A New Age Indigenous Instrument: Artificial Intelligence & Its Potential for (De)colonialized Data

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Abstract

Data governance remains an ongoing concern in Native communities. Almost all aspects of data about Indigenous people—from what is shared and where it is shared—are externally (i.e., non-Native) controlled, which often renders Indigenous peoples invisible from mainstream narratives. This erasure has long resulted in inaccurate and usually stereotypic portrayals of Native Peoples that mischaracterize them, justify their oppression, and ultimately deny them justice. This Article explores whether artificial intelligence ("AI") will serve as a "revolution" or a "new colonizer" for Indigenous peoples—an answer that ultimately hangs on which narratives AI developers embed into their technologies. Without purposefully centering Indigenous Peoples and accurate data from and about them, this emerging technology will only perpetuate colonial narratives and exacerbate existing disparities. Thus, Indigenous data—whether stories, instruments, values, or customs—must guide and serve as the foundation for 21st-century data governance and AI development to promote equity and advance justice for Indigenous Peoples.

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Though artificial intelligence ("AI") technologies are relatively new, AI remains reliant on already-existing data—data whose narratives have historically excluded, erased, stereotyped, and invalidated Indigenous Peoples, their knowledge, and their voices. As AI's prominence within the judiciary grows, developers and other users of this technology must take a careful, deliberate approach to rectify the inaccurate and harmful narratives portrayed by non-Native controlled data. This Article argues that emerging AI technology must be imprinted with Indigenous values, history, legal systems, and culture in the same way and with the same intention as traditional Native instruments. Stated differently, Indigenous data and AI must be married as a means towards decolonializing[1] data, especially when used in the U.S. court system. Without intervention, AI currently threatens to exacerbate already-existing barriers and discrimination that Indigenous Peoples face when participating, whether voluntarily or by mandate, within

[1] Eve Tuck and Wayne Yang remind us that decolonization is not a metaphor, nor is it a "swappable term for other things we want to do to improve our societies and schools." Tuck and Yang offer the following definition of decolonization:

> decolonization in the settler colonial context must involve the repatriation of land simultaneous to the recognition of how land and relations to land have always already been differently understood and enacted; that is, *all* of the land, and not just symbolically.

In this Article, we use "decolonialization" to describe decolonial progress short of actual decolonization. *See* Eve Tuck & K. Wayne Yang, *Decolonization Is Not A Metaphor*, 1 DECOLONIZATION: INDIGENEITY, EDUC. & SOC'Y 1, 7 (2012).

U.S. legal systems. Indigenous data and the Indigenous data sovereignty model offer valuable frameworks for just data-use in law and policy. Further, they are helpful guides for both navigating and decolonializing the emerging artificial intelligence industry's endeavors into using computer programming to supplement or replace judicial processes.[2] The Indigenous data sovereignty model is also helpful for understanding the implications of these endeavors on Indigenous Peoples and their legal rights.

Part I introduces the human rights-based model of Indigenous data sovereignty and begins to define Indigenous data. Part II frames this Article by outlining Albert Memmi's four-step framework that describes how colonizers strategically deploy narratives against Indigenous Peoples as a means of justifying aggression against and privilege over the Native Nations they seek to colonize. Part III outlines the increasing role of AI in the judiciary and questions whether reliance on AI will lead to greater equity and efficiency in courts or whether it will exacerbate biases that already disproportionally impact Indigenous Peoples. This Part also explores the dynamic nature of colonization and how colonial narratives have been and are continually deployed to justify oppression and violence against Indigenous Peoples. What started as explicit displays of violence, land dispossession, and the cultural annihilation of Indigenous Peoples has transformed into a more insidious, seemingly innocuous form of racism and ongoing colonization. The erasure of Indigenous data, voices, and identities functions as a mechanism of this continued colonization. Finally, Part IV concludes that the current state of AI is not set in stone but is constantly evolving. Therefore, it is crucial that AI developers incorporate and center Indigenous stories, voices, and understandings when collecting, analyzing, and using data that ultimately impact Indigenous Peoples. Indigenous data—in their many forms—can serve to create decolonial AI technology and assist the judiciary to better recognize and respond to the disparate treatment of Indigenous Peoples.

I. Indigenous Data: Connecting Stories of Past, Present, and Future

> *"[Indigenous Peoples] have a unique capacity to resist despair through connection to collective memory."* – Julian Aguon[3]

Common among Indigenous Peoples around the world are traditions and customs that weave together our past, present, and future.[4] For instance,

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[2] Richard M. Re & Alicia Solow-Niederman, *Developing Artificial Intelligent Justice*, 22 Stan. Tech. L. Rev. 242, 243 n.1 (2019).

[3] Julian Aguon, The Properties of Perpetual Light 12–13 (2021).

[4] *See* Bowen Blair, *Indian Rights: Native Americans Versus American Museums: A Battle for Artifacts*, 7 Am. Indian L. Rev. 125, 127 (1979). The terms "Indigenous" and "Native" are capitalized to denote that these groups are proper nouns and have a unique place in histori-

Indigenous groups across Oceania imprint onto their tapa (bark cloth) patterns and symbols that depict their history as well as scientific, philosophical, material, architectural, legal, artistic, spiritual, and social values.[5] And thousands of miles away, since time immemorial, the Anasazi (Ancestral Pueblo) have etched and painted symbols, encoding their world view, spirituality, and fundamental societal principles through designs and pictures on pottery, rocks, and walls.[6]

Similarly, the Haudenosaunee (also known as the Five Nations) developed the wampum, an intricate string of delicate quahog shells woven together in belts. Given the Haudenosaunee's oral traditions, the symbols woven into the wampum are the only physically recorded history of these Indigenous Peoples. An integral source of identity, culture, and spirituality,[7] wampum have been used as political instruments used to codify and signify treaties, events, and obligations among and between nations.[8] Wampum also hold symbolic significance as a representation of the Five Nations' "emotional solidarity with the past and a dedication to preserve tribal life and society."[9]

These customs and understandings, along with values they embody, are common among Indigenous Peoples. As Professor Ann Scroggie explains, "traditional stories have been passed from generation to generation through folktales, songs, rituals, chants and even artifacts. These oral narratives are critical historical components that pre-date written words. They explain the culture and how it came to be."[10] As forms of cultural knowledge that guide Indigenous Peoples' worldviews and lives, these traditions and customs are also valuable sources of Indigenous data that guide how we ought to live with, treat, and care for one another.

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cal, legal, and political language. *See, e.g.,* D. Kapua'ala Sproat, *Wai* Through *Kānāwai: Water for Hawai'i's Streams and Justice for Hawaiian Communities*, 95 Marq. L. Rev. 127, 127 n.3 (2011).

[5] Alice Te Punga Somerville, Once Were Pacific: Maori Connections to Oceania 4 (2009).

[6] John W. Ragsdale, Jr., *Anasazi Jurisprudence*, 22 Am. Indian L. Rev. 393, 411 (1998).

[7] Christopher B. Teuton, Deep Waters: The Textual Continuum in American Indian Literature 46 (2018). As far back as one thousand years ago, a Huron prophet known as the Peacemaker united five autonomous, but linguistically and socially similar, nations—the Mohawk, Oneida, Onondaga, Cayuga, and Seneca. Wendell H. Oswalt, This Land Was Theirs: A Study of the North American Indian 399–400 (1966).

[8] Mariana Valverde, *The Honour of the Crown is at Stake: Aboriginal Land Claims Litigation and the Epistemology of Sovereign*, 1 UC Irvine L. Rev. 935, 962 n.30 (2011); Teuton, *supra* note 7, at 46. The Akwesansne Wolf Wampum Belt, for example, recorded a mid-eighteenth-century treaty between the Mohawks and the French. Steven J. Gunn, *The Native American Graves Protection and Repatriation Act at Twenty: Reaching the Limits of Our National Consensus*, 36 Wm. Mitchell L. Rev. 503, 521 (2010).

[9] Sarah Harding, *Justifying Repatriation of Native American Cultural Property*, 72 Ind. L.J. 723, 758 (1997).

[10] Ranjan Datta, *Traditional Storytelling: An Effective Indigenous Research Methodology and Implications for Environmental Research*, 14 AlterNative: Int'l J. Indigenous Peoples 35, 37 (2018).

Kânaka Maoli's ("Native Hawaiians'") mo‘o is one such example. Like the Haudenosaunee's wampum, the customs around mo‘o capture and symbolize Kânaka Maoli's unique emotional solidarity with the past.[11] In the Hawaiian language, the term "mo‘o" carries many meanings, including a dragon or reptile of any kind.[12] Along with its literal translations, mo‘o bears great significance in Hawaiian language and identity: "A deeper meaning of mo‘o is that of the dragon's spine; a metaphor for a succession of oral tradition and lineal descendants."[13] Lu‘ukia Nakanelua retells the deeper meaning behind this metaphor:

> [T]he Mo‘o is a major force of life. Its head peers into the future[.] Its front feet are the ‘opio (youth), reaching, touching, examining. Next come the mâkua (parents), the stable hind legs of the dragon, and beyond them, the kûpuna (elders). The kûpuna form the spine, the collective song of all that came before.[14]

Consistent with this concept is the Native Hawaiian word for story—mo‘olelo, "a progression of words that not only recounts the story of an individual, but is also woven into the collective fabric or memory of Maoli society."[15] Likewise, mo‘okû‘auhau is the word for "genealogy," a progression of generations. Overall, mo‘o can be understood "as paradigm, the foundation of Maoli understanding of law, culture, and society[.]" For Kânaka Maoli, mo‘o is "critical to the way [they] create and re-create community identity and ancestral homelands as past, present, and future generations."[16] It remains one of many traditions and customs representing how Kânaka Maoli fix their eyes on the past, "seeking historical answers for present-day dilemmas."[17]

Like the wampum, the mo‘o tradition provides a frame for understanding information and—more importantly—its impacts to Indigenous Peoples. Mo‘o, as a paradigm, is one example of an Indigenous knowledge system and how it functions in conjunction with Indigenous traditions and customs. Indigenous scholars describe how these knowledge systems are embedded into Indigenous culture and life:

> [M]any Indigenous knowledge systems were based on generations of data gathering through observation and experience that

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[11] *See* Harding, *supra* note 9, at 758.

[12] Lu‘ukia Nakanelua, *Na Mo‘o o Ko‘olau: The Water Guardians of Ko‘olau Weaving and Wielding Collective Memory in the War for East Maui Water*, 41 U. Haw. L. Rev. 189, 190 n.3 (2018).

[13] *Id.* at 191.

[14] *Id.* at 198 (brackets and quotations omitted).

[15] *Id.* at 191.

[16] *Id.* at 192, 198.

[17] *See* Lilikalā Kame‘eleihiwa, Native Land And Foreign Desires: Pehea La E Pono Ai? 22 (1992). The tradition of mo‘o is encapsulated in the ‘Ōlelo No‘eau (Hawaiian proverb) "i ka wā ma mua, ka wā ma hope," which describes Native Hawaiians' temporal understanding that "the time in front" (i.e., the past) informs "the time in back" (the future). *Id.*

> then informed Indigenous practices, protocols, and ways of interacting with other people and with the natural world. The translation of knowledge into data was similarly evident. Indigenous data were recorded in oral histories, stories, winter counts, calendar sticks, totem poles, and other instruments that stored information for the benefit of the entire community.[18]

The traditions surrounding mo'o also demonstrate Indigenous data's vast scope. Pushing beyond typical understandings of 'data' often limited to 'hard' facts and statistics, this Article uses the term "Indigenous data" broadly to refer to data, information, and knowledge—in any format—that impacts Indigenous Peoples and communities. Like other Native scholars have emphasized, this definition "highlights that the concrete boundaries between data, information, and knowledge as defined in Western contexts are more fluid in an Indigenous context; Indigenous data extend far beyond bits and bytes."[19] Moreover, this definition encompasses "Indigenous cultural heritage embedded in [Indigenous] languages, knowledge, practices, technologies, natural resources, and territories."[20] It also includes data collected by governments and institutions about Indigenous Peoples and their lands.

A fairly new scholarly theme, Indigenous data sovereignty refers to "the inherent and inalienable rights and interests of [I]ndigenous [P]eoples relating to the collection, ownership and application of data about their people, lifeways and territories."[21] Positioned within the human rights framework, Indigenous data sovereignty derives from Indigenous Peoples' rights, such as those acknowledged in the United Nations Declaration on the Rights of Indigenous Peoples.[22] Indigenous data sovereignty rests on the premise that knowledge of and about Indigenous Peoples inherently belong to the collective people—a model of ownership fundamental to Indigenous identities. Ultimately, Indigenous data sovereignty envisions Indigenous control over the cultural framework of data, the process of data collection, the content produced, the stories told, and the priorities that the data supports.[23]

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[18] Stephanie Russo Carroll, Desi Rodriguez-Lonebear, & Andrew Martinez, *Indigenous Data Governance: Strategies from United States Native Nations*, 18 DATA SCI. J. 31, 2 (July 2019).

[19] *Id.*

[20] U.S. Indigenous Data Sovereignty Network, *CARE Principles for Indigenous Data Governance* 1, https://static1.squarespace.com/static/5d2633cb0ef5e4000134fa02/t/5d79d71017444913dd70e43e/1568266002781/CARE%2BPrinciples%2Bfor%2BIndigenous%2BData%2BGovernance_OnePagers_FINAL%2BSept%2B06%2B2019.pdf, *archived at* https://perma.cc/BRP5-KGKY [hereinafter *CARE Principles*].

