



# Inter-Institutional Spikes: Exploring Elixir

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Samvera Virtual Connect 2020

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# samvera



# Princeton's Motivation

- We'd been looking at Elixir for a long time, but hadn't had a good chance to really dig in.
- Had many questions.
- Knew our friends at Northwestern were using Elixir.
- Asked them to act as mentors to us during a two week exploratory sprint.



# Northwestern's Motivation

- Seemed like a good opportunity to look up from the work and see it through another team's eyes.
- Collaboration might lead to shared projects, code, and/or support.
- Our colleagues at Princeton have a strong history of pair programming and working as a distributed team.
- Trey asked nicely.



# Determining Goals

Wrote up a small precursor document explaining what we hoped to get out of the collaboration, and what exactly we'd work on.

1. Share knowledge gained from our differing work.
2. Explore areas of mutual interest, which might result in a larger collaboration on shared tools or applications
3. Create a space within the Samvera community for experimenting with different technologies — ultimately a necessary activity since no technology lasts forever or is suited to every task.



# Identifying Work

We aimed for a broad set of goals to get a grip on as many technologies and questions as possible in a short amount of time.

1. Index into Elasticsearch from fixture data.
2. Phoenix Web Application (Rails for Elixir) with a search box
3. Integration of LUX (Princeton's Vue-based JS Design System)
4. Deployment as a Mix Release.

# Communication



1. All work was organized into a Github Projects board in samvera-labs:  
[https://github.com/samvera-labs/digital\\_collections\\_elixir\\_example/projects/1](https://github.com/samvera-labs/digital_collections_elixir_example/projects/1)
2. A private slack channel was set up for discussion.
3. A daily check-in time was set up and a schedule agreed upon.
  - a. Check-ins would include going over other team's commits and talking about what they were doing and how they did it.
4. Collaborative work was done in shared Zoom sessions.

# Schedule



1. Day 1-2: Princeton crash-courses Elixir
2. Day 3: Northwestern drives a large shared session where we make a new Phoenix application.
3. Day 4-5: Split into groups for Indexing, Searching, and JS work.
4. Day 6-7: Princeton finishes up Searching work.
5. Day 8-9: All back together for work on Deployment.
6. Day 10: Retrospective & Wrap Up



