

Campus-scale Project Planning

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University of Illinois

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WOLFVISION



Session Outcomes

- Experience the difference in process and implementation between small and large projects, with a focus on campus-wide projects
- Investigate the success and failure factors in regards to implementing large projects
- Be prepared to participate in or lead various aspects of campus-wide projects





What is “large” or “campus-scale”?



University of Illinois

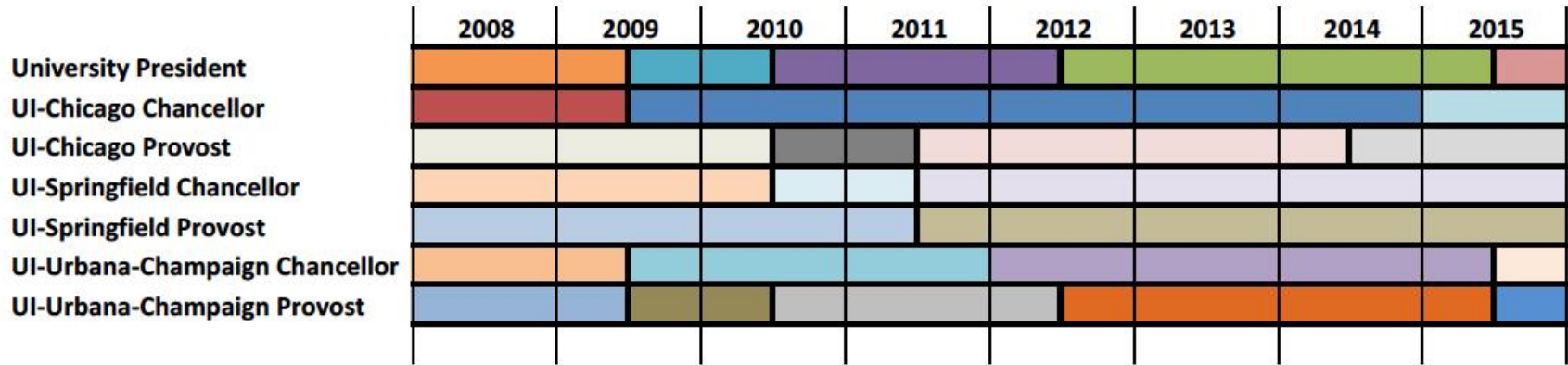


- Three campus system
- 23,500 employees
- 78,000 students
- About 700,000 living alumni
- \$5.6B budget
- 35th in Best Global Universities
- 10,000 international students from more than 110 nations - 1st among American publics
- 897 buildings, 1000's of rooms





University Change is Constant

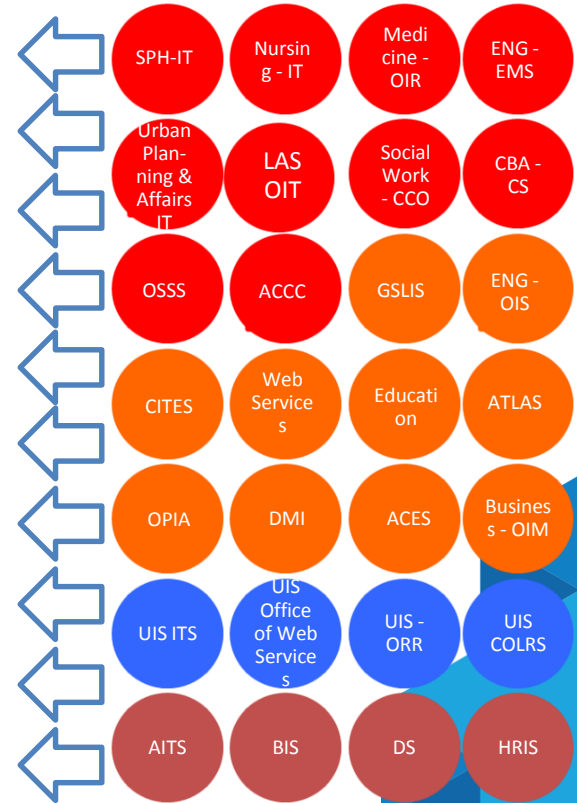
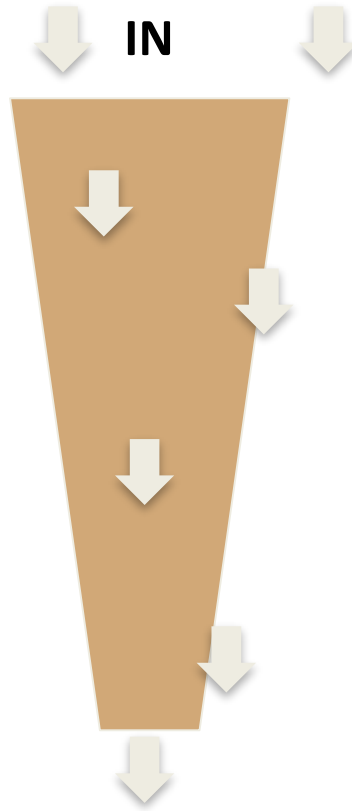
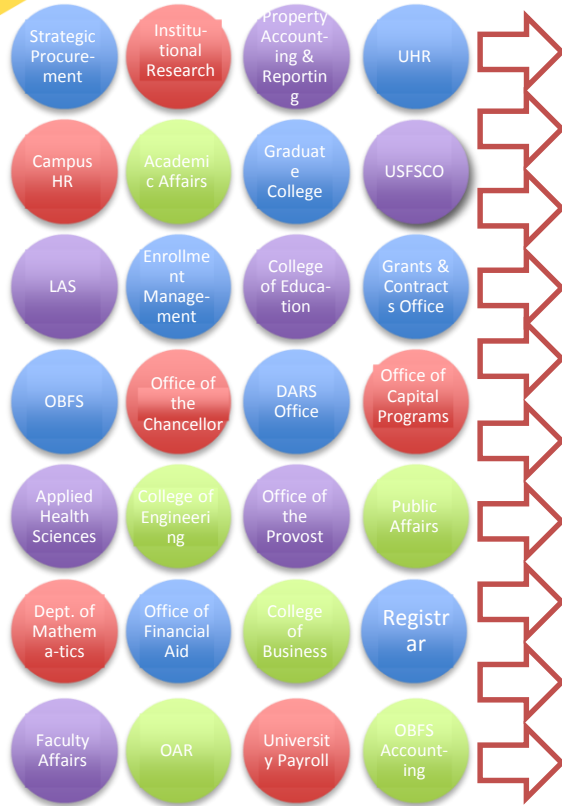




101,500
Customers

Distributed IT Environment

200
Providers





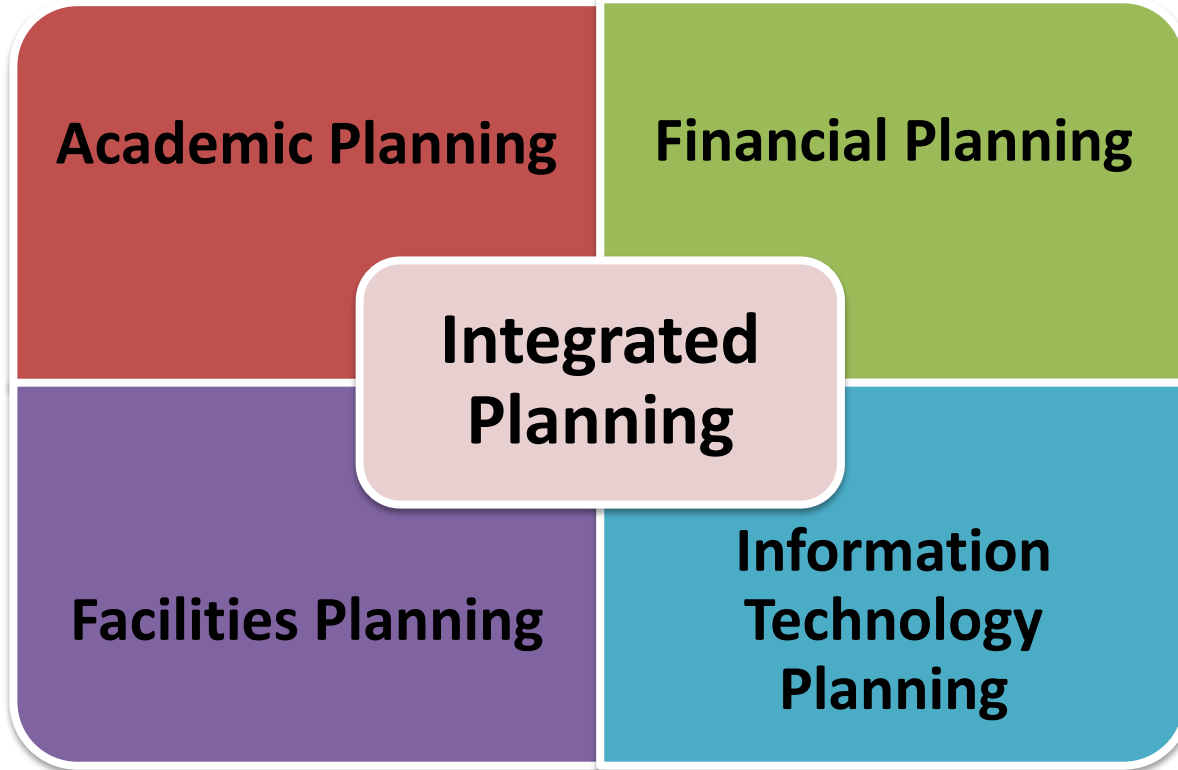
Our System-level IT Organization

- 200-person centralized IT department is funded mostly for enterprise (three-campus) services
- Additional funding for projects comes from others
- Enterprise Services:
 - Portfolio and Project Management Office (PPMO)
 - Administrative Information Technology (AITS)
 - Business Process Improvement (BPI)
 - Records and Information Management Services (RIMS)
 - Customer Relationship Management (CRM)





Integrated Planning in Higher Ed





Even “small” projects are complex.





Small Projects: Chicago Waterwalk & UI Dining app



Both available on





Mobile Apps Requirement Gathering (Besides Functionality)

1. Target platform?

- A few
- All platforms



2. Target Audience?

- General public
- Specific campus
- University employees

3. Features Needed?

- Sensory alerts
- Physical gestures
- Motion detection
- Camera
- Accessibility tools



Mobile Apps Requirement Gathering (Besides Functionality)

4. Data stored where?

- Database within app
- External database
- Web services
- Embedded content

5. Who maintains?

- Internal expertise
- Open source
- Vendor
- Consultants

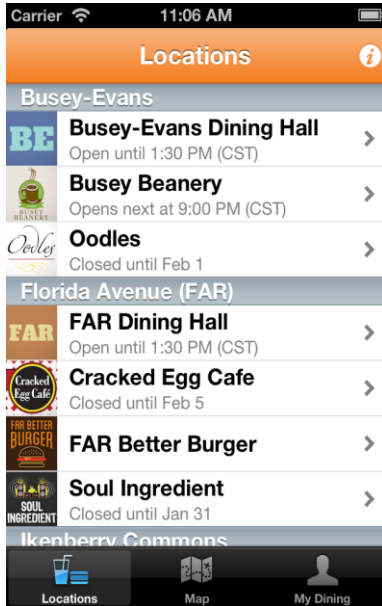
6. Feedback needed?

