

Bridging Ancestral Wisdom and Digital Futures: Traditional Knowledge in the Age of the Fifth Industrial Revolution

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Abstract: As Thaman (2003) and Nabobo-Baba (2006) emphasize, Indigenous knowledge systems in the Pacific, deeply rooted in spirituality, land stewardship, communal values, and oral traditions, remain essential for nurturing identity, sustainability, and resilience. In the context of Fiji, however, formal education systems have historically marginalized these epistemologies in favour of Western-centric curricula, a legacy of colonial influence that still permeates national policy and pedagogy. The onset of the Fifth Industrial Revolution (5IR), characterized by human-centric technological innovation, artificial intelligence, and ethical transformation, presents both a challenge and an opportunity to reposition Indigenous knowledge at the heart of education reform (Schwab & Zahidi, 2023).

This chapter critically explores how Fiji's education system can harmonize traditional knowledge with emerging technologies, particularly within the framework of its national education policies such as the Fiji National Education Policy Framework and Education Act (1978, revised). It also considers recent draft reforms proposed by the Ministry of Education (MoE, 2023), which recognize cultural relevance and inclusive learning as strategic priorities. Through culturally responsive pedagogy, digital equity strategies, and stronger alignment with community-based learning, Higher Education Institutions (HEIs) in Fiji are uniquely positioned to act as mediators between ancestral wisdom and future-oriented innovation.

By fostering Indigenous-centred curricula, supporting bilingual and vernacular education, and embedding ethics in digital learning environments, HEIs can bridge the gap between local heritage and global technological transformations. In doing so, they promote not only academic excellence but also intergenerational justice, ecological resilience, and national cohesion. This chapter ultimately calls for a reimagined, policy-aligned education system in Fiji, one that sees traditional knowledge not as peripheral, but as foundational to sustainable and inclusive development in the 5IR era (UNESCO, 2021; Sanga & Reynolds, 2020).

Keywords: indigenous traditional ethical technological human centred 5IR Sustainable resilience digital-learning reimagined communal epistemologies Human-centric holistic automation traditional-knowledge integrity dignity

I. Introduction

As Schwab and Zahidi (2023) note, the Fifth Industrial Revolution (5IR) represents a shift towards a more human-centred, ethical, and sustainable form of technological progress. Unlike its predecessor, the Fourth Industrial Revolution (4IR), which emphasized automation and artificial intelligence, 5IR focuses on the harmonious integration of technology with human values, well-being, and inclusivity. This evolution presents both unprecedented opportunities and complex ethical dilemmas, particularly for education systems navigating the rapid digitalization of learning environments. For Pacific Island nations like Fiji, this raises critical questions about the role of traditional knowledge in modern educational frameworks and the potential marginalization of Indigenous epistemologies in the age of innovation.

Pacific scholars such as Thaman (2003), Nabobo-Baba (2006), and Sanga and Reynolds (2020) have long argued that traditional knowledge systems, rooted in communalism, respect for the environment, oral traditions, and spirituality, are not only valid forms of knowledge but essential for shaping culturally responsive education. In the Pacific context, knowledge is not compartmentalized into disciplines but is holistic and relational, closely linked to identity, language, and land (va). However, the dominance of Western education paradigms has historically displaced these Indigenous systems, often positioning them as inferior or irrelevant within formal curricula. This is particularly concerning in Fiji, where colonial legacies continue to influence education structures, policy development, and assessment methods (Lingam, 2016; Tabualevu, 2021).

The technological revolution intensifies this tension. While digital technologies offer innovative pathways for delivering education and expanding access, they also risk accelerating the erasure of cultural heritage if not implemented thoughtfully. For instance, curriculum digitalization, standardized content, and foreign learning platforms may prioritize global knowledge systems at the expense of local cultural relevance. As such, the 5IR calls for a recalibration of educational values, where ethics, community engagement, and Indigenous

wisdom must be integral to education policy, pedagogy, and research practices (Zawacki-Richter et al., 2020; UNESCO, 2021).

