Data Governance and Business Intelligence: A Tale of Two Schools

2016 AIR Forum
New Orleans, LA
June 1, 2016
3:00 p.m. – 4:00 p.m.

Embry-Riddle Aeronautical University
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Florida Institute of Technology
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Dominic Lombardi – Manager of Data Systems
Business Intelligence and Data Governance Challenges

Florida Tech
• Underutilized BI infrastructure
• Departments maintain separate databases
• Different definitions for the same thing
• Leadership asks same question gets different answers
• Anecdotal decision making

Embry-Riddle
• Three campuses
• Differing leadership across campuses
• Different definitions for the same thing
• Differing goals across campuses
• Multiple people playing the same role
• Timelines
• Time Zones
Business Intelligence and Data Governance Challenges

Florida Tech

- Underutilized BI infrastructure
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- Different definitions for the same thing
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Embry-Riddle

- Three campuses
- Differing leadership across campuses
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- Time Zones
Business Intelligence and Data Governance Goals

• “One source of the truth”
  ▪ Data Cookbook
  ▪ Dashboards

• Consistent data and process definitions

• Better understanding of business processes

• Provide a structure for data decisions to be made

• Map all sources of University data
Evolution of Business Intelligence at Embry-Riddle
Current State of Business Intelligence at Embry-Riddle
Current State of Business Intelligence at Florida Tech

Banner® by Ellucian

Banner Operational Store

Banner Operational Data Store

IBM Cognos

Excel

Tableau

Florida Institute of Technology 1958
Catalysts for Change

• Numerous shifts in executive mindset (and executives)
• Need for data to be easily accessible (dashboards)
• Need for a consistent data language
• Defining roles and responsibilities of data governance
Business Intelligence and Data Governance Initiatives

Florida Tech

Data Governance Structure
• IR led initiative
• Establish data governance framework
• Work in progress

Data Cookbook
• All areas with data ownership in Banner simultaneously work on definitions

Embry-Riddle

Data Governance Structure
• Joint IR/IT initiative
• Identify the current status of data governance
• Document informal data governance practices
• Work in progress

Data Cookbook
• Admissions
• Registrar (in progress)
• Development
Business Intelligence and Data Governance Initiatives

Florida Tech Data Governance Implementation

1. Buy in from senior management (our VP)

2. Buy in from university community

3. Established Quality Assurance Steering Committee (QASC)

4. Purchased the Data Cookbook from IData
Business Intelligence and Data Governance Initiatives

OBIEE

• Shifted thought process from relational to dimensional
• Creation of metadata for reports defined in the Data Cookbook
• Ad Hoc Reporting
• Dashboards
  • Admissions, Worldwide Leadership, Philanthropy
  • In progress: Residential Records and Registration, University Executive
  • Future: Faculty Workload, College Dashboards

Campus Community

• Established as a resource to implement PeopleSoft
• Contains representatives from most data centers on campus
• Meets monthly
Florida Tech Lessons Learned

Positive outcomes

• All administrative departments on board with DG process
• Increased buy-in and willingness to tackle the hard issues
• Departments think before they change data related policies and procedures
• Systems diagram created

Ongoing issues

• Business Intelligence still in an immature state
• Need to build stronger ties with IT
• IR leading DG initiative can be derailed by other office obligations
• Slow ongoing reorganization of University
Next steps for Florida Tech

• Data cleanup once definitions are firmly established
• Expand QA effort to other data systems and departments
• Get data clean enough to increase user confidence in BI tools
• Need better outreach to the entire university to broadcast where QA effort is and where it wants to go
• Lay groundwork for buy-in from users who will need to be included in the future
• Create and monitor departmental data audit plans
Embry-Riddle Lessons Learned

Things we would have done differently
• Had a better idea of the data preparation that needed to take place
• Been more responsive to staffing changes
• Provide formal training on BI tools
• Established a BI Steering Committee in the initial stages of our work
• Established consistent business processes
• Established sunset dates

Things that made/make us happy
• Strong demand for business intelligence and data governance
• University-wide buy in
• Utilization of the current dashboards
• Desire for a common data language
• More efficient reporting
Demonstration
Data Cookbook: Providing Common Data Definitions
Executive Enrollment Management Dashboard

Daytona Beach: Undergraduate - Fall

**Applied**
- 2015: 3,853, 3,849, 4,202
- 2014: 3,853, 3,849, 4,202
- 2013: 3,853, 3,849, 4,202

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<tr>
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<th>Applied %</th>
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**Admitted**
- 2015: 2,800, 2,774, 2,894
- 2014: 2,800, 2,774, 2,894
- 2013: 2,800, 2,774, 2,894

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<tr>
<td>Readmit</td>
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Admissions Operational Dashboard
Admissions Operational Dashboard

This Report uses the Prompts Tab for filtering

Data as of Close of Business:
4/19/2015

Please select from the following:
- College
- Major

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Worldwide Executive Dashboard

Worldwide Dashboard

REGISTRATIONS

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LIFE CYCLE STAGES

OBIEE and Tableau Criteria Differences:
- Applied:
  - OBIEE excludes applications submitted in error.
  - Tableau includes applications submitted in error.
- New Student:
  - OBIEE separates New & Returning Students.
  - Tableau combines New & Returning Students.

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<td>Applied</td>
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<td>Student - New</td>
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<tr>
<td>Student - Returning</td>
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<td>15,516</td>
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</table>

Data as of Close of Business: 4/19/2015
Questions
Contact us

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