UB 2020 | A collaborative future in progress.

Student Services Transformation

Student Services Transformation (SST)
Data Access Town Hall Meeting

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May 13, 2010

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Welcome !

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"Begin with the End in Mind":

Main points from today that you should leave with

- Infosource is not going away
  - Entity / Hierarchy is not going away either
- Can still get to data with Access / other tools
- Data models will change
  - 1st priority is meeting operational needs of functional units by module – data, reports, interfaces
  - Old queries will not work with UBSIS data
  - Data location – some in legacy / some in UBSIS
  - Opportunity to re-model
- Challenge – remodel house while still living in it
- Help will be there

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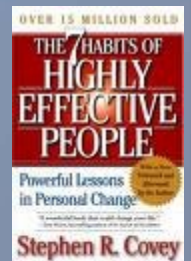
Concerns Regarding the Current Student System

- Lack of system *flexibility*
- Limits of system *functionality*
- Lack of *integration*
- Management of *risk*
- Need for *capacity* to support anticipated growth

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Goals

- Improve service
- Manage institutional risk
- Ensure consistency between policy and practice
- Extend real-time access to integrated systems and data
- Implement a more flexible system
  - Current institutional needs
  - Planned institutional growth

Student Systems Assessment

- Launched Spring 2007
- Project Teams formed
- External consultants hired
- Surveys and workshops held to:
  - Understand business processes and needs
  - Assess current system
- Identified opportunities to improve policies and procedures
- Assessed ERP options – selected PeopleSoft Campus Solutions

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Scope: What's in?

Academic Advising (Degree Audit)

Admissions

Financial Aid

Student Financials

Student Records

Upgrade MyUB

Upgrade to Scheduling (R25 and Schedule 25)

Upgrade to GrAdMIT

On-Line Training Tutorials (UPK)

Document Management System

Electronic Payment

Data Warehouse

Interfaces for enterprise systems

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Governance

- Executive Steering Committee
- Project Directors Team
- Project Management Team
- Core Project Team
- Advisory Groups:
  - Campus Community Advisory Group
  - Data Access Advisory Group
  - Directors Advisory Group
  - Faculty Advisory Group
  - Student Advisory Group
- http://www.buffalo.edu/ub2020/sst/membership.html

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Campus-Wide Commitment

Core Project Team includes representation from:

Academic Planning and Budget	International Education
Academic Processing Services	School of Dental Medicine
Academic Services, CIO Operations	School of Law
Administrative Computing Services	School of Medicine and Biomedical Sciences
College of Arts and Sciences	School of Nursing
Division of Athletics	School of Pharmacy & Pharmaceutical Sciences
Enterprise Infrastructure Services	School of Social Work
Financial Aid	Student Academic Records and Financial Svcs.
Financial Processing Services	Student Advising Services
Graduate Enrollment Management Svcs.	Undergraduate Admissions
Graduate School of Education	University Communications
Graduate School Student Services	Vice Provost of Undergraduate Education

Campus-Wide Commitment

Campus involvement includes:

Subject Matter Experts

Fit/Gap Sessions

Business Process Redesign

Configuration

Data Conversion

Customization Specifications

Issue Identification and Resolution

Modeling and Testing

Training Development

Communications/Feedback/Training

Stakeholder Advisory Sessions and Groups

Change Readiness Assessments

Open communication with existing groups

Project-wide and area-specific listservs

UB2020 Website

Training – Multiple delivery methods

- Hands-on training sessions
- Online "on-demand" support
- Extensive reference documentation

Campus-Wide Commitment

Data Access Advisory team involvement includes representation from:

Academic Planning and Budget

Administrative Computing Services

Business and Reporting Services

College of Arts and Sciences

Institutional Analysis

Office of the President

School of Engineering and Applied Sciences

School of Management

School of Medicine and Biomedical Sciences

Student Academic Records and Financial Services

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Timeline

- Core Configuration began January 2009; Completed January 2010
- Complex Extensions and Environmental Adaptations began July 2009
- Go Live dates for the Summer 2011 semester:

Go Live #1	Student Records – Course Catalog	February 2010
Go Live #2	Campus Community, Admissions, Student Records – Schedule of Classes, Portal	August 2010
Go Live #3	Financial Aid	February 2011
Go Live #4	Student Records-Registration	March 2011
Go Live #5	Student Financials	May 2011
Go Live #6	All remaining Student Records items and Academic Advising/Degree Audit	July 2011

Detailed Timeline

Student Records	Course Catalog – Central Scheduling only Ahead of schedule and under budget	February 2010
Portal	Look and feel updates – Students, Faculty and Staff	May 2010
Admissions	Applications for Summer and Fall 2011	August 2010
Portal & Campus Community	MyUB; Biographic and demographic information for Summer and Fall 2011 incoming students	August 2010
Student Records	Schedule of Classes – Department Schedulers	August 2010
Financial Aid	ISIR Loads – Summer and Fall 2011	January 2011
Academic Advising	Degree audit reports for Fall 2011 incoming undergraduate transfer students	January 2011

Detailed Timeline

Admissions	Decision processing for Summer and Fall 2011 applicants	January 2011
Admissions	Matriculate students	March 2011
Campus Community	New Student Information System becomes system of record for all UB students	March 2011
Portal	Updates to MyUB for all Faculty, Staff, and Students	March 2011
Financial Aid	Packaging for Summer and Fall 2011	March 2011
Student Records	Registration for Summer and Fall 2011	March 2011
Student Financials	Cashiering; refunding; tuition calculation; and self-service	May 2011

Detailed Timeline

Financial Aid	Direct Loan processing	June 2011
Student Financials	Billing for Summer 2011; Late fee processing	June 2011
Student Records	Grade entry and grade posting; transcript generation; end of term processing	June 2011
Financial Aid	Disbursement of Summer 2011 aid	July 2011
Student Financials	Billing for Fall 2011; Collections	July 2011
Academic Advising	Degree audit reports for all undergraduate students; some graduate students	July 2011
Financial Aid	Disbursement of Fall 2011 aid; TAP certification	August 2011

Detailed Timeline

Student Records	Posting degrees	September 2011
Student Financials	1098T processing	October 2011

Information Evolution – analogous to Darwinian evolution

- Drivers for change
  - Data required for planning purposes
  - Difficulty getting data out of system – screen scraping, Mapper Rids, etc…
  - Datacom Database does not allow end user access
  - Disparate nature of systems involved in processing; difficulty collating data

UB Infosource (*est. 1995*)

- Series of relatively easy to use tables
- Resource commitments to support initiatives
- User groups
- Metadata / User sessions to assist users writing their own queries
- Two types of users: report runners / "BIG" users
- Standard reports on web (IS Online)
- Iterative development
- Seems like it works…… UB ahead of curve

Downside of Infosource

- Mature in this area
  - Increased expectations
  - Increased data needs

Strategic Information Reporting Initiative (SIRI)

SIRI (Strategic Information Reporting Initiative)

- Strategic and Operational data needs – reconfigure data to answer policy questions
- Initial phase addresses operational needs using human resource, financial and procurement information

UBSIS / Infosource Collision:

"Remodeling House while still living in it "

- Problem Statement: "How to provide data to current customers when source systems are being replaced?"

- Infosource is not going away!

- Business Re-engineering efforts will trigger new processing, data , etc

- Where do you start? -THE FOUNDATION

The Supporting data must change

- Systems (new and legacy) do the same things but in different ways; their parts are not interchangeable (e.g. Chevy parts in a BMW)
- Data Architecture different – tables, transactions, etc…

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New Concepts and Terminology:

- Divisions are Careers
- Majors and minors are Plans
- Concentrations are Sub-plans
- Semesters are Terms
- Credits are Units
- Department Offering a course is now called an Academic Organization
- See list at
  http://ubsistraining.buffalo.edu/pdfs/glossary.pdf

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Examples

- T-Score
- Naming Conventions – reporting = transactional system
  - Student Number / Person Number / Empl ID
- Data Definitions

TERM	PLAN	PROGRAM
2008 Fall	Medical Technology INT BS	Biomedical Sci Bachelor

VS.

SEMESTER_FMT	MAJOR_ABBREV	MAJOR_ENTITY	MAJOR_SCHOOL	MAJOR_HIERARCHY
FA/2008	MT	0452	0812000000	0812300400

Challenge

- Assume the need for Infosource remains
- Move Infosource forward along with the new systems
- 15,000 tables UBSIS – how to replace representative data?
- How to pull the right information from the right tables to result in useful info?

