

Implementing a new Carolina Digital Repository: customizations and change

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Background

Carolina Digital Repository split

- Institutional repository content → Hyrax
- Digital collections content → custom Fedora

New Platform Wish List

- Custom branding
- SEO
- Analytics
- Content discovery
- Support existing use cases
- Consolidate worktypes



Project scope by the numbers

Works to Migrate: 28,000-ish

Worktypes: 9

Collections: 18

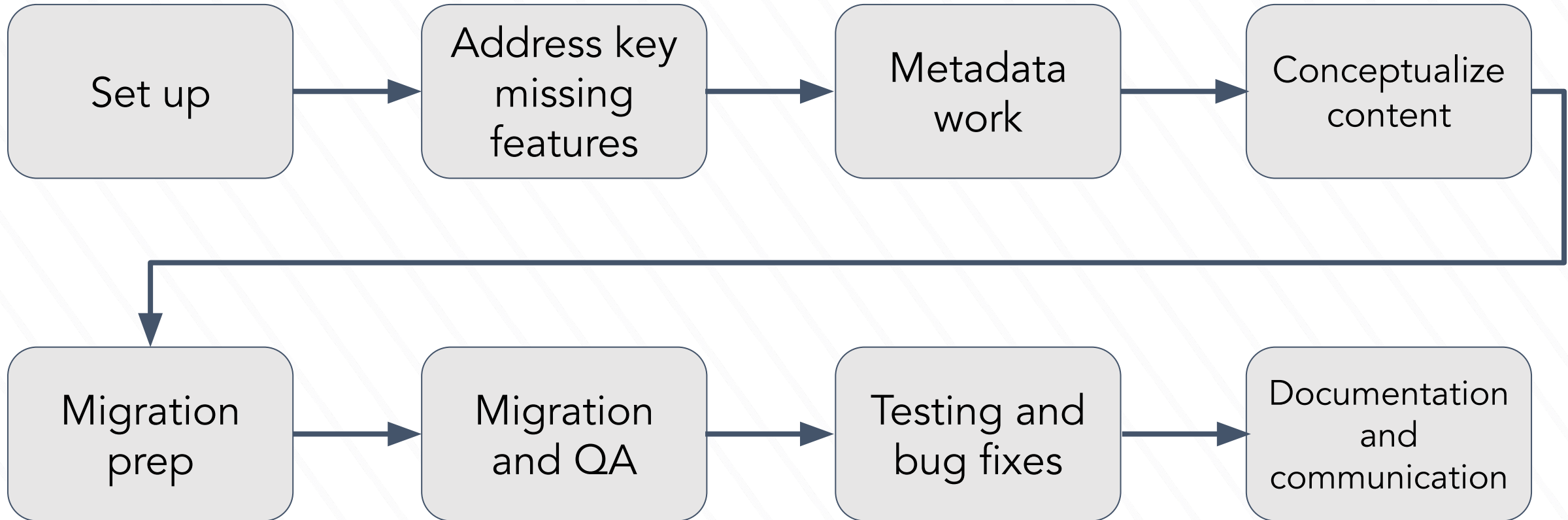
Workflows: 5

Staff: 16+



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Extremely simplified migration flow



Local work

- People objects*
- Object-specific permission assignments*
- Merging analytics*
- Admin roles and permissions
- Tombstones
- Department browse
- Link from child work to parent
- DOI minting
- EDTF conversion

Community work

- Analytics work
- Simple UI fixes (moving or adding links, enforcing application template, etc)
- Email text customizations
- Documentation
- Release testing process

People objects

- Group name, ORCID, and affiliation
- Nested objects on work record in fedora and structured text in solr
- Editable in work form
- Notes:
 - When removing object, only the associated uri on main record is removed
 - Scripting edits to people objects requires deleting attributes before replacing with new values

Work record with people objects

The effects of invasive earthworms on understory plant community composition in sugar maple - basswood forests of the Chippewa National Forest, MN over two decades **Public**



[Download PDF](#)

[Citation](#)



Creator

Alexander, Genevieve
o Affiliation: College of Arts and Sciences, Curriculum in Environment and Ecology

