

Why Tribal Nations Need to Address Use of Artificial Intelligence

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The development and use of artificial intelligence (AI) software has proliferated. As a technical system, AI expresses society's cultural framework and understanding for engaging with the world. However, technology companies developing AI fail to consider the effects of this technology on Native American peoples, allowing for cultural appropriation, misrepresentation and unauthorized use of Native American intellectual property.¹

Tribal Nations are at a crucial point to decide what role AI will have in their future. They must decide how to craft AI policies reflecting their societies' values and balance using this new technology with protecting

sacred traditional knowledge. With the fourth-largest Native American population in the country,² and home to 22 tribes, Arizona is poised to be a leader in the development of Tribal AI policies. This article provides an overview of AI technology, some of its negative effects on Native Americans, and suggestions to Tribes about creating tribal law to regulate the use of AI.

How AI Works

AI is technology that can imitate certain actions and processes of the human mind: the ability of machines to perform tasks that require human intelligence and effort.³ AI requires machine-processable data, enriched

or structured, and provided with legal meaning.⁴ To predict outcomes successfully, an algorithm, using whatever data available, must adequately relate to accurate depictions of the problems a community seeks to solve. AI relies on algorithms to process massive amounts of data.⁵

However, the data the machines are trained on carries its own set of human subjectivities. Without exception, human developers—whether implicitly or explicitly, intentionally or unintentionally—encode their own biases and values.⁶ Humans feed AI data, pinning these algorithms to basic human assumptions.⁷ If you don't fix the bias, then you just automate the bias.⁸

Even absent an individual's bias, developers necessarily rely on existing data and discourse when shaping and understanding their algorithms—most of which reflect settler-colonial stereotypes.⁹ The impacts of AI use on Tribes will largely depend on the data and algorithms used, the implicit and explicit biases of their creators in shaping their development and implementation, and the extent to which they rely on racist imperial discourses and colonial narrative traditions.¹⁰

AI and Native Americans

AI presents several challenges for Native Americans. The first is the unauthorized use of Native American data. How Tribes can protect and control their sensitive data is known as Indigenous Data Sovereignty. Through technologies such as web scraping, which gathers publicly available data for training models, AI

er studies without their consent.¹¹ Current AI practice treats Native American data as generic information and uses it for purposes beyond the consent given.

Second, the data AI pulls from existing sources is primarily from non-Natives, resulting in content based on misconceptions and biases in the data. There is a vast quantity of erroneous, stereotyped and racist media about Native peoples. Relying on these stereotypes and colonial tropes, non-Native data and narratives—reinforced news, media and other online sources—typically perpetuates the erasure of accurate, contemporary Native identities.¹²

In January 2024, the *Navajo Times* published a piece describing the work of a London-based non-Native couple who created AI-generated images centering on ethnocentric and culturally specific ideas. They invented supposed “Navajo” images, based on data and algorithms as they currently existed in AI tools. The resulting works demonstrate what AI “thinks” is Navajo and are formed via stereotypical terminology and visuals, all collected and processed based on the beliefs and values of largely non-Native Internet users. (See the screenshot below of an Instagram post the *Navajo Times* used to introduce its story and share the couple’s work.) The couple says they draw not only on their experience as visitors to Native land, but also on “their memories and research of Navajo people.”

Since the less data an AI engine has, the less accurate its response will be, the counterargument would be to say we should feed the AI more “correct” data. However,

assuming a Tribal Nation wanted its data made available, that tribe’s data creation is such a small part of the total existing data, it wouldn’t overcome the vast quantity of erroneous, stereotyped and racist media. Thus, Native Americans will never be able to feed the AI enough data or do it fast enough to keep up with new AI engines, to ensure it produces correct responses.

Third is the use of AI to generate deep-fake images and video content of Native Americans, as with the late Ms. Loretta Posey. Ms. Posey, a respected Ute Mountain Ute elder, co-founded the Indigenous-led conservation organization Women of Bears Ears and served as a board member for Utah Diné Bikéyah. Fundamental to the success of Bears Ears National Monument advocacy, she also served as a traditional female role model.

In 2023, a non-Native stole an image of Ms. Posey off the internet, fed the image into an AI engine, and posted an AI-generated video of her. In the video it appears as if Ms. Posey is talking—her mouth moves, and a computer-generated voice speaks in time with her lips.¹⁴ The video has Ms. Posey providing an inaccurate narration about the ill-named “Posey War.”¹⁵ The tale is a white man’s version of history superimposed on her image as if she is speaking it to the world. It contradicts the beliefs and positions Ms. Posey held and advocated for during her life.

Neither Ms. Posey’s family nor the Ute

Figure 1. *Navajo Times* newspaper features AI-generated images on their Instagram social media posts on Jan. 11, 2024.¹³



companies use and manipulate data without permission or consent of the Native American holders of the data.

This continues the long history Native Americans have of their data being abused. In 2004, the Havasupai Tribe sued the Board of Regents at the Arizona State University because the University used tribal members’ biomedical data in oth-



Mountain Ute Tribe consented or gave permission for use of Ms. Posey’s image. The AI’s creation of the video violates many Native Americans’ cultural and traditional beliefs surrounding death. We use it here with the family’s permission (see image on this page) to illustrate that no indigenous person, or any person, should be used this way—especially, as here, if the image refutes an elder’s life’s work.

The final challenge that AI presents Native Americans is the dissemination of AI Native traditional and cultural knowledge. Many Tribes have such knowledge that is not meant to be shared with the general public. AI has the potential to expose sensitive, private, traditional and cultural knowledge. That includes having AI “hallucinate” new “facts” about tribal ceremonies.

For example, The Navajo Nation Department of Justice hesitates to use AI in its legal practice because it is unsure if it wants to feed the AI additional sacred information on Navajo culture and traditions. The Navajo and non-Navajo lawyers question if they are the appropriate persons to provide this sensitive cultural data to AI or to ask for AI to write legal arguments using sacred knowledge.

The challenge is how much individuals should rely on AI, rather than on people, to define tribal tradition and customs. The Navajo DOJ’s experience illustrates just a small part of a larger conversation about sharing tribal tradition and custom with AI.

Tribal Sovereignty and How Tribes May Regulate AI Use

Indian tribes are independent sovereign nations. Their power to self-govern isn’t derived from the United States giving them power.¹⁶ It is vested in their inherent power as a sovereign nation, though each tribe’s exercise of sovereignty differs.¹⁷ Today, tribes are largely governed by federal and tribal law.¹⁸ Each tribe enacts its own tribal law, either formally or informally, whether oral or written.¹⁹

Using this authority, each Tribal Nation should discuss how it wants to engage with

AI. The United States hasn’t created any policy or laws regarding use of AI. Tribes can step into this space, assert their sovereignty over their intellectual property, and determine their relationship with AI. Tribes should enact laws articulating their positions and policies on the use of their intellectual property and data for these technologies, considering if it wants:

- its data used in AI
- to encourage AI use by tribal citizens to create more data
- to limit AI access to tribal culture and traditional knowledge
- to provide guidance to its citizens

As a Tribal Nation increases the digitization of information, this increases the data



Figure 2. Loretta Posey, YouTube clip of AI-generated video, 2023. The family wants to pursue a way to compel the owner of the channel to take down the video, but it is still up in July 2025. Used with permission from the Posey family.

Through technologies like web scraping, AI companies use and manipulate data without permission of Native American holders of the data.

sets necessary for operable AI. Tribes need policies and standards for data governance, integration, privacy and security. The more a Tribal Nation asserts control and ownership of its intellectual property, this content will start to be available to AI-produced results. This could open up discussions between Tribes and AI developers about how AI technology can be developed and used in a way respecting the Tribe’s cultural and traditional beliefs and owned by Tribes.

