Technology Transitions and Transformations
Partnerships and New Ways to Work
Agenda

• Setting The Technological Context
  What is this Digital Transformation and Disruption

• So What About Higher Ed...

• What’s Happening at CSU Dominguez Hills

• Lessons from Transforming a University Technology
Current Global Digital Context

• **Post hardware** focus began with digital applications (Word, PowerPoint), and moved to the adoption of mobile devices (apps) over desktops

• Digital interactivity and transmission of information between embedded devices **without human intervention** (IoT - Internet of Things) is now the heart of digital conversation
  • Smart homes, smart networks, and Big Data

• This heart has a system of digital transactions and real time analytics that requires interventions only at point of exception (**process design**)  

• It is becoming universal in impact
Current Global Digital Context
(CONT’D)

From a *process perspective* we are also facing:

- the sustained rapid pace of change,
- the rapidity of the creative cycle (how frequent iterations are released), and
- the multidirectional path of creative change (neither just top down or bottom up)
  - Users often have tools and capacity before institutions
  - A greater number of “eyes” on issues provides for greater opportunities

The change is so profound and sometimes perceived as complex, it is often referred to as *Digital Disruption*
A way to see the Digital Disruption is as a

NEW USER EXPERIENCE
In the face of this disruption, institutions globally are re-investing in and transitioning IT from large legacy systems to a new more nimble and flexible model.
So What About Change In Higher Ed?

Change in the University’s Digital Pathways
• More than just your web site or mobile app, it’s the also transactions. Think admissions, enrollment, advising, financials, student aid, instructional support and commercial ventures. This includes implications for data creation and capture to inform “who we are and what we become.”

Change in the flow of University Operations
• Think frequent iterations and its potential impacts to space – how we all organize to work. The shift in production process from waterfall to agile is more than a technology/development toolset.

Change in Technology Vendor Partnerships
• Digital disruptions and transformations are also impacting our vendors and they are seeking unique partnerships. Small projects that achieve targeted value can lead to broader discussions that approach the philanthropic.
So What about Higher Ed: Technology Contexts

- **Instructional** – Those systems and processes we use to teach and pedagogically interact with students

- **Graduation Initiative** – Those systems and processes we use that support the entire lifecycle of our student success functions

- **Administrative** – Those systems that are the foundational systems of record for university operations
CSUDH CAMPUS FACTS

**FOUNDED**
- 1960

**DEGREES GRANTED**
- Bachelor’s, Master’s

**ENROLLMENT**
- 14,687

**ACADEMIC PROGRAMS**
- 46 undergraduate majors
- 22 graduate majors
So….What About CSUDH IT?

2015-2016 - installing baseline for Enabling Technologies.

2017-2018 - use enabling technologies to turn on, configure, and build services and functionality that profoundly changes the way we operate.

2019 forward - build on the enhancements and work through university service delivery.

SO….WHAT DOES THIS LOOK LIKE?
Technology Framework Documents

• **Service Delivery Model**
  - Model for delivering university services through a life-cycle approach

• **Governance and Communications**
  - A flexible structure based on capacity and priorities

• **Service Catalog Structure**
  - Coordinated technology services for the academic enterprise

• **Sustainable Financial Model**
  - Model and multi-year plan for funding technology priorities

• **Staffing and Development Model**
  - Model and multi-year growth plan for staffing university technology services
Some Core Student Technology

• **First-time Freshmen Laptop Loaner Program**
  • Acer Aspire E 14” Series with University licensed software installed (Microsoft Office, Adobe Suite, and SPSS).
  • Checked out a semester at a time as long as the student is enrolled.

• **Smart Classrooms**
  • Two Active Learning Classrooms for group & interactive learning.

• **Software & Applications provided at no cost**
  • Microsoft Office,
  • Adobe Creative Cloud,
  • Zoom video conferencing,
  • Mathematica, SPSS,
  • lynda.com online training, and more coming soon.

