EDUCAUSE
ANNUAL CONFERENCE 2017
The best thinking in higher education IT
Seminar Agenda

8:00-8:20   Getting started
8:20-8:50   Interactive presentation: Strategic Planning, Strategic Plan Data
8:50-9:10   Facilitated table discussions: first task
9:10-9:40   Group discussion of issues
9:40-10:00  ** BREAK **
10:00-10:30  Interactive presentation: Data Classification
10:30-10:50  Facilitated table discussion: second task
10:50-11:20  Interaction presentation, group discussion: Data Presentation
11:20-11:30  Wrap-up and critique
Who is Jerry Grochow and why is he leading this seminar?

• 20 years: IT project leader and management consultant doing IT strategic planning for Fortune 500s, government, and non-profits
• 7 years: responsible for IT strategic planning, methodology and “best practices” for 10,000 person IT consulting firm
• 13 years: CIO/CTO in industry and at MIT
• 10 years: helping higher ed plan for and use new technology, with Internet2 and as a consultant
Some underlying ideas for this seminar:

- Data: “facts and statistics collected together for reference or analysis”
- “If you can’t define it, you don’t know what your data says.
- “If you don’t analyze it, you don’t know what your data means.”
- “If you don’t organize and present your analysis, you can’t convince anyone of what it means!”
- “Data is most valuable when it can be turned into information that can be used for action”
What are our goals today?

• **Understand** what data is important to different constituencies in creating a data-driven IT strategic plan
• **Learn** practical approaches to collecting, organizing, and presenting that data
• Start to **apply** this framework to your own strategic planning projects
• **Anything else?**
Introductions

1. Name, school, position
2. What attracted you to this seminar?
3. Where are you and your organization in your strategic planning project?
Interactive Presentation

-- ASK QUESTIONS AT ANY TIME

1. What is a “strategic plan”? 
2. What is “strategic planning data”?
What is strategic planning all about?

Determining where we want to be in the future

Determining how to get to that future
IF YOU DON'T KNOW WHERE YOU ARE GOING ANY ROAD WILL GET YOU THERE

— CHESHIRE CAT
Creating a vision for information technology...

- **Computing** *fully integrated into teaching and student life*
- Computing infrastructure *supporting the most advanced research* in all fields
- Administrative systems development and maintenance on a *par with the best commercial organizations*
- *Client services supplied when and where needed* by many organizations working together as one
- An environment where experiments in the use of new technologies flourish, and where we are able to develop the resources needed to bring the best ones to the broadest community.
…requires planning – strategic and tactical

Administrative Systems Strategic Plan

- Computing fully integrated into teaching and student life
- Computing infrastructure supporting the most advanced research in all fields
- Administrative systems development and maintenance on a par with the best commercial organizations
- Client services supplied when and where needed by many organizations working together as one
- An environment where experiments in the use of new technologies flourish, and where we are able to develop the resources needed to bring the best ones to the broadest community.

Educational Technology Planning

- IT Strategic Principles

Student Systems Strategic Plan

- Network and Operations Planning

Residences Tech Strategy

- Video, Voice, and Presence Plan

Client Services Strategic Plan

- Research CyberInfrastructure
...all components are linked together
If you don’t know where you are, it’s tough to figure out how to get to where you want to be.

Jerry Grochow
...and many others!
What is strategic planning all about?

Determining where we are now

Determining where we want to be in the future

Determining how to get to that future
What is strategic planning all about?

- Determining where we are now
- Determining what drives us to the future
- Determining where we want to be in the future
- Determining how to get to that future
What is strategic planning all about?

- Determining where we are now
- Determining what drives us to the future
- Determining where we want to be in the future
- Determining how to get to that future
Typical strategic planning approach

1. Environmental Scan
   - Market Analysis
   - Competitive Analysis
   - Trend Analysis

2. Organizational Assessment
   - Culture
   - Management Systems
   - Operational Systems
   - Resources
   - Markets and Products

3. Strategic Issues
   - Business Definition/Concept
   - Strategic Mission
   - Core Strategy

4. Strategic Business Plan
   - Business Definition
   - Mission
   - Key Result Areas
   - Objectives and Goals

5. Budgeting

6. Quarterly Management Review
   - Reports
   - Meetings
Data-Driven Strategic Planning means: find data that can be used for…

• **Organizational assessment**: where are we now – culture, systems, resources

• **Environmental scan**: information about educational and technology *drivers and trends*

• Identifying **strategic issues** (to help determine *where we want to be*)

• Developing **strategic business plan**, how to get *where we want to be*
  • and how to measure it!
Data-Driven Strategic Planning: Tasks

- **Define** the data you are providing. Make sure it is clear why that data will provide *important information*.
- **Collect** the data.
- **Analyze** the data: what does it say to you, *why is it important*.
- **Organize and present** the analysis so that the strategic planning team knows what you are providing (definition) and why it is important.