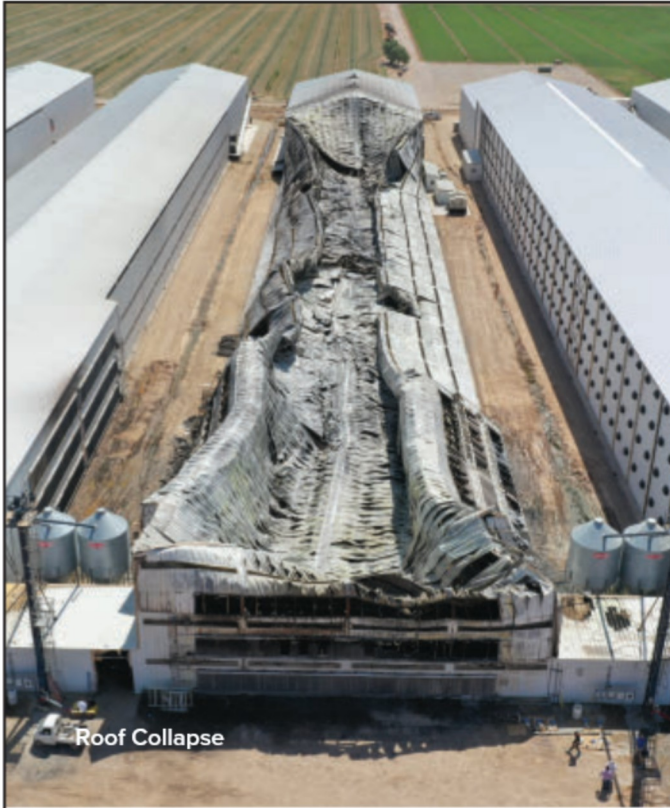
Using Traditional Thinking to Create AI Policies: A Navajo Example

In creating AI policies, the Tribal Nations should use their own traditional teachings. For example, on the Navajo Nation, tribal

law takes the form of both written contemporary laws and tribal customary law. The Navajo Nation Code provides written contemporary laws.²⁰ Navajo customary law contains underlying principles governing how Navajos perceive the world. Rather than the individual-centric perspective of many Western European based societies, Navajo society is based on relationships and the importance of the collective. *Diné bi beenahaz’áanii* recognizes the freedoms of the individual Diné but also firmly supports “the [collective] right

and freedom of the people that the sacred Diné language (*nihiniéé*) be taught and preserved.”²¹ The individual freedoms of each Diné have long been respected but are restricted by the collective rights of the *Diyin Nohookáá Diné*, the fundamental values and principles of Diné Life Ways, and our inherent right to self-govern.²² In *Navajo Nation v. Urban Outfitters*,²³ the Navajo Nation took the position that its federal registered trademarks are held collectively for the benefit of the Navajo people.

The core of Navajo philosophy is expressed in concepts and values associated with natural processes identified with the four cardinal directions, including **Nitsáhákees** (Thinking), **Nahat’á** (Planning), **Iiná** (Living), and **Sihasin** (Assuring).²⁴ The two



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bolded values reflect thinking ahead—in this case, about intellectual property concerns.²⁵

Thus, thinking and planning *ahead* are essential in working out IP and AI challenges before they are problems. The two additional Navajo conceptual ideas, *liná* and *Sihasin*, concern action and reflection, following up on those thinking and planning stages to assess and determine the outcomes.

Understanding both Navajo law and society allows the Navajo Nation to start to comprehend its intersection with intellectual property, how current intellectual property law does not sufficiently protect Navajo intellectual property, and how Navajo tribal law may provide the strongest protection for its citizens' intellectual property. The Navajo Nation must revisit the ideals and aspirations of the Navajo Fundamental Law and identify how it can be interpreted both in traditional knowledge and western law frameworks. AI technologies could upset the ordered world of the Navajo people unless the Navajo Nation dedicates time and effort to *think* carefully, *plan* ahead, and decide what *actions* to take next as a

people. At the heart is the ability of Tribal Nations to exercise their own self-determination and imagine the full expression of sovereignty as a Tribal Nation with its own set of epistemologies, philosophies, values, beliefs and laws. This means taking a position that makes the most sense to their own people to best represent what makes them a distinct people and nation from others.


Conclusion

Just as Tribes in Arizona could lead the discussion on tribal AI policies, the legal practitioners of Arizona could be leaders in the AI legal field. The Arizona Tribes and tribal citizens need lawyers who know about AI and its impacts on their intellectual property, data sovereignty, and traditions. They need advisers who understand the weakness of AI's relationship to Native Americans and who can support their efforts to assert sov-

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ereignty and protect their data. As lawyers, instead of shying away from Tribes using their traditional teachings to develop law, we can help them incorporate their teaching into AI policies that both protect their data and reflect the values of the community.

Arizona legal practitioners are uniquely situated. We have 22 Tribal Nations, and other non-federally recognized tribes, spread across the state. While legal practitioners in other states want to use AI to help them understand Native American culture, we can engage and experience tribal

culture on a regular basis in our professional and personal lives. 

