Advisory Committee for Information Technology
Meeting Notes

MEETING DATE: 2/11/15          TIME: 1:30-3PM          LOCATION: 212 KERR HALL

ATTENDEES


GUESTS

Mark Cianca, Rachel Deblinger

UCPath Update [Mark Cianca]

Mark provided a brief overview of UCPaht:

PPS is well past its shelf life and becomes increasingly fragile as people retire. It has required a lot of rework and manual work, and system cannot support growth.

UCPath is a priority program, which, more than simply a PPS replacement, has become a full business transformation for HR and payroll services. It includes standardized business processes to support hiring, paying, growth and off-boarding; a shared service center; and implementation of enterprise level software.

The project has suffered from a number of problems. Peer group was brought in to review realistic key changes. The new completion for UCOP go-live date is tentatively September 2015. 80 percent depends now on unit testing success.

See presentation beginning on Pg. 2 for further details.

Digital Commons [Rachel Deblinger]

See presentation beginning on Pg. 12.

Security Update [Janine Roeth/Byron Walker]

Security is about protecting. The landscape, threats and vulnerabilities have changed, as well as resources. Janine asked the group what their biggest security concerns are. Feedback included:

- Off hours (what phishers can do after hours)
- Open campus network – every workstation is vulnerable
- Increasing creativity, cleverness of hackers
- Sensitivity of information we have access to
- Copyright

See security update beginning on Pg. 29 below.

<table>
<thead>
<tr>
<th>ACTION ITEMS</th>
<th>ASSIGNED TO</th>
<th>DELIVER BY</th>
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Next meeting: Wednesday, April 8 10:30-11:30AM 212 Kerr Hall
UCPath Program Update

2/11/15

- Recent progress
- Replanning UCOP go-live and beyond
- Key status updates
Recent progress

Cleared many issues that prevented UCOP December deployment.

Progress includes:

- Conducted peer review of the project using multi-location ad-hoc advisory group and made changes based on the group’s recommendations
- Reorganized the UC Path team, including bringing on new leadership of program management, technical and functional teams
- Reached agreement on an aggressive timeline for the new OP go-live date: “September if” (details on next slides)
- Improved quality by creating a robust and complete project plan for conversion and testing
- Built key reporting metrics to provide transparency around progress on a real time basis
- Resolved critical issues with data conversion, began making progress on functional unit testing
- Began building a model for increasing campus engagement in the project team
Sept 2015 targeted for UCOP go-live

- “September if…”
- Potential dates have been weighed by UC leadership
- By design, date will be finalized once functional unit testing (the most high risk item on the critical path) has concluded and has been assessed
- Final validation of date target should be available by March
Current deployment dates for remaining locations

- Tiger team will assess and secure deployment dates for remaining locations
- Will result in changes to number of deployments and potential changes in sequencing
Functional unit testing

FUT testing is the last validation step of development, during which the functionality is tested for alignment with the functional design. FUT is the key dependency for entry into the next significant milestone for UCOP deployment (system integration testing).

Currently behind schedule

Mitigations:
- Leveraging location resources
- Extending work days (staggering hours)
- Co-locating functional and technical resources
- Streamlining processes
- Revising calendar
- Reviewing UCOP scope
Percentages are based on the total number of rows in PPS compared to the number of rows in PS along with very limited field-level review validating PPS to PS data.

UCOP Data Validation: Dec 2014

- **Dec: first successful payroll run**
- Substantial UCLA participation in validation
- Significant increases in number of data rows successfully loaded
- Primary focus was on validating the data in payroll-affecting data sets
- High-level quality checks included row count comparisons between PPS and PS and limited review of payroll impacting fields
- Future validation efforts will include more in-depth review of data details
- Will continue with current methodology for UCOP and modify for subsequent deployments
Organizational change / communications / training

RECENT PROGRESS

- Change impact assessments with UCOP
- Stakeholder analysis
- Executive communications on replanning
- Working with UCPath Center on aligning communications efforts and producing desk reference materials

CURRENT FOCUS:

- UCOP pilot
- Communicating the UCPath replan
People
- Staff required for UCOP go-live: currently in place
- Recruitment planning underway for remaining locations

Technology
- Working closely with the Central UCPATH team to carry out functional unit testing (FUT)
- Assessing Salesforce, FileNet, Peoplesoft to ensure these UCPATH Center technologies meet the needs of post-UCOP populations such as faculty at UC Santa Cruz and medical employees at UCLA
UCPath Center serving UC locations in March 2015

Processes

- UCPath Center is supporting UCLA and UC Santa Cruz with 12 payroll-related services
- Two UCPath Center employees are temporarily working at UC Santa Cruz
- Project is gaining momentum – three additional locations have expressed interest in participating

