Proposal for Data Governance Framework at Stony Brook University

Data Governance Framework
At Stony Brook University

Approved Sept 19, 2016, revised Jan.10, 2017

This framework for data governance for PeopleSoft and the Data Warehouse proposes a set of principles, structures, roles, and responsibilities for adoption at Stony Brook University to improve the data infrastructure and to advance institutional goals for operational excellence.

Scope
This data governance framework covers university data housed in PeopleSoft and the Data Warehouse. Governance of ancillary data management systems lies outside the scope of this framework except in instances where data are migrated into PeopleSoft or the Data Warehouse. The scope is extensible to other data assets with approval of the Data Governance Council and notification of the Project 50 Forward Steering Committee.

Values

- **Shared Assets**
  Data and information are shared organizational resources that constitute valuable assets.

- **Stewardship**
  Employees of Stony Brook University have a responsibility for the curation of data. They serve as caretakers of data to ensure data are collected, stored, and maintained under the premise that others will access and use them over time.

- **Quality**
  To ensure data retain value, quality of data is actively monitored and maintained.

- **Privacy and Confidentiality**
  Maintenance of individual privacy and confidentiality of educational and personal records represent not only legal requirements but also primary outcomes of data management.

Principles for Data Governance

- **Organizational Effectiveness**
  Data governance activities improve organizational effectiveness and efficiency of operational processes.

- **Transparency**
  Data governance policies, activities and products exhibit transparency through documentation available to the University community.

- **Communication**
  Data governance promotes and ensures communication so that the data produced are fully understood and can be reproduced with the same results.

- **Compliance**
  Data governance adheres to and enables institutional compliance with applicable statutes, regulations, and policies; including but not limited to areas of security, privacy, and record retention.

Questions/Comments
Please direct questions and comments to task force co-chairs:

- Braden Hosch, AVP for Institutional Research, Planning & Effectiveness
- Kim Berlin, Supervising Systems Engineer, Enterprise Data & Analytics
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**Auditability**
Data governance promotes means to document and verify data and metadata, track changes and justifications for changes.

**Integrity**
Data governance participants practice integrity with their dealings with each other; they are truthful and forthcoming when discussing drivers, constraints, options, and impacts for data-related decisions.

**Accountability**
Data governance defines responsibilities for cross-functional data-related decisions, processes, and controls.

**Standards**
Data governance identifies and supports consistent standards for data elements, dictionaries, metadata, quality, and usages.

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### Structures for Data Governance

#### I. Data Governance Coordinating Bodies

##### a. Data Governance Council (DGC)

i. **Role:** Recommend and implement institutional policy for data governance in PeopleSoft and the Data Warehouse, including for how data are defined, produced, used, stored, and destroyed

ii. **Responsibilities**

1. Develop and follow procedures for internal council operation, officers, meetings, workflow, and voting
2. Develop, recommend and evaluate effectiveness of policies, procedures, and processes for data management, data quality, and data use
3. Elevate to the Project 50 Forward Steering Committee issues of institutional policy or practice that require resolution or additional resources
4. Set priorities for preserving and increasing value of data assets
5. Oversee data quality monitoring and improvement
6. Set standards for data dictionaries and definitions, reporting conventions
7. Coordinate cross-functional collaboration among Functional Data Governance Committees (FDGCs)
8. Ensures representation in FDGCs
9. Ensure compliance and coordination with security policy

iii. **Membership**

1. Chief Institutional Research Officer
2. Analytics and Enterprise Data Officer
3. University Controller
4. Chief Enrollment Management Officer
5. University Registrar
6. Chief Financial Aid Officer
7. Provost’s Office designee
8. VP Student Affairs designee
9. VP Administration designee
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10. VP Human Resources designee
11. VP Information Technology designee
12. VP Research designee
13. SVP Health Sciences Designee
14. University Senate designee
15. Chairs & Vice Chairs of FDGCs (6 people)

iv. Structure
   1. Chair
   2. Vice-Chair
   3. Secretary

b. Functional Data Governance Committees (FDGCs)
i. Role: FDGCs are specialized groups with cross-functional membership that oversee management of data assets in respective functional areas, including data steward coordination, data quality monitoring & improvement, and interfacing between data stewards and DGC

ii. Responsibilities
   1. Coordinate data stewards in related area
   2. Respond to inquiries about process, content, limitations and uses of data, especially in cross-functional settings
   3. Consider and approve changes to code sets, additions to tables
   4. Elevate to DGC issues that require resolution beyond the purview of the FDGC
   5. Review data quality in functional area; identify practices promoting data quality identify areas for improvement and monitor improvements
   6. Ensure dictionary standards are followed in area
   7. Evaluate effectiveness of data governance policies within functional area
   8. Recommend to DGC changes in policies, procedures, and processes to improve effectiveness
   9. Communicate proceedings, including notice of changes and decisions, to DGC.