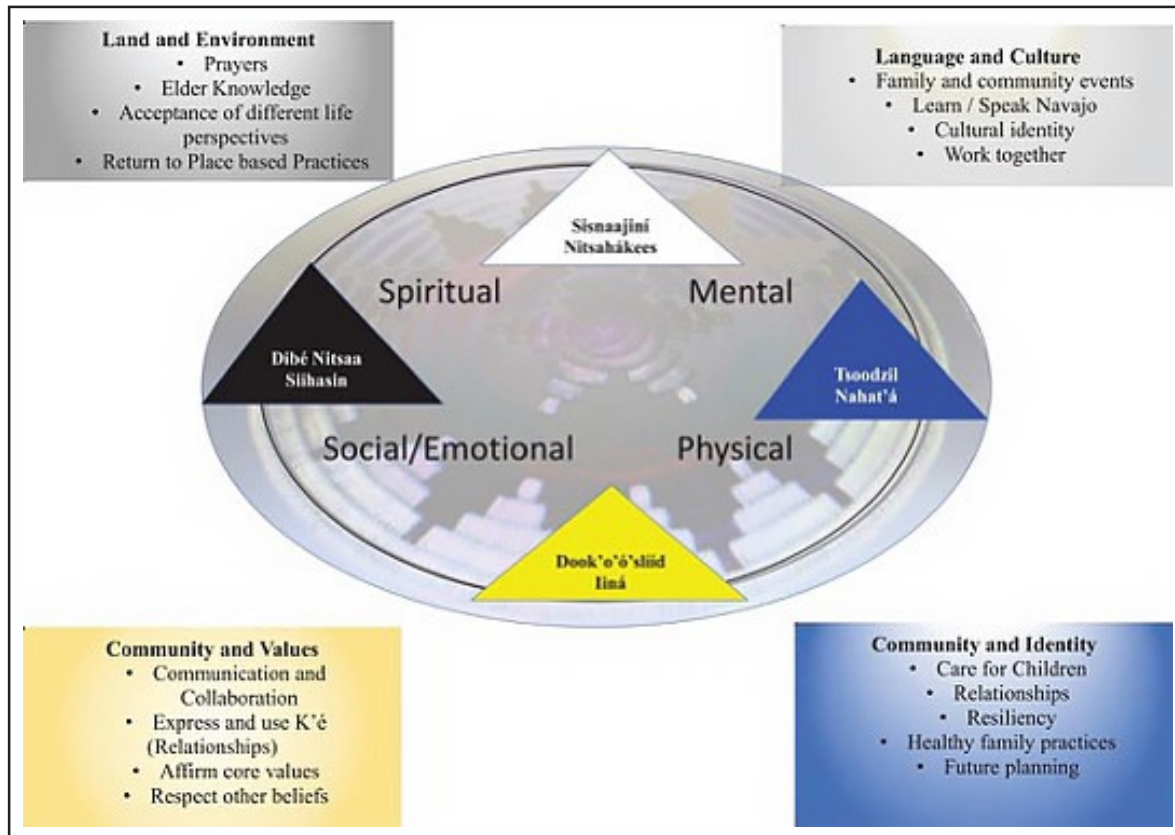


Figure 3. Visual of Navajo philosophy of thinking and engagement according to cardinal directions and colors, representing the process of working through the world using Navajo cultural values.²⁶

