Diversifying Collaboration:

Network Complexity and Big Data

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"…great [and many] works of culture were almost invariably created to redeem, console and save the souls of their audiences. They were made, in one way or other, with the idea of changing lives."

What is Culture For? The School of Life (2018)

Major points:

Assumptions and thesis

Network complexity

Contextualisation

New collaborations

CADRE project

Different concerns

Assumptions and thesis

Assumptions (practical)

Large datasets will be shared to improve training and testing ML models e.g., digitised newspapers

Data too big to move will require compute to be co-located e.g., web archives

Existing AI technologies and techniques need critical evaluation e.g., prediction and optimisation

My thesis: collaboration in the collecting world needs to radically change (to unlock the social value in big data) to have social impact.

Problem: existing collaboration structures are bounded by in-group definitions, requirements, expertise and leaders.

Opportunity: diversifying collaboration structures creates the possibility for innovation, learning and new leaders to emerge.

Network complexity and big data

Network Complexity (and big data complexity) are here…

New social structures that drive innovation are needed to face practical and ethical dilemmas openly to thence be able to unlock social value from big data.

See Lorcan Dempsey: optimisation and pluralisation as collection imperatives. https://www.oclc.org/research/p

Network Complexity

- Cloud architectures

- Contexts and relationships

- Leadership in brokerage

- Models for risk management

- Methods for building trust

Network Complexity

- Cloud architectures (underpinning infrastructure)

- Contexts and relationships (cultural histories)

- Leadership in brokerage (collaboration expertise)

- Models for risk management (ethical dilemmas)

- Methods for building trust (social agreements)

