

# Review of Management Literature



## Reviewing the Latest Trends in Management Literature

**VOL. 4B**

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**REVIEWING THE LATEST TRENDS  
IN MANAGEMENT LITERATURE**

# REVIEW OF MANAGEMENT LITERATURE

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EDITED BY

**SUDHIR RANA**

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INVESTOR IN PEOPLE

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# PREFACE

Literature reviews play a crucial role in advancing scholarly understanding by organising, synthesising and critiquing the vast body of existing knowledge. They provide researchers and practitioners with comprehensive insights into current developments, highlight gaps in the research and suggest pathways for future exploration. As the landscape of business and management continues to evolve rapidly, literature reviews become invaluable in helping to navigate these changes by offering a clear view of where the field stands and where it is heading.

We are pleased to introduce the fourth volume, Part B of the Review of Management Literature series, continuing our mission to consolidate and present the latest trends and research in management. This volume offers an in-depth exploration of contemporary topics shaping management thought and practice, particularly in three core areas: human resource management, sustainability and technology.

In the realm of human resources, this volume covers topics like performance orientation, employee engagement and workplace behaviour, providing a comprehensive analysis on how organizations can foster a productive and positive work environment. It also delves into issues like workplace deviance and the factors influencing employee happiness, exploring both positive and negative behaviours within organizations.

In context of sustainability, this volume explores critical areas such as sustainable human resource management, the adoption of green banking and finance and the integration of Artificial Intelligence (AI) in driving sustainable financial practices. These reviews provide insights into how businesses can align their operations with sustainable goals and adapt to the increasing emphasis on eco-friendly practices.

In the domain of technology, the volume addresses the impact of emerging technologies on business processes and strategic decision-making. Topics such as digital leadership, multi-agent technology in manufacturing and the intersection of AI with supply chain resilience offer a comprehensive look at how technological advancements are reshaping industries. Furthermore, the role of technology in driving social and economic emancipation in developing regions is discussed, offering insights into the broader implications of tech adoption in underrepresented areas.

As we continue to face rapid digitalisation and shifting organizational environments, this collection of reviews will be an invaluable resource for scholars, practitioners and policymakers. It synthesises knowledge across a wide array of disciplines, offering both conceptual frameworks and practical recommendations for adapting to the ongoing changes in the global business landscape.

We extend our gratitude to the authors, reviewers and our editorial team, whose dedication has been instrumental in producing this volume. We are confident that this work will serve as a valuable reference, advancing both theory and practice in management. As always, we welcome feedback and look forward to future contributions in this ever-evolving field.

Warm regards,  
The Editorial Team  
Review of Management Literature

# Role of Emerging Technologies in Indigenous Emancipation: A Systematic Literature Review

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## ABSTRACT

*Indigenous communities worldwide face significant challenges, including cultural endangerment, health disparities and economic inequities. This systematic literature review examines the intersection of emerging technologies, particularly artificial intelligence (AI) and generative AI, with the well-being of indigenous communities. Contributions are compiled from both policy and academic databases to review systematically in order to identify the impact of digitalization and AI on indigenous populations. The review analyzes both the positive outcomes and potential biases associated with these applications in the domains of culture, language, health and economic development. This review reveals that while emerging technologies offer significant potential to empower indigenous communities, their development and implementation must be approached with cultural sensitivity to mitigate potential biases. Findings highlight key opportunities and challenges, emphasizing the need for inclusive design and community engagement to ensure that emerging applications are both effective and respectful of indigenous cultures worldwide.*

**Keywords:** Indigenous communities; artificial intelligence; generative artificial intelligence; large language models; indigenous data sovereignty; decolonizing AI

## 1. INTRODUCTION

Indigenous communities globally face persistent challenges, often rooted in historical and ongoing social exclusion (Matthews, 2024). This marginalization is evident in their disproportionate representation (Williamson, 2001) in negative

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socioeconomic statistics. Furthermore, past technological advancements, while promising, have often fallen short in adequately addressing these communities' unique needs. For instance, early machine translation systems frequently exhibited higher error rates when translating indigenous languages (Ishida, 2006), hindering effective communication and knowledge sharing. While modern knowledge-based systems excel at providing tailored solutions to complex problems, they currently lack effective methods for representing traditional knowledge (TK) (Thomson, 2000) in a way that meets the unique needs of diverse communities. For instance, the lack of collaborative partnerships between researchers and tribes in the United States (Credo & Ingram, 2021) has resulted in frequent under or the misrepresentation of American Indian and Alaska Native people in research and health statistics, hindering efforts to address health disparities effectively.

