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Data sovereignty for indigenous peoples: current practice and future needs

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Origins of a conversation

In July 2015, an international group of scholars, representatives of indigenous organisations and government personnel from the CANZUS group of Anglo-settler democracies—Canada, Australia, Aotearoa/New Zealand and the United States—gathered in Canberra to participate in a workshop, 'Data sovereignty for indigenous peoples: current practice and future needs'. The purpose of the workshop, sponsored by the Academy of the Social Sciences in Australia (ASSA) and the Centre for Aboriginal Economic Policy Research (CAEPR) at The Australian National University, was to identify and develop an indigenous data sovereignty agenda, leveraging international instruments such as the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP).[1] In an age when data permeate our lives daily, issues relating to data consent, use, ownership and storage have become increasingly complex. While indigenous peoples have long claimed sovereign status over their lands and territories, debates about 'data sovereignty' have been dominated by national

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1   See: un.org/esa/socdev/unpfii/documents/DRIPS_en.pdf.

governments and multinational corporations focused on issues of legal jurisdiction. Missing from those conversations have been the inherent and inalienable rights and interests of indigenous peoples relating to the collection, ownership and application of data about their people, lifeways and territories. This book is the first to engage with the topic of data sovereignty from an indigenous standpoint, drawing on papers and discussions from the Canberra workshop. Although it is focused on the CANZUS states, the intended audience is global and varied. It includes indigenous communities grappling with issues of identity, representation, participation and development; governments, agencies and nongovernmental organisations (NGOs) seeking to formulate a response; and researchers trying to theorise and conceptualise a rapidly emerging field.

The multifaceted nature of indigenous data sovereignty gives rise to a wide-ranging set of issues, from legal and ethical dimensions around data storage, ownership, access and consent, to intellectual property rights and practical considerations about how data are used in the context of research, policy and practice. Similarly, the scope of the indigenous data ecosystem is vast and includes data generated or held by indigenous communities and organisations, governments, the public sector, international governmental organisations (IGOs), NGOs, research institutions and commercial entities. As the beginning point of a conversation on indigenous data sovereignty, this book does not try to comprehensively cover all facets. Rather, we have focused on the areas for which we have collective expertise—as data users in research, policy, planning and governance contexts—leaving aside legal, ethical, commercialisation and technological issues for future exploration.

The broad aim of this book is to stimulate new thinking and uncover emergent practice regarding the generation of demographic, wellbeing and community development information in ways that better respond to the self-determination aspirations of indigenous peoples. To do so it also considers the implications of UNDRIP for the collection, ownership and application of statistics pertaining to indigenous peoples and what these might mean for indigenous peoples' sovereignty over data about them, their territories and ways of life.

The importance of data for the advancement of indigenous self-determination and development has been emphasised by indigenous NGOs (Tebtebba Foundation 2008), communities and tribes. The UN Permanent Forum on Indigenous Issues (UNPFII) has held a number of gatherings to discuss data collection and disaggregation (UNPFII 2004), indicators of wellbeing (UNPFII 2006) and development that encompasses culture and identity (UNPFII 2010). At these events, indigenous representatives have raised concerns about the relevance of existing statistical frameworks for reflecting their world views and have highlighted their lack of participation in data collection processes and governance. As a result, the collection of data on indigenous peoples is viewed as primarily servicing government requirements rather than supporting indigenous peoples' development agendas. The content of this volume thus provides a timely supplement to a call from the UNPFII that states should follow through on their commitments, made at the UN's 2014 World Conference on Indigenous Peoples, to give practical effect to the free, prior and informed consent provisions of UNDRIP, to empower indigenous partnership and aspirations and to incorporate these into the post-2015 UN development agenda (Taylor & Kukutai 2015).

Aside from informing UN-level discussions, the moment is opportune to critique the demography–policy nexus in nation-state settings and to reflect on how the statistical portrayal of indigenous peoples might be transformed (Kukutai & Taylor 2012). In the CANZUS states, national statistics offices (NSOs) are actively engaged in a process of census modernisation and transformation. For many decades, the census has been the 'gold standard' for population estimates and projections, particularly for subpopulations and small geographic areas, both of which include indigenous peoples (Bell 2015; Kukutai et al. 2015). However, NSOs are increasingly looking for alternatives to the traditional 'footwork' census through the use of rolling surveys, population registers and administrative data, along with greater use of digital technologies. In Canada, the decision to replace the 2011 long-form census with the voluntary National Household Survey had a major and detrimental impact on the quality, coverage and disaggregation of indigenous data (Smylie & Firestone 2015). In 2015, the newly elected Canadian Government acted quickly to reintroduce the long-form census. In Aotearoa/New Zealand, Statistics New Zealand has developed the Integrated Data Infrastructure (IDI), which links individual-level census records with data across the government

system in preparation for a shift to a fully administrative census. While the IDI data are anonymised, other data-linking initiatives occurring within and across government agencies in Aotearoa/New Zealand are not anonymised and are intended for use for operational purposes such as 'targeted' interventions. Shifts such as these have major implications for the control, quality and comprehensiveness of indigenous data and are likely to be a key area of focus in future discussions about indigenous data sovereignty.