Cloud Architectures

A socio-technical challenge

New cloud architectural arrangements are required
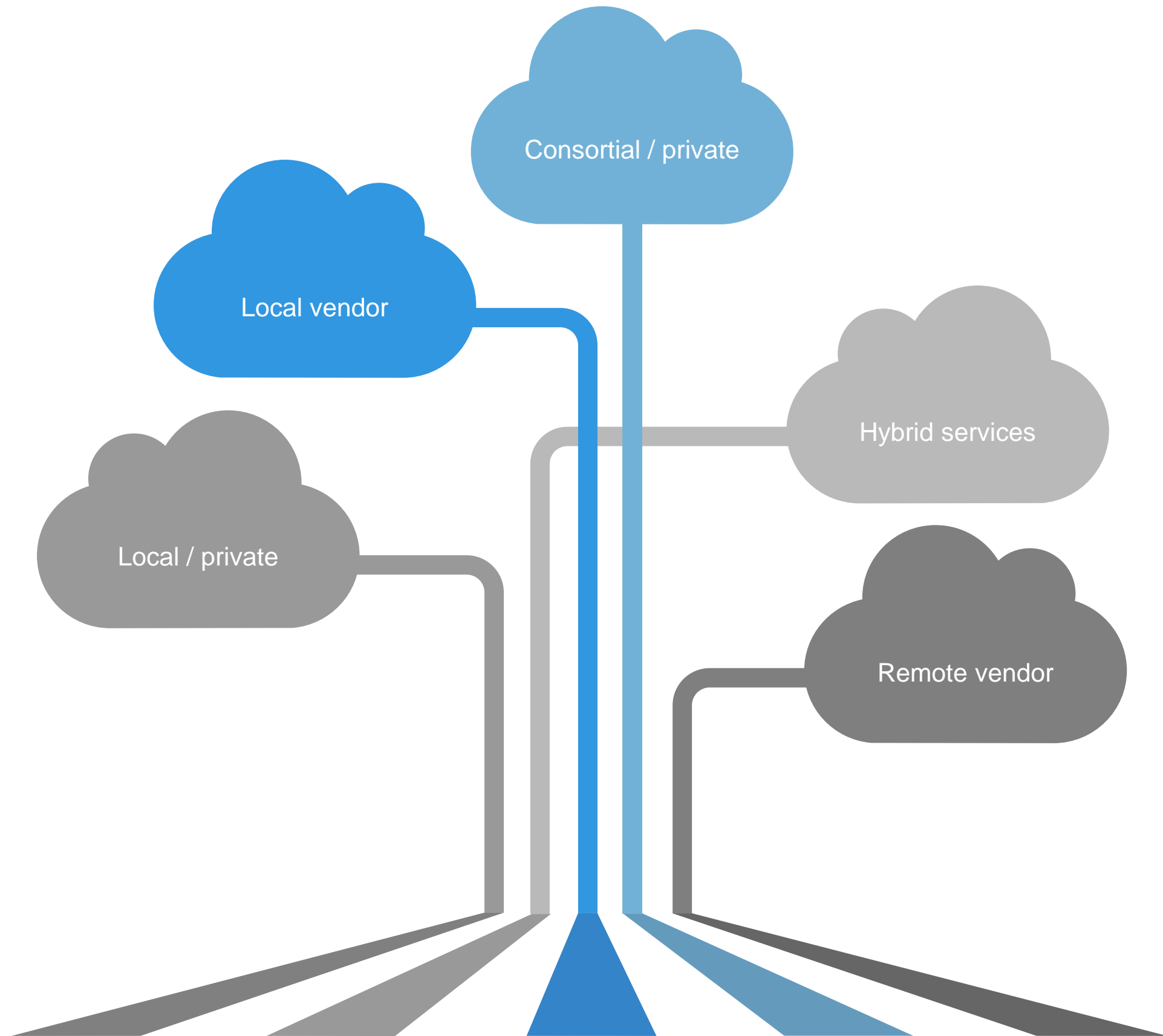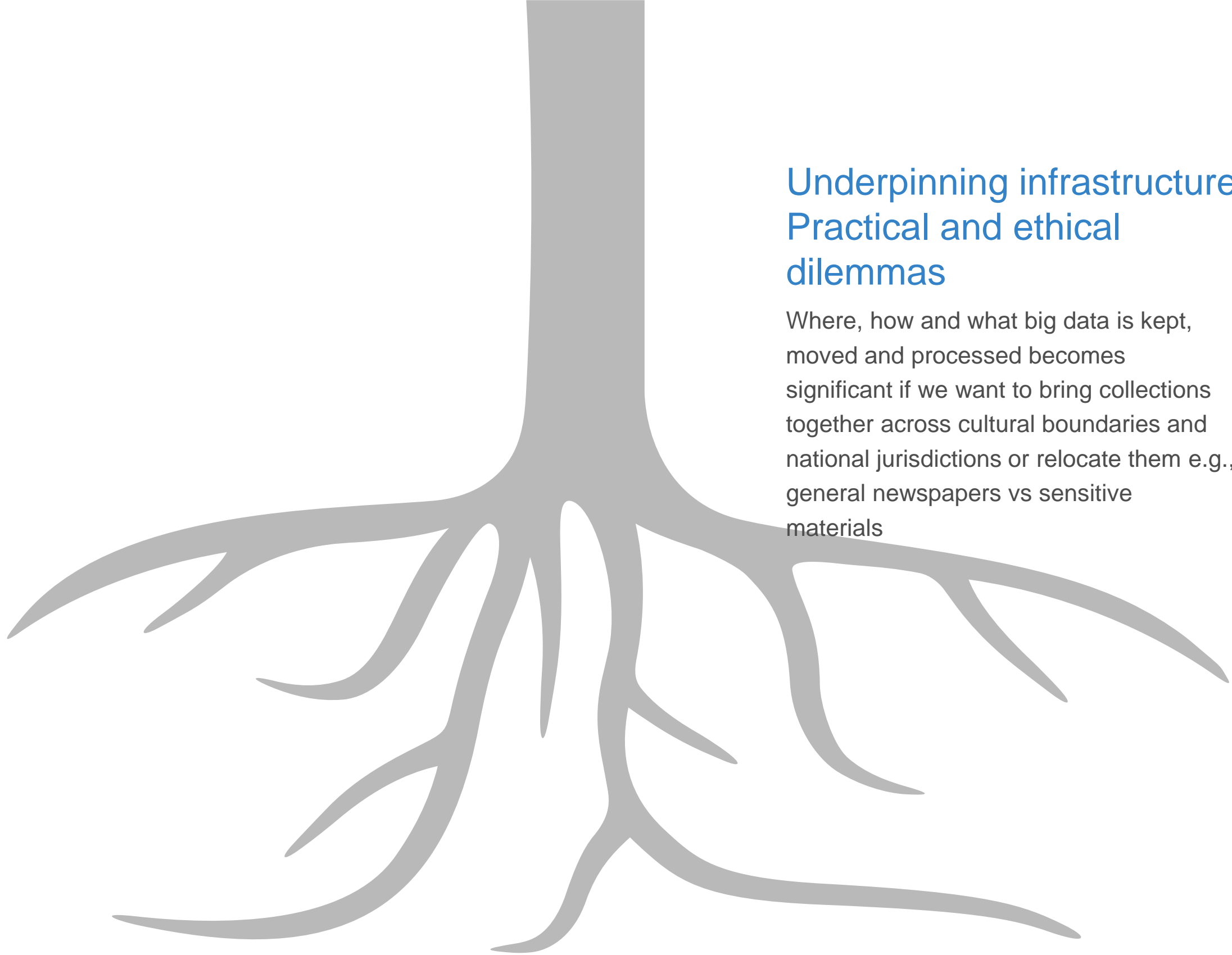
Underpinning infrastructures Practical and ethical dilemmas

