Interactive Technologies: Our Road Map!

LABMAN Annual Conference 2018
University of Maryland, College Park
**Carlos Coronel, MTSU**

In this presentation...

- This session will communicate the last four years of experience at the Jones College of Business.
  - Our original goal was to:
    - Upgrade our curriculum
    - Create a culture of student engagement and interaction.
  - Our Road Map:
    - Opportunity: timing + vision
    - Buy-out from top administration
    - Identifying the challenges
    - Identifying key faculty and classes
    - Investing in faculty development
    - Managing pedagogical shifts
    - Gathering feedback and marketing
  - The presentation will share lessons learned and best practices.
  - We encourage everyone to apply different technologies to their own environments.

What was really like
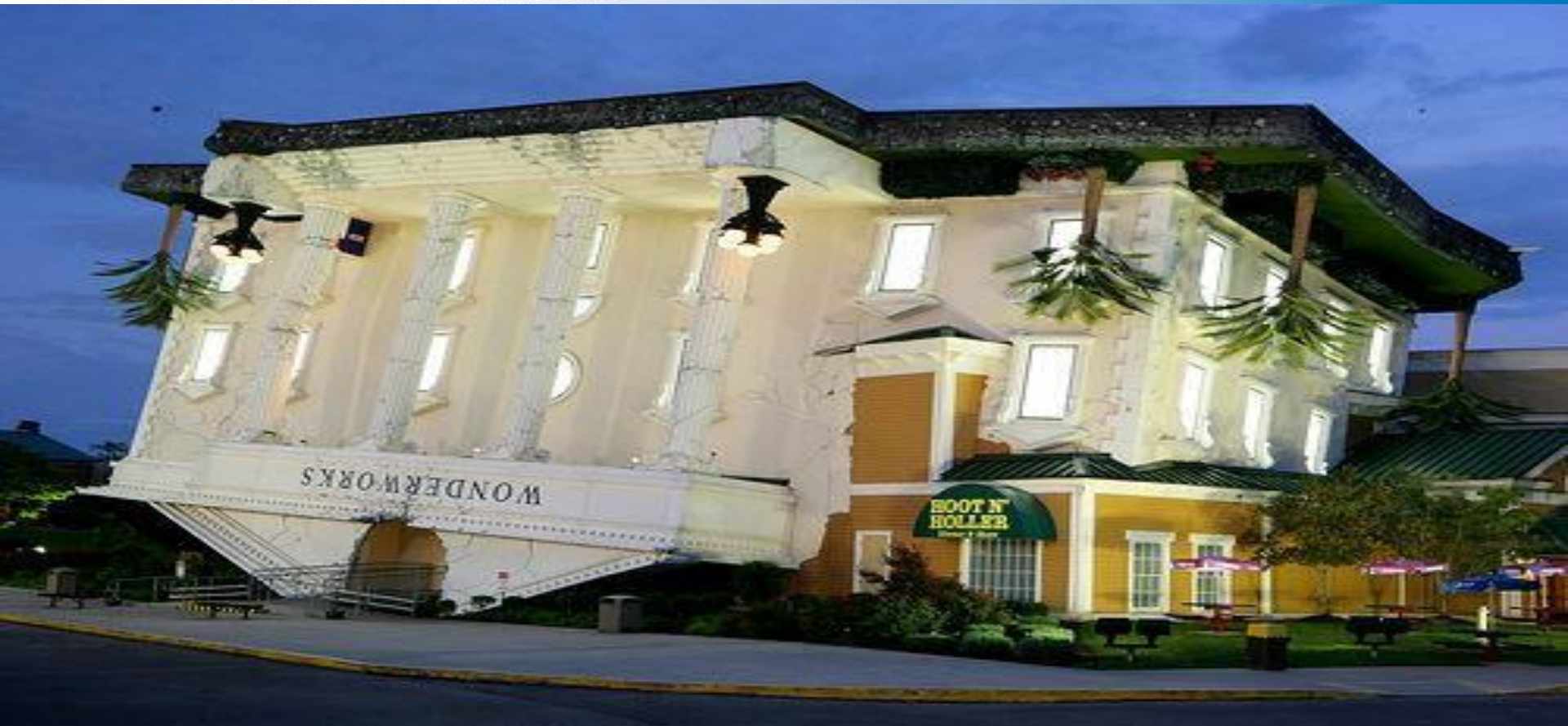
- This is not a "technical" presentation. No settings/switches to turn on or off…