Abstract

Non-native earthworms have invaded natural areas in the Great Lakes region of North Am forests. In Chapter 1, I present a literature review to examine the effects of invasive earthworms on the thickness of the O horizon as a predictor variable to assess the presence of invasive earthworms in Minnesota. In Chapter 3, I examine the effects of invasive earthworms on understory plant community composition over time. I predict that as invasive earthworms continue to spread across the Great Lakes region,

Date of publication

2018

Keyword

[Invasive earthworms](#)
[forest](#)
[Botany](#)
[Ecology](#)
[sugar maple - basswood](#)
[hardwood forests](#)
[Plant community composition](#)
[Long-term studies](#)
[Environmental science](#)

Resource type

[Masters Thesis](#)

Advisor

Almendinger, John C.
Peet, Robert K.
White, Peter S.

TTL

```
<http://id.loc.gov/vocabulary/relators/cre>  
<http://localhost/concern/dissertations/vx021f082#nested_  
persong122643300>;
```

```
<http://id.loc.gov/vocabulary/relators/th>  
<http://localhost/concern/dissertations/vx021f082#nested_  
persong122163200>,  
<http://localhost/concern/dissertations/vx021f082#nested_  
persong122305620>,<http://localhost/concern/dissertation  
s/vx021f082#nested_persong122520500>;
```

```
<http://localhost/concern/dissertations/vx021f082#nested_  
persong122163200>
```

```
<http://www.loc.gov/mods/rdf/v1#name> "Peet, Robert  
K." .
```

```
<http://localhost/concern/dissertations/vx021f082#nested_  
persong122305620>
```

```
<http://www.loc.gov/mods/rdf/v1#name> "Almendinger,  
John C." .
```

```
<http://localhost/concern/dissertations/vx021f082#nested_  
persong122520500>
```

```
<http://www.loc.gov/mods/rdf/v1#name> "White, Peter  
S." .
```

```
<http://localhost/concern/dissertations/vx021f082#nested_  
persong122643300>
```

```
<http://schema.org/affiliation> "Curriculum in  
Environment and Ecology";
```

```
<http://www.loc.gov/mods/rdf/v1#name> "Alexander,  
Genevieve" .
```


Fedora record before nested object deletion

ns007: **cre**
http://localhost:4043/fcrepo/rest/dev/vx/02/1f/08/vx021f082#nested_persong122643300

ns007: **dgg**
University of North Carolina at Chapel Hill Graduate School

ns007: **dpt**
admin

ns007: **ths**
http://localhost:4043/fcrepo/rest/dev/vx/02/1f/08/vx021f082#nested_persong122163200
http://localhost:4043/fcrepo/rest/dev/vx/02/1f/08/vx021f082#nested_persong122305620
http://localhost:4043/fcrepo/rest/dev/vx/02/1f/08/vx021f082#nested_persong122520500

ns006: **hasMember**
<http://localhost:4043/fcrepo/rest/dev/dj/52/w4/69/dj52w469j>
<http://localhost:4043/fcrepo/rest/dev/h9/89/r3/20/h989r3203>
<http://localhost:4043/fcrepo/rest/dev/s7/52/6c/40/s7526c40b>

ns012: **first**
http://localhost:4043/fcrepo/rest/dev/vx/02/1f/08/vx021f082/list_source#g111266420

ns012: **last**
http://localhost:4043/fcrepo/rest/dev/vx/02/1f/08/vx021f082/list_source#g83826460

ns014: **keywords**
Botany
Ecology
Environmental science
Invasive earthworms
Long-term studies
Plant community composition
forest
hardwood forests
sugar maple - basswood

ns019: **degree**
Master of Science

ns020: **yearDegreeGranted.en**
2019

Other Resources

http://localhost:4043/fcrepo/rest/dev/vx/02/1f/08/vx021f082#nested_persong122643300 -

ns009: **name**
Alexander, Genevieve
ns014: **affiliation**
Curriculum in Environment and Ecology

http://localhost:4043/fcrepo/rest/dev/vx/02/1f/08/vx021f082#nested_persong122163200 -

ns009: **name**
Peet, Robert K.

http://localhost:4043/fcrepo/rest/dev/vx/02/1f/08/vx021f082#nested_persong122520500 -

ns009: **name**
White, Peter S.

http://localhost:4043/fcrepo/rest/dev/vx/02/1f/08/vx021f082#nested_persong122305620 -

ns009: **name**
Almendinger, John C.

