Welcome back to the GI! The frigid snows and ice of winter have finally melted into a warming spring. To celebrate the seasonal changes, let’s take a look at what the GI members have been busy with during the Winter term. Happy reading!

Dr. John Muñoz presented at this year’s Game Developers Conference in San Francisco California; Dr. Shana MacDonald was an invited speaker as part of the Digital Humanities Lecture Series hosted by UOttawa, Université de Montréal, and Guelph University where she presented “Data Feminism, Embodied Practices, and Internet Archives”. GI members working in HCI spent the term preparing for the annual CHI conference; some to present virtually, others – like Drs. Oliver Schneider, Ville Mäkelä, Ludwig Wilhelm Wall, and Kishonna Gray – planned to travel to New Orleans, Louisiana in person for the first in-person CHI conference since the COVID-19 pandemic. More on the conference to come in Instant Replay of Spring 2022.

The GI also facilitated multiple virtual events, including the “Critical Tech Talk: Discriminating Data with the Critical Media Lab” which took place in gather.town. University of California - Irvine professor Dr. Bo Ruberg presented their upcoming book *Sex Dolls at Sea: Imagined Histories of Sexual Technologies* in a talk hosted by the GI. Lastly, the speaker series “Networked Feminisms” by the Feminist Think Tank featured three events, bringing together fellow researchers and collaborators from a new book *Networked Feminisms* by Drs. Shana MacDonald and Brianna Wiens.

Rolling with this theme of spring changes, we also welcome the return of Dr. Emma Vossen! Emma belonged to the first generation of GI students and has now re-joined us a full-time Research Communications Officer. She is looking forward to moving back to the region and seeing everyone at the office.
If Emma Vossen’s name sounds familiar, it’s probably because she is one of the earliest members of the Games Institute. She recalls the conversations in the basement of the PAS building on campus or the Rum Runner bar in downtown Kitchener (in 2013!) with Dr. Neil Randall and other graduate students about what the GI could be. After defending her dissertation in 2018 and setting out from Waterloo, she has returned to her old stomping grounds for the next stage of her career as the GI’s Research Communications Officer.

So why here? And why now?

To start, Emma began her PhD in 2012 with the intent to study comics and sexuality. On the side, she was interested in games and gaming culture and chose UW in part because of the English department’s focus on digital humanities. She had heard rumours about the beginnings of a game studies publication, First Person Scholar (FPS), as well as the GI itself. While intrigued, during her first two years of study, Emma was “in denial” about wanting to study games. She had been obsessed with games her whole life but never imagined she could be a game scholar.

Before starting her PhD, Emma crashed Dr. Neil Randall’s game studies graduate class for a week; she even completed the readings before the class began and she was also the “eager beaver” answering all of Dr. Randall’s questions. But, when it came to thinking of her future career path in the academic space, she continued to feel self-conscious about pursuing game research as a career. She had spent so much time with other gamers being treated as the token “Girl Gamer” – a role she did not enjoy – and was concerned she didn’t have thick-enough skin for the field. Over time, Emma got involved with FPS as a contributor and continued her research into comics and sexuality, focusing on Alan Moore’s Lost Girls.

It wasn’t until she was approached by the then-FPS editor-in-chief, Steve Wilcox, that Emma joined the FPS editorial team as editor of FPS’s commentaries section the same week that #GamerGate began. Emma wanted to explore the implications of these events and saw FPS as a space where it could be discussed in a more formal capacity; shortly thereafter, FPS began publishing academic writing on #GamerGate. Emma herself made a full commitment to studying games and games culture for her PhD and took over as Editor-in-Chief of FPS.

Around this time the physical GI opened, and Emma wanted to make the space as inclusive as possible for marginalized people especially queer, women, nonbinary, and trans folks. Emma and fellow PhD students Elise Vist and Judy Ehrentraut started the GI Janes, a gaming group for people who didn’t identify as cis men. This carved out a space for conversations about issues of discrimination and belonging in games, especially during the height of #GamerGate when, in 2012, the YouTube series Tropes vs Women in Video Games, created by Anita Sarkeesian, went viral. For Emma seeing people talking openly about the same issues she had been privately thinking about for years was revolutionary and she wanted to add to what Anita was doing.