[21] INDIGENOUS DATA SOVEREIGNTY, TOWARD AN AGENDA 2 (Tahu Kukutai & John Taylor, eds., 2016) [*hereinafter* INDIGENOUS DATA SOVEREIGNTY]. In 2015, a workshop of international scholars, representatives of Indigenous organizations, and government personnel from Canada, Australia, Aotearoa (New Zealand), and the United States gathered "to identify and develop an indigenous data sovereignty agenda." *Id.* at 1.

[22] *Id.*

[23] Indigenous data sovereignty is multifaceted and implicates legal and ethical issues regarding data storage, ownership, access, and consent; intellectual property rights; and practical

Indigenous data—whether centuries-old stories or ostensibly 'objective' statistics—is "intrinsic to Indigenous Peoples' capacity and capability to realize their human rights and responsibilities to all of creation."[24] Since "justice claims of 'right' start with struggles over memory[,]"[25] Native Peoples can bolster their claims for justice through reclaiming their (hi)stories and practicing Indigenous data sovereignty. As the following Part elaborates, to support Indigenous data sovereignty, non-Native narratives must first be understood as a tool of colonization that upholds racist-imperialist discourse and justifies violence against Indigenous Peoples.

II. Understanding Non-Native Narrative Traditions As A Tool of Colonization

"The very heartbeat of racism is denial."

– Ibram X. Kendi[26]

Settler-colonial states have long deployed narratives against Indigenous Peoples as a tool of colonization. Throughout history, narratives—particularly those written into laws and legal policy—have served as a means of dispossessing Indigenous Peoples not only of their self-determination and lands, but also of the stories that are foundational to their identities and communities. Many of the narratives weaponized against Native Americans 200 years ago remain the basis for much of non-Natives' perceptions of Native Peoples today. To critically evaluate data and the stories it tells, this Article uses the following theoretical framework for critical analysis to, first, understand how colonizers deploy narratives to justify violence against Indigenous Peoples; and second, contextualize potential issues with AI amid the greater histories of longstanding Indigenous data issues and colonization more generally.

A. A Genealogical Framework of Colonization Through Discourse & The "Rule of Law"

Consistent throughout Federal Indian Law and United States' history is the narrative theme of Indigenous Peoples' "normative divergence from a civilized white society's ethical prescriptions[.]"[27] A poignant warning, Pro-

considerations about data-use in the context of research, policy, and practice. Indigenous Data Sovereignty, *supra* note 21, at 1–3.

[24] *CARE Principles*, *supra* note 20.

[25] Sharon K. Hom & Eric K. Yamamoto, *Collective Memory, History, and Social Justice*, 47 UCLA Rev. 1747, 1764 (2000).

[26] Director of the Center for Antiracist Research at Boston University. *Ibram X. Kendi: 'The Very Heartbeat of Racism is Denial'*, University of Rochester News Center (Feb. 25, 2021), https://www.rochester.edu/newscenter/ibram-x-kendi-the-very-heartbeat-of-racism-is-denial-470332/, *archived at* https://perma.cc/3Q4S-TPD9.

[27] Robert A. Williams, Jr., *Documents of Barbarism: The Contemporary Legacy of European Racism and Colonialism in the Narrative Traditions of Federal Indian Law*, 31 Ariz. L.

fessor Robert A. Williams, Jr. foresaw in 1989 the modern revival of that same "uncompromising and racist legal discourse of opposition to tribal sovereignty."[28] The Court's "modern discourse," he explained, mirrored earlier Removal Era[29] "public discursive strategies" that sought to erase Indigenous Peoples from their ancestral lands.[30] This colonial narrative tradition of "othering" and its weaponization against Indigenous Peoples date back well before the nineteenth century Removal Era.[31]

> The idea that the tribal savage's way of life was inferior to the norms and values of white civilization was part and parcel of the cultural treasure carried along by white America in its two hundred-year-old triumphal procession into the New World. The emergence of a richly elaborated and well-regarded corpus of texts and familiar arguments constituting, in effect, an orienting narrative tradition on tribalism's incompatibility with a "civilized" race of European-descended cultivators, can be traced back to the earliest English settlements in the New World.[32]

Today, over thirty years later, modern law, policy, and public discourse continue to carry on the colonial narrative traditions based in European-derived colonialism and racism.

Distilling Albert Memmi's works, Professor Williams described how these centuries-old narrative traditions are able to persevere and justify the continued oppression of Indigenous Peoples. Dissecting colonizers' weaponization of narratives, Memmi developed a "genealogical" framework, comprised of four strategies or "steps," that describes how colonizers deploy "European-derived racist-imperial discourse" to justify oppression and violence against Indigenous Peoples. First of these discursive strategies, the colonizer stresses "the real or imaginary differences between the colonizer and his victim."[33] In doing so, white Americans seek to distance them-

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REV. 237, 247–48 (1989) (applying Memmi's framework to the United States' colonization of Native America).

[28] *Id.* at 237.

[29] Historians and legal scholars have organized Federal Indian law and policy into six major historical eras: (1) Post-Contact and Pre-Constitutional Development (1492–1789); (2) The Formative Years (1789–1871); (3) Allotment and Assimilation (1871–1928); Indian Reorganization (1928–1942); (5) Termination (1943–1961); and (6) Self-Determination (1961–present). FELIX S. COHEN, FELIX S. COHEN'S HANDBOOK OF FEDERAL INDIAN LAW § 1.01 (2012 ed.); *see also* JUSTIN B. RICHLAND & SARAH DEER, INTRODUCTION TO TRIBAL LEGAL STUDIES 75 (2nd ed. 2010) (listing nine eras of Federal Indian Policy as: Colonial Period (149–21776); Confederation Period (1776–1789); Trade and Intercourse Act Era (1789–1835); Removal Period (1835–1861); Reservation Era (1861–1887); Allotment Period & Forced Assimilation (1871–1934); Indian Reorganization Act Period (1934–1940); Termination Era (1940–1962); and the Self-Determination Era (1962–Present)).

[30] *See* Williams, Jr., *supra* note 27, at 237–38.

[31] The Removal Period, or "Era," refers to the period from around 1835 to 1861, during which the United States extinguished Indian title to eastern lands and removed Indians beyond stateboundary lines westward. RICHLAND & DEER, *supra* note 29, at 75.

[32] Williams, Jr., *supra* note 27, at 248.

[33] *Id.* at 262.

selves from the "New World savage" and cast him as an "outsider" of the dominant, white society.[34]

The colonizer then assigns "values to those differences, to the advantage of the colonizer and the detriment of his victim."[35] This second discursive step is "'essential' to European-derived racist-imperial discourse."[36] Alone, difference is just a category.[37] Racist discursive strategy, however, "always adds an *interpretation* of such differences, a prejudiced attempt to *place a value* on them."[38] Difference is always characterized in relation to the colonizer, "who is taken as the point of reference."[39] In other words, the colonizer is the default against which the colonized will always be judged against and deemed inferior.

Third, in what Memmi calls the "*collective* element," the colonizer totalizes its victims, "trying to make them absolutes by generalizing from them and claiming they are final."[40] The colonizer stereotypes all those of the colonized—claiming their 'different,' 'inferior' traits are natural, inherent, and immutable. It stereotypes its victims "until *all of the victim's personality* is characterized by the difference, and *all of the members* of his social group are targets for the accusation."[41] According to Memmi, racism always includes this collective element, and "there must be no loophole by which . . . any colonized . . . man could escape this *social determinism*."[42]

In the final, cumulative step of Memmi's framework, the colonizer is able to justify "any present or possible *aggression* or *privilege*."[43] Memmi explained, "[b]y an accurate or falsified characterization of the victim, the accuser attempts to explain and to justify his attitude and his behavior toward him."[44] To the colonizer, the inherent inferiority of Indigenous Peoples "justifies the superior white society's privilege of domination" and "aggression against peoples of color."[45] This final strategy functions as a mask for the colonizer, and its privilege and aggression, such that "racism is the racist's way of giving himself absolution."[46]

Together, these four discursive strategies explain how, "[s]ince its invasion of America, white society has sought to justify, through law and legal

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[34] *Id*. at 263. For colonizers, this discrimination "demonstrate[s a public message about] the impossibility of including the colonized in the community; because he would be too biologically and culturally different, technically and politically inept, etc." *Id.* at 265.

[35] Williams, Jr., *supra* note 27, at 262.

[36] *Id.* at 259.

[37] *Id.* at 268.

[38] *Id.*

[39] *Id.*

[40] *Id.* at 262, 269.

[41] Williams, Jr., *supra* note 27, at 268.

[42] *Id.* at 269.

[43] *Id.* at 262.

[44] *Id* at 276; *see* Albert Memmi, Attempt at a Definition, in Dominated Man: Notes Toward a Portrait 186 (1968).

[45] Williams, Jr., *supra* note 27, at 276–77.

[46] *Id.* at 277.

discourse, its privileges of aggression against [Native] people[s] by stressing tribalism's incompatibility with superior values and norms of white civilization."[47] Since early efforts to "civilize" Indigenous Peoples in America, the "rule of law" has been deployed in lockstep with colonial narrative traditions as a powerful tool for legitimizing them. Professor Kapua'ala Sproat emphasized:

> Time and again, "the law often replicates the same script portrayed in American history." This is especially important because histories written by non-Native "people to justify the colonial conquest and dispossession of Native people continue to provide the truth in cases where Native testimony is perceived as biased and non-Native experts are seen as biased purveyors of truth."[48]

This, in part, explains why colonial narrative traditions of past and present all "share in their unquestioned reliance on law and legal discourse as the principal tool" of controlling Indigenous Peoples and their "perceived difference from the values of the dominant society."[49] Once all four strategies are deployed and colonial narrative traditions are codified and legitimized by the "rule of law," the genealogical framework Memmi outlined lends readily to repetition. In other words, racist stories and their discursive themes tend to stick, becoming a part of the colonial narrative traditions that underly—and control—generally shared assumptions about Indigenous Peoples.

Throughout this Article, achieving "justice" for Indigenous Peoples is about self-determination. Under international (humans rights) law, self-determination "remains a comprehensive, unparsed, and inalienable right of all peoples[,]"[50] which includes the right to "freely determine their political status and freely pursue their economic, social, and cultural development."[51] Historically, colonizers have cut away at Indigenous Peoples' self-determination through the "rule of law." By weaponizing the rule of law, colonizers sought to justify racist attitudes and violence against Indigenous Peoples in the United States. Similarly, non-Native decisionmakers continually rely on and articulate colonial narratives that "seek to constrain tribalism in one way or another" and limit the scope of justice for Indigenous Peoples.[52] Thus, justice for Indigenous Peoples cannot be about "equality" under the law but must instead center self-determination. By taking a critical approach that

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[47] *Id.*

[48] Sproat, *supra* note 4, at 185.

[49] Williams, Jr., *supra* note 27, at 262.

[50] Julian Aguon, *On Loving the Maps Our Hands Cannot Hold: Self-Determination of Colonized and Indigenous Peoples in International Law*, 16 Asian Pac. Am. L.J. 47, 51 (2011).

[51] *Id.* at 49. International Covenant on Civil and Political Rights, art. 1, March 23, 1976, 999 U.N.T.S. 171; International Covenant on Economic, Social, and Cultural Rights, art. 1, Jan. 3, 1976, 993 U.N.T.S. 3.

[52] Williams, Jr., *supra* note 27, at 262.

moves beyond the restrictions of legal formalism,[53] this Article aims to expose the real injustice caused to Indigenous Peoples and determine what justice means for them.

B. Boarding Schools' Legacy: Colonial Narrative Traditions About Indian Families

To appreciate the immense power colonial stories hold, the following section traces the history of colonial narrative traditions told about Native American families and communities. This history is necessary to understand and disrupt the flawed narratives that non-Native controlled data tell about Indigenous Peoples today. And without correction, the colonial narratives that have historically harmed Indigenous Peoples will become the bases for understanding data and developing AI technology going forward.

The strategic attacks on the Indian Child Welfare Act of 1978 ("ICWA") in recent decades demonstrate the way colonial narratives have been perpetuated and their continued impacts on Native families. Enacted in response to earlier policies separating of Native children from their families and communities, ICWA sets federal requirements for the adoption of Indian children to "protect the best interests of Indian children and to promote the stability and security of Indian tribes and families[.]"[54] ICWA's opponents, on the other hand, contend that as a result of the federal law, "vulnerable kids are subjected to a separate, less-protective set of laws solely because of their race[.]"[55] An ongoing legal battle, *Brackeen v. Haaland*, is the latest challenge to ICWA's constitutionality.[56]

Brackeen began in 2017, when three non-Native families and three Republican state attorneys general sued the U.S. government in federal court, arguing that ICWA relies on racial classifications violative of the Equal Pro-

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[53] Legal formalism refers to the mechanist approach to the law and legal processes whereby facts are applied to "legitimate" legal rules (i.e., laws) to produce a calculated, "correct" legal outcome. For an in-depth discussion of legal formalism, see Joseph Singer, *Legal Realism Now*, 76 CALIF. L. REV. 465 (1988).

[54] 25 U.S.C. § 1902 (1978); *About ICWA*, NAT'L INDIAN CHILD WELFARE ASS'N, https://www.nicwa.org/about-icwa/, *archived at* https://perma.cc/RXE8-GE3H.

