2020 ENOUS DIGITAL WORLDS INDIGENOUS KNOWLEDGE, ARTIFICIAL INTELLIGENCE, AND DIGITAL WORLDS INDIGENOUS KNOWLEDGE, ARTIFICIAL INTELLIGENCE, AND DIGITAL WORLDS



INDIGENOUS SCREEN OFFICE BUREAU DE L'ÉCRAN AUTOCHTONE



November 3, 9 - 13, 2020





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For any urgent concerns, please contact:

Kat Cizek | katcizek@gmail.com | +1.416.559.9987 Claudia Romano | ceromano@mit.edu |+1. 571.723.7914

Welcome

Aloha. $\triangleleft \triangle^{\alpha} \cup \triangle$ / Ainngai. Bozhoo. **Hello.** Lios em chaniavu. Nya: wëh sgë: nö'. **She:kon.** \square / Tanshi. Wuneekeesug!

Welcome to the Inaugural Indigenous Digital and Media Delegation at MIT. We are so honored to bring together this remarkable delegation of scholars and artists at the forefront of Indigenous practice and research from across Canada for five days of conversation and shared learnings online. The delegation is a new collaboration between the Indigenous Screen Office and the Co-Creation Studio at the MIT Open Documentary Lab (ODL), and the theme of the gathering is *Indigenous Knowledge, Artificial Intelligence, and Digital Worlds*. This is an unparalleled opportunity for Indigenous digital and technology-based artists, creators, curators, and thinkers and leading MIT researchers and creators to meet, share ideas, work together, and build new, long-standing relationships.

Over five days, we will host a wide range of meetings. The mornings will open with full plenary discussions with the ODL community. The afternoons will feature sessions with the wider MIT community, including the Future Heritage Lab, CoLab, Space Enabled Group, Visiting Artist program, and the Fluid Interfaces Lab. Additionally, we've curated specific workshops for Delegates to present works-in-progress. Three Delegate artists will present their respective mixed reality installations in four contexts: the Game Lab, a panel of immersive sound creative technologists, an architecture group, and the Future Heritage Lab. Another team will

For Indigenous Screen Office

Dr. Julie Nagam Kerry Swanson workshop with the Spoken Language Systems Group to explore Indigenous Protocol-based Artificial Intelligence. We will also hold two social hours with Mozilla Fellow at Co-Creation Studio Amelia Winger-Bearskin and members of the MIT American Indian Science and Engineering Society.

A marquee public talk will anchor the gathering. On Tuesday, November 10th, as part of the ODL public lecture series, Elder Dr. Duke Redbird will present a keynote address entitled *Dish with One Spoon*, with an introductory welcome from the Home Territory by Elizabeth Solomon of the Massachusett Tribe at Ponkapoag, and MLK Visiting Scholar at MIT, Patricia Saulis (Maliseet). The keynote will be followed by an informal conversation and response with the delegation.

At the end of day five, we will spend time together in a closing circle to discuss questions such as: What are the shared learnings? How can we support and build new programs, networks, and ways of thinking and doing with the connections made over the week? How might we shape an International Indigenous Delegation?

We'd like to extend a heartfelt thank you to Crown-Indigenous Relations and Northern Affairs Canada, Canada Council for the Arts, MacArthur Foundation, JustFilms at Ford Foundation and Mozilla Foundation.

And thanks to you all for being part of this inaugural gathering, which is hopefully the first of many.

For Co-Creation Studio

Katerina Cizek Dr. William Uricchio Sarah Wolozin

The Indigenous Digital Delegation is supported by:



Indigenous Services

Services aux Autochtones Canada



Conseil des arts du Canada

Message from Dr. Duke Redbird

Dr. Duke Redbird (Ojibway) is serving as Elder for the Delegation. Duke will be in attendance and will present a keynote talk as part of the Open Documentary Lab Public Talk Series during our week together. The talk is titled Dish with One Spoon and will begin with a poem by that name and will follow the framing outlined below. The closing will be a poem and/or video called "The Power of the Land."

A BLINK OF AN EYE: The period of time between the creation of the universe that happened in the Blink of an Eye (a.k.a. the Big Bang) and first contact between the colonial powers from Europe and the Indigenous peoples of Turtle Island (a.k.a. North America)

A STROKE OF A PEN: Writing, literature, and the weaponizing of alphabets through the Stroke of a Pen empowered Colonial settlers to deny the Garden of Eden that the Creator or delivered to Turtle Islanders in the Blink of an Eye.

A CLICK OF A MOUSE: The manner in which Indigenous Turtle Islanders, the original inhabitants of these lands, can share a traditional vision that can help retrieve our liberty from the Colonial systems that keep people marginalized and redundant. Through the use of modern platforms of communication and innovation, the generation of the 21st century will dismantle the old Stroke of a Pen systems and replace them with liberating Click of a Mouse visions.

SPEED OF LIGHT: At the Speed of Light imagination, creativity, invention and innovation is captured in our consciousness. In collaboration with global communities, Indigenous People throughout the world will share the wisdom and blood memory of their ancestors though an enlightened covenant and symbiotic relationship with nature.

Message from Delegation Leads, Dr. Julie Nagam and Kerry Swanson

This is an incredible opportunity for Indigenous scholars and creators to connect with folks working in our field of digital and new media, as our decolonial tools will allow for deep connections through practice and critical thinking transforming the field and the MIT campus. The knowledge with which we will return to our environments and home institutions will greatly impact our work moving forward into the future.

We hope this amazing collaboration will be just the start for the Indigenous Screen Office in developing new funding programs, partnerships, and initiatives designed to support the growth of the Indigenous digital, interactive, gaming, and XR sectors. The ISO was created to meet the needs of Indigenous creators working across all screen platforms and our goal here is to create new opportunities and networks. This project demonstrates our commitment to supporting innovation, discourse and collaboration around the incredible work being done by Indigenous creators working on non-linear storytelling platforms.

Session Types

PLENARY	The delegates are in session with ODL fellows for short presentations, conversations and breakouts.
DELEGATE PLENARY	The delegates are in session together with invited guests.
LIGHTNING TALKS	MIT folks present for 7 minutes on a specific research area, followed by 35 minutes of Q+A with delegates.
LAB VISIT	A virtual MIT lab visit. MIT scientists present their lab for 7 minutes, followed by 35 minutes of Q+A with delegates.
LAB IT UP WORKSHOPS	Specific delegates present a particular research question from their current work-in- progress, followed by responses from an MIT lab, and / or group of MIT respondents. All delegates welcome to observe and comment.
SOCIAL HOUR	Delegates meet informally with each other and various groups.
PUBLIC TALK	A Keynote by Duke Redbird, followed by a conversation with the delegates. Part of the weekly virtual public lecture series hosted by MIT Open Doc Lab. Open to the public.

Schedule at a Glance

TIME	TUES NOV 3	MON NOV 9	TUES NOV 10	WED NOV 11	THURS NOV 12		FRI NOV 13
10:00	PLENARY: Welcome to MIT, Wesley Harris Land Acknowledgment, Patricia Saulis	DELEGATES PLENARY: Welcome to ODL/ CoCr Review Agenda	PLENARY: Delegates with ODL fellows	LAB VISIT: Extended Intelligence: AI and the non-human	10 - 11:30 LAB IT UP: Caroline Monnet on Art and Architecture		LAB IT UP: Heather Igloliorte and L. Todd Indigenous Knowledge, STEM, New Media,
10:15	INTRO to ISO and DELEGATION: Kerry Swanson	LIGHTNING TALK: William Uricchio, History	LIGHTNING TALK: Leila Kinney MIT				and Youth
10:30	LIGHTNING TALK:	of Media at MIT and Q+A	Visiting Artists Programme and Q+A			10:30-12:00 - LAB IT UP: Jackson	
10:45	Dr. Julie Nagam, THE SPACE		LIGHTNING			2bear Leveen with Future Heritage	
11:00	BETWEEN US and Q+A	LIGHTNING TALK: Dayna	TALK: Azra Aksamija Future Heritage Lab and	LAB VISIT: Fluid Interfaces lab		Lab	
11:15	Breakout to discuss the question of how artists + scientists work together.	Cunningham, CoLab and Q+A	Q+A				
11:30							
11:45			Panelists check-in				
12:00			PUBLIC TALK:		LAB VISIT:		CLOSING
12:15		LIGHTNING TALK: Danielle	Welcome by Elizebeth Solomon	LAB IT UP: Nyla Innuksuk and	Sculpting Evolution Lab		CIRCLE
12:30		Wood, Space	Intro by Kerry Swanson	Caroline Monnet			
12:45		Reynote by Duke Redbird +	Keynote by	on Expanded Sound			
13:00		LAB IT UP: Nyla Innuksuk at					
13:15		Games Lab					
13:30							
13:45					0.00 2.20 LAD IT	I	
14:00					2:00-3:30 LAB IT UP: Brainstorming		
14:30		SOCIAL:		SOCIAL:	Indigenous Protocol-based Al		
14:45		wampum.codes		MIT Indigenous	with Spoken		
15:00				students Hosted by Patricia Saulis	Language Systems Lab		
15:15							
15:30						ı	
16:00							
17:00			5:30 -6:30 SOCIAL: Delegates				

Tuesday November 3

10 am - 10:30 am	 PLENARY: Welcome and Introductions with ODL Welcome to Co-Creation Studio and Open Documentary Lab, with a short overview of purpose of today's meeting, theme of exploring when artists work with scientists Welcome to MIT, by Dr. Wesley Harris, AISIS representative for MIT Welcome by Patricia Saulis, MLK Visiting Scholar at MIT 2020-21 Welcome by Duke Redbird Welcome from ISO, Kerry Swanson Associate Director of the Indigenous Screen Office will give an overview of the office, its mission, and how and why this delegation came together.
10:30 - 11:15	Lightning Talk: Dr. Julie Nagam: THE SPACE BETWEEN US Short talk (7m), Q+A Delegation co-lead, and professor Nagam presents THE SPACE BETWEEN US, a 9-year SSHRC partnership grant that mobilizes decolonial tools within digital and new media art to build an Indigenous future and create new paradigms for community engagement in public spaces. This research project lies at the forefront of the interactive digital revolution — Indigenous driven, Indigenous designed, and Indigenous led with 29 international partners in seven different countries. Our project aims to fuel scholarship that is grounded in a confluence of Indigenous methodologies of embodied and cultural knowledge that will integrate theory and practice into incubators, which will allow us to trace the application of digital and new technologies such as robotics, AI, VR, new media, older media and design.
11:15-11:30	Breakout Rooms, Delegates with ODL Fellows (30 m) Delegates and ODL fellows will discuss: "How do artists and scientists work together?"

