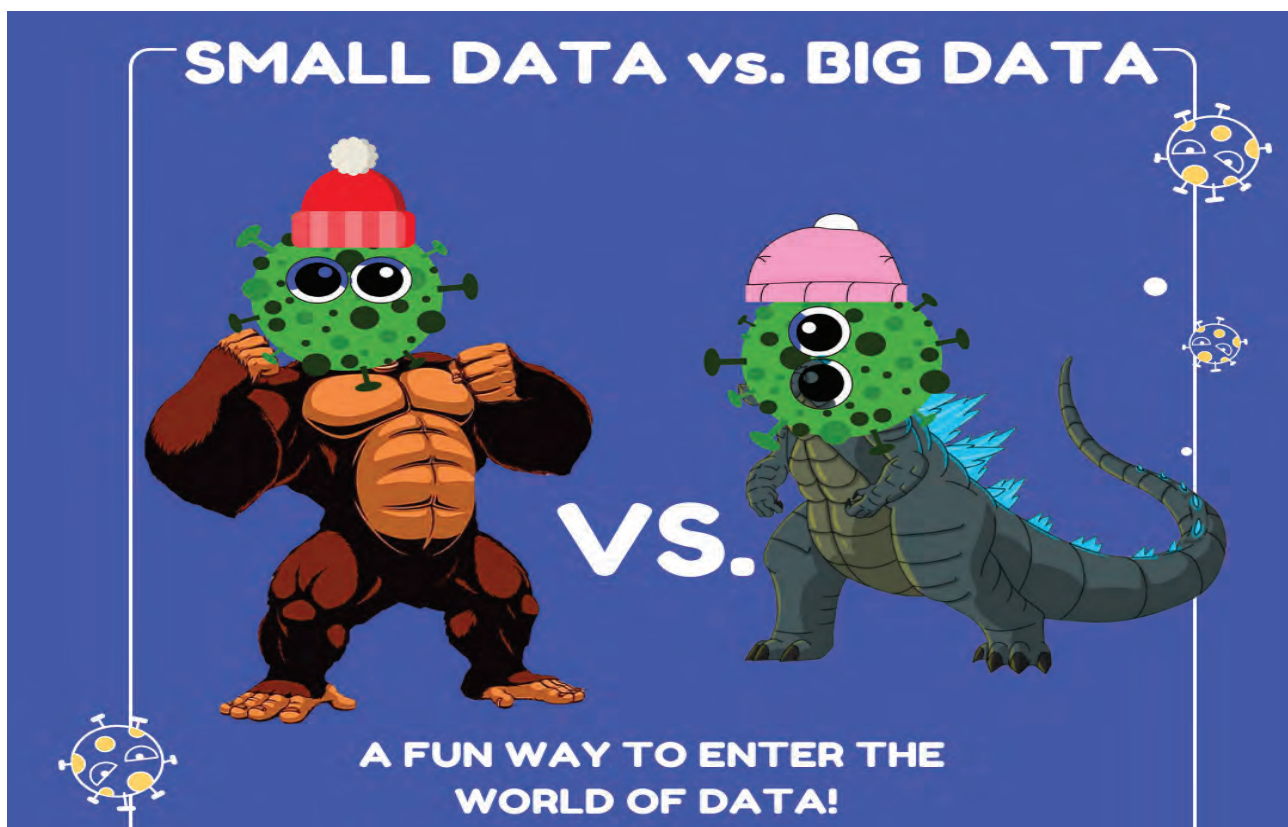
2021 was a banner year for qCollaborative (qLab) and Feminist Think Tank who were awarded grants, hosted talks and events, and published multiple books, including a feminist colouring book! qLab is a joint initiative of researchers from the Games Institute across several institutions: Dr. Aynur Kadir (University of British Columbia), Dr. Shana MacDonald (University of Waterloo), Dr. Milena Radzikowska (Mount Royal University), Dr. Jennifer Roberts-Smith (Brock University), Dr. Stan Ruecker (University of Illinois), and Dr. Brianna Wiens (University of Waterloo). qLab is an intersectional feminist design lab dedicated to developing new forms of relationality through technologies of public performance. The Feminist ThinkTank (FTT), co-led by qCollaborative directors Dr. Shana MacDonald (Associate Professor, Communication Arts) and Dr. Brianna Wiens (Postdoctoral Fellow, Communication Arts), advances research on intersectional feminist design by creating space for interdisciplinary crossovers and idea-sharing.

In 2021, Feminist ThinkTank was accepted into the Archives Unleashed Cohort (2021-2022) and undertook research on their project “Everything Old Is New Again: A Comparative Analysis of Feminist Media Tactics” that explores a collection of feminist archives for intersectional, queer, trans, and indigenous feminist media tactics from different historical eras that are often overlooked in favour of the history of white, liberal, feminist practices. In the Fall semester, FTT organized and hosted two data jams to: (1) teach participants the value of collaborative data collection, analysis, and discussion for understanding discursive cultural undercurrents of digital artifacts; and (2) facilitate practices, preservation, and public facing dialogues on digital activism. Lastly, in November, FTT published the edited collection *Networked Feminisms: Activist Assemblies and Digital Practices* (2021, Lexington Books) and are under contract for a second volume, *Stories of Digital Performative Assembly: Feminist Protest and Resistance* (Lexington Books, 2022).

In Winter 2021, qLab presented their work at the Chesapeake Humanities Digital Conference (CHDC), showcasing @aesthetic.resistance, an Instagram archive of feminist media tactics, as an example of feminist research-creation and knowledge mobilization. In Spring 2021, qLab participated in the Canadian Society for Digital Humanities conference (CSDH/SCHN), presenting their work on the Hermeneutic of Generativity and its importance across qLab projects, highlighting the need for generous—or generative—feedback and perspectives, rather than critique as the preferred mode of academic feedback. In December 2021, qLab published their colouring book, *Feminists Colouring Feminists*—a publicly available book intended as a space for reflection, relaxation, and recognition of feminists who model intersectional feminist work.

The Feminist Think Tank (FTT) kicked off the event series Data Jam in November with the first event Everything but the Kitchen Sink led by Dr. Shana MacDonald and other FTT members. Participants were asked to collect “everything but the kitchen sink” on their phone which included saved posts, screenshots, liked content, and more from sites like Instagram, TikTok, and Twitter. This gave participants a chance to enter the world of data visualization and toss around hypotheses of how to tag posts by playing a few rounds of Bingo where they were required to find a piece of data that matched the Bingo sheet.

The second event of this series Covid Winter Follies: Big vs Small Data presented a collection of Covid digital ephemera (memes, hashtag threads, etc.) to see if participants could make sense of this “hot mess” of a collection. Anyone who is interested in data was welcome to join these events and learn how to play with data—both big and small. Participants made their own memes based on the collections they had access to. The memes were then shared, and discussions were had on what the memes represent and what connections participants made when viewing the datasets. The Data Jams are continuing in Winter 2022, with Dr. Marcel O’Gorman (English) of the Critical Media Lab taking inspiration from what creations participants put forth.



International Conference on Games and Narrative



From June 12th to 16th 2021, the GI held its inaugural “International Conference on Games and Narrative.” This 5-day conference welcomed participants and speakers from 47 universities, 28 of which were from outside of North America. Presentations included scholars at the forefront of games studies from as far as Australia and Southeast Asia. The International Conference on Games and Narrative demonstrates the GI’s commitment to connecting with international scholars and advancing research for global impact.

