Using a Big CA(A)T to Tame the Big Data Jungle

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Introduction

• About Griffith University and MBS
• Building the Brief and Resourcing the Project
• Selling the Concept
• The Challenge of Getting the Data
• Practical Learnings from Implementation
• Seeing the Results
Introducing – Griffith University

• 5 Campuses – South Bank, Nathan, Mt Gravatt, Logan and Gold Coast

• 43,000 Students – Business, Arts Education & Law, Science Engineering Environment & Technology, Health

• 300 Degree Programs

• Growth from 2000 to 2010:
  • Operating Revenue 156%
  • Net Assets 173%
Partnering the Implementation

Meta Business Systems

Our focus is on:

• Strategic and operational reporting and analysis
• Continuous Business Process Improvement and Monitoring
• Full QA on large system transitions
The Brief

• External Quality Assessment recommendation in 2007
• Limited skills and resources in house
• Improved data extraction and analysis
  • Access to data on our terms
  • PeopleSoft queries difficult to use
  • Lack of access to PeopleSoft Finance System and reports/data
• Planning & Financial Services already interested
• Sell benefits to HR Management
External Driving Forces

- Financial Accountability Act 2009
- Financial & Performance Management Standard 2009
  - Monitoring & assurance over financial systems

- Chief Finance Officer’s Certification
  - Replaced systems appraisals
  - Implementation of internal controls
  - On going effectiveness of internal controls

- Queensland Audit Office Report
  - Fraud Risk Management
  - Data Analytics over Fraud Risks
The Resources

- Salary Savings
- Vendor Quotation
- Software Licensing
- Time for Training
- Unexpected Costs
  - Virtual Server & Support
  - IT Implementation Costs
  - Additional reports
  - Maintenance Costs
Selling the Concept

Getting support and approval
- Pro Vice Chancellor Administration

- System Owners – Finance/HR:
  - You want to do what with MY data?

- System Custodians:
  - You want to do what with MY data and MY production system?

- Project proposal and brief from MBS detailing:
  - How the data and systems would be impacted
  - List of proposed reports and reconciliations
The Concept

- Continuous
The Concept

- Continuous
- Large amounts of Data
The Concept

- Continuous
- Large amounts of Data
- Integrated Datasets
The Concept

- Continuous
- Large amounts of Data
- Integrated Datasets
- Protecting the Source System
The Concept

- Continuous
- Large amounts of Data
- Integrated Datasets
- Protecting the Source System
- Ease of Use
The Concept - Continued

Organisational Environment

- PeopleSoft Financials
- PeopleSoft Human Capital Management
- PeopleSoft Student Management
- Future Data Sources

Middleware – scheduling, conversion, data mapping

- Analytical Modules – Benford’s Law, audit tests, BI summaries
- Audit Data Repository

Bagheera-S™ Framework

Business Intelligence Solutions:
- Interactive dashboards
- Ad-hoc Analysis
- Report Publishing
The Data

(Oh Boy, Getting the Data)

- Virtual machine for internal audit use organised by IT
- Copy of copy of production data
- Finance System Upgrade Project
- HR Patching Project
- Changing data table structures
- Getting attention from busy IT and Finance staff
The Data

(Oh Boy, Getting the Data)
The Lessons

- Overestimate time to complete the project/get the data
- Consider the lifecycle costs – support, licensing
- Many different parts of IT involved
- Many IT things went completely over CAE’s head
The Lessons

• Be mindful of other Projects
  • Finance and HR systems
  • Business Intelligence

• Getting buy in from operational staff who will use the system not easy

• Operational staff will get excited when you show them the results

• Audit Committee will be interested too!!
Case Studies

Duplicate Vendors

- PeopleSoft duplicate vendor report matches on ABN only
- Match on BSB and bank account
- Large number of possible duplicate vendors
- Remove partner combinations – husband/wife
- Employee vendor and supplier vendor
Case Studies

Duplicate Vendors

• Lack of data entry protocols
  • Use of acronyms
  • Middle names
  • Asian names
  • Trading names vs company names
  • Nick names
  • Branches

• Duplicate payments & errors in travel advance acquittals

• Many duplicate vendors created
Case Studies

Duplicate Employees

- Controls in PeopleSoft do not identify errors

- Matching between tax file numbers

- Processing errors
  - Duplicated TFN
  - First & middle name reversed
  - Spelling errors
  - Asian names
Case Studies

Employee/Vendor Bank Accounts

• No reports between HR/Finance to match between data sets

• Matching between BSB and bank account

• Investigated employment conditions and nature of payments to vendor

• Casual employees paid through accounts payable
  • Avoidance of PAYG by employees
  • Payroll tax obligations
  • Health & safety complications
The Results

• Reports and reconciliations made available to Finance & HR

• CFO Compliance Certificates/Statements

• HR very excited
  • Requested additional reports
  • Push reports out to HR managers & advisors
  • Savings in payroll reconciliation
  • Quicker identification of duplicate employee records

• Finance
  • Requested additional report for contractor reporting
  • Improved vendor management
  • Use of HR leave reports in financial reporting
The Results

For Internal Audit:

• Reporting across a range of internal controls:
  • HR - payroll, leave management, duplicate employees
  • Finance – vendor management, accounts receivable, accounts payable, assets
• Use in operational review of business units
• Financial statement testing
• Follow up sample of transaction for testingreview/follow up with management
• Access to data and reports without relying on IT
The Savings

84

120

728

208
The Results

Training - ad hoc queries, reporting & dashboards

• Internal Audit
• HR
• IT Business Systems Support
• Finance
  • Accounting & Business Services
  • Business Intelligence
The Future

Further development activities:

• Production of annual financial statements

• Further analysis of existing reports, e.g. leave reports

• Production of quarterly financial reports for management

• Exception reports for student fees
  • Refunds
  • Pricing
The Possibilities

- Student Financial Management System
- External Data Sources

Real Examples of External Source Analytics
(Social Analytics for Griffith, UQ and QUT)

![Graphs and charts showing sentiment analysis for different universities.](image)
CMS has created value for IA and our stakeholders.

Clients will need to talk to their IT people to understand what will be needed.

Clients will need to overestimate the time needed to get the data.
Questions?