The most recently published best estimate puts the total world population of indigenous peoples at 302 million (Hall & Patrinos 2012: 10–12), comprising thousands of distinct polities encapsulated by some 70 countries. In saying that, the definitional means for arriving at such composite figures are many and varied and a definitive global demography remains unknown and is probably unknowable. Whatever the case, UNDRIP has now established a new set of international standards for relations between indigenous peoples and whichever nation-states encapsulate them and Articles 3, 4, 5, 15(i), 18, 19, 20(i), 23, 31, 32, 33, 38 and 42 of UNDRIP all raise urgent questions about the manner in which these nations statistically represent their indigenous citizens.

Of the countries that encapsulate the thousands of indigenous groups around the world it is estimated that more than half (55 per cent) do not separately identify indigenous people in their national statistical collections (NIDEA 2015). In those that do (including the CANZUS states), the tendency has been to generate crude social binaries (indigenous/non-indigenous) as input to public policy. However, the legal and moral framework that allowed for such simplification of complex and varied forms of indigenous cultural and political organisation has shifted in recent times such that many indigenous polities are asserting their own statistical identity and ownership of information in ways that this volume explores. In particular, UNDRIP now emphasises the rights of indigenous peoples to maintain and strengthen their institutions, cultures and traditions and to pursue their wellbeing in keeping with their own needs and aspirations. It also promotes their full and effective participation in all matters that concern them. Given this acknowledgement of wide-ranging rights it is not surprising that indigenous peoples and signatory governments have started to contemplate what exactly endorsement of UNDRIP might mean for the usual practice of government business.

This questioning arises from Article 42 of the declaration, which calls on states to promote the full application of UNDRIP provisions and to follow-up on their effectiveness. Current discussion here is focused on an 'implementation gap', where even good intentions by nation-states in the form of legislative and administrative changes might fail to deliver the benefits that indigenous peoples seek (Malezer 2009). But what do we mean by enjoying the benefit of those rights, and what does this have to do with the work of statistical agencies and information in general? The particular rights in question that have direct implications for the collection of statistical information are contained in Articles 18, 19, 23 and 31 while the overall focus of UNDRIP on the rights of indigenous 'peoples' as opposed to state-identified indigenous 'populations' adds a further dimension—a demography of indigenous 'population' may be well suited to the provision of citizen rights but it does not provide for the expression of indigenous interests in inherent and proprietary rights as 'peoples'. Thus, while not denying some role for centralised data collection, what indigenous peoples are seeking is a right to identity and meaningful participation in decisions affecting the collection, dissemination and stewardship of all data that are collected about them. They also seek mechanisms for capacity building in their own compilation of data and use of information as a means of promoting their full and effective participation in self-governance and development planning.

Organisation of the book

The contributions to this volume range widely over the issues outlined above. Deliberately, most of the papers are from indigenous authors, not least because indigenous peoples themselves are the ones at the vanguard of conceptual development and emerging practice in this area. UNDRIP provides something of a unifying theme for the book—a sort of test of whether data that are collected on indigenous peoples and the processes involved are meeting the benchmarks laid out therein, although this test is more often implicit than explicit. Accordingly, the book is structured to move from global considerations around the meaning of data sovereignty, colonial impacts on indigenous data sovereignty and the setting of new international standards for achieving indigenous aspirations through to individual case studies of the ways in which indigenous groups are giving practical meaning to data sovereignty.

The book is organised into four parts. The first comprises three chapters that examine key concepts and historical underpinnings. In Chapter 2, Megan Davis provides a personal reflection on the role of data in progressing the aims of indigenous peoples from her unique position as Chair of the UNPFII. It is clear from deliberations at the UN that indigenous engagement in the setting of relevant indicators will be a key issue in the post-2015 UN development agenda built around the new Sustainable Development Goals (SDGs). There is the prospect of a separate Indigenous Sustainable Development Index to sit alongside the SDGs, in line with a growing demand for the UNPFII to increase its focus on indigenous peoples' development agendas. As Davis notes, this requires the production of more nuanced data and information than currently exist and greater input from indigenous peoples themselves. One development here has been the 'Indigenous Navigator' project (indigenousnavigator.org) involving the International Labour Organization (ILO); Tebtebba Foundation; the Asia Indigenous Peoples Pact; the Forest Peoples Programme; the International Work Group for Indigenous Affairs and the European Commission. The navigator project provides survey tools and resources with which to report indigenous community perspectives on the implementation of indigenous rights, including whether or not indigenous rights to development are being met.

