




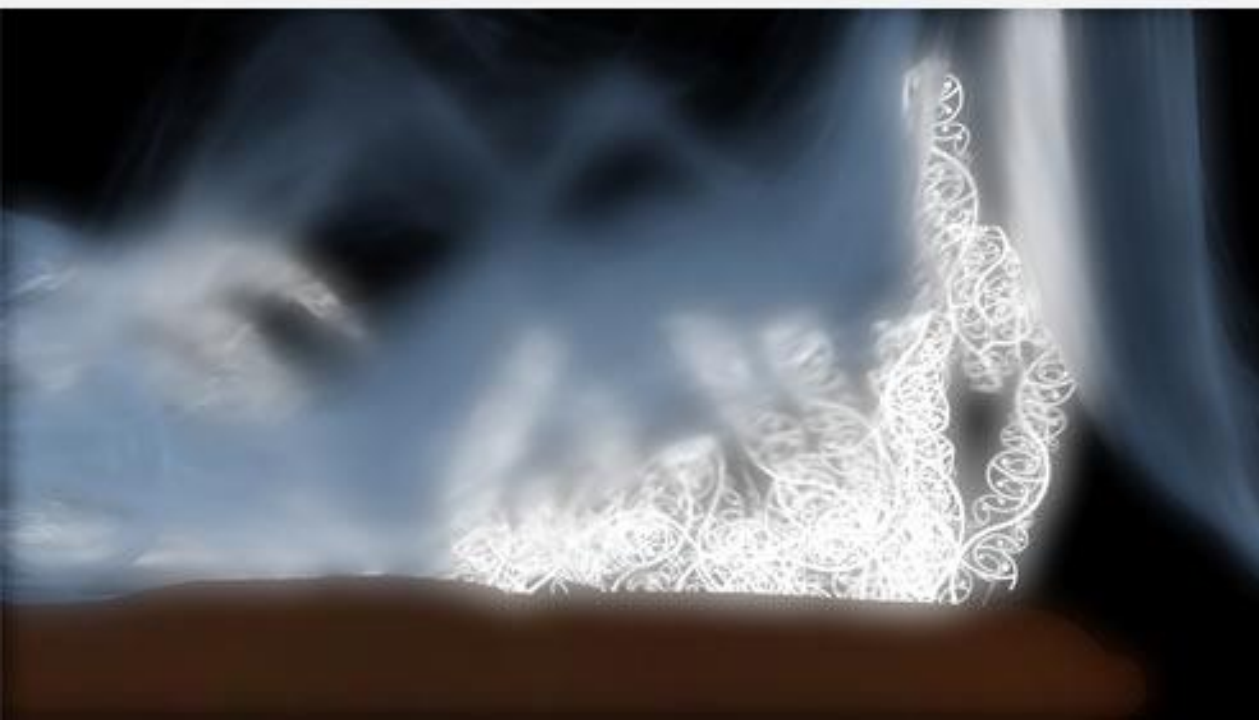
RESEARCH INFRASTRUCTURE FOR THE PLURIVERSE

Assoc. Prof Katharina Ruckstuhl [Ngāi Tahu]
Otago Business School, University of Otago, Dunedin, Aotearoa New Zealand
NISO Plus 2022 18.2.2022



MIHI WHAKATAU

Greetings



- Ko Te Kore
- Te Kore-te-whiwhia
- Te Kore-te-rawea
- Te Kore-i-ai
- Te Kore-te-wiwia
- Na Te Kore Te Po
- Te Po-nui
- Te Po-roa
- Te Po-uriuri
- Te Po-kerekere
- Te Po-tiwhatiwha
- Te Po-te-kitea
- Te Po-tangotango
- Te Po-whawha
- Te Po-namunamu-ki-taiao
- Te Po-tahuri-atu
- Te Po-tahuri-mai-ki-taiao
- Ki te Whai-ao
- Ki te Ao-marama
- Tihei mauri-ora



Ngāi Tahu - the iwi





- Origin myth to explain a natural landscape
- Cultural continuance through names – claiming new lands
- Moral instruction - STANDARD

‘A system’s effectiveness in *organizing information* is in part a function of an ideology that states the ambitions of its creators and what they hope to achieve’

[Svenonius, E. (2020). The intellectual foundation of information organization. MIT Press.]

*A system's effectiveness in organizing information is in part a function of an **ideology** that states the ambitions of its creators and what they hope to achieve*

Definition of *ideology* [Merriam Webster]

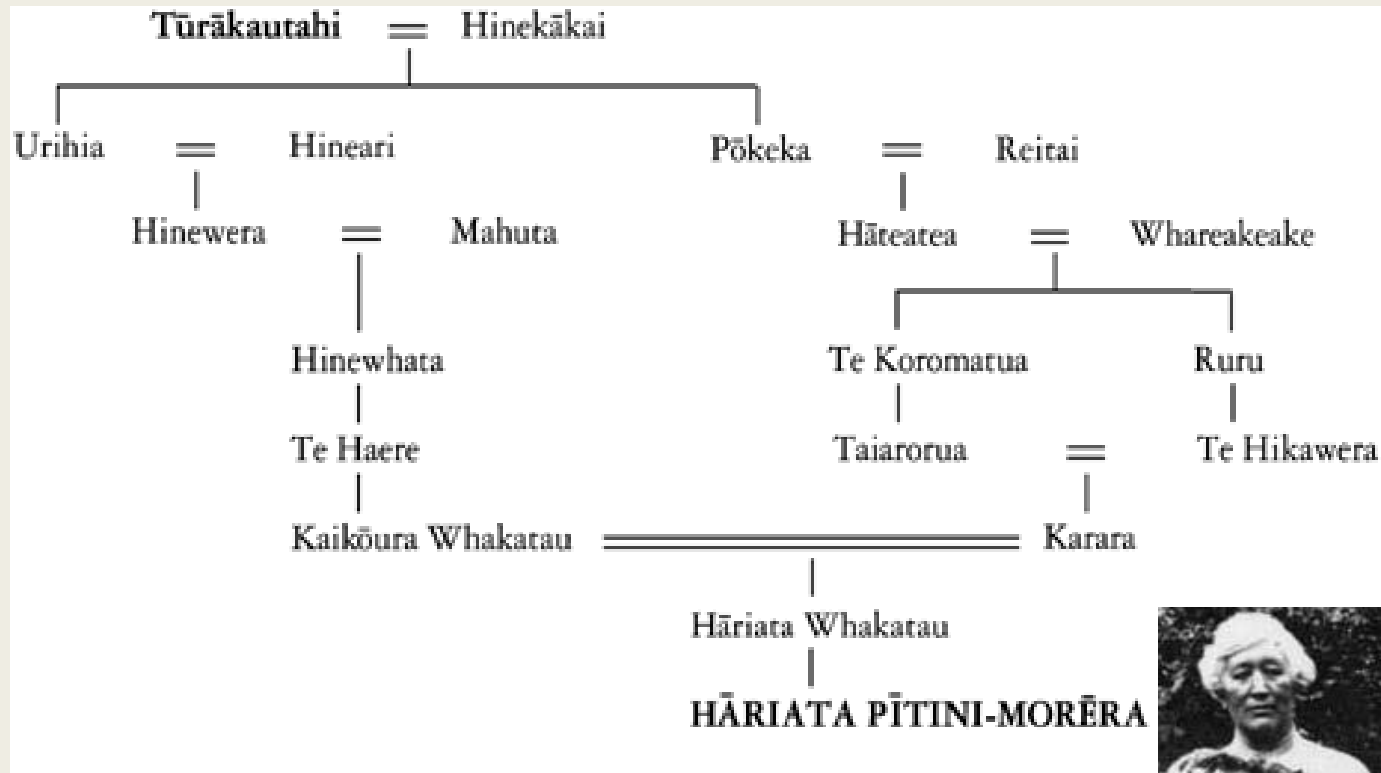
1a : a manner or the content of thinking characteristic of an individual, group, or culture