The conference boasted six amazing keynote speakers who showcased their groundbreaking research on games and narrative:

1. Elizabeth LaPensée, Michigan State University - Opening Keynote discussed “how stories influence design and mechanics”
2. Souvik Mukherjee, Centre for Studies in Social Sciences Calcutta - “The Cartography of Virtual Empires: Videogame Maps, Paratexts and Colonialism”
3. Clara Fernández-Vara, NYU Tisch School of the Arts ““Detective Studies and Games: Exegetic Play”
4. Jan-Noël Thon, Norwegian University of Science and Technology - “Video Game Narratives: Theory and Analysis”
5. Astrid Ensslin, University of Bergen - “Videogames, Digital Fiction, and the Unnatural”
6. Kishonna Gray, University of Illinois at Chicago - Closing Keynote discussed “Black Praxis in Digital Gaming”

Participants had the opportunity to examine the intersection between videogames and narrative through a variety of online formats: live lectures, speaker panels, video essays, workshops, and live streaming gameplay with commentary and discussion. The conference’s topics included: narrative structure in videogames, narrative co-creation in games, narratives and social difference, gameplay and narrative, game worlds, and technology and presence.

The entire conference was available online hosted on the GI’s Discord and in Gather.town, in formats designed for maximum accessibility. Conference organizers wanted to create an interactive experience that went beyond the typical format of Zoom Calls and meeting rooms. Therefore, they incorporated interactive virtual spaces like Gather, where conference goers use both video and personalized avatars, into the design.





Games and Apps



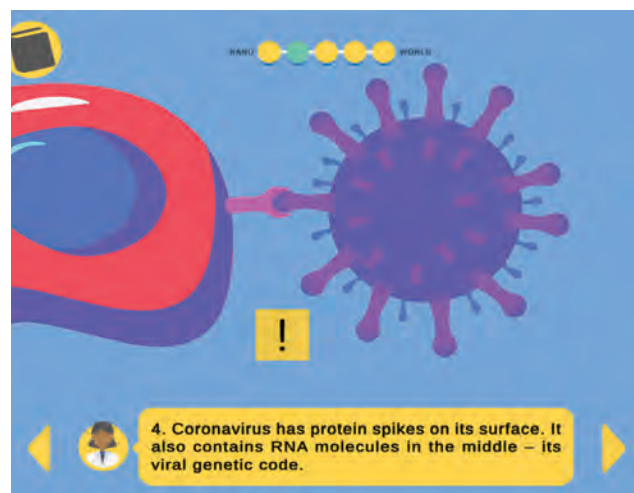
There is never a lack of games being discussed, played, or created at the Games Institute. Despite the pandemic, 2021 was no exception to this rule.

The third virtual GI Game Jam took place between June 23rd and 27th with 8 teams presenting their games on the final day. The Jam organizers collaborated with start-up Quickscope, a platform focused on bringing game developers, employers, and researchers together, exploring new ways of discussion, voting, and celebrating final submissions. The Jam's theme this term was "It Spreads" which resulted in a lot of what Jam co-captain Ekaterina Durmanova described as "quirky and fun games, including a cleverly designed zombie platformer and a conga-line creation game." More games were made at the Winter 2021 Jam including "Lost Panic Found" a grid-based puzzle game about finding lost items. "Lost Wizards" and "Memories of Her", a randomly generated rogue-lite game about fighting lost memories.

The HCI Games Group at the GI collaborated with researchers from the Waterloo Institute for Nanotechnology to provide a visual storytelling experience that explores and explains how nanotechnology is used in our everyday lives, including in the Covid-19 vaccine.

Dr. Peyman Azad Khaneghah, postdoctoral fellow at UW, created a health app rating system entitled Alberta Rating Index for Apps (ARIA) to help people sort through the 300,000+ health apps on the market. Dr. Neil Randall, and Jennifer Rickert, GI Community Experience Curator, are collaborating with Dr. Khaneghah to add video tutorials and interactive animation guides to the web site.

GI members collaborated with the Interdisciplinary Climate Change Centre to create "Illuminate" a climate change simulation game. Illuminate is an educational simulation game where players learn about the impacts of climate change, explore ways to reduce greenhouse gas emissions (GHG), and respond to climate risks. The game was developed by an interdisciplinary team of students, staff and faculty from the Interdisciplinary Centre on Climate Change (IC3). Working with IC3's scientific team, the Games Institute lent its game design expertise to the project through GI members: Lillian A. Black and Pamela Maria Schmidt (Knowledge Translation and Narrative Development), Tina Chan (Artist and Narrator) and Adam Leung (Designer and Programmer). GI members continued playing games together as well and in March the GI launched our very own dedicated server in "Valheim," an early-access Viking-themed procedurally generated survival game that has taken Steam by storm. We used our server to host holiday celebrations throughout the year when we could celebrate in person.



Virtual Events at the Games Institute



The GI hosted a variety of events in 2021. For our members we organized and hosted online events they could attend regularly to keep in touch. These included “Coffee N’ Chill” and “Gaming Night” hosted every Wednesday and Friday on the GI Discord. Feminist Thinktank met the first Tuesday of every month, and the HCI Research group met every Thursday on Teams. We also had research assistantship training, GI Town Hall meetings and our Annual General Meeting. Lastly, GI members found new and innovative ways to celebrate together in a sometimes online, sometimes hybrid environment.



Additionally, we hosted a variety of events that were open to the university community or the larger public. On July 14th, GI member Dr. John Muñoz (SYDE) moderated a panel of industry experts from the digital therapeutics sector to discuss the benefits of therapeutic gaming. Dr. Muñoz guided the speakers through a variety of topics including cognitive training, physical activity promotion, emotional regulation, brain assessment and optimization, and pain management. Panelists included Dr. Joaquin Anguera, Director of the Clinical Division of Neuroscape, and Associate Professor at the University of California; and Josh Sackman, President and Co-founder of AppliedVR. The international audience for this panel extended as far as the US, Mexico, Portugal, and Israel.

On December 1st, Dr. Muñoz also hosted an XR (extended reality) Industry Panel – “Building XR Devices to Sense Mind and Body” featuring Charles Nduka, Chief Science Officer (CSO) and co-founder of Emteq Labs, Brian Chae, CEO and co-founder of LooxidLabs, and Sarah Pearce, Biosignals Engineering Lead at Cognixion. The panel looked at the next generation of head-mounted displays (HMD) and explored how three different companies have been embedding physiological sensors into HMDs for virtual and augmented reality to connect mind and body and create more natural interfaces for XR applications.

On November 10th, The UW Women’s Centre, in collaboration with Games Institute, hosted a panel about misogyny in games and gaming culture as part of the Women’s Centre’s annual “Love Your Body” week. Panelists included Dr. Shana MacDonald, Associate Professor in Communication Arts, Lindsay Meaning PhD Candidate in English, Dr. Brianna Wiens, Postdoctoral Researcher in Communication Arts, and Dr. Emma Vossen, the Research Communications Writer at the GI. The panel discussed a range of issues including the representation of women and queer bodies in gaming, the treatment of women and queer individuals within gaming communities, and the public backlash to queer and POC characters by the gaming community.

