

# How We as Indigenous Peoples Challenge Science

Interview by IngriQue Salt



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Born in Salt Lake City, Utah, and raised in the Boston, Massachusetts area, Stephanie Carroll Rainie, DrPH, began her higher education pursuits in Biology and Society at Cornell University. She graduated with her Master's in Public Health in 2001 and completed her doctoral studies in Public Health in 2015, both at the University of Arizona. Dr. Rainie provides valuable knowledge, information, and most importantly the story of her journey. She shares how, as an Indigenous Steward, she utilizes her expertise as a public health policy advocate to improve the environment of tribal communities.

### **Moving towards the collective community perspectives on health: It is okay to change your major**

Originally traveling the medical school path by taking prep courses as a math major at Cornell University, Dr. Rainie recognized that her interests entailed focusing on the health of individuals and communities. To leverage the science and math education she received while preparing for medical school, she shifted her studies to Biology and Society under the Science and Technology department with a minor in American Indian Studies. At that time, Cornell was advanced in thinking about the spaces between science and society through concepts such as ethics and culture that live between biology and policy. These investigations, other forays into the role of science in society, and exposure to Native academia and educational content for the first time, provided the space for Dr. Rainie to realize how her holistic view of health and the world integrated with interdisciplinary western concepts of science. After graduating from Cornell, Dr. Rainie applied to colleges of public health with the desire to transition out of the medical paradigm and move towards collective perspectives of community health.

### **Identity: Knowing where you are from is knowing who you are**

I am an Alaskan Ahtna Athabascan woman of Sicil-

ian decent, and a citizen of the Native Village of Kluti-Kaah. My dad, Raymond Carroll, is from Copper Center, Alaska, and is the son of Frank Carroll and Walya Johns. My mother, Connie Carroll, grew up in Lawrence, Massachusetts, the first child of Sabastiano Russo and Virginia Pappalardo whose family emigrated from Sicily. My father spent the first two years of life in the Copper River Valley until my grandmother was diagnosed with tuberculosis. When she traveled to the Valdez sanatorium, my brother and his two younger siblings accompanied her until she passed away. After that, he spent the academic year at the Lazy Mountain Children's home attending school in Palmer, Alaska. Summers he lived with family or friends in the village. High school offered him the opportunity to travel Alaska while playing basketball and to uncover his love and propensity for math and physics, often doing work that his teachers did not understand. This motivated my dad to apply to the hardest school he could find, which was the Massachusetts Institute of Technology (MIT). Once accepted, he traveled for the first time out of the state of Alaska to move to Boston. Living in Boston was challenging, expensive, and far from home. My dad was often the only Native person that anyone had met or known. Meanwhile, my mother likewise excelled in school and was determined to attend college. Finding her options limited primarily to teacher education and nursing, and she chose to attend Simmons College for nursing. My parents met on a blind date—my mother was a stand-in for her college roommate who was sick. Once married, my father got his PhD in physics from the University of Michigan—the second Native physicist and the third Alaska Native to earn a doctoral degree—while my mom pursued her Master's in public health. In the 70s, my father accepted a post-doc opportunity at the University of Utah where he was the president of the Salt Lake City Native group, Utah. I was born there, halfway between Boston and the village, into an urban Native community and academia.

### Inspiration to pursue public health policy

When I was growing up, my mother was a public health nurse, taught public health courses, and then directed a visiting nurse and hospice organization. This early exposure to community health nursing taught me that public health focuses on collective health, safeguarding health and wellbeing for all society's members.

### Cultural aspect to the type of work I do

My professional life is intimately linked to who I am as an Indigenous person. My research and academic pursuits are acts of love, prayer, and advocacy stemming from the relationships with those who came before me, my children, the land, and my identity as an Indigenous person. That link is far deeper than a vocation or passion—it is in my DNA and consciousness.

My family, my community, and Indigenous peoples come first, before my professional advancement and financial security. Finding the balance between the demands of academic life and meeting the needs of my family can at times be challenging. Setting an example for my children and others, supporting colleagues and friends, and connecting with the earth and spiritual worlds (especially through running) ground me.

The majority of my work and scholarship occur in service to Indigenous nations and peoples. I am deeply committed to making sure my colleagues and I support peoples' own visions of healthy, sustainable communities. I do this through observing, listening and interacting with Native communities, following their lead as they use their own knowledge and inquiry to design and ask questions that address their community concerns. I couple this with offering my own scientific, public health, ethics, Indigenous governance, and other knowledge to educate and collaborate in the development of innovative ways to address complex issues in Indian Country.

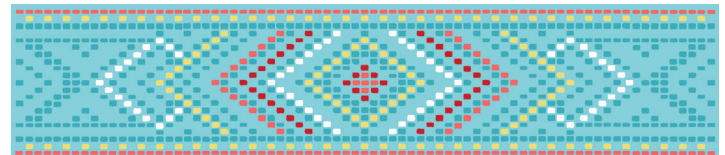
### Perspective on Indigenous ownership of data

Native communities have rights to information that allow them to plan for the future of their communities. They also have interests, rights, relationships, and knowledge associated with their tribal citizens who may live elsewhere in the world. Indigenous data sovereignty challenges mainstream conceptions of what tribes have the rights to govern, especially within the data world.

The Native Nations Institute (NNI) endeavors to strengthen Indigenous governance. As an NNI employee since 2001, my research and service are grounded in Indigenous peoples inherent sovereignty and their rights to govern. One theme that crosses all my current projects is that of Indigenous data sovereignty—the right of Indigenous nations to govern the collection, ownership, and application of information about their peoples, lands, and resources. Data are information. They are our collectively held stories, how

we count and record events, and our languages. Data are fundamental to our identity as Indigenous peoples. Data are also the new global currency.

Indigenous data sovereignty expands the mainstream concept of data sovereignty—that digital information falls under the jurisdiction of the country in which it is geographically located—by asserting rights to govern information that may be outside the physical boundaries of a reservation. It also asserts inherent sovereignty. In many cultures, sovereignty is talked about as given to us by the creator and it does not have to be recognized or endorsed by another to exist.



### United States Indigenous Data Sovereignty Network (USIDSN)

Co-founded, 2016 by Dr. Raine and Desi Rodriguez-Lonebear

**Ensures** that data for and about Indigenous nations

**Advances** Indigenous aspirations for collective and individual wellbeing.

**Provides** research information and policy

**Advocacy** to safeguard the rights

**Promote** the interests of Indigenous nations and peoples in relation to data.

Advisory Council:

- 15 members
- Indigenous leaders, scholars, and practitioners
- 200+ network members

**For more information visit:** [usindigenousdata.arizona.edu](http://usindigenousdata.arizona.edu)

### Values & advice to our students

Our students and youth are of significant value. Academia is a tough environment. As Indigenous peoples in academia, our presence is a constant reminder that we're still here—our knowledge remains, our ancestors course through our blood, and our children run over the earth. You'll be questioned and challenged in learning, but also in your identity and role in this world as an Indigenous person. My Indigenous friends and colleagues, supportive mentors, and my family help me to find balance. Education and professional mentors are critical to my success. They push you to try new things, introduce you to new people, focus you on finishing your degree or applying for the next step, and understand and suggest how to integrate your academic life with your family and community roles and responsibilities. I am grateful for the mentors that were critical to my success and where I am today. But for many years, I had a hard time finding Indigenous mentors. Today I'm blessed to have discovered mentors in colleagues that span the globe, graduate students whom I myself mentor, and employees who work on my projects. Each one of them cheers me on, links me with others, and pushes me to expand my work. Moreover, each one understands the deep connection that I have with my work.