b : the integrated assertions, theories and aims that constitute a sociopolitical program

c : a systematic body of concepts especially about human life or culture

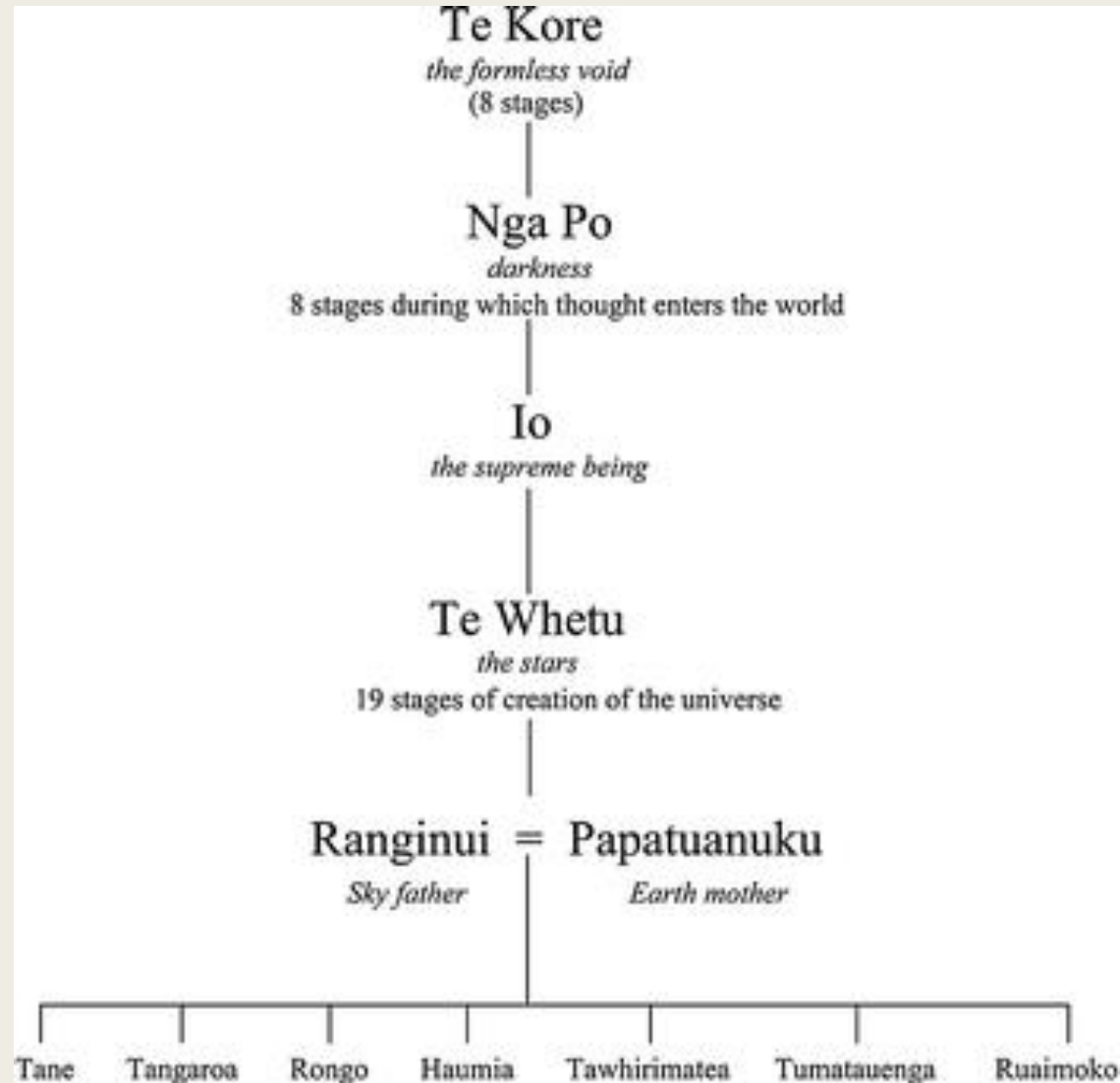
2 : visionary theorizing

WHAKAPAPA: to place in layers, to stack flat

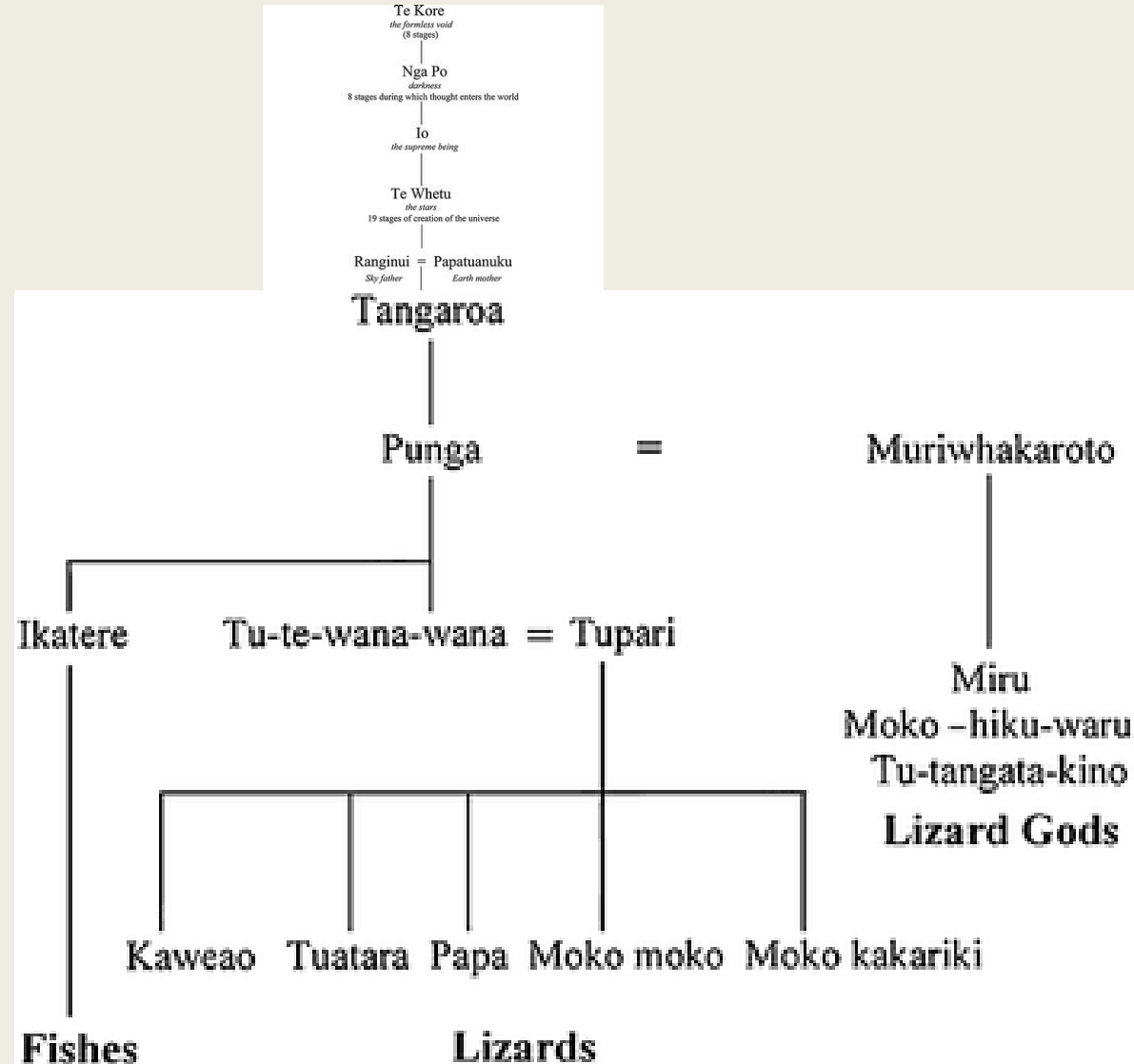


Ko tēnei whakapapa he mea pupuri e te Poari Kaitiaki o Ngāi Tahu.