Where, how and what big data is kept, moved and processed becomes significant if we want to bring collections together across cultural boundaries and national jurisdictions or relocate them e.g., general newspapers vs sensitive materials

Contextualisation

Contexts and relationships

Situational

Connection to First Nations

https://bates.org.au/word-maps/#wattle-tree

POLYNESIA

MICRONESIA

Connection to region

ASIA

MELANESIA

AUSTRALIA

NEW
ZEALAND
AOTEAROA
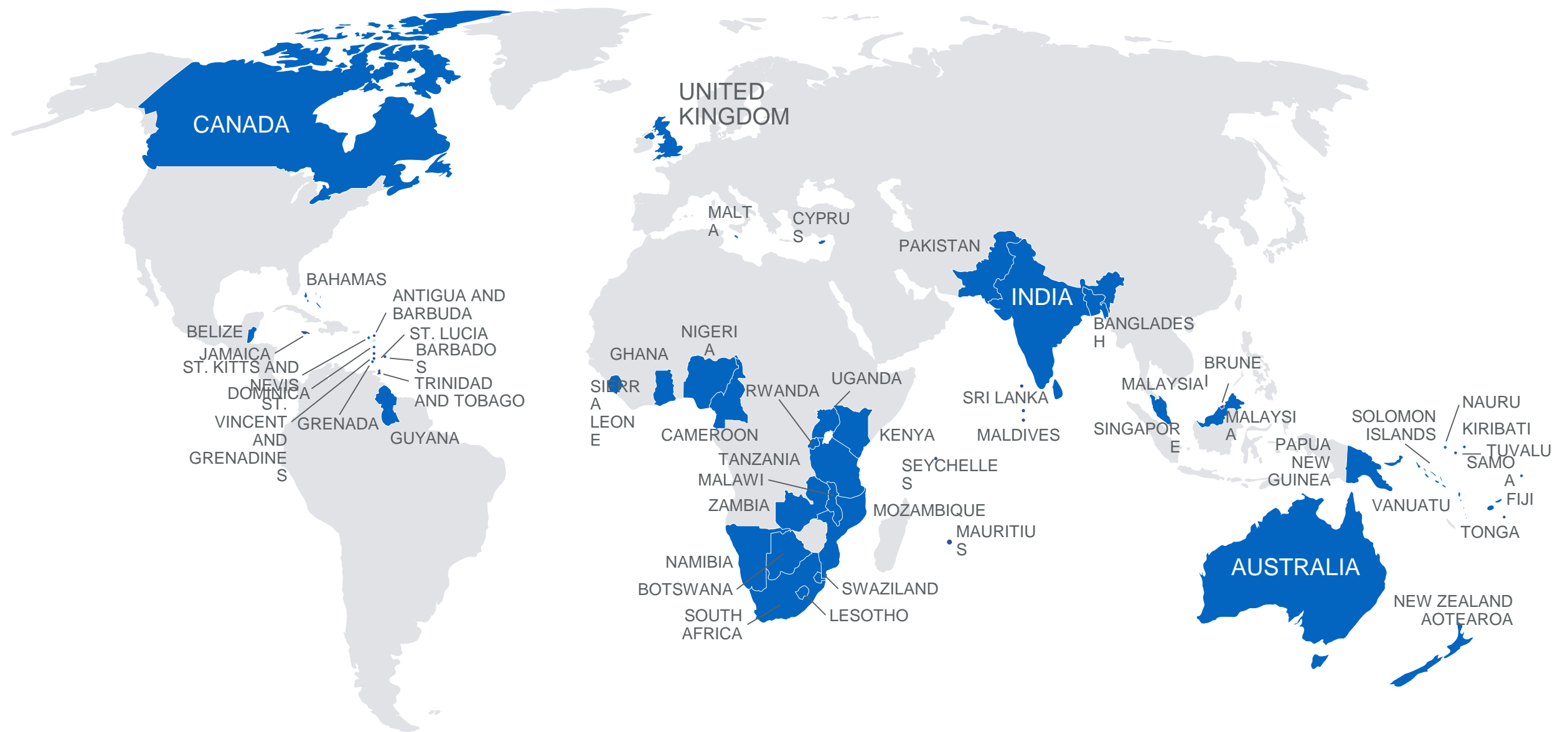
Commonwealth of Nations
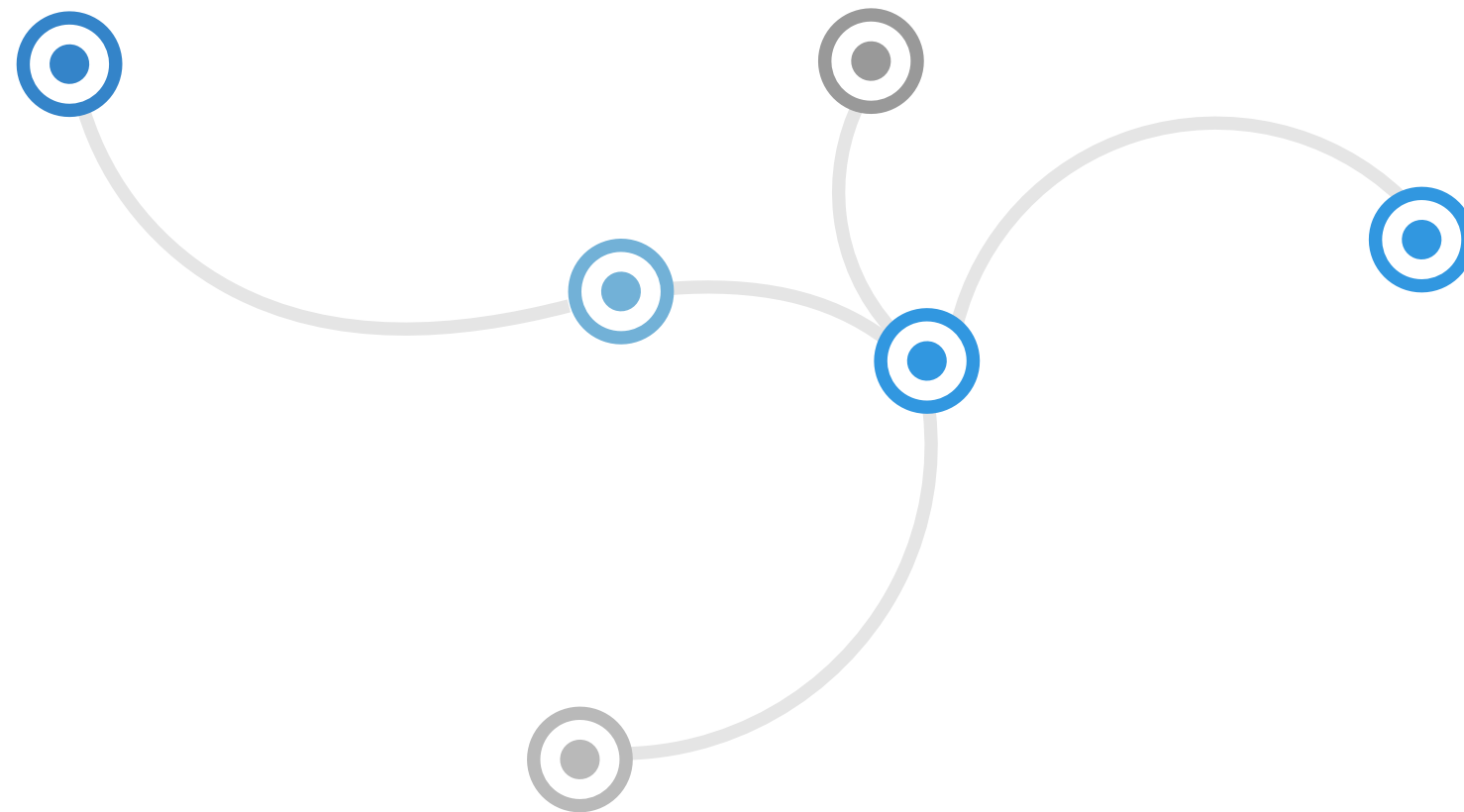
Connection to Colonisation