<table>
<thead>
<tr>
<th>Location</th>
<th>Process</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>UCLA</td>
<td>Verification of Employment</td>
<td>Responding to written and verbal requests for Verification of Employment.</td>
</tr>
<tr>
<td>UCLA</td>
<td>Tax Reconciliation and Audits</td>
<td>Performing local reconciliation and audits of taxes paid using financial system and labor ledger reports.</td>
</tr>
<tr>
<td>UCLA</td>
<td>Federal, State, Social Security Taxes</td>
<td>Reporting and payment of federal, states and social security taxes.</td>
</tr>
<tr>
<td>UCLA</td>
<td>W-2Cs</td>
<td>Completing and filing W-2Cs to reflect adjustments.</td>
</tr>
<tr>
<td>UCLA</td>
<td>Out of State Tax Processing</td>
<td>Processing and reconciling taxes for out of state employees.</td>
</tr>
<tr>
<td>UCLA</td>
<td>I-9 Auditing</td>
<td>Post-audit of I-9 work authorization process.</td>
</tr>
<tr>
<td>UCLA</td>
<td>Unemployment Insurance</td>
<td>Processing Unemployment Insurance claims and reporting.</td>
</tr>
<tr>
<td>UCLA</td>
<td>Garnishments</td>
<td>Processing, reconciling, and providing customer service for wage garnishments.</td>
</tr>
<tr>
<td>UC Santa Cruz</td>
<td>Pre-Payments (Direct Billing)</td>
<td>Processing direct payments from employees on leave to ensure continuation of benefits.</td>
</tr>
<tr>
<td>UC Santa Cruz</td>
<td>Pre-Pay Account Reconciliation</td>
<td>Reconciling the pre-pay account by researching discrepancies and completing journal entries to clear outstanding balances.</td>
</tr>
<tr>
<td>UC Santa Cruz</td>
<td>Consolidated Billing Reconciliation</td>
<td>Reconciling out of balance transactions for the consolidated billing account.</td>
</tr>
<tr>
<td>UC Santa Cruz</td>
<td>Garnishments</td>
<td>Processing, reconciling, and providing customer service for wage garnishments.</td>
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Thank you
Questions & Discussion
Digital Commons: Project Proposal

Rachel Deblinger
Digital Humanities Specialist & CLIR Postdoctoral Fellow
What is a CLIR fellow?

[10 years of PhDs in Academic Libraries]

[2014 - 2016: 30 Fellows]

[Research Universities & Liberal Arts Colleges]
What is a CLIR fellow?

[Campus-wide support]

University Library
Humanities Division
Office of Research
Graduate Division
ITS
Why a Digital Humanities Specialist?

[Community Building]
Speaker Series: Digital Humanities & Cultural Heritage
Digital Happy Hours
Graduate Student Brown Bags

[Outreach]
Open Hours: Digital Project Consultations
Partnership with IHR (Research Cluster)
Campus technology centers & services

[Environmental Scan: Which model for UCSC?]
Listening to faculty needs
Exploring successful models
Writing a Digital Commons Project Proposal
Environmental Scan: Digital Scholarship at UCSC

[Interdisciplinary tradition & Innovative scholarship]
Games & Playable Media; Computational Media; DANM

[Ongoing Faculty Projects]
Mapping, Databases, Online exhibits, digital assignments, online coursework, public scholarship, digital communications

[De-centralized efforts]
Lack of interconnectivity
Limited resources
Digital Scholarship at UCSC

[Partners in Digital Scholarship]

University Library
ITS
  Departmental Liaison ITS
Learning Technologies
FITC
Center for Integrated Spatial Research
Digital Commons in McHenry: A Vision

[Leading effort towards centralization]

University Library
IHR Digital Humanities Research Cluster

[Coordinate efforts]

Amplify impact, encourage experimentation
Hub for digital scholarship

[Access]

Open to all members of the UCSC campus: students, faculty, staff
Technology and staff support
Unexpected collaborations
Community of Stakeholders

[Ongoing Events]

IHR Digital Humanities Research Cluster
New co-Sponsors:
  Graduate Student Commons
  Learning Technologies
  Academic Affairs

[Digital Humanities Working Group]

  Reading, Pedagogy, Works in Progress

[Ongoing outreach & environmental scan]
Space for innovation & inspiration

(1) Individual workstations with advanced software
(2) Collaborative workstations
(3) Multimedia rooms
  Podcasting | Video capture and editing
  Digital exhibition space
(4) Gaming lab
(5) Visualization space that can be used for classroom instruction | Presentations
(6) Flexible, active learning space
(7) Informal collaboration lounge
(8) a CAVE or Virtual Reality space
Services for scholarly experimentation

Already exist:
(1) Digital Project Consultation
(2) Object, Slide, and Data Digitization Consultation