- This was "our" experience. Our trip is not finished …

- "I use several of these technologies & techniques in my classes. And Yes, … It will take more of your time"

Campus was changing…

MT Engage, seeks to create a culture in which students become actively engaged in their learning. This will be done by building a campus climate in which **faculty are encouraged and supported to teach with high impact educational practices**; and creating opportunities for students to reflect on and document their own learning.

" .. .through **diverse teaching methods and media** including educational technology, experiential learning, undergraduate and graduate research, and co-curricular and extra-curricular activities."

http://www.mtsu.edu/mtengage/

- New Dean
  - Charge "update our programs and curriculum"
  - Seized this opportunity and included "*high impact educational tech…*"
  - IT Director position is part of the **College Executive Committee**
    - Bring discussion to decision makers
    - Gain early buy-out from top decision makers
    - Make them "active partners" in forming the "vision"
  - Dean committed funds to technology to support teaching & research

Taking the jump…

Jones College of Business aligned programs with the MT Engage principles. As part of this decision, we identified technologies and services to support "innovative and diverse teaching methods" and "high impact practices".

- College Strategic Plan
  - SWOT
  - Accreditation
- Survey & interview faculty
- Survey & interview students
- Research external sources
- External Organizations/Groups
- Answer the WWH question

Strategic

Tactical

Operational

- Internal services inventory
- Research external sources
  - Teaching strategy
  - Learning theory
- External Organizations/Groups
- Align IT with College mission and strategy
- Establish relationships with vendors
- Setup Pilot tests
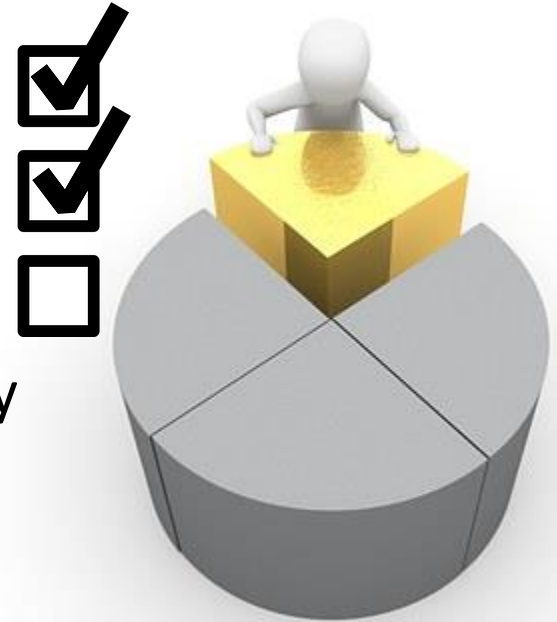
Sample Evaluation…

- Selected faculty
- Selected courses
- Student groups
- Feedback Surveys
- ITD feedback
- Industry rankings
- Peers references

	What video content gets indexed?					How can users search for video content?			
	Manual Metadata, with viewer notes	Optical Character Recognition	Automatic Speech Recognition	Slide Files Content Ingestion	Optional Human Transcript	Search across every video in a video library	Search inside a video for specific content	One-click fast forward to the moment the result occurs	Mobile apps that enable search inside video content
Panopto	●	●	●	●	●	●	●	●	●
RAMP	◐	◐	●	●		●	●	●	
Mediasite	◐	●	◐		●	●	●	●	
Qumu	◐		●			●	●	●	●
Tegrity	◐	●			●		●	●	
Echo360	◐	●			●		●	●	
Autonomy	◐		●			●			
Cisco Pulse	◐	◐	●			●	●	●	
KZO Innovations	●			◐		●	◐		
KnowledgeVision	◐				●		●	●	
Kaltura	◐			●	●	●	●	●	◐
Camtasia Relay	◐		●	●			●	●	●
BlinkX	◐	◐	●			●			
YouTube	◐					●			
Kontiki	◐					●			
MediaPlatform	◐					●			
Ignite	◐					●			
VBrick	◐					●			

● Full Support. ◐ Partial Support or Add-On Required. Based on publicly-available information on vendors' websites, support documents, and marketing materials. Current as of 2014.

