Big Change Big Data and Big Operations
A University Perspective

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Leaders need...

Data intelligence for

- Optimising operations
- Knowing what’s worth doing/not doing
- How to beat the competition

AND...

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When they can’t get what they want...
The Problem with Data

Disconnected

Not Sexy

Everyone needs it... desperately

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Data

...between primary datasets
eg staff, course, research unit
...from the process creating it
eg HR process and HR data
...from the operating model
ie data is structured to run HR or Finance silo not the Faculty or School or University
so unless it can be mapped from the silo to the operating model, nothing can help.

...between primary and secondary datasets
eg spreadsheets or small databases behind primary datasets
The Problem with the Data Players

The BI Data Cube
‘Slice n Dice’ School

The Silo Owner
‘I’m OK Jack’ School

The Vendor
MDM/BI/SOA
‘All You Can Eat’ School

The IT School
Architects
Governance
Data Integration

The Punters
All We Want Are Our Spread Sheets
Data

The problem with data

- It smells suspiciously
- The people involved look so mmmmm... 
- It's not sexy...
- It's the elephant in the room
- No-one wants to take it (MDM) home and own it
- Evidence basis required for tough decisions
- Needed... desperately...
- Becoming more acute in University sector
- Wicked problem: it's broken, players suspect but reqd
- University Transformational Change
NOT TOO FEW, NOT TOO MANY

Three Approaches to Standards for Analytic Tools

- **“Dictatorship”**
  - Rationalize to One Tool
  - No single tool provides all capabilities.
  - Rationalization expense erodes savings.
  - May encourage use of unofficial tools.

- **“Capability-Driven”**
  - Align the Tool Portfolio by Capability
  - Increases knowledge worker productivity.
  - Reduces redundancy while acknowledging diverse needs, preferences and skills.
  - Provides principled criteria for future tool selection.

- **“Anarchy”**
  - Ungoverned Tools
  - Proliferation of tools leads to uncontrolled licensing costs.
  - Different tools are used by different teams for the same purpose.
  - ROI dips as tools have limited usage or unexploited functionality.
Dynamics of the Operation

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Connected Data can model the dynamics of the operation and give a shared understanding.
The University Operating Model

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Operating Model Example

TOC Measures

Throughput:

Operating Expenses:

Contribution Margin

Contribution Margin

Contribution Margin % of Throughput

Research Performance Measures

RPI Trend

HERDC Trend

Publication Breakdown vs Research ROI

2008 to 2010

2008 to 2010

2010
An Approach...

Prototype a dashboard to refine:
- Agreed operating model (Research and Teaching)
- Source of truth data model, fast path ETL and connecting algorithms

Follow prototype with more rigour in the required data hierarchies

1. operating model
2. cost centre model
3. course model
4. research model

this may require some politicing

this may also require some Application change or means of managing the Master Datasets (MDM)

Extend the prototype dashboard to progressively include the data hierarchy change

Embed the dashboard at different levels of the operation eg school, department to understand the operational dynamics
An Approach

Calm the Elephant

Gain Confidence

Model the Operational Dynamics

Align the Players

Embed in Business

TRANSFORM!

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Mining Example

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Mining Supply Chain

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