In Fiji, education policy documents such as the Education Act (1978), the Fiji National Curriculum Framework (FNCF), and the more recent Draft Education Sector Strategic Plan (MoE, 2023) reflect an emerging awareness of the need to integrate cultural values and community priorities. These documents emphasize holistic development, inclusive education, and sustainable learning, principles that align closely with Indigenous worldviews. However, implementation remains inconsistent, with challenges related to teacher capacity, digital infrastructure, policy coherence, and the undervaluing of Indigenous knowledge in formal assessments and qualifications frameworks (Ali & Chand, 2022; Nakarawa, 2023).

As higher education institutions (HEIs) in Fiji and the wider Pacific region position themselves within the 5IR landscape, they have a critical responsibility to lead the transformation towards ethical, inclusive, and culturally grounded education. This includes promoting digital equity, supporting the revitalization of vernacular languages, and integrating traditional ecological knowledge into sustainability programs. Moreover, universities must serve as custodians and innovators, protecting ancestral knowledge while leveraging technology to document, preserve, and disseminate it across generations (Taufe'ulungaki, 2001; Nabobo-Baba, 2020). This paper explores the intersections between traditional knowledge, technological advancement, and higher education reform in the Pacific, with a specific focus on Fiji. It examines how Indigenous knowledge systems can be preserved, revitalized, and integrated into educational policies and pedagogical practices in ways that align with the ethical imperatives of the 5IR. Ultimately, the chapter argues for a reimagined education paradigm, rooted in cultural integrity, human dignity, and digital inclusion, that positions traditional knowledge as a foundation for future-ready learning.

II. Literature Review: Fiji and Pacific Context

The integration of traditional knowledge systems within formal education in the Pacific remains a critical concern in light of accelerating technological advancement. Indigenous knowledge in Fiji, rooted in oral histories, ecological wisdom, and communal values, is under increasing pressure due to the rapid digitalization of education and globalization of curricula (Sanga, 2016). The Fifth Industrial Revolution (5IR), characterized by the convergence of human-centred innovation and advanced technologies such as AI and robotics, presents both threats and opportunities for preserving indigenous epistemologies (Schwab & Zahidi, 2023).

In the Pacific, education policies have traditionally emphasized Western pedagogical models, often at the expense of local knowledge systems (Thaman, 2003; Nabobo-Baba, 2006). Thaman (2003) argues for the critical inclusion of Pacific values, languages, and worldviews in curriculum development as a way to promote culturally sustainable learning. The Fiji Islands National Curriculum Framework (Ministry of Education, 2013) marked a step toward this goal by emphasizing holistic education and cultural identity, but implementation challenges persist due to limited resources, teacher training gaps, and policy fragmentation.

Recent studies highlight the digital divide as a major obstacle to integrating traditional knowledge with emerging technologies in the region (Lingam et al., 2022). While ICTs offer a platform to document, archive, and disseminate indigenous knowledge, they also risk commodifying and distorting it when not guided by ethical and community-informed practices (Fiji Higher Education Commission [FHEC], 2020). Moreover, scholars caution that the rapid infusion of 5IR tools into Pacific education systems must be tempered with indigenous methodologies to avoid epistemic erasure (Naqvi, 2021; Ratuva, 2022).

Ultimately, a balanced approach that leverages technology to empower communities—while upholding the autonomy and sacredness of indigenous knowledge, will be essential for achieving culturally grounded and future-ready education systems in Fiji and the Pacific.

Table 1. Key Literature on Traditional Knowledge and Education in Fiji and the Pacific in the Age of Technological Change