Why is it so difficult getting information from Higher Education ERP Systems?


```
SELECT      b.EMPLID, b.ADMIT_TERM
            b.PROG_ACTION, b.PROG_REASON,
            b.ACAD_LOAD_APPR

FROM PS_ADM_APPL_DATA a inner join
    PS_ADM_APPL_PROG b

 on a. EMPLID = b.EMPLID and

    a. ACAD_CAREER = b.ACAD_CAREER and

    a. ADMIT_TERM = b.ADMIT_TERM

WHERE b.ACTION_DT = (SELECT max(ACTION_DT)
    as ACTION_DT  FROM PS_ADM_APPL_PROG

WHERE EMPLID = b.EMPLID and

    ACAD_CAREER = b.ACAD_CAREER and

    ADMIT_TERM = b.ADMIT_TERM) and

    b.EFFSEQ = (SELECT MAX(EFFSEQ) FROM
    PS_ADM_APPL_PROG

WHERE EMPLID = b.EMPLID and

    ACAD_CAREER = b.ACAD_CAREER and

    ADMIT_TERM = b.ADMIT_TERM and

    ACTION_DT = b.ACTION_DT)
```

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What have we done?

- Talked to other schools

Boise State University

"To summarize, I guess I would say that there really wasn't much in the way of comprehensive planning as to what reports were most needed, who would create them, what tools would be used, etc. We've just kind of muddled along. "

What have we done?

- Talked to other schools *(continued)*

Colorado University

"I'd love to answer all these questions, except – we don't have many answers yet. "

What have we done?

- Talked to other schools *(continued)*

Towson University

"After about a year, they started a project to extract PS data into datamarts. Admissions took them 2 years (2 developers and 6 functional resources) to complete."

What have we done?

- Talked to other schools *(continued)*

California State University

"Quickly found that the functional people needed to configure product were too busy implementing core ERP system so we basically did nothing until people complained; this cut off service to a population of people doing their own reports via an reporting data warehouse

What else have we done?

- Looked at products
- Looked at home grown development
- Conclusion – buy product built on Peoplesoft experience; Higher Ed orientation
- Issued RFP
- Purchased Higher Ed Analytics from iStrategy

HigherEd Analytics Overview
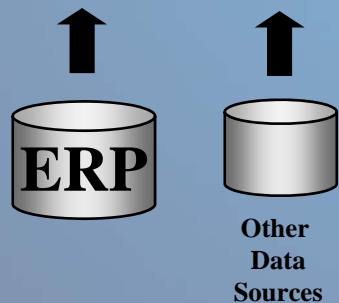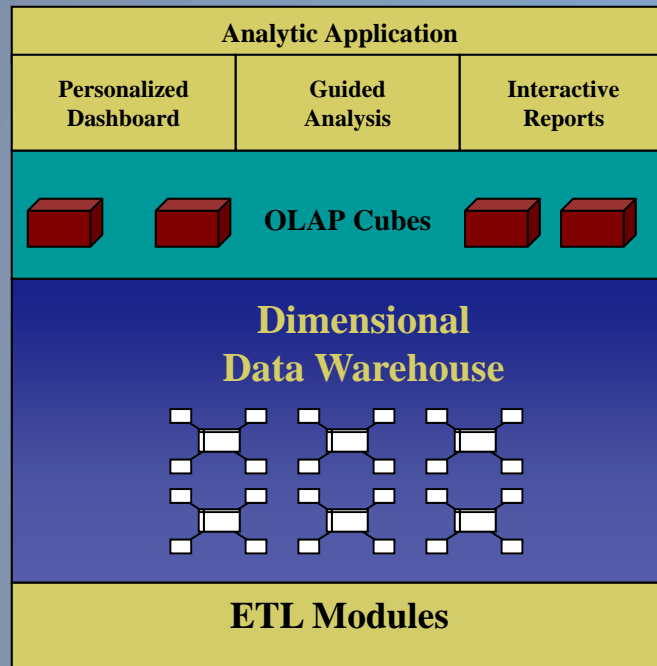
- Intuitive <u>self service</u> access to reliable information ("single version of the truth")

