Getting started with Data Governance

Kate Carruthers
UNSW Sydney, May 2022
EDUCAUSE
Agenda

• Why organisations need data governance
• Steps to get started with data governance
• Some issues you might encounter
• UNSW’s data governance journey
• Some handy resources
Why organisations need data governance
“ Complexity is a defining feature of the digital era, & we are not adjusting our governance structures to manage it.”

Kent Aiken, Prime Minister’s Fellow, Public Policy Forum Canada, 2017
To **protect** our data, we need to understand it.
Getting Started with Data Governance

Disclose Data
a person, process, or system creates and publishes/shares data

Manipulate Data
a person, process, or system transforms, moves, or analyzes data

Consume Data
a person, process, or system benefits from manipulated data

Acquire
Ingest data from sensors, systems, or humans, recording its provenance and consent for use wherever possible.

Store
Record data to a trusted location that is both secure and easily accessible for further manipulation.

Aggregate
Combine disparate datasets to create a larger dataset that is greater than the sum of its parts.

Analyze
Examine and transform data with the purpose of extracting information and discovering new insights.

Use
Apply the insights gained from data analysis toward making decisions, affecting change, or delivering a product or service.

Share/Sell
Provide access to datasets or data insights to new sets of data manipulators or consumers.

Dispose
Remove data from servers to prevent future release or use.

Why data governance is important
Working out what data assets to protect
Allocating scarce cyber dollars
Ensuring that data is used properly
Complying with increasing regulatory requirements
Improving data security via information and cyber security
Creating and enforcing data distribution policies
Creating the basis for effective data & analytics operations
Identifying your crown jewels for protection
Data Governance helps to:

<table>
<thead>
<tr>
<th>Identify</th>
<th>data at risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Locate</td>
<td>sensitive data</td>
</tr>
<tr>
<td>Ensure</td>
<td>that sensitive data is stored and managed properly</td>
</tr>
<tr>
<td>Identify</td>
<td>sensitive data users</td>
</tr>
<tr>
<td>Ensure</td>
<td>consistent data access processes</td>
</tr>
<tr>
<td>Ensure</td>
<td>safer access to sensitive data</td>
</tr>
</tbody>
</table>
Identify data at risk

- Who in the organisation is using sensitive data
- Location of data and how the data flows through the enterprise
- Organisational data stewardship ensures business ownership of the process
- Data access management can assist with identification of who has access to which data
- Can assist in mitigating the risk of people being the biggest cause of information security incidents
Steps to get started with data governance
First thing

- Build mental maps for people
- Most people can’t imagine what data governance means or how to enact it
Pick a definition & stick with it

"Data governance is the organization and implementation of policies, procedures, structure, roles, and responsibilities which outline and enforce rules of engagement, decision rights, and accountabilities for the effective management of information assets."

(John Ladley, Data Governance: How to Design, Deploy and Sustain an Effective Data Governance Program, 2012)
Establish a mandate
Develop a data governance framework

Example DG framework

Give people an idea of the overall data governance program
Develop policies, procedures including:

Governance structures
Roles & responsibilities
Establish a steering committee
Define what success looks like

- Top down support
- Clear definition
- Ongoing funding
- Dedicated resources
- Focused strategy & plan
Develop a data governance strategy

Roles & responsibilities

- Recruit data governance roles
- Decide the size of your core DG team
Implementation

- Run implementation project
- Communications plan
- Benefits realization plan
Pick something that is finite and useful to start.
Dealing with objections
UNSW’s data governance journey
UNSW’s data governance journey

