Artificial Intelligence and Indigenous Knowledge

AI stands for “Artificial Intelligence”, a rapidly evolving technology that sees high-speed computing performing actions that we have historically associated as human. AI technology has the potential to significantly impact Indigenous Peoples in various ways, although it's crucial to approach these developments with sensitivity, respect for cultural diversity, and consideration for ethical implications. Here are some key points highlighting the relevance and importance of AI to Indigenous Peoples:

1. Preservation of Indigenous Languages and Cultures:
Language Revitalization: AI can be used to develop applications and tools for language revitalization efforts, helping preserve and teach Indigenous languages.
Cultural Preservation: AI technologies can assist in preserving traditional knowledge, stories, and cultural practices, ensuring they are passed down to future generations.

2. Community Development and Well-being:
Healthcare: AI can enhance healthcare services, especially in remote Indigenous communities, through telemedicine, diagnostic tools, and personalized treatment options.
Education: AI-powered educational tools can provide tailored learning experiences, promoting education and skill development within Indigenous communities.
Sustainable Development: AI can aid in sustainable resource management, helping Indigenous communities protect their lands and natural resources.

3. Representation and Recognition:
Cultural Representation: AI technologies like virtual reality and augmented reality can be used to represent Indigenous cultures and traditions, fostering understanding and respect among different communities.
Recognition and Rights: AI can aid in identifying and documenting Indigenous lands and territories, supporting legal efforts related to land rights and recognition.

4. Environmental Conservation:
Traditional Ecological Knowledge: AI can complement traditional knowledge to monitor environmental changes, track wildlife, and preserve ecosystems, aligning with Indigenous practices of sustainable living.
Climate Change Mitigation: AI can help analyze climate data, predict natural disasters, and develop strategies for mitigating the impact of climate change on Indigenous communities.

5. Cultural Sensitivity and Ethical Considerations:
Ethical AI: It’s essential to develop AI systems with strong ethical guidelines, ensuring that Indigenous Peoples are respected, their data is protected, and their cultural contexts are considered.
Community Involvement: Indigenous communities should be actively involved in the development and implementation of AI technologies that affect them, respecting their autonomy and rights.

6. Digital Divide Reduction:
Access to Technology: Efforts to provide access to AI technologies can bridge the digital divide, ensuring that Indigenous communities have the tools and knowledge to participate in the digital age.

In summary, AI can be a valuable tool for Indigenous Peoples, promoting cultural preservation, community development, environmental conservation, and representation. However, it must be approached collaboratively, respecting Indigenous rights, cultures, and traditions to ensure positive and meaningful impacts.

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Now, a confession. Other than the title and the very first sentence, everything you have read until this paragraph were generated by ChatGPT, one of the various AI platforms available to anyone with wifi and the necessary hardware and software (the US spelling of 'analyze' might have given it away to some of you). The words 'connectivity' and 'hard/software' themselves have evolved to describe our new environment, a world of physical, relational and digital relationships that have become fundamental to how Māori and other Indigenous Peoples remain, well, connected. I'm sure I'm not the only Māori parent who relies on [insert relevant social media platform] to know what their own tamariki are doing. In our whanau we use SnapChat for our kids and Facebook for cousins, neffs, nieces. Who ever thought that 'Facebook' would become a verb?!

Yet, as the faceless, anonymous robot itself says in the last non-human generated sentence "…it must be approached collaboratively, respecting Indigenous rights, cultures, and traditions to ensure positive and meaningful impacts."

At Te Tira Whakamātaki, we recognise the value of new technologies, from AI to GMOs, in planning and operationalising our biosecurity and other environmental activities. Yet we hear from our network and collaborators that research is a fraught with logistical, ethical, financial and governance demands that always seem to fall on individuals who spend their Tuesday nights in draughty church halls with six other people trying to respond to the latest emergency that has hit their community.

We would be naïve to rely on others to ensure we are safe in this new space.

But let us first acknowledge the potential opportunities and risks of any new technology.

Artificial Intelligence can be seen as a tool, one more addition to the kete that Māori have access to in fulfilling our needs and desires. And how many of us have been given a seemingly minor task, with a tight timeline, that requires us to magic up 500 or a thousand words on something we know a bit about but aren't quite sure of everything that is going on. There are few scarier things than being asked to be the voice on behalf of a group of people who are experts but are older, busier, or just better at delegating than you are!