In Chapter 3, Matthew Snipp provides a more conceptual inquiry into the origin and meaning of the term 'data sovereignty' and an argument for its particular application to indigenous peoples via rights to self-determination. He notes its emergence as a twenty-first-century idea prompted by the effect of internet technologies on weakening impediments to information exchange that were previously imposed by geographic boundaries. In this context, sovereignty reflects the desire and ability of nation-states to continue to manage information in ways that are consistent with their laws, practices and customs. Such ability has long been beyond the reach of indigenous nations, who are smaller, poorer and politically weaker than the settler states that typically surround them. As long as this remains the case, it makes little sense to talk about a fully postcolonial world. Nonetheless, thinking of postcolonialism as a continuum, instead of a simple binary, does make it possible to consider how indigenous peoples might claim greater control over data connected to them. Snipp advances three preconditions for data decolonisation: that indigenous peoples have power to determine who should be counted among them; that data

must reflect the interests and priorities of indigenous peoples; and that tribal communities must not only dictate the content of data collected about them, but also have the power to determine who has access to these data. This requires the building of indigenous expertise in the production and management of data and the formation of governance arrangements that allow for institutional oversight of research and data collection in indigenous communities.

In providing historical context for the volume, Ian Pool (Chapter 4) introduces the idea of a data continuum on the understanding that precolonial data existed and continue to exist. He argues that achieving data sovereignty is more than just a technical problem as colonialism marginalised or even expunged extant indigenous epistemologies. Indigenous peoples thus saw their data sovereignty submit to data suzerainty under colonial and postcolonial regimes. Ironically, as they now attempt to reform the colonial order's knowledge systems using techniques of data collection and analysis more grounded in their own cultural heritage, indigenous peoples face the potential of neo-data suzerainty from the globalisation of information systems and 'big data'.

The second part of the book includes three chapters that critique ongoing postcolonial statistical systems. In Chapter 5, Maggie Walter argues that population statistics are imbued with meaning derived from the dominant social norms, values and racial hierarchies of colonising nation-states. Her Google search for 'indigenous statistics' reveals an overwhelming focus on what she terms the five 'Ds' of Indigenous Australian data (5D data): disparity, deprivation, disadvantage, dysfunction and difference. The dearth of data on indigenous peoples that present an alternative narrative to the 5Ds serves to cement a 'deficit data–problematic people' correlation. As a consequence, indigenous people are largely invisible except as statistically informed pejorative stereotypes. In effect, the politics of data are embedded in 'who' has the power to make determinations and who controls the narratives surrounding indigenous peoples' lives. Currently, it is not indigenous peoples themselves. In the context of government reporting, Walter argues for a greater focus on the creation of data in a 'recognition space' between indigenous concepts of identity and wellbeing, and more mainstream constructs. Importantly, several of the issues raised by Walter were also identified in recommendations of the Royal Commission into Aboriginal Deaths in Custody in Australia 25 years ago (RCIADIC 1991: recommendations 2.53 & 2.63).

Frances Morphy's Chapter 6 offers an insightful critique of the demographic categories used to define indigenous peoples, as well as suggestions for how these might better capture indigenous forms of sociality. In achieving data sovereignty over 'naming', indigenous peoples face two kinds of challenges. One is how to determine the nature of data to be collected, including how to 'name' the indicators that measure indigenous realities. The other, and perhaps bigger, challenge is the transformation of power relations required to give effect to indigenous world views. Morphy argues for the prioritisation of indicators that reflect indigenous peoples' own local understandings of their social world over indicators that have been constructed according to hegemonic Global North categories. In the demographic practices of the Global North, there is a characteristic statistical 'silence' concerning levels of indigenous sociality beyond the household (echoing a point made by Ian Pool regarding the absence of Māori *whanaungatanga*, or kinship ties, in national accounts). Likewise, there is an absence of indicators concerning the nature and extent of connection to place. For indigenous peoples, the intrinsic connection between collective identity and place is one factor that distinguishes them from settler societies and goes to the heart of a rights-oriented demography.

Elaborating further on forms of sociality, Diane Smith (Chapter 7) notes that land rights and native title regimes in Australia have created a plethora of self-governing arrangements, but there remains the unresolved question of how to leverage rights bestowed in this way to pursue self-defined agendas. While ownership of data is crucial, a fundamental issue is to first establish who is the 'self' in 'self-determine-nation'. There is growing demand from Indigenous Australian polities for local data to support local planning and, while much can be accessed from conventional sources, data are not captured in ways that provide for 'culture-smart information'. 'Culture-smart' data require internal mandates from groups that, in turn, enable internally informed decision-making as the essence of sovereignty.

The third section of the book brings together, for the first time, case studies from across the CANZUS states that showcase the varied ways in which indigenous communities and organisations are asserting their own form of sovereignty over data. In Chapter 8, Ceal Tournier, on behalf of the First Nations Information Governance Centre, recalls how First Nation principles of 'ownership, control, access and possession'

of data in Canada became trademarked as OCAP® under the auspices of a regionally representative steering committee that became the First Nations Information Governance Centre (FNIGC). This initiative was a political response to colonialism and the role of knowledge production in reproducing colonial relations. Much of the impetus for OCAP® came from the sorry history of research and information gathering involving First Nations people. Since 2010 FNIGC has operated on behalf of First Nations to ensure that OCAP® is applied through a certification process for research projects, surveys and information management systems. The FNIGC story is a stunning illustration of how sovereignty can be realised in relation to data, information and knowledge as part of a broader goal of self-determination.