  - *How can it be used as information for action?*
Strategic Planning Data: What makes data *important*? [PARTICIPANT INPUT]

- Sets the stage
  - Volume/usage statistics
- Raises a strategic issue:
  - Number of people participating in BYOD
- Highlight a trend:
  - Number signing up for cloud services over time
- Distinguishes a constituency:
  - Faculty vs students using the wireless network
- Presents a resource concern:
  - Backlog of development requests
- Other:
A word about different types of strategic planning projects…

May have different data collection and presentation needs…
So far, we haven’t talked about the “IT Strategic Plan” specifically…

• All these points apply to any type of strategic plan
• BUT…there is a key question of where does the IT plan fit with other/overall university plans
  - Which comes first? Or are they integrated?
• Who “owns” the IT Strategic Plan?
  - IT, university committee, senior leadership
Data-Driven Strategic Planning Framework

Initial Revisit Update

Determine type of project and focus

Where/what Now/future How?

Determine key questions/issues

What will be important and why

Assess and define data

Sets the stage

Raises issues

Trends/drivers

Constituency

Resource concern

Organization Services Technology
Strategic Planning Data Classification

Strategic question:
• Where are we?
• What drives the future?
• Where do we want to be?
• How do we get there?

Strategic importance:
• Sets the stage (current state)
• Raises issues
• Highlights trends/drivers
• Distinguishes a constituency
• Presents resource concern
First Table Discussion:

1. Briefly discuss your strategic planning project. [Pick one or two]

2. What types of data will it need? [List five each, group makes suggestions]

3. Do you have something for every item in the Strategic Planning Data Classification?
## Strategic Planning Data: Planning Matrix

<table>
<thead>
<tr>
<th>Data:</th>
<th>Strategic Questions:</th>
<th>Strategic Importance:</th>
<th>Data Class:</th>
<th>Constituency Interest:</th>
<th>Source:</th>
<th>What Kind of Data / How to Present:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Where we are</td>
<td>Sets the stage</td>
<td>Organizational:</td>
<td>Faculty/ Researchers/ Students/ Administrators/ Other staff</td>
<td>Primary:</td>
<td>Test/ Numbers/ Pictures</td>
</tr>
<tr>
<td></td>
<td>What drives us</td>
<td>Raises issues</td>
<td>- Financial</td>
<td>- Survey/Quest</td>
<td>- Survey/Quest</td>
<td>Table/Chart/Picture/ Video/ Interactive</td>
</tr>
<tr>
<td></td>
<td>Where we want to be</td>
<td>Highlights trends</td>
<td>- Demographic</td>
<td>- Interviews</td>
<td>- Instrument</td>
<td></td>
</tr>
<tr>
<td></td>
<td>How to get there</td>
<td>Constituency</td>
<td>- Operational</td>
<td>- Public</td>
<td>- Other</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Resource concern</td>
<td>Environmental</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Issue focused)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Type of project (initial, Revisit, Update): ____________  Project focus (Org, Service, Tech): ______________
First Table Reports:

1. Types of data needed
2. Data classification matrix
3. Unusual sources, methods
### Example Data Matrix

#### Strategic Planning Data: Planning Matrix

**Type of project** (Initial, Revisit, Update): **Revisit**

**Project focus** (Organization, Service, Technology):

<table>
<thead>
<tr>
<th>Data:</th>
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<td>Primary:</td>
<td>Text/Numbers/Pictures</td>
</tr>
<tr>
<td></td>
<td>What drives us</td>
<td>Raises issues</td>
<td>- Financial</td>
<td>- Survey/Questionnaires/Interviews/Secondary/Other</td>
<td>- Survey/Questionnaires/Interviews/Secondary/Other</td>
<td>Table/Graph/Chart/Picture/Video/Interactive</td>
</tr>
<tr>
<td></td>
<td>Where we want to be</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>How to get there</td>
<td>Constituency</td>
<td>- Operational</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Resource concern</td>
<td>- Environmental</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

|                      |                      |                      | Operational            |                      |        |                                  |
|                      |                      |                      |                        |                      |        |                                  |
|                      |                      |                      |                        |                      |        |                                  |
|                      |                      |                      |                        |                      |        |                                  |

