Supporting remote learning locally and nationally

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Introduction

Lynne Grigsby, UCB, Division Head, Library IT
Why eReserves?

- Course reserves has been a core Library function for many years
- Many students can’t afford to buy all required materials
- Some required readings are not available for purchase (locally/globally)
- Course reserves provided a heavily used safety net:
  - available in 20+ campus libraries
  - 17,000 checkouts between July 1, 2019 and March 17, 2020 (shelter in place)
The Process

1. Instructors provide lists of materials required for their courses.
2. Ereserves team searchers work with instructors - clarify citations, editions, translations, etc.
3. Identify content available online (review licenses, locate ebooks, etc.)
4. For items not already licensed and available online for unlimited number of users
   a. License ebooks, when available and “affordable”
   b. Page print item for scanning, if available, or order for scanning
Who does all that work?

e-Reserves Team: Receives requests from faculty. Triages and determines next steps.

Acquisition Team: Receives ordering requests from e-Reserves team, orders the books via RUSH

Cataloging Team: Catalogs the print items and sends them to Digitization team

Paging Team: e-Reserves Team requests print items and the Paging Team pages and delivers to single location

Digitization Team: Digitizes items received from Paging Team and from Acq Team.

Library IT Team: Processes books digitized from the Digitization Team and submits to HathiTrust (and now UC BEARS)

Digitization Coordinators: Notifies faculty item is available and sends a link
Ch-ch-ch-ch-ch-changes

On August 25, 2021, the first day of fall instruction, the libraries reopened and HathiTrust Emergency Temporary Access Service (HT ETAS) was ended.

UCB developed a local Controlled Digital Lending platform the UC BEARS (UC Berkeley Electronic and Accessible Reserves System) which launched the same day.

There are 751 items available for check out and in the first 2 months those items have been loaned over 6,500 times.
A girl stands at the door: the generation of young women who desegregated America's schools

A GIRL STANDS AT THE DOOR

The generation of young women who desegregated America's schools

Rachel Devlin
Creating

Chrissy Huhn, UCB, Head, Library IT Imaging Services
Logistics and Staffing
Triage
Scanning
Scanning
Gertrude Stein was born in Allegheny, Pennsylvania—a fact she took perverse pleasure in—on February 3, 1874, into a family as widely unconventional as one might expect of such a free spirit. Her grandparents were German-Jewish immigrants who had prospered in the United States; her parents, beguiled by art, languages, and educational theory, whisked the young Gertrude off to Europe (first to Vienna, then to Paris) as soon as it was safe for an infant to travel. As Stein later wrote: “So I was five years old when we came back to America having known Austrian German and French French, and now American English, a nice world if there is enough of it, and more or less there always is.” The family’s return to the United States was soon marked by yet another exotic migration: they crossed the country by train to settle in Oakland, California.

Although she received a spotty education as a child, Gertrude had voraciously. In the fall of 1891 she followed her brother Leo to Cambridge, Massachusetts, where she enrolled in Radcliffe College. English instructors complained of her wayward syntax and made her rewrite papers, but she developed an abiding interest in psychology and became an outstanding pupil of William James, who persuaded her to go on to study medicine at Johns Hopkins. Yet she abandoned medical school in her senior
Processing

Alvin Pollock, UCB, Developer, Library IT
Berkeley’s Hathi Trust Submissions

- Submission of locally digitized content began in 2016
- 33,000 items and over 6 million pages sent to date
- In 2019 we submitted over 5000 items and roughly 1 million pages totaling 24 TB - 35% more than in 2018
- Submissions occurred roughly twice per month
- For Ereserves submissions had to occur weekly
Switching to Weekly Submissions

- We must distribute the labor among non-developer staff
- We must streamline the process
- We must make our program user-friendly
- We must make installation simple
Image Validation

Moved to Imaging Services staff to prevent rejected submissions

Berkeley-Specific Checks
- Directory naming
- Proper file sorting
- Check if previously submitted
- Illegal file types (png, gif, etc.)
- Plus several others ...

Hathi Image Requirements
- Resolution
- Compression
- Bit depth
- Alpha channel
- Image corruption
- Plus several others ...
The Validator
Processing
Publishing

Paul Fogel, CDL, Service Manager, Google Books & Content Digitization
Getting Content Into HathiTrust

Purpose

Members may deposit digitized materials with HathiTrust for long-term preservation and access. These materials are stored in our repository and made available for search, display, and computational research, in addition to other uses as permitted by U.S. Copyright Law. We encourage all members to deposit material.

HathiTrust supports ingest of digitized books and book-like materials. These include manuscripts, pamphlets, and both bound and unbound serials. We cannot accept:

- unbound maps or other large-format items
- audio
- video
- items digitized from microform, film, or fiche
- born-digital materials, including PDFs and eBooks

Members wishing to deposit materials with HathiTrust may:

- work with one of our mass-digitization partners (currently Google and the Internet Archive), or
- work with us directly to establish a deposit workflow for locally-digitized materials

Note that HathiTrust does not offer digitization services. We can, however, provide guidelines and other support to members undertaking digitization projects.

Ingest Overview

HathiTrust requires the following artifacts for each deposited item:

- Content: a zip archive (Submission Information Package, or SIP) containing page scans, OCR text, object metadata, and fixity information for each digitized item
- Bibliographic metadata: a MARC-compliant record describing the print version of the digitized item

There are separate processes for content and bibliographic metadata submission. For content submission, please email feedback@issues.hathitrust.org for information. For bibliographic metadata submission, see https://www.hathitrust.org/bib_data_submission.