Turning to Aotearoa/New Zealand, Maui Hudson, Dickie Farrar and Lesley McLean elaborate on key aspects of data sovereignty from the perspective of Whakatōhea *iwi* (tribe) in the Bay of Plenty region (Chapter 9). They argue that the pressing need for Whakatōhea is for equality of access to existing data to evolve its role as a treaty partner within a rapidly shifting data landscape. As government agencies move away from data collection based on individual consent towards linked individual-level administrative data, questions arise around the collective rights of *iwi* to unit-record access. The appetite for access to unit-record data reflects a growing statistical skills base among Māori, along with a growing appreciation of the power of data to inform internal governance and planning and external advocacy. In this evolving datascape, only culturally sensitive data might be seen as sovereign for *iwi*; other types of data could have flexible ownership arrangements, and jurisdiction over data may be regarded as partially shared.

Working in a slightly different legislative and policy setting, James Hudson (Chapter 10) provides an 'insider's' view of why and how the Independent Māori Statutory Board (IMSB) developed the 'Māori Plan' for Tāmaki Makaurau/Auckland. Established in 2010, the IMSB has statutory responsibility to promote issues of social, economic, cultural and environmental significance for Māori in Auckland. As the country's economic powerhouse, Auckland encompasses one-third of the national population, one-quarter of all Māori and a substantial migrant population (40 per cent of the populace were born overseas). Many of the issues faced by Māori in Auckland are distinctive to the region. A central motivation for the Māori Plan was to embed Māori

aspirations for wellbeing in the overall 'Auckland Plan', which is Auckland Council's long-term strategy to promote social, economic, environmental and cultural wellbeing for all. Hudson observes that for the Māori Plan to be seen as useful and relevant to Māori, it needed to be founded on Māori philosophies and principles and meet the needs of both *mana whenua* (customary tribes) and *mataawaka* (the wider Māori population) in Auckland. The exercise highlighted the considerable data gaps that exist for Māori at the regional level, especially in the areas of environment and culture. The Māori Plan underlines a tension that has long existed between the interests and statistical reporting requirements of government and indigenous perspectives about what constitute useful and meaningful data.

In Chapter 11, Rawiri Jansen provides an interesting example of how the rise of an indigenous professional class in Aotearoa/New Zealand is generating new opportunities for data-sharing and data access using the experience of an Auckland-based Māori primary health care organisation as a case study. It shows how data can be mobilised to inform action 'by Māori for Māori'. Aotearoa/New Zealand is likely the only jurisdiction in the world to have achieved a fully pro rata share of medical undergraduate entry for its indigenous population, and the momentum that lies behind such an achievement is reflected in the density of Māori medical practitioners. This is bringing Māori expertise and focus into health care delivery systems with data collection, analysis and reporting tools now operating to address excessively high rates of rheumatic fever among Māori school children; to monitor real-time functioning of Māori primary care networks; to develop data-sharing platforms with other services that impact on Māori health, such as housing; and to negotiate system-wide data-sharing protocols.

Ray Lovett (Chapter 12) examines similar issues in Australia but with more focus on the capacities of indigenous people to participate in data creation and manipulation. He argues that statistics developed from an indigenous 'frame of view' and with greater engagement by indigenous people in data conceptualisation, design, collection, analysis and reporting would enhance the utility of information for Indigenous Australian nations. However, to achieve this requires a quantum increase in professionally trained Indigenous statisticians in a professional field that has struggled with student enrolments generally in recent years. One solution is to make coursework in statistics more

relevant to indigenous world views, and two examples in this area are provided from a field-based epidemiology program and a proposed national survey involving statistical training for participating Aboriginal medical services. Lovett also highlights a need for official statistical agencies to address non-indigenous barriers to indigenous participation in data initiatives by making more meaningful use of existing statistical skills among indigenous professionals.

In Chapter 13, Mandy Yap and Eunice Yu provide a concrete example of what indigenous data sovereignty can look like in practice at the local level. Following determination of their native title in 2006, and subsequent signing of agreements in 2010, the Yawuru native title holders of Broome in Western Australia recognised an immediate need for data about themselves to secure their social, economic, cultural and environmental attributes as key components of regional planning. Several initiatives were embarked on concurrently. First came a survey of all Indigenous people and dwellings in the town to create a unit-record baseline. The second project addressed the development of an instrument to measure local understandings of Yawuru wellbeing (*mabu liyan*). The third initiative involved the construction of a geographic information system to digitally map places of cultural, social and environmental significance to inform a cultural and environmental management plan. Finally, a documentation project has been undertaken to collate and store all relevant legal records, historical information, genealogies and cultural information. This includes a Yawuru language revitalisation program.