Author(s)	Focus Area	Key Findings	Relevance to 5IR and Education
Thaman (2003)	Indigenous perspectives in education	Advocates for integrating Pacific values, languages, and knowledge systems into education	Supports culturally responsive pedagogy amidst global and technological pressures
Nabobo-Baba (2006)	Indigenous Fijian learning systems	Documents <i>vuli vaka-Viti</i> as a culturally grounded pedagogy	Highlights local epistemologies threatened by Western digital frameworks
Ministry of Education (2013)	National Curriculum Framework in Fiji	Emphasizes holistic, inclusive, and values-based education	Provides a policy base for merging traditional and modern learning approaches
Sanga (2016)	Pacific conceptualizations of education	Calls for rethinking Western-centric models through indigenous philosophies	Offers a philosophical foundation for localized education reforms in 5IR contexts
FHEC (2020)	Strategic higher education planning	Promotes quality, relevance, and accessibility in tertiary education	Suggests digital capacity building must include cultural and community integration
Lingam et al. (2022)	Digital equity in Pacific higher education	Identifies barriers such as infrastructure, training, and cultural disconnection	Urges ethical digital transformation that supports indigenous learners and communities
Naqvi (2021)	Indigenous knowledge and digital education	Warns of epistemic erasure through uncritical adoption of digital tools	Argues for decolonial approaches in tech-based learning platforms
Ratuva (2022)	Decolonization and knowledge justice in Pacific education	Critiques Western dominance in curriculum and technology-based reforms	Advocates for epistemic sovereignty in the Pacific's 5IR trajectory
Schwab & Zahidi (2023)	Global 5IR competitiveness and education	Highlights the centrality of human–technology symbiosis in the future of work and learning	Urges systems to blend empathy and ethics with innovation, relevant for Pacific education systems

III. Traditional Knowledge in the Age of Technological Revolution

Traditional knowledge systems, rooted in centuries of Indigenous wisdom, community values, and lived experiences, hold immense relevance and potential in navigating the complexities of the technological revolution. As Dei (2011) argues, traditional knowledge is not a relic of the past but a dynamic, living system that offers holistic, place-based understandings of the world. In the age of the Fifth Industrial Revolution (5IR), characterized by human-centred innovation and the convergence of digital, physical, and biological technologies (Schwab & Zahidi, 2023), integrating traditional knowledge with technological progress is not only desirable but essential for achieving inclusive, ethical, and sustainable development.

In the Pacific region, including Fiji, traditional ecological knowledge (TEK), communal governance systems, and Indigenous worldviews have long sustained harmonious relationships between people and their environments. As Thaman (2003) and Nabobo-Baba (2006) emphasize, these systems are embedded in cultural protocols, language, spirituality, and intergenerational knowledge transmission. However, rapid technological change often risks marginalizing or eroding these Indigenous epistemologies if education and development agendas are not intentionally decolonized. The expansion of digital infrastructure, artificial intelligence, and automation must therefore be contextualized within Indigenous ontologies to prevent epistemic injustice and cultural alienation (Smith, 2021; Sanga & Reynolds, 2019).

Emerging technologies also present unique opportunities to revitalize and disseminate traditional knowledge. Digital storytelling, virtual reality, and open-source platforms have been used across Pacific communities to

document oral histories, preserve Indigenous languages, and map traditional land-use practices (UNESCO, 2022). For example, initiatives led by the University of the South Pacific have combined geospatial technologies with customary land stewardship models to address climate change adaptation and food sovereignty in island communities. This co-creation of knowledge bridges ancestral wisdom with modern tools, fostering resilience and cultural continuity in the face of global challenges.

However, the appropriation or commodification of traditional knowledge remains a critical concern. Without ethical safeguards and community-led governance, digital technologies may exploit Indigenous intellectual property or distort sacred cultural meanings. As Zuboff (2019) warns, the age of surveillance capitalism poses real threats to collective memory and sovereignty if Indigenous data is extracted without consent. Therefore, embedding ethical frameworks, Indigenous data sovereignty, and culturally responsive pedagogy within technological innovation is vital to ensuring that traditional knowledge is protected, respected, and empowered. Ultimately, honouring traditional knowledge in the age of 5IR is not about resisting technology but about rebalancing power, values, and worldviews. It invites a paradigm shift where technological progress is informed by cultural wisdom, spiritual ethics, and ecological consciousness, offering humanity a more compassionate and sustainable pathway forward.

IV. Integrating Traditional Knowledge with Digital Pedagogies

In the age of the Fifth Industrial Revolution (5IR), integrating traditional knowledge with digital pedagogies offers a powerful avenue for reimagining education that is both technologically advanced and culturally grounded. As Thaman (2003) asserts, indigenous knowledge systems in the Pacific, such as storytelling, ecological wisdom, and communal learning, are deeply tied to identity, language, land, and spirituality. These systems provide not only alternative epistemologies but also ethical foundations that challenge the technocratic, utilitarian paradigms often promoted by Western digital education models.