On December 2nd, Dr. Matt Parker, Associate Professor of the Arts at the NYU Game Center presented his work “Carbon Collector Creation and Gameplay” to GI Members. This included playing through the game developed by OpenAir Collective called “Carbon Collector”, a multiplayer game that demonstrates the importance of carbon removal as an important tool in an overall climate change solution approach. Designed by Professors Matt Parker and Chris Chung, “Carbon Collector” encourages players discuss strategies for remaining within our carbon budget.



Future Directions



Network for the Virtual Future

The Network for the Virtual Future (NVF) is a major expansion of the Games Institute that began in 2021. COVID-19 has demanded a rethinking of how we live and work both now and in the future. Virtual and remote technologies are central to a wide range of new modes of engagement. We are already experiencing the first of these numerous engagements, from virtual meetings and virtual offices to remote classes and virtual consultations with medical professionals. These are merely starting points, and they have already demonstrated both the strengths and the limitations of current technologies and how we use them. It is very clear that current technologies need to improve and that new technologies need to come into play. These technologies must be designed and implemented according to the needs of the human activities that they will support. Virtual experiences can succeed, but only if they are first and foremost *human* experiences.

This new network gathers expertise from across the University of Waterloo, Canada, and around the globe to understand, conceptualize, and create the virtual and remote technologies and experiences that will permeate our lives going forward. The Network for the Virtual Future exists to initiate the extensive conversations surrounding existing and anticipated virtual experiences and the technological innovations and advancements necessary to render these experiences successful. The Network for the Virtual Future requires ongoing and sustained input from all fields of research that impact the design, use, and effects of virtual technologies on human experience. Indeed, the central concept of NVF is that all related technologies must be understood culturally, psychologically, sociologically, and philosophically, in addition to the scientific and technological understanding needed for them to exist. The Network will launch as part of the Games Institute because of the focus of our researchers on virtual technologies, media, and experiences, across the disciplines and encompassing numerous activities.

The Network for the Virtual Future is a research and innovation ecosystem: numerous fields of focus combining in a collaborative, transdisciplinary environment to solve problems and initiate ideas. It draws together academic, industry, government, and community leaders to engage with the issues at hand and provide the multiple perspectives necessary to achieve effective and positive societal impact. To this end, the ecosystem is committed to critical thinking and assessment, as well as responsible innovation and design. The overarching mission of NVF is to explore, assess, anticipate, and create the virtual technologies and experiences of the future.

The initial mandate of the NVF is to:

- Gain a full understanding of current and emerging technologies/experiences
- Envision and articulate what the virtual future will entail and how it will affect us
- Establish the structures under which research, design, implementation, and assessment of emerging and new virtual technologies can most usefully occur

This mandate requires the establishment of the following key components:

- Partnerships with industry, non-profit, government, and community organizations
- Research across multiple focus areas
- Research across multiple technologies
- Courses and programs for university and lifelong learning purposes
- Entrepreneurial and innovation systems to implement and expand the work of the ecosystem
- Funding system consisting of multiple sources and mechanisms for financial sustainability

The Network for the Virtual Future covers the following focus areas:

- Virtual health
- Virtual work
- Virtual education
- Virtual business/commerce
- Virtual travel/tourism
- Virtual politics
- Virtual entertainment
- Virtual assemblies
- Virtual spectatorship
- Virtual research
- Virtual remote technologies

Within each of these areas lies a large array of associated topics for which research and innovation are needed. For example, virtual health ranges from remote and virtual consultations with doctors and mental health professionals through virtual reality training for surgeons, rehabilitation programs, and personally directed behaviour for health improvement. Virtual education includes both formal education and self-directed exploration of complex topics in all fields. The Network for the Virtual Future is constantly open to welcoming new ideas and new fields of expertise. Research into the remotely experienced virtual world has been ongoing for years, but the COVID-19 situation has brought into focus the need for a vision for this world and how it will and can impact numerous sectors.

Appendix

Events

Recurring Events

- Social, All GI Members, “Coffee N’ Chill” | Every Wednesday | GI Discord
- Social, All GI Members, “Gaming Night” | Every Friday | GI Discord
- Social, All GI Members, “Feminist Thinktank” | First Tuesday of every month | Teams

January

- Game Jam, **Arielle Grinberg, Ekaterina Durmanova**, “GI Game Jam,” January 27th – Sunday, January 31st
- Student Training, **Drs. Aynur Kadir and Shana MacDonald**, “Research Assistant Training” January 14th

February

- Town Hall, All GI Members, “Virtual Town Hall” Feb 5th

March

- Panel Presentation, **Lillian A. Black, Dr. Katja Rogers, Pamela Maria Schmidt, Robert Gauthier, Suji Sathiyamurthy** “What do we mean when we say, ‘Interdisciplinary Collaboration?’” March 9th

April

- Symposium, **Karina Arrambide** and **Dr. John Muñoz**, “Seminar Series: Decision Making in Interactive Narrative Games; Human-Robot Interaction Taxonomy” April 15th

May

- Guest Lecture, Dr. Thijs Roumen “Portable Laser Cutting” May 7th
- Guest Lecture, Vik Agarwal, “Product Management and Analytics in the Gaming Industry” May 14th
- Town Hall, All GI Members, “GI Town Hall” May 28th

June

- Conference, **Dr. Neil Randall, Dr. Ken Hirschkop, Lindsay Meaning, Alex Fleck, Justin Carpenter, Jenn Rickert**, “International Conference on Games and Narrative” June 11th- June 16th

July

- Panel Presentation, **Dr. John Muñoz**, “Virtual Seminar on Therapeutic Gaming” July 14th
- Social, All GI Members, “Marisa Benjamin Goodbye Party” July 28th

September

- Social, All GI Members, GI Reopens for masked in person interaction, Sept 5th
- Town Hall, All GI members, “GI Town Hall” Sept 30th

October

- Social, All GI members, “Halloween Party” October 28th

November

- Social, All GI Members “Day of the Dead Celebration” November 2nd
- Panel Presentation, **Dr. Shana MacDonald, Lindsay Meaning, Dr. Brianna Wiens, Dr. Emma Vossen** “Panel on Misogyny in Games and Gaming Culture: Games Institute & UW Women’s Centre Collaboration” November 10th
- Data Jam, Feminist Thinktank, **Drs. Shana MacDonald, and Brianna Wiens**, “Everything but the Kitchen Sink Data Jam” November 25th
- Game Jam, **Arielle Grinberg** and **Alexander Glover**, “Fall GI Jam,” November 24th – Mon Nov 29, 2021

December

- Panel Presentation, **Dr. John E. Muñoz**, Charles Nduka MD, Dr. Brian Chae, Sarah Pearce, “Building XR Devices to Sense Mind and Body” Dec 1
- Guest Lecture. Dr. Matt Parker – “Carbon Collector” Dec 2nd
- Data Jam, Feminist Think Tank, **Drs. Shana MacDonald**, and **Brianna Wiens**, “Covid Winter Follies” Dec 8th
- Social, All GI Members, “ADE Committee Meet-and-Greet” Dec 10

Publications and Outreach

Books

1. The revised and updated 3rd edition of: Media Studies: Texts, Production, Context by Paul Long, Beth Johnson, **Dr. Shana MacDonald**, Schem Rogerson Bader, and Tim Wall was published by Routledge.
2. Networked Feminisms: Activist Assemblies and Digital Practices was published by Brianna Wiens and Shana MacDonald with Lexington Books. They are under contract for a second volume, Stories of Digital Performative Assembly: Feminist Protest and Resistance also with Lexington Books.
3. Prototyping Across the Disciplines: Designing Better Futures was published by Drs. **Jennifer Roberts-Smith**, Stan Ruecker, and Milena Radzikowska, with Intellect Books.
4. Feminists Colouring Feminists—a publicly available coloring book intended as a space for reflection, relaxation, and recognition of feminists who model intersectional feminist work was published by the **qLab**.

