

PRACTICAL DATA GOVERNANCE IN HIGHER EDUCATION

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LEARNING OUTCOME

After participating...

You will be able to build a practical and substantive data governance program at your institution.



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 **Agenda**

- Establishing a Data Governance Framework at Your Institution
 - Identifying drivers for data governance
 - Crafting a framework
 - Identifying stakeholders
 - Strategic direction vs. tactical & practical needs
 - Avoiding common pitfalls
- Launching and Managing Data Governance
 - Establishing a culture of collaboration
 - Obtaining a data governance information system
 - Collaborating effectively with vendors
 - Crafting data definitions and other DG deliverables

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 **POLL**

Who is in the room with us?

Which best describes your institution?

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ESTABLISHING A DATA GOVERNANCE FRAMEWORK AT YOUR INSTITUTION



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■ What is Data Governance?

- Purpose-driven
- Recognizes data as an Asset + Liability
- Defines roles & responsibilities & accountability for data
 - Ownership
 - Data Stewardship
- Provides guidelines for
 - Identifying what data exists / needs to exist
 - Data classification
 - Data meaning
 - Granting access & use (authorization, privacy, security)
 - Collection - Handling - Processing - Archive - Retention



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What is Data Governance?

rig·or²
/'rɪɡər/ ⓘ
noun
noun: rigor

the quality of being extremely thorough, exhaustive, or accurate.
"his analysis is lacking in rigor"
synonyms: meticulousness, thoroughness, carefulness, attention to detail, diligence, scrupulousness, exactness, exactitude, precision, accuracy, correctness, strictness, punctiliousness, conscientiousness, archaic nicety
"a speech noted for its intellectual rigor"

antonyms: carelessness

- severity or strictness.
"the full rigor of the law"
synonyms: strictness, severity, sternness, stringency, austerity, toughness, hardness, harshness, rigidity, inflexibility; **More**
- demanding, difficult, or extreme conditions.
plural noun: rigors, plural noun: rigours
"the rigors of a harsh winter"
synonyms: hardship, harshness, severity, adversity, suffering, privation, ordeal, misery, distress, trial; **More**

antonyms: pleasures

rig·or¹
/'rɪɡər/ ⓘ
noun **MEDICINE**
noun: rigor, plural noun: rigors
a sudden feeling of cold with shivering and sweating, especially at the onset of typhoid fever
• short for rigor mortis.

Origin

LATIN → rigor → late Middle English
LATIN → rigere → stress → late Middle English

late Middle English: from Latin rigere 'be stiff', stress

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Why do Data Governance?

Benefits

- Correct understanding & use of data
- Clear responsibilities
- Immediacy
- Confidence
- Accurate reporting
- Capacity for BI/Analytics
- Competitive Advantage

Risk Management

- Operational uncertainty
 - Duplicative data
 - Variations of truth
- Security
- Privacy
- Audit
- Compliance
 - Statutory
 - Regulatory
 - Industry

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Simple Data Governance

DoOT Professional Development Request

- Agreement what to collect
- Structuring data
- Enable filter/sort of results
- Feed data to needed workflows
- Enable rapid insights
- See the forest and trees



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Standardizing Simple Requests

PD & Travel Request FY2020 DoIT

With rare exception, DoIT employees should seek to keep current their skills, abilities, and knowledge through purposeful, structured, and timely professional development. Please enter your requests for management consideration, which will result in approval, postponement, or denial.

- USC's formal travel procedure, including limitations, can be viewed at https://sc.edu/about/offices_and_divisions/controller/documents/procedure_fina100.pdf
- All requests entered must be reasonable and within boundaries of this policy.
- Additional actions will be required for requests that are approved; this form does NOT replace formal Travel Authorization or Reimbursement processes; do not initiate any travel unless/until approved.

* Required

1. Network Username *

If entering on behalf of a vacant position, enter your username here and enter Vacant for Last Name and First Name

2. Last Name *



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Standardizing Simple Requests

5. Request is for *

- Certification or Licensure
- Conference or Symposium (may include travel)
- Group/Unit Training (bring trainer on-site)
- Professional Membership - Individual
- Professional Membership - Org Unit/Institutional
- Site Visit (to institution, vendor, etc.)
- Training - Local or Online
- Training - Requires Travel
- USC System Travel (other campus)
- Other