WHAKAPAPA OF PAPATUANUKU AND RAKINUI

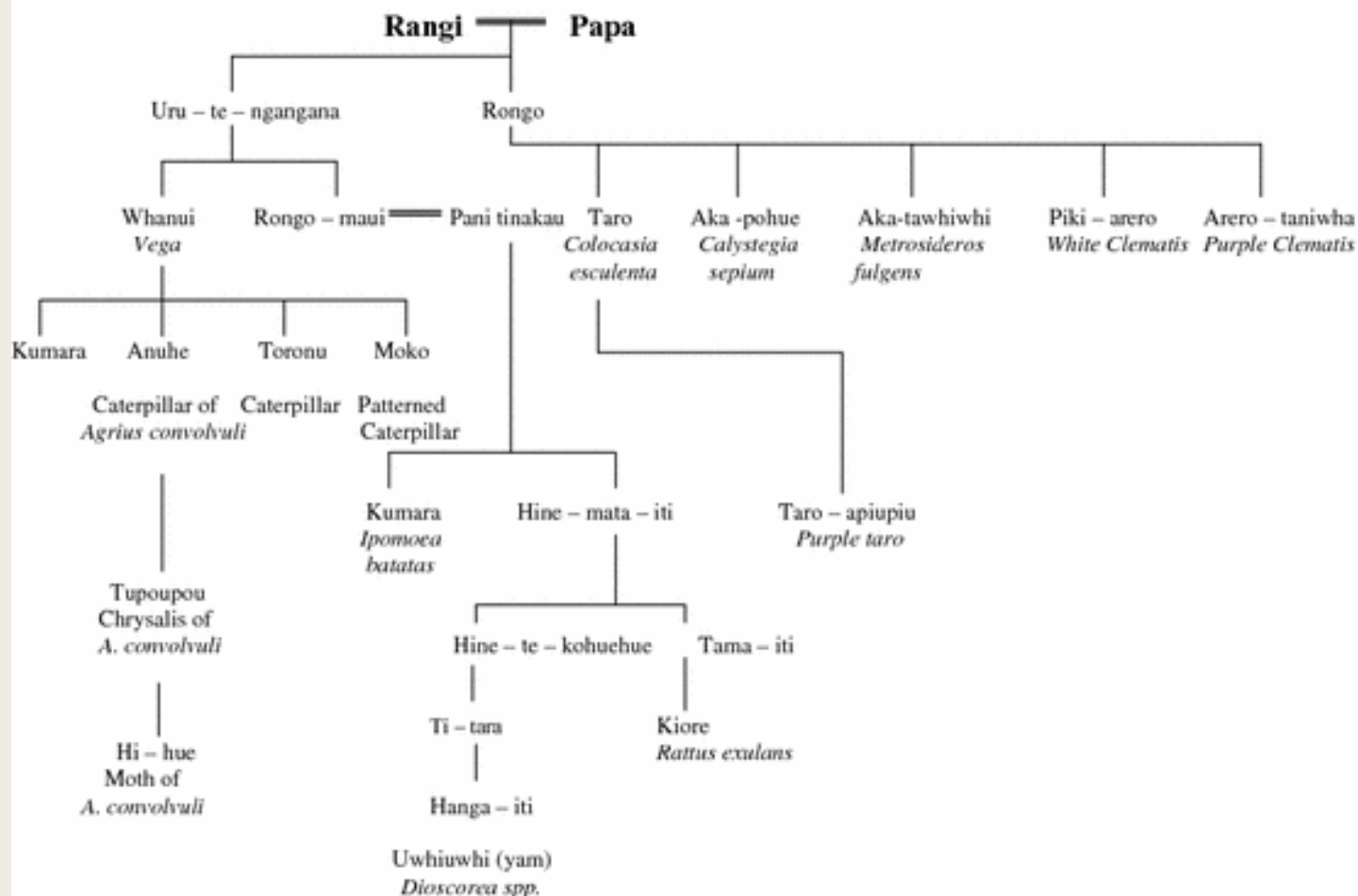


WHAKAPAPA OF LIZARDS AND FISHES

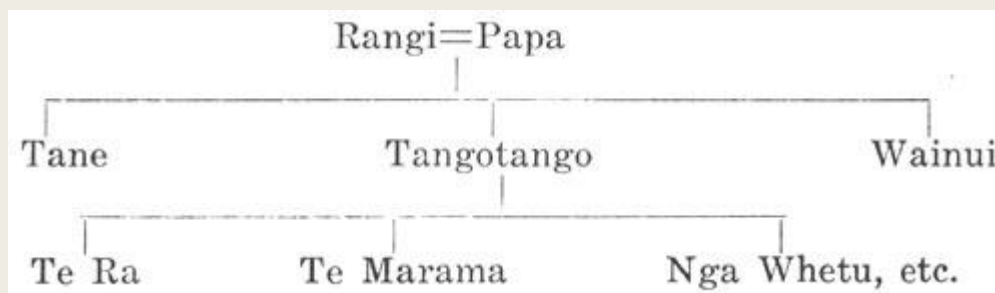


WHAKAPAPA OF PLANTS – PARTICULARLY GOURDS

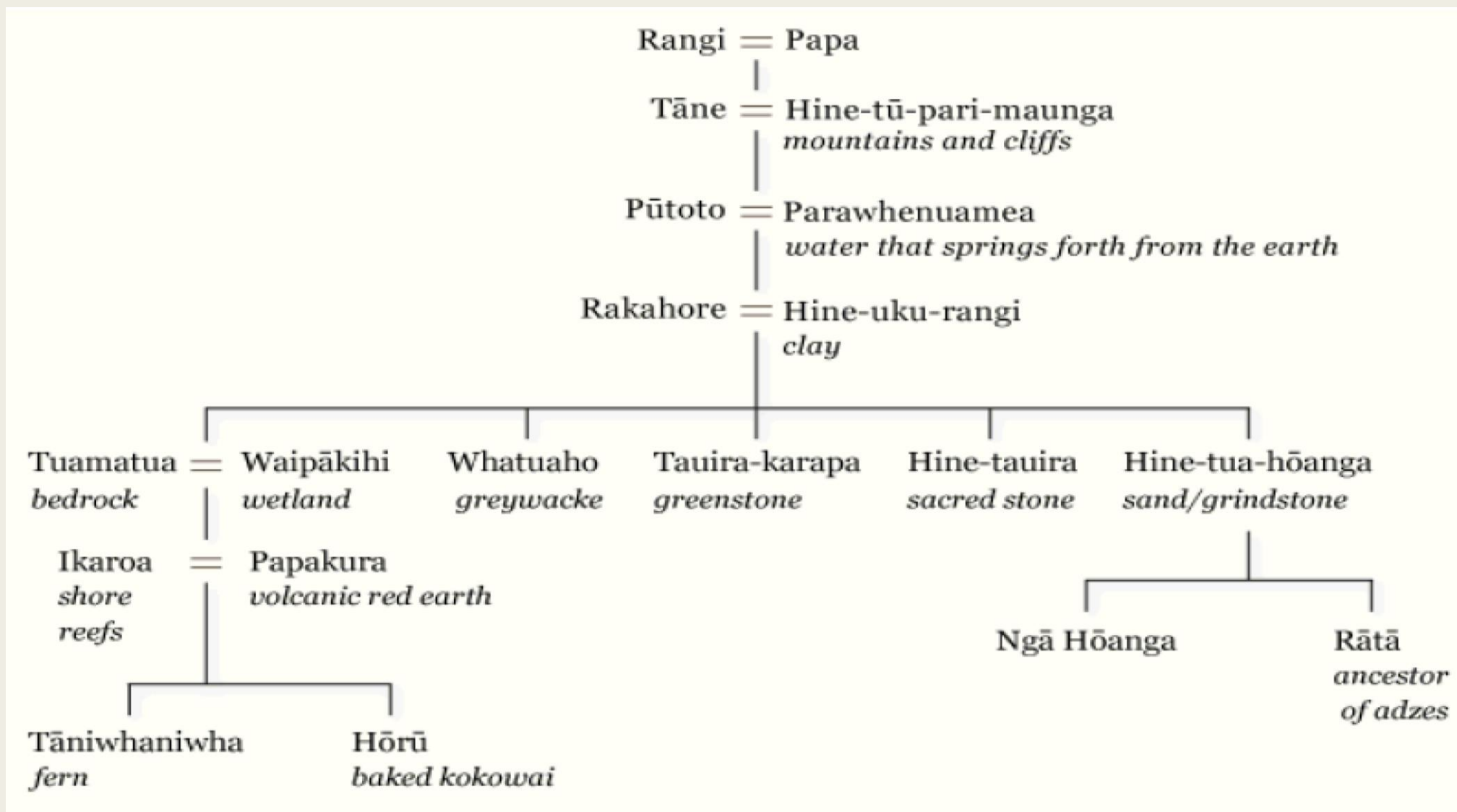
A Whakapapa of Rongo



CELESTIAL WHAKAPAPA



WHAKAPAPA OF STONES



CONTINUANCE THROUGH
OBSERVATION OF RIGHT
RELATIONSHIP



Can modern research infrastructures be effective –and not just efficient – in organising information to reflect an ideology of ‘right’ relationship?

WHAT IS A RIGHT RELATIONSHIP WITH THE WORLD OF INDIGENOUS PEOPLE?

And what is a wrong relationship?



TERRA NULLIUS

If you find the country uninhabited, take possession for his majesty
(Government instructions to James Cook).

WHOSE GOOD IS SERVED BY THE COMMON GOOD?

*"Research" is probably one of the dirtiest words in the Indigenous world's
vocabulary"*

Smith, L. (1999). Decolonising Methodologies.p. 1

THE ONE WORLD WORLD

‘What doesn’t exist is actively produced as non-existent or as a non-credible alternative to what exists’

Arturo Escobar (2017). Designs for the Pluriverse. p.68

SCIENCE FOR THE WEST, MYTH FOR THE REST

Scott, C. (2011). Science for the West, Myth for the Rest? The Case of James Bay Cree Knowledge Construction. p.174



Google Search: 'Scientist': top 6 images May 2016



Google Search: 'Indigenous Scientist': top 6 images May 2016



Google Search: 'Indigenous Scientist': top 6 images 15 Feb 2022

RELATIONAL ONTOLOGY

‘whereby worlds external to one another can nevertheless coexist, without one subsuming the others.’

Hutchings, Kimberley (2019). Decolonizing Global Ethics:
Thinking with the Pluriverse. *Ethics & International Affairs*. 33:2