Journal Articles

1. “User-Defined Gestures with Physical Props in Virtual Reality” was published by **Marco Moran-Ledesma**, **Dr. Oliver Schneider**, and **Dr. Mark Hancock** in the Proceedings of the ACM on Human-Computer Interaction.
2. “Cognitive abilities predict safety performance: A study examining High-Speed Railway dispatchers” was published by Drs. Shi Lei, Zizheng Guo, Xi Tan, Xi Chen, Chengen Li, Jaiming Zou, **Shi Cao**, and Guo Feng in the Journal of Advanced Transportation.
3. “Living whose best life? An intersectional feminist interrogation of postfeminist #solidarity in #selfcare” was published by **Drs. Brianna Wiens** and **Shana MacDonald** in NECSUS: European Journal of Media.
4. “The Role of Personality Factors Influencing Consumer Video Game Engagement in Young Adults: A Study on Generic Games” was published by **Dr. Muhammad Umair Shah** with co-authors Amir Zaib Abbasi, Umair Rehman, Helmut Hlavacs, Ding Hooi Ting, and Saima Nisar in IEEE Access.
5. “Me, Myself, and Not-I: Self-Discrepancy Type Predicts Avatar Creation Style” by Dr. Mitchell Loewen, **Dr. Lennart Nacke** and Dr. Christopher Burris was published in Frontiers in Psychology.
6. “In Search of Inspiration: Re-thinking the Potential for Demonstration Effects” was published by GI Faculty member **Dr. Luke Potwarka**, in the Sports Information Resource Centre.
7. “Latent classes associated with the intention to use a symptom checker for self-triage” was published by Stephanie Aboueid, Samantha B. Meyer, **Dr. James Wallace**, and Ashok Chaurasia in PLoS ONE.
8. “Merlynn: Motivating Peer-to-Peer Cognitive Behavioral Therapy with a Serious Game” was published by **Tina Chan**, **Robert Gauthier**, **Ally Suarez**, **A. Nicholas F Sia**, and **Dr. James R Wallace**, in Proceedings of the ACM on Human-Computer Interaction 2021.
9. “Nature vs. Stress: Investigating the Use of Biophilia in Non-Violent Exploration Games to Reduce Stress” was published by **Drs. Adrian Reetz**, **Delcho Valtchanov**, **Michael Barnett-Cowan**, **Mark Hancock**, and **James R Wallace** in Proceedings of the ACM on Human-Computer Interaction 2021.
10. “Use of symptom checkers for COVID-19-related symptoms among university students: a qualitative study” was published by Stephanie Aboueid, Samantha B Meyer, **Dr. James R Wallace**, Shreya Mahajan, Teeyaa Nur, and Ashok Chaurasia in BMJ Innovations.
11. “Joint Action Storyboards: A Framework for Visualizing Communication Grounding Costs” was published by **Leila Homaeian**, **Dr. James R Wallace**, and **Dr. Stacey D Scott**, in CSCW 2021 Proceedings of the ACM 2021.
12. “Young adults’ perspectives on the use of symptom checkers for self-triage and self-diagnosis: a qualitative study.” was published by Stephanie Aboueid, Samantha Meyer, **Dr. James R Wallace**, Shreya Mahajan, and Ashok Chaurasia in JMIR Public Health and Surveillance.
13. “Remembering is a form of Honouring: Preserving the COVID-19 Archival Record,” was published by Esyllt W. Jones, Shelley Sweeney, **Dr. Ian Milligan**, Greg Bak, and Jo-Anne McCutcheon, in FACETS.
14. “Fostering Community Engagement through Datathon Events: The Archives Unleashed Experience,” was published by Samantha Fritz, Ian Milligan, Nick Ruest, and Jimmy Lin, in Digital Humanities Quarterly.

15. “From Archive to Analysis: Accessing Web Archives at Scale through a Cloud-Based Interface,” was published by Nick Ruest, Samantha Fritz, Ryan Deschamps, Jimmy Lin, and **Dr. Ian Milligan** in International Journal of Digital Humanities.
16. “Continuous theta burst TMS of area MT+ impairs attentive motion tracking” was published by Chakraborty A, Tran TT, Silva AE, Giaschi D, **Thompson B.** in European Journal of Neuroscience.
17. “Orienting of covert attention by neutral and emotional gaze cuing appears to be unaffected by mild to moderate amblyopia” was published by Chow A, Quan Y, Chui C, Itier RJ, **Thompson B.** in Journal of Vision.
18. “Binocular integration of perceptually suppressed visual information in amblyopia” was published by Chow A, Silva AE, Tsang K, Ng G, Ho C, **Thompson B.** in Investigative Ophthalmology and Vision Science.
19. “Precise oculocentric mapping of transcranial magnetic stimulation-evoked phosphenes” was published by Silva AE, Tsang K, Hasan SJ, **Thompson B.** in NeuroReport.
20. “Relationship between visual and neurodevelopmental measures at two years with visual acuity and stereopsis at 4.5 years in children born at risk of neonatal hypoglycaemia” was published by Paudel N, **Thompson B.**, Chakraborty A, Harding JE, Jacobs RJ, Wouldes TA, Yu TY, Anstice NS. In Ophthalmic and Physiological Optics.

Book Chapters

1. “Not Influencers, but Amplifiers: @aesthetic.resistance as Feminist IG Hack” by **Dr. Shana MacDonald** in Visualizing Objects, Places, and Spaces: A Digital Project Handbook.
2. “Procedural Ethics and a Night in the Woods” by **Dr. Elizabeth Caravella**, GI member and Assistant Professor of Visual Studies at York University, in the new edited collection “The Ethics of Playing, Researching, and Teaching Games in the Writing Classroom.”

Media Appearances

1. **Dr. Lennart Nacke** was interviewed in a MacLean’s story about speedrunning, which was later picked up by Screenrant.
2. **Drs. Neil Randall** and **Michael Barnett-Cowan** spoke to Lifewire about vintage games.
3. GI member and Research Associate for the Council for Responsible Innovation and Technology, **Dr. Jason Lajoie’s** documentary Harm: Alberta’s Preventable Overdose Crisis was recently uploaded on YouTube. The story of how Lajoie directed the film, and the opioid overdose crisis was covered by the Globe and Mail.
4. Lastly, in December, **Dr. Neil Randall** was on RTE Radio 1 in Dublin Ireland discussing taking Harry Potter seriously as literature in preparation for “Harry Potter 20th Anniversary: Return to Hogwarts.”

