



# The Changing Face of IR: How a New Student Record System Changed Our Role and How We Changed with It

*AIR 2007 Session ID #640*

*June 6, 2007*

*Kansas City, Missouri*



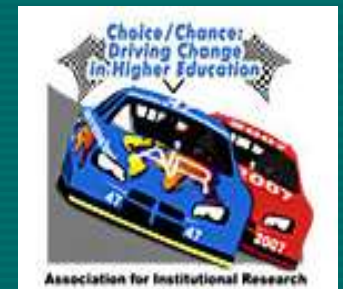
# Today's Presenters

Kat Collison, Senior Research Analyst, Institutional  
Research and Planning, University of Delaware

Karen DeMonte, Senior Research Analyst, Institutional  
Research and Planning, University of Delaware

Dale Trusheim, Associate Director, Institutional  
Research and Planning, University of Delaware

*Almost 50 years of combined University experience*



# University of Delaware



Located in suburban Newark,  
Delaware midway between  
Philadelphia and Baltimore

Origins back to 1743, was  
chartered in 1833

- Public, State Assisted University
- Doctoral Research Extensive University
- 22,000 Undergraduate Applicants
- 17,000 Undergraduates
- 3,500 Graduates
- 126 undergraduate degree programs
- 82 master's programs
- 39 doctoral programs
- 4,000 Full and Part-time Employees
- Total FY06 Operating Expenses and Transfers – \$617.2 Million

# Synopsis of Presentation

- History of Reporting at the University of Delaware
- Implementation plan for PeopleSoft Reporting
- Creation of UD Data Warehouse
- Role of Institutional Research in UD Reporting
- Transformation of Institutional Research

# Welcome to the New Millennium

2000 – Live with PeopleSoft Human Resources 7.5

2003 – Live with PeopleSoft Finance 8.0

2004 – Began PeopleSoft Student Administration 8.9

Phased Roll Out of SA 8.9 Modules:

Admissions Module first go-live August, 2005

Followed by Financial Aid and Student Finance

And Fall 2006, Student Records went live (mostly)

# Remember the Good 'ol Days of Legacy Reporting?

- Production reports developed by IT
- Users easily produced reports
- Included data from several sources
  - Human Resources
  - Finance
  - Student Records
  - Development, etc.



How can I help you?

# Reporting in PeopleSoft HR and Financials Was a Challenge

- PSQuery – *Heavily Used on Campus, but...*
  - Too many tables to join
  - Report formatting was limited
  - Outer Joins were difficult to program
  - System was slow
- Limited support from Information Technology
  - “IT out of reporting business”
- Could not report across systems

# UD Plan to Implement Student Administration Reporting

- Functional teams were established by management to comprise all areas vital to the implementation of PeopleSoft SA (UDSIS).
- The Reporting Team was made up of key individuals with reporting responsibilities from each major functional area:
  - Institutional Research & Planning – Team Lead
  - Functional team representatives
  - IT-Management Information Services
- Uncertain future of PS Query



# PeopleSoft Reporting – Now What?

- PSQuery
- N-Vision
- Crystal
- Excel, Access, SPSS

How should I  
run this  
report?



*At times, all of the above...*  
*Other times, none of the above*

# How do we Resolve Reporting Needs on Campus?

- A Committee was formed to select a reporting system which will be used at UD with the enterprise systems - HR, Financials, Student Records, etc.
- Criteria for evaluating packages:
  - Web-based deployment
  - Easy to use
  - Have more functionality than what was currently available with PSQuery
  - Share Reports via email and the web
  - Use existing data security in applications
  - Give users the ability to write and deploy their own reports
  - Download reports to excel and access.
- The selected vendors provided demos and then committee members followed up with other schools for their recommendations. Cognos BI Tools was purchased in 2003.

# Solution, Part 1: Cognos

- Framework Manager
- Cognos Connection
  - Query Studio
  - Report Studio
- Training documents on-line

Hey, we can  
do this!