In the final case study, from the United States, Desi Rodriguez-Lonebear reports on early findings from a survey of American Indian tribal leaders who note that reliance on others for data undermines their tribal sovereignty (Chapter 14). However, contestation over identity and tribal membership remains a primary issue due to decades of federal Indian policy, including deliberate termination, forced removal, relocation, assimilation and the eugenic application of 'blood quantum'. The diverse contexts of American Indian lives now demand new means of negotiating tribal identity but, ironically, this must take place in the face of the absolute sovereignty of tribes to determine their membership. Rodriguez-Lonebear also reminds us that while data are often seen as products of a digital age, indigenous peoples have

long and rich histories of data collection and preservation, and these histories provide a solid foundation for the pursuance of indigenous data sovereignty in contemporary settings.

The concluding part of the book presents the views and practices of NSOs in Australia and New Zealand in regard to the production and application of indigenous statistics. In Chapter 15, Paul Jelfs outlines the Aboriginal and Torres Strait Islander enumeration and engagement activities of the Australian Bureau of Statistics (ABS). The main vehicle for improving the quality and relevance of Australian Indigenous statistics is the Indigenous Community Engagement Strategy involving Indigenous Engagement Managers in each jurisdiction. The ABS has also instituted a twice-yearly round table on Indigenous statistics to gather grassroots feedback on their activities from selected Indigenous people. The Reconciliation Action Plan also promotes career pathways for Indigenous people within the organisation. As for the future, the focus is on how to better generate data that more closely reflect Indigenous world views while still meeting government objectives. The ABS is seeking advice from Statistics New Zealand on this issue. Also under development are plans to establish strength-based reporting of the Aboriginal and Torres Strait Islander population, moving away from simply measuring disadvantage and gaps with respect to the non-Indigenous population. A key question to arise here is how NSOs might adapt their practices to meet new multiple objectives. For just over a century, the ABS has provided data for federal and state and territory tiers of government. In recent decades, it has also provided for a third tier: local government. The question now arises as to what its responsibilities might be in meeting the needs of newly emerging forms of Indigenous governance. Various forms of Indigenous incorporation exist or are required under Australian law, but the populations and geographic areas that they represent are not accommodated by current statistical frameworks, to say nothing about general agency obligations to give effect to the provisions of UNDRIP under Article 42.

In the final chapter, Darin Bishop (Chapter 16) reflects on his involvement in Māori data initiatives within the public sector— notably with the Māori Statistics Framework. Internationally, the framework is often regarded as an exemplar for NSOs, but, as Bishop notes, its development was long and often fraught. Initial attempts were unsuccessful because of a failure to adequately conceptualise

Māori indicators. The lesson learnt was to think beyond Western models of wellbeing and the confines of existing data. The shift away from a 'closing the gaps' approach to Māori development towards one focused on Māori potential provided an opportunity to also reframe the conversations around Māori statistical needs. While official Māori statistics provide many of the data for measuring socioeconomic outcomes, significant data gaps continue to exist in relation to Māori *whānau* (families) and households, Māori living overseas, Māori business activities, cultural outcomes and small-area data. Echoing the sentiments of other contributors, Bishop points to the need for an independent Māori voice in the official statistics system and for more Māori to be involved in crucial decision-making stages of the statistical cycle. Bishop also raises the important issue of appropriate 'units of measurement'. As one reviewer for this volume pointed out, the insistence on using the individual as the primary—often only—statistical unit of measurement is one of the embedded practices that cripples the ability of the CANZUS states to effectively address indigenous issues. The tendency of NSOs to see individuals as the primary units of measurement and aggregate from that level (for example, to households) means that governments are severely limited in their capacities to develop policies that are genuinely responsive to the collective conceptions that inform indigenous aspirations and agendas.

Key findings

The proposition that UNDRIP has implications for indigenous data sovereignty is overwhelmingly affirmed by the chapters in this book. Given the lack of strategic academic attention previously afforded this issue, discussions are necessarily preliminary and exploratory. It is clear that further work is needed to refine definitions, concepts, theory and applications. There is further scope to articulate the distinction between sovereignty as it relates to digital spaces and the forms of data stored in those spaces. Nonetheless, it is clear that indigenous peoples are positioning themselves and organising to give practical expression to various forms of indigenous data sovereignty at all scales at which indigenous polities are formed: international, national, regional and local/tribal. Likewise, (some) NSOs are starting to consider how their practices in relation to the collection and management of data

pertaining to indigenous peoples might need to change, although, as Chapters 15 and 16 show, state agencies remain constrained by their structural focus on 'populations', rather than 'peoples', and by their ultimate function to service the needs of national governments. While there is some nod to the involvement and needs of indigenous peoples in data gathering, there is a clear implementation gap with respect to key provisions of UNDRIP. For its part, the UN, through the UNPFII, has recognised the need for alternative metrics to the post-2015 SDGs with some form of indigenous development index. There is also recognition of the need for a much greater level of community involvement and partnership in the gathering of culturally relevant information.