Monday November 9

10:00 - 10:15 am	DELEGATES PLENARY: Morning Introduction Short musical introduction, by Amelia Winger-Bearskin Short Intro to Co-Creation Studio and Review of week's agenda, Kat Cizek	
10:15 - 11:00 am	Lightning Talk: William Uricchio, Media at MIT an overview Short talk (7m), Q+A ODL and Co-Creation Studio's Principal Investigator and MIT Professor William Uricchio shares his unique historian's perspective on media at MIT, the Media Lab at MIT, and MIT's impact on media technologies.	
11:00 - 11:45 am	Lighting Talk: Dayna Cunningham, CoLab Short talk (7m), Q+A Executive Director Dayna Cunningham explains how her Community Innovators Lab (CoLab) facilitates the interchange of knowledge and resources between MIT Architecture and Urban Planning and community organizations locally, and around the world, including Indigenous communities in Colombia.	
11:45 - 12:15 pm	Health Break	
12:15 - 1:00 pm	Lightning Talk: Danielle Wood, Space Enabled Group Short talk (7m), Q+A MIT Professor Danielle Wood urges us to consider how space technology is a tool for sustainable development, and describes how her group advances justice in Earth's complex systems using designs enabled by space.	
1 - 2:15 pm	Lab it Up: Nyla Innuksuk @ Games Lab part 2 Artists' Workshop Delegate Nyla Innuksuk revisits the MIT Game Lab, to continue the conversations of the creative development of the user experience in her Mixed Reality Installation called Sila, the Inuit concept of energy/breath/spirit. Game Lab Respondents: Rick Eberhardt, Scot Osterweil, Philip Tan, Sara Verrilli, Mikael Jakobsson. All delegates welcome to attend.	
2:15 - 2:30 pm	Health Break	
2:30 - 3:30 pm	Social: Wampum.codes Mozilla Fellow at CoCreation Studio, Amelia Winger-Bearskin hosts the delegates in a social hour	

Tuesday November 10

10:00 - 10:15 am	PLENARY: When Artists and Scientists work together Delegates meet with ODL Fellows, following up on the theme of art + science	
10:15 - 10:45 am	Lighting Talk: Leila M. Kinney, MIT CAST Visiting Artist Program Short talk (7m), Q+A Head of MIT's prestigious visiting artist programme, Leila M. Kinney shares her insights into what has worked — and what hasn't — when artists and scientists work together.	
10:45 - 11:30 am	Lighting Talk: Azra Akšamija, Future Heritage Lab Short talk, Q+A The Future Heritage Lab collaborates with communities affected by conflict and crisis to collect and preserve histories of transcultural exchange and histories of threatened monuments, artifacts, textiles, and crafts.	
11:30 - 11:45 am	Health Break	
11:45 - 12 noon	(All panelists to sign in for tech check, 15 min before start time)	
12:00-1:30 pm	Public Talk - Dish with One Spoon	
	Indigenous Digital Delegation at ODL's weekly virtual public lecture series	
	Welcome from Ponkapoag (10 min)	
	Elizabeth Solomon of Harvard University will provide opening remarks from her home territory of the Massachusett Tribe at Ponkapoag.	
	Intro by Kerry Swanson, ISO	
	KEYNOTE ADDRESS	
	by Dr. Duke Redbird (40 min)	
	RESPONDENTS / CONVERSATION	
	Delegates to join as respondents, leading with a short introduction by Indigenous Screen Office (5 min) Delegation leads Kerry Swanson and Dr. Julie Nagam will give an overview of the ISO, of the renaissance of Indigenous creation in Canada and the world.	
5:30 - 6:30 pm	Closed Delegates Social Hour An hour for delegates to connect informally. No format, just the Zoom grid.	

Wednesday November 11

10-10:45 am	Lab Visit: Council on Extended Intelligence: Al and the non-human A virtual visit with André Uhl, to discuss Extended Intelligence, a project to develop a new narrative for autonomous and intelligent systems based on principles of participatory design.
10:45 -11 am	Health Break
11-11:45 am	Lab Visit: Fluid Interfaces Lab A virtual visit to a group that builds upon insights from psychology and neuroscience, to create systems and interfaces for cognitive enhancement. A short presentation and discussion led by two PhD students with projects about AI and consciousness and "wearable wisdom." Led by Adam Haar Horowitz and Pat Pataranutaporn
12:15 - 2 pm	Lab It Up: Extended Sound/Music in Mixed Reality Installations Artists' Workshop Two delegates with Mixed Reality Gallery installations share their works-in-progess and hear feedback from a panel specializing in extended sound and music. Nyla Innuksuk discusses Sila, and Caroline Monnet presents Ninga-Mineh, a solo exhibit for the Montreal Museum of Fine Arts. She will also share early research as she has been recording Anishinaabemowin words and translating them into a 3D rendering. Please see below for an example of a sculpture made from the work pasapkedjinawong ("the river that passes between the rocks"). MIT Extended Sound Respondents: Halsey Burgund, Andrew Demirjian, Fran Panetta. Alexandra Riegler. All delegates welcome.
2:30 - 3:30 pm	SOCIAL with MIT AISES Undergraduate Group An informal gathering between delegates and MIT Indigenous students.

Thursday November 12

10:00 - 11:30 am

Note: There are two sessions that are occurring concurrently.

Lab It Up: Art, Architecture and Housing: Ninga-Mineh (Promise) Artists' Workshop

Delegate Caroline Monnet will present her current interests in housing, construction materials and Indigenous Epistemologies in her upcoming show for the Montreal Museum of Fine Art. She will be in discussion with MIT artist and architect Gediminas Urbonas.

Caroline's recent body of work grapples with colonialism's impact, updating outdated systems with indigenous methodologies. Using contemporary building materials, and incorporating patterns transmitted across generations, Monnet creates hybrid objects respectful of tradition and alert to change."

MIT Respondents: Gediminas Urbonas + Kristupas Sabolius. All delegates welcome to attend.

10:30 - 12:00 pm

Note: There are two sessions that are occurring concurrently.

Lab It Up: Ne:Kahwistará:ken, Virtual Haudenosaunee Longhouse Artists' Workshop

Delegate Jackson 2bears returns for a second conversation with Azra Akšamija, of Future Heritage Lab, this time joined by Azra's graduate class on Politics of Cultural Memory, in exchange with Krzystof Wodiczko's Art in Public Domain course at Harvard. Jackson will share his research questions surrounding community efforts to create an immersive space in the spirit of longhouses at Kanata Village at Six Nations.

MIT Respondents: Azra and students.

All delegates welcome to attend.

12:00 - 12:45 pm

Lab Visit: Sculpting Evolution Lab

Sculpting Evolution seeks to co-develop emerging ecological editing technologies with guidance from diverse communities. We are working with Māori communities in Aotearoa to co-develop Project Rarity, which aims to weave Māori wisdom into the biotechnology development process. Led by graduate students and postdocs Dr. Maud Quinzin, Anika Ullah, and Rey Edison.

2 - 3:30 pm

Lab It Up: Brainstorming an Indigenous Protocol-based AI

Delegates Jason Lewis and Scott Benesiinaabandan with guest presenter Dr Alan Corbiere will be in conversation with MIT scientist Jim Glass. Jason and Scott will present their ideas to build Indigenous AI from scratch (not translated from a version built in another language first). They will first share aspects of Anishnaabe world-view, knowledge generation & dissemination protocols. They will be asking if values might be articulated in a manner that 1) retains their cultural integrity, 2)makes them amenable to formalization such that they may be implemented into a computational system, and 3) extends the ability of Anishnaabe individuals and communities to engage productively with the computational systems in general.

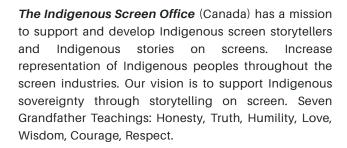
MIT Respondent: Dr. Jim Glass, Spoken Language Systems Lab All delegates are welcome to attend.

Friday November 13

10:00 - 11:30 am	Lab It Up: Indigenous Knowledge, STEM, New Media and Youth Educators' Workshop Delegates Heather Igloliorte and L. Sarah Todd will be in conversation with MIT Professor Eric Klopfer and MLK Visiting Scholar at MIT 2020-21 Patricia Saulis. They will discuss Indigneous Knowledge, STEM, New Media and Youth, sharing their work from the field, as well as frameworks for these approaches. MIT Respondents: Patricia Saulis, MLK Visiting Scholar at MIT, and Dr. Eric Klopfer, The Education Arcade at MIT All delegates are welcome to attend.
12:00 - 1:00 pm	DELEGATE PLENARY: Closing Circle

Delegation Organization Leads







The Inaugural Indigenous Digital and Media Delegation at MIT 2020 is nested within THE SPACE BETWEEN US, a 9-year international research project, led by Dr. Julie Nagam, at University of Winnipeg, Canada.

