Data Governance Framework

Purpose

This document describes the data governance framework for University of Saskatchewan (U of S) institutional data. It identifies designated roles within the university that have specific decision-making accountabilities regarding institutional data, as well as defines the roles and accountabilities for data stewardship and data management. This framework exists to support the university’s Data Management Policy.

This framework establishes a well-aligned data governance structure by delineating the business and ICT roles, aligning data stewardship accountabilities with the university organizational structure, and facilitating holistic and inclusive data management decision-making. This is achieved through adoption of data governance industry standards in areas such as data classification, data quality dimensions, and data access.

Data Stewardship Organizational Structure

The U of S data governance framework establishes five roles within the data stewardship organizational structure. These five roles each have different roles and responsibilities for decision-making regarding institutional data. The five roles are:

1. Data Trustees – Highest-ranking individuals accountable for what happens with and to data.
2. Data Stewards – Individuals in business units who are responsible for promoting appropriate data use through planning, policy, and protocols at the institution.
3. Data Custodians – Individuals in business units responsible for ensuring that policies are followed within a specific area and that local processes are consistent with university policies and procedures.
4. Data Guardians – Individuals in IT who have operational level responsibility for data management activities related to the creation, storage, maintenance, cataloguing, use, dissemination and disposal of data.
5. End Users – Individuals who access and use institutional data.

The relationship between these roles and their responsibilities as applicable at the U of S are shown in the diagram below and are described in more detail in the following section. Appendix A includes a list of proposed U of S Data Trustees, while appendix B provides data management-related definitions.
Roles and Responsibilities

Data Trustees

The President is the institutional data trustee and is the university authority for institutional data and information. The institutional data trustee is responsible for:

- Ensuring that the university has a data management policy that safeguards and protects the university’s data.
- Making decisions about institutional data in strategic and high-impact situations that could affect the entire university. These could include data decisions that may involve legal precedent, involve ransom of university data, or involve disclosure of information that significantly impacts the reputation of the university.

The Vice-President Finance and Resources is the designated Head for the purposes of section 2(e) of The Local Authority Freedom of Information and Protection of Privacy Act (LAFOIP). The Head has authority for all decisions made on behalf of the University pursuant to this policy and under the Act. The Vice-President Finance and Resources also oversees the management of University Records.
The Provost is the institutional authority for decisions on the management and use of the university’s data pertaining to institutional-level planning, resource allocation, budget frameworks, and the university’s academic programs and academic policy.

The Vice-Presidents, Vice-Provosts, the CIO, Associate Provosts and Associate Vice-Presidents with senior leadership responsibilities for functional areas are data trustees for their data domain areas.

As a group, the data trustees are responsible for:

- Actively participating in the Data Governance Leadership Committee.
- Approving data management policies, guidelines, standards and procedures.
- Approving changes to the scope of functional areas.
- Resolving issues of procedure.

As individuals, data trustees are responsible for appointing data stewards, establishing the data stewardship committee and delegating data stewardship accountabilities in their functional area.

Data Stewards

Senior university officials (typically at the level of directors, deans) in business units who are responsible for promoting appropriate use of data through planning, policy, and protocols at the institution.

As a group, the data stewards are responsible for:

- Actively participating in the Data Stewardship Committees.
- Reviewing quality metrics and assessment of progress toward improvements in data integrity.
- Prioritizing data issues for resolution.
- Defining the scope of business data domains and approving changes.
- Coordinating data definitions and resolving stewardship issues for data elements that span multiple functional areas and/or units.

As individuals, the data stewards also have specific responsibilities and authority for the management, access, use, definition and quality of data that pertains to their functional areas and/or is deemed to be under their purview. These responsibilities include:

- Appointing data custodians and delegate operational stewardship accountabilities.
- Establishing and managing working groups that define data and resolve data quality issues.
- Reviewing and approving data definitions, compliance and access classifications (public, internal, limited and restricted).
- Proposing, reviewing and approving new business terms.
- Approving the use of administrative data for the purposes of research, while ensuring that appropriate agreements about the use of such data are negotiated and documented.
- Approving and ensuring compliance regarding the release of, responsible use of and access to functional unit data.
- Approving the appropriate access of administrative data by vendors and agents, while ensuring that agreements about the use and disclosure of such data are negotiated, documented and
compliant with regulatory requirements and university policies.

Both as individuals and collectively, the data stewards have a responsibility to promote and encourage an institutional view of the data resource and to ensure that its use is in line with institutional policy.

