Machine-readable Data Release Policy
Facilitating Access, Accountability and Automation

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Data Release
Simplifying the Process

Open Data

Machine-readable rules

Easy to implement
Data Release Issues

• Large amount of data still not accessible
Data still not accessible

- Public Sector Information
- Open Government Data
- Open Data
- Big Data

OECD 2016
Data Release Issues

• Large amount of data still not accessible
• Liable for inadvertent release
• Fear backlash from public
Data still not accessible
Data Release Issues

- Large amount of data still not accessible
- Liable for inadvertent release
- Fear backlash from public
- Shortcomings in data
- Not formatted for public consumption
- Warrantability
Data Release Issues

- Interpreted incorrectly
- Difficulty communicating fit for purpose
- Data misused
- Reengineered
- System hacked
- Data breach
Data Release Issues

• Complex release processes
  – Third-party Intellectual Property
  – Value-added applications

• Lack of consistent guidelines
  – Bilateral Agreements in place
  – No clear authority/accountability
The Data Release Project

Systematic data release process

UNGGIM + CRCSI + Geoscience Australia

Global Recognised Policy

MachineReadable Rules

SoftwareProof of Concept
Methodology

1. Policy documents
   - Data Sharing
   - Data Access
   - Open Data
   - Privacy Act
   - Freedom of Information

2. Expert knowledge
   - Team Procedures
   - Checklists
   - Flowchart
   - Data Release Forms
   - Data Licence

3. Ontology
   - Identify Concepts
   - Create Relationships
   - Rule development
Methodology

4. Develop Software Code that is shareable

Software Code
- Captures commonality
- Individual differences
Data Release Ontology

Access Category

Dataset

Value

Licence

User

Action

Type

Rules:
Can only have one access category
Data Release Ontology
Aggregated Data

Rules:
Average price of all State datasets
Semantic Web
3 stages of Evolution

Web 1.0
One-way interaction

Web 2.0
Two-way participation

Web 3.0
Linked Data (Semantic Web)
On the Horizon

5 Star Rating
Linked Open Data

Diagram courtesy: 5 Star Open Data
http://5stardata.info/en/
On the Horizon

Minting Persistent URIs

Real World Objects (schools)

Supports Traceability

Diagram courtesy data.gov.uk
https://data.gov.uk/resources/uris
Summary

• Confidence to Open up Access to Data
  • Data sensitivity
  • Individual privacy
  • Copyright
• Simplicity
  • Data custodians set parameters in metadata
• Accountability
• Global standard possible
  • rules created once and reused
  • Unique requirements possible
Thank you