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AI: A New (R)Evolution or the New Colonizer for Indigenous Peoples?

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“It’s a familiar story these days: the era of Artificial Intelligence (AI) has arrived, and AI will soon render human labor and decision making obsolete.”¹

We are often told that there is one constant in life and that is change; it is inevitable, inescapable. When the forces of power begin to blow and conditions are right, change will happen. As the planet undergoes a period of transformation brought about by the advances of data science and the convergence of technologies, the Internet of All Things and AI, the potential of AI to be change agent for Indigenous peoples is a thought-provoking, and to a certain degree, daunting proposition. The rapid progress of technology and innovation, in terms of its volume, complexity, and exponential growth in computing

¹ Mateescu, A., & Elish, M. C. (2019). *AI in context: The labor of integrating new technologies* (Data & Society report), p 8. <datasociety.net/wpcontent/uploads/2019/01/DataandSociety_AIinContext.pdf>.

power, have drastically changed how we socialize, communicate, access, share, distribute and view knowledge and information. Is AI inevitable, inescapable, a fait accompli for Indigenous peoples?

Knowledge and information are the intellectual capital generated by families, communities, tribes and knowledge holders over multiple generations. This intellectual capital, our Indigenous knowledge systems, are a holistic, dynamic, innovative, and generative system that is embedded in lived experience.² Carried and embedded in stories, song, art, place names, dance, ceremonies, genealogies, memories, visions, prophecies, teachings and original instructions, these systems are passed orally from one generation to another. Unfortunately, Indigenous peoples, their languages and cultures are exceptionally vulnerable to the impacts of change, to globalisation, and its underlying goal to create a global village based on cultural, social, political and economic homogenization.

With homogenization comes loss. It has been suggested that by the end of this century at least 50% of the world's languages will face the prospect of death.³ Many if not a majority of these languages will unfortunately be Indigenous languages. When we lose a language, we lose the conduit to our linguistic and cultural ecosystem. If we lose those ecosystems, we lose our identity, our history, our culture, and ultimately, we lose our power.⁴ With the increase in the probability of this homogenization, will AI accelerate this change, this loss?

In a recent gathering of cultural and technological experts in Aotearoa I asked a number of broad questions to garner thoughts and reflections on Māori protocols, world views, technology and innovation.⁵ Our discussions focused on the impact of new technologies, including virtual, augmented and mixed realities, AI and machine learning based on cultural language and knowledge. The discussion ranged across numerous fascinating topics such as data sovereignty, control, access, context, management, storage, and futures; IP and copyright; algorithms and attempts to decolonize them, Māori coding practices, Māori platforms, Māori AI and Māori life-force; safeguarding knowledge systems; and handling embedded biases and racism. Amongst the many responses, one statement from Professor Rangī Matamua stood out from the rest of the discussion: *Is AI the new (r)evolution or the new colonizer for Indigenous peoples?* This probing statement drew my attention and all of those in the room with me. We wondered: can an intelligence, or an artificial one at that, be used to colonize something or someone else?

² Smith, L. T., Maxwell, T. K., Puke, H., & Temara, P. (2016). Indigenous knowledge, methodology and mayhem: What is the role of methodology in producing indigenous insights? A discussion from Mātauranga Māori. *Knowledge Cultures*, 4(3), pp. 131-156.

³ Thomason, S. G. (2015). *Endangered languages* (Vol. 1). Cambridge, UK: Cambridge University Press.

⁴ Nuwer, R. (2014, 6 June). *Languages: Why we must save dying languages*. BBC. <bbc.com/future/story/20140606-why-we-must-save-dying-languages>.

⁵ See <sftichallenge.govt.nz/research/atea>.

Colonization is often described as the act of invading and taking control by force, the act of taking something over for your own use, or the process of settling among and establishing control over the Indigenous people of an area. It subscribes to the language of appropriation, conquest, invasion, occupation and suppression. The colonization of the culture, language and mind takes place “through the transmission of mental habits and contents by means of social systems other than the colonial structure. For example, via the family, traditions, cultural practices, religion, science, language, fashion, ideology, political regimentation, the media, education, etc.”⁶ Theorists such as Frantz Fanon have written about the perpetuation of the colonial agenda in consciousness while Indigenous scholars like Linda Tuhiwai Smith and Ngũgĩ wa Thiong'o have argued for the decolonization of our mental universe.⁷ Thiong'o wrote in *Decolonising the Mind*:

the most important domination was the mental universe of the colonised, the control, through culture, of how people perceived themselves and their relationship to the world. Economic and political control can never be complete or effective without mental control. To control a people's culture is to control their tools of self-definition in relationship to others.”⁸