Emerging digital technologies offer opportunities for indigenous peoples to develop new ways of representing their knowledge, reclaiming cultural heritage and connecting with their communities (Botes & Rossi, 2021). A great example is how New Zealand has focused on the preservation of Maori indigenous communities (Stillman & Craig, 2006) via integrating them with the mainstream. Within indigenous communities, new digital versions of historic artefacts are being utilized for a variety of purposes (Newell, 2012). For instance, GIS mapping can be used to support Maori land management (Lischer-Katz, 2022) in New Zealand, and 3D scanning enables the digital repatriation of indigenous cultural heritage held by overseas institutions.

A number of studies vividly illustrate the transformative potential of artificial intelligence (AI) in the field of indigenous emancipation (Robinson et al., 2022). The infusion of AI has potentially augmented the benefits conferred by digitalization (Ratten, 2024). Existing AI technologies are being used in an amazing range of problem areas. These include facial recognition (Kleider-Offutt et al., 2024), natural language processing, robotics and autonomous vehicles (Kaufman et al., 2024) and virtual agents of many kinds. For example, Gumbo's investigation into the digitization of research and higher education suggests that AI can play a key role in accelerating sustainable development (Gumbo, 2023), which will enable indigenous communities to advance into contemporary educational paradigms. Indigenous communities can be empowered, and historical injustices rectified through the use of AI (Eglash et al., 2024), as demonstrated by computational reparations through generative justice in science, technology, engineering and mathematics (STEM) students.

AI also has shed light on the intricate relationship between technological advancement and colonial biases (Irwin & White, 2019) in the preservation of indigenous knowledge (Asuquo et al., 2023). Given the challenges posed by digitalization for indigenous people, emancipatory online learning must carefully balance the need to preserve indigenous legacies (Williamson, 2001) with the avoidance of imposing colonial structures. Although the debate on AI ethics

predates many current discussions, it is still important because it emphasizes how software design must take ethics into account to prevent prejudices against indigenous communities (Thomson, 2000).

Generative artificial intelligence (GAI) distinguishes itself from predictive AI through its capacity for continuous learning and human guided development. By integrating human feedback into its decision-making processes, GAI moves beyond static predictions engaging in a more collaborative and iterative approach to problem-solving. While traditional AI systems analyze and learn from input data, generative AI goes a step further by creating new data that is similar, yet distinct (Marr, 2023). With its reputation for producing new content, insights, and solutions on its own (Ishida, 2006), generative AI holds great potential to reduce prejudice, promote inclusivity and elevate the voices of indigenous people in the digital sphere. It has the potential to empower indigenous communities by giving them back control over their narratives (Thomson & Schmoldt, 2001) and allowing them to cocreate culturally relevant content. This highlights how technology can help transmit culture.

Indigenous communities can be given previously unheard-of opportunities to take control of their stories, collaborate on content that reflects their cultural values and navigate the digital world with greater respect and autonomy with the strategic application of generative AI technologies. Through this review, the authors aim to explore how the adoption of generative AI serves to empower indigenous communities, both economically and socially.

The dominant reality is that non-native entities often control the collection, sharing and narration of data concerning indigenous peoples. This external control perpetuates the marginalization of indigenous voices (Starblanket et al., 2019) and perspectives in mainstream narratives. Digital empowerment within indigenous communities go beyond simply having access to technology (Kandiuk, 2016). It's about leveraging technology to support self-determination (Leditschke et al., 2024), cultural revitalization and social justice (Fomunyam, 2020). It recognizes the historical context of colonization and the digital divide (Dirks, 2021), aiming to bridge those gaps in a way that empowers indigenous people.

Equitable and affordable access to infrastructure, including broadband internet (Chiu et al., 2009), computers and mobile devices, is crucial for indigenous community involvement and equalizing educational opportunity (Berry, 2020). However, access must also encompass culturally relevant content and platforms that reflect indigenous languages, values and knowledge systems (Tsai & Wang, 2019). Furthermore, digital empowerment necessitates moving beyond basic digital literacy to cultivate the ability to critically evaluate online information (Arawjo & Mogos, 2021), create digital content and utilize technology for advocacy, storytelling and cultural preservation (Santano et al., 2021).

