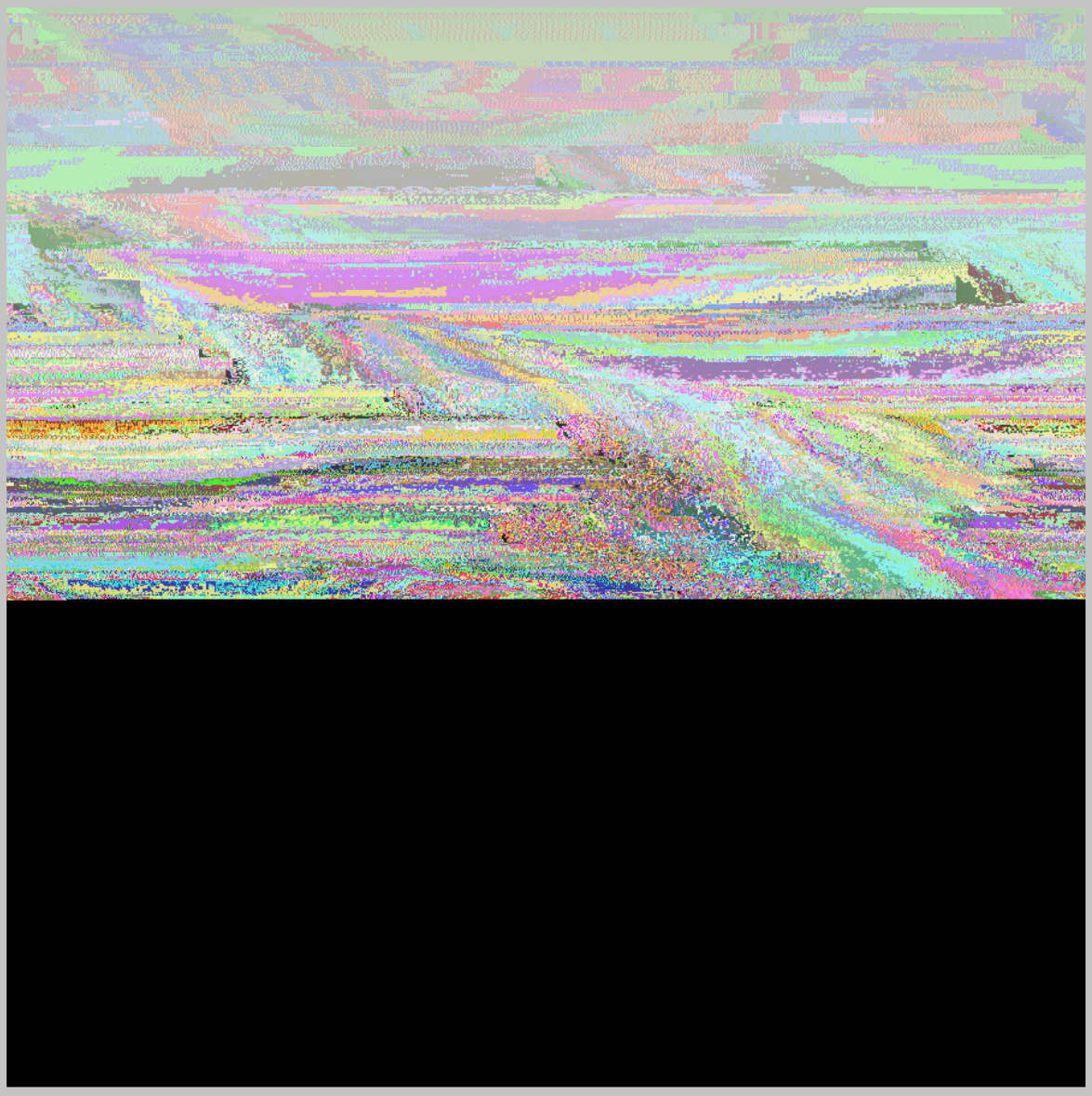
CAN SUSTAINABILITY AUDITING BE INDIGENIZED?



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Abstract

Although there are different approaches to sustainability auditing, those considered authoritative

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sustainability auditing and indigenous businesses, with the aim of developing a working sustainability audit system for Ng!i Tahu's businesses by examining the philosophical foundations of orthodox sustainability assessment approaches to understand how they can be suitably 'indigenized'.

The most common critique of sustainability auditing is its neoliberal nature, and resulting neocolonial outcomes. Freed from regulation, sustainability auditing is 0 (e) -3 ( ) 30 (p) -10 (h) -10 (i) 9 (l) 9 (o)6

explain the internal factors. The 1998 Settlement for Crown breaches during colonization saw the consolidation of sub-tribally owned assets into the Ng!i Tahu Holdings Corporation (NTHC), which distributes investment returns to tribal members via a development agency. Although NTHC reports to an elected tribal council, which has a values-framework to guide decision-making, the corporate-beneficiary model is a Western construct that distances the beneficiaries from the NTHC's operations.

This distance, exacerbated by the increasing demographic spread of tribe members, has created demand for greater transparency and communication by tribal governors. The beneficiaries want assurances their assets are being managed in a way consistent with their values. These values, common to indigenous people, are based on a worldview that emphasizes the interdependent relations between humans and nonhumans, and a consequent moral impetus for environmental care (Reid and Rout 2016a). Although these values remain well-articulated at a governance level, NTHC's corporate interests are predominantly in sectors with high environmental impacts, often on historic tribal lands. It is hoped indigenized sustainan632 Tm 2 (9 (z)0 (t)p (n)-10 (s) 5 (p) -10 (a) 6 (m) -9 12

or simplistic a fashion as there are a myriad of perspectives contained within and beyond it (Horst 2007). Nevertheless, it has "penetrated Western consciousness" (Drengson 1995, 83) and its reach and influence remain puissant beyond the purely physical realm (Davies and Gribbin 1992). "Mechanism", as Riskin (2015, p. 3) explains, has been the "core paradigm of modern science from the mid-seventeenth century onwards".