The Pacific Islands, including Fiji, are uniquely positioned to model hybrid pedagogical approaches that blend ancestral knowledge with contemporary digital tools. For instance, traditional navigation methods, farming practices, and oral histories can be preserved and taught through digital storytelling, virtual reality simulations, and AI-driven heritage archives (Nabobo-Baba, 2006; Teaiwa, 2015). This approach not only validates indigenous epistemologies but also enhances youth engagement by contextualizing learning within their lived realities and cultural values. Moreover, digital tools can be designed to reflect Pacific languages, metaphors, and relational worldviews, thus resisting the cultural homogenization often associated with globalization and Western technological dominance.

Singh and Prasad (2021) argue that educational transformation in Fiji must go beyond access to infrastructure; it must include the decolonization of curricula and the reassertion of indigenous worldviews through modern mediums. Digital pedagogy that merely replicates Western models risks deepening the digital divide and eroding traditional systems of knowledge transmission. Therefore, the role of educators becomes critical in mediating the interface between tradition and innovation—ensuring that technology serves culture rather than displacing it.

At the policy level, frameworks such as Fiji's National Digital Literacy Framework (Ministry of Education, 2022) and the Pacific Regional Education Framework (PacREF, 2021) emphasize inclusive and culturally relevant digital learning. However, implementation often lacks meaningful engagement with indigenous stakeholders. To bridge this gap, higher education institutions must collaborate with local communities, elders, and knowledge holders to co-design curricula and learning platforms that uphold cultural integrity while promoting digital fluency.

Ultimately, the integration of traditional knowledge with digital pedagogies is not merely an academic exercise, it is a political, ethical, and pedagogical imperative. It ensures that education systems in the Pacific are not only future-ready but also deeply rooted in their cultural soil, fostering intergenerational continuity and resilience in the face of rapid technological change (Sanga & Reynolds, 2019; UNESCO, 2023).

V. Traditional Knowledge in the Digital Age: Preserving Identity and Empowering Future Generations

Traditional Knowledge (TK) encompasses the accumulated skills, beliefs, innovations, customs, and practices developed by Indigenous and local communities over generations, often transmitted orally and through experiential learning (Battiste, 2002; Nakata, 2007). In Fiji and across the Pacific Islands, traditional knowledge is inseparably bound to land (*vanua*), sea, kinship, language, spirituality, and cultural identity (Tuwere, 2002; Nabobo-Baba, 2006). It reflects a holistic worldview that values communal wellbeing, sustainability, and intergenerational responsibility.

As the Pacific region navigates the challenges and opportunities of the Fifth Industrial Revolution (5IR), the preservation and revitalization of traditional knowledge has become both an ethical imperative and an

educational opportunity. The fusion of human-centred values with advanced digital technologies—characteristic of 5IR, presents an opening to reimagine the role of Indigenous epistemologies in contemporary education (Schwab & Zahidi, 2023; Selinga & Naidu, 2024). Teaching traditional knowledge through modern digital tools such as interactive storytelling apps, virtual reality simulations, and cloud-based language archives can engage youth meaningfully while ensuring this knowledge is not lost (UNESCO, 2022).

In Fiji, this integration is particularly urgent. Studies have noted that rapid urbanization, Westernized schooling, and the dominance of English over iTaukei and Rotuman languages contribute to the marginalization of Indigenous knowledge systems (Lingam, 2018; Tabuya & Singh, 2021). Embedding TK into national curricula, supported by digital pedagogy, can help reclaim cultural identity, support linguistic preservation, and provide locally relevant learning experiences. For example, apps capturing traditional fishing methods, weather interpretation, and ceremonial protocols offer avenues for interactive learning that is both technologically engaging and culturally rooted (Naiker, 2023).

