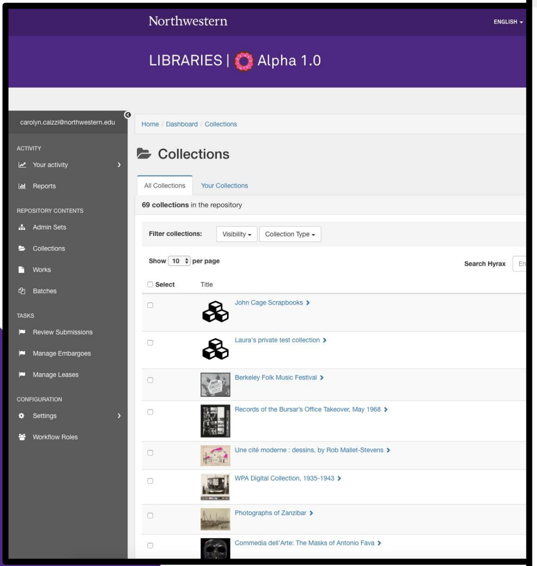
Next Gen Repository: Breaking up to get back together

digitalcollections.library.northwestern.edu



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LIBRARIES | Alpha 1.0

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ACTIVITY
- Your activity
- Reports

REPOSITORY CONTENTS
- Admin Sets
- Collections
- Works
- Batches

TASKS
- Review Submissions
- Manage Embargoes
- Manage Leases

CONFIGURATION
- Settings
- Workflow Roles

Home / Dashboard / Collections

Collections

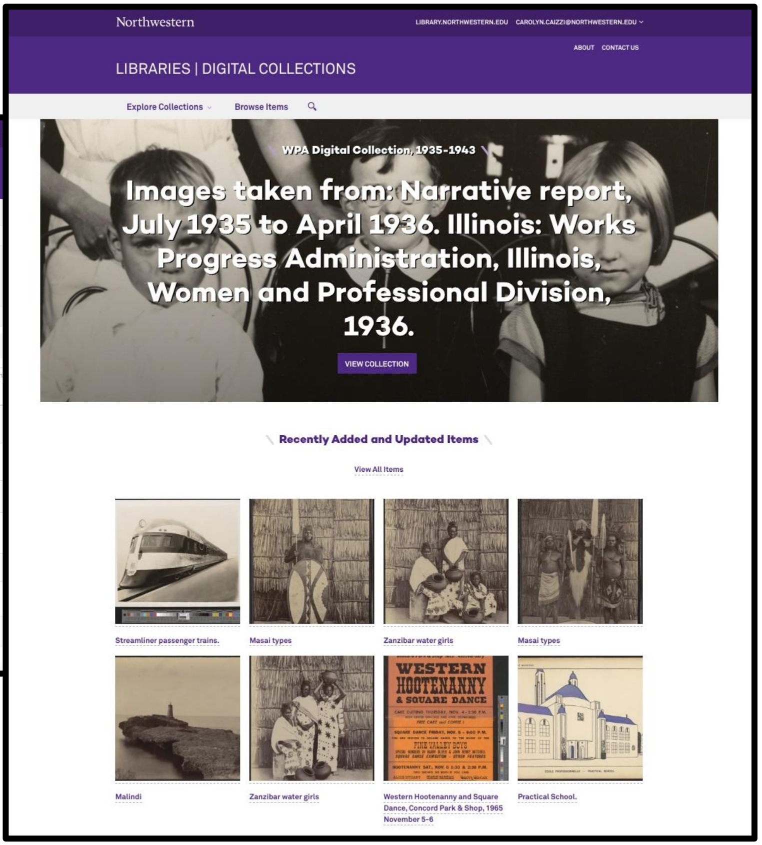
All Collections | Your Collections

69 collections in the repository

Filter collections: Visibility | Collection Type

Show 10 **per page** **Search Hyrax**

Select	Title
☐	John Cage Scrapbooks
☐	Laura's private test collection
☐	Berkeley Folk Music Festival
☐	Records of the Bursar's Office Takeover, May 1968
☐	Une cité moderne : dessins, by Rob Mallet-Stevens
☐	WPA Digital Collection, 1935-1943
☐	Photographs of Zanzibar
☐	Commedia dell'Arte: The Masks of Antonio Fava



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ABOUT CONTACT US

LIBRARIES | DIGITAL COLLECTIONS

Explore Collections | Browse Items

WPA Digital Collection, 1935-1943

Images taken from: Narrative report, July 1935 to April 1936. Illinois: Works Progress Administration, Illinois, Women and Professional Division, 1936.

VIEW COLLECTION

Recently Added and Updated Items

View All Items

- Streamliner passenger trains.
- Masai types
- Zanzibar water girls
- Masai types
- Malindi
- Zanzibar water girls
- Western Hootenanny and Square Dance, Concord Park & Shop, 1965 November 5-6
- Practical School.

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2016-17 Landscape

- Designing a Digital Collections Repository (Next Gen Repo)
- Building our IR
- Campus had just signed a contract with AWS and were looking for volunteers (Guinea pigs)
- NUL devs were really interested in exploring the possibilities of "the cloud"

Everything starts as skunks works

- Scope a project small enough to get done quick
- Make sure it's big enough to prove it out
- Give the team permission to fail

Opportunity in redesign

- Multiple repositories are a single “solution”
- Frontend and backend don’t have the same needs
- Cloud based architecture ~~allows~~ requires you to rethink everything
- Architecture should be iterated on as fast as software

Before you break it apart put it together

- Think of the “solution” as one big stack with a bunch of frontends
- Single Database
- Single Fedora (for now)
- Single SOLR (later elasticsearch)

Hard problems that someone else solved

- Move services that are hard/require a lot of resources and are commodified:
  - Transcoding (elastic transcoder)
  - Storage (s3)
  - Queuing (Redis)
  - Databases
  - Streaming
  - Monitoring

Hard problems we built custom solutions for

- IIIF as a serverless application (lambda)
  - Blazingly fast
  - Uses off the shelf parts
  - No servers to maintain
- S3 backed Fedora

User-facing should stand alone

- Break out a user-facing application that focuses on the needs of patrons
- Separate it as much as possible from the backend
- Changes to the backend can happen without affecting the frontend
- Heck, host it in a s3 bucket without a server

What we had to unlearn

- Many (dang near all) digital repository solutions are monolithic in nature.
- Monoliths scale monolithically
- Solutions assume some kind of local storage

People and Jobs

- A cloud native environment ~~allows~~ requires you to do multiple sets of retooling, (continuous improvement)
- Moving to the cloud requires a culture shift
- Sudden acquisition of knowledge (firehose)
- People get scared
- Investment in training is key

How Did This Turn Out?

- Budget planning and projection
    - Opex rather than Capex
    - Actionable insights into costs
- Effect on throughput
    - Limited by budget
    - Can be rethought in terms of per job
- How’s the team doing

Thanks!

Questions?