THE SPACE BETWEEN US is a 9-year SSHRC partnership grant that mobilizes decolonial tools within digital and new media art to build an Indigenous future and create new paradigms for community engagement in public spaces. This research project lies at the forefront of the interactive digital revolution - Indigenous driven, Indigenous designed, and Indigenous led with 31 international partners in seven different countries. Through our collaborative work, this research will enhance international connections and strengthen intellectual relationships among nations with shared colonial histories in North America, Circumpolar and Pacific. Our grant aims to fuel scholarship that is grounded in a confluence of Indigenous methodologies of embodied and cultural knowledge that will integrate theory and practice into incubators, which will allow us to trace the application of digital and new technologies such as robotics, AI, VR, new media, older media and design.

THE SPACE BETWEEN US will work from Indigenous theory, knowledge, praxis as well as be based on specific methodological and decolonizing frameworks from three global regions.

SPACE BETWEEN US

PARTNERSHIP

NORTH AMERICA

Winnipeg, Toronto, Montreal, Halifax, Los Angles, and Ithaca

PROJECT DIRECTOR

Dr. Julie Nagam

CO-APPLICANTS AND

Dr. Heather Igloliorte (Concordia U) Dr. Janine Marchessault (York U) Dr. Carla Taunton (NSCAD LI) Prof. Jason Lewis (Concordia U) Dr. Serena Keshavjee ((U Winnipeg) Niki Little (imagineNATIVE) Reneltta Arluk (Banff Centre) Dr. Jolene Rickard (Cornell LI) Dr. Mishuana Goeman (UCLA) Tagralik Partridge (Nordic Lab) Dr. Niigaan James Sinclair (U Manitoba) Daina Warren (Urban Shaman) Dr. Sarah Wiebe (U Victoria) Cathy Mattes (Brandon U) Lindsay Ann Cory (Nocturne) Kat. Cizek (Co-Creation) Jeanne Holmes (City of Toronto) Kerry Swanson (ISO)

PARTNERS

Host - University of Winnipeg (Winnipeg)

Concordia University (Montreal)
NSCAD (Halifax)
imagineNATIVE (Toronto)
City of Toronto (Toronto)
Indigenous Screen Office (Toronto)
Co-Creation Studio – MIT Open
Documentary Lab (Toronto)
Banff Centre for the Arts and Creativity
(Banff)
Nocturne: Art at Night (Halifax)
Lirban Shaman (Winnipeg)
Cornell University (Ithaca)
University of California - UCLA (Los
Angeles)

CIRCUMPOLAR

Yellowknife, iqaluit, Rovaniemi, Oslo. Nuuk, Anchorage and Helsinki

PROJECT LEAD

Dr. Heather Igloliorte

CO-APPLICANTS AND COLLABORATORS

Dr. Julie Nagam (U Winnipeg)
Dr. Sanna Valkonen (U Lapland)
Dr. Gunvor Guttorm (Saml U)
Jeremy Emerson (WAMP)
Alysa Procida (Inuit Art Foundation)
Davis Heslep (WAMP)
Liisa-Rávná Finbog (U Oslo)
Nivi Christensen (Nuuk Art Museum)
Jonas Nilsson (Nuuk Arts Festival)
Renelltta Arluk (Banff Center)
Tagralik Partridge (Nordic Lab)
Julie Decker (Anchorage Museum)
Katya García-Antón (OCA)
Karoline Trollvik (OCA)

PARTNERS University of Lapland (Rovaniemi)

Anchorage Museum (Anchorage)

Nuuk Art Museum (Nuuk)
Nuuk Nordic Festival (Nuuk)
Office of Contemporary Art Norway
(Oslo)
Sâmi University of Applied Sciences
(Kautokeino)
Western Arctic Moving Pictures
(Yellowknife)
Nordic Lab - SAW Centre (Ottawa)
Inuit Art Foundation (Toronto)

PACIFIC

Weilington, Auckland, Honolulu, Sydney, and Melbourne

PROJECT LEAD

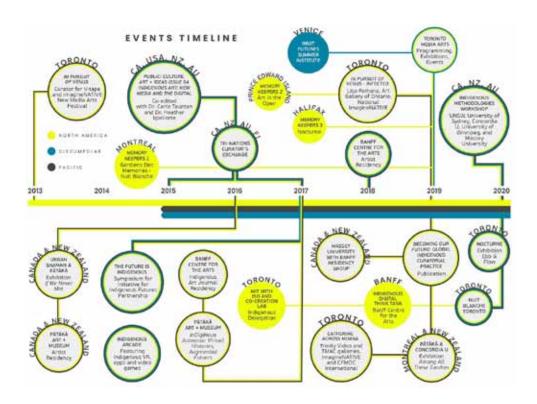
Dr. Johnson Witehira

CO-APPLICANTS AND COLLABORATORS

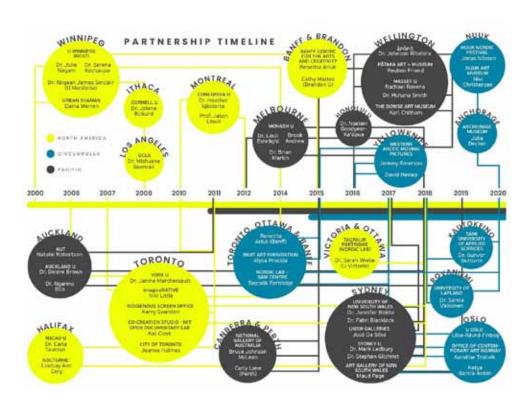
Dr. Julie Nagam (U Winnipeg) Rachael Rakena (Massey U) Dr. Brian Martin (Monash U) Dr. Mark Ledbury (U Sydney) Dr. Noelani Goodyear-Ka'opua (U Hawaii) Natalie Robertson (AUT) Dr. Jennifer Biddle (UNSW) Dr. Stephen Gilchrist (U Sydney) Dr. Fabri Blacklock (UNSW) Dr. Léuli Eshrághi (Monash U) Reuben Friend (Pataka) Dr. Ngarino Ellis (Auckland U) Carly Lane (AGWA) Brook Andrew (Monash U) Dr. Huhana Smith (Massey) Dr. Deidre Brown (Auckland U) Bruce Johnson McLean (NGA) Karl Chitham (The Dowse) Maud Page (Art Gallery of NSW) José Da Silva (UNSW Galleries)

PARTNERS

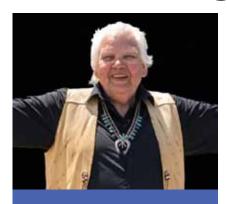
Massey University (Wellington)
APOPO (Wellington)
The Dowse Art Museum (Wellington)
Pătaka Art + Museum (Wellington)
Auckland University of Technology
(Auckland)
The University of Sydney (Sydney)
University of New South Wales (Sydney)
UNSW Galleries (Sydney)
Monash University (Melbourne)
Art Gallery of New South Wales (Sydney)
National Gallery of Australia (Canberra)







ISO Delegate Bios



Dr. Duke Redbird

Elder for the Delegation

Dr. Duke Redbird is an elder, poet, activist, educator, and artist. With a legacy stretching back to the 1960s, he is a pillar of First Nations literature in Canada, and has practiced a number of art disciplines including poetry, painting, theatre, and film. He was a trailblazer throughout the 60's & 70's, giving voice to Indigenous people at major institutions and folk festivals across the country. From 1994-2009, he was an arts & entertainment reporter for CITY TV in Toronto. He holds a Master's degree from York University and received an Honorary Doctorate from the Ontario College of Art and Design (OCAD) University in 2013. Duke Redbird is also featured on the Grammy-nominated album, Native North America. Duke is currently recording with The Sultans of String, and occupies the position as Elder with the following organizations: Myseum Toronto. The Toronto Biennial, Summer Works, Banff Leaders Lab, and is Artist in Residence with the Urban Indigenous Education Centre at the Toronto District School Board.



Kerry Swanson

Delegation Lead, Indigenous Screen Office

Kerry Swanson is an arts administrator and fundraiser dedicated to creating opportunities for Indigenous artists in Canada for over 16 years. She is Managing Director of the Indigenous Screen Office, a new funding and advocacy organization promoting Indigenous narrative sovereignty on screen. She has served as Board Chair and Executive Director of imagineNATIVE Film and Media Arts Festival, the world's largest presenter of Indigenous media. She is co-founder of Indigenous Fashion Week Toronto (IFWTO). Kerry was Associate Director of Granting at the Ontario Arts Council, where she launched the \$5 million annual Indigenous Culture Fund. She launched many arts funding programs at the Toronto Arts Council. Kerry has a Masters in Communication and Culture from Ryerson University. She was born and raised in northern Ontario in a family of Cree/Ojibwe, Irish and French heritage. She is a band member of Michipicoten First Nation with familial ties to Chapleau Cree First Nation.



Dr. Julie Nagam

Delegation Lead, University of Winnipeg

Dr. Julie Nagam (Metis/German/ Syrian) is a Canada Research Chair in Indigenous Arts, Collaboration and Digital Media and is an Associate Professor in the Department of Art History at the University of Winnipeg. She is the Artistic Director for 2020/21 for Nuit Blanche Toronto, the largest public exhibition in North America. Dr. Nagam's research includes digital makerspaces incubators. mentorship, digital design, international media collaborations and place-based knowledge. She is a collective member of GLAM, which works on curatorial activism, Indigenous methodologies, public art, digital technologies, and engagement with place. She is interested in revealing the ontology of land, which contains memory, knowledge and living histories. She aims to connect with MIT researchers around the Indigenous Research Centre of Collaborative and Digital Media Labs she is building in Winnipeg, Canada.