- User comments
- Star ratings



Technical Details & UI / UX

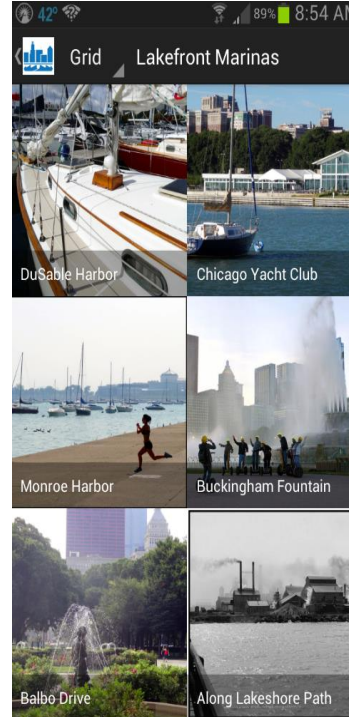
UI Dining



Device database



Chicago Water Walk

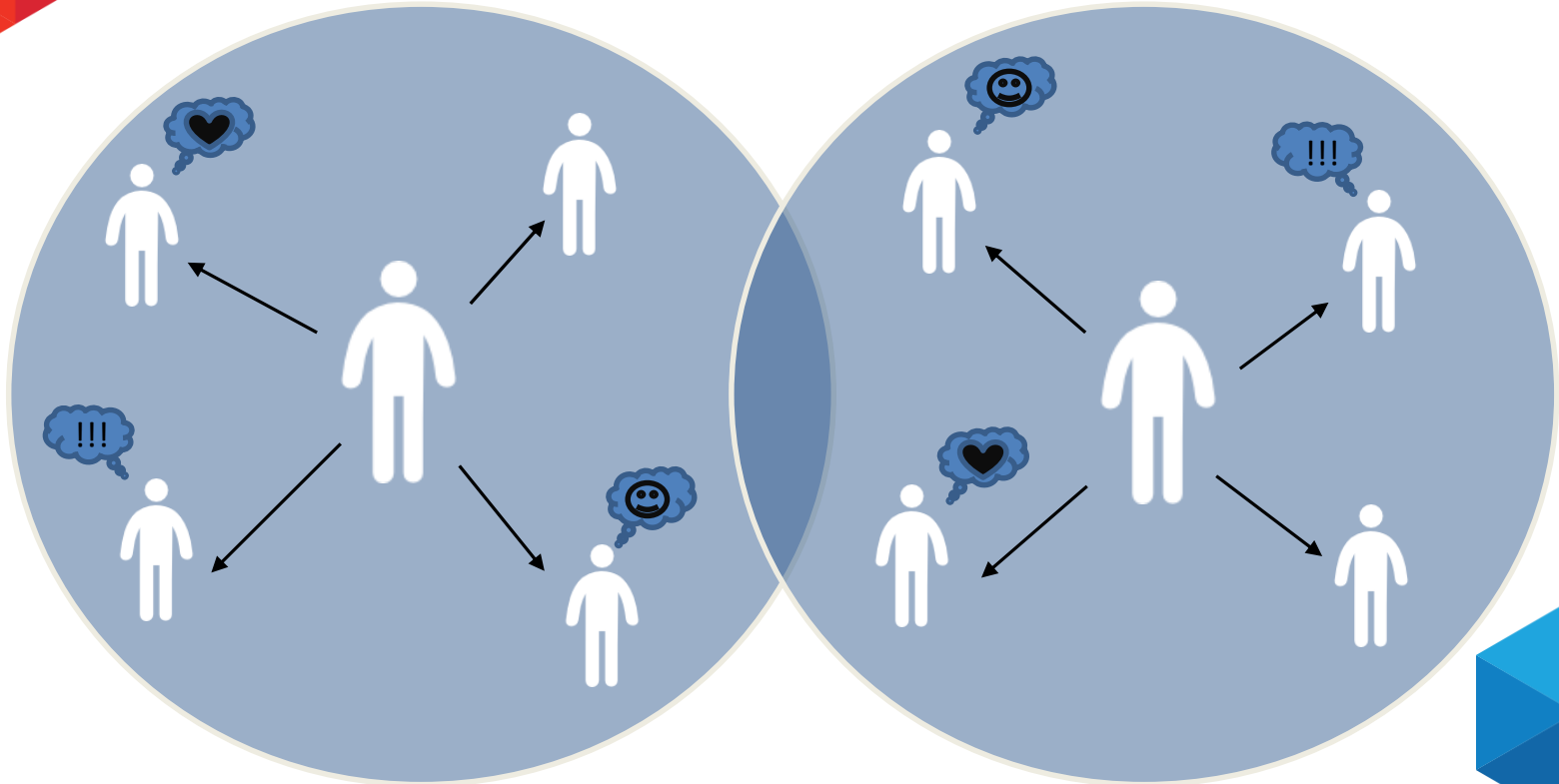


Content embedded directly into the app



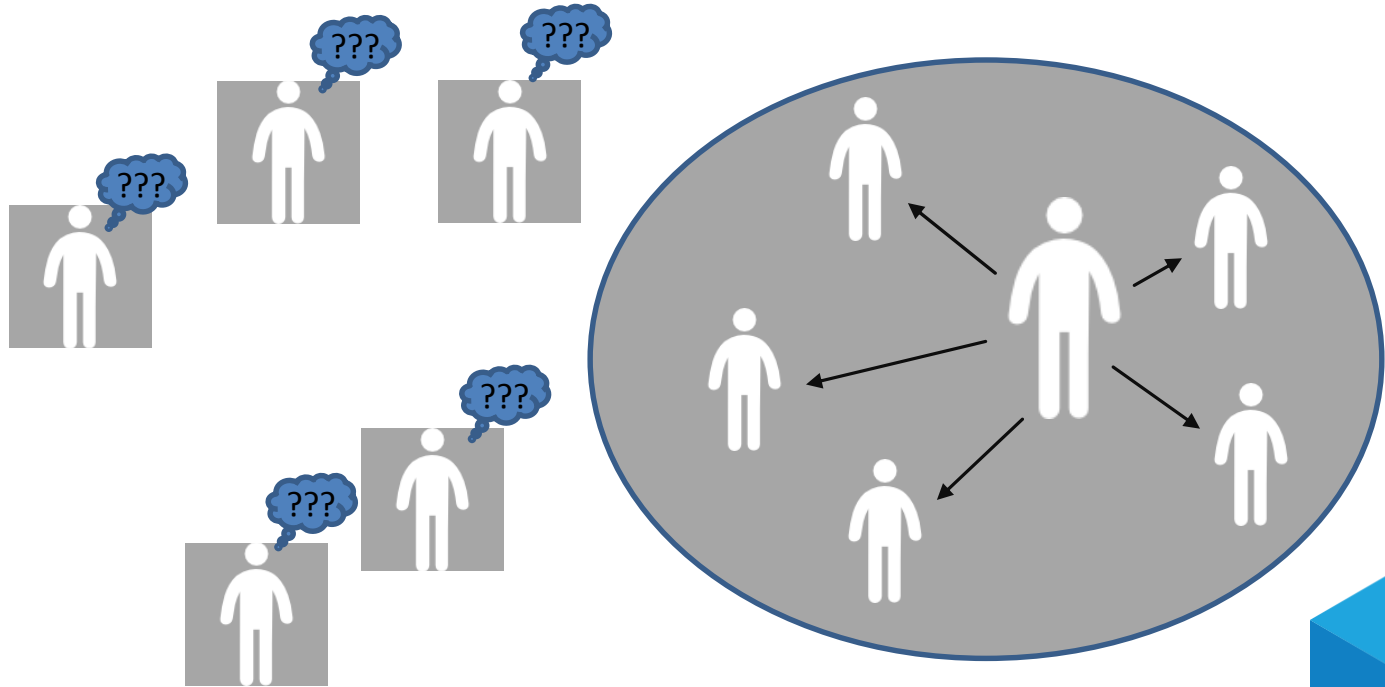


Small Project Communication Theory

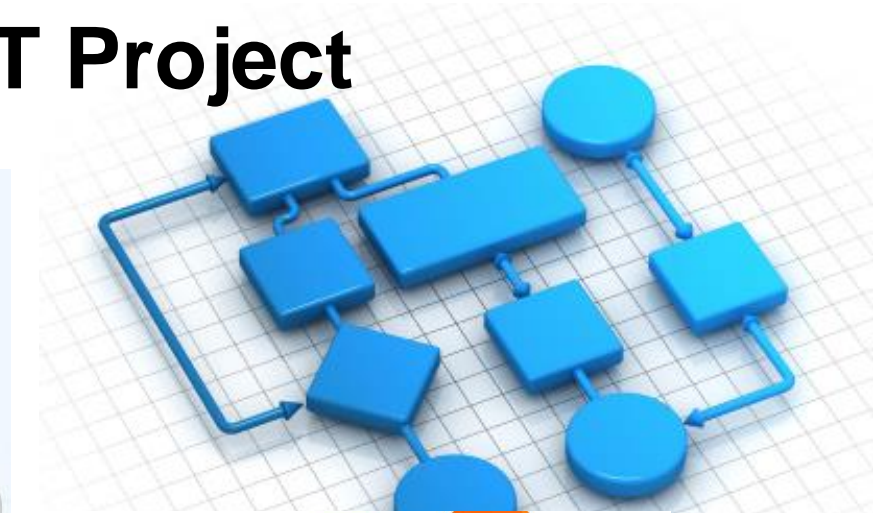




Small Project Communication Practice



Defining a Large IT Project



Not a Campus-scale Project

OUTCOMES

- COB LEED Platinum certification
- First 'green' building on Urbana campus
- Active classrooms
- Illinois Makerlab, the world's first business school 3D printing lab



“We simply wanted the design and construction of this building to reflect the values of social and professional responsibilities that we teach our students.” -Avijit Ghosh, Dean of College of Business



Campus-scale Project Examples

- ERP business software replacement
- Fiber and wireless network overhaul
- “LMS” replacement
- Unified communications migration
- Campus classroom cloud-based video conversion
- *What are your campus-scale projects?*



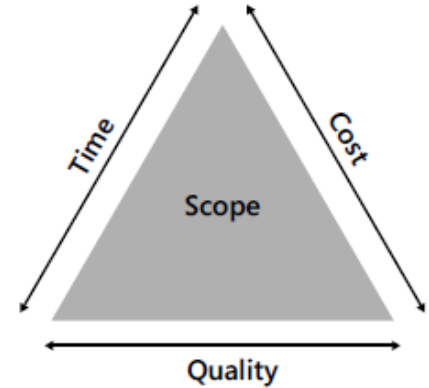
Campus-scale IT Projects

- Campus-scale IT projects enable enterprise business processes, support communication infrastructure and services, deliver widespread upgrades, or provide pervasive and interactive information. They are transformative for the whole.
- Components of large IT projects
 - IT governance
 - Project management
 - Completing the work
 - Success measurement



Campus-scale Project Commonalities

- Expensive
- Time consuming
- Incomplete specifications
- Scope creep
- Ongoing operations and maintenance
- Many groups and individuals involved
- Bad and good design is obvious to the user



Some People Ignore Standards

- Architecture standards
- Development standards
- DIY mentality
- Recognizing the availability of “utilities”
- Understanding available skills





Some People Copy Bad Standards





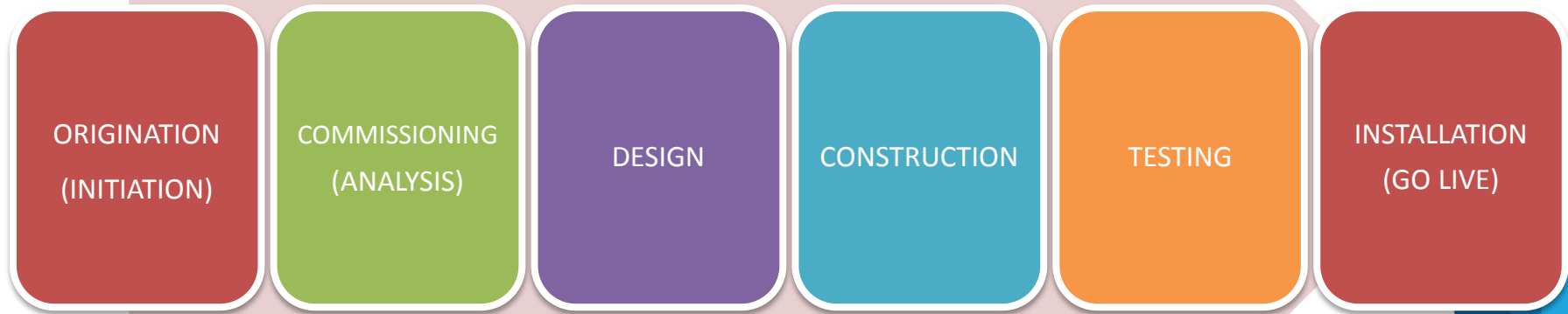
Your Experience with Campus Projects

- What is your experience leading or participating in large IT (or AV) projects on college campuses?
- What was your role in the IT project?
- Which campus IT projects have you seen work well? Why do they work well?
- Which campus IT projects have you seen not work well? Why do they fail?



