High-performing teams

- Common objective
- Clear roles and responsibilities
- Effective use of talent and expertise
- Problem solving focus
- Diversity
- Risk taking and creativity
- High performance standards
- Team identity
FUTURE
• Anxiety and fear of change work together
• Fear of the unknown
• Fear of Failure
• Fear of Loss
• Fear of leaving a comfort zone
Doubt kills more dreams than failure ever will

Suzy Kassem
Opportunity
Just Ahead
Top Ten Strategic Technology Trends for 2018

Intelligent
- AI Foundation
- Intelligent Apps and Analytics
- Intelligent Things

Digital
- Digital Twins
- Cloud to the Edge
- Conversational Platforms
- Immersive Experience

Mesh
- Blockchain
- Event-Driven Model
- Continuous Adaptive Risk and Trust

Source: Gartner (October 2017)
Technology and Business Trends in Higher Education

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
- Open Microcredentials
- Digital Assessment
- Predictive Analytics
- Adaptive Learning
- VR/AR Comeback
- Hybrid Integration Platforms
- Institutional Video Management
- Artificial Intelligence
- Listening and Sensing Technology
- Robotic Telepresence

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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**Short-Term**
Driving technology adoption in Higher Education for the next one to two years

- Blended Learning Designs
- Collaborative Learning

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**Mid-Term**
Driving technology adoption in Higher Education for the next three to five years

- Growing Focus on Measuring Learning
- Redesigning Learning Spaces

---

**Long-Term**
Driving technology adoption in Higher Education for five or more years

- Advancing Cultures of Innovation
- Deeper Learning Approaches
# Significant Challenges Impeding Higher Education Technology Adoption

## Solvable
Those that we understand and know how to solve

- Improving Digital Literacy
- Integrating Formal and Informal Learning

## Difficult
Those that we understand but for which solutions are elusive

- Achievement Gap
- Advancing Digital Equity

## Wicked
Those that are complex to even define, much less address

- Managing Knowledge Obsolescence
- Rethinking the Roles of Educators
Important Developments in Technology for Higher Education

**2017**
- Time-to-Adoption Horizon: One Year or Less
  - Adaptive Learning Technologies
  - Mobile Learning

**2018**
- Time-to-Adoption Horizon: Two to Three Years
  - The Internet of Things
  - Next-Generation LMS

**2019**
- Time-to-Adoption Horizon: Four to Five Years
  - Artificial Intelligence
  - Natural User Interfaces
Cloud and Edge Computing

Source: Gartner (October 2017)
OPPORTUNITY
Objectives
Measures of Success
SHARED VISION
Culture of Service
Optimize Investments
Differentiate
Implementing *Our Commitment to Impact* Penn State University’s Strategic Plan for 2016 to 2020

<table>
<thead>
<tr>
<th>Access</th>
<th>Transforming Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engagement</td>
<td>Enhancing Health</td>
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<tr>
<td>Global Engagement</td>
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<td>Organizational Processes</td>
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<td>Infrastructure &amp; Support</td>
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<td>Constituent Outreach &amp; Engagement</td>
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</tbody>
</table>
The Real Challenge

The Challenge with Digital Transformation

- Aging legacy systems
- Silos
- Technical debt
- Changing expectations
- Legacy skills
- Closed platforms
- Complexity
- Legacy thinking
# Building on Our Strengths

<table>
<thead>
<tr>
<th>FROM</th>
<th>TO</th>
<th>BECAUSE</th>
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<tbody>
<tr>
<td>Local Focus</td>
<td>University Focus</td>
<td>• Empower and Enable the mission</td>
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<tr>
<td>Technology Focus</td>
<td>Focus on People and Process</td>
<td>• Align with strategic goals</td>
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<tr>
<td>Responding to crisis</td>
<td>Preventing crisis</td>
<td>• Optimize investments in technology and services</td>
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<tr>
<td>IT Centric</td>
<td>Business Focus</td>
<td>• Change and adapt according to the strategic needs of our University</td>
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IT "Stack"

**Solution**
Presentation, Data, Applications, Support

**Platform**
APIs, Middleware, Integration

**Operating Systems**
Server administration

**Server Infrastructure**
Storage, File servers, Computing

**Network Infrastructure**
Firewalls, Switches, Connectivity
Optimizing IT Talent

Current 1:10

Optimized 1:500
Optimizing IT Talent

Current 1:10

Optimized 1:500
Optimizing IT Talent

Current 1:10

Optimized 1:500

Solution
Platform
Operating Systems
Server Infrastructure
Network Infrastructure
Vision
We Are… PennState
Leadership
Penn State IT Senior Leadership Searches (Current State)
Project Timeline

Completed Activities
- Search Consultant retained
- Positions posted
- Search committees formed
- Applicants screened to long-list
- Applicants screened to short-list
- Candidates presented to VPIT/CIO
- Candidates presented to search committees

Activities in Progress
- Accepting applicants
- Arranging interviews

Areas of Concern
- Holidays could impact schedule
- Tight deadline does not leave much room for change in schedule
Workforce Development
Workforce Development

Management
Workforce Development

Management

Technical
Workforce Development

Management  Technical  Business
Workforce Development

Management  Technical

Interpersonal  Business
Commitment to professional development

• Skills assessment
• Job families
• Professional development plans
• Communities of interest
• Certifications
• Workforce development
OPERATIONAL EXCELLENCE
OPERATIONAL EXCELLENCE

How do we define success?
PEOPLE

Business Process Understanding
Roles & Responsibilities
Segregation & Controls
Key Performance Measurement
System Implementation

PROCESS

Policies, Procedures & Reporting
Business Process Re-engineering
System Audit & Review
System Evaluation & Selection

TECHNOLOGY
Service Mindset
We are a SERVICE organization
We Empower and Enable Penn State’s mission

- Enabling infrastructure
- Responsive service and support
- Effective administrative systems
- Balanced innovation
Data Driven
Strategic Focus
Implementing *Our Commitment to Impact*
Penn State University’s Strategic Plan for 2016 to 2020
Optimize investments in technology and services

Create capacity to support Penn State’s strategic plan
VPIT/CIO Organizational & Operational Assessment Activities (Current State)

**Project Timeline**

- **Search Consultant**
  - Retained: July 1, 2017
- **Positions Posted**
  - August 23, 2017
- **Formal Interview Process Start**
  - October 31, 2017

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- **Craft position descriptions**
  - Aug. 6–Aug. 18, 2017
- **Short list candidates presented to search committees**
  - Oct. 1–Nov. 10, 2017
- **Sr. Director Infrastructure Interview Process**
  - Oct. 31–Dec. 15, 2017
- **Sr. Director for Business Intelligence Interview Process**
  - Oct. 31–Dec. 15, 2017
- **Chief Technology Architect Interview Process**
  - Oct. 31–Jan. 15, 2018

**CTA Complete**

- **Sr Dir BI Complete**
  - December 15, 2017
- **Sr Dir Infra Complete**
  - December 15, 2017