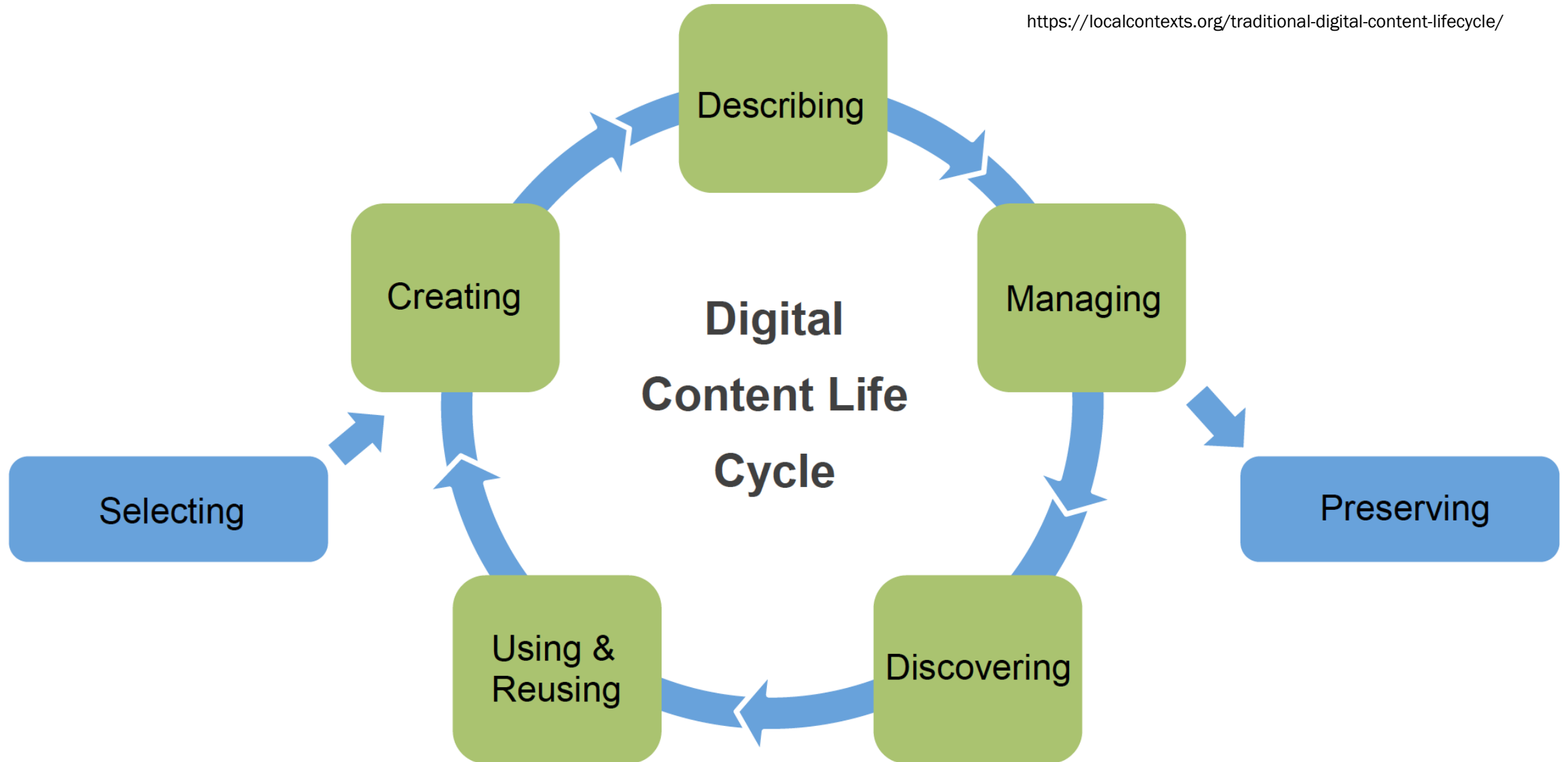
PLURIVERSAL RESEARCH INFRASTRUCTURE?

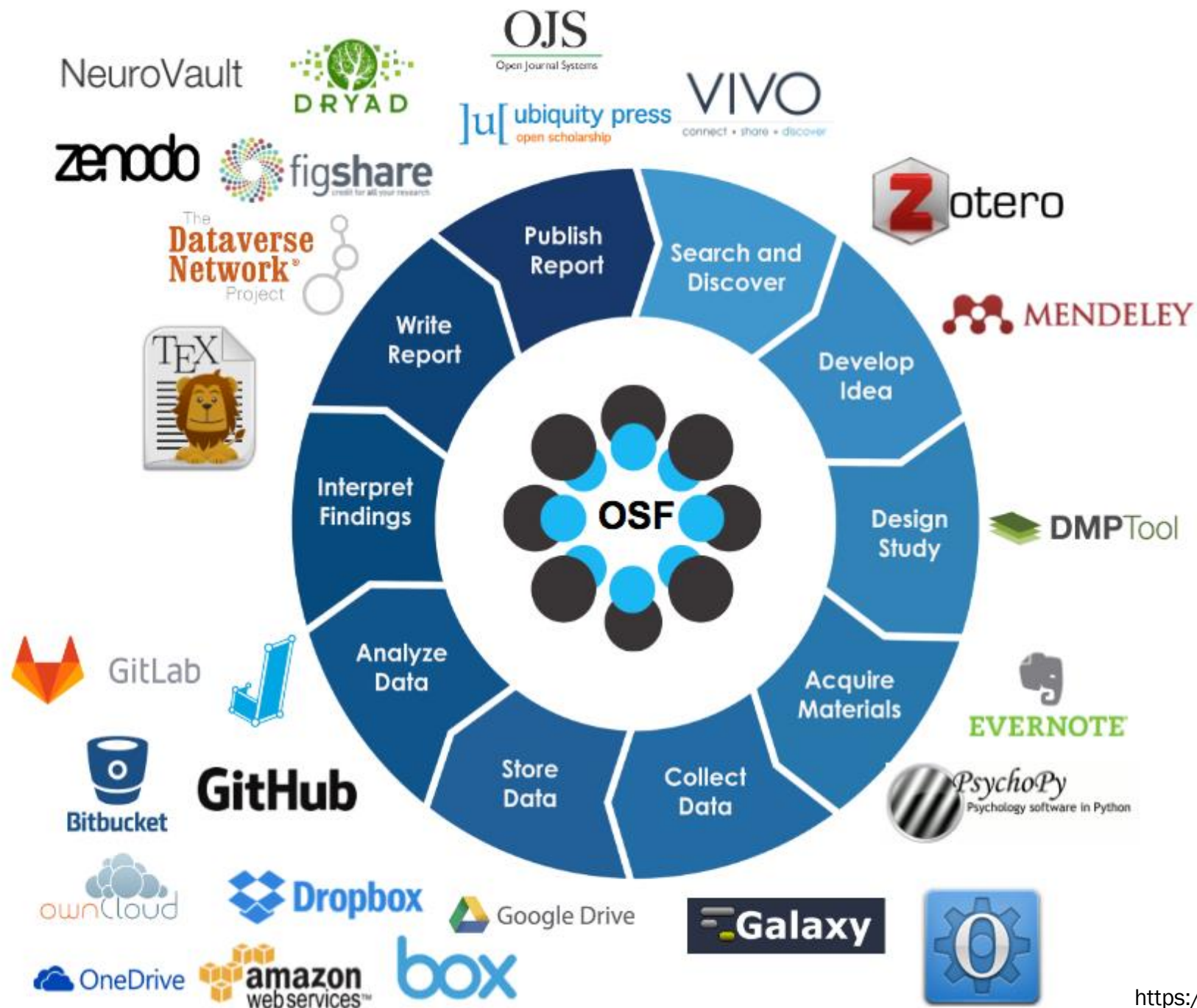
‘Today there is a paradox of scarcity and abundance for Indigenous data . . . There is a scarcity of data that align with Indigenous rights and interests and which Indigenous Peoples can control and access . . . There is an abundance of data that are buried in larger collections, hard to find, mislabelled, and controlled (legally and literally) by others.’