Fedora record after nested object deletion

```
ns007: cre  
  http://localhost:4043/fcrepo/rest/dev/vx/02/1f/08/vx021f082#nested\_persong122643300  
ns007: dgg  
  University of North Carolina at Chapel Hill Graduate School  
ns007: dpt  
  admin  
ns007: ths  
  http://localhost:4043/fcrepo/rest/dev/vx/02/1f/08/vx021f082#nested\_persong122163200  
  http://localhost:4043/fcrepo/rest/dev/vx/02/1f/08/vx021f082#nested\_persong122305620  
ns008: hasMember  
  http://localhost:4043/fcrepo/rest/dev/dj/52/w4/69/dj52w469j  
  http://localhost:4043/fcrepo/rest/dev/h9/89/r3/20/h989r3203  
  http://localhost:4043/fcrepo/rest/dev/s7/52/6c/40/s7526c40b  
ns012: first  
  http://localhost:4043/fcrepo/rest/dev/vx/02/1f/08/vx021f082/list\_source#g111266420  
ns012: last  
  http://localhost:4043/fcrepo/rest/dev/vx/02/1f/08/vx021f082/list\_source#g83826460  
ns013: note  
  admin accepted the deposit agreement on 2019-10-08 17:21:07 +0000
```

Other Resources

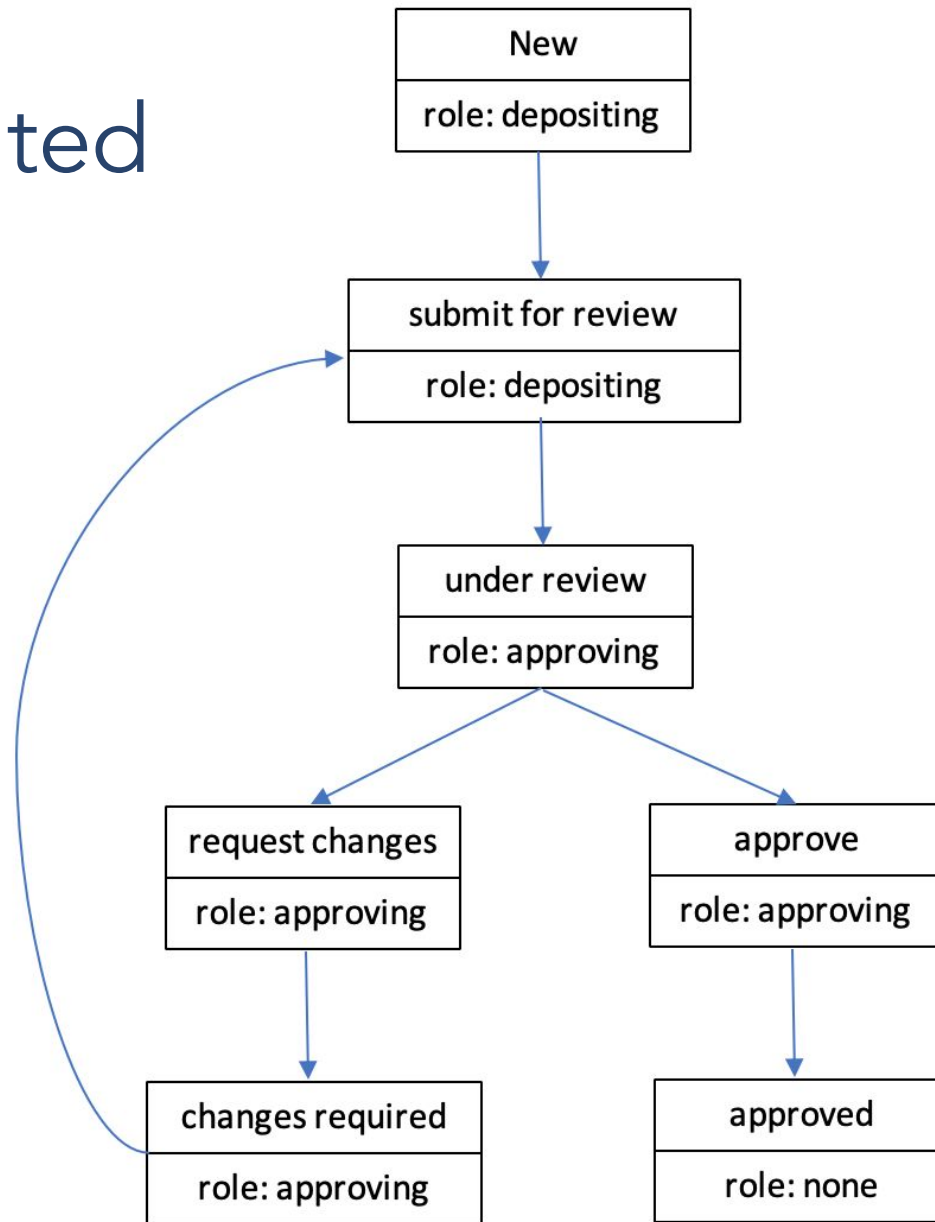
http://localhost:4043/fcrepo/rest/dev/vx/02/1f/08/vx021f082#nested_persong122643300 +