Scott Benesiianaabandan



Benesiinaabandan Scott an Anishinaabe inter-media artist working primarily in photography, audio and video. Scott has completed international residencies at Parramatta Artist Studios in Australia, Context Gallery in Derry, North of Ireland, and University Lethbridge/Royal Institute of Technology iAIR residency, along international collaborative projects in the U.K and Ireland. Scott is currently based in Montreal, where he is completing a MFA in Photography and a year-long Canada Council New Media Production grant through Ab-TeC and Initiative for Indigenous Futures, where he is currently interested in virtual reality as a medium. Current research areas concerning AI are Indigenous languages and stories, the nature of both their loss and construction (specifically Anishinaabemowin or Ojibway) and how language builds worlds, the nature of consciousness and how AI intersects with these concerns.



Dr. Heather Igloliorte

Delegate, Concordia University

Dr. Heather Igloliorte, an Inuk from Nunatsiavut, holds the Tier 1 University Research Chair in Circumpolar Indigenous Arts and is an associate professor in the Department of Art History at Concordia University in Montreal, QC. Her research centres Inuit knowledge in the understanding of circumpolar art and art history. Heather leads the Inuit Futures in Arts Leadership: The Pilimmaksarniq/ Pijariuqsarniq Project, which aims to empower circumpolar Indigenous peoples through training and mentorship opportunities. She is working on several funded projects that focus on new media and digital arts, especially in public art installations, works for night festivals etc. While at MIT, she is also very interested to learn about MOOCs and innovative online pedagogies in relation to low/ poor internet access, as some future work concerns developing online courses for the Arctic.



Nyla Innuksuk

Delegate, Artist

Inuk artist Nyla Innuksuk makes films, media art, VR and even superheroes; in 2018, she developed Marvel's first Inuk superhero, Snowguard. She is currently completing her first sci-fi feature, shot on Baffin Island, called Slash Back. Her short film Kajutaijug premiered at TIFF in 2014 and she has made two NFB films: Inngiruti: The Thing That Sings!, and Finding Home (2012-13). In 2017, Nyla started NKSK, her own VR company, and became the first artist awarded the imagineNATIVE Indigenous VR/ AR Residency, where she worked with A Tribe Called Red on their Indian City 360 VR project. While at MIT, Nyla is researching for a new AR piece about the Inuit concept of "Sila," meaning breathe, energy, spirit. The piece centres around a shaman's coat, held at Winnipeg Art Gallery. The coat belonged to Nyla's great-great grandfather, and Nyla is exploring the shaman's role in negotiating Inuit's relationship to Sila and the spirit world.



Delegate, Artist

Lisa Jackson is a filmmaker and artist whose projects have shown at top festivals, aired on TV, and exhibited in galleries and community settings. Her work ranges from documentary to fiction, animation to 3D IMAX. and VR to immersive installation. Her 2018 VR piece Biidaaban: First Light was nominated for a Webby, exhibited around the world, and won a Canadian Screen Award. Her experimental short documentary Lichen had its international premiere at Sundance 2020. She's currently working on a range of projects for TV, film and beyond, including a hybrid documentary on Cree elder and star knowledge keeper Wilfred Buck, as well as an installation/web project co-created with artist Adad Hannah and women inmates at a Canadian federal prison. She is of mixed Anishinaabe (Aamjiwnaang) and settler descent, earned a BFA in Film from Simon Fraser University, an MFA in Film Production from York University, and lives in Toronto.



Jackson 2bears

Delegate, University of Lethbridge

Jackson 2bears is a Kanien'kehaka (Mohawk) installation/performance artist and cultural theorist from Six Nations. based in Lethbridge Alberta, Canada—Treaty 7, Blackfoot Territory. 2bears has exhibited his work across Canada in galleries, museums and artist-run centres, as well as internationally in festivals group exhibitions. He Associate Professor in Art Studio, Canada Research Chair Indigenous Arts Research and Technology, and Director of the Institute for Indigenous Arts Research and Technology (IARTI) at the University of Lethbridge. His work combines poststructuralist discourse, post-colonial theory, and Indigenous philosophy address identity, the body, heritage, ancestry and technology. He is currently working on a largescale immersive multimedia Ne:Kahwistará:ken installation, Kanónhsa'kówa í:se Onkwehonwe. being created in the spirit and image of Haudenosaunee longhouses.



Jason Edward Lewis

Delegate, Concordia University

Jason Edward Lewis is a digital media artist and writer. He founded Obx Laboratory for Experimental Media, where he directs research/creation projects exploring computation as a creative and cultural material. Along with the artist Skawennati, he leads the Aboriginal Territories in Cyberspace research network, the Skins Workshops on Aboriginal Storytelling and Video Game Design, and the Initiative for Indigenous Futures Partnership. Lewis deeply committed to developing intriguing new forms of expression by working on conceptual, critical, technical creative and levels simultaneously. At MIT. is looking for collaborators who want to experiment with building computational systems (including programming languages) based on Indigenous epistemologies, and developing ideas for an Indigenous Computational Media Institute.



Delegate, Artist

Caroline Monnet (Algonquin/French) is a multidisciplinary artist from Outaouais, Quebec. She studied Sociology and Communication at University of Ottawa and University of Granada (Spain) before pursuing a career in visual arts and films. Her work has been programmed at Palais de Tokyo (Paris), Haus der Kulturen (Berlin), TIFF, Sundance, Aesthetica (London), Cannes, Montréal Museum Contemporary Art, Arsenal Contemporary NY, Walter Phillips Gallery (Banff), Division (Montréal) and the National Art Gallery (Ottawa). Her work is included in collections at Quebec Museum of Fine Arts, National Art Gallery, RBC Royal Bank, and Museum of Contemporary Art Montréal. Recent exhibitions include the Whitney Biennial and the Toronto Biennale of Art 2019. Monnet has made a signature of working with industrial materials, combining the vocabulary of popular and traditional visual cultures with the tropes of modernist abstraction to create unique hybrid forms.



L. Sarah Todd

Delegate, Simon Fraser University

Cree. Metis. Irish. Female. Filmmaker. Producer. Amateur Science Nerd. Todd creates educational programming for Indigenous children and their friends. She is in preproduction with Season 3 of Coyote's Crazy Smart Science, an awardwinning children's series about Indigenous science for the Aboriginal Peoples Television Network (APTN). Season 3 merges Indigenous with present-day knowledge technologies while asserting Indigenous sovereignty. Todd also media develops training and production programs, including creating the IM4 Lab. The lab is based on respect, reciprocity, wealth redistribution of Indigenous governance by Matriarchs. It is nurturing an ecosystem of technicians, storytellers and artists applying Indigenous aesthetics and storytelling methodology to immersive tech. At MIT, she is keen to connect with researchers in immersive technology, experiential learning, and using story for teaching science.



Dr. Alan Corbiere

Al Lab Guest Presenter, York University

Dr. Alan Corbiere is a scholar of Indigenous history in Canada and the United States, specializing in Anishinaabe history and culture of the northern Great Lakes region in the 18th and 19th centuries. His doctoral dissertation, "Anishinaabe Treaty-Making in the 18th- and 19th-Century Northern Great Lakes: From Shared Meanings to Epistemological Chasms," traces the evolution of Anishinaabe treaty-making process through diplomatic language and material culture. Alan was educated on the reserve and then attended the University of Toronto for a Bachelor of Science. He earned his Masters of Environmental Studies and his PhD in History from York University. He was the Executive Director at the Ojibwe Cultural M'Chigeeng, Foundation in position which encompassed the roles of curator and historian. He and implemented created language revitalization program at Lakeview Elementary School on his reserve.

Lab Descriptions





Co-Creation Studio

MIT Comparative Media Studies Program

Co-Creation Studio is a new initiative at MIT Open Documentary Lab. The studio researches and incubates collective methods in documentary, art and journalism, methods residing outside the limits of a singular authorial vision. The studio understands co-creation broadly, including work made from within communities, across disciplines and organizations, and with non-human systems such as algorithms. The studio aims to build the field by shedding light on these under-recognized, under-funded and often neglected approaches through fellowships, workshops, mentorships, incubation, gatherings and research. The studio recently published, at MIT Press Pubpub, a first-of-its-kind field study called Collective Wisdom, based on conversations with 166 co-creative media practitioners and thought-leaders around the world.

Open Documentary Lab

MIT Comparative Media Studies Program

MIT Open Documentary Lab studies and incubates new documentary forms, techniques and technologies. The lab brings storytellers, technologists, and scholars together to explore new documentary forms with a particular focus on collaborative and immersive storytelling. A center for documentary research, the lab offers courses, workshops, a fellows program, public lectures, and conferences; it incubates experimental projects; and it develops resources and critical discourse. In the spirit of MIT's open courseware and open source software movements, the Open Documentary Lab is inclusive, collaborative and committed to sharing knowledge, networks, and tools.



Community Innovators Lab

MIT Department of Urban Studies and Planning

Community Innovators Lab (CoLab) is a center for planning and development within the MIT Department of Urban Studies and Planning (DUSP). CoLab works with MIT students, faculty, and technical resources to build collaborations with communities. Together we implement strategies that harness existing community assets and capture value to promote inclusive economic development that is environmentally sustainable, socially just, and deeply democratic. CoLab brings multidisciplinary expertise from urban planning, municipal government, business, community media, civil rights advocacy, and community and labor organizing. We believe community knowledge can drive powerful innovation and can help make markets an arena for supporting social justice. We engage directly with marginalized communities during disruptive moments of change, working on the ground with community leaders to help determine how local assets can be utilized to catalyze economic, social, and racial justice.