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Interactive Presentation

-- ASK QUESTIONS AT ANY TIME

1. More on data classification
2. How do you collect data?
3. Data-Driven Strategic Planning Framework
Some more on data classification: Based on how/when data is collected

- **Primary**: data you collect specifically to serve the needs of the strategic planning activity.
- **Secondary**: data you have (or can get) that was collected for other purposes but that will be useful

In other words...
- You are going to use data you already have, or should already have [SECONDARY]

AND

- You are going to collect some more! [PRIMARY]
Also: “internal” and “external” data

- **Internal, about the organization**
- **External, about the environment**
  - Economic, technical, social trends (e.g. “bring your own device,” move to the cloud, social media, population characteristics)
  - External forces that will impact the organization (e.g. research funding, interest rates)

- Either can be primary or secondary
- Both can be **descriptive** or **issue focused**
How do you collect data: Let’s start with internal secondary data:

• What data do you already have (that would be useful)? [PARTICIPANT INPUT]
  – Org/staffing data
  – Financial data
  – Demographic data
    • Who are your users?
  – Operational data
    • Service usage: who uses what, and how much
    • Quality: outages, bugs removed, survey stats, ticketing system
  – Data about the institution
    • Declared majors, faculty growth, research funding
## Change in email usage

<table>
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<tr>
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<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
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<tbody>
<tr>
<td>Students</td>
<td>1,500</td>
<td>1,700</td>
<td>2,000</td>
<td>2,200</td>
<td>2,350</td>
</tr>
<tr>
<td>Faculty</td>
<td>700</td>
<td>800</td>
<td>925</td>
<td>1,100</td>
<td>1,250</td>
</tr>
</tbody>
</table>

Data in millions

**Questions:** What does this show? What are the issues? Why is this important?
Change in email usage

Questions: What does this show? What are the issues? Why is this important?

...and social media!
What does this example show us? Why is this data important? [PARTICIPANT INPUT]

- History/growth in email usage [CURRENT STATE]
- Different rates for faculty and students [CONSTITUENCY]
- Impact of new communication methods (social media) [FUTURE DRIVERS/TRENDS]

Questions: [ISSUES RAISED]
  - How student communicate with faculty
  - What IT infrastructure the university needs
  - Possible security issues
Operational data: Service utilization

• **Definition**: how much of a particular service is used by different groups of users

• **Measure**: what best shows usage
  – By service: Gb of storage; hours of CPU; number of mail messages sent/received; number of software products licensed
  – Broken out By constituency, by time, by geography

• **Analysis**: what are the trends/patterns?

• **Organization/presentation**:
  – Table, chart, interactive graphic
What about external secondary data?

• What data can you readily get (that would be useful)? [PARTICIPANT INPUT]
  – Peer schools data: EDUCAUSE Core Data Service, IPEDS, CSG, other
  – Industry surveys: Gartner, Forrester, McKinsey
  – Topic specific: IBM CIO study, Verizon Cybersecurity study, others
What are some other sources of data?

- Instrumentation of systems
- Regular status reporting
- User Surveys
- Interviews / Focus groups
- Public sources / databases:
  - Census: demographics, broadband availability, career shifts
- Sensors: building, environment
Exercise: Internal data collection

[PARTICIPANT INPUT]

Secondary (mostly):
• Volume stats:
  – Current usage
• Performance
  – Outages
  – Quality of service
• Campus traffic
  – Where people are

Primary (mostly):
And...
• Future projections
• Ability to meet future needs: e.g. capacity growth metrics
What kind of data do you collect?