- Single DW solution for <u>casual and power users</u>

- Rich library of higher education <u>performance metrics</u>

- Powerful <u>analytic capability</u> to support decision making and management information needs

- "<u>Out-of-the-box integration</u> to leading ERP vendors

- An <u>open technology platform</u> that is easily extensible

- <u>Rapid deployment</u> capability

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Student Services Transformation

Library of Student Metrics (Partial List)

Student Term
Student Count
Enrolled Student Count
New Enrollee Count
Num Student Withdrawals
Prior Year Student Count
% Change in Enrollment PY
Change in Student Count PY Avg
Credit Hours
Avg GPA Cumulative
Avg GPA Term
Avg Student GPA Change
Prior Term Cumulative GPA
Credit Hours Cumulative
Credit Hours Term
GPA Cumulative
GPA Term
Grade Points Cumulative
Grade Points Term
Cohort Retention %
Term Retention %
Academic Year Retention %

Student Plan
Student Count
Plan Count
SubPlan Count

Class Registration
Student Count
Registered Class Count
Enrolled Class Count
Drop Count
Dropped %
Avg Class Grade
Avg Classes Per Student
Avg Credits Per Class
Avg Credits Per Student
Avg Enrollment Per Course
Avg Enrollment Per Section
Credits Taken
Credits Earned

Class Schedule
Num Courses Offered
Num Sections Offered
Avg Section Capacity
Avg Course Capacity
Avg Sections Per Course
Course Utilization %
Section Utilization %
Faculty Count
Student to Faculty Ratio

Admissions
Applicant Count
Pending Count
Admitted Count
Matriculated Count
Enrolled Count
% Admitted
% Admitted Enrolled
% Applicants Enrolled
Avg SAT Math Score
Avg SAT Total Score
Avg SAT Verbal Score

Faculty Term
Average Years of Service
Faculty Count
New Faculty Count
Years Employed

Graduates
Degrees Count
Graduation Rates
Average Credit Hours
Average GPA
Average Years to Graduate

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How are we going to deploy this at UB?

- Requirements – what are they?
  - We can't wait to determine what we want; we need to provide solutions for existing customers with priority to the functional needs of support units
- Replicate Current Infosource <u>content</u> as much as possible – subjects areas / reports
- Because systems do things differently, content will change
- New elements, eliminated elements, values, concepts

How are we going to deploy this at UB? *(continued)*

- Understanding that new system will trigger new needs – iterative development
- Piggyback on module "Go-Lives"
  - stage deployment of new views to module rollout schedule
  - Data Access efforts highly dependent on module configuration and implementation; we're just behind!

A closer look at the process.......
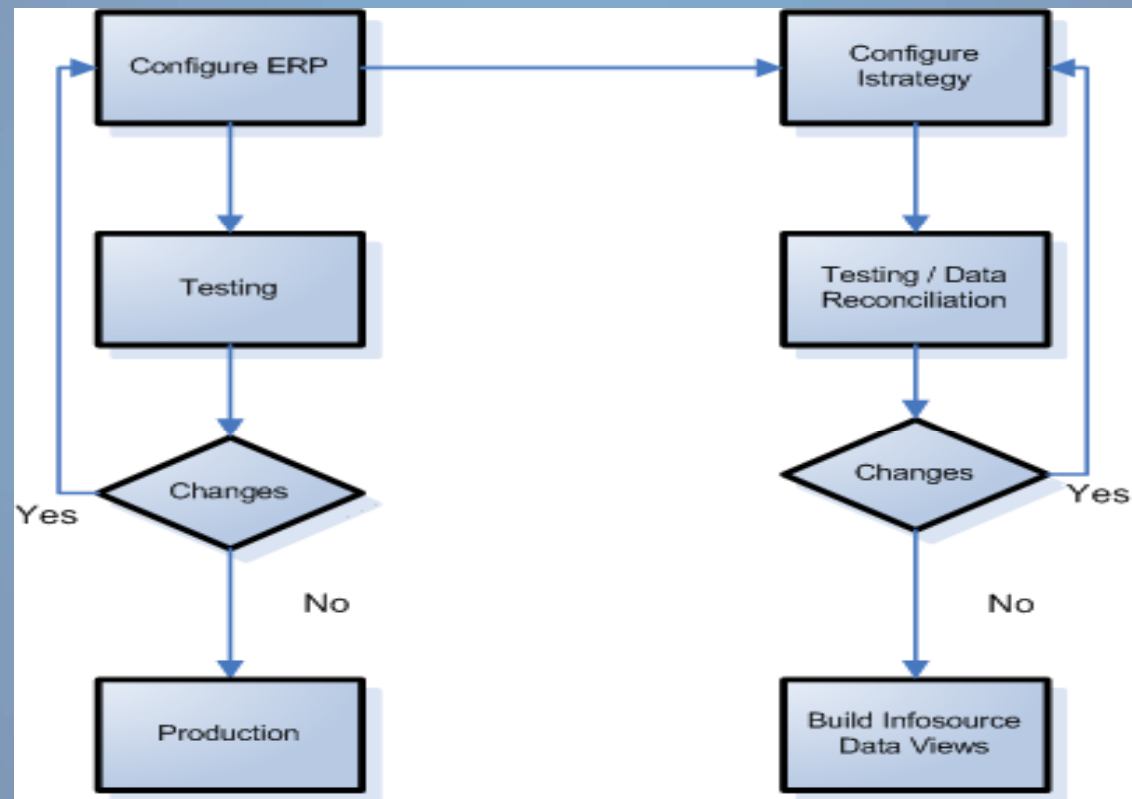
Extra Challenge