**Data Custodians**

Managers and functional analysts in business units who are responsible for ensuring that data management policies and procedures are followed within their specific business domain.

Both as individuals and collectively as part of a business domain working group, data custodians’ responsibilities include:

- Developing data definitions.
- Assessing and documenting data compliance classifications.
- Classifying data into access categories.
- Reviewing and approving requests for data access.
- Assessing data quality.
- Identifying and documenting data issues and ensuring the issues are addressed.
- Identifying source systems of record.

**Data Guardians**

ICT personnel in networking, applications, platforms, and information security who have operational level responsibility for data management activities related to the creation, storage, maintenance, cataloguing, use, dissemination and disposal of data.

Their responsibilities include:

- Developing data profiles to facilitate data quality assessments.
- Providing training and facilitation on data governance.
- Developing standards for data definitions, compliance, and access.
- Implementing access and security controls based on access classifications.
- Establishing and maintaining an easy-to-use, accessible data dictionary.
- Developing QA process to identify data issues.
- Maintaining the underlying data infrastructure.
- Facilitating and supporting the threat and risk assessment/privacy impact assessment (TRA/PIA) process.

**Data Users**

Individuals who need and use institutional data as part of their assigned duties or in fulfillment of their role at the university.

Data users are responsible for:

- Complying with the institutional data policies outlined in this document and following established procedures promoted by data custodians.
• Understanding the definition, quality and usage limitations of data.
• Safeguarding their data access privileges.

**Data Governance Committees and Working Groups**

In order to support the data governance activities of the university, a three-layered structure of governance bodies exists. These committees and working groups meet on a regular basis to address data issues appropriate for their level of responsibility. Committees and working groups are organized around functional areas and business data domains. They include:

- Data Governance Leadership Committee – Members include the Data Trustees.
- Data Stewardship Committees – Members include Data Stewards.
- Business Data Domain Working Groups – Members include Data Custodians and Data Guardians.

**Stewardship Responsibilities that Span Multiple Functional Areas and/or Units**

Data stewards have stewardship responsibilities for particular elements and/or aspects of institutional data. However, in some cases data stewardship responsibilities for a particular data element span multiple functional areas and/or units resulting in shared interests among many stakeholders. For example, data about faculty has stakeholders in the Human Resources administrative unit, as well as in a dean’s office, and student data becomes alumni data when a student graduates.

Within a business data domain, a particular individual is designated as the data steward responsible for making data stewardship decisions. When data stewardship responsibilities span across other academic or administrative units, that particular data steward must ensure that consideration is given to all stakeholders for that data. This could be accomplished by including these stakeholders in the Data Stewardship Committee and/or as a part of a supporting advisory group.

If there are any data issues that cannot be resolved at the Data Stewardship Committee level, these should be escalated to the Data Governance Leadership Committee.
Appendix A – List of University of Saskatchewan Data Trustees

Data Trustees

The President, Provost, Vice-Presidents, Vice-Provosts, the CIO, Associate Provosts and Associate Vice-Presidents with senior leadership responsibilities for functional areas.

As a group, the data trustees are responsible for:

- Actively participating in the Data Governance Leadership Committee.
- Approving data management policies, guidelines, standards and procedures.
- Approving changes to the scope of functional areas.
- Resolving issues of procedure.

As individuals, data trustees are responsible for appointing data stewards, establishing the data stewardship committees and delegating data stewardship accountabilities in their functional area.