Examining technology adoption within indigenous communities requires a nuanced understanding of the factors influencing their choices and experiences. The Unified Theory of Acceptance and Use of Technology (UTAUT) (Venkatesh et al., 2003) offers a comprehensive framework, emphasizing the impact of

performance expectancy, effort expectancy, social influence and facilitating conditions on technology acceptance. Additionally, the Ability–Motivation–Opportunity (AMO) theory (Appelbaum et al., 2001) highlights the crucial role of individual capabilities, motivation and access to resources in shaping technology adoption. However, it's essential to recognize that these models, while valuable, may not fully encapsulate the unique cultural, historical and socio-economic contexts of indigenous communities. Further research is needed to adapt and refine these models, ensuring they are grounded in indigenous perspectives (Ruster & Brown, 2020) and reflect the values, knowledge systems (Raut et al., 2024) and aspirations of these communities.

This systematic literature review seeks to bridge a critical gap in our understanding of how emerging technologies with a focus on generative AI can be leveraged ethically and effectively to empower indigenous communities. While the potential benefits are significant, there is a pressing need for rigorous research that examines both the opportunities and challenges presented by this rapidly evolving technology. This review aims to provide a comprehensive overview of existing research exploring the intersection of generative AI and indigenous communities, synthesizing key findings and identifying emerging trends and analyze the specific ways in which generative AI can empower indigenous communities, both economically and socially, while also examining potential risks and unintended consequences.

It also aims to identify best practices and guidelines for developing and implementing generative AI applications in collaboration with indigenous communities, ensuring cultural sensitivity, data sovereignty and equitable outcomes. Ultimately, this review seeks to inform the responsible development and deployment of generative AI, ensuring that this transformative technology contributes to the well-being and self-determination of indigenous communities worldwide.

## **2. THEORETICAL BACKGROUND**

Indigenous communities face significant challenges in exercising control over their data (Tapu & Fa'agau, 2022). This study delves into the landscape of indigenous digital empowerment, grounding its exploration within the established frameworks of the UTAUT (Venkatesh et al., 2003) and the AMO theory (Appelbaum et al., 2001).

The UTAUT, as articulated by Venkatesh et al., provides a comprehensive lens through which to understand technology adoption. It posits that four key constructs, performance expectancy, effort expectancy, social influence and facilitating conditions, are central to the decision to adopt and utilize a technology.

Technology should be utilized in a way that aligns with indigenous values and priorities, ensuring that digital tools and platforms are culturally appropriate, respectful of indigenous knowledge systems (Chan, 2018) and contribute to the well-being of indigenous communities. Ultimately, digital empowerment supports

indigenous self-determination (Stichel et al., 2019) by enabling communities to make their own decisions about how technology is used and governed. This includes advocating for data sovereignty – the right of indigenous peoples to own, control and access their own data – and promoting indigenous-led technology initiatives and ensuring that technology benefits, rather than exploits, indigenous communities (Vasileva & Okhlopkov, 2021).

Performance expectancy, a pivotal factor within UTAUT (Schomakers et al., 2022), centres on the belief that using a specific technology will enhance job or task performance. In the context of indigenous communities, this translates to understanding how AI tools are perceived in terms of their potential to address community-identified needs and aspirations. Effort expectancy, on the other hand, considers the perceived ease of use associated with a technology. For AI to be successfully integrated into indigenous contexts, it is crucial that the tools and platforms are designed with user-friendliness in mind, acknowledging varying levels of digital literacy within communities.

Beyond individual perceptions of usefulness and ease of use, the UTAUT recognizes the significant role of social influence (Schomakers et al., 2022). This construct highlights how the subjective norms within a community, shaped by influential individuals and groups, can either encourage or hinder technology adoption. Examining the role of elders, knowledge holders and community leaders in shaping perceptions of AI is essential. Finally, facilitating conditions, the fourth construct of UTAUT, emphasizes the importance of a supportive environment for technology adoption. This encompasses access to reliable internet connectivity, appropriate hardware and software and ongoing technical support, all of which are crucial considerations for ensuring equitable access to AI within indigenous communities.