In addition, we require the following two forms prior to deposit:
Technical Requirements for Digitized Page Images Submitted to HathiTrust

A Guide for HathiTrust Members

Version 1.1

February 10, 2021

Grateful acknowledgement is made to the Digital Conversion Unit, University Library, at the University of Michigan. This document is adapted from their excellent instructions.

INTRODUCTION

This document provides detailed instructions for members wishing to undertake new digitization projects for deposit with HathiTrust. Conformance with these guidelines ensures a consistent user experience across the HathiTrust Digital Library and facilitates ongoing collection management at scale.

Digitization is the first step in preparing content for deposit. Please see our website for information on other steps, such as creating submission packages (including structural and other metadata), preparing and submitting bibliographic records, and various administrative requirements.

Note that this document provides guidelines for new digitization from print source materials only. For guidance regarding non-print (e.g., microform) or born-digital materials, please refer to the page Getting Content Into HathiTrust.

For information on how to evaluate the degree to which already digitized content meets our requirements, please see our Guidelines for Digital Object Deposit.

The following requirements are intended to support the creation of high quality image files for deposit with HathiTrust. Because HathiTrust serves both as a preservation repository and as an access node for digitized content, the images in our repository must match a set of technical characteristics in order to ensure format integrity and support services offered through the HathiTrust Digital Library. Items digitized to these standards meet established community best practices for both preservation and access. For more information on the HathiTrust commitment to long-term preservation of the materials in its care, please see our Digital Preservation Policy.
Workflow Overview

1. Digitization by Berkeley Imaging Lab; Creation of OCR; File Packaging (SIP); Hosting of ZIP files; Extraction of Bibliographic Metadata; Delivery to CDL
2. Loading of MARC Records into HathiTrust Metadata Management (Zephir)
   a. Lag between record loading & propagation throughout HT internal systems
   b. >24 hours for report on loading status
3. Request for Download and Ingest of Files
   a. Email Request to create ticket in HT Jira tool
   b. Ingest is on a regular schedule; need for sufficient advance notice to queue materials for that week
   c. Report on ingest status within 24 hours
   d. Objects are "live" in HathiTrust within 48 hours of ingest
Workflow Overview

- Ingest occurs on Wednesdays
- MARC Records need to be loaded by Monday latest
- Message requesting ingest attempt also needs delivery Monday, to insure objects are added to queue
- Delivery of materials to CDL for distribution by Monday morning, if not earlier
Locally Digitized HathiTrust Submissions

**UC Berkeley HathiTrust Submissions**

- UC Berkeley HathiTrust Submission: 10/12/2021
  - Comments: 1
  - Labels: 2/6

- UC Berkeley HathiTrust Submission: 7/19/2021
  - Comments: 2
  - Labels: 4/6

- UC Berkeley HathiTrust Submission: 8/31/2020
  - Comments: 3
  - Labels: 4/6

**DONE UC Berkeley Local Submissions**

- UC Berkeley HathiTrust Submission: 8/23/2021
  - Comments: 2
  - Labels: 6/6

- UC Berkeley HathiTrust Submission: 8/16/2021
  - Comments: 1
  - Labels: 6/6

- UC Berkeley HathiTrust Submission: 8/9/2021
  - Comments: 1
  - Labels: 6/6

**Updates to Berkeley Local Workflow**

- Submission Requirements
  - Comments: 
  - Labels: 

- Automation of Submissions
  - Comments: 
  - Labels: 

+ Add a card


BASIC ECOLOGY

(28.33 g) of milk chocolate has enough energy in it to raise the temperature of 147 liters (more than 35 gallons) of water 1°C.

The first law, loosely translated, states that the total amount of energy in the universe is constant, and we cannot add to it or take away from it. Perhaps even more loosely translated, the second law states that energy can be converted from one form to another, but transformations are never energy-efficient. Disorder (entropy) tends to occur during energy transformations, therefore to create something in a precise arrangement, requires more energy than can be reclaimed later. This is the reason that energy transfers in ecosystems (that is, from producers to consumers) are so inefficient. Nature tends to move toward randomness or disorder. If humans try to fight that tendency by putting things in order, we expend a great deal of energy that we can not reclaim. For example, planting crops in rows requires effort, and weeding them, which is fighting randomness, also requires effort. By the time the crop is harvested, processed, and transported to our homes, we have expended most energy than we can hope to reclaim by eating the food.

You can break the laws of nature!

Food Pyramids

A food chain is the sequence by which energy is transferred from sunlight to green plant, to herbivore, to carnivore. The total amount of energy that flows along a food chain in an ecosystem can be graphically depicted as a food pyramid. Sometimes called an ecological pyramid after Charles Elton, an English ecologist. Food pyramids are simple applications of the laws of thermodynamics. In any given ecosystem, plants are more common than herbivores, and herbivores are more common than carnivores.

Pyramids can be based on three types of data: number of individuals, amount of energy, or total weight (biomass) (Fig. 2.3). A pyramid of numbers is a simple expression of what a person sees on a walk in the forest. There are more plants than squirrels, and more squirrels than Coyotes. A more quantitative pyramid is based on energy. Given the efficiencies previously described, 100,000 calories of light will support 1000 calories of vegetation because photosynthesis is only 1% efficient. That vegetation in turn will support 100 calories of herbivores, which will support about 10 calories of carnivores. A biomass pyramid would show the same pattern, with
Thank you. Questions?