Mechanism is limited in its semiotic flexibility; an expression of epistemic modality that denotes a near-literal representation of reality (Abram 1991). While deductive reasoning, which has empowered the mechanistic worldview, is excellent for deconstructing physical systems to understand their 'parts' it struggles to provide the cognitive framework necessary for understanding, let alone controlling, complex open systems (Wheeler 2010). Mechanism is incapable of providing the abstracted, intuitive, and flexible connotative representations necessary for the abductive reasoning required to move upward from smaller to larger systems (Wheeler 2010). It attempts to deal with this dilemma by examining individual 'parts' and their 'interactions' through multidisciplinarity and interdisciplinarity to 'model' the whole machine. Not only is this limited b

2014, p. 5). Descartes' severance of mind from matter reinforced both the instrumental view of nature and the instrumental reason that negotiates humanity's interactions with the wider environment (Davison 2001; Taylor 1991).

Standardization and instrumentation

Identifying sustainability thresholds, and managing production within them, takes place through

The limits and bias of instrumentation and standardization

TSA appears to be logical, although on closer examination there are limitations, which can be illustrated using an aviation analogy. Sophisticated instrumentation, automation, and standardized operating procedures enable modern planes to operate efficiently within safety thresholds. Aircraft are now so advanced they can largely fly themselves, albeit with detailed instrument panels that provide pilots with moment-to-moment indications of flight performance. Primary sectors also show a trend towards standardization and automation, where instrumentation is increasingly used to guide practice, from GPS locators to nitrate sensors, giving moment-to-moment feedback on operational efficiencies and environmental impact (Morris and Reed 2007).

Although instrumentation and standardization of practices can lead to significant improvements in efficiency and environmental performance within primary sectors, lessons from the aviation industry suggest that overreliance on instruments causes the loss of valuable tacit and embodied knowledge among pilots, creating dangers when instruments fail or provide false readings. Piloting a plane is, fundamentally, an embodied skill based on mind-body-aircraft awareness, developed through extensive personal experience. Instrumentatio

indigenous knowledge (Woodley 1991). Certainly, aspects of embodied knowledge, particularly

special case… [that] poses specific challenges".

sustainability intrinsic value.

(Reid and Rout 2016a). The entities that one relates *with* are entities one is related

Even more encouraging, information and communication technologies (ICT) offer a new potential for limiting this ontological risk. ICT can be seen as the ultimate expression of Latour's (1993) 'quasi-object', or hybrid subject-object, displaying a flexibility similar to the indigenous orientation. As Ess (2005, p. 91) writes, "an increasing number of cases from a wide range of cultural provenances show how 'savvy users'… develop often sophisticated ways of reshaping the use and even the design of Western-based [ICT] in order to both sustain and enhance their defining cultural values and communicative preferences". ICT provides a range of ways – from language preservation to community cohesion – for indigenous people to preserve and reinforce their worldview, though used uncritically it risks 'colonizing the mind' (Dyson 2004).

Sustainability auditing needs to be indigenized reflexively, prioritizing the emotional sense experience that comes from indwelling in an unfolding nexus of familial relationships. Fundamentally, this needs to be achieved through the way the auditing system is framed. Reviewing incompatibilities between international organics standards and indigenous farmers, Eernstman and Wals (2009) see the problems emerging from the former's inability to encompass indigenous 'perceptions' of nature and social organization. Similarly, a group of Maori academics examining genomic research concluded that the inte

This sense awareness, and associated reasoning, draws attention to the quality of relationships between entities, as the health and wellbeing of the 'family' is dependent upon the quality of relationships. Specifically, M!ori use the concept of *mauri* to define this quality. *Mauri* refers to the vitality of a body's (whether human body or water body) essence, and is shaped and formed through relationships between socio-ecological family members (Reid and Rout 2016a). Fundamentally, the level of *mauri* a body expresses is determined by its overall health and life supporting capacity: a polluted river supports less life and, therefore, demonstrates less vitality, or low *mauri*. *Mauri* can, however, be built through mutually-beneficial interactions: humans sustainably managing a river catchment increase the *mauri* of the river, which, in turn, increases the *mauri* of those who

(relationships where humans cause *mauri* to decline) *mauri noho* (at state where *mauri* is fully denigrated).[1]

Clearly then, optimal relationships between humans and the ecological bodies that support them are symbiotic, whereby the *mauri* of bodies can be vibrantly expressed. For M!ori, this is also guided by the ethic of care and respect for place/family, which further provides impetus to enhance and protect the *mauri* of bodies.

members (e.g., streams and rivers). In such a case, the socio-ecological system could be presented as a person, whose vitals, such as soil health, and water quality, are communicated like medical

Conversely, the sense of care and belonging for people and place common to indigenous people provides the motivation and grounds for contextually-grounded indigenous environmental and social ethics. Furthermore, indigenous peoples' emotional, embodied sense knowledge provides socio-ecological context – a critical basis for wise holistic decision-making. This wisdom can

as the ‘cosmological family’. In other words, the indigenous perspective can not only motivate indigenous sustainability,

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