• **Enterprise Applications** – Blackboard, online Perceived Teaching Effectiveness (PTE), Tutoring & Advising data for student success & intervention.
Architecture for Digital Pathway

- **PeopleSoft**
- **Other Apps**
- **Logic Engine**
- **ServiceNow**
- **OnBase**
- **Other Apps**
- **Dashboard**
- **Notifications**
- **Processes**
- **Bb Connect**
- **1-Stop-Shop**
- **Service History**
- **Ask Teddy**

**EMPLOYEES**

**STUDENTS**
GI 2025 Technology Ecosystem

**Peoplesoft**
Classroom scheduling

**Curriculum Information Management**
Workflow for course and program changes - forms A and B

**Analytic Platform**
Predicts course demand based on historical, degree audit, and planner data

**Smart Catalog**
Course catalog workflow and online publishing

**Learning Management System**
New LMS to meet current and emerging teaching & learning needs

**Education Advisory Board**
Data & reports for proactive advising - notes, issue tracking and resolution, analysis of 'at risk' indicators and identifying student use of programs, services and centers

**Smart Planner**
Personalized and interactive student degree planner that provides a customizable path to graduation based on various degree program roadmaps

**College Scheduler**
Student schedule optimizer - can include academic and non-academic scheduled commitments

**Academic Requirements Report**
Degree audit snapshot report - displays requirements met, in progress, and to be completed

**Degree Audit**
Visual progress meters for general education (GE), major, and minor requirements

**Advising Summary**
Condensed view of academic information for a given student

**Online Graduation Application**
Apply to graduate and launch all aspects of the graduation process

**Finish in Four Commitment**

**CMS: Student Center (Students) / Student Services Center (Faculty and Staff)**
Authoritative source of student, academic, and financial aid data

**BI/Data Warehouse Dashboards**
Facilitate reporting across multiple source systems; develop reports, visualizations, and predictive models
Collaborative Technology Efforts

Programs and units that are digitally focused collaborative efforts

• Digital Media Center
• Toro Innovation and Incubation
• IT Internship Program
• University Data Framework
• Expanding Technology Partnerships
Digital Media Center

Opportunity spanning IT, Advancement, and Academic Affairs

Collaborative organizational unit that consolidates television, digital video capture, web, and media production into one service area.

• Consolidate video support and creation processing into Toro Media Center
• Student assistant positions and student internships can be grown in areas of in demand tools and skills while providing a knowledge center for student support
• Branding and content consistency will be assured through governance
• Content can be created and captured through various streams and repurposed for specific digital media outlets
• Supports efforts in Advancement, through the staging of key areas for campus events
Toro Innovation and Incubation

where entrepreneurs and small business owners can develop as leaders and grow their businesses

MISSION

• We empower entrepreneurs by serving as a catalyst and economic engine for the South Bay Region.

VISION

• To be regarded as one of the Top University-based Incubators in Southern California.

We are the ONLY University based Incubator in the South Bay!
IT Internship Program

• Began in 2010 with 9 students as an IT Practicum
  • Now averages 19-21 students

• Program seeks to:
  • ...provide “hands-on” technical knowledge and expertise to the students
  • ...prepare the students with technical skills that enhance their abilities to obtain a career in Information Technology
  • ...and increase enrollment in the Computer Science Program

• Students have been hired by companies such as Health Care Partners, Molina Health Care, Staples, and City of Hope
**University Data Framework**

**WHAT WE KNOW**

- Global data is growing and is system driven
- Increasingly technical and must be developed in a uniform way

New data sources coming in (Big Data)

Correct and appropriate data, viewed from the same lens
Expanding Technology Partnerships

Cisco
- Enterprise Engagement
- Security Gear Program
- STEAM Alignment
- Reimagined Intern Programs

Linked in
- Academic Vertical
- Spheres: IT, Alumni, HR, Academic Programs
- Tools: Validation, Content, Connected Messaging

City of LA
- 2016 Digital City of Year
- Data Science Federation
- Interns, Research, and Projects
- Data Sharing through Analytics
AOA and IT

• **Discussions should move from transactions to strategic**
  - From “Who is updating the computers?” to “What is the system telling me?”

• **A majority of technology efforts are now partnerships**
  - Partnership between provider and customer
  - No longer purchase transactions but deeper dives at vendor collaborations

• **To best benefit the students revitalized services and experiences need to be developed and it takes a village**
  - New delivery modes and models
  - New experiences that demonstrate academic, research, and applied hands on
Summary

One university's initial shift from traditional IT into context independent digital focus.

Outcomes:

• **We are now all called to be entrepreneurial, innovative, and digital**

• **We are all looking to push the transactional and support up the chain in favor of the strategic**

• **Our discussions should now be more intensely focused on advanced partnerships that leverage the entirety of our vendor partners organizations**

• **Digital transformation is impacting all industry verticals, so much larger opportunities exist in entrepreneurial and philanthropic**