[55] *Ensuring Equal Protection for Native American Children*: *Challenging the Indian Child Welfare Act*, GOLDWATER INST., https://goldwaterinstitute.org/indian-child-welfare-act/?gclid=CJ0KCQiA0p2QBhDvARIsAACSOOOw05VtaaV8k2ZOK_LmQq6V7EWmkOpmYfWo3NnSn1woYr5wf-AC3CMaApdREALw_wcB, *archived at* https://perma.cc/QR9L-9U2B (providing a list of other ICWA litigation in which the Goldwater Institute has been involved).

[56] As of this writing, the United States and intervening Tribal Nations, as parties to the suit, petitioned asking the Supreme Court to review the Fifth Circuit's April 2021 en banc decision. If the Supreme Court grants review of the case, it must decide two legal issues: (1) whether ICWA's provisions around the placement of an "Indian child" discriminate based on race in violation of the U.S. Constitution, and (2) whether those provisions exceed Congress's authority by commandeering state courts and agencies to carry out a federal child-placement program. *Brackeen v. Haaland*, SCOTUSBLOG, https://www.scotusblog.com/case-files/cases/brackeen-v-haaland/, *archived at* https://perma.cc/EU4Y-NPT3.

tection Clause of the Constitution.[57] In 2018, a federal district court in Texas agreed with the Plaintiffs and struck down ICWA as unconstitutional. On appeal, a three-judge panel of the Fifth Circuit Court of Appeals reversed the lower decision and upheld ICWA's constitutionality, recognizing Tribal Nations' unique political status and the Act's necessity in safeguarding Indian children's welfare.[58] After rehearing the case en banc, the Fifth Circuit published a 325-page opinion, which recognized ICWA generally as within Congress's Article I authority.[59] Although it affirmed some of the district court's rulings, the en banc majority reversed the district court's ruling that ICWA's "Indian child" classification is unconstitutional.[60]

Mainstream media has barely covered the challenges to the Indian Child Welfare Act in the courts. This case, however, is gravely important to Tribes and Native families across the continent. And, for many Native Americans, *Brackeen* digs up older memories. To them, it is yet another attack on tribal sovereignty. One that relies on the same colonial narrative traditions that have justified violence against Indigenous Peoples across what is now the "United States." To understand the current battleground of ICWA and the extent of its potential impacts on Native Nations and their rights, the *Brackeen* case must be connected to other historical attacks on Native families and Tribes.[61]

1. Industrial Boarding Schools & The Indian Adoption Project During the Assimilation & Termination Eras

In 1895, U.S. Army Captain Richard Henry Pratt declared what became the mantra of the era: "Kill the Indian, save the man."[62] This pronouncement

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[57] Brackeen v. Zinke, 338 F.Supp.3d 514, 519 (N.D. Tex. 2018) ("Plaintiffs are comprised of three states—Texas, Louisiana, and Indiana (collectively, the 'State Plaintiffs'), and seven individual Plaintiffs[.]"); Abigail Abrams, *The Fight Over Native American Adoption Is About More Than Just the Children*, TIME (July 2, 2019), https://time.com/longform/native-american-adoptions/, *archived at* https://perma.cc/2JRG-57KS.

[58] Brackeen v. Bernhardt, 937 F.3d 406, 427 (5th Cir. 2019).

[59] Brackeen v. Haaland, 994 F.3d 249, 267 (5th Cir. 2021); *Brackeen v. Bernhardt – Indian Child Welfare Act*, NATIVE AM. RTS. FUND, https://www.narf.org/cases/brackeen-v-bernhardt/#:~:text=ON%20April%206%2C%202021%2C%20the,Child%20Welfare%20Act%20(ICWA), *archived at* https://perma.cc/45QC-GAG5.

[60] *Brackeen*, 994 F.3d at 268 ("The en banc court is equally divided, however, as to whether Plaintiffs prevail on their equal protection challenge to ICWA's adoptive placement preference for 'other Indian families,' 25 U.S.C. § 1915(a)(3), and its foster care placement preference for a licensed 'Indian foster home,' § 1915(b)(iii). The district court's ruling that provisions of ICWA and the Final Rule are unconstitutional because they incorporate the 'Indian child' classification is therefore reversed, but its ruling that § 1915(a)(3) and (b)(iii) violate equal protection is affirmed without a precedential opinion.").

[61] Kelly Hayes, *Right-Wing Attacks on Native Child Welfare Law Should Frighten Us All*, TRUTHOUT (Nov. 11, 2021), https://truthout.org/audio/right-wing-attacks-on-native-child-welfare-law-should-frighten-us-all/, *archived at* https://perma.cc/3W76-VP4L ("[W]e can't talk about the Indian Child Welfare Act without talking about cultural genocide and the institutionalization of Native genocide.").

[62] WARD CHURCHILL, KILL THE INDIAN, SAVE THE MAN: THE GENOCIDAL IMPACT OF AMERICAN INDIAN RESIDENTIAL SCHOOLS 14 (2004); Hayes, *supra* note 61 ("A great general

promoted a philosophy of assimilation and justified boarding schools, which brutalized Indian children and their families emotionally, psychologically, physically, and spiritually.[63] Years earlier, in 1879, Pratt opened the Carlisle Indian Industrial School in Pennsylvania—the first government-run boarding school for Native Americans.[64] With Carlisle as a blueprint, thousands of Native children attended almost 150 boarding schools across the United States.

Carlisle and the schools modeled after it sought to carry out the era's policy to erase Natives from the white American landscape. These boarding schools served as tools of assimilation in more ways than one. In addition to the goal that Native students "shed all native culture and customs and assimilate fully into white American culture[,]" student recruitment was also carried out with the intention of controlling Tribes. For instance, in the recruitment of students for Carlisle, "[t]he Department of War directed Pratt to travel to the Dakota Territory and recruit the first students from the Oglala Sioux and Brule Sioux. Government leaders essentially held hostage the children of tribal leaders to try to ensure good behavior of the tribes."[65]

Countless more atrocities took place at these institutions. Children were forced to cut their hair and their names were replaced with English ones, insidious attempts to sever these children from their culture and language. For too many Native children, these boarding schools were deadly, an issue recently brought to light by the discovery of the remains of 215 children at a Kamloops, British Columbia residential school.[66] Despite the human rights violations at these boarding schools, these institutions were praised by the dominant (white) society as acts of charity. Captain Henry Pratt even considered his attitude toward Indians as one of "benevolence." More than 75% of Indian children in school at the turn of the 20th century were in boarding schools aimed toward 'civilizing' them.[67] By 1917, off-reservation boarding schools were outlawed from coercing Indian families to enroll their children. The Carlisle Indian Industrial School closed the following year, but the attitudes and desires on which it was founded survive.

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has said that the only good Indian is a dead one. In a sense, I agree with the sentiment, but only in this: that all the Indian there is in the race should be dead. Kill the Indian in him and save the man.") (quoting Pratt's 1892 speech).

[63] Ann Piccard, *Death by Boarding School: "The Last Acceptable Racism" and the United States' Genocide of Native Americans*, 49 GONZ. L. REV. 137, 151–52 (2013–14).

[64] *Past*, CARLISLE INDIAN SCH. PROJ., https://carlisleindianschoolproject.com/past/, *archived at* https://perma.cc/M3JD-L6QY.

[65] *Id.*

[66] Paula Newton, *'Unthinkable' Discovery in Canada as Remains of 215 Children Found Buried Near Residential School*, CNN (June 1, 2021), https://www.cnn.com/2021/05/28/world/children-remains-discovered-canada-kamloops-school/index.html, *archived at* https://perma.cc/L2MX-H92S. Tens of thousands of children are estimated to have died in boarding schools across the United States. Hayes, *supra* note 61.

[67] Abigail Abrams, *The Fight Over Native American Adoptions Is About More Than Just the Children*, TIME (July 2, 2019), https://time.com/longform/native-american-adoptions/, *archived at* https://perma.cc/YXQ3-VCCL.

The Indian Adoption Project began in the Termination Era in the 1950s. Through this Project, the Child Welfare League of America, funded by the Bureau of Indian Affairs, removed Indian children from their parents and placed them with white families, often several states away.[68] Designed to force assimilation and eradicate Native culture, the Project was strategically "designed to save the government money and dismantle Tribal Nations. All under the guise of integrating Native children more fully into American society[.]"[69] Adoption, as the government saw it, was another means of 'civilizing' Indians, assimilating them into white society without cost to the government. The Project could "systematically place an entire child population across lines of nation, culture, and race."[70]

For white families seeking to adopt, and the churches involved in facilitating adoptions,[71] this policy was an opportunity to provide Indian children with a better life than they would have on the reservation. Sandra White Hawk (Sicangu Lakota), an adoptee from the Rosebud Reservation in South Dakota, explains that:

> [T]his idea did not come from grace (a basic Christian concept), but rather a cruel assumption that Indian families did not have a religion and a spiritual belief system or a family system. All they saw was the poverty and alcoholism, compared it to their privileged life and came to the conclusion that they and their way of life was superior.[72]

Accordingly, during this era of forced adoption, any "issue" could trigger the severance of an Indian child from their family.[73] Removals were supported neither by home studies nor any other investigations.[74]

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[68] *Id.*

[69] *Indian Boarding Schools: The First Indian Child Welfare Policy In The U.S.*, THE NAT'L NATIVE AM. BOARDING SCH. HEALING COALITION (Oct. 30, 2020), https://boardingschoolhealing.org/indian-boarding-schools-the-first-indian-child-welfare-policy-in-the-u-s/ (internal quotations omitted), *archived at* https://perma.cc/8F5N-ADZL.

[70] *Indian Adoption Project*, THE ADOPTION HIST. PROJ., https://pages.uoregon.edu/adoption/topics/IAP.html, *archived at* https://perma.cc/9Z5Z-UCS2.

[71] *See* Stephanie Woodard, *Native Americans Expose the Adoption Era and Repair Its Devastation*, INDIAN COUNTRY TODAY (updated Sep. 13, 2018), https://indiancountrytoday.com/archive/native-americans-expose-the-adoption-era-and-repair-its-devastation, *archived at* https://perma.cc/KYK7-JMNZ ("In the Southwest, the Church of Jesus Christ of Latter Day Saints took thousands of Navajo children to live in Mormon homes and work on Mormon farms, and the Catholic Church and other Christian denominations swept many more Indian youngsters into residential institutions they ran nationwide, from which some children were then fostered or adopted out.").

[72] *Id.* White Hawk has served as Commissioner for the Maine Wabanaki State Child Welfare Truth and Reconciliation Commission and as an Honorary Witness of the Truth and Reconciliation Commission on Residential Schools in Canada. She is also the founder/director of the First Nations Repatriation Institute.

[73] Woodard, *supra* note 71.

[74] *Id.*

In line with the colonial narrative traditions supposing Native Peoples' inferiority, the Project's violent removal of Native children from their families was justified by any demonstration of what non-Natives deemed "neglect" or "abuse" by Indian parents. At the second annual First Nations Repatriation Institute adult adoptees' summit, Native adoptees recalled the reasons they were seized from their families:

> Two Native people . . . said they were separated from their families after hospital stays as young children, one for a rash, the other for tuberculosis. A third was seized at his baby-sitter's home; when his mother tried to rescue him, she was jailed, he said. A fourth recalled that he was taken after his father died, though his mother did not want to give him up. A fifth described being snatched, along with siblings, because his grandfather was a medicine man who wouldn't give up his traditional ways.[75]

In 1966, what the U.S. Bureau of Indian Affairs called "a record year for the project," sixty-seven Indian children were placed in adoptive homes.[76] Also by then, since the Project's start in 1958, 276 Indian children had been removed, with a great majority placed in non-Indian homes.[77] The Project ended a year later, in 1967. Since, Native American activists and their allies have organized to challenge the idea that Indian adoption is a civil rights 'success,' a narrative reliant on assumptions about Native Americans' inherent and immutable inferiority as parents and families to raise children.[78]

2. The Indian Child Welfare Act in The Self-Determination Era

Well after the Indian Adoption Project's end, advocates continued to denounce it as the most recent colonial project in a long line of genocidal policies intent on eradicating Native communities and cultures.[79] In 1978, Congress passed ICWA to address the harms that personally affected nearly every American Indian family. By the year of the law's enactment, an estimated 25–35% of Indian children were removed from their families. Eighty-five percent of those Indian children were placed in non-Indian homes or institutions. This landmark Act sought to facilitate recovery from earlier Federal Indian policies shaped by Pratt's philosophy of killing the Indian and

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[75] *Id.*

[76] Press Release, U.S. DEP'T OF THE INTERIOR, INDIAN AFFS., Indian Adoption Project Increases Momentum (April 18, 1967), https://www.bia.gov/as-ia/opa/online-press-release/indian-adoption-project-increases-momentum, *archived at* https://perma.cc/4QN3-Z6NK (The Project was "conducted by the two agencies in cooperation with State and local welfare services and voluntary agencies.").

[77] *Id.* ("The children have ranged, in age from birth to 11 years, with about half of them being under a year old. Seventeen of the adoptive homes took more than one child from a family.")

[78] *Indian Adoption Project*, *supra* note 70.