Indigenous peoples across the world have faced and continue to face the effects of colonization, of mind control. As an example of modern day colonialism, consider Cambridge Analytica, the political analysis firm at the center of the Facebook data scandal. Cambridge Analytica harvested the personal data of millions of people's Facebook profiles without their permission and used that data for purposes of partisan political advertising.⁹ These types of unscrupulous behaviours exacerbate existing societal biases, deepen inequalities, and contribute to the deterioration of trust across society. In response, a global dialogue has emerged that seeks solutions to these types of behaviours to enhance and improve economic, societal and environmental well-being. A range of documents and reports, aimed at setting global principles and standards governing AI, have been developed in order to establish corporate compliance, achieve industrial competitiveness, or to ensure sustainable development.¹⁰ A scan through these numerous codes and declarations highlights a focus on common good and benefit for humanity;

⁶ Dascal, M. (2009). Colonizing and decolonizing minds. In I. Kuçuradi (Ed.), *Papers of the 2007 World Philosophy Day* (pp. 308-332). Ankara, Turkey: Philosophical Society of Turkey, p. 309. <m.tau.ac.il/humanities/philos/dascal/papers/Colonizing and decolonizing minds.doc>.

⁷ See Fanon, F. (1990). *The wretched of the earth*. London, UK: Penguin; Thiong'o, N. (1986). *Decolonising the mind*. Portsmouth, N.H.; Harare: Heinemann Educational; Zimbabwe Publishing House; and Smith, L. T. (2012). *Decolonizing methodologies*. London, UK: Zed Books.

⁸ Thiong'o, N. (1986). *Decolonising the mind*. Portsmouth, N.H.; Harare: Heinemann Educational; Zimbabwe Publishing House, p. 16.

⁹ Crabtree, J. (2018). *Cambridge Analytica is an 'example of what modern day colonialism looks like,' whistleblower says*. CNBC. <cnbc.com/2018/03/27/cambridge-analytica-an-example-of-modern-day-colonialism-whistleblower.html>.

¹⁰ See Renda, A. (2019). *Artificial Intelligence – Ethics, governance and policy challenges (Report of CEPS Task Force)*. Brussels: Centre for European Policy Studies. <ceps.eu/wp-content/uploads/2019/02/AI_TFR.pdf>;

the establishment of principles of fairness and intelligibility; data and privacy rights; shared benefits and restrictions or outright bans on vesting AI with the autonomous power to hurt, destroy or deceive humans¹¹ However, Indigenous rights, issues and concerns are rarely discussed as part of this global dialogue apart from a recent report prepared by the Australian Council of Learned Academies (ACOLA), that discussed wellbeing, equity, self-determination and Indigenous data sovereignty.¹²

We stand on the brink of a technological revolution that will fundamentally alter the way we live, work, and relate to one another. In its scale, scope, and complexity, the transformation will be unlike anything humankind has experienced before. We do not yet know just how it will unfold, but one thing is clear: the response to it must be integrated and comprehensive, involving all stakeholders of the global polity, from the public and private sectors to academia and civil society.¹³

To return to the main question of this essay: ‘Is AI the new (r)evolution or the new colonizer for Indigenous peoples?’ This type of question and the impacts of colonization and moral and ethical boundaries is not something that can be answered in the context of a single paper or a single conversation. It will, however, be something that this generation, often referred to as ‘digital natives,’ ‘homo zappiëns,’ ‘Net generation,’ ‘millennials,’ ‘i-generation’—a generation raised, immersed and exposed to a myriad of digital technologies—will have to tackle. AI will be a game changer that challenges the foundations of our knowledge systems. Thus, it is critically important that we envision and shape how AI could be part of a revolution that is productive for our knowledge systems, our languages, and our futures. We need to be part of the dialogue on establishing global principles and standards for the use of AI to ensure that is not used to perpetuate societal biases, inequalities and global homogenization.

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¹¹ Walsh, T., Levy, N., Bell, G., Elliott, A., Maclaurin, J., Mareels, I.M.Y., Wood, F.M. (2019). *The effective and ethical development of artificial intelligence: An opportunity to improve our wellbeing* (Report for the Australian Council of Learned Academies, [acola.org](https://www.acola.org/)). Melbourne, Australia: Australian Council of Learned Academies. <[acola.org/wp-content/uploads/2019/07/hs4_artificial-intelligence-report.pdf](https://www.acola.org/wp-content/uploads/2019/07/hs4_artificial-intelligence-report.pdf)>.

¹² See Renda, A. (2019). *Artificial Intelligence*.

¹³ Schaub, K. (2016). *The fourth industrial revolution: what it means, how to respond*. *World Economic Forum* [para. 1]. <[weforum.org/agenda/2016/01/the-fourth-industrial-revolution-what-it-means-and-how-to-respond](https://www.weforum.org/agenda/2016/01/the-fourth-industrial-revolution-what-it-means-and-how-to-respond/)>.

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