Moreover, aligning this integration with Fiji's educational policy reforms and Sustainable Development Goals (SDGs), particularly SDG 4 (quality education) and SDG 13 (climate action), reinforces the role of traditional knowledge in fostering resilience and sustainable development (UN, 2023). Pacific higher education institutions, such as the University of the South Pacific, are already piloting initiatives to digitize oral histories and integrate Indigenous knowledge into research and teaching, signalling a critical shift towards culturally inclusive and future-ready education (Thaman, 2009; USP, 2024).

Therefore, educating for humanity in the Pacific must include intentional efforts to safeguard and rejuvenate traditional knowledge through culturally sensitive, technologically innovative, and policy-supported pathways. This approach not only affirms Indigenous identities but also ensures that Pacific Island communities remain empowered contributors to global conversations in the 5IR era.

Table 2: Examples of Traditional Knowledge in the Pacific

Category	Examples
1. Traditional Ecological Knowledge (TEK)	- Knowledge of tides, lunar cycles, weather patterns, and seasonal changes - Traditional methods of sustainable fishing, farming, and forest conservation
2. Cultural Practices and Arts	- Oral storytelling, myths, legends, chants (e.g., <i>meke</i> , <i>haka</i>) - Mat weaving, tapa making, traditional tattoos, carving
3. Navigation and Canoe Building	- Celestial navigation using stars, wave patterns, and wind directions - Traditional outrigger canoe construction techniques
4. Indigenous Healing and Medicine	- Use of herbal medicine and plant-based healing - Spiritual and communal health practices
5. Language and Identity	- Indigenous languages that carry metaphors, history, and worldview - Proverbs, idioms, and rituals that encode moral and ethical teachings

Table 3: How Traditional Knowledge Can Be Taught Through Technology

Traditional Knowledge	Technology-Based Teaching Strategies
Oral Stories and Myths	Audio podcasts, YouTube storytelling series, animation
Traditional Navigation	VR simulations of voyaging, digital maps with Indigenous names
Weaving and Craftsmanship	Video tutorials, online interactive workshops, mobile apps with 3D modelling
Indigenous Languages	Language learning apps (e.g., Duolingo-style), gamified quizzes, digital dictionaries
Herbal Medicine	Online databases with plant images, AR-enhanced learning, community-sourced apps
Ceremonial Practices	Digital archives of ceremonies, culturally sensitive e-learning platforms
Music and Chants	Digital recording studios, music editing software, Indigenous Spotify playlists

VI. Opportunities and Challenges in Repositioning Education in the Pacific and Fiji

The Fifth Industrial Revolution (5IR), characterized by human-centred technological innovation, offers both promising opportunities and significant challenges for education systems, particularly in small island

developing states (SIDS) such as those in the Pacific. The dual imperative is to embrace technological advances while safeguarding indigenous values, identity, and cultural sustainability (UNESCO, 2023).

8.1 Opportunities

One of the most significant opportunities of the 5IR lies in its potential to democratize access to knowledge through digital technologies. As UNESCO (2022) emphasizes, when equitably deployed, artificial intelligence (AI), immersive learning tools, and online platforms can expand access to quality education, especially in remote and underserved areas across the Pacific. For instance, e-learning and open educational resources (OERs) enable flexible, lifelong learning for students and teachers alike, particularly when supported by mobile connectivity (World Bank, 2023).

Another opportunity is the potential for integrating traditional knowledge systems with digital innovation to foster culturally grounded learning. Initiatives such as community-led digital storytelling, indigenous language applications, and virtual heritage archives allow students to engage with ancestral knowledge using contemporary tools (Teaiwa, 2015; Sanga & Reynolds, 2019). Moreover, the 5IR's emphasis on collaboration between humans and intelligent technologies supports the development of ethical, creative, and socio-emotional competencies, aligning well with Pacific values of relationality, respect, and communal learning (Thaman, 2009; Nabobo-Baba, 2006).

For Fiji, such opportunities are bolstered by national policy shifts towards ICT integration and curriculum reform. Fiji's National Digital Literacy Framework (Ministry of Education, 2022) and Education Sector Strategic Development Plan (ESSDP) reflect growing recognition of the importance of digital skills for workforce readiness and innovation.