There are consequences in all of this for the epistemology of social science and, indeed, for any research activity that involves the collection or use of data on indigenous peoples, their territories and ways of life. While many of these issues have already been explored from an indigenous standpoint, by Tuhiwai-Smith (1999) and more recently by Walter and Andersen (2013), the breakthrough here is to link these arguments back to UNDRIP, to which the CANZUS group of states are signatories. By assembling a volume that is dominated by leading CANZUS-based indigenous social scientists and end-user data practitioners, we provide a degree of authenticity and voice that is unusual, if not unprecedented, in considerations of indigenous statistics.

An overarching conclusion of the collected papers is to reaffirm the assertion of UNDRIP that indigenous peoples have a right to self-determination that emanates from their inalienable relationships to lands, waters and the natural world, and that to give practical effect to this right requires a relocation of authority over relevant information from nation-states back to indigenous peoples. While the Western idea of 'data sovereignty' can be seen as a product of the digital age and nation-state jurisdiction over such data (Snipp, this volume), indigenous nations are asserting their own claims to data sovereignty, which are rooted in their inherent rights to self-determination as sovereign entities predating European settlers. Indigenous data sovereignty thus refers to the proper locus of authority over the management of data about indigenous peoples, their territories and ways of life. Early expressions of indigenous data sovereignty can

be seen in indigenous oral traditions, which included a complex set of rights and responsibilities concerning the use of community-held information.

The contemporary expression of indigenous data sovereignty is made most forcefully in the Canadian case study (FNIGC, this volume) through the application of First Nations' principles and practices of ownership, control, access and possession (OCAP®) in relation to data that are about First Nations peoples. However, it should be recognised that the manner of application of these principles and practices will necessarily vary between jurisdictions and between indigenous polities. In Canada, the United States and Aotearoa/New Zealand there are clearly identifiable indigenous polities (First Nations, tribes and *iwi*, respectively) whose rights, including sovereign rights, have been established through treaty processes. The political landscape of the Australian settler state, and of Indigenous polities within it, is vastly different, although the prospect of treaty settlements has long been canvassed. While the achievement of indigenous data sovereignty requires a decolonisation of existing nation-state statistical systems, more thought and political work need to go into identifying and validating appropriate loci of indigenous data sovereignty, especially (among the CANZUS states) in Australia. In Canada, as we have seen, this has been given clear expression through the work of FNIGC. In the United States, the newly formed US Indigenous Data Sovereignty Network is pursuing similar goals and has identified four focus areas: data for sovereignty, data collection and access, data storage and security and data as intellectual property (USIDSN 2016). In Aotearoa/ New Zealand, the Māori Data Sovereignty network, Te Mana Raraunga (TMR) has developed a charter that provides the most complete expression to date of the basis for indigenous data sovereignty (see Appendix 1.1). It recognises that data form a living *taonga* or treasure and identifies six key ways through which to advance Māori data sovereignty:

1. asserting Māori rights and interests in relation to data
2. ensuring data for and about Māori can be safeguarded and protected
3. requiring the quality and integrity of Māori data and their collection
4. advocating for Māori involvement in the governance of data repositories

5. supporting the development of Māori data infrastructure and security systems

6. supporting the development of sustainable Māori digital businesses and innovations.

In raising issues of indigenous data sovereignty, this volume invites further scrutiny and debate on what is emerging as a major knowledge gap in the social sciences. Closing this particular gap requires substantial change and innovation including: the devising of new methods for the international measurement of indigenous development and wellbeing; meeting the challenge of embracing indigenous epistemologies; the analysis of legal and practical limits to data sovereignty, including the impact of free-trade agreements such as the Trans-Pacific Partnership (TPP) Agreement; the construction of models for developing data governance and capacity; exploring the implications of individual versus collective rights for data linkage, sharing and use; and consideration of the threats and opportunities presented by census transformation programs and the advent of 'big data' and open data. This volume signals the beginning point in an ongoing conversation initiated by and for indigenous peoples. There is much work yet to be done.

References

Bell M (2015). W(h)ither the census? *Australian Geographer* 46(3):299–304.

Hall G & Patrinos H (2012). *Indigenous peoples, poverty, and development*, Cambridge University Press, New York.

Kukutai T & Taylor J (2012). Postcolonial profiling of indigenous peoples in Australia and Aoteoroa/New Zealand. *Espace Populations Sociétés* 2012-1:13–27.

Kukutai T, Thompson V & McMillan R (2015). Whither the census? Continuity and change in census methodologies worldwide, 1985–2014. *Journal of Population Research* 32(3):3–22.

Malezer L (2009). *Dialogue with states regarding respect for and application of the UN Declaration and follow up on its effectiveness*, paper presented at the International Expert Group Meeting on the Role of the United Nations Permanent Forum on Indigenous Issues in the Implementation of Article 42 of the United Nations Declaration on the Rights of Indigenous Peoples, United Nations Department of Economic and Social Affairs, New York, 14–16 January 2009.