As #GamerGate continued, the movement became extremely hostile to anyone that didn’t fit into the normative aspect of what women were supposed to "look like" in gaming culture; in particular, trans and non-binary people. Emma tracked these conversations to study peoples’ experiences of marginalization in games culture and to look at what types of gender performances were allowed and what specific roles, actions, and performances were tolerated. Unfortunately, this work couldn’t be done without directly examining #GamerGate, which resulted in Emma receiving a plethora of online harassment. Sometimes, Emma felt that all people wanted to talk to her about was #GamerGate, when the issues were much larger and older than this hostile movement. Emma’s research and experiences would culminate in her 2018 PhD dissertation titled “On the Cultural Inaccessibility of Gaming: Invading, Creating, and Reclaiming the Cultural Clubhouse” supervised by GI Executive Director, Dr. Neil Randall.
Dr. John Muñoz, along with NASA Researcher Dr. Alan Pope, presented at this year’s Game Developers Conference (GDC) which ran from March 21-25 in San Francisco, California. Two weeks earlier, on March 10, Muñoz and Pope held a rehearsal presentation for members of the GI.

Muñoz and Pope presented their talk “How Nasa Has Translated Aerospace Research into Biofeedback Game Experiences” as part of the Future Realities Summit. The talk was aimed at conference-goers who were interested in VR and AR technologies and focused on how NASA scientists have been using signals from the body to investigate a pilot’s performance and safety. The talk covered research on how NASA scientists have used biofeedback technologies to create physiologically adaptive gaming experiences for 30 years.

In their talk, Muñoz spoke about his work at NASA as well as the games he’s been prototyping at the GI using VR and biofeedback technologies. For example, Muñoz recently finished the “excite-o-meter”, a Unity plugin for integrating heart activity and movement analysis into XR games.

The talk also went over available software and hardware tools and how game developers and researchers can use and apply these technologies in their own games and projects by integrating body signals into games and VR applications for entertainment, healthcare, and training. Some of the tools they covered included controlling input (as in the Wii mods), adjusting difficulty (such as how enemies react), or modifying the environment (weather or music, for example).
Drs. Shana MacDonald and Bri Wiens along with their collaborators Milena Radzikowska (Mount Royal University), and Michelle MacArthur (University of Windsor) started the year with the publication of their first edited collection *Networked Feminisms: Activist Assemblies and Digital Practices*. To celebrate the book’s launch, MacDonald and Wiens organized a speaker series and invited contributing authors of the book to present their chapters, their research, and their methodologies. The events took place on January 27, February 16, and March 14, and featured many of the collection’s contributors. The series focused on the intersections between feminist theories and digital technologies by examining hashtag trends on social media, what it means to be a digital activist, and critiquing how digital media marginalizes certain users.

**Networked Feminisms: Activist Assemblies and Digital Practices – with Feminist Think Tank**

On February 10, the Critical Media Lab with support from members of Feminist Think Tank and the GI hosted a virtual data jam and discussion on the issues of big data, machine learning, and how discrimination is encoded into our technology.

In the first half of the event, students took part in the data jam where they were organized into break out rooms in gather.town. They were led in discussions centered around news articles that critiqued some aspects of technology or social media. The topics included how Tik Tok suppresses queer and “fat” content as a misguided attempt to stop cyberbullying, Facebook and its relationship with misinformation, Google’s hiring algorithm, and more.