Identifying change leaders

- Establish relationships with all patrons
- Identify "change leaders" – faculty with soft and hard skills that will help you validate, implement and promote change
- Identify high visibility programs and classes
- Define clear lines of communication
- Changing minds and lower resistance
- Assess commitment vs compliance

- How long have you been in your job?
  - 0-5 years
  - 5 -10 years
  - >10 years
- When is the last time you have a conversation with your faculty/students?
- Can you identify some "change leaders"?
- When is the last time you "promoted" change – the new vision?
- Can you think of an opportunity to build "commitment"?

Why all these questions?

Faculty Development...

- Invited vendors to do:
  - Technology shows
  - Lunch & Learn
  - Training Sessions
  - Invited all university patrons, not only our college
- Created informational web sites
- Created continuous training programs and materials
  - Web & Printed materials
  - Online Videos
- College Faculty Development Committee
- One-on-one training by appointment
- Trained graduate assistants to support faculty
- Faculty demos for other faculty – develop a sense of community

Answer the why? WIIFM?
The cost of status quo is greater than the cost of change

Support users, inspire commitment, offer clarity!

- Trained end-users one-on-one
- Provided pedagogy/methodology examples and templates
- Trained our graduate students on our tools to support our faculty
- Trained graduate students & student workers on each department to support their professors
- Established close relationships with vendors & tech support
- Involved ITD/vendors as "partners"

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Create big moments, a lot of them…

Never say technology is just a tool because we know the power it can have when used in meaningful ways…
… we can help students create opportunities that we could not have even imagined ....

George Couros

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"Seek opportunities to show you care. The smallest gestures often make the biggest difference."

John Wooden, led UCLA to record wins that are still unmatched in the world of basketball.

"Technology will never replace great teachers, but technology in the hands of a great teacher can be **transformational**."

George Couros

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Is a movie just images in motion?
Is a book just words on a page?
Is a song just an arrangement of sounds?

Never say, "Technology is just a tool", because we know the power it can have when used in meaningful ways.
If we think differently about what these "tools" can afford our students, we can help them create opportunities that we could not have even imagined or had access to when we were kids.

George Couros

This is our challenge…

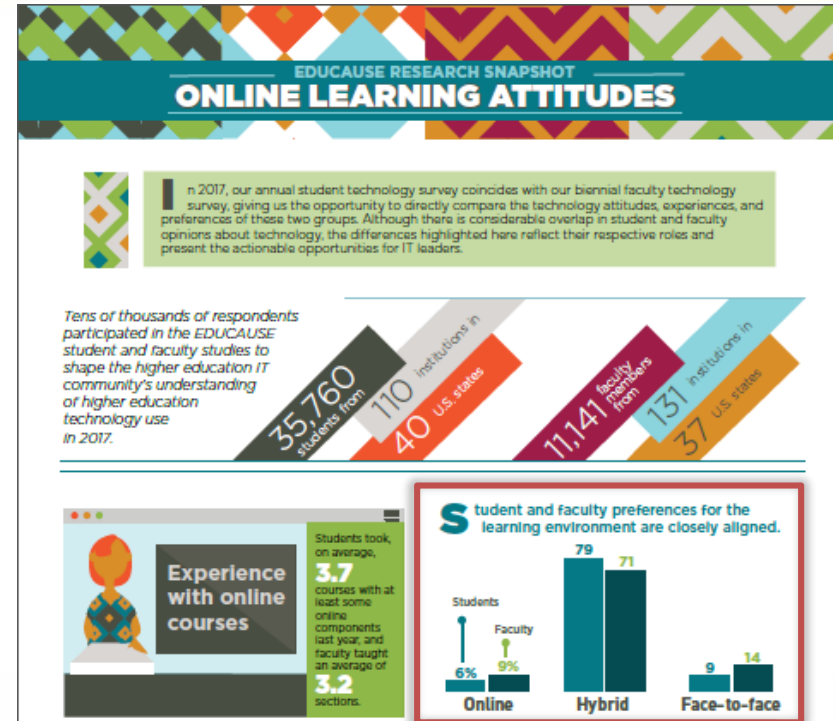*"Kids don't remember what you try to teach them. They remember what you are."*
Jim Henson, cartoonist, producer, screen writer, film maker. University of Maryland graduate 1960.
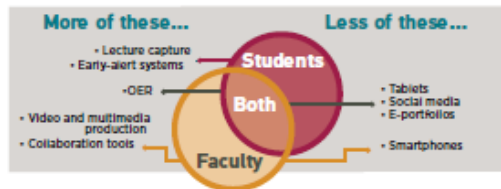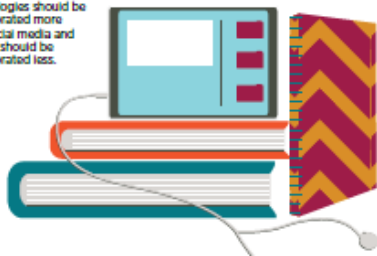
Offer clarity