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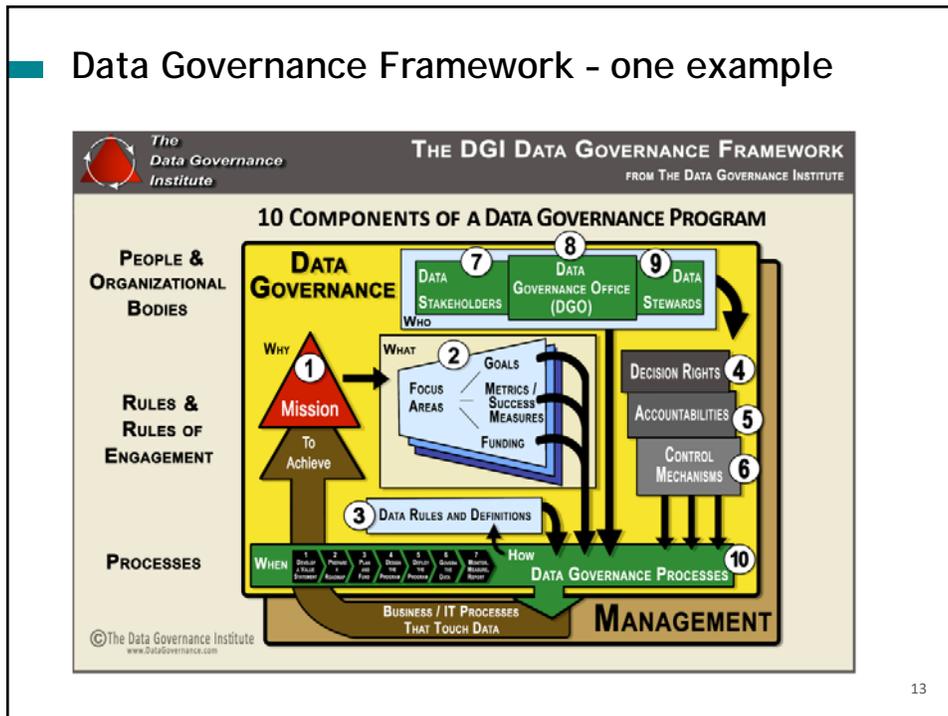
Framework: Contents of a DG Program

University of South Carolina	University of Wisconsin Madison	University of Notre Dame
Data Stewardship	Policies & Standards	Access to Data
Data Standards	Information Quality	Quality & Consistency
Data Quality & Integrity Assurance	Privacy, Compliance, & Security	Policies & Standards
Business Intelligence & Analytics	Architecture & Integration	Security & Privacy
		Compliance
		Retention & Archiving
		Technology

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Data Governance Framework - one example



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Sobriety Checks

- Data Governance won't just happen
- It's rarely effective if organic /grass roots
- It requires
 - recognition of problems
 - clarity on what you're trying to accomplish
 - will power
 - authority / authorization / endorsement
 - strong, focused leadership
 - resources - human & operational system
 - culture change
 - persistence

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■ Identifying Stakeholders

- Executive (~ Cabinet-level)
- Upper Management (AVP-AVC)
- Org Unit Management*
 - Director
 - Program Manager
 - Data Guru
- Frontline Office Personnel
 - Functional / Operational
 - Custodial
- Data Consumers
 - Public
 - Outside entities
 - Users

x RACI

- **R**esponsible
- **A**ccountable
- **C**onsulted
- **I**nformed



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■ Org Unit Managers - aka - *Data Stewards*

- Perhaps the most important stakeholders in DG
- Closest to the data*
- Deciders/directors for an area / function (“silo”)
- Must collaborate for the good of institution (“un-silo”)
 - Data flows - systems integrations, feeds, interfaces
 - Data standards - meaning - consistency - timeliness
 - integrity - accuracy - currency - completeness
 - Data quality - conformance & remediation to standards
 - Operational reporting



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Strategic Direction | | Tactical & Practical Needs

Strategic	Tactical & Practical
Improve reliability and accuracy of our data for operations	<ul style="list-style-type: none"> • Clarify data meaning • Establish data standards • Data quality initiatives • Business process improvement
Privacy & Security	<ul style="list-style-type: none"> • Access to data • Data Classification • Diligent data stewardship
Reporting accuracy & timeliness <ul style="list-style-type: none"> • Operational • Mandatory 	<ul style="list-style-type: none"> • Validation & certification • Discovery & availability of reports • Clarity of meaning
Business Intelligence & Analytics <ul style="list-style-type: none"> • Improve efficiencies • Gain insights • Competitive advantage 	<ul style="list-style-type: none"> • Identifying opportunities • Selecting priorities (governance) • Human talent • Tech Stack, tools & capabilities

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Avoiding Common Pitfalls

1. Discovering the wheel
2. Believing you're oh-so-terribly-unique
3. Making do in a pinch
4. Neglecting culture
5. Staying grass roots too long
6. Failing to acknowledge the mundane
7. Staying too lofty for too long - aspirations, theoretical
8. Denying need for resources
9. Overlooking external resources
10. Crafting the onerous & burdensome
11. Giving up



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? QUESTIONS

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LAUNCHING AND MANAGING DATA
GOVERNANCE

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POLL

Human resources:

How many full-time positions are dedicated to your institutional DG effort?