# BUT...

Cognos prefers  
Dimensional Data structures



PeopleSoft is a  
Transactional Database



# Solution, Part 2: A Data Warehouse

- IR took the lead - we live on data!
  - Proposed the implementation of a data warehouse
- We wanted outside experts
  - Did not have expertise on campus
  - No time; No resources
- We did not want an out of the box solution
  - Wanted customization
  - Ability to grow and expand
  - Ownership



# Partnership with Phytorion, Inc.

- Expertise and experience
- Time savings
- New business requirements will drive needs
- Won't bog down production
- Generate data from the same source
- Speed of processing
- Simplify reporting

# Unlike Others, Phytorion Offered...

- Expertise and experience
- Time savings
- Data consolidation
- Processing speed
- Reporting sophistication
- Knowledge of Cognos
- Knowledge transfer
- Ability to decipher our business requirements



# IR Proposal

- Data Delivery Team
  - IR primary data users, data analysts and data presenters
- Primary source of UD reporting needs
  - Reporting moved out of traditional location in IT
- Partnership with IT and Phytorion, Inc
- Design and manage UD Data Warehouse



# Why IR?

- We collect data
- We analyze, distribute, and present data
- We assist in planning, decision-making, and policy formulation based on data
- We ensure the accuracy of vital University statistics
- We respond to diverse requests for data
- We assist other units with research and assessment

*We Have a Vested Interest in Reporting*

# New Challenges

- Learn new data architecture
- Learn Dimensional Modeling Schemas
- Learn new ETL build tool
- Confidence that we are reporting the **correct** 'single version of the truth' to campus
- Teaching 'old dogs new tricks'
  - Data Definitions
  - Dimensional Structures
  - Reporting Tools
- And make it easy for our users



# Is IR Technical or Functional?

## Neither and Both...

# Technofunc

Definition: Technical Expertise with Functional Knowledge.

# Build Relationships

## Institutional Research

- Functional Unit Liaison
- Built and tested packages
- Wrote reports in Cognos
- Verified output

## Information Technology

- Software and hardware needs
- Database copies
- ETL load time
- Technical support



## Phytorion

- Business requirements
- Star schemas
- Developed ETL code
- Trained technical DBA's

*Success = Team Work*

# Institutional Research's Role

- Institutional Research built and tested packages in Data Warehouse
- Wrote reports in Cognos Connection
- Verified output by comparing data from DWH with data from PSQuery using Excel and Access

# Information Technology's Role

- Configure software and hardware requirements
- Create copy of production data
- Technical support of Cognos tools
- Work with Network System Services

# Phytorion's Role

- Gathered business requirements
- Delivered Fact and Dimension tables
- Developed ETL code and trained UD's  
Technical DBA's on use of Data Manager
- What makes Phytorion unique?
  - Surrogate Identifiers (SID) for creating star schemas
  - Valid to and from dates for effective dating
  - Count fields
  - Derived fields based on user specifications

# Additional IR Staffing Requirements

- Massive Undertaking
  - Creation, maintenance and expansion
- Over 100% time commitment for two SR IR Analysts
  - Hired one IR Analyst
- Assumed many functions performed by IT
  - Programmers
  - Data Administrators
  - Trainers
  - End-user support



# Proposed Data Delivery Team

- Warehouse Management & Metadata Modeling
  - Project manager
  - IR programmer
- Report Authoring, Training and Support
  - Project Manager
  - IR programmer

# Continuing Work

- Growth of University of Delaware Information Mart With Institutional Tools (unapproved title)
- Write and distribute reports to the University Community
- Train users
- Go Live!



Questions?



# Contact Information

Office of Institutional Research and Planning  
University of Delaware  
302-831-2021  
irp@udel.edu

Phytorion, Inc.  
773-255-3861  
Yiorgos.Marathias@Phytorion.com

---

*Presentation available on-line:  
<http://www.udel.edu/IR/presentations/>*