- **Text, numbers, pictures, video**
- **Quantitative** where possible
- **Qualitative** to explain
- **Both** to show impact and value!
IT by the numbers

- Telephone & Data Communications Rooms (TDCRs) = 600 (350 in poor condition)
- Network Backbone Routers = 191
- Network Switches = 2,400
- Wireless Access Points Deployed = 3,000 (up from 800 at end of prior year)
- Unique Wireless Users/Day = avg. 7,000 (up from 3,000 in prior year)
- Internet connections = 56 Tb/day outbound & 34 Tb/day inbound
- Hits to primary web site = 5.5M/day (80% come from off campus)
- Supported Servers = 530
- Co-location Servers = 91 in FY06 Q1 (86% increase from FY05 Q1)
- Network Connected Devices = 50,000
- Telephone Calls = 33,000 inbound/day & 31,000 outbound/day
- Email Messages Delivered = avg. 700K/day (535K external & 150K internal)
- Spam Emails Filtered = avg. 585K/day
- Academic Machines (desktops, laptops, servers) Supported = 1,500
- Help Desk Interactions (calls, email, web, & walk-ins) = 98,000/yr or 400/day
- Supported Software Products = 208
- Software Licenses Distributed = 200,900/year
- Data Warehouse Records = ~560M (total 395Gb)
IT by the numbers

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IT by the numbers

- Telephone & Data Communications Rooms (TDCRs) = 600 (350 in poor condition)

- There are **350** poor TDCRs

  - Poor lighting
  - No HVAC to protect the equipment investment
  - Old cabling cannot deliver new technology services
  - No Rack space for growth of services
  - No Wall space for growth of services
  - Shared service area risk for security problems
  - Unprotected, non-dedicated power services
IT by the numbers

- Telephone & Data Communications Rooms (TDCRs) = 600 (350 in poor condition)

- There are **220** high quality TDCRs

- Proper HVAC to protect the equipment investment
- Proper Lighting
- Adequate cabling for network services
- Enough wall space for growth of services
- Enough Rack space for growth of services
- Good clearance for equipment and other services
What does this example show us? Why is this data important? [PARTICIPANT INPUT]

• Current state
• Technological trend
• Issues:
  – Complexity
  – Resources
• Did this presentation “resonate with the audience?” How can we make it better?
Some issues in data collection…

• Overall questions of data quality
  – Significance
  – Bias
  – “Latest complaint drives action”
  – “Most frequent complaint drives action”
  – “Loudest complaint drives action”
  – “Latest, most frequent, loudest complaint from most senior professor drives action”
Timing: when do you collect data?

Before
- To help identify and frame issues, and to ensure that the planning process can proceed smoothly

During
- As discussion uncovers additional data that would be useful

After
- To better manage your organization and monitor progress against plan
Timing: when do you collect data?

Always

- To help identify and frame issues, and to ensure that the planning process can proceed smoothly
- As discussion uncovers additional data that would be useful
- To better manage your organization and monitor progress against plan
Strategic Planning Data Classification

Strategic question:
• Where are we?
• What drives the future?
• Where do we want to be?
• How do we get there?

Strategic importance:
• Sets the stage (current state)
• Raises issues
• Highlights trends/drivers
• Distinguishes a constituency
• Presents resource concern

Data class:
• Organizational (internal)
• Environmental (external)
• Descriptive or issue focused

Primary data:
• Surveys
• Questionnaires
• Interviews

Secondary data:
• Org/staffing data
• Financial data
• Demographic data
• Operational data
• Public databases
Second Table Discussion:

3. Continue to fill out Planning Data Planning Matrix [Should have >10 items]

4. What are some of your concerns/issues in data definition and collection? [Group makes suggestions]
Second Table Reports:

3. Strategic Planning Data Planning Matrix

4. What are some of your concerns/issues in data definition and collection?
### Example Data Matrix

**Strategic Planning Data: Planning Matrix**

Type of project (Initial, Revisit, Update): **Revisit**

Project focus (Organization, Service, Technology):