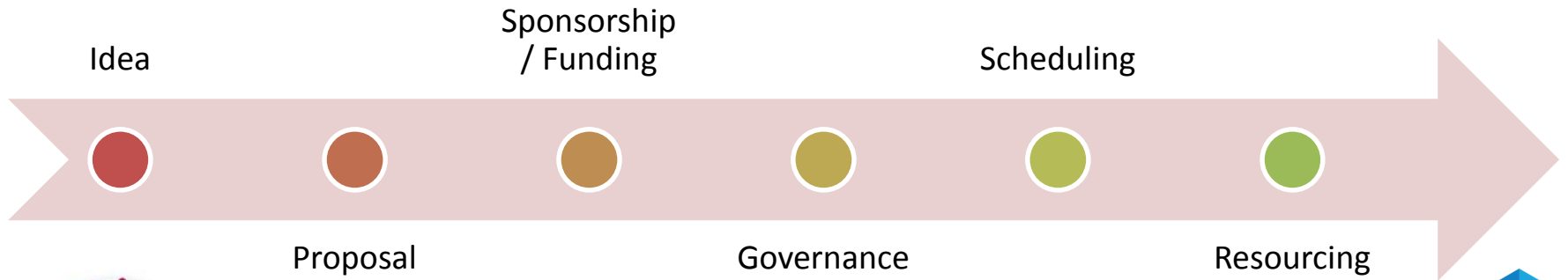


Campus Scale Life-Cycle Phases





Origination & Initiation Phases





Importance of IT Governance

- Decision-making and transparency
- Strategic alignment of enterprise and IT
- Resource allocation and management
- Performance management
- Collaboration
- Standards and policy
- Transparency
- Faculty, staff and students are different



ITG Components – Building Blocks

Focus

Purpose and Scope: What is it that needs to be governed? What are your institutional priorities?



Participants: Who should participate? Who should advise and who should make decisions? What are the key roles to identify? How are they interconnected?



Decision-making: What decisions are made at the different levels/groups? What resources will be allocated via the process?



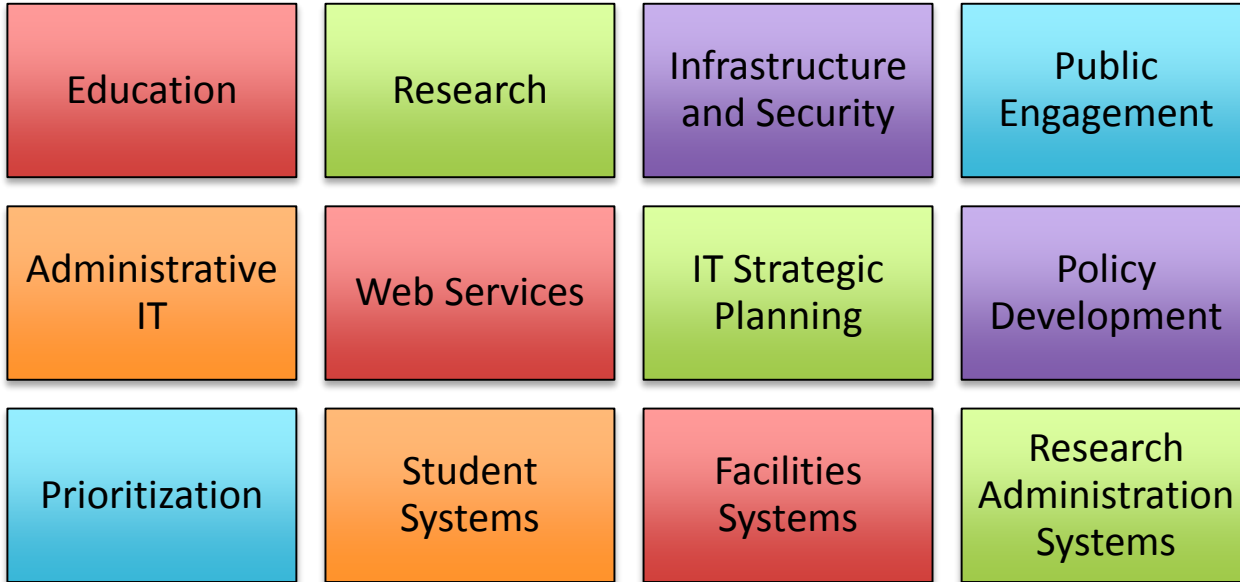
Structure: What are the layers to the governance structure? How are they interconnected?



Communication and Coordination: Who will work behind the scenes to facilitate the process?



What needs to be governed?





What needs to be governed?

Education

Learning Management Systems

Instructional Technologies

Public Labs

Change Management

Student Access to Resources

Research

User Support Coordination

Research Computing Resources

Collaboration Technologies

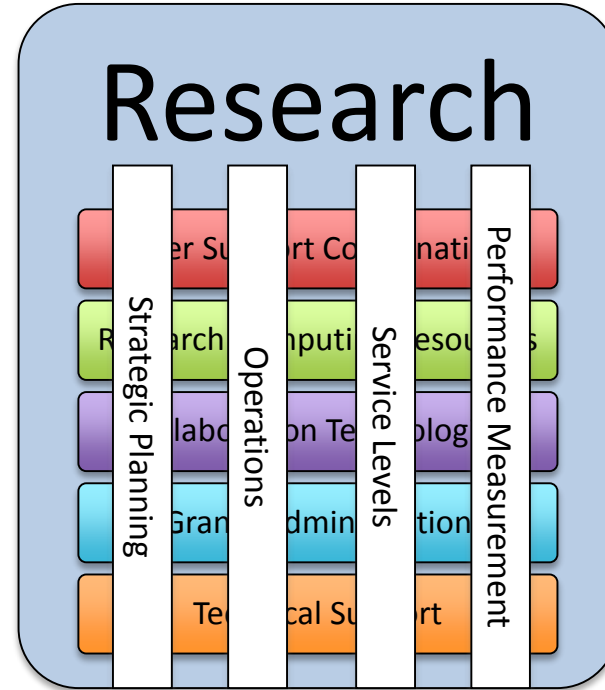
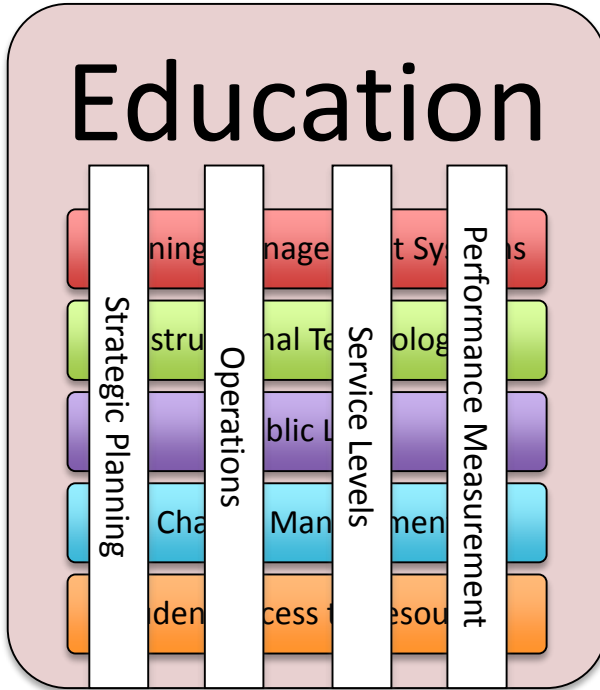
Grants Administration

Technical Support



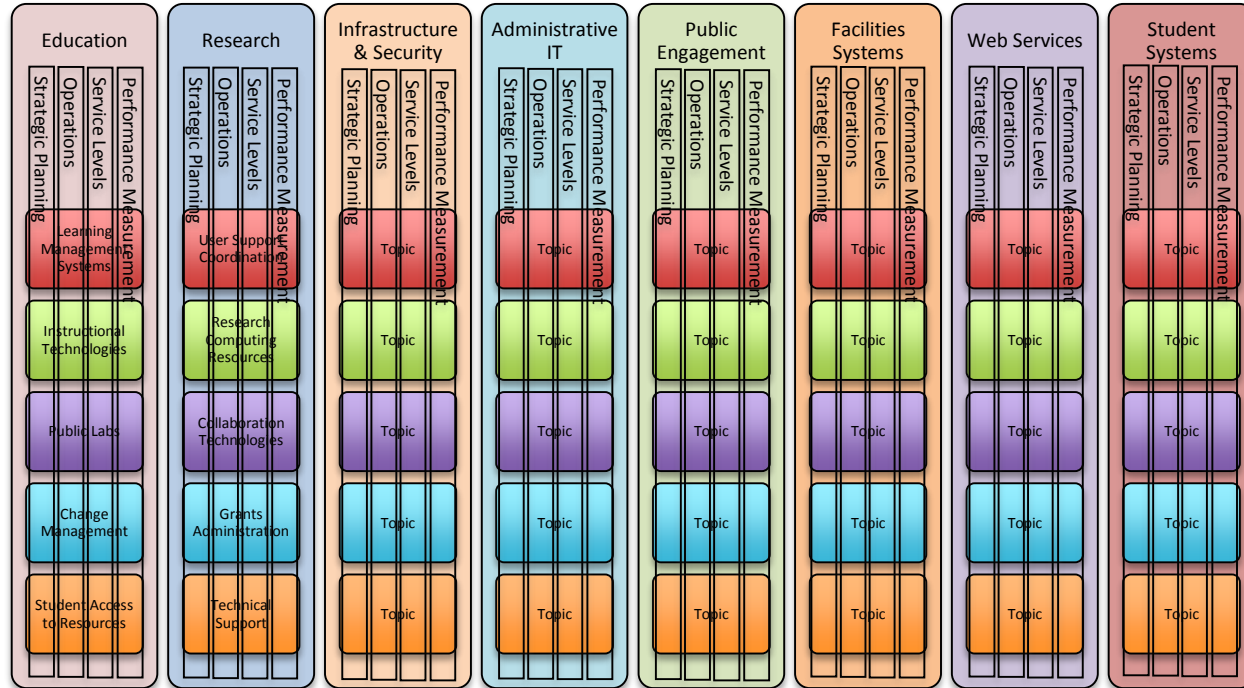


What needs to be governed?



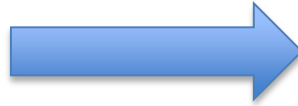
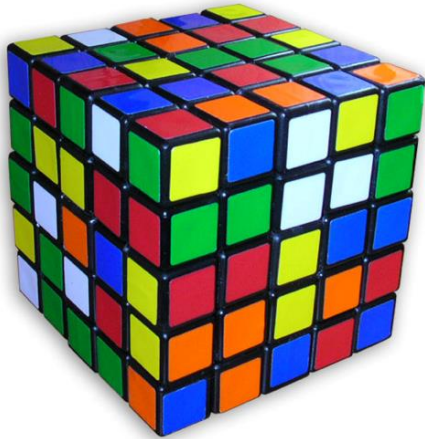


What needs to be governed?



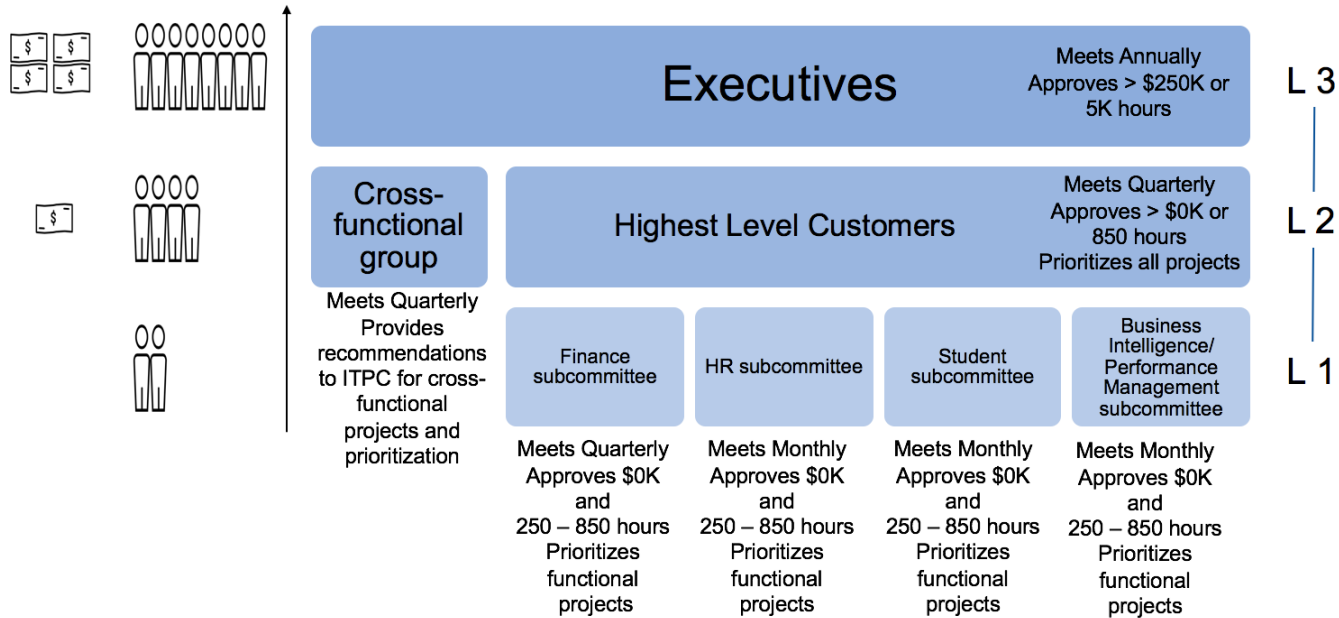


Becomes Complex Quickly





Typical Model Components in ITG





ITG Results Example

■ Agreed Priorities

- Base funding for enterprise or campus services
- **Project funding for one-time initiatives**
- Ancillary funding for department level services
- Fee for service – use based chargeback
- Unfunded – beyond resource capacity

Type	Type Rank	Overall Rank	Initiative
Base	1	1	Project/Service A
	2	2	Project/Service B
	3	3	Project/Service C
	4	6	Project/Service D
	5	11	Project/Service E
	6	12	Project/Service F
Project	1	4	Project/Service G
	2	7	Project/Service H
	3	9	Project/Service I
Ancillary	1	5	Project/Service J
	2	8	Project/Service K
Fee	1	10	Project/Service L
Unfunded	1	13	Project/Service M
	2	14	Project/Service N

Results: New Projects for FY 16

1. Student Relationship Management System (priority 3 of 19)

Total hours: 1,782 Full Cost: \$843,450

Improve recruitment effectiveness | Create labor efficiencies

2. Capital Project Management System (priority 5 of 19)

Total hours: 3,200 Full Cost: \$775,250 | Create significant labor efficiencies | Aid with compliance an error detection | Eliminate duplicate data entry | Provide savings via reduced change orders

3. Employee Training Infrastructure System (priority 9 of 19)

Total hours: 2,101 Full Cost: \$253,150

Assist with research compliance | Create proposal efficiencies | Govt. compliance

4. Disability Services Integrated Service (priority 10 of 19)

Total hours: 5,910 Full Cost: \$257,400

Improve quality of student services | maintain leadership in HE disability access

5. Biennial Inventory Application (priority 12 of 19)

Total hours: 8,045 Full Cost: \$344,475

Enable compliance | Create labor efficiencies





Initiation Checklist

- Initial project set up
 - Initial contacts
 - Set up projects in your PPM
 - Create and customize collaboration space
- Discovery Meetings
- Complete Project Charter
 - Finalize scope
 - Risk identification & contingency
 - Establish work and project processes
 - Formalize the project team
- Kick-off Meeting





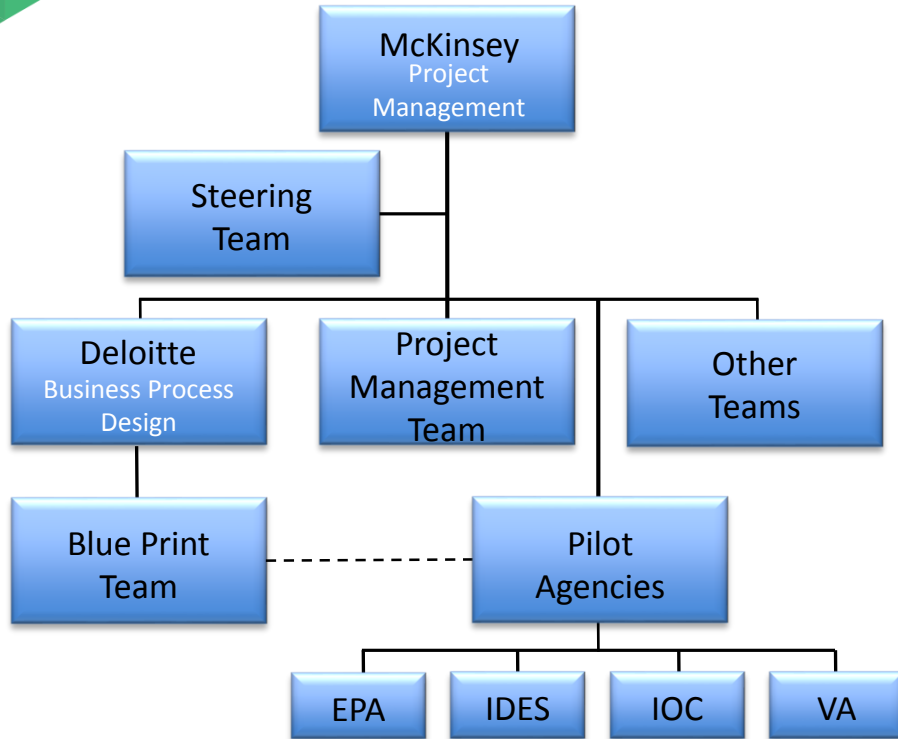
Commissioning/Analysis Phase





Example: State-wide ERP Project

STRUCTURE



DOCUMENTS

State-wide Enterprise Resource Planning (ERP) » All Site Content
Displays all sites, lists, and libraries in this site.

State-wide Enterprise Resource Planning (ERP) Search this site...

View: All Site Content

Document Libraries	Items	Last Modified
Accenture Documents	0	10 months ago
Agency Templates	5	8 months ago
Business Process Document (Agency Review)	98	2 months ago
Business Process Documents (Approved)	91	2 months ago
Central Management Services	3	9 months ago
Comprehensive Deliverables - Packet 1	457	7 days ago
Comptroller Document Repository	171	7 months ago
Configuration rationale Document	25	2 months ago
CRP and SAP Training Materials	61	2 months ago
Deliverable Approval (Packet 2)	4	3 days ago
Deliverables	198	2 months ago
Deloitte Documents	0	10 months ago
Final Deliverables - Packet 1	220	2 weeks ago
Functional Specification Documents	285	2 months ago
McKinsey Document Repository	4	10 months ago
Other Deliverables (Approved)	20	2 months ago



Identify PPM Requirements for You

- Work through the PPM requirements worksheet to determine which portfolio management functions you need to fill at your institution. Add missing components and eliminate unnecessary steps as needed.
- Select the portfolio management model that would work best for your institution.





From 0 to PPM

Work

- Effort
- Project inventory
- Ownership
- Time reporting

Portfolio

- Project proposal and approval
- Reporting and Review
- Scheduling and prioritization

Projects

- Select the PMO model
- Develop standards
- Increase PM skillset
- Quality control

Systems

- Collaboration
- Portfolio and project management
- Time tracking and reporting





Design Your PMO

PMO Design Worksheet

Please select options listed, include notes or customizations where needed

Facilitate ITG	This is required				
Resource management and scheduling	Scheduling and resource management performed by committee of resource managers	Scheduling and resource management done centrally by PMO			
Monitor and control portfolio	Project status reporting	Project health monitoring	Stage gate processes and active management of portfolio		
Center of excellence for project management	Recommended methodology and tools.	Project managers run projects using required methodology and tools.	PMO trained project managers run projects using required methodology and tools. PMO provides reviews	PMO project managers run all projects using standard methodology and tools.	
Optional service model	Planning, initiating, closing, and lessons learned services provided by central PMO upon request.				



PMO Standards





Standards: SDLC

AITS – Project Management Life Cycle – Software Development Projects											
Project Management Life Cycle											
1 Project Origination	2 Project Initiation	3 Project Planning	4 Project Execution and Control						5 Project Closeout		
Software Development Life Cycle											
1 Origination	2 Initiation	3.0 Planning	4.1 Analysis	4.2 Design		4.3 Construction	4.4 Testing	4.5 Training	4.6 Deployment	5.1 Close	5.2 Post Close
<ul style="list-style-type: none"> - ITPC Template - Project Review - Project Approval - Project Creation - Priority Setting - Project Scheduling 	<ul style="list-style-type: none"> - Discovery meetings - Stakeholder analysis - Communication plan - Project Charter - Project Kick Off - Communication activities 	<ul style="list-style-type: none"> - Project Plan in Clarity (WBS, Resources, Estimates, and Schedule) - Project planning meetings with team - PMO / SMT Sign-Off - Final project plan review and approval with team - Baseline project - Deployment Plan 	<ul style="list-style-type: none"> - Business Rules - DWG Design Collaboration - Application Design - Integration Design - Conversion Strategy - EAC Review - Security Review - Application Design Review - Training Strategy - Testing Strategy - Communicate - Monitor, Control, and Manage Change 	<ul style="list-style-type: none"> - DWG Design Collaboration - Style Guides - Service Guides - Technical Design - EAC Review - Security Review - Sensitive Data Usage Form 	<ul style="list-style-type: none"> - Technical Design Review - QA Master Test Plan - Training Plan - Hardware / Software Order - Communicate - Monitor and Control - Manage Change Requests - ITAA Checklist 	<ul style="list-style-type: none"> - User Guides / Help Materials - Communicate - Monitor and Control - Manage Change Requests - Hardware / Software Installation - Infrastructure Deployment - Development / Unit Test Cycle - Show and Tell - DWG Design - Code Review - Defect Management 	<ul style="list-style-type: none"> - Technical Design Review - QA Master Test Plan - Training Plan - Hardware / Software Order - Communicate - Monitor and Control - Manage Change Requests - ITAA Checklist 	<ul style="list-style-type: none"> - Training Environment - Artifact Staging - Training Security Setup - Customer Training - Communicate - Monitor, Control, and Manage Change 	<ul style="list-style-type: none"> - Application Deployment Checklist - Artifact Staging - Dress Rehearsal - Change Control - Event Notice - System Deployment - Production Readiness Test - Go / No Go Decision - Communicate - Monitor, Control, and Manage Change 	<ul style="list-style-type: none"> - Post Deployment Review - Environment Review and Cleanup - Stakeholder Satisfaction Survey - Post Project Review - Final Project Documentation Review - Short Term Post Project Support - Production Support 	<ul style="list-style-type: none"> - Post Project Survey
Participants	Participants	Participants	Participants	Participants		Participants	Participants	Participants	Participants	Participants	Participants
<ul style="list-style-type: none"> - AAMT - ADSD Managers - Architecture - COT Managers - EAC - ITPC - ITPC - Subcommittees - PMO - Project Sponsor - SMT - UA Technology Organizations 	<ul style="list-style-type: none"> - AFM - Analyst - Architecture - Customer - Deployment - Development - Operations - Project Manager - Project Manager - Project Sponsor - Quality Assurance - Security - UA Technology Orgs 	<ul style="list-style-type: none"> - Analyst - Architecture - Customer - Deployment - Development - Operations - Project Manager - Project Sponsor - Quality Assurance - SMT - Technical Lead 	<ul style="list-style-type: none"> - Analyst - Architecture - Customer - Deployment - Development - Operations - Project Manager - Project Manager - Project Sponsor - Quality Assurance - Security - Training Team 	<ul style="list-style-type: none"> - Analyst - Architecture - Customer - Deployment - Development - Operations - Project Manager - Project Manager - Project Sponsor - Quality Assurance - Security - Training Team 	<ul style="list-style-type: none"> - Analyst - Customer - Deployment - Development - Project Manager - Security 	<ul style="list-style-type: none"> - Analyst - Customer - Deployment - Development - Operations - Project Manager - Project Sponsor - Quality Assurance - Security 	<ul style="list-style-type: none"> - Analyst - Architecture - Customer - Deployment - Development - Operations - Project Manager - Project Sponsor - Project Team - Quality Assurance - Security 	<ul style="list-style-type: none"> - Analyst - Architecture - Customer - Deployment - Development - Operations - Project Manager - Project Sponsor - Project Team - Quality Assurance - Security 	<ul style="list-style-type: none"> - Customer - PMO - Project Manager - Project Sponsor - Project Team - Quality Assurance - Security 		





Standards: PM Toolkit

Project Management Toolkit

This site outlines a shared project management methodology for the central IT organizations of the

collaboration between IT project manager leaders within ACCC, project management methodology, developed, endorsed, and re predictability, understanding, and performance of our project

lined is based on the Project Management Institute's approved idely by the project management community in both business nagement methodology is to provide a consistent approach to predictability, project communications, and overall project

etwork to assist project managers, as well as managers nning and execution of projects. Additionally, the methodology ocess for use in communicating a roadmap for both project

ethodology, supporting product development processes are esses to be highly effective. While product development part of successful project execution, this web site does not es.

as a starting point for other University organizations wishing to practices. For information on our service offering, please see on.

