IR’s role in creating a campus-wide reporting solution using data warehousing technology
Questions to Gauge Audiences’ Familiarity with Data Warehousing

Yes, No, or Maybe

- *Fact tables versus dimension tables*
- *Fact tables versus perspectives*
- *Nominal, ordinal and interval variables*
- *Grain versus unit of analysis*
- *Data cubes*
Theoretical Model of Data Warehousing

From an Analyst Perspective
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)

Questions

Answers

Decision Maker
Diagram Three

The Frustrated Analyst

 Analyst

Questions

Answers

Error Checking

The World (Data)

Clean Source

Data Cleaning

Decision Maker

Questions

Answers
Diagram Four
The Really Frustrated Analyst

Analyst

Questions → Answers → Questions → Answers

Error Checking

The World (Data)

Data Cleaning

Clean World

Clean Clone

Frozen/Live Data

Conversion

Decision Maker

Cloned World
Diagram Five
Report Exchange (REX)

OLAP - *ProClarity*
On-Line Analytic Processing
(Delivery System)

Data Storage - *iStrategy*
One Table per Unit of Analysis
(Grain)
Diagram Six
The Lazy Analyst

Analyst

The World (Data)

Data Cleaning

Clean Source

Questions

Answers

Error Checking

Questions

Answers

Data Warehouse

Decision Maker

Questions

Answers
Diagram Seven

Optimizing Analysis

Analyst

Add Functionality, Including Analytic Tools

Facilitate

Why Questions

DMC

The World (Data)

Clean Source

Questions

Answers

Decision Maker

Questions

Answers

Manages Error Checking

Data Warehouse
Implications for Future Analysis

- Incorporating Multivariate Statistics
  - First-Year Experiences

- Utilizing Peer Analysis
  - Course Redesigns

- Broadening Decision-Making
  - First-year invention and Blackboard usage

- Linking Planning and Budgeting
  - Growth of Applied Master’s Programs

- Simulating Policy Initiatives
  - Evaluating yield enhancement strategies
iStrategy Delivered “Fact” Tables

- Applications
- Class Instruction
- Class Schedule
- Course Attributes
- Degree Awards
- Recruitment Attributes

- Registration
- Service Indicators
- Student Financial Items
- Student Groups
- Student Plan
- Student Term
Star Schema
Differentiating Facts (Measures) From Dimensions

- Nominal (dimension tables)
- Ordinal (Fact)
- Interval (Fact)
- Dummy (Either)
• **Pros**
  – Easy to get started
  – Easy to get under the hood & you will need that
  – Microsoft product (versatile)

• **Cons**
  – Built with older version of SQL server
  – Pro-Clarity
  – No slowly changing dimensions
  – Too little consultation with IR
• Getting IT/IR/EM cooperation
• Data Management Council
• Access
• Security
• Database administration
• Report Generation
• Training/Documentation
Conclusion

• Resources
  – HEDW
  – Each Other
  – Me
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