Streamlining Undergraduate Thesis Workflow with Vireo

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Topics for this Session

The Landscape
Context & Needs

The Climb
Iterations

The Crevasse
Challenges & Solutions

The Summit (or something close to it)
Success Factors

The Road Ahead
Considerations for Future

Takeaways & Discussion
Share Experiences and Findings
The Landscape: Senior Theses at Princeton University

- (Nearly) universal requirement for all undergraduate seniors
- Princeton University Archives (PUA) main repository for theses
- PUA collection of senior theses viewed as important pedagogical tool for students
- Since the 1990s, academic departments responsible for collecting and transmitting theses to the PUA
The Landscape: Senior Thesis Collection at PUA

- Ranges from 1924 to current year/contains over 66,000 items
- Collected in paper format until 2012/transitioned to digital in 2013
- Managed/accessed through DSpace
- Access options: PU network access (default) / embargo / “walk-in access”
- Circulation of paper vs. digital
- New questions and challenges

Princeton University Undergraduate Senior Thesis Collection (Home page, DataSpace), Accessed August 24, 2018
https://dataspac.e.princeton.edu/jspui/handle/88435/dsp019c67wm88m
The Climb: Going Digital in 1,2,3 Iterations
2013: From Paper to Digital

Students -> Department Admins
  author, title, advisor

Department Admins -> DataSpace / DSpace
  author, title, advisor

Some Students -> Restriction System
  DataSpace Workflow & Restriction Data

PUA
  PUA

Mudd Archives trained Department Admins
2013 Debrief: From Paper to Digital

Students
Bye Bye Printing!
So easy!

Administrators
No more heavy Paper
DSpace form vs Access DB
Annual Training

PUA
No more heavy Paper
Online Access
Restriction Management
Annual Training

Tech Perspective
One Time Setup
Annual account config
2014, 2015, 2016: We should do better

Students
Keep it Easy!

Administrators
DSpace cumbersome
Help tracking Submissions
Why can’t students upload?

PUA
Want Normalized Names
So many Submissions!

Tech Perspective
It’ll be Work!
2017: Thesis Central SharePoint - The Plan

Upload

Thesis Central TC

expected thesis

metadata

metadata

metadata

transfer batches

DataSpace

Final Review

Department
2017: Thesis Central SharePoint - The Reality

Restriction System (RS)

DataSpace

Transfer batches

Thesis Central TC

Expected thesis

Upload

Department

Final Review
2017 Debrief: Thesis Central SharePoint

Students
Easy!

PUA
Restriction Management
Fewer Submission at a time

Administrators
Love the lists
Review/Change/Approve
Metadata -> Excel

Thesis Central
Fragile System
Annual adjustment process?
No Admin → Developer does it

DSpace Developer
Pgm: TC + RS -> DSpace AIP
Batch Upload
2017: Thesis Central - What Now?

Thesis Central TC

Upload

DataSpace

Transfer batches

expected thesis

Department

Final Review
2017: Thesis Central - What Now?

Restriction System (RS)

Transfer batches

DataSpace

Thesis Central TC

Upload

HR

Expected thesis

Department

Final Review
Do It Yourself?

Find something

And adapt it!
2017: ETD Washington
2017: Evaluation

Students
upload

Administrators
Lists - Sort and Filter
Review Edit Approve
Export Excel / Docs
All Admins see All Thesis

PUA
Strong Admin Interface
Email Templates / Triggers

Developer
Solid Adaptable Implementation
Highly Configurable
Strong Admin Interface
Community Support
2018: Thesis Central with VIREO

Restriction System

Only 1 Workflow per Thesis @ Vireo
→ Leave Restrictions in RS

Adaptations:
- Import Expected Submissions
- Repurposed Metadata
- Four Submission States Only
- Simplify - eg no Advisor Access
- Admins see Department Thesis
- Excel Export with links to PDF
2018: Thesis Central with Vireo by Stakeholder

Students

- Login with CAS authentication
- Provide thesis title, enter abstract, flag for multi-author, upload file/s
- Cannot edit fully submitted items
- Permitted to make multiple submissions: Errors / Certificate

Department Administrators

- Login with CAS authentication
- See a list of all seniors in dept.
- Have limited number of statuses: Not submitted / Submitted / Pending / Approved / Cancelled
- Can edit submissions & replace files / export lists / batch export files
- Approve submissions by deadline in early summer
## List Submissions

14 matching records displayed.

<table>
<thead>
<tr>
<th>Student name</th>
<th>Status</th>
<th>Submission date</th>
<th>Advisors</th>
<th>Document title</th>
<th>Primary document</th>
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</thead>
<tbody>
<tr>
<td>Bunkley, Jennifer</td>
<td>Approved</td>
<td>04/24/18 12:50</td>
<td>Womack, Autumn</td>
<td>“Take my hand; I’m the one that can give you strength”: Reconstructing the Figure of the Conjure Woman as the Protector of Ancestral Memory and Propagators of Culture in the African-American Creative Realm</td>
<td>BUNKLEY-JENNIFER-THESIS.pdf</td>
</tr>
<tr>
<td>Cole, Avanthi</td>
<td>Approved</td>
<td>04/20/18 08:30</td>
<td>Benjamin, Ruha</td>
<td>(In)visible Women: The Experience of Black Female Undergraduates at Three Predominantly White Institutions</td>
<td>COLE-AVANTHI-THESIS.pdf</td>
</tr>
<tr>
<td>Jacques, Rachelle</td>
<td>Approved</td>
<td>04/20/18 07:20</td>
<td>Goldthrie, Reena</td>
<td>The Fight to be Heard: Haitian Informal Diplomacy and U.S.-Haiti Foreign Relations in the 1990s</td>
<td>JACQUES-RACHELLE-THESIS.pdf</td>
</tr>
</tbody>
</table>

2018: Thesis Central with Vireo by Stakeholder

PUA
- Instructions/training of users
- Monitors progress
- Responds to questions
- Manages user accounts and department listings
- Coordinates import with OIT
- Quality assurance and review
  - Metadata
  - Restrictions

OIT
- Interface configurations
- Coding
- Data transfer from Vireo to DSpace
- Restriction Integration
- Hosting QA and production systems
The Crevasse: Challenges & Solutions

- Vireo 3 no prefilled list of students / OIT created “empty” or “in progress” submissions so each complete list of seniors in their department *(solved!)*

- Access to system for Certificate Program Administrators / Export by program with links to documents *(solved!)*

- Difficulties combining ODOC restriction request system with thesis submission system / Maintain two separate systems *(partially solved)*

- Multi-author thesis handling / Configured field for students to flag multi-author theses, OIT developed title matching script, additional names added in DSpace *(partially solved)*
The Summit: Success Factors of Vireo Implementation

- Effective project team (Members from PUA, ODOC, OIT)
- Engagement of stakeholders
- Utilization of campus resources
  - UX Office / A11Y Review / Web developer / Registrar
- Avoided scope creep
  - Essential requirements / Reduce functionality / Maintain balance
- Iterative development process
- Feedback from students / department administrators
The Road Ahead

- Continue to use Vireo 3.0 (at least in 2019)
- Incremental improvements based on this year's experience
- Evaluation academic departments usage of other systems to collect files
- Evaluate Vireo 4.0
- Consider PDFA
Takeaways & Discussion

- Always more work and time than expected
- Keep it simple
- Colliding or cooperating worlds: IT and Library
- The job is never done
  
  System maintenance & upgrades / evolving needs & expectations for technology
Takeaways & Discussion

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