[79] *Id.*

saving the man. After decades of Native children's removal by states and churches to non-Indian families, ICWA was a pivotal effort by the U.S. government to keep Native children with their Tribal families and communities.[80]

The Act's first section outlines key findings regarding Congress' relationship with Tribes and its plenary power over Indian affairs. After defining its authority and outlining its trust responsibility to Indian Tribes, Congress recognizes the need to fix the problem of "an alarmingly high percentage of Indian families broken up by the removal of their children from them by nontribal public and private agencies."[81] A powerful affirmation of Native families' and Tribes' rights, Congress also includes "that there is no resource more vital to the continued existence and integrity of Indian tribes than their children and the United States has a direct interest, as trustee, in protecting Indian children who are members of or are eligible for membership in an Indian tribe[.]"[82]

Congress explicitly states its purpose: ICWA is meant "to protect the best interest of Indian Children and to promote the stability and security of Indian tribes and families by the establishment of minimum Federal standards for the removal of Indian children and placement of such children in homes which will reflect the unique values of Indian culture."[83] In other words, ICWA sets requirements for what states must do when an Indian child comes into contact with the child welfare system and before they can be removed from their families or Tribes. The Indian Child Welfare Act provides Native families a legal basis to challenge the "systematic theft" of their children, but the Act's protections are limited.[84] And, given the past decade of attacks on its constitutionality, the limited protections ICWA does provide for Native families are at-risk of being struck down all together.

3. Twenty-First Century Targeted Attacks on Native Families' Rights to Keep Native Children

Today, over four decades after its passage, ICWA's fate—along with Tribes' unique rights as political sovereigns—hangs in the balance. Without explicitly evoking Pratt's slogan, the same Termination Era biases are manifested in the attacks on this Act. Some special interest groups argue that ICWA has outlived its necessity and prioritizes Tribes over the best interests

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[80] Matthew Fletcher, *How the 'Only Family' Argument is Used Against Indigenous Families*, HIGH COUNTRY NEWS (July 9, 2020), https://www.hcn.org/articles/indigenous-affairs-justice-how-the-only-family-argument-is-used-against-indigenous-families, *archived at* https://perma.cc/K4E7-4QDB.

[81] The Indian Child Welfare Act of 1978, 25 U.S.C. § 1901 (1978) [hereinafter ICWA].

[82] *Id.*

[83] *Id.* § 1902.

[84] Hayes, *supra* note 61 ("Native families still experience high rates of family separation due to disproportionate rates of incarceration, and a social work system that punishes Native families for experiencing abject poverty.").

of the children it was intended to help.[85] Individual plaintiffs, Chad Everett and Jennifer Kay Brackeen, an Evangelical white couple who sought to adopt an Indian child against Tribal wishes, contend that ICWA has caused them to fear that their son would be "ripped away" from them,[86] and "felt it was in [the child]'s best interest to stay right where he was" with them.[87] Professor of Law Matthew Fletcher, Grand Traverse Band of Ottawa and Chippewa Indians,[88] describes these arguments as "a powerful dog whistle attacking American Indian families and tribes who assert to keep Native children with Native families" under ICWA.[89] Tribal Nations across Turtle Island recognize *Brackeen* as more than a custody battle—it is an attempt to delegitimize Native sovereignty and further erase Indigenous culture from the American landscape.[90]

When ICWA was passed, commentators and journalists fostered public sympathy for Indian families and children by describing the violence enacted against them when Indian children are "snatched abruptly from the *only family* [they] had ever known and given to strangers."[91] But Professor Fletcher describes the way opponents to this law have twisted this narrative about ICWA to fit their desires, which ultimately causes harm to Native families and communities:

> Private and religious adoption agencies . . . seized on the 'only family' argument . . . and reversed the narrative, supported by news media that glossed over the views of Indian People. By the early 1980s, media accounts were describing the non-Indian adoptive families as the 'only family.' . . . Today, briefs filed in federal and state courts seeking to reverse decisions under ICWA are riddled with the phrase. News reports sympathetic to foster and adoptive families routinely invoke the 'only family' argument, but never in order to favor Indian families or tribes.[92]

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[85] Abrams, *supra* note 67.

[86] *Adoption, Part 1: The Roller Coaster*, The Brackeens (Jan. 31, 2018), https://web.archive.org/web/20201221202121/http://thebrackeens.blogspot.com/2018/01/adoption-part-1-roller-coaster.html, *archived at* https://perma.cc/75C5-XNZJ.

[87] *Id.* The Brackeens are represented pro bono by the Gibson Dunn law firm, which also represents corporations Enbridge and Energy Transfer of the Dakota Access and Line 3 pipelines. Lois Danks, *Native Children and Sovereignty Targeted in Right-Wing Lawsuit*, 42 Freedom Socialist (Dec. 1, 2021), https://www.indianz.com/News/2021/12/01/freedom-socialist-conservative-attack-on-indian-child-welfare-act-continues/, *archived at* https://perma.cc/6JJB-E8ES.

[88] Professor Fletcher is also the Director of the Indigenous Law & Policy Center at Michigan State University College of Law.

[89] Fletcher, *supra* note 80.

[90] *See* Danks, *supra* note 87 ("It is clearly a battlefield in the far right's intensifying campaigns against critical race, transgender rights, voters' rights, and reproductive rights—parts of the war on working people, women, people of color, and LGBTQ+ folks.").

[91] Fletcher, *supra* note 80 (quoting Calvin Trillin in the *New Yorker* in 1976).

[92] *Id.*

In recent decades, the colonial co-opted narrative of the 'only family' is weaponized against the very Native families ICWA was enacted to protect. For instance, in *Adoptive Couple v. Baby Girl* (2013), the U.S. Supreme Court relied on that narrative in justifying its decision to separate a Cherokee child from her biological father. Justice Alito began the opinion by describing the Indian child at the center of the litigation: "This case is about a little girl (Baby Girl) who is classified as an Indian because she is 1.2% (3/256) Cherokee. Because Baby Girl is classified in this way, [ICWA] required her to be taken . . . from the only parents she had ever known and handed her over to her biological father[.]"[93] As Professor Fletcher wrote, this description of racial characteristics "is the epitome of a racist dog whistle," which relies on the colonial concept of blood quantum, aimed at minimizing Indigenous identity.[94] Justice Alito's "only family" narrative was also inaccurate. In fact, the adoptive couple was not the only family Baby Girl had known. After challenging Baby Girl's adoption,[95] her biological father prevailed before a South Carolina family court, and Baby Girl returned to her biological family at the end of 2011. She lived with her father for the next two years, while the adoptive couple publicly touted their "only family" argument on popular cable TV shows including *Anderson Cooper 360* and *Dr. Phil*.[96]

In 2018, When Judge Reed O'Connor issued his decision to strike down ICWA as unconstitutional in *Brackeen v. Zinke*, he too relied on the "only family" argument, "centering the emotional narrative of the non-Indian family[,]"[97] while ignoring the history of harms against Native American families that the law was intended to protect. The opening lines frame the rest of his opinion:

> This case arises because three children, in need of foster and adoptive placement fortunately found loving adoptive parents who seek to provide for them. Because of certain provisions of a federal law, however, these three children have been threatened with removal

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[93] Adoptive Couple v. Baby Girl, 570 U.S. 637, 641 (2013).

[94] Fletcher, *supra* note 80. Blood quantum refers to the "amount" of "Indian blood" (or "Native blood") a person has. Limiting its obligations to Indigenous Peoples, the federal government has conditioned funding and membership for some Tribes and/or programs on blood quantum. For instance, in the early 1900s, the federal government denied some Native Americans allotments of lands if they did not have at least one-quarter "Native blood." Maya Harmon, *Blood Quantum and the White Gatekeeping of Native American Society*, CALIF. L. REV. BLOG (Apr. 2021), https://www.californialawreview.org/blood-quantum-and-the-white-gatekeeping-of-native-american-identity/, *archived at* https://perma.cc/FKZ8-RWXN.

[95] Fletcher, *supra* note 80. Justice Alito's opinion fails to mention any of the details surrounding the adoptive couple's actions leading up to their adoption of Baby Girl. It does not include, for instance, the efforts the adoptive couple took to keep Baby Girl—like the fact that South Carolina courts found that the adoptive couple falsified the biological father's birth date and misspelled his name to delay the Cherokee Nation's involvement in their case.

[96] *Id.*

[97] *Id.*

> from, in some cases, the only family they know, to be placed in another state with strangers.[98]

Indigenous organizer-activist and writer Rebecca Nagle positions the current fight to protect Tribes' rights under ICWA as part of a larger, ongoing history of using Native children "as the tip of the spear in the project of colonization and genocide[.]"[99] ICWA's opponents attempt to ignore that long history. Instead, the 'only family' narrative seeks to cast non-Native families as victims of family separation—a twisted story that relies on viewing current events in isolation, ignores the governments' past harms against Native families, and denies the ongoing disparate treatment that Native Peoples continue to experience today.

As deployed by ICWA's opponents, the 'only family' narrative and its impacts are best understood when contextualized within colonial narrative traditions that cast Native Peoples as inferior. In lawsuits challenging ICWA, adoptive parents invoke the same narrative themes that justified the historical removal of Indian children from their families by boarding schools and pre-ICWA adoption policies. "Conditions imposed upon Native people by settler colonialism are [often] cited as evidence that Native parents are unfit to raise their children."[100] In some cases, wealthy white plaintiffs invoke classism and fatphobia to paint themselves as "saviors, rescuing Native children from unhealthy, backward lives."[101] Foster parents (often, upper middle class families) may also argue for custody over Indian children by reasoning that their homes are bigger, or that they have more money and financial stability.[102]

The above narratives do more than merely point out differences of Native communities. They exploit the differences between white families and Native families, vilifying those differences and Native Peoples with them. To justify Indian children's separation from their families, ICWA's opponents rely on the colonial narrative traditions already embedded in Federal Indian Law. As such, when viewed within the narrow frame provided by colonial narrative traditions, violence against Native families is not only lawful but can be pursued under the guise of "charity" or "benevolence."

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[98] Brackeen v. Zinke, 338 F.Supp.3d 514, 519 (N.D. Tex. 2018), *rev'd sub nom.* Brackeen v. Bernhardt, 937 F.3d 406 (5th Cir. 2019), *aff'd in part, rev'd in part sub nom.* Brackeen v. Haaland, 994 F.3d 249 (5th Cir. 2021) (en banc), *cert. granted*, 142 S. Ct. 1205 (2022).

[99] Hayes, *supra* note 61.

[100] *Id.*

[101] *Id.*

[102] *Id.*

III. Artificial Intelligence: The New Frontier of Data

> "Is AI the new (r)evolution or the new colonizer for Indigenous peoples?"
>
> – Dr. Hçmi Whaanga[103]

Like AI technologies, "[t]he work of courts and judges is to process information; parties bring information to the court, transformations take place in the course of procedure, and the outcome is also information."[104] So what happens when AI and courts—separate systems of information-processing—intersect and inform "just" outcomes? In its infancy, the story of AI and its impact on Indigenous peoples "is still unfolding."[105] The impacts of AI use in U.S. courts 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.

A. An Overview of AI's Recent History in the Courts

Defining "artificial intelligence" is fraught with controversy.[106] For some experts, AI emulates human behavior. Others describe the technology as the ability to engage in rational thought processes.[107] According to one widely accepted definition, artificial intelligence "is the science and engineering of making intelligent machines, especially intelligent computer programs."[108] Intelligence, under this definition, refers to "the computational

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[103] Jason Edward Lewis, ed., Indigenous Protocol and Artificial Intelligence Position Paper, at 34-35 (2020), https://spectrum.library.concordia.ca/id/eprint/986506/7/Indigenous_Protocol_and_AI_2020.pdf, *archived at* https://perma.cc/6HG9-W3W5.

[104] A. D. (Dory) Reiling, *Courts and Artificial Intelligence*, 11 Int'l J. For Ct. Admin. 1, 2 (2020).

[105] *See* Nakanelua, *supra* note 12, at 194.

[106] *See generally* Rex Martinez, *Artificial Intelligence: Distinguishing Between Types & Definitions*, 19 Nev. L.J. 1015 (2019) (outlining the different legal implications because of differing definitions of AI). "[T]here is no general legal definition for what constitutes AI outside of a specific application, such as in the context of autonomous automobiles or electronic agents trading in the markets." *Id*. at 1016. *See* Arthur Rizer & Caleb Watney, *Artificial Intelligence Can Make Our Jail System More Efficient, Equitable, and Just*, 23 Tex. Rev. L. & Pol. 181, 185 (2018) ("This is due in part to the constantly-evolving expectations of what "true" machine intelligence requires and in part to our ever-increasing understanding of the underlying technical mechanisms involved in accomplishing specific tasks.").

[107] Nancy B. Talley, *Imagining the Use of Intelligent Agents and Artificial Intelligence in Academic Law Libraries*, 108 Law Libr. J. 383, 386–87 (2016); *Artificial Intelligence (AI)*, IBM, https://www.ibm.com/cloud/learn/what-is-artificial-intelligence, *archived at* https://perma.cc/SA9A-5A6P.

[108] John McCarthy, *What is AI?/Basic Questions*, http://jmc.stanford.edu/artificial-intelligence/what-is-ai/index.html, *archived at* https://perma.cc/U5K4-PHJX. McCarthy notes that AI "is related to the similar task of using computers to understand human intelligence, but AI does not have to confine itself to methods that are biologically observable." *Id.* According to another definition, AI "is the technology that can imitate certain actions and processes of the human mind, and it's how we refer to the ability of machines to perform tasks that thus far

part of the ability to achieve goals in the world[,]" which occurs in varying kinds and degrees in people, animals, and sometimes machines.[109] For present purposes, however, the legal system distinguishes AI from other technologies used to input and manage court data.[110] In the context of the courtroom, judicial outcomes are based on the technology's capacity to simulate intelligent behavior by perceiving knowledge, making sense of data, and then generating predictions or decisions based on the information.[111] Additionally, the technology may have a bodied form (e.g., robots) or operate absent a physical form (e.g., algorithms).[112] Its rising use in the courtroom has been "slow [and] steady[,]"[113] but AI is nonetheless gaining prevalence.[114] Expected to add $13 trillion to the global economy over the next decade, AI technologies will only increase in popularity.[115]

Seeking to promote efficiency and equitable justice, courts have begun to use AI as an "objective" tool to mitigate judges' explicit and implicit biases. Judge Jerome Frank recognized, "Every judge . . . unavoidably has many 'idiosyncratic leanings of the mind,' uniquely personal prejudices, which may interfere with his fairness at trial. He may be stimulated by unconscious sympathies for, or antipathies to, some of the witnesses, lawyers or parties in a case before him."[116] A judge's leniency may vary dramatically based on innocuous factors such as being hungry, bored, overworked, over-

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have required human intelligence and effort." *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; *see also* Reiling, *supra* note 104, at 2.