The second half of the event featured Dr. Wendy Chun (Simon Fraser University) discussing how political polarization is a goal within big data and machine learning. She addressed issues of how algorithms train users to become authentically predictable and how the disrupting systems of data analytics is near impossible because of how these systems are designed.
Dr. Bo Ruberg (University of California Irvine) presented on their upcoming book *Sex Dolls at Sea: Imagined Histories of Sexual Technologies* on April 18. The virtual talk explored the histories and stories surrounding the interactive and playful sexual technologies. Ruberg's research includes the complex history of sex dolls and robots and how that history has been misrepresented, often pointing back to rudimentary sex dolls supposedly made by European sailors.

Ruberg interrogated this story and presented an alternative take on the history of sex dolls and robots by presenting the commercial history of sex toys that were first produced, sold, advertised, distributed, and imagined in the mid 19th-century. Their research demonstrates how the histories of sexual technologies have been wrapped up in sexism, homophobia, racism, and colonialism. Ruberg argued that by challenging common misconceptions around sexual technologies, they can be reclaimed as a site of feminist and queer potential.

**CHI 2022**

From April 30 – May 5, 2022, Dr. Oliver Schneider, Kishonna Gray, Katja Rogers, Maximilian Altmeyer, Ally Suarez, Lennart E. Nacke, Maximilian Altmeyer, Karina Arrambide, John Yoon, Cayley MacArthur, Alessandra Luz, Ville Mäkelä, Marcel O’Gorman, Jason Lajoie, Robert P Gauthier, James R Wallace, Daniel Vogel, will be presenting at this year's CHI conference, which is taking place in New Orleans, allowing for a hybrid conference experience. Kishonna will be a keynote speaker, presenting, “The Intersectional Gaming Project: Reimagining Futures Through Gaming.” Good luck everyone!

**GI BBQ**

On April 12, the GI hosted a barbecue for members. The event was initially meant to correspond with President Vivek's visit to the GI, which has since been moved to the Fall term. Thanks to all who came out for the food!

**GLOBAL GAME JAM AT THE GI**

The Winter semester GI Jam was hosted as part of the Global Game Jam from January 26 – 30. Game makers of all ages and abilities came together to improve their game design skills. The four-day long jam provided tutorials and discussions on how to brainstorm, prototype, and develop games. Game Jam captains Alexander Glover (PhD) and Arielle Grinberg (PhD) led participants through paper prototypes and game concepts and helped them explore game mechanics, narrative, and artwork in addition to programming. At the end of the event, two games were created and presented.

- Overload is a 2D adventure puzzle RPG based game where players can explore dungeons and fend off foes to keep themselves alive. Those interested can check the game out here
- Sword & Shield is a 3D action arcade RPG game that allows players to fight their way through a barrage of enemies using a sword and shield. Check out the game here
Publications:

- **Ben Thompson et al.** “Prophylactic oral dextrose gel and neurosensory impairment at 2-year follow up of participants in the hPOD randomized trial.” JAMA, 327(12):1149–1157.
- **Ben Thompson et al.** “Associations between neonatal hypoglycaemia and brain volumes, cortical thickness and white matter microstructure in mid-childhood: An MRI study.” Neuroimage: Clinical. 33, 102943.
- **Ben Thompson et al.** “Human psychophysical discrimination of spatially dependant Pancharatnam-Berry phases in optical spin-orbit states,” Scientific Reports, 12, 3245.
- **Daniel Harley et al.** (2022). “This would be sweet in VR: On the discursive newness of virtual reality.” New Media & Society, OnlineFirst.
- **Daniel Harley et al.** (2022). “Together Alone: A Tangible Online Narrative.” In the proceedings of TEI 2022, the Sixteenth International Conference on Tangible, Embedded, and Embodied Interaction. ACM.
- **Randy Harris.** “Jagmeet’s kairotic challenge: Darkface, turbans, and hypocrisy upwards.” Rhetoric, Politics, and Culture.
- **Randy Harris** “Rules are rules: Rhetorical figures as algorithms.” Logic and algorithms in computational linguistics” (Studies in computational intelligence series). Edited by Roussanka Loukanova, Peter LeFanu Lumsdaine, and Reinhard Muskens. Berlin: Springer.