Connection to all cultures

Just forget about "big data" challenges for a minute and focus on how to radically change the way collaboration occurs across communities and why…

g world is a social network… how do we scale u

New collaborations

ollaboration around data e.g., cross-community

See: Data Collaboratives https://datacollaboratives.org/

- Leadership in brokerage (collaboration expertise)

- Models for risk management (ethical dilemmas)

- Methods for building trust (social agreements)

Case Study: CADRE Project

(Where you see sensitive data here, do a mental swap for big data)

CADRE project

Case Study - CADRE Project

Operationalising the Five Safes Framework

https://cadre5safes.org.au

Safe People

Can this person be trusted to use the data appropriately?

Safe Data

Can confidentiality or privacy be breached in data supply?

Safe Projects

Is the proposed use of data appropriate, lawful, ethical and sensible?

Safe Outputs

Is confidentiality maintained by those that manage the outputs?

Safe Settings

Can the site of access limit unauthorised use or mistakes?

http://www.fivesafes.org/

on emerged and informed by new Australian fed

Data Availability and Transparency Bill 2020

https://www.aph.gov.au/Parliamentary_Business/Bills_LEGislation/Bills_Search_Results/Result?bId=r6649

Work on practical and ethical dilemmas

Using the Five Safes framework

A new kind of collaboration

Parallels here for how the collecting world determines its approach to collaboration and working with big data (this also comes with shared practical and ethical dilemmas).

