At the beginning of the year, I joined the Field Museum’s Technology Department where we are building a digital asset management system for media related to the museum’s collections. My current focus is on archiving digital media, and I’m excited to see how visualizing collections data can play a role in sharing what we “know,” “want to know,” and “don’t know.”

When I started at the museum in 2012, I co-produced a series of short films about different collections objects and the people who work with them. A recurring message from collaborators in that project was “before we ask why, we need to know what”--What is in the world? What do we know about it? Looking at the museum in that way was a helpful introduction to some of the character/s of natural history research—“long-term” spans centuries, and asking “what’s in the world” generates large sets of observational collections data, not all of which is digitized.

My background prior to the museum is in behavioral biology and documentary filmmaking where the data I collected spanned seasons, and consisted of experimental measures and visual stories that addressed “how do people (and birds) think?” I’m excited to see how data visualization can cross-polinate ideas and free them from the confines of specialized fields of work.

Films:  “The Field Revealed” series - fieldmuseum.org/science/blog/field-revealed
        “Before We Go 'Out of Our Minds’” - vimeo.com/46942442

Links:  fieldmuseum.org  |  magpiedin.com

Data:  FMNH collections database:

        emuwweb.fieldmuseum.org
        - bulk datasets: gbif.org/publisher/7b8aff00-a9f8-11d8-944b-b8a03c50a862
        http://www.fieldmuseum.org/science/research/area/animals
        http://www.fieldmuseum.org/science/research/area/culture
        http://www.fieldmuseum.org/science/research/area/fossils-meteorites
        http://www.fieldmuseum.org/science/research/area/plants-fungi

General Questions

1)  Do you consider yourself a developer, user, creator, system evangelist, etc.?  
I’m a user who does some development on the imaging/media-handling side of the Field Museum’s collections database. We use KE EMu (emu.kesoftware.com), which includes ImageMagick for media.

2)  What are your main interests in attending the workshop?  
I’m interested in finding ways to make collections and associated data more accessible for both public and academic users.

3)  What would you like to learn / achieve at the workshop?  
How do you design and build a useful, flexible visualization tool? How can we make collections data from EMu easier for someone to access, analyze, and visualize?

4)  What are the tools or services you would like to share at the workshop?  
The Field Museum’s collections database. We use KE Software’s EMu database structure, which is shared by many natural history and cultural museums elsewhere.
5) **Please list three features or functions of your tools or services that are most important for users.**
- For museum colleagues, the ability to track & report on collections objects & activity; to catalog a wide variety of digitized collections information.
- For the public, ability to see collections info online.
- For all users, the ability to search for specific information using different search methods, and to see records and their connections across different scales and contexts—ranging from broader topic-time and space to deeper individual object-detail.

6) **What are your major concerns for the software architecture of these tools / services?**
Where the architecture relates to data entry, we’re concerned about maintaining speed, efficiency, and quality. Cross-compatibility between institutions is also a major concern.

7) **What are some underserved user needs that your systems, idealized versions, or an ecosystem that your systems are integral components of could address?**
The Field Museum's EMu collections database could facilitate:
- Tracking usage stats to better understand how database is used (over time/by different user-groups)
- Visibility of collections & collections activity (intranet/internet-access; visualization; live-stream database activity)
- Broader collaboration on projects (e.g., geolocating site records, annotating handwritten data).
- Data-sharing between institutions, reducing/eliminating need for data-prep before delivery.
- Considering how spatial (geographic) connections influence/affect different areas of research, possible analyses, and what that could mean for our institution and others.

8) **Are you or your group working on any of these challenges? If yes, please explain.**
We are:
- Developing auto-scheduled exports and templates for different data summaries and reports
- Planning for website/SOLR development; Not sure if/how streaming could happen (apart from periodic export + report/visualization workflow)
- Using GeoLocate website as a collaborative tool to understand the geo-spatial ‘reach’ of our collections.

9) **“Big data” and “cloud computing” get thrown around a lot as terms. How do these concepts and your, your group’s and your users’ interpretation and understanding of them affect your plans for development?**
Collections staff (database users) are interested in more tools for tracking collections activity and making it more visible between departments as well as to the public. There is also push from senior administration to connect data sets across institutions, so that drives the direction of some longer-term initiatives but not right now in a major way.
The Technology Department’s future storage solution plans are cloud-based to take the burden off of our own hardware, and will provide much needed disaster recovery.