Conference Presentations and Talks:

- **Jen Whitson** “Where do all the Fledgling Game Developers Go?”. Stratford School of Interaction Design and Business Works-in-Progress Seminar held at the University of Waterloo, Stratford, Ontario, Canada on April 4, 2022.
- **Jen Whitson with MacDonald, Shana, Borland, Matt, and Zhang-Kennedy, Leah** (moderator). “Responsible Technology and Design: How can young professionals advocate design for good?” Panel at the uXperience Design Micro-Conference: Design for Good, held virtually at the University of Waterloo, Stratford, Ontario, Canada on February 11 -12, 2022.
- **Jen Whitson** “Dark Patterns and Addictive Design: Unpacking the tricks and “hacks” designers use to create habit-forming media”. Maskwacis Cultural College Microlearning Series. April 21, 2022.
- **John E. Muñoz**. “Future Realities Summit: How NASA Has Translated Aerospace Research into Biofeedback Game Experiences.” Game Developers Conference.
- **Sabrina Sgandurra & Pinheiro, Dakota** “Let’s Just Role-Play It: Teaching the History of English to High School Students.” MLA Committee on K–16 Alliances. 2022 MLA Convention, January 6–9, 2022.

Media Interviews:

- **Ben Thompson** “Stabilizing low blood sugar in infancy prevents long-term brain damage”. March 30, 2022.
- **Brianna Wiens** “Perception is reality: best political performers on social media ‘forge a personal connection’ with audience” Interview with The Hill Times.
- **Jen Whitson** “The Unnerving Rise of Video Games that Spy on You” Wired Magazine., Feb 1, 2022.

Projects:

- **Sid Heeg and Pamela Maria Schmidt**. The Terrifying and Bizarre Demons of the Barn.” Digital Exhibition After Progress. (2022).
Ali Rizvi has stepped down from his position on the committee to focus on the completion of his dissertation work. The committee would like to thank him for his time. Joining the committee is Ahmed Anwar and Arielle Grinberg. Ahmed is a MASc student in the department of Management Sciences. His research centers on effectively measuring and analyzing user experiences of haptic devices. They aim to promote equity, diversity and tolerance using his research and academic position.

STAFFING UPDATES
GI welcomed Sophie Valleteau De Moulliac as the Operations Coordinator for her Winter 2022 co-op term. She is continuing her studies in Environment and Business. Succeeding Sophie in the position is Salma El-Batroukh from the School of Planning, also in the Faculty of Environment.

Dr. Emma Vossen has become a full-time employee of the GI as the Research Communications Officer. Feel free to reach out to her with any and all updates about your research!

NEW MEMBERS
A big welcome to the following researchers and co-op students who joined the GI community this semester.

- **Eliana Hill-Zeesman** is a third-year Legal Studies Honors student, working as a co-op student with Drs. Shana MacDonald and Brianna Wiens.
- **Fiona Yang** is pursuing a Bachelor’s in Psychology. She is currently a research assistant with Oliver Schneider, researching AR/VR and accessible storytelling.
- **Sahand Ajami** is a Mechanical Engineering MASc candidate. His research focuses on upper-limb rehabilitation with wearable robots and haptic feedback.
- **Sydney McAffer** is working towards her Bachelor’s in Psychology. She works as a research assistant for Dr. Mark Hancock.
- **Thurvaraka Mahenthiran** is majoring in Psychology for her Bachelor’s. She is a co-op student for Shana MacDonald, working on the Feminist Digital Media project.
The Games Institute and its members acknowledge that the land on which our community works and lives today is the traditional land of the Attawandaron (Neutral), Anishinaabeg and Haudenosaunee peoples. We recognize that the University of Waterloo, of which the Games Institute is part, is situated on the Haldimand Tract – the land taken without consent and subsequently promised to the Six Nations – that includes ten kilometers on either side of the Grand River.

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