1. For the purpose of this article, intellectual property includes tribal customs and traditional knowledge, including materials, plants, and the images of its citizens.
2. *Native American Population by State 2025*, <https://worldpopulationreview.com/state-rankings/native-american-population>.
3. See Diana Shepherd & Aimee Laurence, *How Artificial Intelligence Could Impact the Future of Family Law*, FAM. LAW. MAG. (Aug. 27, 2021), <https://familylawyermagazine.com/articles/artificial-intelligence-and-the-future-of-family-law/>, archived at <https://perma.cc/R589-XARR>.
4. A. D. (Dory) Reiling, *Courts and Artificial Intelligence*, 11 INT'L J. FOR CT. ADMIN. 1, 8 (2020).
5. *Id.* at 2 (“AI, in order to work, needs ‘big data.’ Luc Julia, one of the creators of the digital assistant *Siri*, evokes this image. ‘If a machine is to be able to recognize a cat with 95% certainty, we need about 100,000 pictures of cats.’”)
6. Kate Crawford, *Artificial Intelligence’s White Guy Problem*, N.Y. TIMES (June 25, 2016), www.nytimes.com/2016/06/26/opinion/sunday/artificial-intelligences-white-guy-problem.html; see also Patrick Grother, Mei Ngan, & Kayee Hanaoka, *Face Recognition Vendor Test Part 3: Demographic Effects*, NAT'L INST. STANDARDS & TECH. (Dec. 2019).
7. See Brian Resnick, *Yes, Artificial Intelligence Can Be Racist*, VOX (Jan. 24, 2019), www.vox.com/science-and-health/2019/1/23/18194717/alexandria-ocasio-cortez-ai-bias, archived at <https://perma.cc/6ZBX-YCD9>.
8. *Id.*
9. Ian Falefuafua Tapu & Terina Kamaileauli'i Fa'agau, *A New Age Indigenous Instrument: Artificial Intelligence & Its Potential for (De)colonialized Data*, 57 HARV. C.R.-C.L. L. REV. 715, 734 (2022).
10. *Id.*
11. *Tilousi v. Arizona State Univ.*, No. 04-CV-1290, at *1 (D. Ariz., Mar. 3, 2005).
12. See Reclaiming Native Truth, FIRST NATIONS DEV. INSTIT. 5 at 18 (June 2018), <https://rnt.firstnations.org/wp-content/uploads/2018/06/FullFindingsReport-screen.pdf>, archived at <https://perma.cc/JG9K-7SQL>.
13. Kianna Joe, “*The Navajo AI flower*”: *AI-generated Diné girl peeks into AI knowledge from non-Navajo creators*, NAVAJO TIMES, Jan. 11, 2024, <https://navajotimes.com/ae/arts/the-navajo-ai-flower-ai-generated-dine-girl-peeks-into-ai-knowledge-from-non-navajo-creators/>.
14. Rex Shumway, *Chief Posey’s War*, YouTube (Feb. 6, 2023), www.youtube.com/watch?v=owWG08vkLr0.
15. The ill-named “Posey War,” re-named “The Avikanuche Incarceration of 1923” in 2024, began as a small inciting incident by a local Ute leader named Posey but escalated between members of the Allen Canyon Ute Tribal band and the settler town of Blanding, Utah. It resulted in imprisonment of all Utes in the area, mostly women and children, in a WWI military-style barbed-wire stockade for nearly six weeks, and shipping off Ute children to boarding school. *Timeline*, <https://100yearsofsilence.com/timeline>.
16. See *Talton v. Mayes*, 163 U.S. 376 (1896) (holding that the U.S. Constitution does not apply to the grand jury indictment of an Indian defendant in Indian country).
17. *Worcester v. Georgia*, 31 U.S. 515, 519 (1832) (“The Indian nations had always been considered as distinct, independent political communities, retaining their original natural rights, as the undisputed possessors of the soil, from time immemorial.”); see also *Williams v. Lee*, 358 U.S. 217 (1959) (upholding the rights of reservation Indians to make their own laws and be governed by them).
18. See *Worcester*, 31 U.S. at 515 (holding that laws of the state of Georgia do not apply in Indian country). *But see Nevada v. Hicks*, 533 U.S. 353 (2001) (recognizing that state sovereignty extends into reservation borders for some purposes).
19. See, e.g., Gloria Valencia-Weber, *Tribal Courts: Custom and Innovative Law*, 24 N.M. L. REV. 225, 249 (1994).
20. 1 N.N.C. § 200(A) (“a general statement of guiding principles to acknowledge, protect, observe, and educate on the values and principles inherent to the Diné Life Way, while maintaining respect for the various spiritual beliefs, practices and contributions of all persons within the Navajo Nation”).
21. 1 N.N.C. § 204(C).
22. *Tsosis v. Deschene*, No. SC-CV-57-14, (Nav. Sup. Ct. Oct. 8, 2014).
23. 935 F. Supp. 2d 1147, 1153 (D.N.M. 2013).
24. John Benally Herbert, *Navajo Philosophy of Learning and Pedagogy*, 7 J. OF NAVAJO EDUC. 23, 29 (1994).
25. *Id.*
26. Vincent Werito & Lorenda Belone, *Research from a Diné-centered perspective and the development of a community-based participatory research partnership*, 48 HEALTH EDUC. & BEHAVIOR 361, 365 (2021).

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