First Person Scholar Articles

1. “Where We’re At: Looking Ahead for 2021 and 2022.” Patrick Dolan and **Sabrina Sgandurra**. October 7th, 2021.
2. “Interview with Kishonna Gray.” Pallavi Sodhi. June 10th, 2021.
3. “FPS @ CGSA 2021.” Patrick Dolan and Sabrina Sgandurra. May 28th, 2021.
4. “Remaking Legitimacy in Final Fantasy VII: What a Remake Can Learn from a Pirate Demake.” by Ian R. Larson. May 26, 2021.
5. “I Learn Through Paradise, Or Disco Inferno? A Brief Etymology of Disco Elysium.” Francis Butterworth-Parr. May 12, 2021.
6. “Sins of the Father: Playing Mom in Death Stranding.” Theo Yurevitch. May 5th, 2021.
7. “Rediscovering Politics in RPGS: The Case of Disco Elysium, Kacper Szozda, April 21, 2021.
8. “Designing Games for Affect. A Two-Year Post-Mortem.” Kaelan Doyle Myerscough. April 15, 2021.
9. “There is no Escape: How Hades Connects Game Genre and Greek Myth.” Jacob Hamill. April 7th, 2021.
10. “FPS Direct Spring 2021: We Don’t have Zelda News Either.” Editorial Staff. March 3rd, 2021.
11. “Persona 5’s Ann Takamake is Derailed by the Gender Politics of Pop Music”. Stacey Henley. February 24th, 2021.
12. “Cinders and Fantasies of Womanhood.” Gabriel Elvery. February 17th, 2021.
13. “A Hole at the Center of Everything: Going Home to the Rust belt with Night in the Woods.” Ian Faith. February 10th, 2021.
14. “Review of Gaming Sexism: Gender and Identity in the Era of Casual Videogames by Amanda Cote.” Christopher A. Paul. February 3rd, 2021.
15. “Avatar Crossing: Self Representation in Animal Crossing New Horizons”. Joe Todd. January 27th, 2021.
16. “Making Good Trouble: A Review of Amanda Phillips’s Gamer Trouble: Feminist Confrontations in Digital Culture.” Stephanie Harkin. January 20th, 2021.
17. “‘This is the Fate I Choose’: How a Shakespeare-Hating Game Developer Made the Best Shakespeare Adaptation I’ve Seen All Year.” Rebecca Lipperini. January 13th, 2021.
18. “A New Year, A New Us +.” Patrick Dolan, Alex Chalk, and **Lillian Black**. January 6th, 2021.

First Person Scholar Podcast Episodes

1. January 22 - First Person Podcast Episode 42: Best Games Of 2020
2. February 20 - First Person Podcast Episode 43: Parasocial Play on YouTube
3. March 17 - First Person Podcast Episode 44 - YouTube Game Analysis
4. April 19 - First Person Podcast Episode 45: Content Gaming Videos
5. May 24 - First Person Podcast Episode 46: Player-Narrative Dissonance
6. June 22 - First Person Podcast Episode 47: Queer Representation in Gaming
7. July 13 - First Person Podcast Episode 48: Disco Elysium the Final Cut with Andrew Bailey, Francis B Parr, and Kacper Szozda
8. October 27 - First Person Podcast Episode 49: Game Work and Unions with Dr. Daniel Joseph and Dr. Alison Harvey
9. December 17 - First Person Podcast Episode 50: State of Game Studies with Dr. Emma Vossen GI Podcast Episodes

GI Podcast Episodes

1. “VR Exergames and Social Robotics” with **Dr. John Muñoz** February 1 - Postdoctoral Fellow, Dr. John Muñoz, joins the show to talk about his many projects including VR exercise games (exergames), game design and development, Human Robotic Interaction, and music.
2. “Haptic Research and the Haptiverse with **Pelisha Samithamby**” March 4th, 2021- Pelisha Samithamby discusses her graduate research in haptics. As a graduate researcher in the Haptic Computing Lab at the Games Institute, Pelisha is developing the Haptiverse, an online library of haptic feedback samples.
3. “Child Computer Interaction and Games for Health with **Alêssandra Luz**” March 18th - Alessandra Luz, PhD student from the HCI Games Group, joins us to discuss using technology to develop games-based optometry treatments for children. Alê shares her experience working in advertising in Brazil, England, and Japan, leading up to starting her PhD at the University of Waterloo in May 2020 just after the pandemic lockdowns began.
4. “The Origin Story of the HCI Games Group with **Dr. Lennart Nacke**” May 12th, 2021- Dr. Lennart Nacke, Associate Professor of HCI and Director of the HCI Games Group, discusses game design, gameful thinking, and user experience. Lennart shares his own origin story and the origin of the HCI Games group.
5. “Narrative Structures and Gameplay in Role-Playing Games with **Sabrina Sgandurra**” May 20th, 2021 - Sabrina Sgandurra is the Editor in Chief for First Person Scholar and an English PhD researcher. Sabrina discusses immersive narratives, role-playing games, experiential games research, live streaming, First Person Scholar, and Assassin’s Creed.
6. “Animal Studies and Untitled Goose Game with **Nicholas Hobin**” June 24th, 2021 - Nicholas Hobin, English PhD researcher, has devoted his research to understanding the portrayals of animals in video games. Nicholas traces the roots of his work with Animal Studies and analyzes Red Dead Redemption 2 and Untitled Goose Game.
7. “Dungeons & Dragons One Shot: Cryptid Nature Conservatory” June 29th, 2021 - Podcast co-host **Toben Racicot** guides players **Lindsay Meaning**, **Betsey Brey**, Boris Ulyanskiy, and Leonid Moyzhes through an adventure during the International Conference on Games and Narrative’s online sessions. The party receives an anonymous invitation to the Cryptid Nature Conservatory and have no idea what awaits them!
8. “Maker Groups and Inclusion with **Cayley MacArthur**” November 23rd, 2021 - Cayley MacArthur discusses her research into systems of inclusivity and human computer interaction. From knitting groups to online gaming groups, technology brings people together. Cayley’s research draws out interesting conclusions as to how digital gatherings can be improved and why they were so vital during COVID years.
9. “Anti-Colonialism and Academia Adventures with **Lindsay Meaning**.” December 7th, 2021.- Lindsay Meaning discusses colonialism in games and the games industry as the focus of her dissertation. From single-player RPGs like Assassin’s Creed to board games like Settlers of Catan and Spirit Island, Lindsay has lots to say about colonialism’s presence.
10. “So Long and Thanks for All the Fish with **Marisa Benjamin**.” December 28th - A spotlight on the work of research communications officer Marisa Benjamin at the Games Institute. She discusses creating games for knowledge mobilization, how to amplify researchers’ stories, and how to center the researcher as opposed to the research.

Conferences

Canadian Game Studies Association (CGSA) - May 31 - June 4, 2021

1. **Betsy Brey**, “Building a Story: Architectural Narrative in Skyrim”
2. **Dr. Michael Hancock**, “Ergod Propter Hoc: A Reinvention of Ergodicity Through Gamebooks”
3. **Nicholas Hobin**, “Confronting Awful Animals”
4. **Lindsay Meaning**, “Imperial Justifications: Nationalism and Nation Building in Popular Board Games”
5. **Apoorva Sanagavarapu**, “Where are you Baby Pikachu? A PowerPoint Presentation/[Prototype] Location-Based Mobile Game”
6. **Sabrina Sgandurra** “Rewriting Nuclear Gandhi: Dismantling Colonial Rhetoric in Civilization VI”
7. **Dr. Gerald Voorhees**, “Bubble-gum Cyberpunk: High-Tech Orientalism as Mass Culture in Watch Dogs: Legion”
8. **Dr. Steve Wilcox**, “Hello, Worlds: Gameplay as Viable Interpretation”

Many GI members also chaired panels including **Betsy Brey, Patrick Dolan, Dr. Michael Hancock, Nicholas Hobin, Dr. Gerald Voorhees, Dr. Jen Whitson, and Dr. Steve Wilcox.**

Conference on Human Factors in Computer Systems (CHI) - May 8, 2021 – May 13, 2021.