New informatics and analytics

Diverse organisations and sectors

rnment research agencies and departments an
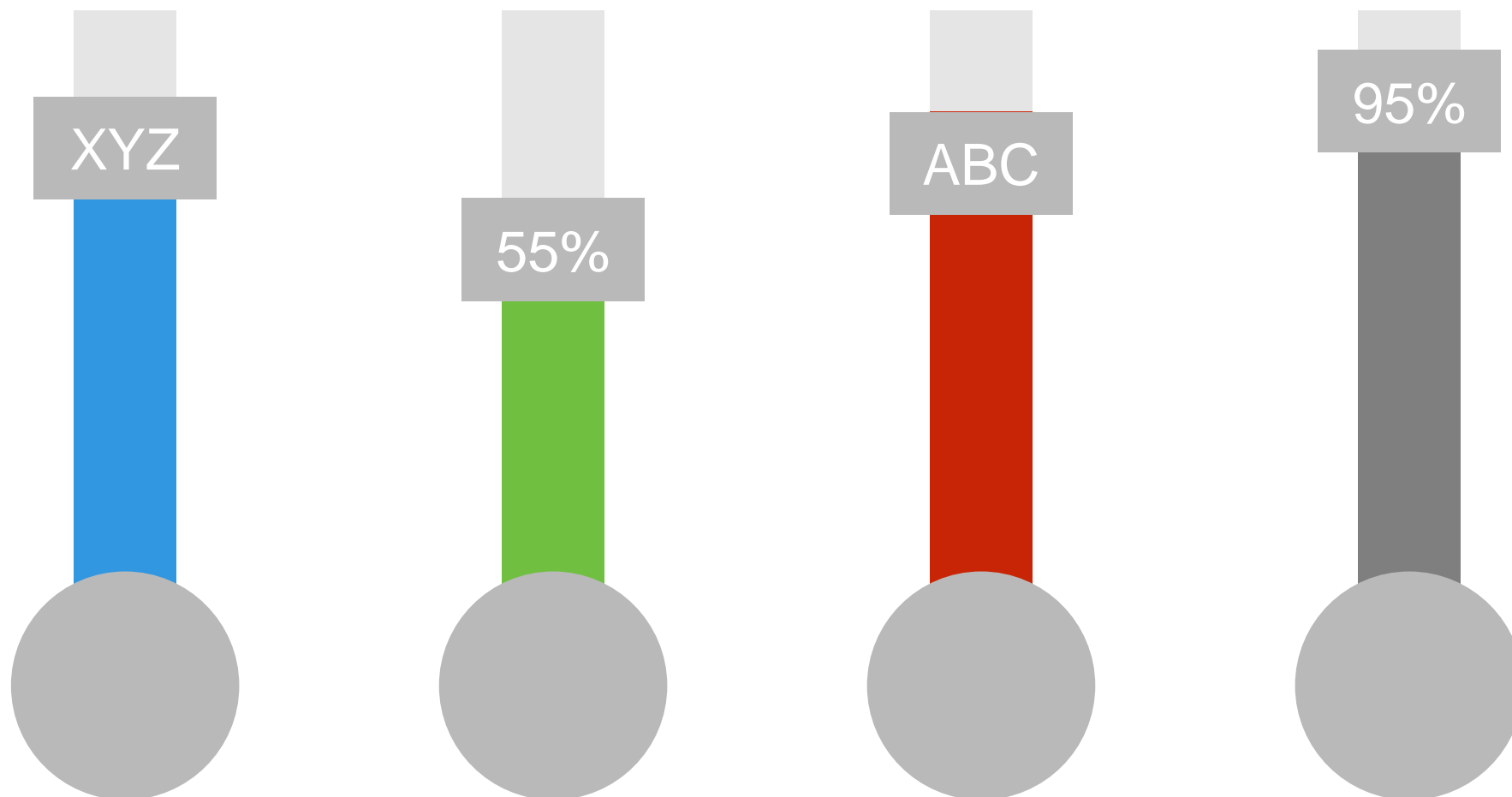
Cross-community collaboration - resourceful

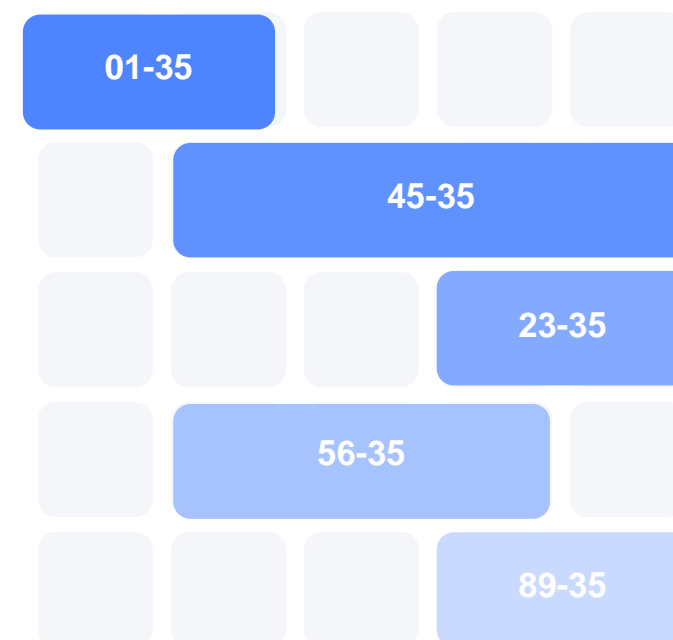shared interests in ethical practices is driving th

It is a step change.

standards, curatorial risk assessment, and natio

XYZ

55%

ABC

95%

Common requirements for:

- Governance

- Request information

- Risk assessment

- Decision-making support

Different concerns

Different concerns:

the technical scale and complexities of big data *management* (dominates practitioner dialogue in data analytics and science)
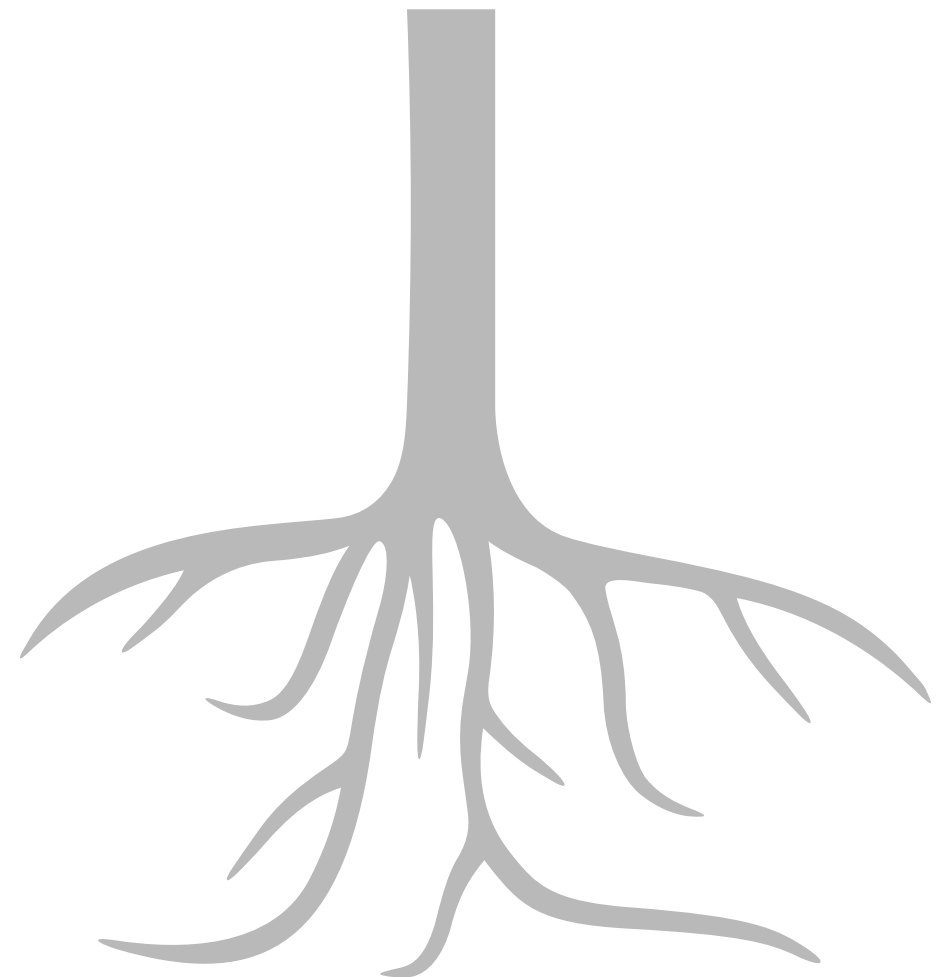
the social change and ethical complexities of big data *governance* (critical in curatorial and heritage practice)