Complementing the UTAUT, the AMO theory, rooted in organizational behaviour research, provides a complementary lens through which to understand the factors that enable or hinder individual and collective action. This theory posits that for any behaviour to occur, individuals or groups must possess the necessary abilities (knowledge, skills, resources), be motivated to engage in the behaviour (driven by needs, values, goals) and operate within an environment that provides opportunities for action. Applying this framework to indigenous digital empowerment requires a multifaceted approach.

First, assessing the digital literacy levels within indigenous communities and identifying any skills gaps is paramount. This includes not only technical proficiency but also critical thinking skills related to data privacy, algorithmic bias and the ethical implications of AI. Second, understanding the motivations driving indigenous communities to engage with AI is crucial. This requires recognizing the inherent right to self-determination and the desire to leverage technology for cultural revitalization, language preservation and economic development (Alghatrifi & Khalid, 2019). Finally, creating opportunities for meaningful engagement with AI is essential. This encompasses fostering partnerships between indigenous communities, technology developers and policymakers to ensure that AI applications are developed and deployed in a culturally sensitive and beneficial manner.

By integrating the comprehensive framework of UTAUT with the action-oriented lens of AMO theory, this study aims to provide a nuanced and holistic understanding of the factors that contribute to successful and empowering AI adoption within indigenous communities. This integrated approach recognizes the complex interplay of individual perceptions, social influences, environmental factors and the fundamental right of indigenous peoples to self-determination in the digital age.

### 3. METHODS

#### 3.1 Review Scope, Boundaries and Phases

For this review, we have considered indigenous reports and publications, academic databases which includes Scopus and Web of Science, online databases and government websites published between 1990 and 2024. A tabular list of the sources is provided in [Table 1](#).

To ensure our systematic review was both methodical and replicable, we reviewed not only academic journals but also indigenous databases, government websites and other online sources. This comprehensive approach allowed us to cover local reports on indigenous communities, providing a well-rounded perspective. We conducted our search using structured keywords as mentioned

**Table 1.** Secondary Data Sources for Data Collection.

Secondary Sources	Type	Original Source/Website
Reports and Publications	ILO, UNESCO, WWF, Niti Ayog, Corporate Reports, GSMA, etc.	ILO ( <a href="http://www.ilo.org">www.ilo.org</a> ) UNESCO ( <a href="http://www.unesco.org">www.unesco.org</a> ) WWF ( <a href="http://www.worldwildlife.org">www.worldwildlife.org</a> ) Niti Ayog ( <a href="http://www.niti.gov.in">www.niti.gov.in</a> ) GSMA ( <a href="http://www.gsma.com">www.gsma.com</a> )
Academic Journals	Scopus and Web of Science (Clarivate)	Scopus ( <a href="http://www.scopus.com">www.scopus.com</a> ) Web of Science ( <a href="http://www.webofscience.com">www.webofscience.com</a> )
Online Databases	World Bank's World Development Indicators	World Bank ( <a href="http://data.worldbank.org">data.worldbank.org</a> )
Government Websites	Government websites dedicated to indigenous affairs	Ministry of Tribal Affairs: India ( <a href="http://tribal.nic.in">tribal.nic.in</a> ) National Commission for Scheduled Tribes: India ( <a href="http://ncst.nic.in">ncst.nic.in</a> ) National Indigenous Australians Agency ( <a href="http://indigenous.gov.au">indigenous.gov.au</a> ) Te Puni Kōkiri (Ministry of Māori Development): New Zealand ( <a href="http://tpk.govt.nz">tpk.govt.nz</a> ) Ministry of Cultures, Decolonization, and Depatriarchalizing: Bolivia ( <a href="http://minculturas.gob.bo">minculturas.gob.bo</a> )

Source: Compiled by authors.

in the abstract, employing both backward and forward source searches. This involved examining references cited in relevant studies and exploring more recent publications that have cited these key studies. By incorporating these approaches, we ensured a thorough examination of the existing literature.

