Data Administration Roadmap

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What do we want from you?

• Adjust and validate the Vision and Goals

• Guidance on formulating Practices and Principles

• Help encourage the focus on Data in ways that build sustainable processes
What problem are we trying to solve?

• Want to make better use of our information
  – Make sure it’s designed and available to support decision making quickly and intuitively

• Improve our Data Management practices
  – Requirements should include how we plan to use and report on information
Themes from the Task Force Report

- “The Education Working group spent considerable time attempting to construct a cost model for undergraduate education...The group suggests that if such metrics and costs are identified, some degree of transparency of this information may be important to potentially drive behaviors towards the common best interest of the Institute.”

- “The Research Working Group suggests that a clearer understanding of the cost of conducting research would help investigators consider means to achieve greater efficiencies.”

- “The Space Working Group constructed its own models and believes the community would benefit by understanding the cost of space and space renovations....Making metrics and utilization broadly publicized would possibly lead to more appropriate use of space”
Data is viewed from different perspectives

- Institutional
- School
- External
  - Sponsors
  - Agencies
- Departmental
- Functional
  - Payroll
  - Procurement
- Historical

Data
History & Background

• Original Goals & Principles 1995-1996
  – Make data available
  – Accuracy will improve as we access and use it
  – All data can be accessed the same way

• Status
  – Most Data is in the Warehouse
    • ~2 Billion records
  – Nightly feeds from Systems of Record
  – Many users use information routinely, but...
    • Find it hard to understand data
    • Find the current reporting tool cumbersome
Types of Information by Business Area

Student
- Degrees
- Online Subject Evaluation
- Who Teaches What
- Enrollment & Grades
- Student Activities
- Admissions
- External Tests
- Courses, Subjects & Sections
- Financial Aid
- UROP
- Graduate Awards

Finance
- Budget
- Payroll
- Accounts & Balances
- Procurement

Research
- Grants
- EHS

Facilities
- Space
- Keys
- Work Orders
- Property
- Employment
- Academic Chairs
- Employees
- Vacations & Absences

HR
- Training
- Positions
- Appointments
- Payroll
- Benefits

Utility
- Telephone
- Lists
- Authorizations
- Web Hits
- RT

Library

Note: Not Research Data or Documents
Where are we going?

Knowledge

Model and Simulation
Supporting Strategic Decisions
What if...?

Information

Reports
How are we doing?

Data

What was the date of the PO?

Strategic
Operational
Transactionable

10/29/10
• MIT spends more time making use of data than collecting, correcting and managing it

• Using information is natural and intuitive

• All systems have automated reconciliation and integrity checking processes

• All information to support important decisions is easily obtained
• We understand and document why we’re collecting information, how it will be used, and how it will be maintained before deciding to build.

• All data is considered sharable unless there is a documented business policy or government regulation.

• MIT Community has a shared understanding of the Roles and Responsibilities concerning data.
Good Data Management involves everyone and requires changes in how we work.
Goals & Principles

• Data should be Complete, Accurate and Timely
• People can easily get the information needed to do their job
• People understand the information they need to use
• Information is easy to update
• Information is only entered once
• Information and Reporting requirements are understood as systems are designed
• Enterprise data should have a Business Owner identified who is responsible for its’ quality
Improving Understanding of Data

• Simpler more Focused Views of Information

• Better Definitions and Documentation

• Pilot new Tool
  • Including process for developing specialized views
Improving our Development

- Focus with the Business on up front design
  - Conceptual Data Model
  - Business Process Models
  - Reporting Requirements
- Meta-Data documentation
- Document Reconciliation Processes
- Start with IS&T Projects
Define Data Practices

1. Publish Principles & Guidelines for Data Management
2. Establish processes for Data Issue Resolution and Prioritization
3. Gain consensus and document Roles & Responsibilities concerning Data
4. Develop a method to monitor progress
Improving Understanding of Data

Pilot Reporting Tool

Gain Consensus On Vision & Goals

Define and Publish Principles & Guidelines for Data Management

Define & Apply Development Practices

Now
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