Recommended project artifacts by phase

The following artifacts are recommended or required for each project management phase.

Project phase	Required	Highly recommended
Originating	Project proposal: A project proposal includes: description of the work, business case, alternatives considered, impact of not doing the work, initial estimate of resources and schedule, and strategic match. A project proposal starter template is available on this site.	
Initiating	Project charter: The project charter acts to define a number of key project elements including a project description, scope definition, and role/responsibility definition. A project charter starter template is available on this site.	<p>Kickoff presentation: A PowerPoint presentation that can be used to review the main sections of the project charter and communication plan during the kickoff meeting. A starter Kickoff presentation template is available.</p> <p>Team roles description: A description of typical roles on a project team that can be customized for a specific project. A sample role description document is available.</p>
Planning	Communication plan: The Project Communication plan is created by the project team early in project to indicate their agreement on how the team will communicate important information during the project - status, meetings, issues, deliverables access, and design/document reviews. It is recommended that this plan is completed early enough to be included for review at the Project Kick-off Meeting. A starter communication plan is available on this site.	<p>Project stakeholder analysis worksheet: A worksheet to be used by the project manager to ensure all important stakeholders as assessed prior to completing the communication plan. This document should not be distributed. A worksheet is available on this site.</p> <p>High level requirements: Please consult with your PM Lead or PMO for your organization's requirements document</p>
	WBS and project schedule: A Work Breakdown Structure, or WBS, is a hierarchical organization of high level activities that must be done to complete the work of the project. The project schedule	

Portfolio & Project Management Office

Project Management Toolkit

Origination

Initiation

Planning

Executing, Monitoring, and Controlling

Closing

Recommended project artifacts by phase

Project definition recommendations

Program Management Toolkit

Contact Us

Standards: Project Review Checklists

PMO Project Review and Clarity Guidelines

Types of Projects

Projects are requested as an ITPC, AITS or PPMO project.

ITPC—typically initiated by a customer and provides a product or service directly to the customer.

AITs internal—typically initiated within AITS, provides improvements to our infrastructure in support of our services to the customer.

ITPC and AITS can be any of these types:

- **Analysis:** Projects that require a large amount of analysis before a project can be requested.
- **Application Development:** Creation of a new application in house.
- **Enhancement:** Projects that increase functionality to existing software.
- **Integration and Interfaces:** These are new feeds to Banner that are small in nature with a large impact.
- **Maintenance:** These are projects that are used for tracking time for ongoing maintenance on high profile applications.
- **Upgrades:** Any upgrade to an in-house application or vended application is categorized as an upgrade project.
- **Business Intelligence/Reporting:** Decision Support projects for creating reports or a business intelligence solution for users.
- **Vended Application:** Installation of a software product that is produced and supported by a vendor.

Project Review Requirements

All Projects are required to have the following fields or processes:

- Must follow PMLC
- Must be Baseline
- Performance Indicators set and updated
- Lessons learned surveys – unless approval for no survey by Cynthia or Kelly
- Must have a project charter and a communication plan. These are to be uploaded on the PMO Reviewer page under General.
- Must have tasks following the template for the Initiation, Planning, and Closing WBS structure. Customization of the Execution section is allowed but must have a good reason as to why it is not following the template structure.

PMO Reviewer Full Checklist

Tab/Page	Clarity Field/Process	PMO	PM
Project Summary Page	<input type="checkbox"/> Start Date	X	
Project Summary Page	<input type="checkbox"/> Finish Date	X	
Project Summary Page	<input type="checkbox"/> Progress	X	
Project Summary Page	<input type="checkbox"/> Requested Implementation Date <i>(not required for Analysis and Maintenance Projects)</i>	X	
Project Summary Page	<input type="checkbox"/> Current Implementation Date <i>(not required for Analysis and Maintenance Projects)</i>	X	
Project Summary Page	<input type="checkbox"/> Stage	X	
Project Summary Page	<input type="checkbox"/> Document Location <i>(Optional)</i>	X	
Project Summary Page	<input type="checkbox"/> As Of Date		X
Project Summary Page	<input type="checkbox"/> Status Comment Make sure the status comment is professional with complete sentences.		X
Team Tab	<input type="checkbox"/> All generic roles have been replaced or removed	X	X
Task Tab	<input type="checkbox"/> Open tasks do not have a finish date in the past	X	X
Task Tab	<input type="checkbox"/> Tasks with start dates in the past but that have not actually started can still be completed on time.	X	X
Task Tab	<input type="checkbox"/> Tasks that are complete must be marked closed, ETC's set to zero, 100% complete, and Open for Time Entry is unchecked	X	X
Task Tab	<input type="checkbox"/> ETCs and resource assignments have been updated for remaining work on tasks	X	X
Task Tab	<input type="checkbox"/> Tasks that will be starting soon have the correct resources assigned to them and they are open for time entry	X	X
Risks/Issues/Changes Tab	<input type="checkbox"/> Check with the PM that risks and issues have been logged and assigned in Clarity	X	X
Baseline Page	<input type="checkbox"/> Ensure that the project has been baselined	X	



Standards: Collaboration Space

BIS Intranet Admin Services Collab Sites Notes

Search this site...

Documents

Project Documents

Meeting Information

Collaboration Items

Lessons Learned

Milestones

Future Enhancements

Audit Checklist

Project Action Items

Defects (Bug Tracker)

Discussions

Team Discussion

Recycle Bin

All Site Content

Project Summary

Standard university financial reports are created on a monthly basis. These reports are made available for college and department business offices across all campuses to monitor financial resources, make expenditure decisions and affirm accuracy of their financial records. Academic units often manually distribute subsets of their respective unit reports to their respective faculty members, principal investigators (PIs), and other staff for the purpose of making balance information available to allow for future spending decisions and to confirm that expenditures are appropriately and accurately recorded. Because this distribution process can be labor intensive for business offices and inconvenient to use for downstream report recipients, the goal of this project is to simplify this entire distribution process to make ease of use and ease of access for all information-consumers a priority and to reduce the amount of time a business unit office needs to spend on the distribution process.

[Key Deliverables \(click here for all project documents\)](#)

Type	Name	Version	Status
There are no items to show in this view of the "Project Documents" document library. To create a new item, click "New" or "Upload" above.			

Milestones

Title	Status	Milestone Date
There are no items to show in this view of the "Milestones" list. To create a new item, click "New" above.		

Audit Checklist - Items in Process (click here for full list)

Document Name	Status	<input type="checkbox"/> Assigned to	Role Assignment
There are no items to show in this view of the "Audit Checklist" list. To create a new item, click "New" above.			

Standard Meeting Information

Microsoft Lync information:

To edit, click on down arrow next to the Standard Meeting Information title. Select Modify Shared Web Part, make edits and click OK (bottom right of the screen).

Time Entry Links

- [Enter Time in Clarity](#)
- [Enter Time in Positive Time Reporting](#)
- [Enter Time in AVSL](#)
- [TEM System](#)

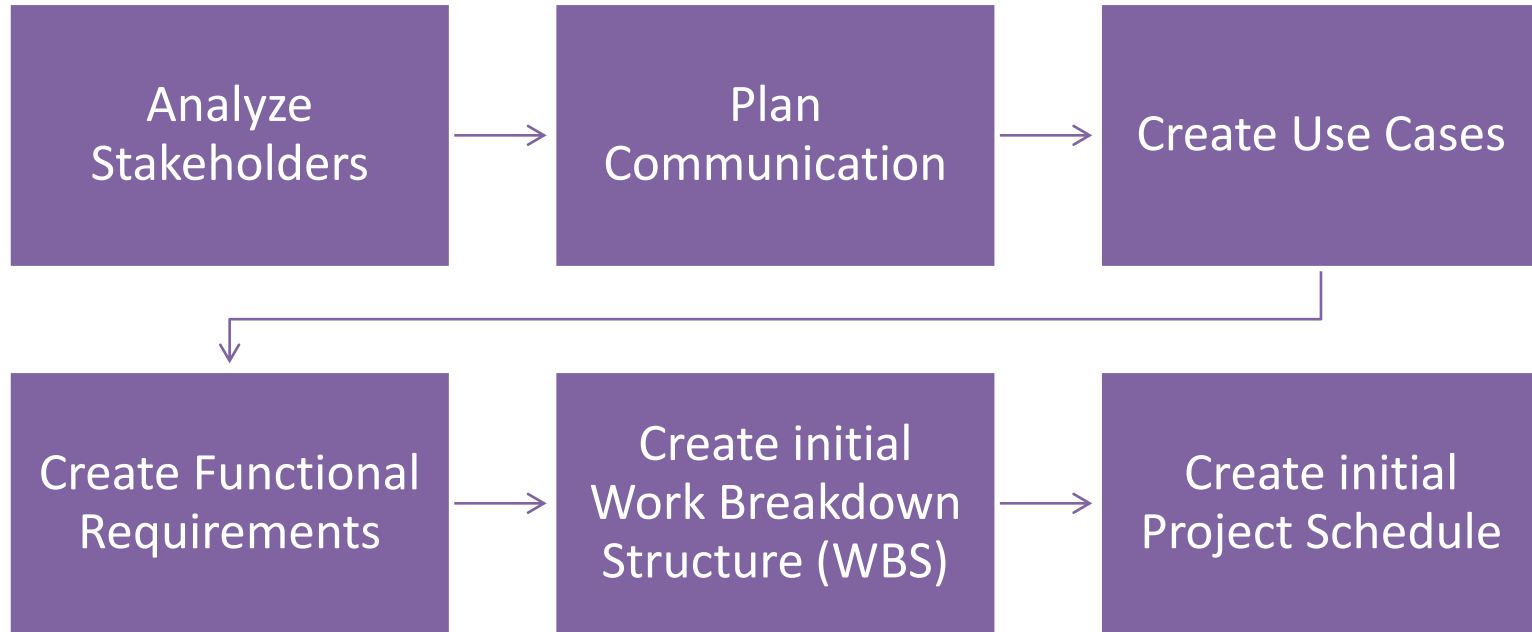
Admin Links

- [Production Bug Tracker](#)
- [Project Management - Team Site](#)
- [Lessons Learned Database](#)





Planning Activities for PMLC





Design Phase





Design Phase activities

- Design collaboration
- Style guides
- Technical design
- Architecture review
- Security review
- Sensitive data usage
- Prototyping
- Technical design review
- QA master test plan
- Training plan
- Hardware/software order
- Monitor and control
- Manage change requests