Given that Generative AI is a relatively novel concept, our research was conducted in two phases. Initially, we focused on literature concerning indigenous people and digitalisation/AI, which is a well-researched area. Subsequently, we extended our study to include generative AI, identifying gaps that could be addressed by its application. This included reviewing industry reports and publication from institutions like UNESCO, ILO, etc. and also which highlight the need for informed consent and cultural sensitivity to avoid misuse and misappropriation of indigenous data. These reports provide a robust framework to support the ethical use of AI.

Our research was structured around clearly formulated questions, developed at the outset of the review process. This protocol ensured that our examination of digital empowerment for indigenous people using generative AI was comprehensive and focused.

Our review on the digital empowerment of indigenous people utilizing generative AI has been developed around our research questions. The review process has been shown in Fig. 1.

We conducted our literature review in three phases (Rana et al., 2023).

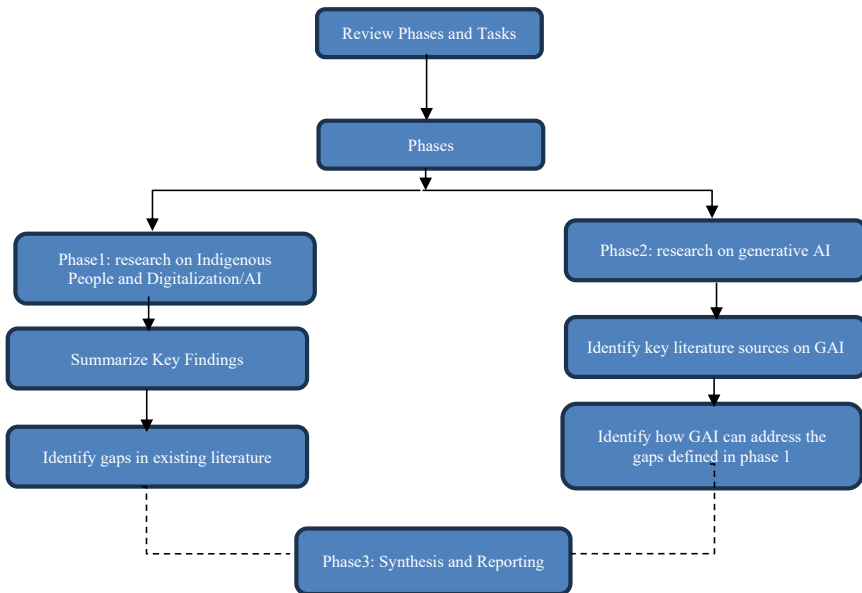


Fig. 1. Review Phases and Tasks. *Source:* Created by the authors based on review phases.

(1) *Phase 1: Initial Search*

- **Search Strategy:** A comprehensive search was conducted across multiple databases and sources (Table 2), including academic journals (SCOPUS, Web of Science), reports and publications (ILO, UNESCO, WWF, Niti Ayog, Corporate Reports, GSMA), online databases (World Bank's World Development Indicators) and government websites dedicated to indigenous affairs.
- **Article Selection:** Articles were screened based on predefined inclusion/exclusion criteria, including relevance to the research question, focus on indigenous communities and discussion of digitalization or AI.
- **Data Extraction:** Relevant data were extracted from selected articles, including key findings, methodologies and gaps identified in the literature.

(2) *Phase 2: Identification of Generative AI Literature*

- **Separate Search for Generative AI:** A focused search was conducted specifically targeting literature on generative AI. **Integration of Findings:** The generative AI literature was analyzed to identify potential gaps and opportunities for application in the context of indigenous digital empowerment.
- **Integration with Phase 1 Findings:** The findings from Phase 2 were integrated with the existing literature on indigenous digitalization and AI to identify synergies and potential areas for further exploration.

(3) *Phase 3: Synthesis and Reporting*

- **Data Synthesis:** Findings from both phases of the literature review were synthesized to draw broad theoretical conclusions and identify overarching themes related to digital empowerment and Generative AI for indigenous communities.
- **Reporting:** A structured report was prepared following the PRISMA guide lines (Fig. 2), including a flow diagram illustrating the search process, details of included/excluded studies and a narrative synthesis of key findings.

**Table 2.** Distribution of Analyzed Papers by Type.

Paper Type	Count
Article	272
Book	44
Conference Paper	120
Conference Review	15
Editorial	8
Letter	1
Note	5
Review	23
Short Survey	3

*Source:* Compiled by authors.