National Institute of Demographic and Economic Analysis (NIDEA) (2015). Unpublished data from the Ethnicity Counts? Project, NIDEA, University of Waikato, Hamilton, waikato.ac.nz/nidea/research/ethnicitycounts.

Royal Commission into Aboriginal Deaths in Custody (RCIADIC) (1991). *Royal Commission into Aboriginal Deaths in Custody (RCIADIC) national report: overview and recommendations*, Commissioner E Johnson, Australian Government Publishing Service, Canberra.

Smylie J & Firestone M (2015). Back to basics: identifying and addressing underlying challenges in achieving high quality and relevant health statistics for indigenous populations in Canada, *Statistical Journal of the IAOS* 31(1):67–87.

Taylor J & Kukutai T (2015). *Indigenous data sovereignty and indicators: reflections from Australia and Aotearoa New Zealand*, paper presented at the UNPFII Expert Group Meeting on The Way Forward: Indigenous Peoples and Agenda 2030, United Nations Department of Economic and Social Affairs, New York, 22–23 October 2015.

Tebtebba Foundation (2008). *Indicators relevant for indigenous peoples: a resource book*, Tebtebba Foundation, Baguio City, Philippines.

Tuhiwai-Smith L (1999). *Decolonizing methodologies: research and indigenous peoples*, Zed Books, London and New York.

United Nations Permanent Forum on Indigenous Issues (UNPFII) (2004). *Report of the workshop on data collection and disaggregation for indigenous peoples*, E/c.19/2004/1, United Nations Permanent Forum on Indigenous Issues, New York, 1–21 May 2004.

United Nations Permanent Forum on Indigenous Issues (UNPFII) (2006). *Report of the meeting on indigenous peoples and indicators of wellbeing*, E/c.19/2006/CRP.3, United Nations Permanent Forum on Indigenous Issues, Ottawa, 22–23 March 2006.

United Nations Permanent Forum on Indigenous Issues (UNPFII) (2010). *Report of the meeting on indigenous peoples: development with culture and identity—Articles 3 and 32 of the United Nations Declaration on the Rights of Indigenous Peoples*, E/c.19/2010/14, United Nations Permanent Forum on Indigenous Issues, New York, 19–30 April 2010.

United States Indigenous Data Sovereignty Network (USIDSN) (2016). Website. Native Nations Institute, Tuscon, nni.arizona.edu/news/articles/us-indigenous-data-sovereignty-network.

Walter M & Andersen C (2013). *Indigenous statistics: a quantitative research methodology*, Left Coast Press, Walnut Creek, CA.

Appendix 1.1

Te Mana Raraunga — Māori Data Sovereignty Network Charter

He whenua hou, Te Ao Raraunga
Te Ao Raraunga, He whenua hou[2]

Preamble

With respect to the inherent rights that we as Māori have by virtue of our inalienable relationships with the land, water and the natural world, we assert that:

• Data is a living tāonga and is of strategic value to Māori.
• Māori data refers to data produced by Māori or that is about Māori and the environments we have relationships with. Māori Data includes but is not limited to:

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[2] 'Data is a new world, a world of opportunity.'

- – Data from organisations and businesses
- – Data about Māori that is used to describe or compare Māori collectives
- – Data about Te Ao Māori that emerges from research
- Māori data is subject to the rights articulated in the Treaty of Waitangi and the UN's Declaration on the Rights of Indigenous Peoples,[3] to which Aotearoa New Zealand is a signatory.
- Data Sovereignty typically refers to the understanding that data is subject to the laws of the nation within which it is stored.
- Indigenous Data Sovereignty perceives data as subject to the laws of the nation from which it is collected.
- Māori Data Sovereignty recognises that Māori data should be subject to Māori governance.
- Māori Data Sovereignty supports tribal sovereignty and the realisation of Māori and Iwi aspirations.

Purpose

The purpose of Te Mana Raraunga is to enable Māori Data Sovereignty and to advance Māori aspirations for collective and individual wellbeing by:

- asserting Māori rights and interests in relation to data,
- ensuring data for and about Māori can be safeguarded and protected,
- requiring the quality and integrity of Māori data and its collection,
- advocating for Māori involvement in the governance of data repositories,
- supporting the development of Māori data infrastructure and security systems,
- supporting the development of sustainable Māori digital businesses and innovations.

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3   Consistent with the rights articulated in the Mataatua Declaration, WAI 262 (Nga Puhi doc.), and the Outcome Document of UNDRIP.

Where necessary, Te Mana Raraunga will utilise the expertise of its members to provide Māori data governance functions over relevant datasets **in the absence of** mandated Māori governance entities. Te Mana Raraunga will support the establishment of appropriate protocols for iwi authority over data.