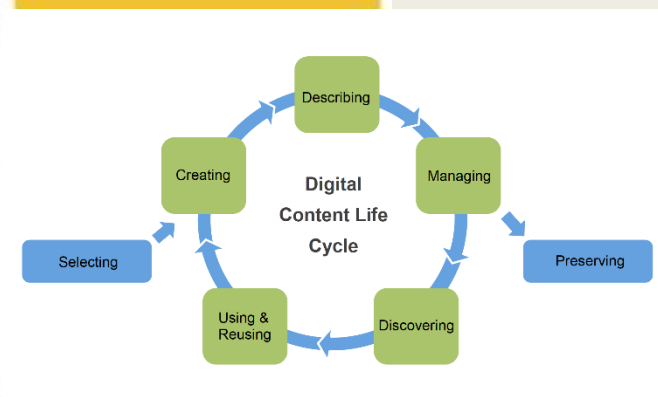
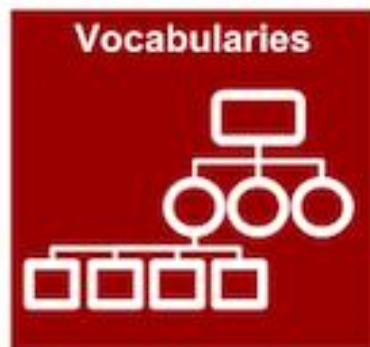
Russo Carrol, S. et. al. (2021). Operationalizing the CARE and FAIR Principles for Indigenous data futures

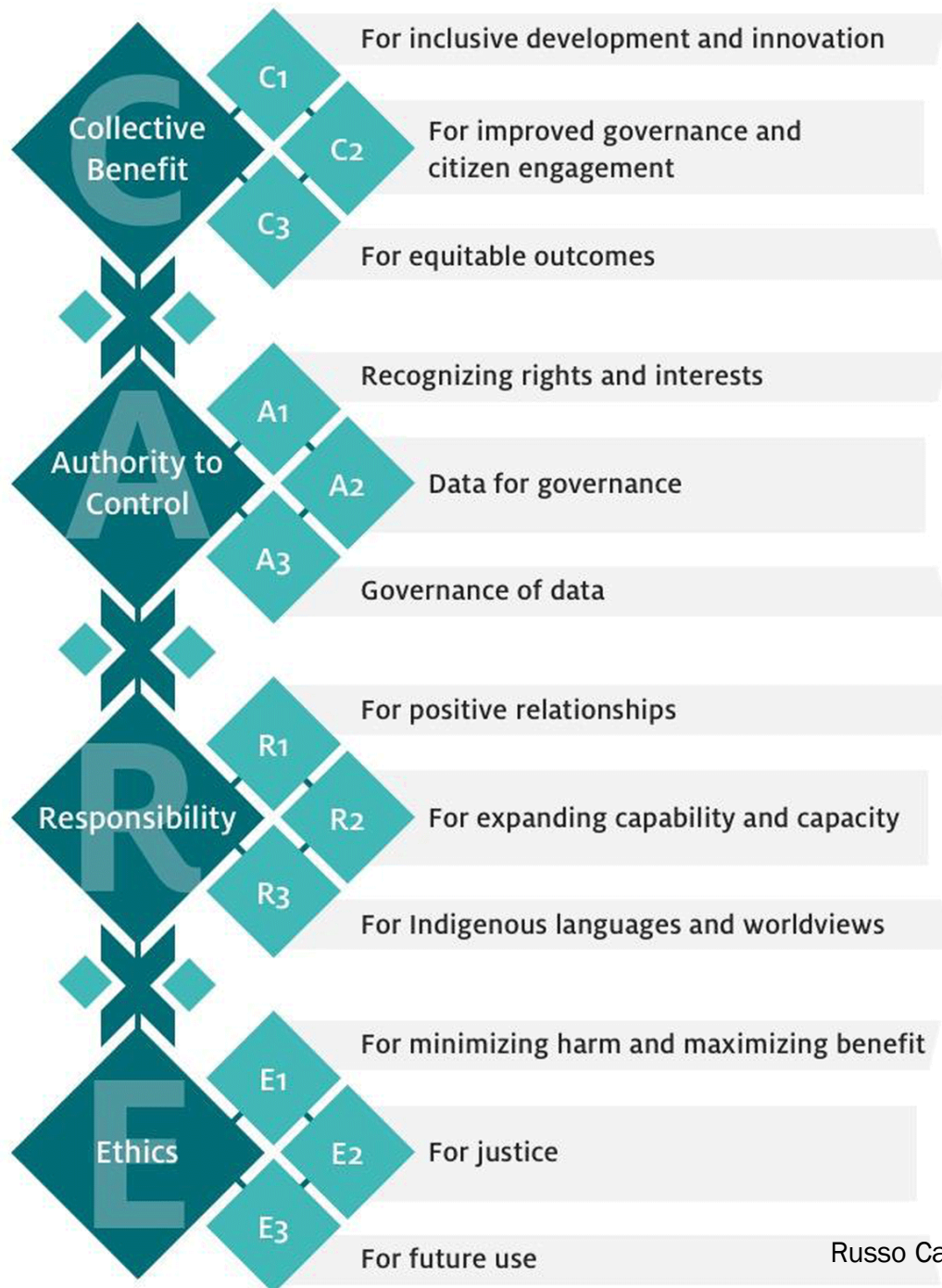
Traditional Digital Content Lifecycle

<https://localcontexts.org/traditional-digital-content-lifecycle/>





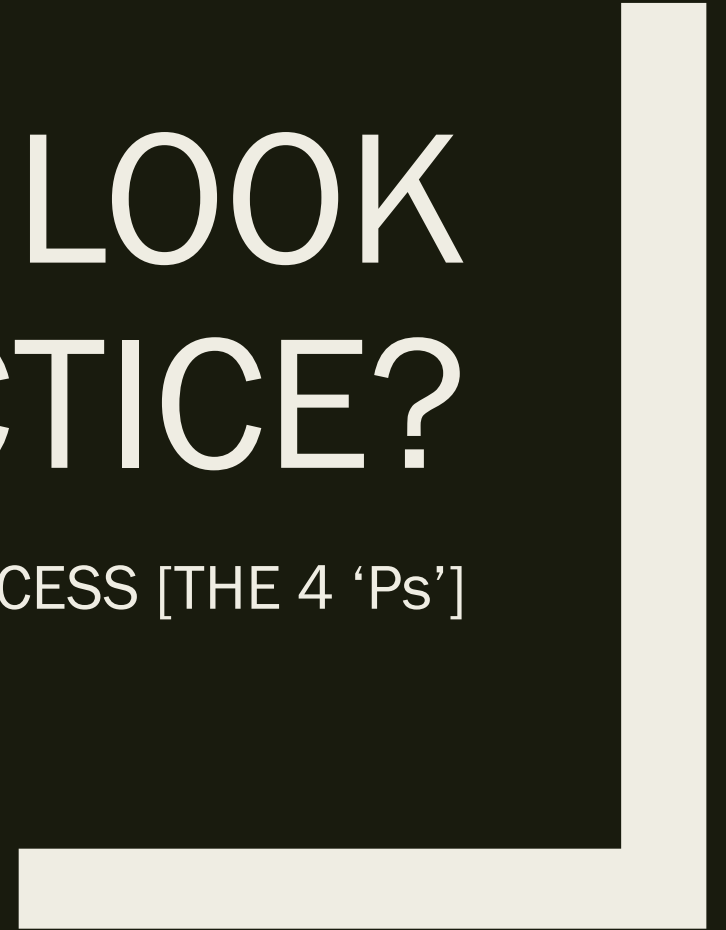




<https://www.gida-global.org/care>

WHAT DOES CARE LOOK LIKE IN PRACTICE?