8.2 Challenges

Despite these prospects, numerous structural and systemic challenges constrain progress. A major barrier is unequal digital infrastructure, many rural and maritime areas in Fiji and other Pacific nations face limited internet connectivity, lack of digital devices, and unstable electricity, which perpetuate educational inequities (Pacific Islands Forum Secretariat, 2021). This digital divide risks excluding vulnerable communities from the benefits of digital transformation, thus reinforcing existing disparities.

In addition, there is the risk of cultural erosion if digital education is implemented uncritically using Western frameworks. Imported curricula and technologies often fail to reflect indigenous epistemologies and learning traditions, thereby undermining local knowledge systems and identity (Thaman, 2003; Singh & Prasad, 2021). Without culturally responsive digital pedagogies, education may become a vehicle of neocolonialism rather than empowerment.

Capacity building also remains a significant challenge. Many educators in the region lack adequate training in digital literacy and culturally inclusive pedagogy. Professional development programs are often sporadic, under-resourced, and detached from local contexts (Ali, 2020). Furthermore, the policy-to-practice gap continues to hamper effective implementation of national and regional strategies.

Another overarching challenge is the vulnerability to climate change and external shocks, which further strain education systems in the region. Natural disasters frequently disrupt schooling, damage infrastructure, and redirect government resources, making long-term planning and investment in education innovation difficult (UNDP, 2022).

8.3 Balancing Innovation with Inclusion

To navigate these opportunities and challenges, Pacific education systems must adopt a hybrid and contextually grounded approach, balancing technological advancement with cultural sustainability and inclusive values. This includes embedding indigenous knowledge into digital platforms, ensuring equitable digital access, investing in teacher training, and involving local communities in educational reform processes (Nabobo-Baba, 2006; UNESCO, 2023).

Ultimately, the Pacific and Fiji are at a critical juncture. By responding strategically to the opportunities of the 5IR while addressing systemic challenges with cultural integrity and innovation, the region can transform its education systems into engines of sustainable and inclusive development.

VII. The Role of Education in Shaping a Resilient and Inclusive Future

Education plays a transformative role as both a catalyst and a compass in navigating the Pacific region through the complexities of the Fifth Industrial Revolution (5IR) and toward a more equitable and sustainable future. It is not merely a conduit for transmitting knowledge but a powerful mechanism for empowering individuals, fostering innovation, and preserving cultural identity (UNESCO, 2023). In Fiji and across the Pacific, education must serve as a strategic bridge,

connecting traditional knowledge systems with contemporary global competencies to build adaptive, future-ready citizens. The evolving demands of 5IR call for a reimagined education system that promotes digital literacy, critical thinking, ethical reasoning, creativity, and socio-emotional intelligence, all while embedding indigenous values such as *vanua*, communalism, and respect for nature (Nabobo-Baba, 2006; Thaman, 2009). Moreover, education is central to achieving the Sustainable Development Goals (SDGs), particularly SDG 4, which advocates for inclusive and quality education for all. In this regard, education must address systemic inequities, enhance access for marginalized communities, and integrate culturally responsive pedagogies to ensure no one is left behind (Pacific Islands Forum Secretariat, 2021). Furthermore, education must play a critical civic and ethical role, equipping learners to engage with global challenges such as climate change, inequality, and technological disruption with resilience and responsibility. By aligning policy, practice, and pedagogy, education can serve as the foundation for a sustainable, just, and culturally vibrant Pacific society in the 21st century and beyond.

VIII. Key Expectations in a Revised Education Act 1996 for Fiji

10.1 Rights-Based and Inclusive Framework

A modern Education Act should affirm education as a fundamental human right and ensure universal access to quality education for all, regardless of gender, disability, ethnicity, socio-economic status, or geographical location. The Act should explicitly address inclusion of children with special needs, indigenous and minority communities, and remote maritime populations (UNESCO, 2023).

10.2 Alignment with 21st-Century and 5IR Competencies

Given the impact of the Fifth Industrial Revolution (5IR), the Act must mandate integration of digital literacy, AI awareness, problem-solving, creativity, and ethics into the national curriculum. It should also promote lifelong learning pathways, technical and vocational education, and digital upskilling for youth and adults alike (World Bank, 2021).