Te Mana Raraunga will advocate for resourcing to support the development of capacity and capability across the Māori data ecosystem including:

1. **Data rights and interests**. Establishing the nature of Māori rights and interests to government collected administrative data, survey, census and research data derived from indigenous tāonga are central to realising aspirations in the Mataatua Declaration, the WAI262 claim, and the UNDRIP. Articulating these rights and interests in an intellectual property framework is necessary to realise commercialisation opportunities and benefit sharing agreements for hapū, iwi and/or Māori entities.[4]

2. **Data governance**. There is a wealth of data pertaining to Māori individuals, whānau, households, hapū, iwi, entities and te Taiao that is collected by the state as part of the Official Statistics System (OSS), crown agencies and government organisations, through commercial transactions, social media, telecommunications (including satellites) and other means. Only a small proportion of these data sources are currently accessible to Māori for our own purposes and benefit. Māori involvement in data governance and data management is essential to ensure data is used for projects that support beneficial outcomes for Māori.

3. **Data storage and security**. As more businesses and entities have moved to cloud-based models of data storage, this has raised concerns around the security and privacy of data that are stored offshore, and the legal and privacy frameworks that the data are subject to, including the issue of data sovereignty. TMR supports the development of Māori data infrastructure and security systems to support the realisation of Māori data sovereignty.

4. **Data Collection, Access and Control**: Māori should be involved in decisions about the collection of and access to Māori data, analysis and interpretation. Use of data for research should also be

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4   As set out by the World Intellectual Property Organization (WIPO).

consistent with frameworks for Māori research ethics (i.e. Te Ara Tika). Using data requires that data is made available in a usable form and that we have the workforce who can be actively engaged in the design, collection, processing, analysis and dissemination of data to meet our own needs.

Guiding principles

Te Mana Raraunga recognises the need to advance discussions about Māori Data Sovereignty at both governance (mana) and operational levels (mahi). The work of Te Mana Raraunga will support the realisation of rangatiratanga, kotahitanga, manaakitanga and kaitiakitanga.

Mana-Mahi Framework

Whanaungatanga and Whakapapa: Whanaungatanga denotes the fact that in Māori thinking and philosophy relationships between man, Te Ao Turoa (the natural world) and spiritual powers inherent therein, and Taha Wairua (spirit) are everything. Whakapapa evidences those linkages and identifies the nature of the relationships.

Rangatiratanga: Rangatiratanga speaks to the hapū, iwi/Māori aspiration for self-determination, to be in control of our own affairs and to influence those taking place within our iwi boundaries. This is especially true for activities that have the potential to affect our people (ngā uri whakaheke) or our environment (whenua/moana). Rangatiratanga can be expressed through leadership and participation. Data supports the expression of Rangatiratanga and Rangatiratanga can be expressed through data in terms of the OCAP®[5] principles of ownership, access, control and possession.

Kotahitanga: Kotahitanga speaks to a collective vision and unity of purpose while recognising the mana of rangatira from individual hapū and iwi. The foundations of kotahitanga can be found in our whakapapa and reflected in our relationships with each other. It is

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5   The OCAP principles are trademarked by the First Nations Information Governance Centre and mean that First Nations control data collection processes in their communities and how the data are used. See: fnigc.ca/ocap.html.

important that we make space to identify our collective aspirations for indigenous data sovereignty and advocate for activities that benefit all Māori.

Manaakitanga: Manaakitanga can be expressed through the responsibility to provide hospitality and protection to whānau, hapū, iwi, the community and the environment. The foundations of manaakitanga rely on the ability of Māori to live as Māori, to access quality education, to have good health, to have employment opportunities and to have liveable incomes. Ethical data-use has the potential to contribute greatly to Māori aspirations.

Kaitiakitanga: Kaitiakitanga speaks to the hapū, iwi responsibility to be an effective steward or guardian and relates to actions that ensure a sustainable future for all people. Underpinning our existence is the need to protect and enhance Māori knowledge and practices, to strengthen whānau, hapū and iwi and to create sustainable futures. Kaitiaki have a social contract and are responsible to the communities they serve. Identifying appropriate data guardians and the principles by which they will operate is a key consideration.

Membership and mandate

Te Mana Raraunga advocates for Māori Data Sovereignty at a national level. Te Mana Raraunga is open to participation from Māori and iwi data users, ICT [information and communication technology] providers, researchers, policymakers and planners, businesses, service providers and community advocates that share this charter.

A working group advances Te Mana Raraunga's work programme with support from a part-time administrator. The working group will meet with key Māori and iwi representatives and liaise with government agencies including the New Zealand Data Futures Forum to support the realisation of Māori Data Sovereignty.

An inaugural meeting on Māori Data Sovereignty was held at Hopuhopu on 19th October 2015 where the formation of Te Mana Raraunga as a Māori Data Sovereignty Network was accepted by the participants and the contents of the charter discussed.

The charter was approved in Te Rangimarie at Papakura Marae on 5 April 2016.

This text is taken from *Indigenous Data Sovereignty: Toward an agenda*,
edited by Tahu Kukutai and John Taylor, published 2016 by
ANU Press, The Australian National University, Canberra, Australia.