The MIT Center for Art, Science & Technology

The MIT Center for Art, Science & Technology (CAST)

connects the worlds of art, science, and technology by collaborating with departments, labs, and centers across the Institute. The CAST Visiting Artists program is distinctive for its emphasis on the research and development phase of artistic work. In addition to presenting new work, residencies embed artists in the ongoing research and teaching at MIT, where scientists and engineers are open to artists' speculative and hands-on way of working. The program hosts artists from a wide range of visual and performing arts disciplines each academic year, exposing students to the creative process and fostering cross-fertilization among disciplines.



future heritage lab

Council on Extended Intelligence

IEEE Standards Association and MIT Media Lab

Council on Extended Intelligence (CXI) is founded on the following idea: One of the most powerful narratives of modern times is the story of scientific and technological progress. We believe all systems must be responsibly created to best utilize science and technology for tangible social and ethical progress. Autonomous and intelligent technologies also need to be created via participatory design, where systems thinking can help us avoid repeating past failures stemming from attempts to control and govern the complex-adaptive systems we are part of. Our future practices will be shaped by our individual and collective imaginations and by the stories we tell about who we are and what we desire, for ourselves and the societies in which we live. These stories must move beyond the "us versus them" media mentality pitting humans against machines. CXI has identified three major priority areas that urgently need a concerted global effort by broad societal constituencies in order to Build a new narrative for intelligent and autonomous technologies inspired by principles of systems dynamics and design; reclaim our digital identity in the algorithmic age; and rethink our metrics for success.

Future Heritage Lab

MIT Department of Architecture

Future Heritage Lab collaborates with communities affected by conflict and crisis to collect and preserve histories of transcultural exchange and histories of threatened monuments, artifacts, textiles, and crafts. We design and implement civic-scale participatory ART projects that function as carriers of collective memory and as mediums to disseminate them. The sourcing of stories takes place in transcultural workshops, which also aim to promote social cohesion and coexistence through knowledge exchange and co-creation. Accordingly, our workshops provide a framework for EDUCATION focused on art and cultural heritage, in which participants contribute as tutors, listeners, and creators. The artistic creation and the transdisciplinary education together form our third pillar of work: cultural PRESERVATION. Linking art, culture, and technology, the Future Heritage Lab regenerates the relevance of cultural heritage for contemporary conditions and for the future.



MIT Game Lab

MIT Comparative Media Studies Program

MIT Game Lab brings together scholars, creators, and technologists to teach, conduct research, and develop new approaches for applied game design and construction. Our mission is to explore, educate, and engage the public by creating groundbreaking games, interactive online courses, and new applications to real world challenges.



Fluid Interfaces Lab

MIT Department of Architecture

Fluid Interfaces Lab - While today's pervasive digital devices put the world's information at our fingertips, they do not help us with some of the cognitive skills that are arguably more important to leading a successful and fulfilling life, such as attention, memory, motivation, creativity, mindful behavior, and emotion regulation. Building upon insights from psychology and neuroscience, the Fluid Interfaces group creates systems and interfaces for cognitive enhancement. Our designs enhance cognitive ability by teaching users to exploit and develop the untapped powers of their minds and by seamlessly supplementing users' natural cognitive abilities. Our work is highly interdisciplinary and combines insights and methods from human computer interaction, body sensor technologies, machine learning, brain computer interfaces, psychology, and neuroscience to create new opportunities for studying and intervening in human psychology in-the-wild.

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Sculpting Evolution

Sculpting Evolution Lab

MIT Department of Architecture

Sculpting Evolution Lab - Evolution gave rise to every living thing and all of human culture, but evolved systems are very different from those designed by humans. They're harder to predict and to design, and exhibit a frustrating tendency to evolve away from engineered behaviors. At the same time, harnessing and directing evolution can generate useful organisms and biomolecular tools that we could never have rationally designed. Our laboratory seeks to understand why systems evolve in the ways that they do, to develop tools capable of precisely intervening in the evolution of ecosystems with the guidance of interested local communities, and to cultivate wisdom sufficient to know whether, when, and how to proceed.



Space Enabled Group

MIT Department of Architecture

Space Enabled Group - The mission of the Space Enabled research group is to advance justice in Earth's complex systems using designs enabled by space. Our message is that six types of space technology are supporting societal needs, as defined by the United Nations Sustainable Development Goals: satellite earth observation, satellite communication, satellite positioning, microgravity research, technology transfer, and the inspiration we derive from space research and education. The Space Enabled research group works to increase the opportunities to apply space technology in support of the Sustainable Development Goals. Our research applies six methods: design thinking, art, social science, complex systems, satellite engineering and data science. We pursue our work by collaborating with development leaders who represent multilateral organizations, national and local governments, nonprofits and entrepreneurial firms to identify opportunities to apply space technology in their work. We strive to enable a more just future in which every community and country can easily and affordably apply space-enabled technology to improve public services and solve local challenges.

Wampum.Codes

Amelia Winger-Bearskin

Mozilla Fellow at Co-Creation Studio at MIT Open Documentary Lab 2019-20, Founder of wampum.codes Wampum.codes is my first iteration of this project to develop a model of ethical software dependencies - an attempt to inscribe community values and developer accountability into code.

Consensus building and co-creation can have aspects of enforcement or, if you really need it, punishment. I can imagine it would be quite simple to figure to have notifications and auto takedowns for certain tokens, or API keys that you could revoke if someone uses your code in a

way that violates the wampum.codes ethical requirements. But the immediate task at hand is to figure out first how to articulate the values and ethics we want into a project and go from there.

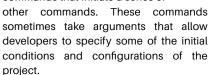
You can't tell who is cheating in a game if you don't first know the rules. I think we have space to begin to articulate our ethics and values and not have the conversation derailed before we get a chance to design a game because we don't have the perfect way to catch a cheater. Let's at least get some like minded people to sit down together and start to play.

1. Home (Page)

Where this project is going to live. Maybe it is not a page at all - it could be a remote repository or even a physical location - but for this example I'm using a website as an example.

2. Start

It is common for software to have commands that initiate a series of



In a Wampum.codes file this should be a clear articulation of your project's purpose that answers the questions: What are you and your community trying to do? How is this contributing? What could break this contribution? After you've spent some time thinking about these questions, try to condense it down into a single summary or mission statement.

3. Test

This is an opportunity to identify the non-negotiable limits of your

values. How could this concept be broken? How could someone use this contrary to its purpose? In the case of our code for no-kill shelters, an obvious condition that would violate our values would be if it were used by a kill-shelter.

4. Lint

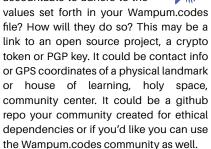
Linting is kind of like spell-check for code - it's a script that runs

through what you've written and catches errors. It is common for linters to offer up suggestions to resolve errors by trying to guess what the developer might have meant. By analogy, in Wampum.codes linting can be thought of as a stage for identifying some possible uses of your project that would be close enough to your intentions. This can make your ethical statement more robust and provide the community with context and precedent for evaluating potential future uses of your software.

In our cat shelter example: What if it's a dog shelter? What if it's a shelter for homeless teens? What other types of uses to which your project could be put, even in oblique ways, that would nonetheless be consistent with your original purpose?

5. Accountability

Who will hold users accountable to adhere to the



Whatever you choose to put in your accountability link, you should understand that you are delineating the community who will be empowered to adjudicate possible conflicts that may arise from applications that violate the principles set forth in your file.

6. Build

When you are doing software development you need a command to actually generate the files you need to host the site on a remote server. For Wampum.codes the build stage is an opportunity to think about the real world implications of the project.

Up until this point we have been dealing in ethical abstractions, but now we turn our attention to practicalities. What are possible externalities, and how do they relate to our vision for how the project is to be used? What will this create in the world? What help can this bring to the community we are building this for? What are practical things this project needs in order to survive? Where do I see the result in 1 year, in 5 years and in 10 years? What is the death cycle? How long should this reasonably work for (it is ok if it is short lived)?

Create a one sentence summary which includes one practical thing this project needs to survive and one thing I hope it will leave as a legacy.

MIT Bios



Dr. Azra Akšamija



Halsey Burgund



Dayna Cunningham

Presenter

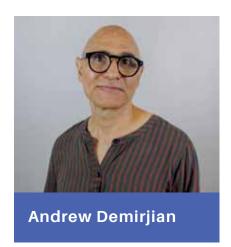
Dr. Azra Akšamija is a Sarajevo born artist and architectural historian. Akšamija graduated from the Faculty of Architecture at the Technical University Graz, Austria in 2001, and received her M.Arch. from Princeton University, USA in 2004, and Ph.D. from MIT (HTC / AKPIA) in 2011. In her multi-disciplinary practice, she investigates the potency of art and architecture to facilitate the process of transformative mediation in cultural or political conflicts, and in so doing, provide a framework for researching, analyzing, and intervening contested socio-political realities. Her recent work focuses on representation of Islamic identities in the West, spatial mediation of identity politics, and cultural pedagogy through art and architecture. Akšamija's academic research highlights the significance of ethnic symbols, long-term cultural factors, and global cultural flows in the creation of contemporary nations.