<table>
<thead>
<tr>
<th>Year</th>
<th>Data Governance Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>• Established the Data Governance Office</td>
</tr>
</tbody>
</table>
| 2015 | • Data Governance Framework and Strategy  
     | • Data Governance Policy  
     | • Data Classification Standard  
     | • Data Handling Guidelines  
     | • Data Governance structure, roles and responsibilities |
| 2016 | • Communications re UNSW Data Governance Framework: Data Governance Policy, Data Classification Standard, Data Handling Guidelines  
     | • Develop risk assessment framework based on Data Classification Standard and Data Handling Guidelines  
     | • Commence data classification process for existing UNSW core systems |
| 2017 | • Collibra Data Governance tool implementation  
     | • Enterprise Data Governance Framework 2.0  
     | • Enterprise Data Governance Strategy |
| 2018 | • Data quality: Position Management Project (with HR)  
     | • Data quality: Records & Archive Management System (RAMS) (with Records Management & IT)  
     | • Data Breach Management Policy and Procedure  
     | • System Classification Tool implemented  
     | • Data Security Program (with IT): Data Security framework, Control & Monitoring practice based on Data Classification  
     | • Business case: Research data governance and management process improvement (with Research Division) |
### UNSW’s data governance journey

<table>
<thead>
<tr>
<th>Year</th>
<th>Data Governance Activity</th>
</tr>
</thead>
</table>
| 2019 | • Info Hub Azure Enterprise data warehouse business rules documentation in Data  
  • Key documentation relating to third party arrangements need to be appropriately maintained: In developing the framework [R4], information retention and data protection requirements will be clearly articulated to staff. Consideration will be given to the document retention practices as required within the UNSW Act 1989, State Records Act 1998, and the Australian Code for the Responsible Conduct of Research.  
  • (IA Action 2.3)  
  • Stage 1: Draft and complete a data mapping plan to identify high risk data within business areas Faculties, resource requirements and timelines  
  • Stage 2: Complete data mapping of high risk data within Faculties business areas and/or divisions using a risk based approach  
  • Stage 3: Complete the data mapping of all the remaining areas, also following a risk based approach  
  • (IA Action 2.6)  
  • Data Strategy implementation  
  • Data Governance: systems classification tool and new process  
  • Azure Logical Data Warehouse - Establishment and transition of all UPP Tableau and QuickSight reports & dashboards  
  • Data Governance for UniForum  
  • Data Security Program (with UNSW IT)  
  • Data Security framework  
  • Control & Monitoring practice based on Data Classification  
  • Embedding Data Governance steps into Projects (with UNSW IT)  
  • Local encryption for researchers and professional staff with highly sensitive data (with UNSW IT)  
  • Data Dictionary Project (with UNSW IT)  
  • Research Data Governance & Materials Handling Policy and Procedure  
  • Research data governance and management process improvement (PVC RI & DVCR)  
  • Research Data Management business case approved June 2018  
  • Data & Information Governance procedures development  
  • Enterprise Archive, Retention and Disposal policy |
## UNSW’s data governance journey

<table>
<thead>
<tr>
<th>Year</th>
<th>Data Governance Activity</th>
</tr>
</thead>
</table>
| 2019 | • Incorporate Data Governance Framework into UNSW project initiation process  
      • new IT projects adoption  
      • UNSW Strategy Office adoption for new strategic projects  
      • ISMS and Data Classification Implementation (with UNSW IT)  
      • Data Breach Training  
      • Data Quality Program  
      • Data Assessment of HR System (PIMS)  
      • Data Quality reports – HR(PIMS) and Student related data(SiMs)  
      • Data Governance for Performance (with UPP Performance)  
      • Metadata Management Project  
      • Value Creation – Mapping of Data Model elements to Enterprise architecture components e.g. organisations, roles, applications etc.  
      • Inventory of key Data systems  
      • Data Synchronization between business systems  
      • Data Governance for Work Force Planning (with UNSW HR)  
      • Data Mapping and Data Protection Impact Assessments Project |
| 2020 | • Data Governance tool - Info Hub Azure Enterprise data warehouse business rules documentation  
      • Establish data quality working groups  
      • Defence Industry Security Program (DISP) establishment  
      • AI Ethics - Policy and guideline/procedure  
      • Data Strategy Phase 1 – Implementation  
      • Data Strategy Phase 2 - consultation |
| 2021-2 | • Future directions |
Remember:

Data governance is a journey, not a destination
Some handy resources

https://www.datagovernance.unsw.edu.au/
https://data.uq.edu.au/
https://web.stanford.edu/dept/pres-provost/cgi-bin/dg/wordpress/

Thank you

k.carruthers@unsw.edu.au
@kcarruthers