Information Technology @ Penn State
Year 1 Report
Michael Kubit – Vice President for Information Technology
and Chief Information Officer
Spring 2018

Agenda

• Key Trends
• Objectives for the Vice President for Information Technology, CIO
• Goals for Fiscal Year 2017-2018
• Mission, Vision for Penn State IT
• IT Strategy
• Challenges facing Penn State IT
Educational paradox

“At a time when a college degree is one of the surest harbingers of higher earnings and better economic security, college itself is regarded with skepticism by many Americans and outright contempt by no small number of them.”

Source: New York Times
(Dec. 30, 2017)

Changing Landscape

• Students of the Future
  o Overall decrease in HS grads (1%/year for a decade)

• Financial Trends
  o One-third of colleges/universities ranked as unsustainable by financial ranking organizations; 16 states predicted to stop funding public universities

• Faculty Trends
  o 25 percent of faculty approaching age 79; less than one-third of faculty are tenured

• Research Funding Trends
  o Declining federal support; research institutions seeing only slight increase, if any

• Future of Learning
  o Internships and other engagement important to career success; emphasis on learning through experience

(Adapted from President Barron's address to Academic Leadership Forum)
Technology, Business Trends in Higher Ed

Higher Ed Business Trends
- Competency-Based Education
- Reinventing Credentials
- Analytics Everywhere
- Ranking
- Breaking Boundaries
- Revenue Diversification
- Increasing Political Intervention
- Innovative Learning Spaces
- Personalization
- Student Recruiting

Higher Ed Technology Trends
- Cloud
- Mobile
- Social
- Information
- Internet of Things

AR = augmented reality; VR = virtual reality
Source: Gartner (December 2016)

NMC Horizon Report > 2017 Higher Education Edition at a Glance

Key Trends Accelerating Higher Education Technology Adoption

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Insights and Opportunity

• Financial strain is exacerbated by demographic changes and decreasing support for public higher education
• Key issue for the University is innovation in the face of growing financial strain
• Much of our strategic plan is focused on innovation

How do we enable IT innovation with existing resources?

Objectives for the VPIT/CIO

Advance a Penn State IT transformation through:

• Shared Vision: establishing a cross-University, shared vision for IT
• Culture of Service: enabling infrastructure, responsive service, effective administrative systems, and balanced innovation
• Optimize Investments: improving the effectiveness and efficiency of technology delivery through harmonizing resources, infrastructure, and architectures
• Differentiate: positioning technology to be a differentiator for the University
• Protect: providing long-term strategic vision, resources, and leadership to secure the University’s network infrastructure, sensitive data, student information, and other critical information assets
Strategic Direction for Penn State IT

Goals, Fiscal Year 2017-2018

- Continue to support and implement the University's strategic plan.
- Successfully recruit and establish new IT senior leadership team before end of 2017 calendar year. Complete onboarding and organizational assessments prior to summer 2018.
- Complete University-wide assessment of IT current state. Complete data analysis and develop reports for distribution during fall 2018. Engage key stakeholders and distributed IT leadership in report analysis in preparation for IT transformation planning.
- Successfully migrate Penn State University to a single email/calendar platform by December 2018.
Goals, Fiscal Year 2017-2018

Develop a strategy for a university-wide Analytics and Business Intelligence initiative, in collaboration with the Vice Provost for Institutional Planning and other key stakeholders.

Complete Analysis and Recommendation for a 10-year Penn State Data Center plan, including well-articulated strategies for leveraging public and private cloud environments.

Complete analysis and recommendations for future ERP organizational design.

Support the activities of the CISO to secure Penn State’s technology and information assets.

Our Mission

Penn State IT is a service organization, dedicated to serving the needs of our students, faculty, and staff members through:

• responsive service and support
• enabling infrastructure
• effective administrative systems
• strategic innovation
Our Vision

We serve.
We empower.
We innovate.

We are ...

IT Strategy

• University-wide effort (OneIT)
• Align IT to University strategic plan
• Transform the IT experience
• Position IT as strategic resource
• Create capacity for innovation
Strategic Areas for Penn State IT

Position Penn State IT to adapt to rapid and complex change through organizational redesign, knowledge and change management, and the transformation of organizational norms and values.

Invest in people, process, and technology and the development of data governance to ensure the right people have access to the right data, at the right time, to make the right decisions.

Collaborate with educational support units to research, assess, and support new pedagogical models and educational technologies to enable growth in residential, online, and hybrid instruction.

Enhance the reputation of Penn State as a national leader in research through technology solutions and support, increasing the University’s ability to attract top faculty, students, and research partners.

Embrace mobile devices as the primary way people interact with the University, and ensure a seamless mobile experience both on and away from the University.

Focus primarily on people and process in the delivery of services and support to the University in order to reduce waste, complexity, and variability.

Provide professional development to cultivate and strengthen the skills of our IT professionals in order to continually deliver innovative technology.

Evaluate, select, prioritize, and fund competing IT investments to effectively and efficiently enable the University to achieve its goals.

Our challenge

The Legacy IT “Mountain”

- Aging systems
- Silos
- Technical debt
- Parochial thinking
- Inaccessible data
- Closed platforms
- Complexity
- Reactive
Areas of opportunity

- Overall IT spend is consistent with our peers (how we are using the resources is the issue)
- Overinvesting in commodity technologies and services
- IT Service Desk annual total cost of ownership is $7.8M, or 164% higher than peer average ($36/contact)

Re-imagining IT

- Align resources to strategic plan
- Optimize investments in technology and services
- Create capacity to support innovation