[109] McCarthy, *supra* note 108. The Honorable Dr. Dory Reiling, a retired judge and IT expert, described intelligence as "the ability to reason abstractly, logically and consistently, discover, lay and see through correlations, solve problems, discover rules in seemingly disordered material with existing knowledge, solve new tasks, adapt flexibly to new situations, and learn independently, without the need for direct and complete instruction." Reiling, *supra* note 104 at 2.

[110] As one example, "Gina the Avatar" helps those at the Superior Court of Los Angeles County in California handle their traffic citations. While Gina knows five languages and helps more than 5,000 customers a month, this technology is not considered an AI because it works within predefined paths. Stephanie Condon, *AI in the Court: Are Robot Judges Next?*, ZDNET (Jan. 22, 2020), https://www.zdnet.com/article/ai-in-the-court-are-robot-judges-next/, *archived at* https://perma.cc/EC9B-YTDX.

[111] Jonah Wu, *AI Goes to Court: The Growing Landscape of AI for Access to Justice*, MEDIUM (Aug. 5, 2019), https://medium.com/legal-design-and-innovation/ai-goes-to-court-the-growing-landscape-of-ai-for-access-to-justice-3f58aca4306f, *archived at* https://perma.cc/ABP3-E2PY.

[112] *Id.*

[113] Pamela Katz, *Expert Robot: Using Artificial Intelligence to Assist Judges in Admitting Scientific Expert Testimony*, 24 ALB. L.J. SCI. & TECH. 1, 28 (2014).

[114] Tania Sourdin, *Judge v. Robot: Artificial Intelligence and Judicial Decision-Making*, 41 U.N.S.W. L.J. 1114, 1115 (2018)

[115] Tim Fountaine, Brian McCarthy & Tamim Saleh, *Building the AI-Powered Organization*, 2019 HARV. BUS. REV. 63, 64 (July/Aug. 2019).

[116] Tania Sourdin & Richard Cornes, *Do Judges Need to Be Human? The Implications of Technology for Responsive Judging*, 67 IUS GENTIUM: COMPAR. PERSPS. ON L. & JUST. 87, 95 (2018).

whelmed, or distracted.[117] For instance, in determining whether or not to issue bail, studies predict that increased accuracy and efficiency from AI algorithms can reduce the jail population without increasing crime rates.[118]

Today, legal professionals increasingly deploy AI technology to draft litigation, analyze whether pre-determined criteria in contracts are met, and predict case outcomes.[119] Some AI technologies are able to advise potential parties and help them formulate solutions to their legal problems.[120] Governments have also taken advantage of AI technology. For instance, a Hangzhou court in China instituted a "cyber court" where litigants appear via video chat before an AI judge that can issue decisions on a narrow scope of issues, including online trade disputes and e-commerce product liability claims.[121]

Beyond the courts' walls, many governments have begun developing and deploying predictive analytic technologies to forecast trends and optimize other decision-making processes. Since 2016, Allegheny County in Pennsylvania has used the "Allegheny Family Screening Tool" ("AFST"), a predictive risk modeling tool (i.e., algorithm) that generates a risk score from complaints received through the county's child maltreatment hotline. Its risk score looks at whether certain characteristics of the agency's past cases are also present in the complaint allegations.[122] Characteristics include family member demographics and prior involvement with the county's child welfare, jail, juvenile probation, and behavioral health systems.[123] According to the algorithm, higher scores indicate a greater chance of future out-of-

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[117] Rebecca Crootof, *"Cyborg Justice" and the Risk of Technological—Legal Lock-In*, 119 COLUM. L. REV. F. 233, 236 (2019); *see* Chris Young, *China Has Unveiled an AI Judge that Will 'Help' With Court Proceedings*, INTERESTING ENG'G (Aug. 19, 2019), https://interestingengineering.com/china-has-unveiled-an-ai-judge-that-will-help-with-court-proceedings, *archived at* https://perma.cc/D323-SGYV.

[118] Crootof, *supra* note 117, at 236.

[119] *See* Lauri Donahue, *A Primer on Using Artificial Intelligence in the Legal Profession*, JOLT DIG. (Jan. 3, 2018), https://jolt.law.harvard.edu/digest/a-primer-on-using-artificial-intelligence-in-the-legal-profession, *archived at* https://perma.cc/9QAN-V4VL.

[120] Reiling, *supra* note 104, at 4.

[121] *In Brave New world of China's Digital Courts, Judges are AI and Verdicts Come via Chat App*, JAPAN TIMES (Dec. 12, 2019), https://www.japantimes.co.jp/news/2019/12/07/asia-pacific/crime-legal-asia-pacific/ai-judges-verdicts-via-chat-app-brave-new-world-chinas-digital-courts/#.XmIlixNKg_U, *archived at* https://perma.cc/Y5YM-D7WU.

[122] Anjana Samant, Aaron Horowitz, Sophie Beiers & Kath Xu, *Family Surveillance by Algorithm: The Rapidly Spreading Tools Few Have Heard Of,* ACLU (Sept. 29, 2021), https://www.aclu.org/news/womens-rights/family-surveillance-by-algorithm-the-rapidly-spreading-tools-few-have-heard-of/, *archived at* https://perma.cc/D8RA-263R.

[123] *Id.*; Stephanie K. Glaberson, *Coding Over the Cracks: Predictive Analytics and Child Protection*, 46 FORDHAM URB. LJ 307, 333 (2019) ("This data includes, among other things, dates of past bookings into the Allegheny County Jail or past involvement with the Allegheny County Juvenile Probation Office, whether and when a family received public benefits such as Temporary Assistance for Needy Families (TANF) or the Supplemental Nutrition Assistance Program (SNAP, formerly known as food stamps), whether and when an individual received behavioral health services, including diagnoses, as well as information such as a family's zip code, linked with Census information on the poverty status of each zip code area."). The AFST algorithm returns a risk score based on its analysis of 112 variables drawn from these data sets. *Id.* at 333–34.

home placement,[124] but the algorithm cannot necessarily predict whether a child was in fact maltreated.[125] And although case workers use technologies like the AFST in decision-making outside of the judiciary, these AI nonetheless subject Indigenous Peoples—along with others victim to settler colonialism and its narratives—to continuing and increasing bias and discriminatory laws and policies.[126]

AI requires "big data" to function.[127] It also requires machine processable data that is "enriched" or "structured and provided with legal meaning."[128] To predict outcomes successfully, an algorithm, using whatever data available, must adequately relate to accurate depictions of the problems a community is trying to solve. U.S. courts are behind in the transition to increased AI use because they have been slow to digitize information and lack the digital processes and data sets necessary for operable AI.[129] Other general barriers to AI's use in American courts include: the absence of policies and standards for data governance, integration, privacy, and security;[130] judges' lack of familiarity with and understanding of how AI works;[131] and ensuring respect for fundamental rights and compliance with other ethical principles.[132]

In the United States, where courts are often overwhelmed with heavy caseloads, AI has the potential to aid in judicial efficiency. For instance, eDiscovery—already implemented across the United States and the United Kingdom—is an automated investigation of electronic information for discovery that uses machine learning AI. This method is faster and more accurate than manual file research.[133] AI has been particularly attractive for its potential to predict court decisions. The outcome of prediction algorithms, however, "is neither justice nor predictive."[134] Rather, as Judge Reiling described, the outcome is more accurately described not as established fact, but as a weather "forecast" that reflects current debates: "Just like the weather,

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[124] *The Allegheny Family Screening Tool*, ALLEGHENY CNTY., https://www.allegheny county.us/Human-Services/News -Events/Accomplish ments/Allegheny-Family-Screening-Tool.aspx, *archived at* https://perma.cc/PMV2-VRVY.

[125] AFST scores do not wholly replace case workers' decisions. After a score is computed, intake staff then use it to assist in deciding whether and how to follow up on a complaint. For more about how AFST works, see *id.*; Glaberson, *supra* note 123, at 332-34.

[126] *See* Samant et. al., *supra* note 122.

[127] Reiling, *supra* note 104, 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.'").

[128] *Id.* at 8.

[129] Sean La Roque-Doherty, *Artificial Intelligence Has Made Great Inroads, But Hasn't Yet Increased Access to Civil Justice*, A.B.A. MAG. (Apr. 1, 2021), https://www.abajournal.com/magazine/article/artificial-intelligence-has-made-great-inroadsbut-not-as-far-as-increasing-access-to-civil-justice, *archived at* https://perma.cc/Y78X-KWTN.

[130] *See id.*

[131] Reiling, *supra* note 104, at 8.

[132] *See id.*

[133] *See id.* at 3–4.

[134] *Id.* at 4.

court proceedings risk having an unpredictable outcome. As the case becomes more complex with more information and more issues, that risk increases. This is one reason why there is so much interest in AI, because it claims to be able to reduce the risk."[135]

Thus, despite AI's potential to increase judicial efficiency, neither it nor the data used is infallible. This is because "[a]ll technical systems are cultural and social systems. Every piece of technology is an expression of cultural and social frameworks for understanding and engaging with the world."[136] Thus, AI Now Institute co-director Katie Crawford cautioned that, like all previous technologies,

> artificial intelligence will reflect the values of its creators. So inclusivity matters—from who designs it to who sits on the company boards and which ethical perspectives are included. Otherwise, we risk construing machine intelligence that mirrors a narrow and privileged vision of society, with its old, familiar biases and stereotypes.[137]

Without exception, human developers—whether implicitly or explicitly, intentionally or not—encode their own biases (prejudices and preferences) into the technology they build.[138] Even absent an individual's bias, developers necessarily rely on existing data and discourse when shaping and understanding their algorithms—most of which were crafted in the image of settler-colonial paradigms. As such, "human control [over AI] is needed in all phases" of its implementation to determine its role in the judiciary and monitor its effectiveness in delivering "justice," especially when it comes to historically disadvantaged communities, particularly Indigenous Peoples.[139]

B. Longstanding (Indigenous) Data Concerns

Understanding and having experienced the violence justified by colonial narratives, Indigenous Peoples have had ongoing concerns regarding the

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[135] *Id.* at 4-5.

[136] Lewis, *supra* note 103, at 22.

[137] Kate Crawford, *Artificial Intelligence's White Guy Problem*, N.Y. TIMES (June 25, 2016), https://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) ("Computers learn how to be racist, sexist, and prejudiced in a similar way that a child does . . . Many people think machines are not biased . . . [b]ut machines are trained on human data. And humans are biased."); Karen Hao & Jonathan Stray, *Can You Make AI Fairer than a Judge? Play Our Courtroom Algorithm Game*, MIT TECH. REV. (Oct. 17, 2019), https://www.technologyreview.com/s/613508/ai-fairer-than-judge-criminal-risk-assessment-algorithm/, *archived at* https://perma.cc/ELS4-S9Z9 ("Machine-learning algorithms are trained on data produced through histories of exclusion and discrimination[.]) (internal citation omitted).

[138] Crawford, *supra* note 137 ("Sexism, racism and other forms of discrimination are being built into the machine-learning algorithms that underlie the technology behind many 'intelligent' systems that shape how we are categorized and advertised to.").

[139] Reiling, *supra* note 104, at 8.

collection, analysis, and use of data for, by, and about them long before AI's rise in popularity. Despite a seemingly increased reliance on data and statistics to inform law and policymaking, neither form of evidence is objective nor neutral. To the contrary, data controlled by non-Natives (e.g., population, health, or economic statistics) are often "accepted as a straightforward, objective snapshot of an underlying reality," which serves as "the backbone for the creation and implementation of [law and] social policy for Indigenous [P]eoples."[140] Data, as one form of narrative, "play[s] a powerful role in *constituting* reality through their underpinning methodologies by virtue of the social, cultural, and racial terrain in which they are conceived, collected, analysed, and interpreted."[141]

1. Non-Native Control Over Indigenous Data

Overlapping factors contribute to Native communities' distrust of non-Native researchers and data collectors. Historically, researchers collecting data from Indigenous Peoples "had only the barest relationships" with them.[142] Non-Native researchers' history of negligence and abuse of Indigenous Peoples and their data has also fostered distrust among Native communities.[143] The memories of historical research harms are stories told in Native communities, making many hesitant to participate in clinical trials and other research.[144]

For many Native communities, these research abuses are not distant memories—like the Havasu Baaja (People of the Blue Green Waters).[145] Known also as the Havasupai, the Tribe filed a lawsuit in 2004 against the Arizona Board of Regents and Arizona State University researchers after learning DNA samples from its members had been stored for years and used in several genetic studies without their consent.[146] In 1989, concerned about the Havasupai's rapid increase in diabetes since the 1960s,[147] one Tribal

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[140] MAGGIE WALTER & CHRIS ANDERSEN, INDIGENOUS STATISTICS: A QUANTITATIVE RESEARCH METHODOLOGY 8 (2013).