Faculty, Staff & Student Input

User Community
sessions

Online Survey
participants

Campus Advisory
Groups

Joint Stakeholder
Team sessions

Focus Groups

Prototype Open
Houses

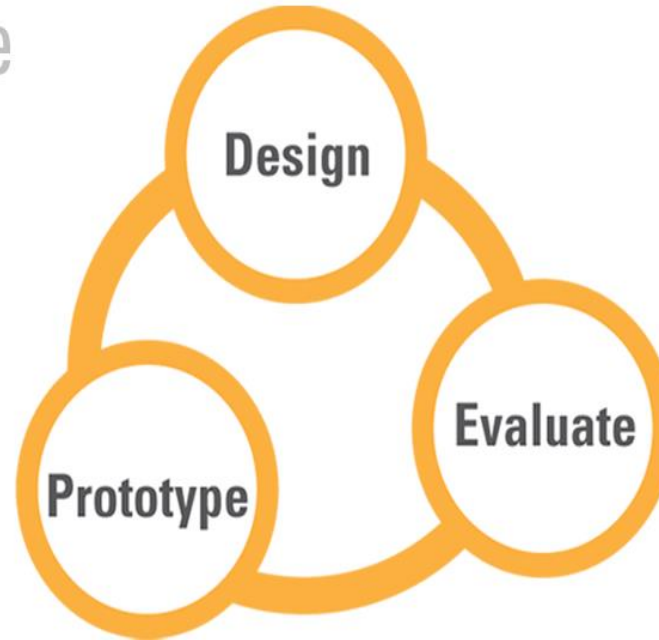


Iterative Prototyping is Essential

“... test several iterations of your prototype before solidifying the design and committing resources to implementation”

Apple iOS Human Interface Guidelines

Iterative Design





Executing Checklist

Monitor and control

- Risks
- Issues
- Change requests
- Action items
- Tasks
- Resources
- Schedule and project plan
- Track action items
- Follow up on tasks

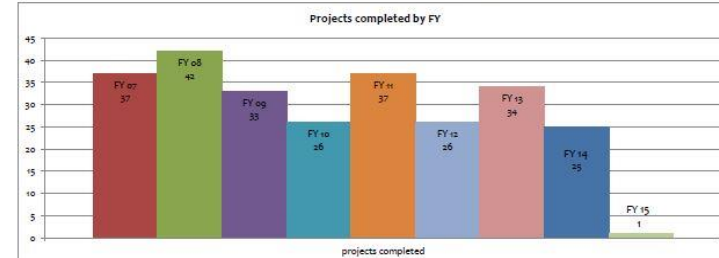
Communicate

- Project team status meetings and reports
- Sponsor reviews
- Informal communication
- Maintain collaboration space
- Other items defined in communication plan





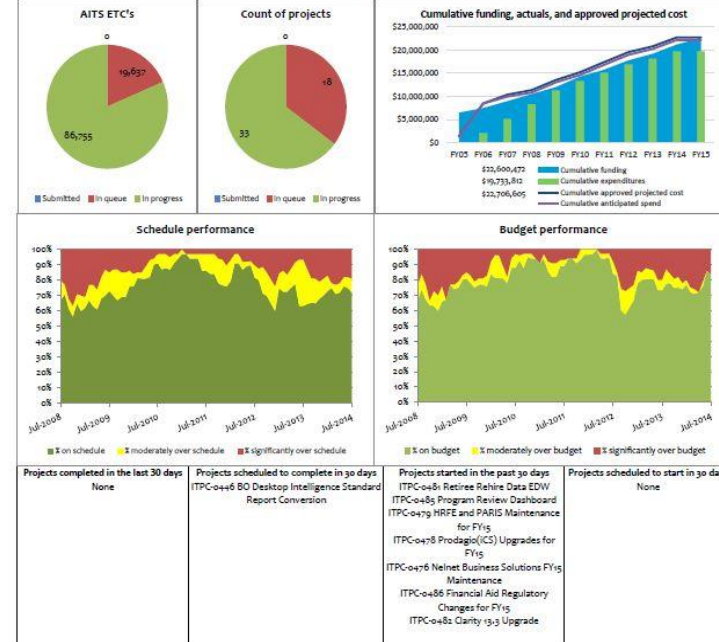
Performance Reports



Reasons for Overages in At-Risk Projects - ITPC

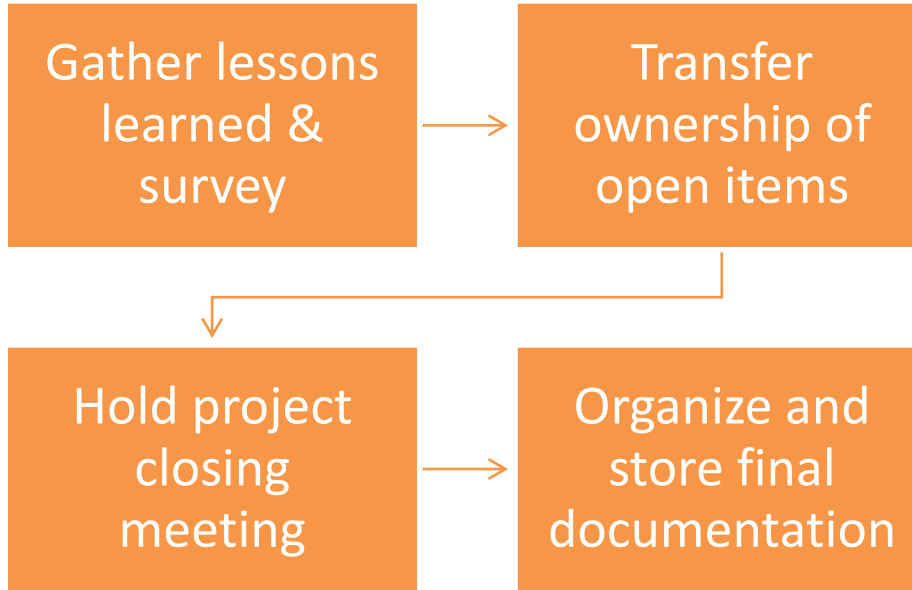
8/20/14 9:20 AM 1/2

Project Name	Budget health	Schedule health	Barrier health	Overall health	Baseline Finish	Anticipated Finish	Baseline Effort	Anticipated Effort
ITPC-0328 Contract Management System	G	R	G	Y	Jun 2014	Sep 2015	13,993	12,318
<p>IT Organization - resource constraints; OBFS BIS managed the project until November, 2013; Steve Branch is now the project manager. ITPC-0328 was originally scheduled to end in 2013; this is because the project was originally intended to end when the OBFS BIS portion of the project was completed. ITPC-0328 has been re-purposed to include the ICS deployment effort. Since the deployment is scheduled to last well into 2015, the implementation date on the project has been changed to 6/30/2015.</p>								
ITPC-0359 DARwin Upgrade to u.achieve	R	R	R	R	Feb 2013	Feb 2015	537	1,320
<p>Encountered unidentified risk/issue; Delay in implementation timeline will require additional development and testing hours to implement new version(s) of the application in UI environment. Delayed delivery of code/bug fixes from vendor; Encountered unidentified risk/issue; Schedule is pushed out due to open deployment windows on each campus. The campus units are also still testing the solution as they have time.</p>								
ITPC-0368 Athletics NCAA CAI	G	R	G	Y	Jan 2014	Nov 2014	1,015	1,068
<p>End user testing delays; SNtial, UIC OAR Office and UIC Athletics are in the process of defining test cases they want to validate and the layouts of any reports and files UIC Athletics wants. SNtial was hired to drive that part of the effort. At this point, the remaining tasks fall into the SNtial / UIC 'Testing' phase, so there isn't a lot more AITS can do for now, until all test cases have been proven and all reports and files are approved.</p>								
ITPC-0375 - IAM Phase 1: Access Assurance	R	Y	Y	Y	May 2014	Dec 2016	12,942	42,407
<p>Complexity of specifications; Underestimated work based on analysis and requirements gathering was needed. This increased the hours and added work packages to the project overall. Key decision milestones missed; IT Organization - resource constraints; The project went through a mid-project review and it was determined that additional analysis and requirements gathering was needed. This increased the hours and added work packages to the project overall. Based on the mid-project review, the team went through a period of replanning which realistically adjusted the schedule according to new findings. The project team is still analyzing the options for the go-live date for the first campus release.</p>								



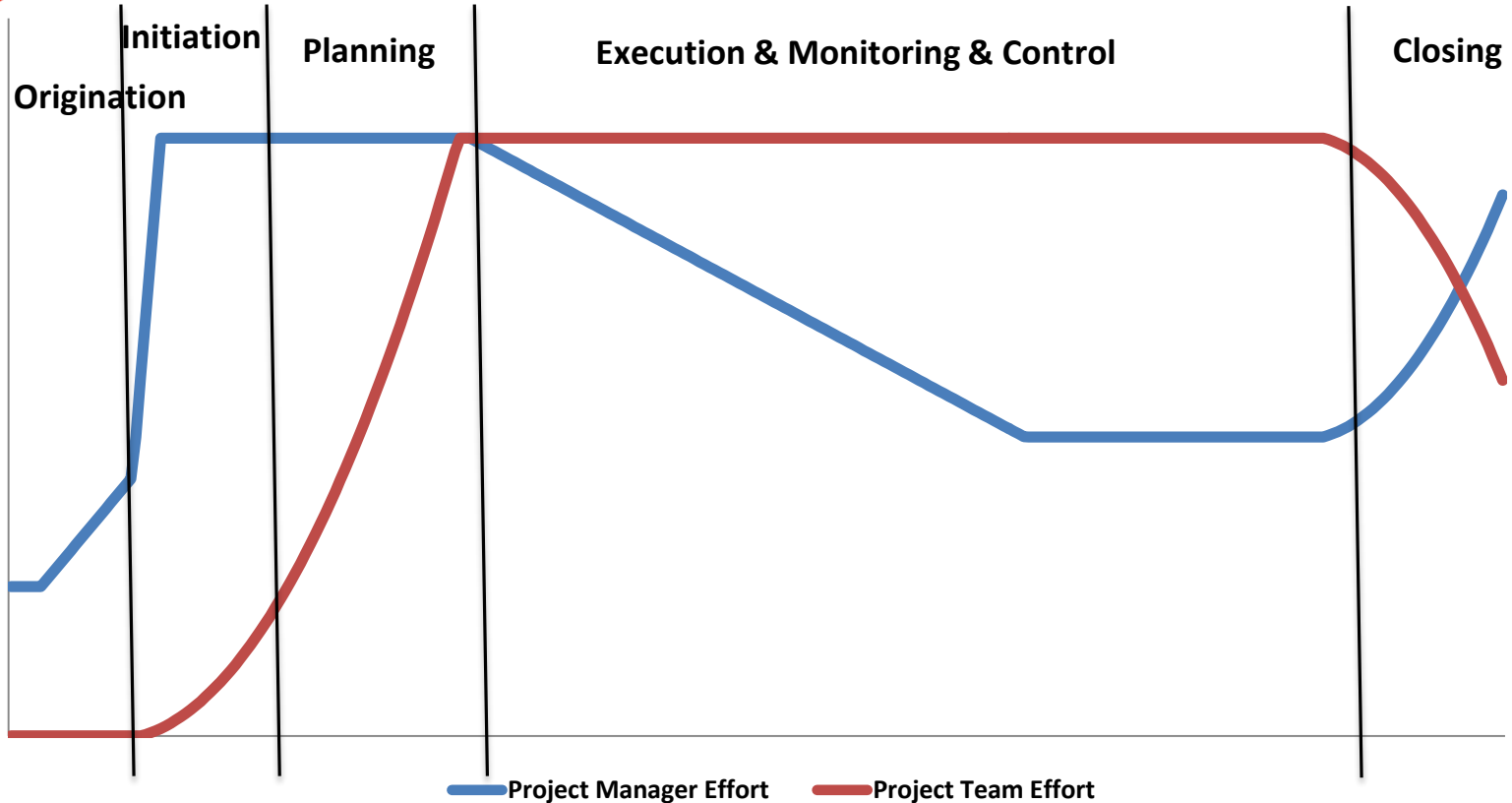


Closing Activities for PMLC





Effort throughout the PMLC





Example: HR Front-end

- Do 100,000+ HR transactions better
- Reduce operating costs
- Reduce unit workload
- Improve employee satisfaction and user experience with system

Project Facts:

Project Duration: 5+ years

Project Budget: \$4.7 Million

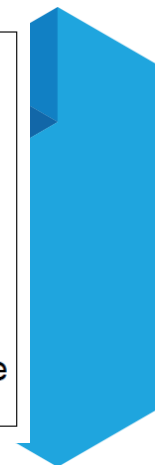
Size of User Base: 700+ users

Number of Departments: 63

Number of Project Participants: 350

Number of Development Hours: 75,000+

Size of Application: 16 Modules with over 94,000 lines of code





HR Front End User Input

User Community:
39 sessions

Online Survey:
213 participants

Joint Campus
Advisory Group:
1 session

Joint Application
Development
(JAD): 7 sessions

Breakout:
5 sessions

Business Team:
17 sessions

Prototype Focus
Group: 9 sessions
– 98 participants
provided feedback

Total Participants:
Over 350



Feature Comparison Over Time

- Hire/Rehire/Reappointments
- Employee/Job Changes
- Leaves of Absence
- Separations
- Position Creation/Maintenance

Feature Comparison ECOS, Banner, and HRFE								
System	Legacy Payroll	UFAS	SAS	ECOS 1 1996	ECOS 2 1997-98	ECOS 3 1999-02	SCT BANNER	HRFE
files/tables/segments/...	30	10	6	15	20	25	800+	50
Number of Releases Interface				?	~45	23		3
EAI and Enterprise Integrated	Batch	Batch	Client	Client	Client	Client	Web	Web
Org Structure Codes							Y	Y
Finance Codes	Camp/Coll/Dep		ssn	ssn	ssn	ssn	7 level org code	
Search for Employee	UFAS acct #						6 part FOAPAL	
User Preferences				Y	Y	Y	Y	Y
Group Inbox / Outbox				Y	Y	Y		Y
My Inbox / Outbox								Y
In/OutBoxes Filtering								Y
Appointment Info				Y	Y	Y		
Document Attachment								Y
Position / Jobs / Labor Dist.							Y	Y
Work Schedules							Y	Y
Transaction Types				18	21	24	0	12
Wizards				0	0	0	0	9
Post Apply processes				0	0	0	0	2
Demographic Person Info				Y	Y	Y	Y	Y
Separation Form					Y	Y		Y
LOA Form						Y		
Work History					Y	Y	Y	Y
New Employee				Y	Y	Y		Y
Change Employee Group					Y	Y		Y
Salary Calculator						Y		Y
Audit Trail / Transaction History				Y	Y	Y		Y
Full View				Y	Y	Y		Y
Routing / Number of routes				1	1	1		139
Dynamic Routing / Request Access								Y
Multi-org Routing				Y	Y	Y		Y
SendTo				Y	Y	Y		Y
Security by Org / Txn Type / E Group			Y					Y
Security profiles Admin								Y
Alert Messages Admin								Y
Reports				Y	Y	Y		Y

HR Front-end Construction

2004

Pre-Design and Information Gathering

User Community: 39 sessions
 Online Survey: 213 participants
 Joint Campus Advisory Group: 1 session
 Joint Application Development (JAD): 7 sessions
 Breakout: 5 sessions
 Business Team: 17 sessions
 Prototype Focus Group: 9 sessions – 98 participants
 Total Participants: Over 350

Epiphanies

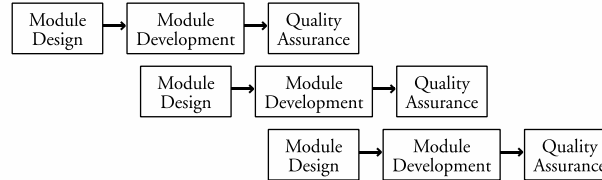
- ① Users determine that not all of the requirements have been identified. New business rules delivered.
- ② Testing has been done on a module by module basis. Users start to test with combinations of modules. UAT 1 leads to a UAT 2.
- ③ System is working! A reflective look at the amount of functionality HRFE provides and improvements made after UAT 1 set stage for UAT 2 and implementation commitment.

2005

Development of Functional Specification

2006

Traditional Design and Development Cycles



16 Functional Modules
 75 Users in Functional Teams
 15 Developers
 5 QA Testers
 22 Core Team Members

①

2007

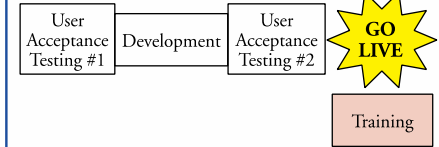
2008

②

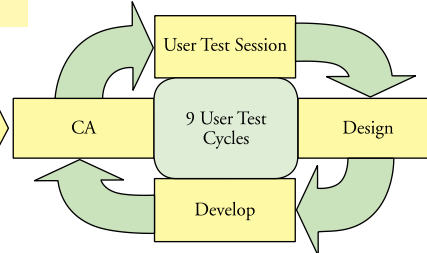
2009

③

Testing and Deployment

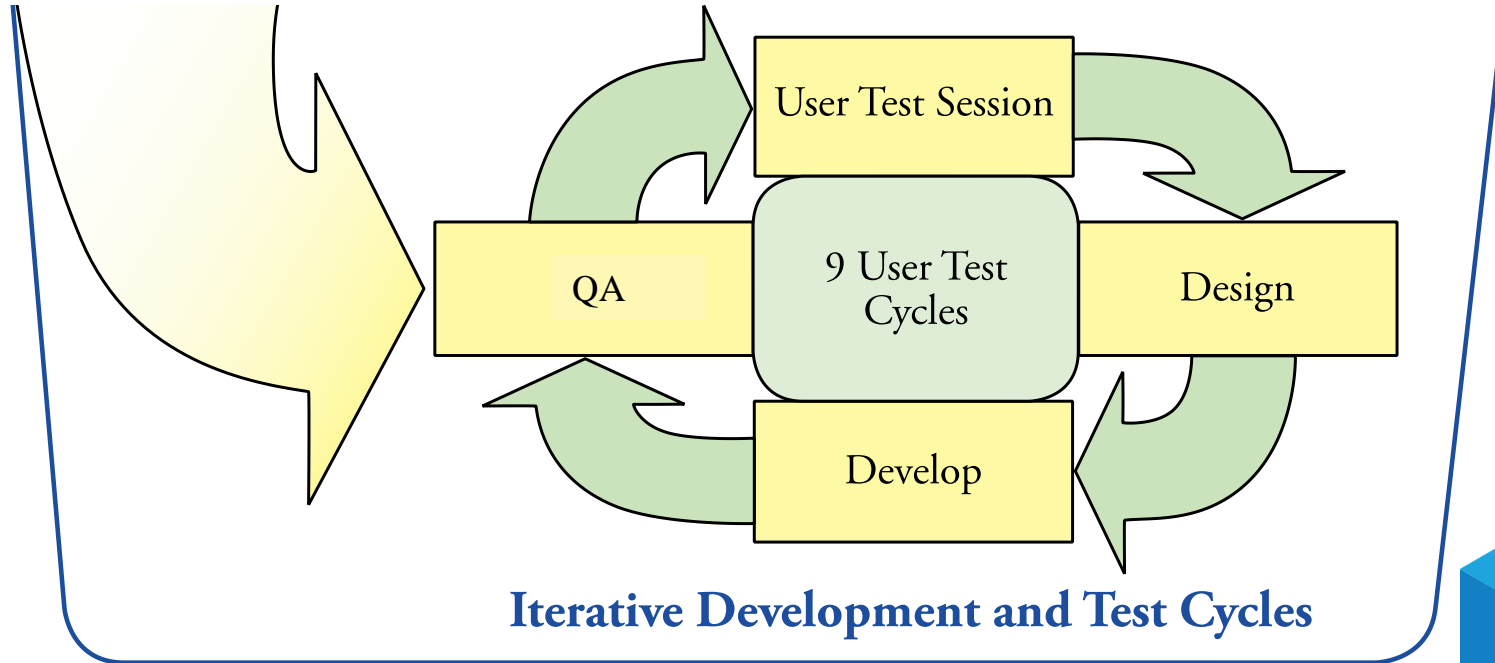


Q A



Iterative Development and Test Cycles

HR Front-end Construction



HR Front End Multifaceted Testing

WHAT

WHO



Functional Testing



Load Testing



EXPERT

Subject Matter Experts



Quality Assurance Testing

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Accessibility Testing



NEWBIE

IT and Regular People





HR front-end software

New System:

- Consolidated screens
- Less transaction overhead

GENERAL INFO BIO / DEMO MEMOS ATTACHMEN

EMPLOYEE GENERAL INFORMATION

UN: 674162298 NAME: LAST: Shah SUFFIX: FIRST: Reshma MIDDLE: EMPLOYEE STATUS: A

COA: 2 - University of Illinois - Chicago ORGANIZATION: 905000 - Pediatrics CAMPUS: C - UIC Chicago

CHECK DISTRIBUTION CHART ORG: COA: 2 - University of Illinois - Chicago ORGANIZATION: HIRETOUCH ID:

HIRE DATES: CURRENT: 8/16/2012 ORIGINAL: 8/16/2010

E-CLASS: AL - Acad 12mth Ben Elig

CITIZENSHIP: US - Citizen

JOBS

- CC1155-00: ASST PROF (CT)
 - JOB DETAIL
 - JOB LABOR DISTRIBUTION
 - POSITION DATA
 - CIVIL SERVICE EXAM DATA
 - WORK SCHEDULES
 - SERVICE DATES & CONTRA
 - DEFAULT EARNINGS
 - FACULTY RANK & TENURE
- CB3621-00: PHYSN SURG

Appointment Year: 2015 ERV

START DATE: 08/16/2014 Refresh

Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug

JOB

JOB:CC1155-00 E-CLASS: AL-Acad 12mth Ben Elig TS CHART/ORG: 2-905000 Pediatrics JOB TYPE: P FTE: 0.51 ANNUAL: 72,333.81 MTHLY: 6,027.82 HRLY: 81 BEGIN: 08/16/2014 END: R-Recurring BGT PRO: A

JOB CHANGES

08/16/2014

TITLE:	FTE:	ANNUAL:	MTHLY:	HRLY:	LAST CHANGE:	PERS DT:	EFF D:
ASST PROF (CT)	0.51	72,333.81	6,027.82		Add Job	08/16/2014	08/16

LABOR DISTRIBUTION

08/16/2014

COA:	INDEX:	FUND:	ORGN:	ACCT:	PROG:	ACT:	LOC:	%:
2		623007	905005	211100	905031			100.0

DEFAULT EARNING

08/16/2014

EARNINGS CODE:	HOURS OR UNITS:	SPECIAL RATE:	EFF DATE:	END DATE:
RGE - Regular Pay-Exempt	88.4		08/16/2014	07/02/2016

JOB

JOB:CB3621-00 E-CLASS: AL-Acad 12mth Ben Elig TS CHART/ORG: 2-905000 Pediatrics JOB TYPE: S FTE: 0.49 ANNUAL: 69,497.19 MTHLY: 5,791.43 HRLY: 81 BEGIN: 08/16/2012 END: R-Recurring BGT PRO: A

JOB CHANGES

08/16/2014

TITLE:	FTE:
PHYSN SURG	0.8

08/16/2014

TITLE:	FTE:	ANNUAL:	MTHLY:	HRLY:	LAST CHANGE:
PHYSN SURG	0.49	69,497.19	5,791.43		FTE Change





HR front-end project outcomes

- Employee record view that consolidates 11 Banner forms into one view (whole-person view)
- Modern search interface
- Route transactions through data-aware routes
- Embedded, context-sensitive help with videos
- Transaction wizards for complex transactions
- Detailed routing trail and transaction history
- Business rules that prevent common mistakes
- Extensive use of default values to speed up data entry





Lessons Learned – HRFE project

- Some changed their mind between 2004 and 2009
- Security and reporting were given less attention when application development was delayed
- The project specification was far too complex
- Maintenance takes about 4 FTE
- Take Gartner’s advice: simplify
- “The Magic 162”
- Maintain executive commitment
- Flexible and iterative development methodology
- A single source of truth for project information
- Maintain fallback positions