And so, we will find the benefits in AI as we found the benefits in metal tools, sheep, cattle and horses, maize, the bible and so on. Why not use one of the growing number of freely available AI

software packages to begin a draft of the next newsletter article you've been voluntold to contribute? I see AI assisting communities writing in submissions to the multitude of consultation rounds we are continually responding to at the last minute. I have even seen AI used to come up with ideas for a baby's first birthday. AI is quick, easy, and for the most part free.

But remember the old English proverb: there's no such thing as a free lunch. We have been handing over our IP (intellectual property) via the T&C's (terms and conditions) of multiple platforms for many years. People might be shocked to find what they have given away, and what others have given away on their behalf. Many governments now partner with private multinational corporations in storing and managing data that some argue is public and should be ringfenced from any private manipulation, and others – including Māori – might argue is sovereign from any state or corporate ownership and is culturally sensitive as ChatGPT itself found!

Like many other innovations Māori and other Indigenous Peoples are confronted with, artificial intelligence presents opportunities and risks. We must continue to assert our inherent and Treaty rights in this space but we must also take responsibility for our digital 'behaviour' and protect ourselves and each other from known risks and explore and take advice on the unknown and still evolving risks. Te Tira Whakamātaki intends to utilise and act alongside AI tools by making a commitment to being a trusted, reliable, and up-to-date source of Māori environmental information in the face of a world where this type of information is easily accessible and manipulable, where any position - beneficial or harmful - can be justified by some sort of evidence. How many times do people begin a story with 'My uncle/neighbour/hairdresser/teammate's father-in-law's doctor…'. Now people can download (another term our grandparents would struggle to understand) any 'evidence' they want, and with the benefit of correct spelling and grammar.

We at Te Tira Whakamātaki want to make sure that for those who just google (a word added to the Oxford English Dictionary in 2006), the information they see through AI tools is as accurate as it can be, and the provenance of this data – especially when it is mātauranga Māori - is appropriately accredited. We intend to staunchly advocate for appropriate uses and protection of all Indigenous Knowledges in environmental fields.

As mātauranga Māori becomes elevated in Aotearoa's efforts at building a sustainable future, mana whenua must be recognised and in control of their mātauranga in te ao hurihuri. We have navigated these choppy waters before and while the technological mechanics of ethical behaviour may change, the underlying tikanga will continue to support our safety and security.

Simon Lambert

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Chair, Tikanga a Rangahau.

Te Tira Whakamātaki Statement on Artificial Intelligence (AI) and Indigenous Knowledge (IK)

We at Te Tira Whakamātaki:

- Recognise the value of new technologies, from AI to GMOs, in planning and operationalising our biosecurity and other environmental activities.
- Accept that AI can be a valuable tool for Indigenous Peoples, promoting cultural preservation, community development, environmental conservation and representation.
- Continue to assert our inherent and Treaty rights in this space.
- Take responsibility for our digital 'behaviour' and protect ourselves and each other from known risks and explore and take advice on the unknown and still evolving risks.
- Seek trusted sources of Māori environmental information.
- Reiterate our concern about exploitation of our knowledge, language, images by AI and call for Ai designers to create an ethical position that centres Indigenous concerns.

Therefore, Te Tira Whakamātaki calls for:

- Respect for IK with AI designed and created from an ethical position that centres Indigenous concerns.
- Acknowledgement that each Indigenous community will have its own particular approach to the questions raised.
    - Guided by Local Protocols: the design and development of AI should be guided by local protocols to create diverse standards and programming logic.
- Incorporation of Indigenous perspectives: AI systems should incorporate Indigenous perspectives including IK of the environment and its different seasons.
    - Localised design: AI systems should be regional in nature, conception, design and development, tethered to localised Indigenous laws integral to provenance.
- Data Collection and Interpretation: data scientists should construct models that interpret data taking account of indigenous knowledge of the environment.
- Future Cultural Interrelationships: AI systems should be designed with future cultural interrelationships and interactions with Ais in mind.
- Benefit of All Beings: the use of AI should be envisioned to benefit all beings – human and more-than-human