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</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Where we are What drives us Where we want to be How to get there</td>
<td>Sets the stage Raises issues Highlights trends Constituency Resource concern</td>
<td>Organizational: - Financial - Demographic - Operational Environmental [Issue focused]</td>
<td>Faculty/ Researchers/ Students/ Administrators / Other staff</td>
<td>Primary: - Survey/Quest - Interviews Secondary: - Instrument - Public - Other</td>
<td>Text/ Numbers/ Pictures <strong>Table/Graph/ Chart/Picture/ Video /Interactive</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Staffing/Where we are</th>
<th>Network Users: WW1A</th>
<th>Social Media Protections:</th>
<th>&quot;Visionary&quot; Scale: Where we want to be</th>
<th>JETT History: Where we are</th>
<th>Spending by Purpose: C/S/Trends</th>
<th>Focus Group Results:</th>
<th>Backlog/ Unmet Needs: WW/WW1W2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Status/Issues</td>
<td>C.S.</td>
<td>Trends</td>
<td>Issues, Resources</td>
<td>Trends</td>
<td>C.S./Trends</td>
<td>Issues, Resources</td>
<td>Issues, Trends, Resources</td>
</tr>
<tr>
<td>Demo</td>
<td>Staff</td>
<td>Secondary</td>
<td>OPERATIONAL</td>
<td>OPERATIONAL</td>
<td>OPERATIONAL</td>
<td>OPERATIONAL</td>
<td>OPERATIONAL</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>STAFF</td>
<td>ALL</td>
<td>PRIMARY</td>
<td>ALL</td>
<td>TEXT, CHARTS, VIDEOS</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>Sec.</td>
<td>CHARTS, TABLES</td>
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</table>

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Interactive Presentation

-- ASK QUESTIONS AT ANY TIME

4. Presenting your analysis

5. Completing the Data-Driven Strategic Planning Framework
How can we best present data?

[PARTICIPANT INPUT]

- Text: quotations, narrative, video!
- Numbers: tables, charts, graphs
- Pictures/videos: worth how many words?
- In formats that “make the point”
- In formats that speak to the audience (or individual)
How can we best present data?

• In terms that resonate with the audience:
  - “That’s the equivalent of the cost of a full-time grad assistant”
  - “System maintenance == Building maintenance”
  - “System infrastructure == Building infrastructure”
  - “IT capital plan == Building capital plan”
• Comparisons, analogies
• In ways that show importance
Examples using our Data Planning Framework

• Data that shows where we are now
• Data that shows what drives us to the future
• Data that shows where we want to be
• Data that shows how we can get there
Examples using our Data Planning Framework

- Data that shows where we are now
- Data that shows what drives us to the future
- Data that shows where we want to be
- Data that shows how we can get there
Getting to IS&T – A history of change

1957
Computation Center (Science) → Information Processing Center

1967
Information Processing Services (Engineering)

1971
IPS (Provost)

CHANGED REPORTING: Office of Administrative Information Systems

1975
IPS

1983
Information Systems (Sr. VP)

CHANGE REPORTING: Telecommunications Systems

1991
IS

MERGED: Financial Systems Services

2003
Information Services and Technology (EVP)

MERGED: Academic Computing

2005
IS&T

MERGED: Student Services Information Technology

2007
IS&T

MERGED: Stellar

? OEIT (DUE)

1983
Project Athena

1999
NEW: Financial Systems Services (EVP)

1996
NEW: Student Services Information Technology (DUE)

2001
AMPS Stellar (Provost)

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What does this example show us? Why is this data important?

- Organizational placement of IT
- History of change
- Possible issues:
  - Staff integration
  - Resources
The Internet circa 1975
Our school’s network is more complicated today than the Internet was years ago!
What does this example show us? Why is this data important?

- Current state
- Technological trend
- Issues:
  - Complexity
  - Resources
Campus-wide IT Health Check

- Day-to-day operations:
- Teaching and learning systems:
- Administrative systems:
- Research computing capacity:
- Wireless network:
- Wired network:
- Security:
- IT governance:
- Capital funding need:
Peer Comparisons

Central IT Budget / University Budget*

<table>
<thead>
<tr>
<th></th>
<th>ABC</th>
<th>DEF</th>
<th>GHI</th>
<th>JKL</th>
<th>XYZ</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY 2013</td>
<td>N/A</td>
<td>4.4%</td>
<td>3.5%</td>
<td>2.5%</td>
<td>3.5%</td>
</tr>
<tr>
<td>FY 2014</td>
<td>4.0%</td>
<td>4.1%</td>
<td>3.6%</td>
<td>2.5%</td>
<td>3.2%</td>
</tr>
<tr>
<td>FY 2015</td>
<td>4.0%</td>
<td>3.6%</td>
<td>3.4%</td>
<td>2.6%</td>
<td>2.6%</td>
</tr>
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</table>

Central IT Budget / University Population*

<table>
<thead>
<tr>
<th></th>
<th>ABC</th>
<th>DEF</th>
<th>XYZ</th>
<th>GHI</th>
<th>JKL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY 2013</td>
<td>N/A</td>
<td>$3,737</td>
<td>$2,650</td>
<td>$1,642</td>
<td>N/A</td>
</tr>
<tr>
<td>FY 2014</td>
<td>N/A</td>
<td>$3,838</td>
<td>$2,611</td>
<td>$1,748</td>
<td>N/A</td>
</tr>
<tr>
<td>FY 2015</td>
<td>N/A</td>
<td>$3,615</td>
<td>$2,277</td>
<td>$2,020</td>
<td>$1,665</td>
</tr>
</tbody>
</table>

* Example numbers, based on EDUCAUSE CDS
New York University (2014)

IT Governance

IT Strategic Planning
(Vice Chancellor for Strategic Planning, EVP Finance & IT)

Quarterly IT Review for Provost & EVP

IT Architecture Review Board
(Snr Vice Provost for Research)

Teaching & Learning
(Snr Vice Provost for Undergraduate Acad Affairs)

Research
(Snr Vice Provost for Research)

Community Life
(Snr VP for University Relations & Public Affairs)

Administration
(EVP Finance & IT)

IT Infrastructure: including connectivity, phones, shared services, ServiceLink Delaney (CGTO) & McMillan (CITO) with CIO Council
MIT IT Governance Framework (2014)

Model for Decision Management

IT Leaders

IS&T Student Technology Advisory Board (ISTAB)

Provost

EVP

Information Technology Governance Committee (ITGC)

Build vs. Buy, Infrastructure, Architecture, Etc.

Charge Direction Funding

Periodic update (annual)
Event-based reporting

Periodic review (quarterly)
Event-based reporting

Research

Research Computing IT

MIT’s Council on Educational Technologies (MITCET)

Academics

Student Systems Steering Committee (SSSC)

Administration

Administrative Systems and Policies Coordinating Council (ASPCC)

Working Group

Academic Computing CoORDination (ACCORD)

Working Group

Working Group

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What do these examples show us? Why is this data important? [PARTICIPANT INPUT]

- Current state
- Comparison
- Issues:
  - Constituencies represented
  - Complexity of decision making
- Did this presentation “resonate with the audience?” How can we make it better?
Central vs. Distributed IT

- **Academic Computing**: IS&T and DLCs
- **Administrative Computing**: IS&T and DLCs
- **Research Computing**: IS&T and DLCs
- **Network Infrastructure**: IS&T and DLCs
- **Desktop Support**: IS&T and DLCs
- **Computer Space**: IS&T and DLCs
What does this example show us? Why is this data important? [PARTICIPANT INPUT]

• Current state
• Comparison (internal)

• Issues:
  • Ability to change things via central IT
  • Complexity of decision making

• Did this presentation “resonate with the audience?” How can we make it better?

• Doesn’t show:
  • Peer comparison, trends
Examples using our Data Planning Framework

- Data that shows where we are now
- Data that shows what drives us to the future
- Data that shows where we want to be
- Data that shows how we can get there
Institutional Strategic Priorities (1)

Research Focus Areas
- Energy
- Convergence of Life Sciences and Engineering

Learning/Teaching Focus Areas
- Internationalization
- Integration of Student Living and Education
- Educational Commons
Institutional Strategic Priorities (2)

Financial Areas

Research Funding

New Campus Development

Optimization of Financial Resources
What does this example show us? Why is this data important? [PARTICIPANT INPUT]

• Institutional priorities: focus areas (within research and learning/teaching) and financial issues
• Issues:
  • Some research areas are more important than others
  • How will financial issues interact with research/learning priorities?
  • Resources
• Did this presentation “resonate with the audience?” How can we make it better?
Technology Focus

“The Cloud”  Integrated Communications  Identity Management  Security and Privacy

Content Services  Administrative and eCommerce systems  End User Computing
What does this example show us? Why is this data important? [PARTICIPANT INPUT]

- Technological trends: Tech available ever more widely.
- Issues:
  - Students expectations when they get to college
  - Dealing with their environment: Amazon/Netflix, Siri/Echo, Google maps – what’s next?
  - Hidden complexities (cloud, security)
  - Resources
- Did this presentation “resonate with the audience?” How can we make it better?
Examples using our Data Planning Framework

• Data that shows where we are now
• Data that shows what drives us to the future
• Data that shows where we want to be
• Data that shows how we can get there
Where do you want to be on the “technology leadership” scale?