- Present faculty with research-based evidence on learning/teaching methods
- Train faculty on key methodologies
- Promote the use of technology across multiple disciplines
- Disseminate data about results
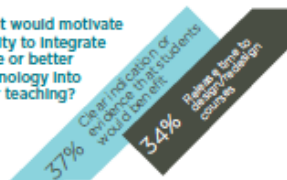- Increase visibility and promote "change leaders"

EDUCAUSE RESEARCH SNAPSHOT
ONLINE LEARNING ATTITUDES

In 2017, our annual student technology survey coincides with our biennial faculty technology survey, giving us the opportunity to directly compare the technology attitudes, experiences, and preferences of these two groups. Although there is considerable overlap in student and faculty opinions about technology, the differences highlighted here reflect their respective roles and present the actionable opportunities for IT leaders.

Tens of thousands of respondents participated in the EDUCAUSE student and faculty studies to shape the higher education IT community's understanding of higher education technology use in 2017.

35,760 students from 110 institutions in 40 U.S. states

11,141 faculty members from 131 institutions in 37 U.S. states

Experience with online courses
Students took, on average, **3.7** courses with at least some online components last year, and faculty taught an average of **3.2** sections.

Student and faculty preferences for the learning environment are closely aligned.

	Students	Faculty
Online	6%	9%
Hybrid	79	71
Face-to-face	9	14

Offer Clarity…

- Negotiated vendor's approval to expand usage to other colleges
- Presented to Dean's council
- Presented ideas to use tools across many disciplines and programs
- Make case for multiple use-cases: F2F, hybrid, flipped and online classes
- Research-based methodology:
  - Fink's Significant Learning Taxonomy
  - Gagne's 9 Events of Instruction
  - Etc…

Faculty Development …Example

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The Big Picture …
What's the plan?

Source: Faculty Development Survey Fall 2017

Objective	Action Item
1. Promote Innovative Teaching Methods	a. Build an understanding that doing things differently has value when outcomes improve.
	b. Share information about teaching resources available at MTSU and offer them through Jones College.
	c. Identify faculty needs and conduct workshops to address those needs.
	d. Allocate/recommend summer grants for faculty to develop innovative approaches to teaching.
	e. Allocate/recommend travel funds for innovative teaching development.
	f. Increase participation in Experiential Learning (EXL), Honors, and study-abroad programs.
	g. Ensure every class has a presence on Desire 2 Learn (D2L), the University's course management system.
	h. Encourage active learning through flipped classrooms and gaming technology.
	i. Develop and implement a formal mentoring program within Jones College.
2. Enhance Faculty Technology Skills	a. Develop a baseline for technology skills and provide instruction to help all faculty achieve baseline skills.
	b. Assign graduate assistants to help faculty with technology implementation.
	c. Provide technology training and workshops (e.g., via Faculty Development Seminars).
	d. Create an online repository of technology resources with tools, best practices, and tutorials.
	e. Develop a standard Jones College D2L shell for all courses.
3. Implement Non-traditional Instructional Methods	a. Develop common minimum standards for online and hybrid courses.
	b. Provide a forum to share best practices for online and hybrid courses.
	c. Explore/implement team teaching where appropriate.
	d. Explore/implement student learning communities as appropriate.

