What You Need to Know to Leap into Analytics

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Our Time With You Today

- About the University of North Texas
- Why This Topic
- What is Analytics?
- Practical Applications of Analytics at UNT
- Assessing Your Data Maturity and Data Governance Readiness
- 10 Practical Things an IE Professional Can Do
- Key Questions to Ponder Going Forward
- Q&A

About us...
“The best way to predict the future is to create it.”
Peter Drucker

“CULTURE EATS STRATEGY FOR BREAKFAST.”
PETER DRUCKER
ISSUES FACING THE FUTURE OF INSTITUTIONAL RESEARCH

BUILDING METADATA REPOSITORIES
IMPLEMENTING MACHINE LEARNING MODELS
GROWING BEYOND OFFICIAL DATA
MATURING DATA WAREHOUSING
PERFORMING DATA INTEGRATION
REALIZING POTENTIAL OF BIG DATA
EXECUTING PREDICTIVE ANALYTICS

What issues are IE practitioners facing?

QUESTIONABLE HIGHER EDUCATION ACT(S)
FEDERAL UNCERTAINTY
CONSISTENCY OF MEASURES ACROSS INSTITUTIONS
HOW MUCH INFORMATION IS ENOUGH INFORMATION?
TRANSPARENCY ISSUES

HOW CAN WE BE INNOVATIVE AND STILL MEET EXPECTATIONS

ISSUES FACING THE FUTURE OF INSTITUTIONAL RESEARCH

Our Assessment Data Landscape is Changing

- The velocity, volume, and speed of data is crushing
- Most institutions have not yet fully realized the analytic potential of a robust data landscape (Bichel, 2012).
- Said differently Reinetz (2015) stated that “higher education is data rich but information poor (p.4).”
- Future growth in data competency is predicated on leveraging institutional data differently
- Institutions, IE, and IR need to approach their data in new ways
- Reporting of official, often static, information as the norm is no longer good enough for modern higher education institutions
- True value from a data landscape is when the institution can leverage existing data to answer problems focused on the future NOT the past
- The intersection of learning analytics and IE analytics will be here soon if not already!
What is “Analytics”?

- What’s the best that can happen?
- Optimization
- Predictive Modeling
- What will happen next?
- Forecasting
- Why is this happening?
- Statistical Analysis
- What actions are needed?
- Alerts
- What exactly is the problem?
- Query/Drill Down
- How many, how often, where?
- Ad Hoc Reports
- What happened?
- Standard Reports
- Reporting

Degree of Intelligence

- Competitive Advantage

- Assess
- Institutional Readiness
- Policy and Procedure Doc.
- Staffing and Resources

- Plan
- Goals
- Metrics
- Roadmap

- Improve
- Visibility
- Impact
- Student Success

- Analyze
- Visualizations
- Dashboards
- Predictive models

- Implement
- Integration across campus
- Hardware for storage
- Data Transfer Strategies

Areas for IE Impact

- Standing Up Analytics

How Might This Change Impact IE?

- We are being pushed to improve our outcomes
- The competitive marketplace is evolving and applying pressure... everywhere from Academic Affairs to Student Life
- Campuses may be looking for quick fixes for data challenges
- Focusing on tools and technology alone is not enough
- Institutions of higher education are made up of faculty, staff, students, and alumni
- These groups all contribute to an organization’s data culture and influence prioritization activities
- Learning analytics require different conversations on how these tools impact IE data culture
Practical Applications of Analytics at UNT

Student & Academic Data
- Demographics
- FTIC Retention
- Transfer Retention
- Grad Students
- Grade Distributions
- Degrees
- Graduates
- Undergraduates
- Retained
- Graduated

Finance
- Select Institutional Finance Metrics
- Optimal Bus Route
- Comprehensive UNT Payroll Analysis for Three Fiscal Years
- Central Accounting
- Financial Aid (dev)

External Data
- Select Peer Metrics
- Federal IPEDS Data
- Texas Higher Education Coordinating Board Data
- National Student Clearinghouse Admissions Data

Institutional Performance
- Select Research, Advancement, and Faculty Metrics
- Strategic Goals Dashboard Monitoring

Business Data Network, Data Integration Studio, and ServiceNow Request Process Implemented

Training Program and Security Protocols Established

Specific UNT Analytic Products

Outcomes of Practical UNT Analytic Applications
- Increases in 4 year and 6 year graduation rates
- Gains in FTIC retention
- Largest freshmen class ever
- Smarter investments in merit funds
- Increases in ROI/revenue funding
- Ability to reward faculty/staff merit
- 675 Trained campus users/leaders
- 1100+ key business terms under active governance
If Your IE Shop Wants to Evolve What Might Get in Your Way?

- Data initiatives and changing culture can get sidetracked by:
  - Prioritization disagreements
  - Data ownership conflicts
  - Turf wars
  - Poor resourcing
  - Lack of executive support
  - Confusion over data responsibility
  - A lack of formalized roles and responsibilities around data governance and management
  - Resistance to change out of fear
  - Other Thoughts?
Take 5 minutes, and turn to your neighbor.
Share where you think your campus is on the maturity index?
Be prepared to share back with the larger group.

Data Governance Program Components

1. Read as much as you can about differences in organizational culture between the various divisions of a higher education institution. Recognize that each division will have its own set of expectations, requirements, and needs from IE data and data tools.
2. Investigate if an IE data maturity audit has occurred or if you need to consider starting a process.
3. Review old IT project charters and whitepapers to identify possible stakeholders, data pitfalls, and prioritization challenges from the past.
4. Start with a lunch. Gather like-minded data colleagues from around campus to begin conversations around the ideal state of IE data on your campus. Develop some next steps to expand your circle of influencers.
5. Review leadership statements raised in press releases, internal communications, or formal requests to understand opportunities for engagement.
10 Practical Steps an IE Leader Can Take (2)

6. Examine peer campuses - where are they in their IE data governance efforts? Consider site visits to learn more and see different structures in action.

7. Take a course in story-telling. Connect the seemingly disparate roles of data leader with story teller to advance your organization through data prioritization activities.

8. Conduct a review of data policies and procedures. Identify gaps and develop plans to partner with relevant campus units to address.

9. Consider stakeholder focus groups, surveys, or other feedback gathering opportunities to build your understanding of the campus data IE culture. What are the best practices for applying assessment results to introduce change?

10. Hold an IE data summit. Provide the structure and the agenda but then listen…carefully. Develop mechanisms to promote IE outcomes via data differently.

Key Questions to Ponder: The Take-A-Ways

- Where does your campus fit in terms of data maturity and practice?
- What strategies will you put in place to ensure that key constituents and stakeholders are effectively engaged in ways that are consistent with your campus culture?
- What are some strategies you would utilize to engage executives? What mechanisms would you put in place to encourage and foster support through this process?
- What data systems exist on your campus and where would individuals be categorized on a RACI matrix for each IE system (both formal and informal)?
- How might you leverage data governance practices to improve the data prioritization and IE data quality of your campus?

Your Thoughts/Questions?

WANT TO TALK MORE:

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References: