



Artificial Intelligence and Pacific Research

Artificial Intelligence and Pacific Research

AI refers to machines that are programmed to mimic human intelligence, analyse data to recognise patterns and make predictions based on those patterns (Royal Society Te Apārangi, 2025). MBIE defined AI as a machine-based system's ability to infer from inputs and generate outputs for explicit or implicit objectives, with varying levels of autonomy and adaptiveness (MBIE, 2025).

GenAI is a subset of AI. In response to human instructions or "prompts," GenAI can create new content such as text, images, video, audio, and code (MBIE, 2025). This is achieved by training on very large collections of existing content, often scraped from the internet and other sources. GenAI has been described as revolutionary due to the high quality of its context, which can be difficult to distinguish from human-generated material (MBIE, 2025).

GenAI expands the scope of what organisations and institutions can achieve, accelerating content creation, enhancing consumer engagement through personalisation at scale, and supporting rapid prototyping. It enhances productivity not just by doing more, but by enabling insights, experiences, and outcomes that are arguably better (MBIE, 2025). As GenAI

continues to evolve, it is becoming a foundational capability for businesses seeking to lead in a digital, data-rich economy.

While AI offers transformative opportunities for Pacific research, it is critical to be aware of the data shared with these systems. Any information entered into AI tools and platforms are transmitted to their servers and may be stored, processed,

or used to further train the models. Researchers are encouraged to exercise caution when using such tools (Royal Society Te Apārangi, 2025), particularly when prompts or inputs involve Pacific data, culturally sensitive knowledge, or personally identifiable information. Protecting the privacy, cultural integrity, and sovereignty of Pacific data requires careful consideration of what is entered into these systems, adherence to institutional and community data governance protocols, and transparent decision-making about AI use.

"We have many examples of technologies that have taken the traditional knowledge, right through to the knowledge of today ... so AI is about empowering our Indigenous wisdom which we have had for thousands and thousands of years ... through AI innovation."

– Dr Tania Wolfgramm, Moanaroa Talanoa

Examples of AI Use

The exponential growth of AI has seen the use of, and recognition of its potential use in settings such as:

- judicial systems and law enforcement (Morris, 2023; Tapu & Fa’agau, 2022); –
 - curriculum development in language programmes (Mhasakar et al., 2025);
 - employment, healthcare, climate change mitigation and preservation of cultural heritage (AI Asia Pacific Institute, 2024);
 - analysing satellite imagery and weather patterns in the Pacific (Raj et al., 2025);
 - environmental studies to identify species and measurements in fisheries (Shedrawi et al., 2024);
 - Indigenous language revitalisation (Dueck, 2024).
- These examples highlight several opportunities in the use of AI with the ability to
- draft litigation, perform contract analysis, predict case outcomes, assist with court proceedings (Tapu & Fa’agau, 2022);
 - develop curriculum, draft and design lesson plans, create culturally relevant learning resources (Mhasakar et al., 2025);
 - be used for “smart policing” to aid crime prevention, accountability, and de-escalate high-risk situations (Morris, 2023);
 - identify weather patterns, identify stranded marine life, and forecast potential threats (Raj et al., 2025); and
 - enhance healthcare delivery to Indigenous communities (Khan et al., 2025).

AI, GenAI, and Pacific Knowledge Systems and Data

Current AI systems often reflect the dominant Western, capitalist, and colonial values present in the contexts in which they were developed (Munn, 2024). This inherent bias means predictive analytics in AI often embed colonial narratives that risk perpetuating harmful stereotypes and discrimination (Tapu & Fa’agau, 2022) and perpetuate cultural inaccuracies in training and education models (Mhasakar et al., 2025). A significant concern with GenAI tools is their ability to draw on Pacific knowledge, languages, and data without prior knowledge or consent. This practice can circumvent established protocols and principles and disregard the crucial concept of Pacific data sovereignty. While existing tools might generate content that appears to be from a culturally appropriate perspective, it often lacks cultural and linguistic nuance, dialect, and specific community

“Technologies are not value free ... whether the ...the taiaha [long wooden weapon], a pou [pillar], a whare [house] ... it’s embedded with our own values ... and all the new technologies including the digital technologies are embedded with the values of the designers ... Technologies have to be values-centric ... about preservation ... about intergenerational wellbeing, about nourishment and respect for each other ... not something we consume because someone up in Silicon Valley decided that’s what they were going to do.”

—Dr Tania Wolfgramm, Moanaroa Talanoa.

perspectives. These tools may operate by overlooking principles of data sovereignty relevant to Indigenous and Pacific Peoples. As Dr Tania Wolfgramm suggested in our Moanaroa Talanoa, these technologies are not value free.

Researchers who intend to use GenAI tools that might incorporate Pacific knowledge, data, or languages are urged to carefully consider their obligations and the inherent limitations of these tools. Research

needs to be conducted in a manner that upholds Pacific research approaches and priorities, ensuring it is people-centric and benefits and respects the mana of Pacific communities. Though GenAI and AI are evolving at an exponential rate, there is widespread emphasis on using AI in a responsible and ethical manner.

“Critical thinking will be a highly valuable skill in the future ... with the increasing use of AI, we risk washing critical thinking out of our thinking processes.”

– Moanaroa member, Moanaroa Talanoa

It is essential to ensure ethical use with “humans in control” when leveraging the benefits of AI for research (Royal Society Te Apārangi, 2025). Talanoa with Moanaroa members and Pacific academics revealed that while AI is a powerful tool, it is important that it does not replace critical thinking, Indigenous ways of knowing, deep engagement with knowledge, personal interpretation, and the application of learning.

Members also cautioned that AI might provide generic, potentially biased answers, and replace deep learning and research processes.

Feelings among Pacific academics were mixed, seeing opportunities for AI in research as a tool to develop digital literacy and teach students

to critically evaluate AI-generated content. In broader Indigenous discussions, AI may become a tool for decolonisation if it is imprinted with Indigenous values, history, legal systems, and culture (Tapu & Fa’agau, 2022).

Core Principles and Values for AI Use in Research

Current efforts to develop and use AI governance frameworks are largely exploratory, which emphasises an urgent need for bespoke ethical guidelines rooted in Pacific ways of knowing and relational ethics. Adapted from global and Pacific-centred frameworks, these principles offer a foundation for ethical AI research and use in Pacific contexts:

- Human rights and justice: AI must uphold human dignity, prevent harm, and promote fairness.
- Relational stewardship: There needs to be accountability throughout the AI lifecycle, embedded with Pacific values of vā, reciprocity, and care.
- Transparency and explainability: Systems should be respectful of local languages and Pacific contexts.
- Human oversight: Researchers and communities need to retain ultimate control and responsibility.
- Sustainability and equity: AI systems should promote long-term environments and social wellbeing for Pacific Peoples.