Sound Lab Respondent

Halsey Burgund is the co-creator of the VR piece, In the Event of Moon Disaster. He is a sound artist and technologist whose work focuses on combining modern tech - from mobile phones to artificial intelligence - with fundamentally human "tech", primarily language, music and the spoken voice. Halsey's work combines socio-anthropological 'research', musical documentary and contributory experience. He is the creator of Roundware, the open source contributory audio AR platform, which has been used to create art and educationalinstallations internationally. Halsey is a fellow in the MIT Open Doc Lab and has held artist research positions in the MIT Media Lab as well as the Smithsonian Institution. His work has been exhibited internationally in museums and galleries including the Aldrich Contemporary Art Museum, the deCordova Sculpture Park and Museum, the Museum of Science, Boston, the California Academy of Sciences (all in the USA) Puke Ariki Museum (NZ), and Tyne & Wear Archive and Museums (UK).

Presenter

Cunningham is Executive Director of CoLab. An attorney by training, Dayna has worked throughout her professional career on promoting democratic participation addressing social marginality. Through the ELIAS Project, an MIT-based collaboration between business, NGOs and government, she worked with leaders using profound innovation processes to create multi-sector initiatives for economic, social and environmental sustainability. Prior to that, Dayna was an Associate Director at the Rockefeller Foundation supporting efforts to explore changing racial dynamics and new conceptions of race in the U.S., as well as civil rights legal innovation. Prior to the Rockefeller Foundation, worked as a voting rights lawyer with the NAACP Legal Defense and Educational Fund, litigating cases in Arkansas, Tennessee, Louisiana, Mississippi and elsewhere in the South, and briefly as an officer for the Rockefeller Brothers Fund.



Sound Lab Respondent

Andrew Demirjian an interdisciplinary artist who works with remix, rhythm and ritual. He creates environments for critical reflection through scraping and recombining popular culture, making intricate collages of sound and language. His work is often presented in nontraditional exhibition spaces and takes the form of interactive installations, generative art, multi-channel videos and live performances. He is currently a Fellow at the MIT Open Documentary Lab, where he is working on a computational text analysis project for linguistic remixing of vast quantities of video files. He is the author of Panterrestrial People's Anthem, a book of poetry and collection of music that remixes the lyrics and songs of 195 national anthems. Andrew teaches theory and production courses in emerging media in the Film and Media Department and the Integrated Media Arts MFA program at Hunter College.



MIT Game Lab Respondent

As Studio Manager for the MIT Game Lab, Rik Eberhardt spends his days playing Tetris: with people, task lists, equipment, money, and time. When not staring at a spreadsheet trying to fit in another computer purchase, a last minute event budget, or placing undergraduate researchers on a Game Lab project, he's chipping away at spreadsheets on his DS, reproducing pixel-art in Picross and Picross 3D, or managing the ultimate spreadsheet, a game of Sid Meier's Civilization. He is also an instructor for two MIT Game Lab classes on game production and has served as a mentor and director for multiple development projects game including elude, a game about depression produced in the summer of 2010. He holds a Bachelor of Arts degree from the College of William & Mary, is a Certified Scrum Master, a PMI Agile Certified Practitioner, and is currently working towards a Serious Games MA Certificate from Michigan State University.

Rey Edison

Presenter

Rey Edison is a white nonbinary person of Irish Catholic ancestry living on unceded territory of the Wampanoag Nation. They are currently a graduate student in the Sculpting Evolution group at MIT. Their present research interests include genetic engineering, genomics, and ethics.





Dr. Wesley Harris

Al Lab Respondent

Dr. James Glass is a Senior Research Scientist at the Massachusetts Institute of Technology where he leads the Spoken Language Systems Group in the Computer Science and Artificial Intelligence Laboratory. He is also a member of the Harvard-MIT Health Sciences & Technology Faculty. Since obtaining his S.M. and Ph.D. degrees at MIT in Electrical Engineering and Computer Science, his research has focused on automatic speech recognition, unsupervised speech processing, and spoken language understanding using machine learning. He is an IEEE Fellow, and a Fellow of the International Speech Communication Association, and is currently an Associate Editor for the IEEE Transactions on Pattern Analysis and Machine Intelligence.

Presenter

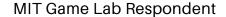
Adam Haar Horowitz is a PhD student student in the Fluid Interfaces Group at the MIT Medialab. His work aims to augment human awareness. translating advances in neuroscience into design of interventions and experiences. Adam has a background as a neuroscience researcher at MIT's McGovern Institute studying Mindfulness Meditation and MindWandering, and as an Artistscientist at the Marina Abramovic Institute. His work has been shown at Cannes Film Festival, SXSW, VR Sci Fest, Red Bull Station, SESC Pompeia and the Boston Museum of Fine Arts. Adam helps lead two communities here in Boston: MIT Hacking Arts and Consciousness Hacking, Current projects include haptic wearables for attenuating auditory hallucinations in schizophrenia, microscopic Virtual Reality adventures inside the human body, and dream control and capture in the liminal space between wakefulness and sleep.

Presenter

Dr. Wesley L. Harris is a Charles Stark Draper Professor of Aeronautics and Astronautics at MIT. He was among the four inaugural MLK Visiting Professors at MIT and has served many roles at the Institute since he began as a professor in 1972. Dr. Harris is former Head of Aero Astro, became the very first Director of MIT's Office of Minority Education, and most recently served as the Associate Provost for Faculty Equity. In 1964, Dr. Harris earned an SB with honors in Aeronautical Engineering from The University of Virginia. He went on to receive an MA (1966) and a PhD (1968), both in Aerospace and Mechanical Sciences, from Princeton University. His research focused on demonstrating the effects of an object traveling at or above the speed of sound, studying how the shape of an object influences its high-speed movement through space and the noise generated by high-speed travel, and air flow in supersonic conditions.



Dr. Mikael Jakobsson



Dr. Mikael Jakobsson conducts research on the border between game design and game culture. With a foundation in interaction design, he investigates how gaming activities fit into social and cultural practices, and how this knowledge can be integrated into the development process. His work has been supported by research grants involving collaboration with several game companies. He has developed and taught courses on game design, game criticism, and interaction design, as well as supervised students at the bachelor's, master's and doctoral level. At MIT, Jakobsson is a Research Scientist at the Games Lab where he develops a new research strategy that includes models for external funding and collaboration with industry partners, as well as developing and teaching game studies and game design courses.



Dr. Eric Klopfer

STEM, New Media and Youth Respondent

Dr. Klopfer is Professor and Director of the Scheller Teacher Education Program and The Education Arcade at MIT. He is a co-faculty director for MIT's J-WEL World Education Lab. His work uses a Design Based Research methodology to span the educational technology ecosystem. Much of Klopfer's research has focused on computer games and simulations for building understanding of science, technology, engineering mathematics. His research centers on the affordances of new technologies including AR, VR and mobile. He is co-author of Adventures in Modeling, The More We Know, and Resonant Games, and author of Augmented Learning. His lab has produced software (mobile games, MMO, The Radix Endeavor) and platforms (StarLogo Nova, Taleblazer) used by millions of people, and online courses that have reached hundreds of thousands. Klopfer is also the cofounder and past President of the non-profit Learning Games Network.



MIT Game Lab Respondent

Dr. Scot Osterweil is Creative Director of the Education Arcade. He has designed award-winning games in both academic and commercial environments, focusing on what is authentically playful in challenging academic subjects. Designs include the acclaimed Zoombinis series (math and logic), Vanished: The MIT/Smithsonian Curated Game (environmental science), Labyrinth (math), Kids Survey Network (data and statistics), Caduceus (medicine), and iCue (history). He is a founder and Creative Director of Learning Games Network, where he leads the Gates Foundation's Language Learning Initiative (ESL), and where he designed Quandary, named Game of the Year at the 2013 Games 4 Change festival. He co-authored the book Resonant Games (MIT Press) and serves as the play consultant on the Emmy Award winning Amazon TV series Tumbleleaf.







Presenter

Prathima Muniyappa is a Designer, Conservator and a research assistant for the Space Enabled research group. She is a masters student in the Media Arts and Sciences at the Media Lab. She is interested in addressing issues of social justice, democratic access for historically marginalized communities and enabling indigenous agency. Her research investigates alternative cosmologies and cultural ontologies for their potential to contribute to emerging discourse on technoimaginaries in the realm of space exploration, synthetic biology and extended intelligence. Prior to coming to MIT, she completed a Masters in Design Studies in Critical Conservation at the Graduate School of Design, Harvard under a Fulbright Scholarship. She holds a BDes in Spatial Design from the National Institute of Design, India and is a Young India Fellow 2013-14.

Sound Lab Respondent

Francesca Panetta is a co-creator of In the Event of Moon Disaster, She is the Creative Director in the MIT Center for Advanced Virtuality. As an immersive artist and journalist, she uses emerging technologies to innovate new forms of storytelling that have social impact. She worked at the Guardian for over a decade where she pioneered new forms of journalism: interactive features, location-based augmented reality, and virtual reality, where she led the Guardian's inhouse VR studio. Her work ranges in subject matter; such as solitary confinement in U.S. prisons in 6x9 and another project about seeing the world through a baby's eyes called First Impressions. Such works merge journalistic reporting, scholarly sources, and artistic expression. Her works have won critical acclaim - receiving awards, and touring the White House, Tribeca, Cannes, Sundance, and more. She was a 2019 Nieman Fellow at Harvard University.

Presenter

Pat Pataranutaporn is a technologist, designer, and a graduate student at the MIT Media Lab. Pat's interests are at the intersection of biotechnology wearable technology, specifically at the integration of bio and digital systems to create personalized interfaces for the users. Pat's research projects have been globally acknowledged and featured in TEDx, Time, Fast Company, Disruptive Innovation Festival, SXSW Eco, National Geographic, and UNEP. Pat believes that innovation must converae aesthetics. functionality, and community to create a sustainable future. Pat is also the co-founder of the Futuristic Research Cluster of Thailand, known as FREAK Lab, where he and his team work on futuristic projects from holographic food to social robotics, wearable biotechnology to citizen space exploration.



