AI in a Tribal Context: A Brief Review of the Literature

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Artificial Intelligence (AI) is a revolutionary technology that poses potential opportunities and risks for federally recognized Indian Tribes (Tribal Nations or Tribes) and their citizens. With AI's seemingly increasing integration into various aspects of society, nations worldwide—including Tribal Nations—are assessing its impact on the changing landscape. This *Sovereign Snapshot* provides an overview of the literature and publicly available data related to AI and Tribes. This article compiles data from publicly available sources such as peer-reviewed journal articles, grey literature, law reviews, humanities publications, tribal journals and magazines, and websites, among other sources. Together they provide a comprehensive summary and analysis of existing literature on this topic.

This article first examines the governance literature around AI regulation globally and nationally. This article then focuses on how some Tribes are using AI tools; identifies major areas of promise, current uses, gaps, potential risks; and concludes with other considerations around AI in a tribal context. For a selected overview of the statutory law regarding AI and Tribal Nations, see *Tribal Nations and AI Governance*. Although literature on AI in general is prolific and only increasing in popularity as a research topic, the literature and research that apply to AI in a tribal context is limited.

Defining AI

In the 1950's, scholars and scientists like McCarthy, Minsky, Rochester, and Shannon began conducting AI research. A working definition of AI involves mechanisms allowing for computers and machines to replicate human understanding, learning, analytical analysis, decision making, creative thinking, and autonomy.

Selected Overview of AI Regulatory Action Globally

With AI advancements, work towards AI regulatory action is now being undertaken by sovereigns globally. Sovereign governments seek to effectively implement sound policies, exercise oversight and determine legal rights, meet obligations to their citizens or to companies, and mediate differences. Tribal Nations, sometimes referred to as the third sovereign in the U.S., also exercise sovereign authority within their jurisdiction. Data highlighting how AI governance is addressed by other sovereigns may provide Tribal leaders with valuable context to inform potential AI regulation or oversight.

- In 2017, Canada launched an AI strategy, seeking to understand the implications and opportunities AI would have on Canada's economy and society.
- In 2024, the European Union established the world's first comprehensive regulation by a major regulator with the adoption of the EU AI Act.

- In 2024, Taiwan released a AI Governance Framework followed by its AI Basic Act that focuses on both innovation and human rights.
- In 2025, China put forward a Global AI Governance Action Plan seeking to advance global AI development and governance while respecting national sovereignty.

In 2025, the United States unveiled the America's AI Action Plan focusing on Innovation, infrastructure, and international diplomacy and security. Trump's Action Plan consists of ninety recommendations and aims to "slash[] environmental regulations, fast-track[] data center construction, preempt[] restrictive state laws and promot[e] AI exports." This plan implements soft regulation through a framework established by National Institute of Standards and Technology (NIST) that provides guidance on how to manage AI issues.

AI and Tribal Governance Efforts

As sovereigns, Tribal Nations individually determine how best to engage with AI. According to the *Native Nations Center for Tribal Policy Research*, no Tribal Nation is believed to have adopted laws regulating artificial intelligence to date. However, some Tribes are considering policy approaches. For example, on August 21, 2025, the Cherokee Nation signed a policy "creating guidelines for responsible AI use across government and business operations" for the Cherokee Nation. The Cherokee Nation Information Technology Artificial Intelligence (AI) policy outlines specific approved uses of AI while seeking to protect Cherokee language and culture through quality review measures and mandates. Such ethical approaches demonstrate how Tribes can engage with AI as they seek to balance innovation and cultural protection.

Tribes may consider how AI can be leveraged to support tribal sovereignty and governance, particularly around data. For example, the "information provision" of generative AI systems are reliant on the extraction of large amounts of data. Rusty Pickens, technology expert and author, advocates for "meaningful Indigenous representation" in global AI policymaking. He expresses concern about AI's ability to extract data without tribal consent, potentially repeating historical abuses. Examples include the publication of sacred ceremonial images of the Tulalip Tribes of Washington and the appropriations of sacred Navajo songs. Recent cases include AI generated Native language books available on Amazon with inaccurate and fictitious translations. These examples demonstrate how misuse can contribute to misrepresentation and cultural appropriations that could become more prominent with AI expansion. Since AI regulation and ethical protocols are in their infancy, more consideration is needed to address tribal data sovereignty in the creation and development of

AI systems, tools, and digital data governance structures going forward.