http://localhost:4043/fcrepo/rest/dev/vx/02/1f/08/vx021f082#nested_persong122163200 +

http://localhost:4043/fcrepo/rest/dev/vx/02/1f/08/vx021f082#nested_persong122520500 +

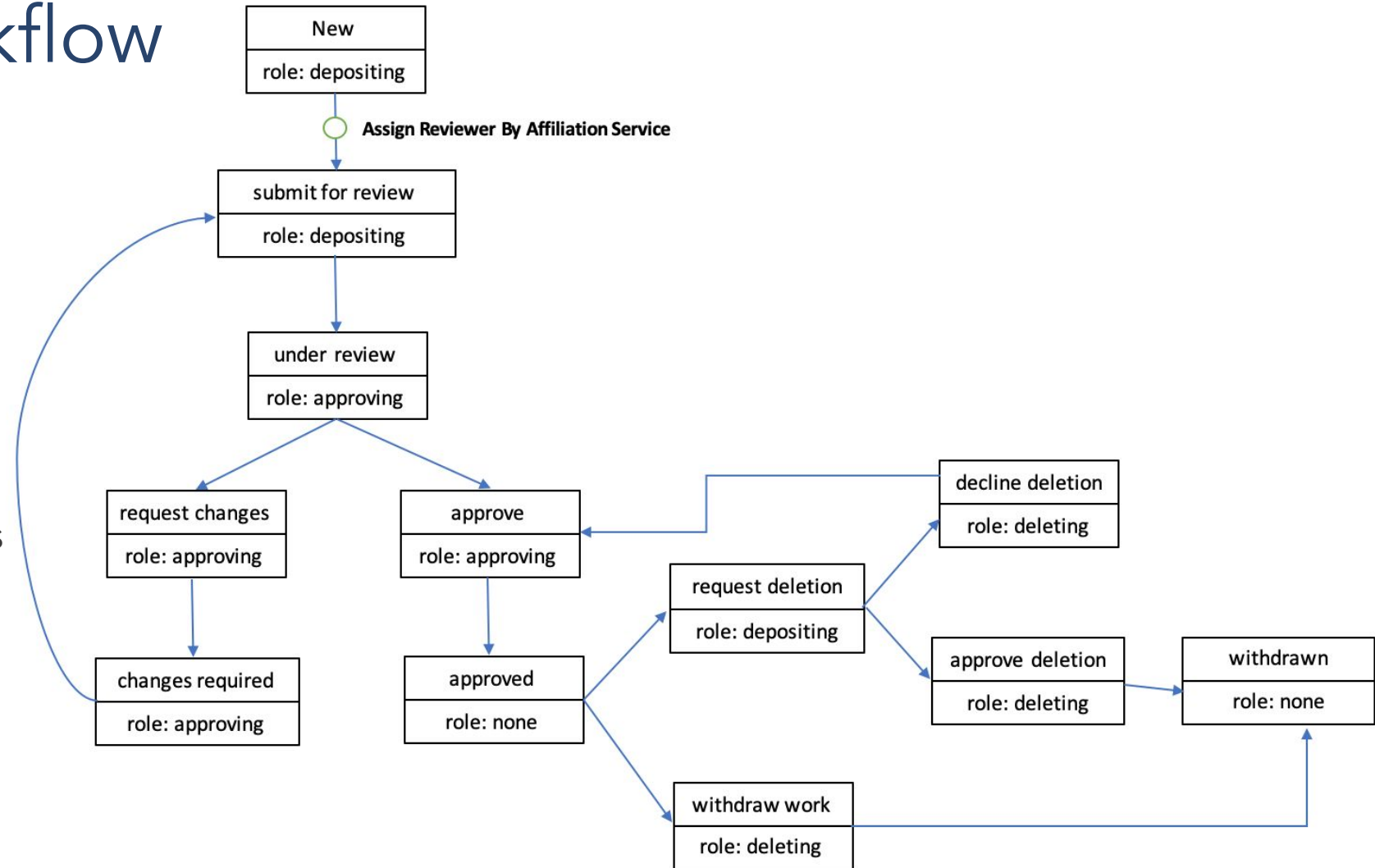
http://localhost:4043/fcrepo/rest/dev/vx/02/1f/08/vx021f082#nested_persong122305620 +