List of Proposed Data Trustees to Support the Revised Data Management Policy

<table>
<thead>
<tr>
<th>Functional Area</th>
<th>Data Description</th>
<th>Trustee Position</th>
<th>Trustee Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Institutional</td>
<td>University data</td>
<td>President</td>
<td>Peter Stoicheff</td>
</tr>
<tr>
<td>Institutional</td>
<td>Freedom of information and protection of privacy matters and Records Management</td>
<td>Vice-President Finance and Resources</td>
<td>Greg Fowler</td>
</tr>
<tr>
<td>Institutional</td>
<td>Data pertaining to institutional-level planning, resource allocation, budget frameworks, and the university’s academic programs and academic policy</td>
<td>Provost</td>
<td>Tony Vannelli</td>
</tr>
<tr>
<td>Student</td>
<td>Student and student services data</td>
<td>Vice-Provost, Teaching, Learning and Student Experience</td>
<td>Patti McDougall</td>
</tr>
<tr>
<td>Student</td>
<td>Administrative data about teaching and learning activities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student</td>
<td>Health and wellness data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Research</td>
<td>Data created or derived from research, scholarly, and artistic activity</td>
<td>Principle Investigator</td>
<td>Various</td>
</tr>
<tr>
<td>Research</td>
<td>Administrative data about research activities</td>
<td>Assistant Vice-President Research</td>
<td>Dena McMartin</td>
</tr>
<tr>
<td>Faculty Relations</td>
<td>Data contained in faculty Curriculum Vitae</td>
<td>Vice-Provost Faculty Relations</td>
<td>Jim Germida</td>
</tr>
<tr>
<td>Employee</td>
<td>Human resources data</td>
<td>Associate Vice-President People &amp; Resources</td>
<td>Cheryl Carver</td>
</tr>
<tr>
<td>Finance</td>
<td>Financial data</td>
<td>Associate Vice-President People &amp; Resources</td>
<td>Cheryl Carver</td>
</tr>
<tr>
<td>Facilities</td>
<td>Data about the university's physical assets</td>
<td>Chief Strategist, Finance and Resources</td>
<td>Janelle Hutchinson</td>
</tr>
<tr>
<td>Services</td>
<td>Data about the university’s operational services</td>
<td>Associate Vice-President Services</td>
<td>Wade Epp</td>
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<td>------------------</td>
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<td>---------------------------</td>
</tr>
<tr>
<td>Advancement</td>
<td>Alumni, donor relations, and communications data</td>
<td>Vice-President University Relations</td>
<td>Debra Pozega-Osburn</td>
</tr>
<tr>
<td>Library</td>
<td>Data about library collections and circulation</td>
<td>Dean, University Library</td>
<td>Melissa Just</td>
</tr>
<tr>
<td>Institutional</td>
<td>Data used to measure and report on institutional planning</td>
<td>Associate Provost, Institutional Planning and Assessment</td>
<td>John Rigby</td>
</tr>
<tr>
<td>Planning</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Master Data</td>
<td>Data pertaining to central identity services that are shared across all functional areas</td>
<td>Associate Vice-President, Information and Communication Technology and Chief Information Officer</td>
<td>Shari Baraniuk</td>
</tr>
</tbody>
</table>
Appendix B – Definitions

- **Institutional data** – Data that is created, collected, and stored by all units and members of the university community, in support of academic and administrative activities. Data about research, scholarly and artistic activity, such as research grants held and publications generated, is considered institutional data.

- **Data stewardship** – Ensuring that institutional data are reliable, consistent and of high quality and that they are accessible for appropriate purposes, people and systems; ensuring that institutional management practices comply with government legislation (e.g. PIPEDA, HIPA) and industry standards (e.g. Payment Card Industry Data Security Standard).

- **Data management** – Encompasses activities that relate to the creation, collection, storage, maintenance, cataloguing, use, dissemination and disposal of institutional data.

- **Data governance** – Establishing and maintaining the processes by which decisions regarding data are made. It includes establishing the data governance framework, approving data processes and resolving disputes concerning data issues.

- **Data classification** – The act of grouping data into categories that are used to facilitate access to institutional data. The categories balance the sensitivity of the data with business need to access the data, while taking into consideration the impact of unintended disclosure of the data.

- **Data quality dimension** – A data quality dimension can be defined as an attribute that can be measured or assessed in order to understand the quality of data.

- **University community** – All students, employees, faculty, postdoctoral fellows, alumni, agents, contractors, authorized guests, persons or organizations acting for or on behalf of the university.

- **Derived data** – Data that is transformed from other data using a mechanism such as an arithmetic formula, composition, or aggregation.

- **Personal data** – Data that contains personal information about an identifiable individual as defined in the Provincial Local Authority Freedom of Information and Protection of Privacy Act (LAFOIPP). This data, if compromised or used inappropriately, would have implications to the privacy of an individual.

- **Third-party data** – Data that is created or owned by a third party and is being used in support of academic, research and administrative activities. This data if compromised or used inappropriately would have implications for the third party. This includes data such as licensed software or software components, and copyrighted material.

- **Research data** – Data that is created by or derived from research, scholarly, and artistic activities.

- **Functional areas** – A major category of data that groups data based on type and administrative use, such as student, employee, and alumni. These can be further divided into business data domains.

- **Business data domains** – A sub category of data that represents a distinct business function within administrative areas.