Lessons Learned

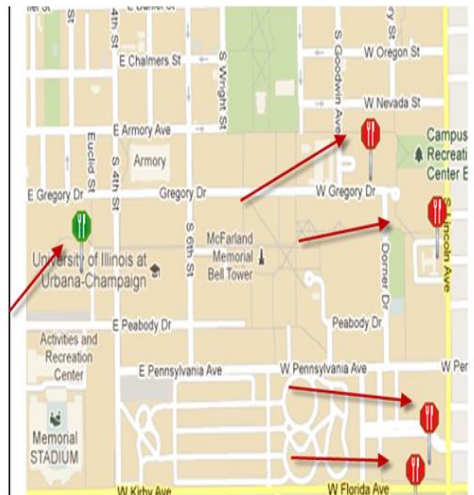
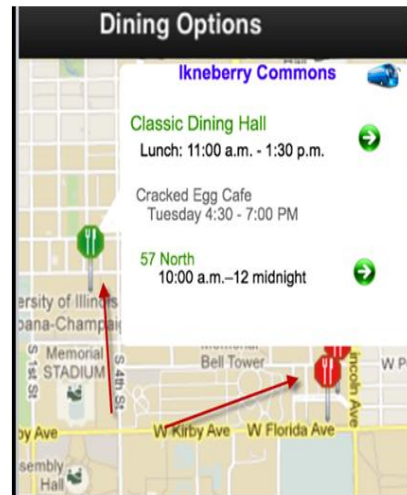
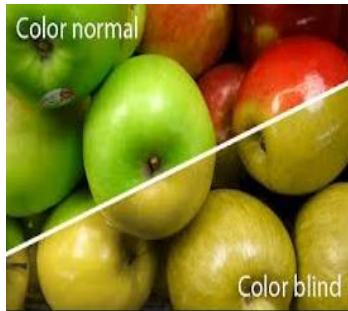
- Listen to faculty/stakeholders concerns throughout the entire process
- Document a sufficient number of use cases
- Allow for trial and error
- Prototype and iterate frequently
- Always run through the entire testing checklist
- Test with a broad audience
- Follow design standards





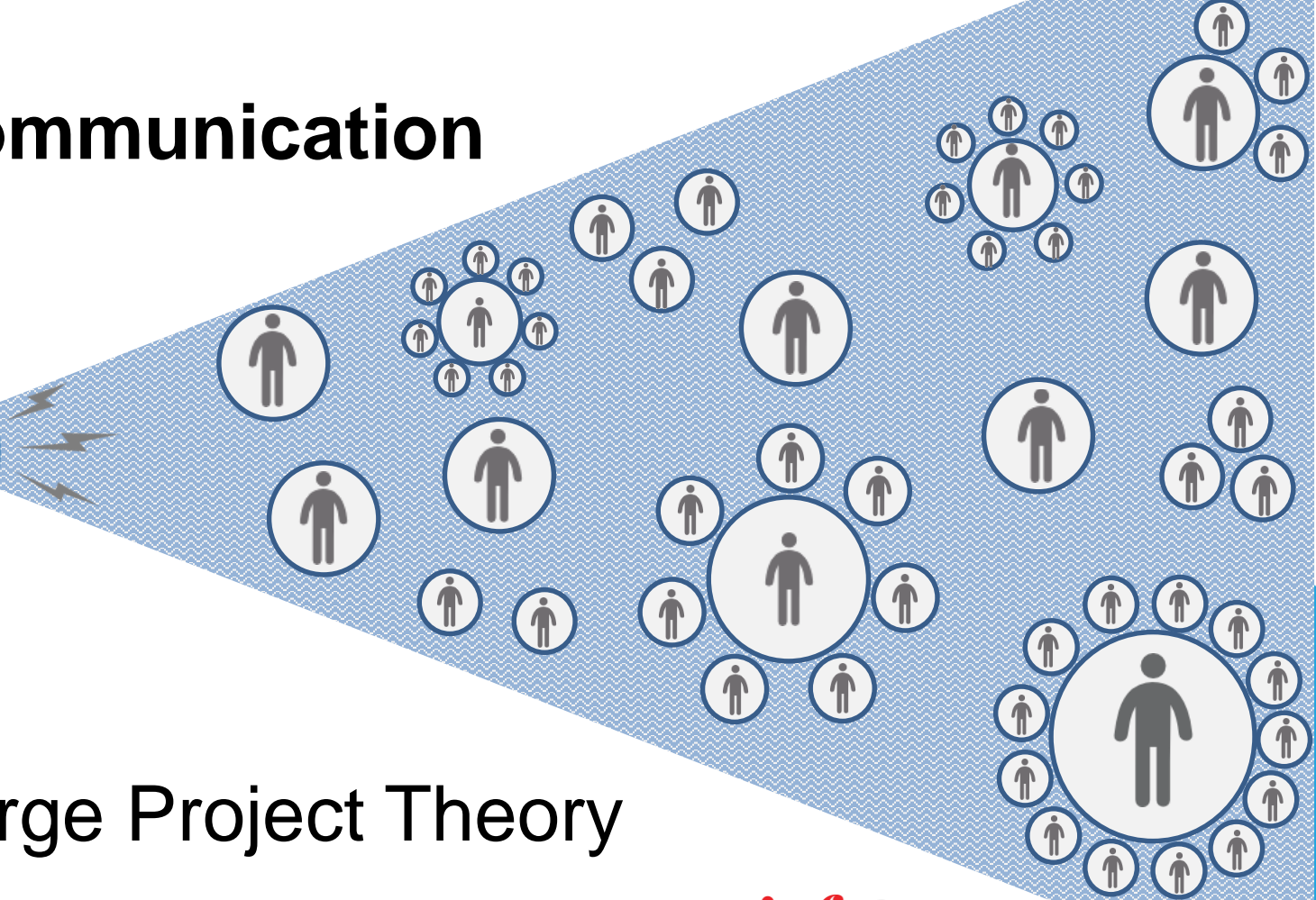
Accessibility Specialists Involved from the Beginning

- Green means open
- Red means closed
- *“All I see is light brown!!!”*





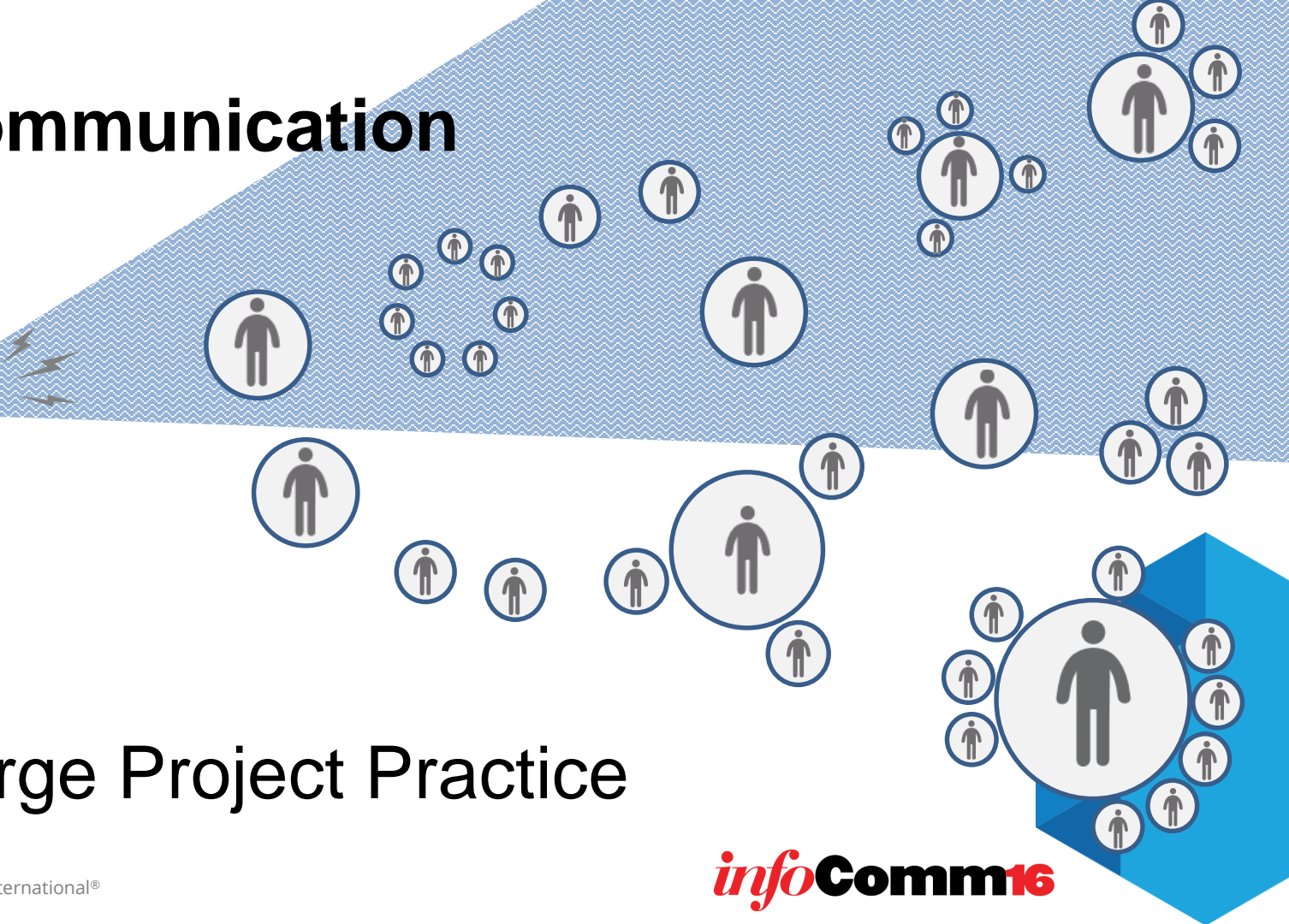
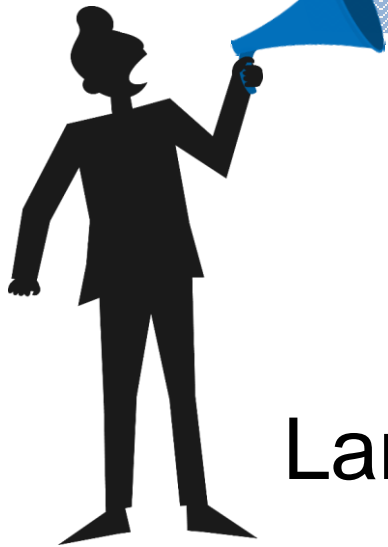
Communication



Large Project Theory



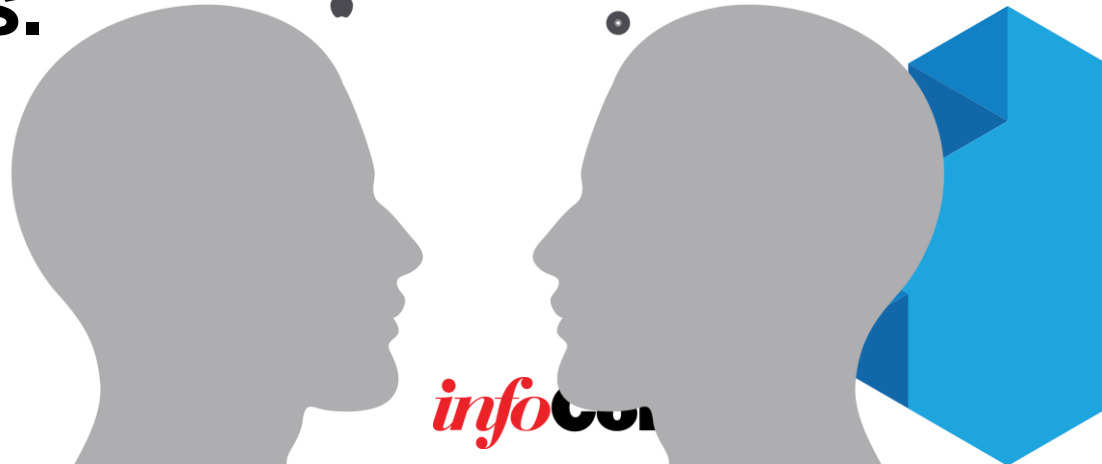
Communication



Large Project Practice



One Project. Two Perceptions.





Audience Question

- Are you prepared to work on campus-scale projects?



Campus-scale Project Planning

Michael Hites
Senior Associate Vice President of AITS & CIO
University of Illinois

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equipment sponsor:

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