# Pairing Process

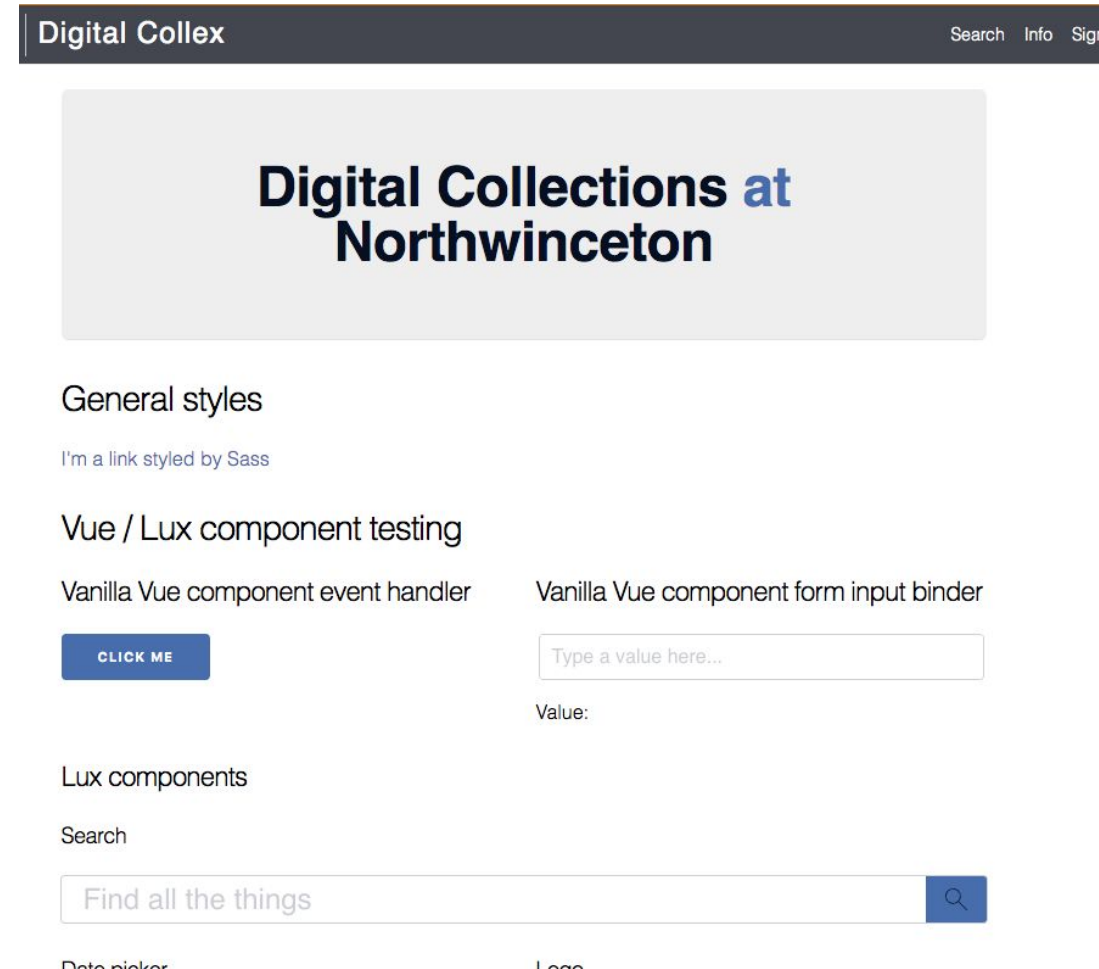
Each group was made up of developers from both institutions, ensuring there was at least one person familiar with the tool being used. Groups used a pairing process Princeton had been doing for a while, to much success (Pomodoro Pairing).

1. One “driver” shares their screen and types for 25 minutes.
2. 5 minute break
3. Switch drivers and repeat.



# Output

1. Indexed top 100 results from Princeton's Digital Repository into ElasticSearch.
2. Search box and one facet works.
3. Github Authentication
4. Vue.js implemented.
5. ChatBot-powered deployment of application to Princeton Servers working.



# Group Retrospective



Held a retrospective following 4 L's (Liked, Learned, Lacked, Longed For), described here: <https://www.retrium.com/resources-techniques/4ls>

We grouped our 4 L's into many groups, the following was labeled "Yay!"

1. Group collaboration
2. Meeting all our goals
3. Enthusiasm to contribute/learn from everyone
4. Cross-institution mentorship
5. Karen's dogs



# What Princeton Gained

1. Shared development infrastructure! We spun up so much faster with Northwestern.
2. Collaboration with our colleagues. Loved working with and getting to know another team.
3. Interest in these new technologies - we're actively looking for projects to use Elixir with!
4. Confidence in the technical stack - most of our "how would we do x" questions were easily answered.



# What Northwestern Gained

1. Improved pair programming technique, especially the Pomodoro method.
2. A view of some of Princeton's tools (like a Slack-based deployment bot!) that we didn't know about.
3. A sanity check that the work we're doing makes sense to another team.
4. Thoughts on how we might organize our work to make pieces of it reusable by others.
5. We learned more about our own tools and services by troubleshooting others' use of them.
6. The real Inter-Institutional Spike was the friends we made along the way.



# What We'd Change

1. We wanted more time at the keyboard! Maybe smaller groups?
2. Northwestern had other commitments, but wanted to be able to be there the full second week.
3. Some way to explore other features - maybe with the smaller groups. Wanted to look at Ecto & ElasticSearch React UI.