10.3 Culturally Responsive and Decolonized Curriculum

A revised Act must give legal recognition to indigenous knowledge systems, local languages, and cultural pedagogy. It should mandate curriculum content that reflects Fijian identities, traditional values, environmental stewardship, and Pacific worldviews (Thaman, 2009; Nabobo-Baba, 2006).

10.4 Decentralization and Community Engagement

Education governance should be made more participatory and transparent, involving school boards, parents, traditional leaders, local councils, and civil society organizations. The Act should encourage community-based schooling and shared accountability mechanisms.

10.5 Teacher Professionalism and Ethical Standards

The Act should strengthen frameworks for teacher training, licensing, professional development, and codes of ethics, ensuring all educators are equipped for inclusive and future-focused learning. It should provide clear protocols for dealing with teacher misconduct, discrimination, and corruption (OECD, 2023).

10.6 Policy Coherence and Inter-Ministerial Collaboration

There should be provisions to ensure education aligns with national development goals, labour market strategies, environmental policies, and digital transformation initiatives. The revised Act should promote inter-ministerial collaboration between Education, ICT, Youth, Employment, and Indigenous Affairs ministries.

10.7 Education Quality, Assessment, and Accreditation

The Act should require that standards for learning outcomes, assessments, and quality assurance mechanisms be updated, digitized, and benchmarked against regional and global frameworks (e.g., PacREF, SDG 4). There should be robust data systems for tracking performance, access, and equity.

10.8 Higher Education Reform

The Act should redefine the roles and responsibilities of higher education institutions, including their obligations in research, innovation, sustainability, and community service. It should promote academic freedom, while also ensuring quality control and regulatory oversight.

10.9 Digital and Green Education Mandates

The new Act should legally embed digital education strategies, including infrastructure, access, cyber safety, and e-learning platforms. It should also promote climate education, sustainability, and disaster resilience as core themes in all levels of education (SPC, 2022).

10.10 Monitoring, Evaluation, and Legislative Review

The Act must establish an independent Education Commission or Ombudsman to monitor compliance, ensure rights are protected, and enable periodic reviews and amendments to keep the law relevant and accountable.

IX. Indigenous and Traditional Knowledge and the United Nations Sustainable Development Goals (SDGs)

The integration of Indigenous and Traditional Knowledge (ITK) into education and development policy frameworks has gained significant recognition globally, especially in the context of the United Nations Sustainable Development Goals (SDGs). According to UNESCO (2019), indigenous knowledge systems are crucial in addressing environmental sustainability, health, food security, cultural preservation, and inclusive education. In the Pacific, including Fiji, such knowledge is deeply rooted in the communal way of life, emphasizing reciprocity, stewardship, and harmony with nature—principles that align with the holistic vision of the SDGs.

11.1 SDG 4: Quality Education

The most direct linkage between ITK and the SDGs is found in Goal 4: Ensure inclusive and equitable quality education. Target 4.7 specifically calls for education that promotes “appreciation of cultural diversity and of culture’s contribution to sustainable development.” Integrating traditional knowledge into school curricula not only affirms the identities of indigenous learners but also fosters respect for diverse worldviews (UNESCO, 2023). In the Fijian context, incorporating iTaukei environmental knowledge, oral histories, traditional medicine, and indigenous navigation techniques offers culturally responsive learning that enhances educational relevance and retention (Nabobo-Baba, 2006; Thaman, 2003).

11.2 SDG 13: Climate Action

Indigenous communities are often at the frontline of climate change, and their ancestral knowledge about land use, biodiversity, and disaster preparedness is increasingly valued in resilience-building efforts. Traditional ecological knowledge contributes to climate adaptation strategies, resource conservation, and early warning systems, as recognized under SDG 13: Take urgent action to combat climate change and its impacts (IPCC, 2022). Fijian villagers, for instance, have historically used cloud patterns, animal behaviours, and tidal rhythms to predict storms, skills that complement modern meteorology.