iii. Areas
   1. Finance
      Purview includes accounting, budget, research, and facilities
   2. Human Resources
      Purview includes faculty information (tenure, accomplishments), staff, postdocs, undergraduate and graduate student employment (including assistantships), all funding sources (state, RF, IDC, etc) and budget.
   3. Student
      Purview includes admissions, enrolled students, student financial aid, student activities, etc.

iv. Membership
   1. All data stewards from area
   2. Institutional research designee

1 Updated Jan. 10, 2017 to replace Director of Enterprise Systems with VP IT designee
3. Enterprise Data & Analytics designee
4. University Information Systems designee

v. Structure
1. Chair
2. Vice-Chair
3. Secretary

II. Roles for individuals

a. Data Stewards
1. Role: Data stewards are the caretakers of groups of data sets directly managed by data caretakers and used more broadly by data users. Data stewards have significant technical expertise in data under their purview.
2. Responsibilities
   a. Maintain inventory of data assets
      i. List of tables, fields, dictionary information
   b. Coordinate data caretakers and implementation of
      i. Data quality assessment
      ii. Data quality maintenance
      iii. Metadata maintenance
   c. Participate actively in FDGC meetings
   d. Maintains data dictionary in consultation with data owners, ensuring each element
      i. Has clear an unambiguous definition
      ii. Has clear value definitions assigned to all values
      iii. Is still being used (oversee removal/retirement of unused elements)
      iv. Has adequate documentation for origin and sources of authority
   e. Has adequate documentation on appropriate usage and notes
   f. Communicate data governance policies, procedures and practices to data owners
   g. Communicate changes adjustments or other local needs to FDGC
   h. May have role in security policy to confer and restrict access to data
3. Membership
   a. Data stewards are identified by the functional leader of an operational unit that manages data
   b. Data stewards have data governance responsibilities as formal components of their performance plan

b. Data Caretakers
1. Role: Directly enters or loads data into systems; corrects or updates values on an ongoing basis
2. Responsibilities
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a. Maintain data to enable effective business practices
b. Remediate data quality issues of data under purview
c. Communicates remediation plans and outcomes to Data Steward

3. Membership
   a. Any individual who has write-access to enter or maintain data is a data caretaker

c. Data Users
   1. Role: individuals who use and analyze institutional data as part of their assigned duties and role at the university.
   2. Responsibilities:
      a. Recognize that institutional data and information derived from it are potentially complex. Make efforts to understand the source, meaning and proper use of the data through training sessions, utilizing data dictionaries and knowledge of supporting system processes.
      b. Include information about the data source and criteria when distributing data, reports and ad hoc analytics to guard against misinterpretations of data. (see Report Standards in Communication and Training)
      c. Respect the privacy of individuals whose records they may access. Unauthorized disclosure or misuse of institutional information stored on any device is prohibited (DoIT Policy-D101).
      d. Ensure that passwords or other security mechanisms are used for sensitive data that need to be stored or delivered electronically
      e. Report data quality issues to appropriate data steward
Roles and Responsibilities Matrix

<table>
<thead>
<tr>
<th>Standards and Policies</th>
<th>Data Governance Council</th>
<th>Functional Data Governance Committee</th>
<th>Data Stewards</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Data Quality</strong></td>
<td>Define, Establish, Monitors, Audit, Verify, Develop, Revise</td>
<td>Cross functional implementation, coordination</td>
<td>Functional implementation</td>
</tr>
<tr>
<td><strong>Metadata</strong></td>
<td>Establish standards for metadata format-enterprise-wide</td>
<td>Ensure cross-functional alignment among metadata</td>
<td>Implement standards to ensure all meta-data are collected/accurate</td>
</tr>
<tr>
<td><strong>Metrics</strong></td>
<td>Reviewing metrics, Identify metrics for monitoring</td>
<td>Monitoring, Identify priority areas based on metrics</td>
<td>Monitoring, take action based on metrics (clean up)</td>
</tr>
</tbody>
</table>

Changes and Amendments

This policy shall be amended by a vote of 50% plus one of all members of the Data Governance Council and notification to the Project 50 Forward Steering Committee. Changes go into effect after 60 calendar days of this notification, unless the Steering Committee rejects the amendments. Amendment and notification is required for extension of scope to additional data assets; changes to membership; etc.

References

DoIT Policy-D101. https://it.stonybrook.edu/policies/d101