Default mediated workflow



UNC honors workflow

- Custom notifications
- Additional steps for withdrawing items
- Custom permissions service
 - Assign group permissions by affiliation on submission



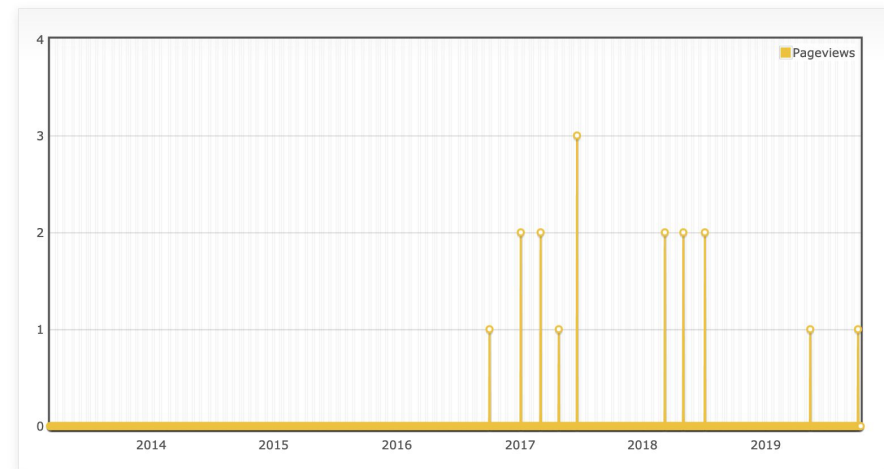
Analytics

- We wanted to merge our google analytics data in hyrax for migrated content
 - Used same account for old and new repositories
 - During migration, we generated redirect mappings
 - Adjusted google analytics query filters to use regular expressions to search for old and new ids
 - Used original ingest date as query start date for migrated works

Orange County Department on Aging: Development of the 2012-2017 Orange County, North Carolina Master Aging Plan

Work Analytics

17 views since March 6, 2013



Lessons learned

- Migrations take longer than you think
 - Never give a go live date until it's certain
 - Are cost estimations ever accurate? Or is it scope creep?
 - Celebrate smaller milestones
- No system is perfect
 - Flexibility paid off
 - Solve for the need, instead of replicating exact functionality
- It paid off to work in the community
 - Learning from the community was great
 - Good examples of implemented code

Questions?

Vist the CDR!

- <https://cdr.lib.unc.edu>
- <https://github.com/UNC-Libraries/hy-c>

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