Creating a Campus-Wide Reporting Environment at UMBC

Kevin Joseph
Assistant Director Division of Information Technology

Yvette Mozie-Ross
Associate Provost for Enrollment Management

Michael Dillon
Associate Vice-Provost of Institutional Research
Diagram One

Distinguishing decision making, analysis & data

**Analyst**

**The World (Data)**

**Decision Maker**
Diagram Two:
The Fully Employed Analyst

Analyst

Questions

Answers

The World
(Data)

Decision Maker

Questions

Answers
Diagram Three

The Frustrated Analyst

Analyst

Questions
Answers

The World (Data)

Clean Source

Data Cleaning

Decision Maker
Diagram Four
The Really Frustrated Analyst

Analyst

Decision Maker

Error Checking

Questions
Answers

The World (Data)
Clean World
Frozen/Live Data
Conversion

Data Cleaning
Clean Clone
Cloned World

Questions
Answers

Answers
Diagram Five
Data Warehouse

CUBES

Dimensional Model
One Table per Unit of Analysis (Grain)

Business Intelligence (BI)
Diagram Six

The Lazy Analyst

Analyst

The World (Data)

Data Cleaning

Clean Source

Questions

Data Warehouse

Decision Maker

Questions

Answers

Answers
Diagram Seven
Optimizing Analysis

The World (Data)

Why Questions

Data Governance

Error Checking

Clean Source

Answers

Questions

Question

Answers

Data Warehouse

Analytic Tools

Facilitate

Add Functionality, Including

Append

Decision Maker

Analyst

Questions

Answers
Short History of REX (Report Exchange)

• UMBC purchased a data warehouse product from a small local company, iStrategy, in 2006.

• The product loads data from People Soft Student Administration (PSSA) into a set of Microsoft tables designed to facilitate reporting (came with many delivered reports)
Short History of REX (Report Exchange)

• *Problem*, we did not go live with PSSA till 2009.

• *Solution*, Kevin Joseph converted critical legacy data into a “virtual” People Soft database, thereby getting the warehouse and its reporting tool to work.
Short History of REX (Report Exchange)

Advantages

• It freed up Ralph Caretti, an analyst working for Yvette, to concentrate on the “real” conversion from legacy to PSSA.

• It allowed Yvette and others to explore the data themselves, providing buy-in to the concept of using the warehouse for reporting by campus stakeholders (including the very top) before we went live with PSSA.
Short History of REX (Report Exchange)

Advantages (cont)

• Saved money on hiring consultants to build reports directly from PSSA.

• Provided subject matter expertise on the design of both PSSA and the warehouse.
Short History of REX (Report Exchange)

For its part, IR committed to two things:

• To get official reporting directly from the warehouse, as opposed to extracts from the warehouse.

• Converting 15 years of frozen files into the warehouse, thereby allowing for longitudinal analysis to come directly from it.
Data Management Committee
Meets twice a year to review progress made by various teams and solicit feedback on specific issues and prioritizations.

- **Data Warehouse Team**
  - Assigns REX tickets, manages changes to warehouse & reporting envir.
  - Proposed Convener: OIR

- **REX User Group**
  - Informal meeting to discuss users needs and specific reports. Could be used to discuss training options.
  - Proposed Convener: OIT (DW side)

- **Data Quality Team**
  - Comprised of data managers from various functional offices to develop and monitor data integrity processes.
  - Proposed Convener: OIR

- **Data Access & Security Team**
  - Manages access to and security levels in PS and REX, including confidentiality issues.
  - Proposed Convener: OIT (SA side)

- **Setup Tables Team**
  - Manages changes to plans and subjects as well as the rollups to orgs, colleges, etc.
  - Proposed Convener: Registrar

- **Training Team**
  - Manages training material for both SA and REX.
  - Proposed Convener: OIT