11.3 SDG 2: Zero Hunger & SDG 15: Life on Land

ITK also supports SDG 2 (Zero Hunger) and SDG 15 (Life on Land) through practices such as traditional agroforestry, seasonal planting, soil regeneration, and sustainable fishing. Fijian and broader Pacific agricultural systems like *teitei* (subsistence farming) and *yam ceremonial planting cycles* embed ecological balance, intergenerational learning, and food sovereignty (Hau’ofa, 1993; Food and Agriculture Organization, 2020).

11.4 SDG 5: Gender Equality

Traditional knowledge systems also interact with SDG 5: Gender Equality in nuanced ways. While some customs may perpetuate patriarchal roles, many Pacific indigenous systems recognize gendered knowledge spheres, such as women’s expertise in herbal medicine, weaving, and food preservation, that are vital for household resilience and community wellbeing (Pacific Women, 2022). Respecting and revitalizing these contributions through inclusive educational platforms enhances both gender equity and cultural sustainability.

11.5 Policy Integration and SDG Partnerships

The UN Declaration on the Rights of Indigenous Peoples (UNDRIP) and the SDGs collectively call for the full participation of indigenous peoples in decision-making. For Fiji and other Pacific nations, integrating ITK into education policy, national adaptation plans, and community-based development fosters not only SDG localization, but also cultural empowerment and sovereignty. This resonates with the Pacific Regional Education Framework (PacREF), which advocates for the inclusion of indigenous knowledge as part of regional curriculum reforms (PIFS, 2021).

X. Conclusion

UNESCO (2019) asserts that meaningful education must be grounded in cultural relevance, sustainability, and inclusivity, principles that are deeply embedded in Indigenous and Traditional Knowledge (ITK) systems across the Pacific. In the context of Fiji and the broader region, integrating ITK into contemporary educational policy and pedagogical design is not merely an act of cultural preservation but a strategic imperative for sustainable development. As the global education discourse transitions into the age of the Fifth Industrial

Revolution (5IR), the Pacific stands at a critical juncture where local epistemologies can enrich and humanize digital learning landscapes.

The findings and literature reviewed underscore the urgent need to reposition education as a transformative tool that bridges ancestral wisdom with emerging digital competencies. The convergence of traditional knowledge systems with modern educational practices offers a holistic model of learning, one that fosters cultural identity, environmental stewardship, and community resilience (Thaman, 2003; Nabobo-Baba, 2006). This model aligns with the vision of SDG 4, which promotes inclusive, quality education that respects cultural diversity and indigenous contributions to knowledge (UNESCO, 2023).

Moreover, the role of education in Fiji must extend beyond classroom instruction to address broader social and ecological goals. As highlighted by the Intergovernmental Panel on Climate Change (IPCC, 2022), the Pacific region is disproportionately affected by climate change. Here, indigenous environmental knowledge, passed down through oral traditions and community practice, offers valuable insights for climate adaptation, biodiversity conservation, and disaster risk reduction. Embedding such knowledge into curricula and teacher education programs reinforces both local agency and regional sustainability.

Equally, the revised Fijian Education Act presents an opportunity to institutionalize a more inclusive and decolonized curriculum that validates traditional knowledge systems. As Pacific Islands Forum Secretariat (2021) emphasizes in the PacREF, policy reforms must prioritize cultural responsiveness, community engagement, and digital inclusion. This is particularly vital in rural and maritime areas where educational inequity, infrastructure gaps, and linguistic diversity continue to challenge equitable access and learning outcomes.

However, challenges persist. The marginalization of ITK in formal education, often due to colonial legacies, epistemological bias, and systemic underinvestment, continues to undermine the knowledge sovereignty of Pacific communities (Smith, 2021). Effective integration of traditional knowledge into national education frameworks requires not only curriculum reform but also teacher capacity building, intergenerational dialogue, and genuine partnerships between communities, educators, and policymakers.

Ultimately, educating for humanity in the Pacific context demands a paradigmatic shift, from education as a tool of economic utility to education as a space for nurturing ethical, ecological, and cultural consciousness. This approach aligns with the spirit of the SDGs, the aspirations of Indigenous communities, and the transformative promise of education in the 21st century. A values-based, culturally grounded education system can help foster empowered learners who are not only digitally literate but also deeply rooted in their identity, connected to their land, and committed to the collective well-being of their communities and planet.

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