

Indigenous knowledge and technology at MIT: “Is it wise?”

A week of workshops, lab visits, and pairings matched Indigenous delegates with relevant labs and researchers across MIT.

Open Documentary Lab

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Ojibwe Elder Duke Redbird delivered the keynote address during the Indigenous Digital Delegation.

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In November, 10 Indigenous media scholars and artists convened at MIT — virtually — for the inaugural Indigenous Digital Delegation. In a week-long series of gatherings, the delegation

met with over 60 MIT scientists, staff, fellows, and students. The theme of the gathering was "Indigenous Knowledge, Artificial Intelligence, and Digital Worlds."

"Wisdom is not a topic that is taught or studied in the curriculum in our schools or universities, nor is it a practice in modern life," said Ojibwe elder, artist, and scholar Duke Redbird, in the delegation's keynote public lecture, titled "Dish with One Spoon." "Technology can put a man in space or a nano-computer in every creature on Earth. Yet technology cannot answer this question that should be asked of anything. And it is an Indigenous question: 'Is it wise?'"



Ojibwe elder, artist, and scholar Duke Redbird speaks at the inaugural Indigenous Digital Delegation.

Delegates met with MIT scholars to discuss diverse domains, from the decolonization of space, to re-imagining Indigenous architecture, to the role of community-based governance in the genetic modification of invasive species.

"This has been 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,” says [Dr. Julie Nagam](#), associate professor of art history at the University of Winnipeg. Nagam co-leads the delegation with the [Indigenous Screen Office](#)'s Kerry Swanson, who adds, “The knowledge with which we return to our home environments and institutions will greatly impact our work, moving forward into the future.”

In the opening session, Professor Wesley Harris, MIT representative for the American Indian Science and Engineering Society, welcomed the delegation by emphasizing the need to include an “A” in the acronym STEM, to put the arts in the teachings of science, technology, engineering, and math.

Throughout the week of workshops, lab visits, and pairings, delegates were matched with relevant labs and researchers across MIT to brainstorm their current works, including art gallery and site-specific installations, a Sundance-backed documentary film, research projects such as Indigenous Protocol-based Artificial Intelligence, and Indigenous-led emergent media laboratories and education programs.

“We’re headed toward a world where people are being partially programmed by algorithms,” said Redbird. “In the past, Indigenous people were programmed by our symbolic symbiotic relationship with the Earth. Today, a lot of what the average person will do will be designed and motivated by algorithms, rather than by nature.”

In one workshop, a team explored building an artificial intelligence system based in Indigenous-protocols. Delegates Jason Lewis and Scott Benesiianaabandan met with MIT scholar James Glass, of the [Spoken Languages Systems Group](#), whose latest research interest involves supporting low-resourced languages. The delegate team shared aspects of Anishinaabe worldview, knowledge generation, and dissemination protocol to ask if “values might be articulated in a manner that retains their cultural integrity” rather than having algorithms rely on translation from a high-resourced language.

“The energy and enthusiasm across MIT for this gathering has been unparalleled,” said [Kat Cizek](#), delegation event designer and artistic director at [Co-Creation Studio](#) at [MIT Open Documentary Lab](#). “There’s huge interest in learning from Indigenous scholars and artists and together transforming understandings and practices of science, arts, and technologies.”

Other MIT labs participating in meetings included [Space Enabled Research Group](#), [CoLab](#), [Game Lab](#), [Opera of the Future](#), [Fluid Interfaces](#), [Sculpting Evolution Lab](#), and the [CAST Visiting Artists Program](#), among others.

Redbird emphasized the importance of these exchanges. "It is imperative that the children of the 21st century have access to a worldview that celebrates the idea of a compassionate communion with all living things," he said. "We want the generation of the future to apply the traditional values and wisdom of our ancestors and uphold the sacred covenant to family community in nature. It is incumbent upon this speed-of-light generation, born after 1995, to explore an Indigenous worldview and use technologies to change negative patterns and rethink the manner in which we engage the environment."

The delegation included Elder [Duke Redbird](#); co-leads Kerry Swanson from [Indigenous Screen Office](#) and Julie Nagam of [The Space Between Us](#) at the University of Winnipeg; scholars [Heather Igloliorte](#) and [Jason Lewis](#) from Concordia University; [Jackson 2bears](#) from the University of Lethbridge; L. Sarah Todd from the [IM4 Lab](#) at Emily Carr University; and artists [Scott Bensianaabandan](#), [Lisa Jackson](#), [Caroline Monnet](#), and [Nyla Innuksuk](#).

This first Indigenous Delegation of its kind at MIT was originally scheduled as an in-person event in spring 2020. The delegates will continue in relationship with MIT as ISO-MIT Co-Creation Fellows at Open Documentary Lab for the next year. A second, more international version is being planned for 2021-22, on campus.