In development:
(3) Data and Project Preservation
(4) Data Management Consultation
(5) Open Access Support
(6) Omeka/Digital Exhibit Building

Long term plans:
(7) Mapping and GIS Support (in coordination with CISR)
(8) Server access and maintenance
(9) Technical coordination and project management
Services for scholarly experimentation

A PILOT PROJECT: Omeka/Digital Exhibit Building
IMLS Sparks! Innovation Grant Submitted February 2, 2015

[Full life-cycle support for digital exhibits]
1. Project conception and development
2. Digitization and scanning consultation
3. Data and Metadata strategy
4. Omeka installation and hosting
5. Long term preservation of exhibit

[Focus on documentation]
   Internal workflow
   External expectations & limits

[Understand & evaluate requirements to scale service]
   Facilitate discussion cross divisions and departments
Programming goals for long term growth

[Workshops]

[Series of events re: Funding & Grants]

[Small Teaching Innovation Grants]

[Call for Faculty Projects]

[Graduate Student Training & Mentorship Program]

[Digital Humanities Courses]

[Conferences, Symposia, Events]
Proposed Implementation I Phase 1

[Open Digital Commons with current infrastructure parameters]
  Informal Lounge space for consultations, collaboration
  Tables for consultation services
  Moveable desks for small workshops

[Upgrade workstation computers]
  Work within licensing agreements
  Maintain current services

[Designate breakout rooms]
  Podcasting
  Video editing
  Team meetings
Proposed Implementation I Phase 2

[Reimagine & reconfigure space in McHenry]
- Build remaining breakout spaces with new hardware
- Create collaborative work spaces with shared screens
- Create larger flex space for workshops & presentations

[Build Visualization Wall/s]
- 8 consumer end screens with software for multiple uses
- Large interactive screen for class use & public events

[Digital Exhibition Space]
- Designate space for exhibitions to be shown on iPads
- Hybrid space for interacting with digital & physical
Proposed Implementation I Phase 3

[Implement Faculty-led Pilot Projects]

[Launch class of Graduate Student Fellows]

[Host large, annual symposium]

[Support new course creation and innovative assignments]

[Institute working group that will meet regularly to collaborate, assess, and support each other’s work]
Proposed Implementation | Long term growth

[Regularize student fellows & faculty project management]

[Support faculty projects through teaching waivers]

[Integrate undergraduate students into core projects]
Questions.
ITS Information Security - Context

- Mission relies on information, systems and infrastructure
- Information security programs protect confidentiality, integrity and availability (CIA)
- Landscape (threats, vulnerabilities) in constant change
- Constrained resources require efficiencies and risk assessment
“What keeps you up at night?”

(regarding Information Security, or protection of our information and assets)
UCSC by the numbers

Wired Campus Network
~9500 systems/devices

DC

DataCenter: ~630 systems/devices

Internal: ~90 systems/devices

Wireless Network
~8500 systems/devices

Wired Residential Network
~5300 systems/devices

TOTAL:
~24,300 systems/devices
Any given day.....

From other agencies and Higher Ed:

- External notification of systems participating in domain server DDoS attacks
- FBI advisory about payroll/bank account scams focused on higher ed
- A UC campus announces breach of notice-triggering data - what is root cause?
- Pastebin of ucsc.edu accounts/passwords announced on REN-ISAC (Higher Ed security list)
- Compromised server sends phishing emails from UCSC domain to other universities and organizations

Within UCSC, related to mission

- Economic professor’s research data request - do we comply with UK security regulations?
- Senior management on their way to India or China - what computer to bring?
- Report of hacked cameras and classroom videos posted on YouTube
- Security guidance to researchers who are subject to IRB review
- Contract terms for vendor performing analytics re: financial aid
- Merchants PCI 3.0 compliance review and need plan to replace credit card readers with EMV “chip” readers
- Request to use third party vendor for sports clubs registration
Any given day.....operations

Within UCSC, operations
- DNS server failure/problem - is there an external scans or attack?
- Multiple failed CruzID Gold login attempts to DivData system
- Reports from many users of phishing emails received
- Enable vendor access to data center to provide remote support
- Compromised UCSC accounts send phishing emails
- Update SSL certificates before browsers block sites due to insecure cryptographic algorithm

Re: vendors/software
- Critical vulnerability announced (GHOST) - affects 100+ systems, must patch that day - there were 151 US-CERT vulnerabilities announced since Jan 2014
- Update Flash on desktops - 3rd time in 2 weeks due to critical vulnerabilities
- Automatic Java update that is incompatible with Enterprise Applications
- Retire operating systems like Windows XP no longer supported by vendor
- Update Firefox browser due to security advisory - Firefox had 100 security advisories since Jan 2014, 68 which were critical or high severity
Breaches

