From A Stroll To A Sprint:
Expediting Submission And Ingest To Hathitrust For Locally Digitized Materials

Salwa Ismail, University of California, Berkeley
Lynne Grigsby, University of California, Berkeley
Paul Fogel, California Digital Library
Kathryn Stine, California Digital Library

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Overview

- Where we were
- Our plans over summer - discussions
- Operations and process
- Pre-submission workflow
- Submission workflow
- How it all ties together
- Q & A
We were strolling...

- UC Berkeley has been submitting to HT from a few years
- Started as a service for students with disability
- Submission varied from 2 to 10+items per month
- 2018 library closed, shelf clearing approach
  - as time permitted, guillotined.
- Google Books Project
Warm up for our sprint...

- Fall 2019 - Fires and power outages
- Spring 2020 - COVID-9
- April 2020 - ETAS
- Planning for summer and esp. Fall
- Not offering curbside pickups, or ILL
- Semester was starting up
- e-Reserves using ETAS
- Conversations with HT started
  - optimize and sync our current workflows
  - not add extra overhead on HT
  - conform our workflows to HT requirements
We were forced to sprint...

- 2 to 10+ books 60+ books a week
- Bib #, barcode and OCLC #
- HT ETAS checking (versions, publishers, editions etc.)
- 400 books to date ... more coming
- Change workflows and processes
Moving Equipment

- Move 2 Atiz book scanners
- Separate rooms on same floor
- Close to book shelves
Bookshelves

- Had plenty
- Needed lots of signage
Getting started

- **Staffing**
  - 4 Library Imaging Staff
  - 7 shared staff
- **Scheduling** -- all on site 2-3 days a week
- **Training at a distance**
- **Paging staff managed separately**
- **We were all learning the process**
Process

- Items received
  - Items triaged for binding, foldouts, size
    - Placed on appropriate shelf
- Spreadsheet updated
- Scanning staff pick up book take to scanner
- When finished scanning put on appropriate shelf
- Pick up next book...repeat
Quality Control

- Multiple steps
- Convert to tiff
- Crop
- Page counts
- Image quality
- 12-35 items batched together
- Passed to next step
Submission to HathiTrust

- UC Berkeley has been submitting to HathiTrust since 2016
- Since then we have submitted over 13,000 volumes consisting of over 3 million files
- e-Reserves required multiple changes to our process to handle smaller, faster submissions
Even more quality control

### Final Validation Results

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<thead>
<tr>
<th>Location:</th>
<th>Z:\eReserves\validating_20201015</th>
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<tbody>
<tr>
<td>Folders:</td>
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<tr>
<td>Files:</td>
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<tr>
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<tr>
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<td>Elapsed time:</td>
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</table>

<table>
<thead>
<tr>
<th>Status</th>
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<th>Directory</th>
<th>Message</th>
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<tbody>
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And each tiff is checked

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| valid | b103029266_C004756519_002_L.tif | (1564x2501, 375 ppi, 8 8 8 bits, LZW, 5 MB) |
| valid | b103029266_C004756519_003_R.tif | (1564x2501, 375 ppi, 8 8 8 bits, LZW, 5 MB) |
| valid | b103029266_C004756519_004_L.tif | (1564x2501, 375 ppi, 8 8 8 bits, LZW, 4 MB) |
| valid | b103029266_C004756519_005_R.tif | (1564x2501, 375 ppi, 8 8 8 bits, LZW, 7 MB) |
| valid | b103029266_C004756519_006_L.tif | (1564x2501, 375 ppi, 8 8 8 bits, LZW, 5 MB) |
| valid | b103029266_C004756519_007_R.tif | (1564x2501, 375 ppi, 8 8 8 bits, LZW, 5 MB) |
| valid | b103029266_C004756519_008_L.tif | (1564x2501, 375 ppi, 8 8 8 bits, LZW, 5 MB) |
| valid | b103029266_C004756519_009_R.tif | (1564x2501, 375 ppi, 8 8 8 bits, LZW, 6 MB) |
| valid | b103029266_C004756519_010_L.tif | (1564x2501, 375 ppi, 8 8 8 bits, LZW, 7 MB) |
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| valid | b103029266_C004756519_017_R.tif | (1564x2501, 375 ppi, 8 8 8 bits, LZW, 7 MB) |
Creating the OCR

- 1 OCR file per image file
- Tesseract OCR recognition open source software
- Spin up multiple simultaneous processes
- e-Reserves books have tended to go relatively quickly
  - they are typically more plain-text heavy, newer and in better quality than the older books we have not previously
- For e-Reserves it takes 3 to 6 hours per batch
- Image files and OCR zipped together for submission
Metadata

1. File naming provides the bibliographic record number
2. We pull that MARC record from our local catalog
3. Convert to Hathi-compatible MARC XML
Ongoing Improvements

Constantly reviewing and looking for improvements

- Infrastructure changes to reduce the moving of files
- Adding LZW compression to reduce the size of tiffs without losing quality

And some processes are still manual, such as,

Once batch is completed, we send an email (with details) to Paul Fogel at the California Digital Library (CDL)
UC Print Digitization Coordination

UC Locations
- NRLF
- SRLF
- Berkeley
- Davis
- Irvine
- Riverside
- San Diego
- San Francisco
- Santa Barbara
- Santa Cruz
- UCLA
UC Berkeley Expedited HathiTrust Deposit Process

- Receipt of bibliographic records and object links from Berkeley
  - Typically on Friday or Monday
  - Content hosted on Berkeley servers

- Submission of records to Zephir (HathiTrust Metadata Management)
  - Upon receipt of files

- Confirmation of successful bibliographic record loading
  - Received the next 9:05am Pacific time
  - Upon successful load, data will be visible to HathiTrust systems the next 3am Pacific time
  - Load must occur no later than Tuesday morning to be available for the ingest systems

- Submission of request for content ingest
  - HT Ops staff performs ingest on Wednesdays

- Confirmation of successful content ingest
  - Typically on Thursday
Shortening the turnaround from request to delivery relies on well-defined choreography.
Refining the Expedited HathiTrust Deposit Process

- Clarifying, routinizing, and optimizing roles and processes (e.g., quasi-daily → weekly)
- Benefiting from HathiTrust’s predictable, and now more frequent processes implemented during ETAS
  - monthly print holdings db rebuild
  - early access for depositing institution
- Benefiting from existing local processes
  - Locally-digitized metadata and content stream workflows
  - Established handoffs and trouble-shooting approaches
Thank you!

- Please complete the survey
- Jump in on the conversation on the HathiTrust Community Slack: #commweek