Jones College of Business Five Year Strategic Plan

Faculty Development … sample

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Online Course Development Guidelines

The purpose of this document is to provide the course developer with "best practices" guidelines to create online courses. These guidelines are based on successful practices at top-tier universities with successful online programs [1] and research-informed instructional design principles [2,3,4]. These guidelines address two issues: a) course template components and b) pedagogy of learning.

Materials: To accommodate geographically disperse and different types of learners, all course materials must be available in various electronic formats (e-books, pdf, ppt, videos, etc.)

LMS Template: Every course should have a similar learning management system course template with a standard homepage layout and navigational links. The goal is to reduce user interface complexity so that students can focus on course content and learning instead of re-learning where a feature is located every time they take a new course.

Resource: Jones College of Business D2L *MBA Course Template*. (See Figure 1)

Course Intro Video: Every course should have a Course introduction video. This video serves multiple purposes: first, it introduces the faculty that develops the course; second, it welcomes students to the class; third, it briefly summarizes the purpose of the class. The idea is to get the students "excited" about the class. This video should be 3-5 minutes long max.

Resource: LRC Professional Video Services, Panopto

Course Syllabus and Schedule: Every course should have a course syllabus and a course schedule/outline which include all deadlines for assignments, quizzes, etc. Two key issues are:

- **Clear Deadlines:** Courses are not self-paced, submit the work when you can. Students are provided with clearly communicated weekly activities and enforced deadlines that help them make progress every week towards completing the course and achieving success in final assessments.
- **Proactive Follow Up:** Students who are not participating in the course should be contacted proactively to encourage retention and to show students we care about their learning experience [2].

Resources:
Jones College of Business provides a *Course Syllabus Template* with:
- Syllabus and the Schedule template documents.
- D2L Calendar feature to show deadlines
- D2L Account Notifications feature to send alerts via text messaging
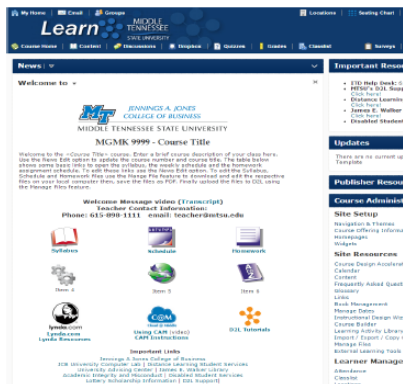- D2L Dropbox feature, "Email Users Without Submissions", to alert students
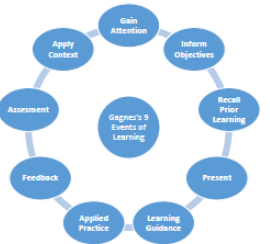
Figure 1. D2L MBA Course Template

Figure 2 Gagne's Nine Events of Learning

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JCB COURSE ENGAGEMENT GUIDELINES

Introduction

We have put together a collection of best practice tips and techniques that provide students with the opportunity to engage in your class in multiple ways and elicit a wide range of learning styles. The purpose is to make the student more involved in your class by making your class more dynamic, interesting, relevant, participative and collaborative.

Significant Learning Taxonomy

As the subject learning expert, the instructor is responsible for communicating facts and knowledge to the students. Furthermore, the best teachers are known for "connecting" with the students and "ignite the desire to learn from their students. The goal is to generate a learning experience that motivates a student to do more than just "memorize and repeat" the facts but creates significant change within students. To better understand this, see the Significant Learning Taxonomy, developed by L.D. Fink. Figure 1.