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Culture of Collaboration

- “Governance” is key to collaboration
 - Participatory decision-making
 - Decision rights - scope, topics, roles,
 - Priorities - in/out, sequence
 - Resource allocation
 - Operational decisions
 - collaborative vs. reasonably silo’d



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■ Collaboration Culture Personalities



The illustration shows three stylized human figures in gold, seated around a white curved table. Above each figure is a blue icon: a hand with radiating lines, a scale of justice, and a robot with a heart rate monitor line.

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■ Putting Collaboration Culture to Work

Substantive issues that give life & meaning to collaboration

1. Mandatory reports
2. Dashboard requests
3. DGPR
4. Security incident
5. Failure
6. Systems integration

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RESOURCE

Data Governance Playbook



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■ **Obtaining a Data Governance Information System**

Hindsight's bottom line:

- Every other significant functional endeavor needs an information system to accomplish work effectively and efficiently
- So, too, does data governance

- Addresses the **Strategic / Tactical / Practical**

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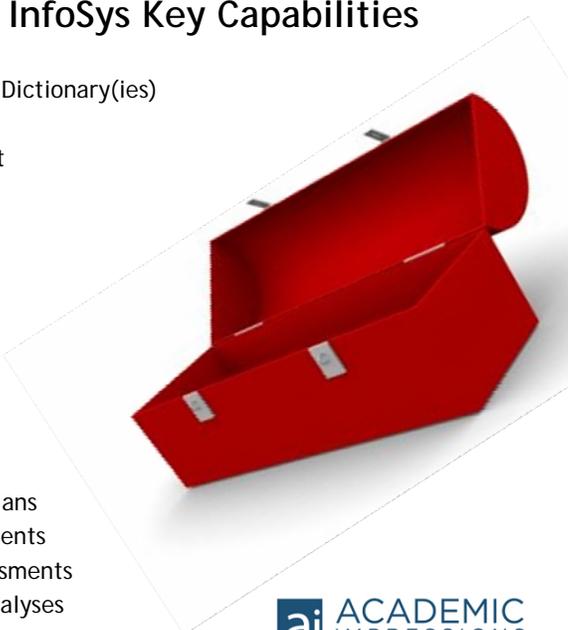
Avoiding Common Pitfalls



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■ Data Governance InfoSys Key Capabilities

- Data definitions → Data Dictionary(ies)
- Data classification
- Data steward assignment
- Workflows
- Collaboration
- Data discovery
- Data lineage
- Change impact analysis
- Data profiling
- Report certification
- Request for definition
- Repository for . . .
 - Data management plans
 - Data Sharing Agreements
 - Privacy Impact Assessments
 - Privacy Threshold Analyses



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■ Marketplace for Data Governance InfoSys

- Collibra
- Data Cookbook by iData
- Datum
- Global IDs
- IBM Infosphere
- Informatica
- SAP

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POLL

Your Best Guess:

What's a typical annual cost range for a data governance information system?



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Lessons Learned with DGIS Vendors

- Familiarize with higher education industry
 - Understand our unique requirements
- Cost sensitivity
 - Flat rate pricing vs. role/seat license models
- Resource requirements
 - Functional administration
 - Technical admin & hosting
- Maintain an active relationship
- Drive product development to suit your needs
 - Be a voice for your stakeholders' concerns & goals
 - Roadmap
 - Custom development **caution*



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■ Data Cookbook by iData

- Industry focus: higher education
- Community of member institutions
- IPEDS definitions
- Product works
- Open pricing
- Affordable
- Three versions w/ varying features
- Responsive to customer issues and ideas



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■ Data Governance Deliverables

Deliverable	Demonstrates . . .
Data Definitions & Data Dictionary(ies)	<i>Self-serve data knowledge</i>
Data Sharing Agreements	<i>Rigor</i> <ul style="list-style-type: none"> • <i>to whom do you give what data</i> • <i>why are you giving it</i> • <i>accurate integrations & data feeds</i> • <i>periodic review / renewal</i>
Data Systems Inventory	<i>Supports data discovery, security & privacy</i>
Data Quality Metrics	<i>Proactive improvement</i> <i>Expedites reporting & increases confidence</i>
Analytics & Business Intelligence	<i>Capabilities for innovation & improvement</i>

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TAKEAWAYS

- “Practical” data governance
- Don’t try to wing it - get a system for DG
- Don’t attempt it without resources
- Demonstrate real, tangible benefits - early on
- Emphasize participatory decision-making & culture of collaboration

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QUESTIONS

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EVALUATION

Thank you!

Please remember to complete the event evaluation.
Your comments will help us continually improve the
quality of our programs.

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