Current Applications of AI by Tribal Nations
As of October 2025, some Tribal Nations and their citizens engage AI in support of self-determination that reflect tribal governance structures, values, methodologies, and data sovereignty needs. AI is also being implemented by diverse tribal collaborative partnerships to support community agency. See **Table 1.** examples.

Table 1. Examples of Tribal Nation Applications of AI

Tribe	Description
Alaska Native Tribal Health Consortium & Tribal Colleges in North Dakota	Piloting AI systems for "culturally responsive STEM learning" to personalize learning.
Blackfeet Nation, Indian Health Services, University Researchers	Exploring AI tools for early detection of diabetes issues through wearable devices.
Cherokee Nation	Partnering with MIT on AI Powered Search Engine & Legal Agent developed in Microsoft Copilot Studio.
Choctaw Nation & Low-Code Platforms	Using AI for language preservation through the creation of a "digital seed vault" using the Low-Code Platform.
Lakota	Using AI to teach and preserve language through Indigenous speaking AI platforms created by Lakota AI Code Camp founders.
Muscogee Creek Nation Owned Firm & ScanTech AI Systems	Partnership using AI to identify security threats emphasizing potential for protecting military installations and uses across DOD.
Red Cliff Band of Lake Superior Chippewa & Syncurrent	Using Syncurrent's AI Technology to match tribal needs with grant opportunities.
Reno-Sparks Tribal Health Center	Utilizing AI to automate medical charting.
Skokomish Tribe in Washington	Using AI software Stampli for financial automation and filing efficiency.

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Identifying the Potential of AI for Tribal Nations
Tribal Nations may consider utilizing AI tools and systems to streamline tribal governments and administrative operations; to strengthen institutional capacity in technology by hiring internal experts in AI creation, development, and deployment; to enhance decision-making for tribal leaders, tribal litigators, medical professionals, and other government staff through AI driven analytics; and to mitigate access issues to tribal information. Crepelle identifies specific areas where AI can be used to make governments more efficient and significantly work to boost economic value. For example, areas of promise may be 1) tribal justice and judicial governance, 2) tribally focused education platforms, 3) the sourcing of grant funding opportunities, 4) language preservation and cultural practices, 5) environmental co-management interventions, and 6) health and medicine. AI can be a valuable tool utilized by Tribal Nations in various sectors. However, Tribes may wish to consider involving input from tribal citizens to ensure community alignment with tribal values, such as respect for cultural protocols and adherence to ethical frameworks around data privacy, security, and other tribal interests.

Gaps, Risks, Challenges, and Ethical Implications
Empirical data around AI as it relates to tribal economic and environmental impact is limited. For example, constructing data centers on or near Tribal lands may require further exploration to understand the potential impact on energy sources and to ensure protection of natural resources and water supplies. This may be an issue of growing importance to Tribes given Trump's recommendation to fast-track data center construction in the U.S. Daniel Wildcat, author and scholar, considers the emergence of AI through an Indigenous lens, posing ethical and environmental considerations pertinent to tribal communities. The literature identified a clear need for Tribal representation, providing accurate tribal data to inform AI models as well as Tribal workforce pathways in AI development and STEM fields. Additionally, Tribes may consider future research collaborations to assess how AI can be used to enhance needs and challenges in education.

Challenges illuminated issues with bias. A study by Wang et al. speaks to the challenges of "insufficient Tribal input" in AI systems, which may create bias and imbalance. Lewis et al. highlights the shortcomings and current trajectory of AI development that results in systematic operationalization of bias. Dudley and Kuslikis affirm bias that exist in AI systems today stating, "AI systems are cultural artifacts that are designed for and reflective of the cultural understandings of their creators." Wildcat emphasizes the need for Tribes to think about cultural bias within AI systems stating that these systems "will never be value or culturally neutral." As we move into the next phases of generative AI and agentic agents, Tribes may face more pressing ethical considerations and concerns that could impact tribal communities and humanity in general.

Implications for Policy, Practice, and Future Efforts
Some Tribes are proactively creating opportunities that showcase a vital, value-driven model of AI adoption as a way to safeguard Tribal sovereignty, empower their communities, and honor their culture. However, additional tribal consideration and representation may be needed in the area of policymaking and regulatory action related to AI creation, development, and deployment. In addressing present opportunities, uses, and concerns of AI, Tribes may consider the following: 1) collaborations with Tribal Nations, as well as other non-tribal partners; 2) investments into the education and workforce development of tribal citizens within all areas of technology and AI creation; and 3) the incorporation of tribal knowledge systems into the creation, development, and deployment of AI systems and protocols.

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