POWER. POLICY. PEOPLE. PROCESS [THE 4 'Ps']

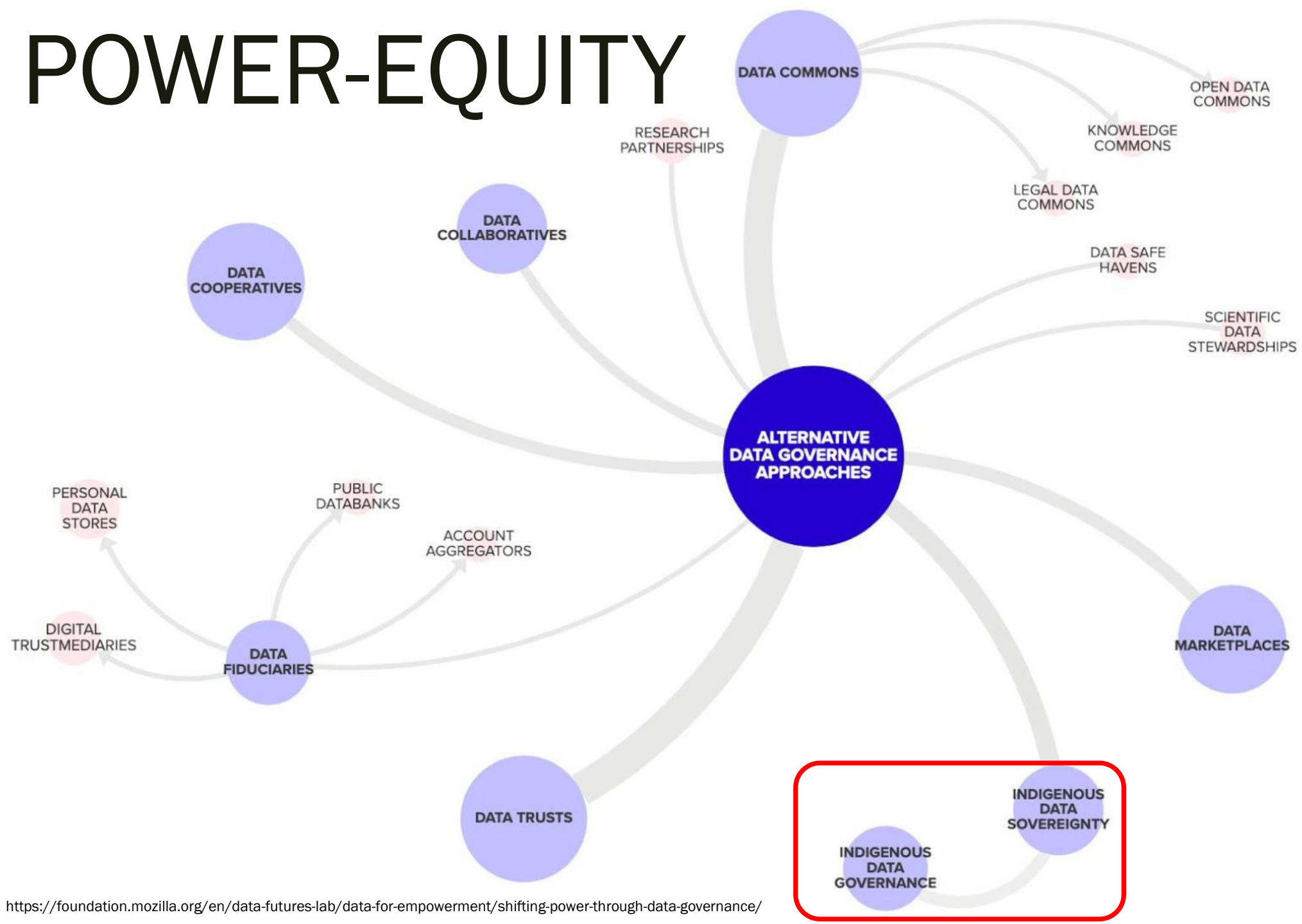


Practice 'CARE' in data collection	Engage 'CARE' in data stewardship	Implement 'CARE' in data community	Use 'FAIR' with 'CARE' in data applications
<p>Define cultural metadata</p> <p>Record provenance in metadata</p>	<p>Use appropriate governance models</p> <p>Make data 'FAIR'</p>	<p>Indigenous ethics inform access</p> <p>Use tools for transparency, integrity and provenance</p>	<p>Fairness, Accountability, Transparency</p> <p>Assess equity</p>

Implementation of the CARE Principles across the data lifecycle.

Russo Carrol, S. et. al. (2021). Operationalizing the CARE and FAIR Principles for Indigenous data futures

POWER-EQUITY



POLICY – DATA FOR GOVERNANCE

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Co-designing Māori data governance

Data toolkit

[Introduction to data](#)

[Data ethics](#)

[Data governance](#)

Co-designing Māori data governance

The co-design of a Māori data governance (MDG) model is one of four workstreams of the Mana Ōrite Work Programme between Stats NZ and the Data Iwi Leaders Group (DILG) of the National Iwi Chairs Forum (NICF). This is a high priority initiative for the Government Chief Data Steward and Stats NZ that will provide the New Zealand government with a unique opportunity to develop an approach to data governance that reflects Māori needs and interests in data.

PEOPLE IN INSTITUTIONS



Poutiaki Rangahau Māori (Māori Research and Data Sovereignty Steward)

University of Auckland · Auckland, Auckland, New Zealand (On-site)



Full-time · Mid-Senior level

This role will work in partnership with the research community, research data management programme team and Māori research committee to develop the strategy and operating plan required to operationalise Māori Data Sovereignty and the CARE Principles of Indigenous Data Governance in different research and disciplinary contexts.

PROCESS

Local Contexts supports Indigenous communities to manage their intellectual and cultural property, cultural heritage, environmental data and genetic resources within digital environments. Local Contexts recognizes the inherent sovereignty that Indigenous communities have over knowledge and data that comes from their lands, territories, and waters.



Local
Contexts

Retrospective and prospective intervention

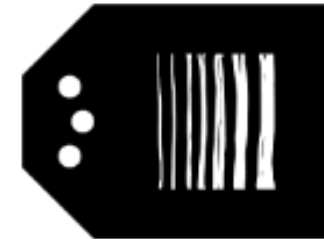
Traditional Knowledge (TK) Labels

The TK Labels are digital markers that define attribution, access, and use rights for Indigenous cultural heritage. Twenty TK Labels have been developed through direct community partnership and collaboration. Each TK Label can be adapted and customized to reflect ongoing relationships and authority including proper use, guidelines for action, or responsible stewardship and re-use.