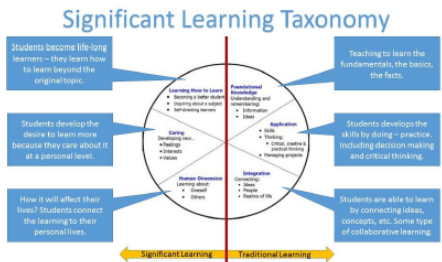## Significant Learning Taxonomy

Figure 1 – Significant Learning Taxonomy by L.D. Fink.

Some important points:

- Most techniques in this document can be used in both face-to-face and online classes.
- Some of the techniques are very simple and common sense, if you already do it, great!
- Some of the techniques are more involved and require a little more planning.
- The instructor does not need to incorporate every single example in his/her classes, just the ones that best fit the subject, teaching/learning style and time available in your class.
- Most techniques included here are the result of research-based best practices in teaching and learning.

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JCB COURSE ENGAGEMENT GUIDELINES

Class Best Practices

Technique	Description	Resources
Before Classes Start		
Use LMS Template	Use a standard class template for all your classes. Goal: get students familiar with the learning environment	D2L JCB D2L Course Template
Professor Introductory Video	Create a short video to welcome students and introduce them to your class. Goal: get them excited about the class	D2L Panopto Camtasia/Captivate/Youtube LRC video services
Early Contact	A few days before class starts send a welcome email to students. Include Syllabus / Schedule. Instructions to Sign up for other services. Goal: get students "prepared and connected" to the class	D2L Syllabus/Schedule PipelineMT Email Sign up for external resources i.e. Remind, SAM, MyEconLab Sign up for D2L notifications
Course Syllabus/Schedule	Use JCB Syllabus Template. Show clear deadlines. Goal: clearly outline content, assignments, deadlines, rules, and procedures	V:\Jones College Templates D2L Calendar feature
Weekly/Periodic Activities		
Rolling introductions (first day/week of class)	Each student interviews the person to their left/right, the last one interviews the first one. Each one introduces the other student to the class until all are introduced.	Face-to-face classes. Online classes could use Discussion Board to do individual introductions.
Ice Breakers	Can be done in class or online: Write things like vacations countries/states/cities you have visited, favorite color, food, drinks, sports, etc. Last book/movie you read/view. Goal: meet as many people as possible that has three things in common	Face-to-face: students get to know each other – write their names, things in common, etc. i.e.: "Find classmates that have 3 things in common" Online: use surveys or discussion boards.
Proactive follow up	Send periodic reminders about class deadlines, upcoming exams, projects, etc.	D2L Notifications, email MTSU Email Remind 101
Timely Feedback	Provide clear and timely feedback. Homework, Exams	Could use email or video. D2L also supports "short" audio and video feedback in Dropbox.
Projects/Assignments	Project instructions. Routine emails	D2L Dropbox "Email users without submissions"

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Technologies Portfolio

ITD provided services: Network, Security, Email, LMS, virtualization, Office 365, Dropbox, A/V, etc.

What technologies do you use?

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– Faculty development

– AOL

– Collaboration tools

– OER

– Proctoring

– Gaming

– VR & wearable technologies

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- Leadership must start from the top and foster a culture of collaboration
- Start with the vision: technology involves changes…
- Built relationships: partner for collaboration, encourage teamwork
- Communicate:
  Create a big picture and explain it clearly – Answer the "WIIFM"
- Identify key adopters and built trust – positively influence & inspire
- Get commitment: *"People who have a why will do almost any how…"*
- Create a culture of continuous innovation
  - Faculty / student development / service / education
  - Technology leadership
  - Operational excellence
- Build a team – prepare people at all levels to support & maintain change
- Align technology changes with strategic plans
  - Make a clear case for change
    - *"the cost of status quo is greater than the cost of change."*
  - *Know the difference between commitment and compliance*
  - *Speak passionately, think strategically and plan tactically*
  - *Communication is not an event...*

CULTURE EATS STRATEGY FOR LUNCH
PETER DRUCKER