IT Finance in an *as-a-service* World

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Ohio State is...

- Land Grant
- R1
- Urban campus
- 29K Employees
- 64K Students
- Medical Center
- Public Institution
- Athletics
- MANY Businesses
What’s NEXT?

- New models of teaching & learning
- 3 year degree; CC+
- Post-baccalaureate certificates
- New degree programs
- Access, Affordability & Excellence

https://affordablelearning.osu.edu/
What’s NEXT?

- NIH, NSF, NASA, etc.
- Industry, State, Private
- Discovery Themes
- Translational
- Commercialization

https://discovery.osu.edu/
What’s NEXT?

- Feed the hungry
- Team up
- Mobilize Buckeye Nation

https://buckeyesummit.osu.edu/taking-action.html
What might the next generation of business financial management look like within the future enterprise, especially related to IT itself and its “X-As-A-Service” platforms?
New Financial Models

- Monetize Assets
  - Parking ($483M)
- Generate New Resources
  - Affinity
  - Strategic Ventures
  - Fundraising
- Expense Management
Strategic Thinking ≠ Strategic Planning

<table>
<thead>
<tr>
<th>Strategic Thinking</th>
<th>Strategic Planning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Divergent</td>
<td>Convergent</td>
</tr>
<tr>
<td>Nonlinear</td>
<td>Linear, sequential</td>
</tr>
<tr>
<td>Abstract, symbolic, metaphoric</td>
<td>Concrete</td>
</tr>
<tr>
<td>A-rational</td>
<td>Rational</td>
</tr>
<tr>
<td>Panoramic, Conceptual, Generative</td>
<td>Reductionist, Literal</td>
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<tr>
<td>Reflective, Critical</td>
<td>Objective</td>
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<tr>
<td>Intuitive, Creative</td>
<td>Logical</td>
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Learning to Think Strategically by Julia Sloan
How can we decrease textbook costs?

Textbook prices have outpaced inflation by 3X – a 1,000% increase over 30 years
AFFORDABLE LEARNING EXCHANGE
Building excellent and affordable learning at Ohio State

Join the #OSU2020VISION, next RFP opening autumn 2016.

The challenge? Linking affordability, access and excellence in teaching and learning at Ohio State.

Projects funded through the Affordable Learning Exchange will meet this challenge by replacing textbooks and other course materials with alternative, homegrown resources; by sharing publications made available through University Libraries; and by adopting and adapting existing Open Educational Resources (OER) from around the world. Learn more about OER from Creative Commons #.

President Drake identified access, affordability and excellence as key elements of his 2020 Vision #.

“Education transforms lives, but only if we can deliver on our promise of access to an excellent and affordable education.”

— Michael Drake, President, The Ohio State University

https://affordablelearning.osu.edu/
Help faculty explore affordability options

$1.25M Student Savings
How can we manage expenses better?

- PAIN/GAIN map
- Go and Do
- Assess Tradeoffs
- Off Limits
- Forces value conversation
### CIOs have many levels of chargeback to choose from

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
<th>Complexity, Sophistication, Cost</th>
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<tbody>
<tr>
<td>SBP</td>
<td>Service-based prices</td>
<td>Highest</td>
</tr>
<tr>
<td>NFR</td>
<td>Negotiate flat rate</td>
<td></td>
</tr>
<tr>
<td>TFR</td>
<td>Tiered flat rate</td>
<td></td>
</tr>
<tr>
<td>MRU</td>
<td>Measured resource usage</td>
<td></td>
</tr>
<tr>
<td>DC</td>
<td>Direct cost</td>
<td>Lowest</td>
</tr>
<tr>
<td>LLA</td>
<td>Low-level allocation of specific IT service costs</td>
<td></td>
</tr>
<tr>
<td>HLA</td>
<td>High-level allocation of specific IT service costs</td>
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UNIVERSITY IT STRATEGY

- ITPC Effort - entire university
- Flag on the horizon
- Focus on common IT investments
- All units map annual plans to the strategy
- *Stay tuned…*
From Service Catalog to App Store
The OCIO **Enterprise Data Strategic Direction** is our 5-year vision that helps us focus annual projects and funding on 3 strategic areas:

1. Enterprise Business Intelligence and Reporting (Metrics)
2. Analytics Workbench (Mashup)
3. Data Science Laboratory (Mining)

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### From Reports to Analytics

<table>
<thead>
<tr>
<th>Enterprise BI &amp; Reporting</th>
<th>Analytics Workbench</th>
<th>Data Science Laboratory</th>
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<tr>
<td>Metrics: Systems of Record</td>
<td>Mashup: Systems of Innovation</td>
<td>Mining: Systems of Innovation</td>
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</tbody>
</table>

- **Data Governance:** Federation uniﬁed architecture model with representation from all major data providers, owners, stakeholders.
- **ETL:** Extract, transform, load.
- **IT:** Infrastructure.
- **Analytics:** Business intelligence.
- **Data Science:** Data mining.
- **Business Intelligence:** Data warehouse.
- **Data Science:** Data science.
- **BI:** Business intelligence.
- **Analytics:** Analytics.
- **Predictive:** Predictive analytics.
- **Prescriptive:** Prescriptive analytics.

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**Operational Reporting**
- Descriptive: What is happening?
- Diagnostic: Why did it happen?
- Predictive: What is likely to happen?
- Prescriptive: What should we do about it?

**Metrics Dashboards**
- Descriptive: What is happening?
- Diagnostic: Why did it happen?
- Predictive: What is likely to happen?
- Prescriptive: What should we do about it?
From TCO to completely new models

Example: Amazon Elastic MapReduce makes it easy to mix Spot Instances with On-Demand or Reserved Instances within the same data processing cluster.

https://aws.amazon.com/ec2/spot/spot-and-science/
What CONTINUES?

 Operational excellence

*Right mix of IT services,* delivered at the *right service levels* and at *competitive costs* the university can afford.

X-a-a-S services are *partnerships.* All Partners have *skin in the game.*

Trust through *Transparency*
The biggest motivator for our team is meaningful work.

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