Dr. Maud Quinzin

Presenter

Dr. Maud Caroline is a postdoctoral researcher the Sculpting at Evolution Lab. Her work centers on sustainability and proactively addressing the biological biodiversity crisis, while exploring approaches that strengthen ties to nature, promote decolonisation, and support social and environmental justice. Maud currently assesses the use of gene editing technology to more humanely manage invasive rodent populations that threaten ecosystems native across the globe. She works together with indigenous communities to combine traditional knowledge with scientific developments to fully understand local ecosystems and guide the development of biotechnologies.



Alexandra Rieger

MIT Expanded Sound Respondent

Alexandra is а neuroscientist. multimedia designer, cross-modal doctoral researcher, and instructor at MIT Media Lab's Opera of the Future. She creates medi-musical instruments collaborating with frontline doctors at MGH, Spaulding and HMS supporting patient rehabilitation through the lens of efficacy, agency and equity. Prior to her PhD research and master's at MIT, she received a master's at Dartmouth. She received her Bachelor's at Oxford (Bing Scholar) and Stanford. In California she worked with the City of San Jose, conducting primary research to reattribute the oldest historical buildings in the region to Indigenous Architects. In parallel, developed AR experiences at the MLK Jr. Institute with his archives. Her work seeks to improve the human experience by bridging gaps between neuroscience, sound design, accessible tech, symbiotic mutualism and multisensory studies. She has published over 30 peerreviewed articles.



Dr. Kristupas Sabolius

MIT Art and Architecture Respondent

Dr. Sabolius is a full-time professor of philosophy at the Institute of Philosophy of Vilnius University (Lithuania) and a research affiliate at MIT Climate Visions. His recent publications include Swamps and the New Imagination. On the Future of Cohabitation in Art, Architecture, and Philosophy (2020) Matter and Imagination. Hybrid Creativity between Science and Art (2018), Proteus and the Radical Imaginary (2015) The Imaginary (2013), and Furious Sleep. Imagination and Phenomenology (2012) as well as numerous publications signalizing contradictory function of imagination at the intersection between western and indigenous thought. Sabolius was a member of the Swamp School curatorial team at the 16th Venice Architecture Biennale (2018, curated by Nomeda and Gediminas Urbonas). He is also an active public intellectual and a writer of novels, theatre plays and film scripts.





Elizabeth Solomon

Philip Tan

Presenter

Patricia Saulis is the MLK Visiting Scholar 2020-21 at MIT. She is the Executive Director of the Maliseet Nation Conservation Council and a member of the Maliseet tribe of Indigenous people, whose lands lie along the Saint John River watershed on both sides of the US and Canadian border in Maine and New Brunswick. Ms. Saulis is an experienced tribal policyadministrator, environmentalist, and educational planner, and has a background working in tribal organizations on matters of social wellbeing, education and environmental sustainability. In the midst of a highly fluid environment of changing economic. political. partnership. and financial circumstances, Ms. Saulis keeps the mission of restoring Wolastog/St John Watershed in accordance with Maliseet rights and cultural stewardship squarely in her sights. Ms. Saulis also has a background in public health issues and policy surrounding First Nations communities.

Presenter

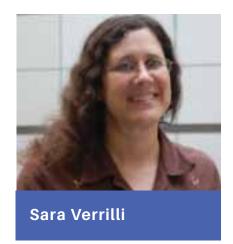
Elizabeth Solomon is an enrolled member of the Massachusett Tribe at Ponkapoag. She is currently the Assistant Director of Academic Affairs and Fellowship Programs at HSPH. Elizabeth has nearly 30 years of public health experience including positions in research project management and academic affairs at Harvard Chan as well as positions in management and program development in communitybased organizations. Elizabeth is a member of a number of advisory and management boards including boards affiliated with the Boston Harbor Islands National Park and the Digital Archive of Native American Petitions in Massachusetts.

MIT Game Lab Respondent

Philip Tan is a research scientist at the MIT Game Lab. He teaches CMS.608 Game Design and CMS.611J/6.073J Creating Video Games at MIT. For the past 6 years, he was the executive director for the US operations of the Singapore-MIT GAMBIT Game Lab, a game research initiative. He has served as a member of the steering committee of the Singapore chapter of the International Game Developers Association (IGDA) and worked closely with Singapore game developers to launch industry-wide initiatives and administer content development grants as an assistant manager in the Media Development Authority (MDA) of Singapore. He complements a Master's degree in Comparative Media Studies with work in Boston's School of Museum of Fine Arts, the MIT Media Lab, WMBR 88.1FM and the MIT Assassins' Guild. the latter awarding him the title of "Master Assassin" for his live-action roleplaying game designs. He also founded a DJ crew at MIT.







Presenter

André Uhl is a PhD candidate at Harvard University's department Visual and Environmental Studies with a secondary field in Science, Technology and Society at the John F. Kennedy School of Government. He is a member of the Harvard-MIT Ethics and Governance of Al Initiative and cofounder of the Council on Extended Intelligence, a project to develop a new narrative for autonomous and intelligent systems based on principles of participatory design. Andre's doctoral research explores the concept of epistemic justice in relation to the ethics and global governance of Artificial Intelligence. Research interests include posthumanist theory, the environmental humanities, and Eastern philosophy. André is a doctoral fellow at the MIT Dalai Lama Center for Ethics and Transformative Values and Harvard University's Center for the Study of World Religions.

Presenter

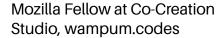
Anika Ullah is a graduate student in the Sculpting Evolution Lab, a MIT Human Rights and Tech Fellow, National Geographic Explorer, and Fulbright Scholar. As a scientist, multimedia artist, and global health + environmental activist, Anika worked with marginalized communities around the worldindigenous communities in Mexico, New Zealand, and Taiwan, Rohingya refugees, and immigrants at the U.S-Mexico border— on issues ranging from environmental health to the migration crisis to catalyze high level and grassroots social change through arts, storytelling, and policy engagement.

MIT Game Lab Respondent

Sara Verrilli has spent her professional career in the videogame industry, starting with the day she walked out of MIT's Course V graduate studies and into a position as QA Lead at Looking Glass Technologies for System Shock. However, her game organizing endeavors started much earlier; she helped found a roleplaying club at her high school by disguising it as a bridge group. Since then, she's been a game designer, a product manager, a producer, and a QA manager, in no particular order. A veteran of both Looking Glass Technologies and Irrational Games, she's worked on eight major published games, and several more that never made it out the door. As Development Director of the MIT Game Lab, she looks forward to corralling, encouraging, and exploring the creative chaos that goes into making great games, and figuring out just the right amount of order to inject into the process.



Amelia Winger-Bearskin



Amelia Winger-Bearskin is a 2019-2020 Mozilla Fellow hosted at the Co-Creation Studio at the MIT Open Documentary Lab. She is an artist, creative director, and organizer who develops cultural communities at the intersection of art, technology, and education. Amelia Haudenosaunee (Iroquois) of the Seneca-Cayuga Nation of Oklahoma, Deer Clan. While at the Co-Creation Studio, Amelia is working on Wampum.code, a project founded in Indigenous values and practices that bring greater accountability to tech.



Dr. Danielle Wood

Presenter

Dr. Danielle Wood serves as an Assistant Professor in Media Arts & Sciences and holds a joint appointment in the Department of Aeronautics & Astronautics at the Massachusetts Institute of Technology. Within the MIT Media Lab, Prof. Wood leads the Space Enabled Research Group which seeks to advance justice in Earth's complex systems using designs enabled by space. Prof. Wood is a scholar of societal development with a background that includes satellite design, earth science applications, systems engineering, and technology policy. In her research, Prof. Wood applies these skills to desian innovative systems that harness space technology to address development challenges around the world. Prior to serving as faculty at MIT, Professor Wood held positions at NASA Headquarters, NASA Goddard Space Flight Center, Aerospace Corporation, Johns Hopkins University, and the United Nations Office of Outer Space Affairs. Prof. Wood studied at the Massachusetts Institute of Technology, where she earned a PhD in engineering systems, SM in aeronautics and astronautics, SM in technology policy, and SB in aerospace engineering.



Leila W. Kinney

Presenter

Leila W. Kinney is the Executive Director of Arts Initiatives and of the MIT Center for Art, Science & Technology (CAST) and works to advance the arts at MIT in the areas of strategic planning, cross-school collaborations. communications and resource development. Kinney is an art historian with experience in both SA+P, where she was on the faculty in the History, Theory and Criticism section of the Department of Architecture (HTC) and SHASS, where she taught in the Program in Women's Studies and in Comparative Media Studies. She specializes in modern art, with an emphasis on media in transition, institutions and artists' arts engagement with mass culture. She is a member of the Executive Committee of a2ru (Alliance for the Arts in Research Universities) and of the Advisory Committees of the Catalyst Collaborative at MIT, the MIT List Visual Arts Center and the MIT Museum.



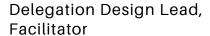
Architecture Lab Respondent

Gediminas Urbonas is artist, educator, researcher and co-founder of US: Urbonas Studio (together with Nomeda Urbonas), an interdisciplinary research practice that facilitates exchange amongst diverse nodes of knowledge production and artistic practice in pursuit of projects that transform civic spaces and collective imaginaries. Urbonas also collaborate with experts in different cultural fields to develop practicebased artistic research models that allow participants—including their students—to pursue projects that merge urbanism, new media, social sciences and pedagogy to critically address the transformation of civic space and ecology.

CO-CR/ODL Organizers Bios



Katerina Cizek



Katerina Cizek is an Emmy and Peabody-winning documentary director, creator and organizer in the emergent tech and media space. She is the Artistic Director of the Co-Creation Studio at MIT Open Documentary Lab where she authored (with Uricchio) a field study entitled Collective Wisdom: Co-Creating Media within Communities, across Disciplines and with Algorithms. For over a decade at the National Film Board of Canada, she helped redefine the organization as one of the world's leading digital story hubs with two major projects HIGHRISE, and the NFB Filmmaker-in-Residence. Cizek's earlier independent films include the Hampton-Prize winner Seeing is Believing: Handicams, Human Rights and the News (with Peter Wintonick). She serves as an advisor to Sundance Institute's New Frontier Lab, Stories of Change and ESoDoc. She is a member of the Guild of Future Architects, and serves on the Peabody Digital Board.



Dr. William Uricchio

Professor, PI

William Uricchio is Professor of Comparative Media Studies at MIT and Professor Emeritus of Comparative Media History at Utrecht University (Netherlands). He is founder and Principal Investigator of the MIT Open Documentary Lab and Principal Investigator of the Co-Creation Studio. His scholarly research considers the interplay of media technologies and cultural practices in relation to representation, knowledge, and William explores narrative as a cultural operating system, and the implications of unstable media and both expanded and co-created storyworlds for social cohesion. The recipient of Guggenheim, Humboldt, and Fulbright awards, and the Berlin and Mercator Prizes, William has also held professorships in Sweden (Stockholm), Germany (FU Berlin, Marburg), Denmark (national DREAM professor) and China (China University of Science & Technology).



Sarah Wolozin

Director, ODL

Sarah Wolozin is director and coprincipal investigator at the cocreation studio. In her prior work as an award-winning media maker, she experimented with storytelling and emerging technology to make information and new technology more accessible and to shed light on alternative and unknown narratives. She is founder and editorial director of Docubase, co-founder and editorat-large of Immerse, and co-founder of the Co-Creation Studio. She cocurates a bi-annual conference on topics relevant to documentary and emerging media and is a frequent speaker at festivals and conferences.



Producer, Co-Cr/ODL

Claudia Romano is currently a Producer at MIT Open Documentary Lab (ODL), where she produces lab events and communications and supports various Lab initiatives including Docubase, the ODL Fellows Program, ODL's semesterly lecture series, and the Co-Creation Studio. Prior to joining ODL, she produced communications and events at Say Yes to Education, she created social media and web content for FWD.us's "I Am An Immigrant" Campaign for Immigrant Heritage Month, and she produced short documentary videos for the Smithsonian Center for Folklife and Cultural Heritage about the annual Smithsonian Folklife Festival. Her documentary work has been featured in festivals including the Tri-Co Film Festival, Rough Cut Film Festival, and Philadelphia Latino Film Festival, and she was previously a Social Justice Film Fellow with UPenn's CAMBA



Andrea Shinyoung Kim

Research Assistant, Co-Cr/ODL

Andrea Shinyoung Kim is an interdisciplinary scholar-artist experimenting with emerging technologies and co-creative storytelling practices to build future narratives. Andrea is a graduate student in MIT's Comparative Media Studies and research assistant at the MIT Open Documentary Lab. Her master's thesis, analyzes how identity is constructed and enacted in 3D spatial multi-user virtual environments. She proposes a framework for crafting virtual avatars as a practice that revives cultural heritage and new relations to space. Andrea is also the creative director of The (In)visible Organi, a digital media initiative inspired by a new medical technology that visualizes the cervix. This project brings together artists, engineers, and the global health community to produce new perceptions of the inner reproductive anatomy through education, art, technology, and storytelling. She is directing/producing a documentary film of the same title.



Research Assistant, Co-Cr/ODL

Srushti Kamat is a writer/producer examining the intersection filmmaking, emerging technology and civic participation. She is a graduate student of Comparative Media Studies at MIT and a research assistant at the MIT Open Documentary Lab. She cofounded Majesty Digital, an initiative bringing women of color both behind and in front of the camera from the years 2017-2019. She is currently developing a participatory action project aimed at documenting the mental health impacts of isolation through the global lockdown and COVID-19 pandemic. While she has produced documentary and narrative films internationally, the guiding inquiry at the center of her work has remained focused on counterperceptions of place, identity and home.

MIT AISES

The MIT Chapter of the American Indian Science and Engineering Society [AISES] is a student-run group aimed at promoting Native culture and community here on campus, while also promoting STEM related education to various tribal communities. We accomplish this through: 1) Creating a social framework that allows students to benefit from one another; and 2) Strengthening native culture by sharing our personal knowledge and experiences.

MIT Open Documentary Lab Fellows

Drawing on MIT's legacy of media innovation and its deep commitment to open and accessible information, the MIT Open Documentary Lab brings storytellers, technologists, and scholars together to explore new documentary forms with a particular focus on collaborative, interactive, and immersive storytelling. Each year, ODL hosts a limited number of distinguished artists, creative technologists, journalists, and scholars who want to engage deeply with new documentary storytelling techniques and technologies in a collaborative and interdisciplinary environment.

2020-2021 ODL FELLOWS Visit http://opendoclab.mit.edu for more information

Carla LynDale Bishop is the first ever recipient of the MIT & Black Public Media Fellowship. She is a filmmaker and assistant professor in Digital Storytelling at The University of Oklahoma. Currently, she is producing an immersive geo-locative media project titled, "Mapping Blackness".

Penelope Jagessar Chaffer is a multi-award winning filmmaker, TED speaker, creative technologist and global environmentalist. This year, in addition to her project "Toxic Baby", her Sundance/Johns Hopkins residency pregnancy project, Penelope is developing her interactive piece, "The Chemistry of Racism", which explores the systematic poisoning of the black body, connecting the dots between color, Covid, and the criminal justice system.

Assia Boundaoui is an Algerian-American filmmaker and investigative journalist who has reported internationally for NPR, BBC, AlJazeera, VICE and CNN among others. While at the Co-Creation Studio, Assia is iterating her most recent hybrid work, a community co-created, Alfueled sequel to her film: *The Inverse Surveillance Project*.

Cindy Bishop is a visual artist and creative coder. While at ODL, she is working on a couple of ongoing projects including *Chomsky vs. Chomsky* and *The Dinner Party*, as well as discovering new narrative deployments for her new startup, Bongo Media, a conversational storytelling platform, of which she is Director of Technology.

Gabriel Mário Velez is a Colombian visual and interdisciplinary artist, professor, and researcher. This semester, he is continuing to develop his project *Transeuntis Mundi*, which intends to capture the sound and visual memory of people, cultures, and cities to tell the story of the millennials that have been traveling the world.

Gabriel Vieira-Posada, PhD is a filmmaker, screenwriter, photographer, and a professor at the University of Antioquia, where he co-founded the Master in Audiovisual Studies and Creation program as well as the TVLab for research on "edutainment" issues. This semester, he is working on a participatory project that will address the creation of a media strategy to unlock child abuse practices through co-creation and immersive storytelling.

Giulia Taurino is a media scholar, digital humanist, and computational artist. She works at the intersection of internet studies, digital humanities and knowledge design. While at ODL, Giulia Taurino is working on a project for narrating digital databases and their social impact through the use of creative coding and human-driven database design.

Joanna Wright is a documentarian and visual artist from Wales, where she is senior lecturer in media at the department of Languages, Literature and Linguistics, Bangor University. This year, she is working on a cocreated, multi platform documentary "Field Guide for a National Park" as well as collaborating on an immersive project about photonics (the science of light) which is being developed for sight-impaired audiences.

Kendall Moore, PhD, is an award-winning documentary filmmaker and a professor in the departments of Journalism and Film Media at the University of Rhode Island. This year, she is working on a documentary film that will explore the origins and evolution of western science as a western European enterprise, one that marginalized and re-narrativized the practices, procedures, ethics, and contributions of the racially marginalized, underrepresented people of color in science today.

Anita Rao, M.D. is a resident physician in psychiatry at Northwestern University in Chicago, IL and an award-winning media figure, academic, educator, researcher, public and private sector innovator who has established herself as a cross-sector pioneer in audiovisual mental health. While at ODL, Dr. Rao is exploring new documentary forms in the examination of its application to the emerging, yet largely unexplored field of audiovisual mental health and mental health literacy.

Yucef Merhi is an artist, coder, researcher, and curator, interested in raising cultural awareness through technology and language. This year, he is conducting research on how to reduce electronic waste by framing outdated technologies as artistic endeavors. Yucef has called this approach "Retrocycling".

Danny Goldfield is a photographer and designer. This year, he is working with ODL to build a rear screen projection system in the lobby of the MIT Kresge Auditorium in order to create a safe outdoor event space for students during the pandemic. He is also producing a video series with the MIT Cadlab in order to introduce their Product Engineering Processes to a wider audience of makers and entrepreneurs.

Tara Roberts is a journalist, storyteller and changemaker. She received a grant from National Geographic to follow and dive with a group of Black scuba divers, historians and archaeologists who are searching for slave shipwrecks around the world. This year, her goal is to transform that epic adventure into a long-form narrative podcast.

Joshua Glick, PhD is an assistant professor of English and Film & Media Studies at Hendrix College and affiliate faculty at Columbia University. This year, Dr. Glick is developing a learning module based on the deepfake art installation, In Event of Moon Disaster. Supported through a grant from MIT's World Education Lab, the module will explore media literacy in the age of disinformation. He is also co-editing The Oxford Handbook of Documentary with Pat Aufderheide.

Nadav Assor is an associate professor of Expanded Media at Connecticut College's Studio Art department and is the Director of the Ammerman Center for Arts and Technology there. This semester, he is continuing his work on several collaborative projects, all dealing with negotiating human intimacy, security and ritual while living an ever more fragmented and precarious life.

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