- In September 2010:

  - Admission's data for Semesters Fall 2010 and Spring 2011 will be in *current format in current view*

  - Admission's data for Semesters Summer 2011 and Fall 2011 will be in *new format in new view*

  The splitting of data will continue throughout the project.

Extra Extra Challenge

- For views constructed with data from multiple subject areas, how to build new ones if module implementation dates are staggered?

Reports

- ## Integration with SIRI

   (for now, think Infosource for access to data; SIRI for access to reports)

- ## Infosource Online style reports migrated to SIRI

- ## Standard reports available from our purchased package can be found there too

What you will see:

- New data models
  - Some things are not transferable; some things are new
- New data elements
  - Some things are not transferable; some things are new
- New reports in a new location
  - Rewrites of old favorites
  - Standard reports provided from a tool we've purchased
- Selective existing Infosource models will remain...as is
  - Staggered implementation necessitates this
  - Some may not be refreshed

and when will you see it !

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What this means for -

- <u>query writers</u> – some pain
- <u>report runners</u> - new location
- <u>everyone</u> - new interpretation

Prepare for Deployment

- Consulted with Admissions personnel, Advisory Group
- Start with Admissions Active content; effort in Course and Person also
- Some fields not brought over
- Some fields change in meaning
- Converted data determined by need
- Some data only in UBSIS / some only in legacy

Example *(Courtesy of School of Management)*

1. Know what's being converted: first we would need a list of the tables by their actual Infosource table names and what are their associated new tables. We would need a listing of the fields, along with the field description, for each of the tables

2. We would need an understanding of the new system from the standpoint of the entity codes and division no longer being in the tables/system. We would need to understand the plan and how to retrieve just Management data.

3. MS Access: review the databases that utilize the Infosource tables in question and determine how many queries and reports need to be reviewed and recreated using the new tables. We would probably prioritize the list of items too.

Example *(Courtesy of School of Management)*

4. MS Access: we would link the new Infosource tables in the Access database. Next we would make a copy of the long standing query(s) that we've used, leaving the existing query(s) in place. We would change the query to utilize the new table(s) and fields. We assume there might be some issues with joining tables, either in-house tables or "old" Infosource tables.

5. Balance or validating integrity of reports: the most important step will be to confirm the integrity or accuracy of the reports. It would be great to balance or compare the results to something. It would be nice if the old tables and new tables contained the same information for at least one semester which would provide an opportunity to "balance" the new query(s).

6. Support: finally it would be great if there was someone to call or email with questions about the new table structures, using the new data, understanding the new fields, comparing the old and new data, etc.

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What Assistance will there be?

- Metadata
- Cross walk ("field was / field is") – where applicable
- More Town Hall sessions
- Listserv
- User Groups – Directed presentations
- Other possibilities....

"And for the sixth time…."

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