Biocultural (BC) Labels

The BC Labels focus on accurate provenance, transparency and integrity in research engagements. The BC Labels are digital markers that define community expectations and consent about appropriate use of collections and data. They connect data to people and environments over time. Ten BC Labels provide a practical application of Indigenous data governance principles to issues of access and benefit-sharing for genetic resources.





Vaccinium myrtillus isolate NK2018 v1.0 genome sequence

Genome Overview

Properties

Downloads

JBrowse

BLAST

PathwayCyc

Synteny Viewer

Genome Overview

Analysis Name	Vaccinium myrtillus isolate NK2018 v1.0 genome sequence
Method	Illumina, Oxford Nanopore (Assembly with Shasta v0.2.0)
Source	New Zealand Institute for Plant and Food Research Limited
Date performed	2021-03-10



BC Notice

The BC (Biocultural) Notice is a visible notification that there are accompanying cultural rights and responsibilities that need further attention for any future sharing and use of this material or data. The BC Notice recognizes the rights of Indigenous peoples to permission the use of information, collections, data and digital sequence information (DSI) generated from the biodiversity or genetic resources associated with traditional lands, waters, and territories. The BC Notice may indicate that BC Labels are in development and their implementation is being negotiated. *For more information about the BC Notice click [here](#).*

NCBI Assembly Accession: [GCA_016920895.1](#)

NCBI Bioproject Accession: [PRJNA672146](#)

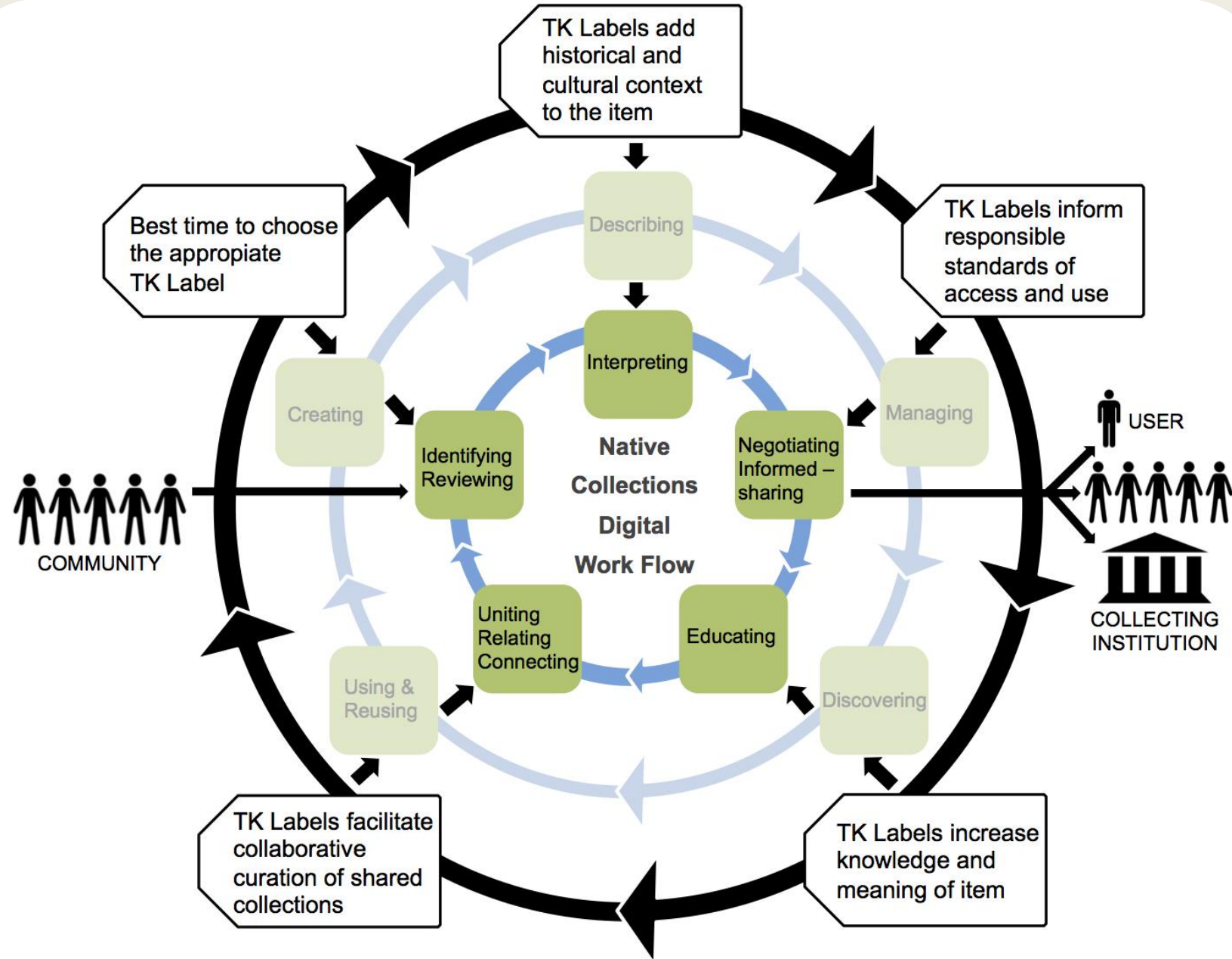
Citation: Wu,C., Deng,C., Hilario,E., Albert,N., Lafferty,D., Plunkett,B., Elborough,C., Saei,A., Jaakola,L., Karppinen,K., Grande,A., Kylli,R., Allan,A., Espley,R. and Chagne,D. 2021. [A chromosome-scale assembly of the bilberry genome identifies a complex locus controlling berry anthocyanin composition](#). Molecular Ecology Resources, DOI 10.1111/1755-0998.13467

The assembly and annotation files loaded into GDV were provided by the authors and match the data submitted to NCBI.

Genome Assembly Summary:

Total size	524,292,997
Number of scaffolds	1,418
Scaffold N50	37,643,989
BUSCO score (assembly)	97.6%
BUSCO score (annotation)	95.1%

ONTOLOGICAL RELATIONSHIPS



TERRA NULLIUS REDUX: THE METAVERSE

'Internet functionality requires land-based infrastructures. The relationship between the digital and land is inextricable, and it is erroneous to think of cyberspace as landless.'

Morford & Ansloos (2021). Indigenous sovereignty in digital territory: a qualitative study on land-based relations with
#NativeTwitter

How to buy **DIGITAL LAND** in Metaverse.



THE ~~UNCENSORED~~ LIBRARY





- The Titan Tiki team has an indigenous Māori background, deep respect for the protocols of Māori, and is proud to show the wairua (energy) of the Titan Tiki Tribe.
- Bill Takarei is a respected Kaumatua (Māori elder) and spiritual guide to the Titan Tiki, ensuring Māori culture is represented according to custom.

CARE FOR THE ~~[META]~~PLURIVERSE

Power. Policy. **People.** Process.



TĒNĀ KOUTOU KATOĀ- THANKS!

Acknowledgments: Local Contexts crew [Jane and Maui]; Camille Callison; Science for Technological Innovation; Kāti Huirapa ki Puketeraki marae;
ORCID; my whānau!