1. **Drs. Katja Rogers and Lennart Nacke**, “Feels Like Team Spirit: Biometric and Strategic Interdependence in Asymmetric Multiplayer VR Games”
2. **Ali Rizvi, Kateryna Morayko, Arden Song, and Dr. Mark Hancock**, “Provocations from #vanlife: Investigating Life and Work in a Community Extensively Using Technology Not Designed for Them”
3. **Ludwig Wall, Dr. Daniel Vogel, Dr. Oliver Schneider**, “Scrappy: Using Scrap Material as Infill to Make Fabrication More Sustainable”
4. **Cayley MacArthur, Arielle Grinberg, Dr. Daniel Harley, and Dr. Mark Hancock**, “You’re Making Me Sick: A Systematic Review of How Virtual Reality Considers Gender & Cybersickness”

International Conference on Games and Narrative (ICGaN) - June 11-16, 2021.

1. **Betsy Brey**, “Rejecting High Noon: Individually and Collectively Structured Narratives in Dungeons and Dragons”
2. **Justin Carpenter**, “Generative Design as a Game Studies Paradigm: Authorship, Agency, and Emergence in No Man’s Sky”
3. **Dr. Michael Hancock**, “Tragedy Plus Time: The Mythic Adaptation in Time Loop Videogames”
4. **Toben Racicot**, “More loot? Don’t Mind if I Do: A Loot as a Worldbuilding Tool”
5. **Sabrina Sgandurra**, “Modern Necromancy: The Revival of Communal Storytelling through Dungeons and Dragons”
6. **Dr. Gerald Voorhees**, “Collaborative Storytelling and Imperial Forms (of Play)”

Annual Symposium on Computer-Human Interaction in Play (CHI Play) - October 18 – 21, 2021.

1. **Dr. Lennart Nacke**, Kathrin Gerling, Regan L Mandryk, “How to Write a CHI PLAY Review”
2. **Drs. Mark Hancock, Adrian Reetz, Deltcho Valtchanov, Michael Barnett-Cowan, James R Wallace**, “Nature vs. Stress: Investigating the Use of Biophilia in Non-Violent Exploration Games to Reduce Stress”
3. **Dr. Lennart Nacke**, Enrica Loria, Annapaola Marconi, “On Social Contagion in Gamification: The Power of Influences in a Location-Based Gameful System”
4. **Dr. Katja Rogers** led the sessions on Rapid Communication and Games for Health
5. **Dr. Lennart Nacke** led the session on Player Experience
6. **Dr. Mark Hancock** led the session on Detection and Prediction

Lab Updates 2021

Games and Narrative Group

In 2021, The Games and Narrative Group launched the inaugural International Conference on Games and Narrative, a new virtual international conference series which took place over five days. The group is currently planning the 2022 instalment of the conference “Isolation and Return: The Making of Narrative Worlds.”

HCI Research Group

In 2021, this large group of faculty and graduate students met once per week online to provide ongoing knowledge exchange, present and critique current research, discuss new initiatives, serve as an informal peer-review space for student conference presentations/publications, form collaborations for studies and articles, and create social interactions between the various labs and research groups.

HCI Health Lab

In 2021 members of the HCI Health Lab shared research at CHI Play 2021 that investigated games as motivation for engagement in cognitive behavioural therapy and the biophilia effect, respectively. Many members of the lab also published their research in a variety of journals (see the publications section for more details). PhD student Robert Gauthier started working with the Canadian Immunization Research Network to understand online discourse around vaccine hesitancy. Gauthier has two upcoming papers accepted documenting similar research on addiction recovery communities with Jim Wallace and Mary Jean Costello.

Touch Lab

Despite the pandemic pausing in-person research studies, the Touchlab saw two PhD and two MA students graduate in 2021. Notably, Dr. MacArthur was hired as a tenure-track professor at the Stratford School of Interaction Design at the University of Waterloo, and Dr. Soroush founded a Startup, Happy Circles. The Touchlab also published four critical papers top publication venues in HCI.

ExerGetic Lab

The ExerGetic project aims to develop and examine an innovative digital training/therapy solution to individually improve physical and cognitive functions of the geriatric population. The “ExerG solution” is a user-centered video game-based physical exercise, an “exergame,” providing an ecologically valid and safe training/therapy setting for the geriatric population. The ExerG solution is developed with concepts of modularity and extensibility to accommodate different usage scenarios.

Exergames are video games that are controlled/played via specific whole-body movements. The combination of gaming and exercising allows the concurrent training of physical and cognitive functions, which seems to generate additive positive effects. Up to now, only a few exergame approaches holistically considered the factors of attractiveness, safety, and effectiveness, and face the above-mentioned challenges of training approaches for the geriatric population. Therefore, the ExerGetic project aims to develop and examine an innovative digital solution to individually improve physical and cognitive functions using an exergame for the geriatric population – the ExerG.

The social impact of the ExerGetic project is expected to be substantial, since the main goals are to stimulate and improve older adults’ physical, cognitive and mental functions and thus enhance their daily life independence through exergaming. Independent interaction of older adults triggers a more active lifestyle, which improves the sense of social connectedness and thus the quality of life of older adults in the long-term.

Awards and Appointments

Student

1. Mara Gagiou won the Best Student Research Poster at the ACM SIGGRAPH Symposium on Interactive 3D Graphics and Games Online. Her poster entitled “MMPX Style-Preserving Pixel Art Magnification” presented her research about the MMPX algorithm with **Dr. Morgan McGuire**.
2. Former GI Member and Post-Doctoral Fellow, **Dr. Rita Orji** won the CHCCS Graphics Interface Early Career Research award.
3. **Dakota Pinheiro**, English PhD student researching 21st century American protest and crisis literatures, has been awarded the Jack Gray Graduate Fellowship Award from the Department of English Language and Literature. This scholarship is awarded once a year to a full-time graduate student based on academic excellence.
4. **Jenn Rickert**, English PhD researcher and Community Experience Curator for the Games Institute, has been awarded the David Nimmo English Graduate Scholarship from the Department of English Language and Literature. This scholarship is awarded to a full-time graduate student based on academic excellence.