Visionary

Leading Edge

“Standard”

Lagging

Office Computing

Academic Computing

Research Computing

Administrative Computing

EXAMPLE
Technology Leadership Scale - Current

Visionary

Leading Edge

"Standard"

Lagging

Office Computing

Academic Computing

Research Computing

Administrative Computing

EXAMPLE
Back to core principles...use data:

- To explain current state: ITs place, its operation and performance
- To identify drivers to the future: internal and external
- To project where we want to be
- To identify issues
  - Do students and faculty and administration need the same data?
**Data-Driven Strategic Planning Framework**

1. **Initial Revisit Update**
   - Determine type of project and focus
2. **Where/what Now/future How?**
   - Determine key questions/ issues
3. **What will be important and why**
   - Assess and define data
4. **Organizational assessment**
   - Collect data
5. **Environmental scan**
   - Perform analysis
6. **Issue clarification**
   - Organize and Present

**Sets the stage**
- Raises issues
- Trends/drivers
- Constituency
- Resource concern

**Show why data is important and why**

**Comparisons**
- In terms that resonate

**Text, tables, pictures, graphics, videos, interactive**
Summary

a. Strategic Planning
b. Data Classification
c. Strategic Planning Data Planning Framework
What is strategic planning all about?

- Determining where we are now
- Determining what drives us to the future
- Determining where we want to be in the future
- Determining how to get to that future
Some underlying ideas for data-driven strategic planning:

- Data: “facts and statistics collected together for reference or analysis”
- “If you can’t define it, you don’t know what your data says.
- “If you don’t analyze it, you don’t know what your data means.”
- “If you don’t organize and present your analysis, you can’t convince anyone of what it means!”
- “Data is most valuable when it can be turned into information that can be used for action”
Data-Driven Strategic Planning: Tasks

- Define the data you are providing. Make sure it is clear why that data will provide *important information*.

- Collect the data.

- Analyze the data: what does it say to you, *why is it important*.

- Organize and present the analysis so that the strategic planning team knows what you are providing (definition) and why it is important.

  - *How can it be used as information for action?*
Strategic Planning Data Classification

Strategic question:
• Where are we?
• What drives the future?
• Where do we want to be?
• How do we get there?

Strategic importance:
• Sets the stage (current state)
• Raises issues
• Highlights trends/drivers
• Distinguishes a constituency
• Presents resource concern

Data class:
• Organizational (internal)
• Environmental (external)
• Descriptive or issue focused

Primary data:
• Surveys
• Questionnaires
• Interviews

Secondary data:
• Org/staffing data
• Financial data
• Demographic data
• Operational data
• Public databases
Strategic Planning Data Presentation

• Tables, graphs, charts, pictures, videos, interactive
• Comparisons, analogies

• In terms that resonate
• In formats that “make the point”
• In ways that show importance
Data-Driven Strategic Planning Framework

1. Determine type of project and focus
2. Determine key questions/issues
3. Assess and define data
4. Collect data
5. Perform analysis
6. Organize and Present

- Initial Revisit Update
- Where/what Now/future How?
- What will be important and why
- Organizational assessment
- Environmental scan
- Issue clarification
- Success factors
- Text, tables, pictures, graphics, videos, interactive

Organization Services Technology
Sets the stage
Raised issues
Trends/drivers
Constituency Resource concern
Show why data is important and why
Comparisons
In terms that resonate

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Did we accomplish YOUR goals today?

- **Understand** what data is important to different constituencies in creating an IT strategic plan
- **Learn** practical approaches to collecting, organizing, and presenting that data
- Start to **apply** this framework to your own strategic planning projects
Help Us Improve and Grow

Thank you for participating in today’s session.

We’re very interested in your feedback. Please take a minute to fill out the session evaluation found within the conference mobile app, or the online agenda.
Data-Driven IT Strategic Planning
For Data-Driven IT Leaders

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