[141] *Id.* at 9.

[142] *Id.*

[143] *See* Kelly Cannon, *Practical Hurdles, Cultural Distrust In Native Communities Could Hamper Vaccine Distribution*, NBC NEWS (Nov. 20, 2020), https://www.nbcnews.com/news/us-news/practical-hurdles-cultural-distrust-native-communities-could-hamper-vaccine-distribution-n1248308, *archived at* https://perma.cc/4DKJ-ZBQZ.

[144] *Id.*

[145] *About*, THE HAVASUPAI TRIBE, https://theofficialhavasupaitribe.com/About-Supai/about-supai.html, *archived at* https://perma.cc/68HR-5KND.

[146] Amy Harmon, *Indian Tribe Wins Fight to Limit Research of Its DNA*, N.Y. TIMES (Apr. 21, 2010), https://www.nytimes.com/2010/04/22/us/22dna.html, *archived at* https://perma.cc/Z94A-MS3C.

[147] An eight-mile track into the Grand Canyon, Supai—the ancestral home of the Havasupai since time immemorial—is physically remote, isolated within the harsh desert landscape of Northern Arizona. In the 1960s, more of its members became sick with Type 2 diabetes, and many had no choice but to leave their reservation for dialysis and other treatment, sometimes resulting in amputations. *See id.*

member approached a trusted ASU anthropologist,[148] asking how to prevent the disease from spreading further within his community.[149] With University funding, researchers worked out of a health clinic on the reservation. To get samples of blood, which holds deep significance to the Havasupai,[150] researchers recruited Tribal members to get fellow Havasupai to donate.[151] Promised that the research would help them, roughly one hundred members donated blood in hopes of a cure. After research concluded, the Havasupai's members' DNA remained stored in a university freezer for several years before a graduate student used the samples as the basis of his dissertation research in 2003.[152] Months later, an investigation by the University revealed that two dozen other articles had been published based on the blood samples collected from the Havasupai Tribe.[153]As the Havasupai case illustrates, valuable Indigenous data is at risk of being used in ways that violate Indigenous traditions, customs, and rights when it is collected and interpreted by non-Natives.

Another one of colonization's persisting harms is that Indigenous Peoples generally remain in a state of data dependency, relying upon external state and federal government agencies. Within those agencies, there exists large gaps in the data portraying Indigenous Peoples' experiences. Where data is available, it is often produced by non-Natives and tends to frame Indigenous People as coming from a place of deficit, difference, disparity, disadvantage, and dysfunctionality.[154] Moreover, external non-Native control of Indigenous Data perpetuates stories about Indigenous Peoples that fail to accurately describe the historical, social, and political forces that impact them. It is these stories that typically serve as the foundational rationale for denying Indigenous Peoples justice. Most often, these stories—twisted to serve the mission of colonialism's violent projects—are crafted to obscure injustices committed and the need for remedies.

When it comes to data governance today, non-Natives act as managers and gatekeepers of narratives concerning Indigenous Peoples. That, paired with the general lack of Indigenous visibility in seemingly innocuous spaces,

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[148] Anthropology Professor John Martin had a pre-existing relationship with the Tribe.

[149] Robyn L. Sterling, *Genetic Research Among the Havasupai: A Cautionary Tale*, 13 AM. MED. ASS'N J. OF ETHICS 113, 115 (2011).

[150] *See* Katherine Drabiak-Syed, *Lessons from Havasupai Tribe v. Arizona State University Board of Regents: Recognizing Group, Cultural, and Dignitary Harms as Legitimate Risks Warranting Integration into Research Practice*, 6 J. HEALTH & BIOMEDICAL L. 176 (describing "how the meaning of blood to the Havasupai and other Native American tribes is integral to their sense of identity and cultural cohesion, and accordingly, why misuse of blood causes such significant harmful consequences to the individual subject and to the tribal groups to which they belong").

[151] Sterling, *supra* note 149, at 115.

[152] *Id.*

[153] In April 2010, ASU agreed to settle with the Tribe, with settlement terms requiring a payment of $700,000, the return of their blood samples, and additional assistance, including scholarships and assistance in obtaining federal funding for a health clinic for the Tribe. *Id.*

[154] *See* Walter, *supra* note 140, at 80-81.

ranging from social media to education,[155] creates a void in accurate Indigenous data.[156] Non-native assumptions attempt to fill the void, but are tainted by the toxic stereotypes and misperceptions (i.e., colonial narrative traditions) perpetuated by popular culture, media, and Federal Indian Law itself.[157]

Many non-Natives—consciously or not—tend to share the same underlying assumptions about Indigenous Peoples that have been reinforced through colonial narratives. Often, non-Natives only engage with these narratives through media and popular culture, not through Native Peoples themselves. In media and popular culture, however, "contemporary Native Americans are almost completely absent . . . and 'where narratives about Native Americans do exist, they are primarily deficit based and guided by misperceptions, assumptions and stereotypes[.]'"[158]

Overall, the absence of exposure to contemporary and realistic portrayals of Native Peoples creates a "deep and stubborn unconscious bias in the non-Native mind."[159] Consider the widespread use of Indian mascots as one contemporary illustration of this "deep and stubborn" bias. While some proponents of these mascots claim that these caricatures honor Native American culture,[160] the satire-turned-mascot ultimately conveys that "Native Americans are invisible relics to be studied as history alone."[161] Caricatures, like these mascots, fit perfectly within the colonial narrative traditions that simultaneously erase and stereotype Indigenous Peoples. These caricatures also justify offensive, harmful actions against Native Peoples, or at their expense,

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[155] For instance, Native Americans have been blocked from joining Facebook because their names were judged as fake. Dina Bass, *What Are Algorithms and Are They Biased Against Me?*, Wash. Post (Dec. 17, 2020), https://www.washingtonpost.com/business/what-are-algorithms-and-are-they-biased-against-me/2020/12/11/c94c2258-3b74-11eb-aad9-8959227280c4_story.html, *archived at* https://perma.cc/B3YD-8JC2.

[156] *See Reclaiming Native Truth*, First Nations Dev. Instit. 5 at 9 (June 2018), https://rnt.firstnations.org/wp-content/uploads/2018/06/FullFindingsReport-screen.pdf, *archived at* https://perma.cc/JG9K-7SQL ("It is no surprise that non-Natives are primarily creating the narrative about Native Americans. And the story they adopt is overwhelmingly one of deficit and disparity.")[hereinafter Reclaiming Native Truth].

[157] *See* Rebecca Nagle, *Research Reveals Media Role in Stereotypes About Native Americans*, Women's Media Ctr. (July 18, 2018), https://www.womensmediacenter.com/news-features/research-reveals-media-role-in-stereotypes-about-native-americans, *archived at* https://perma.cc/ZHJ4-2P4K; Ryan P. Smith, *Probing the Paradoxes of Native Americans in Popular Culture*, Smithsonian Magazine (Jan. 22, 2018), https://www.smithsonianmag.com/smithsonian-institution/probing-paradoxes-native-americans-pop-culture-180967906/, *archived at* https://perma.cc/2A27-GXW5.

[158] Nagle, *Research Reveals Media Role in Stereotypes About Native Americans*, *supra* note 157.

[159] Rebecca Nagle, *Invisibility is the Modern Form of Racism Against Native Americans*, Teen Vogue (Oct. 23, 2018), https://www.teenvogue.com/story/racism-against-native-americans, *archived at* https://perma.cc/NLT4-XG64.

[160] Bethany Berger, *Red: Racism and the American Indian*, 56 UCLA L. Rev. 591, 651 (2009).

[161] Bruce Kelber, *"Scalping the Redskins:" Can Trademark Law Start Athletic Teams Bearing Native American Nicknames and Images on the Road to Racial Reform?*, 17 Hamline L. Rev. 533, 546 (1994).

that would otherwise be condemned. For instance, to draw attention to the unique anti-Native racism perpetuated through use of Indian mascots, Kimberly Pace poses the provocative hypothetical:

> 'Welcome to today's game between the Baltimore Blackskins and the San Francisco Yellowmen. . . . And here come the Yellowmen onto the field, led by their famous cheerleader, the Geisha girls . . . . Before today's kickoff, we want to remind you that plenty of good seats still are available for next week's game against the New Jersey Fighting Jews. The Jews will be bringing their hilarious mascot, the Famous Rabbi, who will be performing during the game and at halftime . . .' Ask yourself this question: If your skin color, race or religion were parodied in nicknames or mascots or team logos, wouldn't you be offended?[162]

Informed by colonial narrative traditions and racist-imperial discourse like caricatures, non-Native bias then goes on to shape "public sympathy for Native rights[,]"[163] including defining justice for Indigenous Peoples. The stereotypes and misperceptions perpetuated through those narrative traditions are then implicitly woven into the technology developed. This ultimately dehumanizes the experiences and lives of Indigenous Peoples,[164] limiting their claims to justice and what justice entails for them.

2. *"Official" Statistics Perpetuate the Colonial Narrative Tradition of Erasure*

Relying largely on tired stereotypes and colonial tropes, non-Native data and narratives—reinforced in formal educational instutions, news and media, and popular entertainment—typically perpetuate the erasure of accurate, contemporary Native identities.[165] Data, in its most elementary definition, refers to facts and statistics collected together for reference or analysis. Most typically, data is currently understood in the context of official, gov-

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[162] Kimberly A. Pace, *The Washington Redskins Case and the Doctrine of Disparagement: How Politically Correct Must a Trademark Be?*, 22 PEPP. L. REV. 7, 7 (1994).

[163] Nagle, *Research Reveals Media Role in Stereotypes About Native Americans*, *supra* note 157.

[164] *Change the Story, Change the Future*, ILLUMINATIVE 5, https://illuminatives.org/wp-content/uploads/2018/04/Insight-Action-Guide.pdf, *archived at* https://perma.cc/2AGZ-QW3S.

[165] *Reclaiming Native Truth, supra* note 156, at 18 ("The writers, directors, producers, professors and other influencers who create these representations of Native peoples are mostly non-Native, yet they are shaping how people view and portray Native Americans."). "Topical examples ranging from the names and logos used with sports teams like the Cleveland Indians and the Washington Redskins, to popular films like Disney's 'Pocahontas,' demonstrate how the community's narrative and visual identity is largely constructed by those external to the American Indian/Alaskan Native communities." Erin Cassidy Hendrick, *Research Suggests American Indians are Finding 'Image Power' with Social Media*, PENN STATE NEWS (Oct. 30, 2017), https://news.psu.edu/story/490970/2017/10/30/research/research-suggests-american-indians-are-finding-image-power-social, *archived at* https://perma.cc/ZJF2-RKZT.

ernment-collected and reported information, like the census or other population statistics.

However objective 'official' data is purported to be, data and the stories it tells are like eyeglass lenses—they "do not simply reflect the social world: they refract it."[166] Maggie Walter and Chris Andersen described how data, namely 'official' statistics, not only reflect social reality but also shape society's understanding of what the "truth" entails:

> Quantitative methodologies that guide the collection, analysis, and interpretation of data about Indigenous [P]eoples both reflect and constitute, in ways largely invisible to their producers and users, the dominant cultural framework of the nation-state within which they (that is, statistics) operated. Although statistical depictions used to summarize the social complexity of Indigenous communities (all communities, for that matter) are neither natural nor normal, the cultural weight and power of [data] speak a "truth" about the communities on which they shine their statistical light.[167]

Further, Walter and Anderson importantly note that the reliance on and ostensible legitimacy of "official" statistics often leave no room for other types of data or knowledge, pushing out "other ways of conceiving about and acting upon those communities."[168] "Official" statistics therefore operate, "[i]n a straightforward Foucauldian sense[,] as a powerful truth claim in most modern societies."[169]

"Official" and non-Native controlled data tend to erase Indigenous Peoples in more than one way. First, Indigenous groups and individuals are erased when governments fail to collect and report comprehensive data about them. Whether or not to collect data is influenced by subjective decision-making: a choice often determined by politics, economic interests, and other social factors—both explicit and implicit. The U.S. Bureau of Labor Statistics, for instance, does not report monthly jobs numbers for American Indians and Alaska Natives.[170] And amid the rise of COVID-19 infections in 2020, the ongoing failure to collect and report on Indigenous communities are not only made more apparent, but are also exacerbated by the additional burdens posed by the emergency of the pandemic.[171] Further contributing to

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[166] *Reclaiming Native Truth, supra* note 156, at 15.

[167] *Id.* at 9.

[168] *Id.*

[169] *Id.*

[170] Gabriel R. Sanchez, Robert Maxim, & Raymond Foxworth, *The Monthly Job Report Ignores Native Americans. How are they faring economically?*, AVENUE (Nov. 10, 2021), https://www.brookings.edu/blog/the-avenue/2021/11/10/the-monthly-jobs-report-ignores-native-americans-how-are-they-faring-economically/, *archived at* https://perma.cc/VYK7-VW7W.

[171] For instance, amid the COVID-19 pandemic, while Indigenous Peoples have been bearing the brunt of infections, public health data "has been "woefully inadequate" since the pandemic's beginning in January 2020. *Data Genocide of American Indians and Alaska Natives in COVID-19 Data*, URB. INDIAN HEALTH INST. 5 (2021) [*hereinafter Data Genocide*

this issue of missing data is the federal government's lack of a data standards or policies "to govern the collection and reporting of American Indian tribal population data across agencies."[172] "Official" data also erases Native Peoples by failing to disaggregate data sets (i.e., break down data into detailed sub-categories including Tribal affiliation/membership, gender, region, level of education). Thus, "[t]oo often missing from [data] is analysis at the tribal population or subpopulation level."[173] Indigenous Peoples "are regularly excluded from study or put in the catch-all miscellaneous category of 'other.'"[174] Aggregated data fails to grasp the intricacies of Native experiences, including concepts of sovereignty and self-determination, and cannot capture the diversity between and within Indigenous communities.[175] This renders Indigenous People an invisible monolith.

Invisibility only appears less harmful than the outright hateful or blatant forms of racism that occurred in the previous eras of federal Indian law.[176]

Report Card]; *see also* Kalen Goodluck, *The Erasure of Indigenous People in U.S. COVID-19 Data,* High Country News (Aug. 21, 2020), https://www.hcn.org/articles/indigenous-affairs-the-erasure-of-indigenous-people-in-us-covid-19-data, *archived at* https://perma.cc/39MZ-QTX8. As a result, there remains "a substantial gap in understanding the disproportionate impact of COVID-19" on American Indians and Alaska Natives and other people of color across the United States. *Data Genocide Report Card, supra,* at 5. In Hawai'i, for example, at the start of the pandemic, Native Hawaiians and other Pacific Islanders were combined into one category in coronavirus case reporting. Anita Hofschneider, *OHA Says Better Data Is Needed To Tackle Problems Facing Native Hawaiians*, Honolulu Civ. Beat (Jan. 24, 2021), https://www.civilbeat.org/2021/01/oha-says-better-data-is-needed-to-tackle-problems-facing-native-hawaiians/, archived at https://perma.cc/9Z4E-9N5M. Across the board, federal and state governments have similarly failed to collect accurate data about Native Peoples and how they are being impacted.

[172] Indigenous Data Sovereignty, *supra* note 21, at 259.

[173] *Id.*

[174] Goodluck, *supra* note 171.

[175] *See Reclaiming Native Truth* , *supra* note 156, at 64.

[176] *See* Mary G. Findling, Logan S. Casey, Stephanie A. Fryberg, Steven Hafner, Robert J. Blendon, John M. Benson, Justin M. Sayde, & Carolyn Miller, *Discrimination in the United States: Experiences of Native Americans*, 54 Health Serv. Rsch. 1431, 1440 (2019). The National Public Radio conducted a nationwide survey and found that 75% of Native Americans believe that discrimination against Indigenous peoples exist and more than a third of Indians reported experiencing racial slurs or offensive comments. *Discrimination in America: Experiences and Views of Native Americans*, NPR 23 (Nov. 2017), https://legacy.npr.org/documents/2017/nov/NPR-discrimination-native-americans-final.pdf, *archived at* https://perma.cc/6YXT-9DXP [hereinafter *Discrimination in America*]. While the study does not define what it means to be enrolled in a Tribe, it is important to note that enrollment varies from Tribe to Tribe and there is no uniform membership requirement. *See Tribal Enrollment Process*, Dep't of Interior, https://www.doi.gov/tribes/enrollment, *archived at* https://perma.cc/5CRH-8J9Q (last visited March 21, 2020). The Bureau of Indian Affairs ("BIA") defines a federally recognized Tribe as a Native entity that has a "government-to-government relationship with the United States, with the responsibilities, powers, limitations, and obligations attached to that designation, and is eligible for funding and services from the Bureau of Indian Affairs." *FAQ,* Bureau Indian Affs., https://www.bia.gov/frequently-asked-questions, *archived at* https://perma.cc/4XWS-2XL3. There are currently 573 federally recognized Tribes in the United States and therefore possess "certain inherent rights of self-government and are entitled to receive certain federal benefits, services, and protections because of their special relationship with the United States." *Id*. Professor M. Alexander Pearl helps explain why non-Indians tend to lean into social (mis)representations of Native Peoples: Indians make up a small percentage of the overall United States population and Indian population centers are often isolated from

Invisibility (or erasure) "makes the social, health, and economic status of Indigenous people indistinguishable from that of majority groups[,]"[177] and makes it impossible to know what specific issues are impacting Native communities and how best to address and resolve them. Through erasure of Indigenous communities, dominant narratives promote the idea that Native Peoples are no longer victims of racism or discrimination.[178] So while Native Peoples continue to suffer from a "pervasive, systemic, and untreated problem" of discrimination in the United States,[179] few non-Natives understand such to be true.[180]

Issues of erasure and invisibility, however, are not new. In fact, the UIHI asserts that "the scarcity of data on AI/AN is not by chance but rather a continuation of systemic and repeated attempts at elimination."[181] Further, the Institute acknowledged:

> [T]hese systems were built to marginalize. . . . Data has been used to intentionally eliminate, harm, or terrorize AI/AN communities for political, ideological, and social gain. There are documented instances of its use to withhold lifesaving resources, infringe on tribal sovereignty, and enact racist policies. "American Indian genocide continues in this country," and eliminating AI/AN in the data is part of the purposeful erasure.[182]

Invisibility helps to explain how and why mainstream narratives about Native Peoples all tell some variation of the same stories of the deficit and disparity,[183] despite the vast differences among Indigenous communities across the globe. Succinctly put by Rebecca Nagle, this invisibility is a legacy and contemporary manifestation of "kill the Indian, save the man."[184] Although "[i]nvisibility is the modern form of racism against Native Amer-

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other communities. M. Alexander Pearl, *Redskins: The Property Right to Racism*, 38 CARDOZO L. REV. 231, 244–45 (2016).

[177] Goodluck, *supra* note 171.

[178] Christianna Silva, *Why Are So Many Native Americans Killed by Police?*, NEWSWEEK (Nov. 11, 2017), https://www.newsweek.com/more-native-americans-are-being-killed-police-including-14-year-old-who-might-708728, *archived at* https://perma.cc/38EA-DYYV; Stephanie Woodard, *The Police Killings No One is Talking About*, IN THESE TIMES (Oct. 17, 2016), https://inthesetimes.com/features/native_american_police_killings_native_lives_matter.html, *archived at* https://perma.cc/CV2B-87LH.

[179] Findling et al., *supra* note 176, at 1440.

[180] *See* Nagle, *Research Reveals Media Role in Stereotypes About Native Americans*, *supra* note 157.

[181] *Data Genocide Report Card*, *supra* note 171, at 6.

[182] *Id.*

[183] The lack of accurate pages of images, very few of which are not from the 19th century. Similarly, a survey of 345 of the most popular television shows between 1987 and 2007 found that only three of the actors were Native American over the span of those thirty years. *See* Riva Tukachinsky, Dana Mastro, Moran Yarchi, *Documenting Portrayals of Race/Ethnicity on Primetime Television over a 20-Year Span and Their Association with National-Level Racial/Ethnic Attitudes*, 71 J. SOC. ISSUES 1 (2015).

[184] Nagle, *Research Reveals Media Role in Stereotypes About Native Americans*, *supra* note 157.

icans[,]" it still relies on predominating narratives that were first constructed several centuries ago and upheld by U.S. law and policy since.[185]

The erasure of Indigenous Peoples from data is what Abigail Echo-Hawk describes as "data genocide," one legacy of the federal government's concerted effort to erase Native Peoples.[186] Data genocide, she clarifies, is directly tied to ongoing settler colonialism and other genocidal practices, as evidenced by the way: (1) Native Peoples are eliminated in data, and (2) whatever scarce data is available about Native Peoples tend to harm Tribes and their citizens.[187] Social Demographer Desi Rodriguez-Lonebear (Northern Cheyenne Nation) similarly observes how this erasure reflects an old pattern of colonizers' weaponization of data against Indigenous Peoples.[188]

For instance, the first U.S. census, although first conducted in 1790, only began counting American Indians in 1860 and did not count those living on reservations until 1900.[189] The incomplete data collected—which completely erased Native Peoples—was then used to justify settlers' invasion and displacement of Native Peoples.[190] As a primary source of information about the nation's people, the census serves as a political instrument mandated by the U.S. Constitution to determine the allocation of political representation in the U.S. Congress,[191] and informs tax policies and government fund allocation.[192] But, premised on Tribes' sovereignty, early census data counted only those individuals subject to U.S. law when determining what to do with what the United States now considered its own lands.

3. Erasure's Perpetuation of Racist Stereotypes & Obstruction of Justice for Indigenous Peoples

The caricature of the "unhealthy Native" illustrates the way Indigenous Peoples are commonly portrayed in data and how this portrayal is a continuation of the same narrative traditions that justified earlier colonization

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[185] *Id.*

[186] *Data Genocide Report Card*, *supra* note 171, at 6.

[187] *Id.*

[188] Lizzie Wade, *COVID-19 Data on Native Americans Is 'A National Disgrace.' This Scientist Is Fighting to Be Counted*, SCIENCE (Sept. 24, 2020), https://www.science.org/content/article/covid-19-data-native-americans-national-disgrace-scientist-fighting-be-counted, *archived at* https://perma.cc/QFM9-KBEG.

[189] Nancy Krieger, *The US Census and The People's Health: Public Health Engagement From Enslavement and 'Indians Not Taxed' to Census Tracts and Health Equity (1790–2018)*, 109 AM. J. PUB. HEALTH (July 3, 2019), https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6611116/, *archived at* https://perma.cc/9Y8V-4V97 (discussing the way census data has shaped the field of public health throughout U.S. history).

[190] *Id.*

[191] Article 1, Section 1 of the U.S. Constitution states, "All legislative powers herein granted shall be vested in a Congress of the United States, which shall consist of a Senate and a House of Representatives." Section 3 then sets the number of senators to two from each state and outlines the scheme through which to determine each state's representation in the House. U.S. CONST. art. 1, §§ 1, 3.

[192] *See supra* note 176.

projects. Further, this caricature demonstrates how, in the absence of accurate data, Indigenous People are largely invisible *except as statistically informed pejorative stereotypes.*[193] For instance, popular images of Native Peoples tend to portray them as overweight and/or as alcoholics. News headlines and article titles also contribute to this narrative: "Obese Hawaiians Learn from Thin Ancestors: Diet nutritionists offer plan featuring food ancient islanders ate"; "Natives—many of whom are at high risk for heart disease and other ailments—are losing weight"; "Hazardous drinking, alcohol use disorders, and need for treatment among Pacific Islander young adults"; "Native Hawaiians suffer from poor overall health, large federal study shows"; "Polynesian ancestry linked to obesity, diabetes in Native Hawaiians"; "The Impoverishment of Native Hawaiians and the Social Work Challenge"; "Alcoholism among Pacific Islanders." Overall, the same descriptions tend to be used in reports on the health of American Indians, Alaska Natives, Pacific Islanders, and other minority groups across the continental United States. This narrative perpetuates harmful colonial stereotypes—ones that are the direct product and extension of white Americans' deployment of Albert Memmi's four racist discursive strategies to justify aggression and privilege against Native Peoples. By "othering" Native Peoples from the dominant society, these stereotypes cast them as inferior and deserving of their disadvantaged position in society.

Data and colonial narratives shrouding Native health not only misrepresent Native Peoples' realities but also tell a story that blames Native individuals for issues beyond their control, all the while ignoring the broader historical context and ongoing legacy of colonization. Even when Native Peoples' pre-colonial past is referenced (such as in the first headline quoted above), it is framed in such a way that still assigns blame to Native Peoples, rather than evaluating and seeking to address the forces and harms of colonization and their continuing impacts. Absent the key context of colonization, it is not possible to fully and accurately reveal, and subsequently address, the social factors that contribute to Native Peoples' disparate health outcomes. For instance, poor health outcomes today are tied directly to Indigenous communities' removal from their lands and severance from their traditional diets and lifestyles.[194]

While the "unhealthy Native" caricature is purportedly based on objective data, it nonetheless has deleterious effects on the way Indigenous Peoples are perceived, understood, and treated by others outside of their communities. Colonial narratives tend to frame non-Native people's underlying assumptions about Indigenous Peoples. Thus, colonial narratives (e.g., stereotypes, caricatures) often serve as the backdrop or starting point for non-Native research about Indigenous Peoples and their health. These narratives tend to justify institutions' abuse, misuse, and mistreatment of Indige-

[193] *See* INDIGENOUS DATA SOVEREIGNTY, *supra* note 21, at 87.
[194] *See* Findling et al., *supra* note 176, at 1432.

nous Peoples and their data—resulting in either exploitation of Indigenous data or the failure to produce practical results that can aid in rectifying the harms of colonization.

C. The Twenty-First Century Reincarnate of "Kill the Indian, Save the Man?" How AI Can Perpetuate Colonial Narratives That Oppress

Before courts and legal systems grow dependent on artificial technologies, it is crucial that AI developers account for the predominating narratives that have caused harm to Native communities and denied them their right to self-determination. Without data that accurately portrays Indigenous Peoples and their unique circumstances, non-Native researchers, intentionally or not, fill the gaps in the data with their own biases, which are often shaped by inaccurate colonial stereotypes popularized by the media. Unless these narratives are corrected, AI will only continue to empower colonial narratives that misrepresent and justify continued violence against Native communities.

Although many see AI's potential in its ability to produce results based on objective and criteria data, these technologies are nonetheless susceptible to human subjectivity and bias. The AI field, which is overwhelmingly comprised of white men, "is at risk of replicating or perpetuating historical biases and power imbalances[.]"[195] Thus, even if the use of AI technology mitigates judges' biases in their courts, there are several other places where bias may be introduced and impact a judicial outcome or determination:

> People making a program can introduce biases, or the algorithms can "learn" bad behavior from training data before launch or from users afterward, causing results to warp over time. Software engineers can inadvertently discriminate against people. . . . In other cases, algorithms may have been trained on too narrow a slice of reality.[196]

For example, like other artificial intelligence, risk assessment tools used in criminal cases rely on historical data. The historical crime data gathered, however, raises significant concerns given law enforcement bias and the United States' history of racist policing and mass incarceration.[197] If the same

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[195] Kari Paul, '*Disastrous' lack of diversity in AI industry perpetuates bias, study finds*, GUARDIAN (Apr. 16, 2019), https://www.theguardian.com/technology/2019/apr/16/artificial-intelligence-lack-diversity-new-york-university-study, *archived at* https://perma.cc/9KZH-3CZN.

[196] *See* Bass, *supra* note 155.

[197] Annie Brown, *Justice, Equity, And Fairness: Exploring The Tense Relationship Between Artificial Intelligence And The Law With Jolison Melo*, FORBES (Sep. 19, 2021), https://www.forbes.com/sites/anniebrown/2021/09/19/justice-equity-and-fairness-exploring-the-tense-relationship-between-artificial-intelligence-and-the-law-with-joilson-melo/?sh=33189f403156, *archived at* https://perma.cc/R698-N3N8.

historical data is fed into new AI, the technologies produced will continue to stereotype and erase Native Peoples.

Courts' use of AI raises particular concerns in criminal proceedings. Risk assessment tools can be used at any stage of the criminal justice system to inform decisions about defendants' freedom, from determining pretrial release to sentencing and probation.[198] In several states, judges are already employing risk assessment score results during criminal sentencing to determine defendants' eligibility for probation or treatment programs.[199]

Criminal court outcomes have already demonstrated the potentially harmful impact of developers' racial bias in AI. Some judges utilize the algorithm known as the Correctional Offender Management Profiling for Alternative Sanctions, or "COMPAS," to determine whether the defendant should be kept in jail while awaiting trial by assessing their risk of recidivism.[200] COMPAS analyzes a defendant's data to predict the likelihood of arrest during the trial-waiting period and produces a "risk score."[201] According to a ProPublica investigation, white defendants were labeled "low risk" more often than Black defendants, and COMPAS wrongfully labeled Black defendants as future criminals at twice the rate it did white defendants.[202]

While purported to be "race-neutral,"[203] the program generates racially biased results and utilizes "variables [that] serve as proxies for race."[204] ProPublica reported that, in addition to assessing risk, COMPAS rates defendants' risk using "so-called 'criminogenic needs' that relate to the major theories of criminality, including 'criminal personality,' 'social isolation,' 'substance abuse' and residence/stability.'"[205] COMPAS produces a set of scores from 137 questions, answered by defendants or pulled from criminal records. The program does not ask about race, but includes questions like: "Was one of your parents ever sent to jail or prison?"; "How many of your friends/acquaintances are taking drugs illegally?"; "How often did you get

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[198] Julia Angwin, Jeff Larson, Surya Mattu & Lauren Kirchner, *Machine Bias*, ProPublica (May 23, 2016), https://www.propublica.org/article/machine-bias-risk-assessments-in-criminal-sentencing, *archived at* https://perma.cc/6WND-7EY4.

[199] *Id.*

[200] Andrew Lee Park, *Injustice Ex Machina: Predictive Algorithms in Criminal Sentencing*, UCLA L. Rev. (Feb. 19, 2019), https://www.uclalawreview.org/injustice-ex-machina-predictive-algorithms-in-criminal-sentencing/, *archived at* https://perma.cc/782Q-AN58.

[201] Karen Hao & Jonathan Stray, *Can You Make AI Fairer than a Judge? Play Our Courtroom Algorithm Game*, MIT Tech. Rev. (Oct. 17, 2019), https://www.technologyreview.com/s/613508/ai-fairer-than-judge-criminal-risk-assessment-algorithm/, *archived at* https://perma.cc/G6ZZ-ZLN6.

[202] *See* Angwin, *supra* note 198.

[203] A "race-neutral" algorithm is one that does not input a defendant's race as part of its data gathering.

[204] Leah Wisser, *Pandora's Algorithmic Black Box: The Challenges of Using Algorithmic Risk Assessments in Sentencing*, 56 Am. Crim. L. Rev. 1811, 1817–18 (2019); Angwin, *supra* note 198. Until the 1970s, categories such as race, nationality, and skin color were often used by criminologists to predict which criminals are more dangerous and whether they should be released. Angwin, *supra* note 198.

[205] *See* Angwin, *supra* note 198.

in fights while at school?" The questionnaire also asks people whether they disagree with statements such as: "A hungry person has a right to steal," and "If people make me angry or lose my temper, I can be dangerous."[206] These factors—like others such as poverty, unemployment, homelessness, and social marginalization—can be correlated with race and decrease the accuracy of the algorithm's results.[207]

Where multiple AI technologies and algorithms are used at two or more different stages of the criminal justice process, there exists the potential for algorithmic biases to compound. For instance, facial recognition technology has been growing rapidly in law enforcement, but facial recognition algorithms developed in the United States were all consistently bad at matching Asian, African American, and Native American faces—with Native Americans suffering the highest false positive rates.[208] The use of both face recognition technology and the COMPAS assessment creates greater potential for discrimination against Natives and other minority groups that are already disproportionately incarcerated.

The use of predictive AI is also expected to increase in child welfare and family law cases, inevitably impacting ICWA case outcomes as well. Seeking to employ AI in new ways to assist their work, child protective authorities in more than a dozen other states were using or developing predictive analytic tools as of 2018.[209] Child welfare assessment tools, like criminal justice algorithms, are problematic when reliant on existing data and analytic models. Although predictive technologies are intended to correct for human biases and other "fallibilities,"[210] many tools developed to combat problems of human bias have generally failed to do so.[211] For instance, Illinois's Department of Children and Family Services ended its trial of one predictive analytic tool, the "Rapid Safety Feedback" ("RSF") process because of its unreliability.[212] The RSF predicted a ninety percent or greater likelihood of death or injury for more than 4,100 children, and predicted a "100 percent chance of death or serious injury in the next two years" for more than 350 children.[213] Case workers felt that the tool "alarmed and overwhelmed" them, while failing to flag some of the Department's most serious and/or urgent cases.[214] For instance, in 2017, two young children died within a month of each other, though neither was rated as

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[206] *Id.*
[207] *Id.*
[208] Karen Hao, *A US Government Study Confirms Most Face Recognition Systems Are Racist*, MIT TECH. REV. (Dec. 20, 2020), https://www.technologyreview.com/2019/12/20/79/ai-face-recognition-racist-us-government-nist-study/, *archived at* https://perma.cc/2ADF-SJBK.
[209] *See* Glaberson, *supra* note 123, at 331.
[210] *See id.* at 318.
[211] *See id.* at 317, 335.
[212] *Id.* at 335.
[213] *Id.*
[214] *Id.*

"high risk" by the RSF model.[215] According to the Department's Director, the tool "didn't seem to be predicting much" because its model was "riddled with errors."[216]

Without intervention to correct data narratives, AI use will only ensure that the child welfare system remains, as Stephanie K. Glaberson described, "vulnerable to panics that unjustifiably pull children away from their homes in record numbers."[217] In other words, like AI's use in the criminal justice system, AI poses dangers of encoding bias and further marginalizing minorities when used for child welfare purposes. Glaberson further describes the risks predictive AI pose for already vulnerable families and communities:

> Predictive algorithms are built on data that reflects the existing problems in the child welfare system. They are the result of myriad human choices, many of which implicate important value judgments about the way the child welfare system should work. Unless careful attention is paid at every stage of development and use, predictive analytics risk not only papering over existing problems in the child welfare system, but also introducing new risks for families.[218]

Without further studies, development, and transparency, predictive AI technologies will continue to fall short of delivering "justice" when used in legal decision making.[219]

Given the United States' tumultuous history with Native Tribes, especially concerning Native children, developers and legal professionals using AI technologies in family law and child welfare cases must be particularly careful. The conflict between the intent of AI and its disproportionately harmful impacts on minorities, such as Indigenous Peoples, demonstrates the susceptibility of technology to human subjectivity and bias. To control for bias and avoid AI perpetuating present inequities, developers must proactively address such harms when developing AI technologies.[220] For Native Peoples, AI developers must combat the erasure of culture, identity, and history by imprinting Indigenous perspectives into their algorithms.

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[215] *Id.*
[216] Glaberson, *supra* note 123, at 335.
[217] *Id.* at 327.
[218] *Id.* at 336.
[219] *See id.* at 332.
[220] *See* Brian Resnick, *Yes, Artificial Intelligence Can Be Racist*, Vox (Jan. 24, 2019), https://www.vox.com/science-and-health/2019/1/23/18194717/alexandria-ocasio-cortez-ai-bias, *archived at* https://perma.cc/6ZBX-YCD9 ("Algorithms are still made by human beings, and those algorithms are still pegged to basic human assumptions. They're just automated assumptions. And if you don't fix the bias, then you are just automating the bias.").

IV. Deploying AI to Reshape Narratives: Toward Decolonial Data & Indigenous Data Sovereignty

> *"Information, data, and research about our peoples—collected about us, with us, or by us—belong to us and must be cared for by us."*
>
> – Liz La quen náay Kat Saas Medicine Crow[221]

Artificial Intelligence has the potential to disrupt established practices by normalizing ways of thinking that deviate from colonial narrative traditions. However, if AI is developed and used in courts without accounting for the lived realities of Indigenous communities, then the technology will reflect, perpetuate, and potentially exacerbate existing inequities.[222] AI presents the opportunity to create programs that do not simply replicate data that promotes colonial narrative traditions by rendering Indigenous Peoples invisible. Jeff Ward, Director of the Duke Center on Law and Technology and Associate Dean for Technology and Innovation, commented:

> [E]ngagement from a broad range of stakeholders is essential to walk forward on steady legs. If we treat A.I. as magic, we may inadvertently cede responsibility and agency to tech companies and limit the roles that other stakeholders can play. A.I.'s design, development, and deployment are constituted, not conjured, and that constitution remains our domain.[223]

As such, developers, judges, and others using AI must bear the "burden of care" to ensure AI is "adopted through a careful process in the legal space and society at large."[224]

Developers can begin to mitigate bias in AI by hiring more intentionally and collaborating with the communities impacted by their technologies. A more diverse workforce can "think through operational changes new applications may require—they're likelier to recognize, say, that the introduction of an algorithm that predicts maintenance needs should be accompanied by an overhaul of maintenance workflows."[225] If an AI program will be used by a court system that serves Native Peoples (i.e., being on or near a reserva-

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[221] U.S. Indigenous Data Sovereignty Network, https://indigenousdatalab.org/networks/, *archived at* https://perma.cc/Q547-9RK2.

[222] *See* Crawford, *supra* note 138.

[223] Jeff Ward, *10 Things Judges Should Know About AI*, 103 Judicature 12 (2019), https://judicature.duke.edu/articles/10-things-judges-should-know-about-ai/, *archived at* https://perma.cc/HQ4A-QAXS.

[224] *See* Brown et al., *supra* note 197.

[225] Fountaine et al., *supra* note 115. An April 2019 study by the AI Now Institute found alarming data: 18% of authors at leading AI conferences are women, 80% of AI professors are men, 2.5% of Google's workforce and 4% of Facebook's employees are Black, and 6% of Microsoft's workforce is Latinx. Sarah M. West, Meredith Whittaker & Kate Crawford, *Discriminating Systems: Gender, Race, and Power in A.I.*, A.I. Now Inst. 11 (Apr. 2019), https://ainowinstitute.org/discriminatingsystems.html, *archived at* https://perma.cc/56J9-MLTD.

tion), then developers should collaborate with those communities. Collaboration and the creation of Indigenous centered AI can serve to build trust not just in the technology space but also in the court system.[226]

Throughout programs' creation and practical use, AI developers must be transparent about their technologies. For instance, given developers' tendency to encode their own bias into algorithms, it is important to know, at the very least, the demographics of those working on AI technology. While the federal government lags behind, state and local governments can demand transparency about AI technology and how it is used through legislation. One of the first local governments to do so, the New York City Council passed a bill requiring a "bias audit" to be conducted before employers can use automated employment decision tools to screen candidates or employees. The bill also requires employers to disclose the audit results and other information related to their use of those tools.[227]

Ultimately, to achieve decolonial AI, Native communities and other data agents must replace external, non-Indigenous norms and priorities with Indigenous frames and systems that define data and inform its collection and use. Indigenous data will remain critical for Native communities in achieving justice amid increased reliance on AI in the law and legal processes. Moreover, although a new scholarly theme, Indigenous data sovereignty can guide AI's development and use. Indigenous Peoples often engage in actions of Indigenous data sovereignty through their traditions, beliefs, and values. And when Indigenous Peoples exercise sovereignty over their own data, they tend to produce useful intergenerational longitudinal studies, promote place-based understandings, utilize dynamic analysis, and express diverse perspectives of their People. Indigenous Peoples' traditions and customs are particularly valuable as Indigenous data accurately portrays them and what their communities need, on their own terms and told through their own culture. As AI's role increases in the judiciary, it must align with Indigenous date sovereignty and Indigenous understandings of past, present, and future. Otherwise, these new technologies threaten to remedy the much older, ongoing harms of colonization.

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[226] *See id.*

[227] Hunton Andrews Kurth, *NYC to Regulate Artificial Intelligence-Based Hiring Tools*, 11 NAT. L. REV. (Dec. 15. 2021), https://www.natlawreview.com/article/nyc-to-regulate-artificial-intelligence-based-hiring-tools, *archived at* https://perma.cc/WP3H-WTTF.