- Social Security #s
- Credit card numbers
- Email addresses
- User account info
- Birthdate
- Company info
- Malware
- Lack of security controls (MFA, admin)
- Vendor credentials
- Admin credentials
- Credit card numbers
- Social Security #s
Classification of 2013 Data Breaches

Source: Verizon 2014 Data Breach Investigations Report
## Recommendations for Education Breach Patterns

<table>
<thead>
<tr>
<th>Pattern</th>
<th>Recommendations</th>
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<tbody>
<tr>
<td>Web App Attacks</td>
<td>two-factor or alternate authentication, application security best practices (validate inputs, lockouts), monitor traffic going out of campus</td>
</tr>
<tr>
<td>Insider and Privilege Misuse</td>
<td>track onboarding/offboarding of users and access, know and monitor sensitive data transfers</td>
</tr>
<tr>
<td>Physical Theft and Loss</td>
<td>encrypt devices, physical security best practices (maintain possession, back them up, lock them down)</td>
</tr>
<tr>
<td>Miscellaneous Errors, e.g. misdelivery of email, inappropriate publishing, disposal of sensitive info</td>
<td>monitor for restricted data loss/leakage, e.g. through email or publishing too broadly, secure disposal</td>
</tr>
<tr>
<td>Crimeware (malware)</td>
<td>up-to-date browsers, disable Java, two-factor authentication, track config changes, use reputational info to avoid bad actors</td>
</tr>
<tr>
<td>Denial of Service Attacks</td>
<td>turn off unnecessary services, segmentation and isolation on the network</td>
</tr>
<tr>
<td>“Everything Else” - e.g. stolen credentials, unauthorized software installs, hijacked servers, brute-force attacks</td>
<td>anti-phishing campaigns, two-factor authentication, system management best practices (patching, turn off unnecessary services, etc), network security (monitoring, intrusion detection)</td>
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# Higher Ed Breaches Reported to CA State Attorney General

<table>
<thead>
<tr>
<th>Organization Name</th>
<th>Date(s) of Breach</th>
<th>Reported Date</th>
</tr>
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<tbody>
<tr>
<td>Point Loma Nazarene University</td>
<td>10/07/2014, 10/20/2014</td>
<td>12/15/2014</td>
</tr>
<tr>
<td>University of California, Berkeley</td>
<td>09/16/2014</td>
<td>12/12/2014</td>
</tr>
<tr>
<td>University of California Davis Medical Center</td>
<td>09/25/2014</td>
<td>10/13/2014</td>
</tr>
<tr>
<td>California State University, East Bay</td>
<td>08/23/2013</td>
<td>09/05/2014</td>
</tr>
<tr>
<td>University of California Santa Barbara</td>
<td>11/01/2013</td>
<td>08/07/2014</td>
</tr>
<tr>
<td>Butler University</td>
<td>11/01/2013, 05/28/2014</td>
<td>06/26/2014</td>
</tr>
<tr>
<td>University of California, Washington Center (CDC)</td>
<td>06/07/2014</td>
<td>06/20/2014</td>
</tr>
<tr>
<td>San Diego State University</td>
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<td>05/22/2014</td>
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<tr>
<td>University of California Irvine</td>
<td>02/14/2014, 03/13/2014, 03/22/2014, 03/27/2014</td>
<td>05/14/2014</td>
</tr>
<tr>
<td>University of California Davis Medical Center</td>
<td>12/13/2014</td>
<td>02/03/2014</td>
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<td>University of California San Francisco</td>
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<td>11/21/2013</td>
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<td>San Francisco State University</td>
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<td>Chapman University</td>
<td>02/27/2013</td>
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<tr>
<td>Western University of Health Sciences</td>
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<td>Pepperdine University</td>
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<td>University of North Carolina at Charlotte</td>
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<td>05/11/2012</td>
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<tr>
<td>San Francisco Head Start, San Francisco State University</td>
<td>08/01/2011, 11/30/2011</td>
<td>03/29/2012</td>
</tr>
<tr>
<td>Trident University International</td>
<td>11/26/2011</td>
<td>02/22/2012</td>
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Source: [http://oag.ca.gov/ecrime/databreach/list](http://oag.ca.gov/ecrime/databreach/list)
“What else are we seeing?”

(Byron)
Protect campus information assets through security awareness and education, secure working environments, and appropriate controls and practices to manage critical risk

Outcomes

- Members of the campus community have security training appropriate to their roles
- Security controls are applied to highest risk in a complex security landscape
- UCSC environment includes intentional and consistent security by design or automatically as part of service offerings
Before We Transition to Projects/Operations Overview
Addresses, SSNs, phone numbers released by former Gov. Jeb Bush in e-mail dump
Former governor is exposing correspondents' personal information.

by Megan Geuss - Feb 10, 2015 9:57 pm UTC

ars technica