5. **Jonathan Baltrusaitis**, English PhD student and Instructor at the Stratford School of Interaction Design and Business, has been awarded the Lea Vogel-Nimmo English Graduate Professionalization Award from the Department of English Language and Literature. This award is given to a graduate student on the basis of academic excellence and merit of professionalization activities.
6. **Lillian A. Black**, English PhD student researching queer feminist theory in media, has been awarded the W.K. Thomas Award from the Department of English Language and Literature. This scholarship is awarded annually to a full-time graduate student based on academic excellence.
7. **Sabrina Alicia Sgandurra**, PhD student and First Person Scholar Editor-in-Chief/Book Reviews Editor, has been awarded the Rhetoric Essay Prize for her essay entitled “Playing with The Virus: COVID-19 and ‘Pandemic-Rhetoric’ in Games” from the Department of English Language and Literature
8. **Toben Racicot**, English PhD student and GI Podcast co-host, has been awarded the TA Award for Excellence in Teaching from the Department of English Language and Literature. Toben engaged his students in Dungeons and Dragons one-shots, for which he invited Games Institute members into his classroom to be game masters. His innovative approaches to teaching are powerful examples of how games can be used for educational purposes, even when the games were not designed for that purpose, thus extending the possibilities even further for experiential teaching.

Faculty

1. **Dr. Shana MacDonald** was awarded: SSHRC Insight grant titled “Feminist Digital Media (2016-2020): Building Affective and Activist Worlds”
2. **Dr. MacDonald** also received funding as part of the 2021 “Archives Unleashed Cohorts Program” for the project “Everything Old is New Again: A Comparative Analysis of Feminist Media Tactics between the 2nd and 4th Waves?” with **Dr. Anyur Kadir**, **Dr. Brianna Wiens**, and **Sid Heeg**.
3. Lastly, **Dr. MacDonald** was also the Co-Investigator of a successful NSERC grant titled “Encouraging Vaccine Confidence in Canada Grant titled Connect, Collaborate, and Tailor: Multimedia tools to Promote Vaccine Confidence.”
4. A huge congratulations to **Dr. Lennart Nacke** for being recognized for his work and receiving the “Most Influential Scholar Award” for his outstanding contributions to the Field of Human-Computer Interaction. The “AI 2000 Most Influential Scholars” are the top 10 most cited scholars from the top venues in HCI over the past 10 years (2011– 2020).
5. **Dr. Nacke** was also awarded a \$350,000 Canadian Institutes of Health Research (CIHR) grant titled “Exergetic: A Gameful Exercise Project for Physical and Cognitive Training” hosted at the UW Stratford School of Interactive Design.” As part of this grant **Dr. Nacke** and postdoctoral fellow **Dr. Katja Rogers** will build an ExerCube at the Stratford School.
6. Drs. Vero Vanden Abeele, Katta Spiel, Nacke, Daniel Johnson, and Kathrin Gerling won International Journal of Human-Computer Studies (IJHCS) best research paper of 2020 entitled “Development and validation functional and psychosocial consequences.”
7. **Dr. Oliver Schneider** was awarded a New Frontiers in Research Fund (NFRF) exploration grant titled “Incorporating Social Justice into Haptic VR Storytelling”, co-investigators include **Drs. Michael Barnett-Cowan**, Jennifer Llewellyn, **Kristina Llewellyn**, and **Jennifer Roberts-Smith**.
8. **Dr. Schneider** also received an NSERC Alliance Grant for “Human-in-the-loop Algorithms for Generative Haptic Design”
9. Pi and Power was awarded \$100,000 from the Velocity Fund Pitch Competition. Pi and Power was founded by GI members **Drs. Janelle Resch** and **Eric Ocelewski**. Janelle is the Chief Executive Officer, Eric is the Chief Technology and Architect Officer, and GI faculty member **Dr. Michael Barnett-Cowan** is the Chief Research Officer.
10. **Dr. Gerald Voorhees**, GI faculty member, was appointed President of The Canadian Game Studies Association in 2021.
11. **Dr. Randy Harris**, and the Rhetoricon Database group received an Honourable Mention in the Research category for the Cooperative and Experiential Education Employer Impact Awards.

People

Graduating Members

1. **Dr. Milad Soroush** successfully defended his dissertation “The Impacts of Gameful and Interactive Technologies on Hindering or Promoting Self-regulation” in March
2. **Dr. Rina R. Wehbe** successfully defending her dissertation “Designing Persuasively using Playful Elements” in March
3. **Dr. Cayley MacArthur** successfully defended her dissertation “Making Spaces” Mapping Opportunities for Improved Equity in Makerspaces and Virtual Reality” in June
4. **Dr. John Yoon** successfully defended his dissertation “Stories in Play: Narrative Formation in Sports and Esports” in October

Staff Arrivals and Departures

1. **Aathani Raveendran**, joined the GI as our Co-Op Operations Coordinator in January and returned in September.
2. **Dr. Emma Vossen**, (re)joined the GI as a Research Communications Writer having previously been a student member who received her PhD in English Language and Literature in 2018.
3. **Sid Heeg** joined the GI as a Research Communications Writer. They are currently a first year PhD student in the Sustainability Management program and Faculty of Environment.
4. **Grace Van Dam**, Operations Coordinator left the team in August but came back in November to be our Podcast Producer. She graduated with a Bachelor of Science in 2021, majoring in Psychology with a minor in Biology.
5. **Marisa Benjamin**, Research Communications Officer moved on to Law School in July.

New Members

Name	Faculty
1. AJ Abistado	Faculty of Engineering
2. Ally Suarez	Faculty of Engineering
3. Aléssandra Luz de Mede	Faculty of Mathematics
4. Alexander Glover	Faculty of Engineering
5. Amerald Fang	Faculty of Science
6. Ana Lucia Derby	Faculty of Engineering
7. Arden Song	Faculty of Environment
8. Dr. Beth Caravella	External
9. Bibhushan Joshi	Faculty of Engineering
10. Dr. Brianna Wiens	Faculty of Arts
11. Bryan Jak Gwan Au	Faculty of Arts
12. Dr. Cayley MacArthur	Faculty of Arts
13. Chauvin Zhou	Faculty of Arts
14. Chongren Sun	Faculty of Science
15. Dr. Daniel Harley	Faculty of Arts
16. Dakota Pinherio	Faculty of Arts
17. Derrek Chow	Faculty of Engineering
18. Derrick Wang	Faculty of Engineering
19. Diana Khater	Faculty of Science
20. Ekaterina Durmanova	Faculty of Engineering
21. Eliana Hill-Zeesman	Faculty of Arts
22. Elissa Chen	Faculty of Science
23. Emily Shiu	Faculty of Arts
24. Fiona Yang	Faculty of Arts
25. Hannah Delamere	Faculty of Arts
26. Jack Bergen	Faculty of Engineering
27. Jackie Yi	eSports Broadcast Team
28. Jelena Mitrovic	External
29. Dr. Katja Rogers	Faculty of Mathematics
30. Kayla Russell-Bertucci	eSports Broadcast Team
31. Dr. Kaylena Martens	Faculty of Health
32. Dr. Leah Zhang-Kennedy	Faculty of Arts

33. Luka Ugaya	Faculty of Science
33. Lydia Choong	Faculty of Mathematics
34. Marvin Pafla	Faculty of Engineering
35. Mel Edens	Faculty of Engineering
36. Mel Lim	Faculty of Arts
37. Nikolas Drakulovic	eSports Broadcast Team
38. Reem Tawfik	Faculty of Arts
39. Dr. Robert Burns	Faculty of Health
40. Sahand Ajami	Faculty of Science
41. Sophie Valleteau de Moulliac	Faculty of Environment
42. Steven Quach	Faculty of Engineering
43. Dr. Stuart Hallifax	Faculty of Mathematics
44. Sumeet Raj Sing Sandhu	Faculty of Mathematics
45. Sydney McAffer	Faculty of Arts
46. Tanay Singhai	Faculty of Mathematics
47. Thuvaraka Mahentiran	Faculty of Arts
48. Veen Wong	Faculty of Health
49. Dr. Ville Mäkelä	Faculty of Arts
50. Yiyang Alice Peng	Faculty of Engineering

Member Testimonials

“As part of an inter-university and interdisciplinary research team funded through the GI through an MA coop position and partnership, I helped design and present a transboundary water governance card game, Hustle and Flow, at a policy conference in 2016 in Toronto. The GI also provided an opportunity to attend an international Games and Education conference in Scotland later the next year. In summer 2018 I also returned to the Hustle and Flow project at the GI to archive its materials and iterate on its design. Without the GI as a hub of games research at UW this would not have been possible.”