Who can you begin to collaborate with to be able to innovate and scale effectively and ethically?
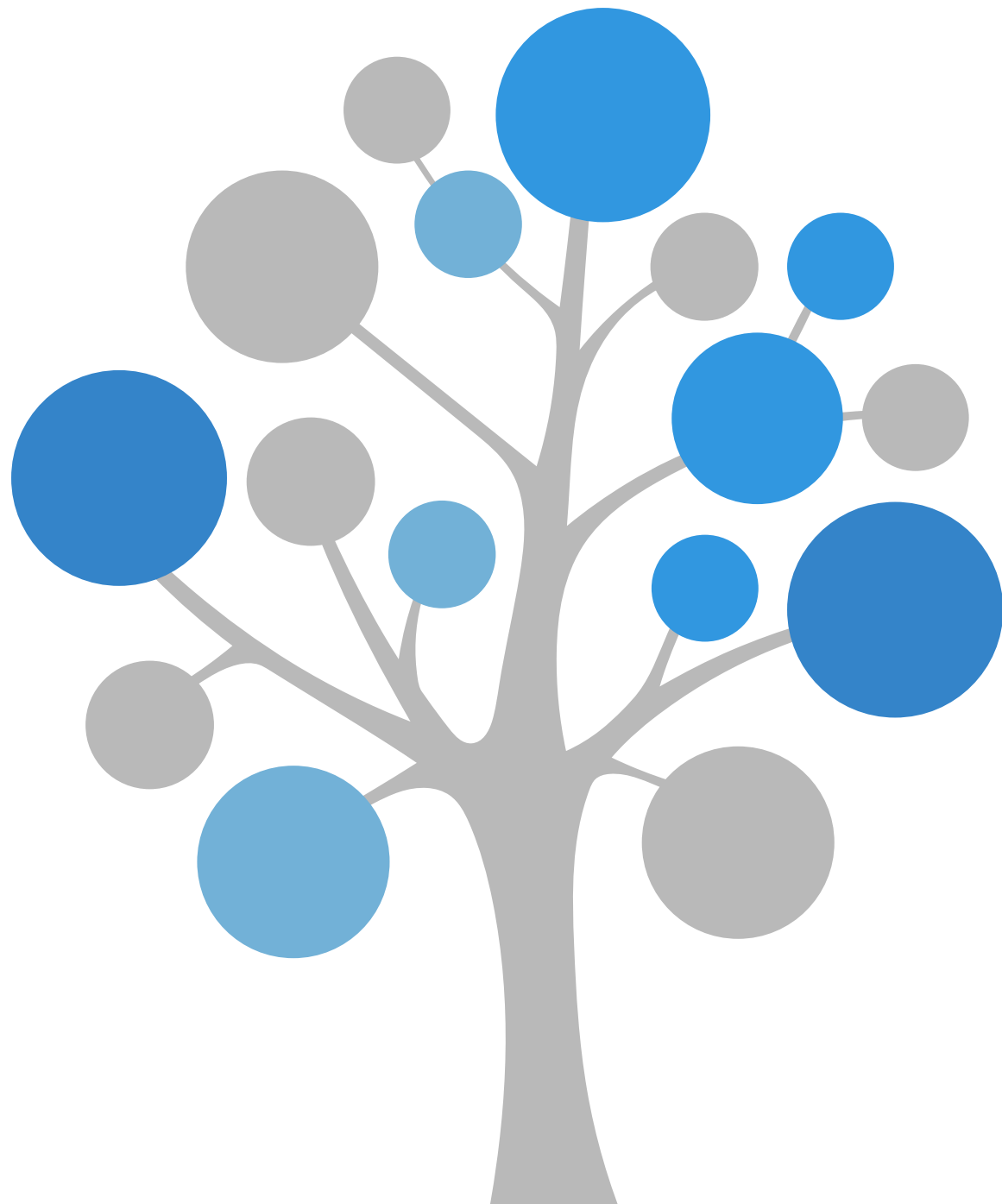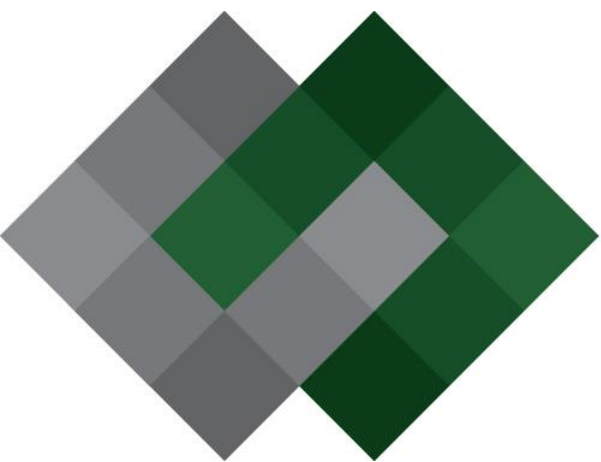
Big data is complex

What is your situation and the underpinning infrastructures that support moves to build new collaborations and establish trust?

o, of course, the minds of strangers, especially

What is Culture For? The School of Life (2018)

ADA AUSTRALIAN DATA ARCHIVE

https://ada.edu.au/

https://cadre5safes.org.au/

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