

Advancing Ethical and Culturally Grounded Information Systems Research in the Pacific

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1. Context

The Pacific Information Systems Landscape

Information Systems (IS) research in the Pacific is at a formative stage—characterised by project-based, donor-driven initiatives, limited postgraduate programmes, and low publication output. Despite these constraints, there is growing interest in leveraging IS for education, health, climate resilience, and governance. The region's sociocultural, linguistic, and infrastructural diversity demands Pacific-led frameworks and solutions, rather than imported models.

2. Challenges and Opportunities in Pacific IS Research

Current State and Innovative Examples

IS research in the Pacific is often siloed, with limited cross-institutional collaboration. However, innovative projects demonstrate local ingenuity:

- Samoa: Mixed-methods evaluation of Open, Distance, and Flexible Learning (ODFL).
- Tonga: GIS-integrated SMS disaster alert system.
- Fiji: AI-driven crop monitoring and blockchain trials.
- Kiribati & Tuvalu: Digital inclusion and satellite-based education for remote islands.

These initiatives highlight the need for ethical safeguards, longitudinal data, and regional collaboration.

AI and Emerging Technologies

AI and blockchain are being piloted for agriculture, education, disaster resilience, and digital identity. While generative AI offers personalisation, it raises ethical risks—particularly regarding Indigenous pedagogies and data privacy. Gaps in regulation, infrastructure, and culturally aligned design persist.

Digital Transformation and Smart Islands

The Smart Islands initiative is deploying digital hubs for connectivity and e-services, emphasising digital sovereignty, data protection, and data localisation as strategic imperatives. IS research should guide inclusive, culturally grounded digital transformation.

Human Capital and Institutional Gaps

The region faces limited funding, tools, and

postgraduate programs, as well as brain drain and a shortage of IS-specialised faculty. There is a pressing need for mentorship, ethics training, and stronger research ecosystems.

Methodological and Theoretical Contributions

Pacific IS research must overcome challenges in accessing reliable, longitudinal datasets and navigating ethical complexities in small communities. There is an overreliance on Western paradigms and limited integration of Indigenous knowledge systems. Pacific IS theory contributes by challenging global assumptions—emphasising communal data ownership, relational ethics, layered governance, and linguistic diversity as design assets.

3. Key Themes

Ethical Considerations in Digital and IS Research

Core Concerns

Privacy, confidentiality, security, accountability, bias, discrimination, and informed consent have been identified as central ethical issues in IS research. The importance of integrating Pacific perspectives with Western scientific paradigms must be emphasised to ensure research benefits Pacific communities and nurtures future scientists.

Cultural Approvals and Protocols

Ethical research in the Pacific requires dual approvals (local and institutional), adherence to cultural protocols, translation and adaptation of research tools, and meaningful community engagement. Country-specific examples (Samoa, Tonga, Tokelau) illustrate the diversity of ethical and cultural approval processes.

Principles for Ethical Research Key principles include respect, reciprocity, relationality, cultural safety, holism, and responsibility. These principles underpin the need for participatory, mixed-methods, and culturally grounded research design.

The Digital Vā and Social Media

Research on Pacific women's experiences with Instagram highlights the significance of place, cultural ethics, and online safety. The concept of the "digital vā" was explored as a relational space

shaped by Pacific values, not merely a technical environment. This underscores the need for IS research to account for relational ethics and the lived realities of Pacific peoples in digital spaces.

Practical Guidance for Researchers

- Identify local ethics bodies and timelines early to avoid delays.
- Budget for cultural engagement, including participation in protocols and events.
- Emphasise consent and confidentiality in team training.
- Build trust through local champions and respected community members.
- Engage relevant government ministries early for support and approvals.
- Allow time for culturally appropriate adaptations of research tools and methods.
- Respect community dynamics and governance structures.

4. Strategic Recommendations

For Policymakers

- Institutionalise ethics, FPIC (Free, Prior, and Informed Consent), as well as robust data protection and data sovereignty protocols in all IS research and digital initiatives to maintain trust and align with local and international standards.
- Develop regional rubrics for project evaluation, ensuring alignment with Pacific values and priorities.
- Advocate for funding and policy alignment to support IS research and capacity-building.

For Research Institutions

- Create shared ethics toolkits and integrate project learnings into regional frameworks.
- Establish a Pacific IS repository and publication pipeline to disseminate research and best practices.
- Foster peer feedback, mentorship, and collaboration with global IS networks.

For Researchers

- Engage communities as partners, not just subjects, in research design and implementation.
- Prioritise participatory, mixed-methods, and culturally grounded approaches.

- Balance innovation with relevance, adapting emerging technologies to local contexts and avoiding techno-solutionism.
- Champion digital sovereignty and robust data protection, co-designing with communities to ensure sustainable, context-appropriate solutions.

5. Next Steps and Call to Action

- Target key journals and influence digital policy through evidence-based advocacy.
- Develop institutional rubrics for IS project evaluation.
- Mentor the next generation of Pacific IS researchers and build systems that reflect Pacific values, needs, and aspirations.

The upcoming Pacific Academy of Sciences Inaugural Congress in Samoa (February 2026) will provide further opportunities for collaboration, knowledge-sharing, and capacity-building, with travel grants available for presenters.

Conclusion

Culturally grounded, ethical, and collaborative research is pivotal in shaping the region's digital future. By institutionalising ethical protocols, strengthening human capital, and fostering Pacific-led frameworks, the region can harness IS as a strategic enabler for development, resilience, and innovation. Policymakers, institutions, and researchers are urged to act on these recommendations to ensure that digital transformation in the Pacific is inclusive, equitable, and sustainable.

References

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