Alex Fleck, PhD Candidate, English

“I have spoken much about the interdisciplinary nature in terms of research in the GI, what delights me is that even the environment and the community there is so widely diverse. LGBTQ+, BIPOC, and Indigenous scholars, researchers, and students are welcomed to the environment, and they are connected through research to create an equitable community. I have also volunteered to be a discussant and judge of the Equity Board Game Contest. I think this initiative is very interesting and an important contribution to the equity work for the university. I believe the GI has really championed equity work and aims to bring everyone together from academic spaces to industry partners.”

Aynur Kadir, Assistant Professor, Department of Communication Arts

“The Games Institute was instrumental in assisting to develop the scope of [Digital Oral Histories for Reconciliation: The Nova Scotia Home for Colored Children History Education Initiative (DOHR)] and offering resources to support this application. [...] DOHR is a community-driven project with former residents, scholars, and stakeholders to co-design a grade 11 Canadian History curriculum that includes an oral history-based virtual reality experience. The curriculum was piloted in 2019 to overwhelmingly positive feedback and is under revision with the Department of Education. This project makes significant scholarly contributions for: a restorative approach to research; historical thinking for reconciliation; virtual reality education, and trauma-informed oral history. DOHR is among the first oral history projects to design a curriculum and conduct empirical research about its educational value.”

Kristina R. Llewellyn, Professor of Social Development Studies at Renison University College, University of Waterloo

“The Games Institute has been essentially the home for my interdisciplinary research group for the past 5 years. As a professor jointly appointed in two departments that currently do not have their own research-based graduate program, it has been essential for my career to seek cross-appointments through the University and build a highly interdisciplinary research group right in the heart of the Games Institute, who has supported me generously with space and academic infrastructure. My students love working in the GI and I love working there with all of my excellent collaborators from other disciplines in the University. Next to my home department, the Stratford School of Interaction Design and Business, this seems to be the only place at the University that lives and breathes interdisciplinary collaboration. I find this atmosphere extremely enriching for my work”.

Lennart Nacke, Stratford School of Interaction Design and Business & Department of Communication Arts, Faculty of Arts, cross-appointments: Cheriton School of Computer Science, Department of English Language and Literature, Department of Management Science

“The GI has a lot of resources that move research forward, such as an Immersion room, a Storytelling lab, a high-quality 3D printer, and soon a Maker Space for prototyping. Since my work is about leveraging Virtual/Augmented Reality and 3D printed objects for storytelling, learning, and education purposes, it was a coherent decision to choose the University of Waterloo and the Games Institute as the headquarters of my PhD. Most importantly, the Games Institute is a source of mental health. This is, without a doubt, directly linked to my success as researcher. Poor mental health will unquestionably lead to poor research.”

Marco Moran-Ledesma, PhD Candidate, Systems Design Engineering

“The GI has greatly contributed to my experience as a student. The GI as a physical space has been used for many experimental studies I’ve ran for my degree requirements. For example, the GI has provided me with ample equipment needed in these experiments such as cameras, monitors, and computers with the capacity to run simulations and statistical analyses. My own desk space within the GI also offered me a great environment to concentrate and to complete my work. Being around others with the same academic mindset also helped in keeping a balance between work and social interactions. Additionally, the staff at the GI have always ensured that every GI member receives the assistance they need to pursue research activities like ordering essential equipment and supplies, connecting us with other researchers.”

Caroline Wong, Management Sciences, Engineering, MASc,

“More recently (since 2017), in addition to the interuniversity collaboration and knowledge mobilization of presenting and prototyping game designs for various audiences, I also had the opportunity to work on a project with Correctional Service Canada. This community-focused project, with its goals of aiding federal offenders in their reintegration into larger society upon release, provided an opportunity to deeply consider the social implications of applied game design”

Alex Fleck, PhD Candidate, English

“The way in which the GI infrastructure is set up allows for me to tap into other areas of research that in turn help bolster the work that I am doing. The GI is a space to learn and develop familiarity with new technologies not only related to gaming but to other audio and video formats that are important to my work in ethnography-based research. It is the aim of my research to contribute to the skills and understanding of what this technology can do in humanities based research and enable the GI to continue to be a resource for students and researchers who are interested in using such technology for their projects. The GI always brings prominent scholars in the field as Drs. Kishonna Gray, William Odom, Ashely Mehlenbacher, Ron Wakkary and many others that make for an abundant space to exchange ideas and knowledge mobilization.”

Aynur Kadir, Assistant Professor, Department of Communication Arts

“The GI’s interdisciplinary focus and culture has been essential for connecting me with games-related research and researchers across disciplines and has greatly expanded my networking opportunities with other scholars and institutions. The multitude of social events, knowledge exchanges, research collaborations, and game jams hosted and supported by the GI have allowed me to continuously engage with work outside of my own disciplinary training and have helped to diversify my own work and research.”

Chris Lawrence, PhD Candidate, English

“Without the GI, I would not be able to conduct my research. The way that the GI’s space – both physical and virtual - combines disciplines has allowed me to connect my work to new fields, including Games User Research and Social Justice in Education, and expanded the methods that my team has at their disposal. My group’s online collaboration is completely embedded in the GI’s virtual space, using its Slack. The GI support staff has helped me apply for grants, publicize our research, connect with potential industry collaborators. The GI also hosts my undergraduate students, including URAs, USRA students, and other coops, providing a space for them to work and for us to store our equipment while the Haptic Computing Lab is under construction.”

**Oliver Schneider, Dept. of Management Sciences, Faculty of Engineering
Cross-appointments: Cheriton School of Computer Science (Math); Electrical and Computer Engineering (Engineering).**

“I joined the Games Institute to advance my research on one project in particular that involved creating a board game to teach players about pipeline politics in Canada. Prior to joining, I did not have a desk provided by the English department and I had very little in terms of community support and resources. In order to design the knowledge mobilization board game, I needed space, materials, and mentors, all of which were provided at no cost by the Games Institute. Joining the GI enabled me to finish the game and deliver the research outcomes at the Tri-University Conference. Working in the Games Institute space exposed me to interdisciplinary research which inspired me to think about broader possibilities for knowledge mobilization. I took advantage of opportunities provided by the GI including attending research talks by scholars outside my discipline, such as a health sciences presentation about designing virtual reality exergames for older adults. Beyond connecting with other members socially, I joined meetings between GI faculty members and industry partners looking to launch user experience and game design research projects, and I participated in reading groups, writing circles, and playtests with GI members from other faculties”

Marisa Benjamin, MA Student, English Language and Literature

