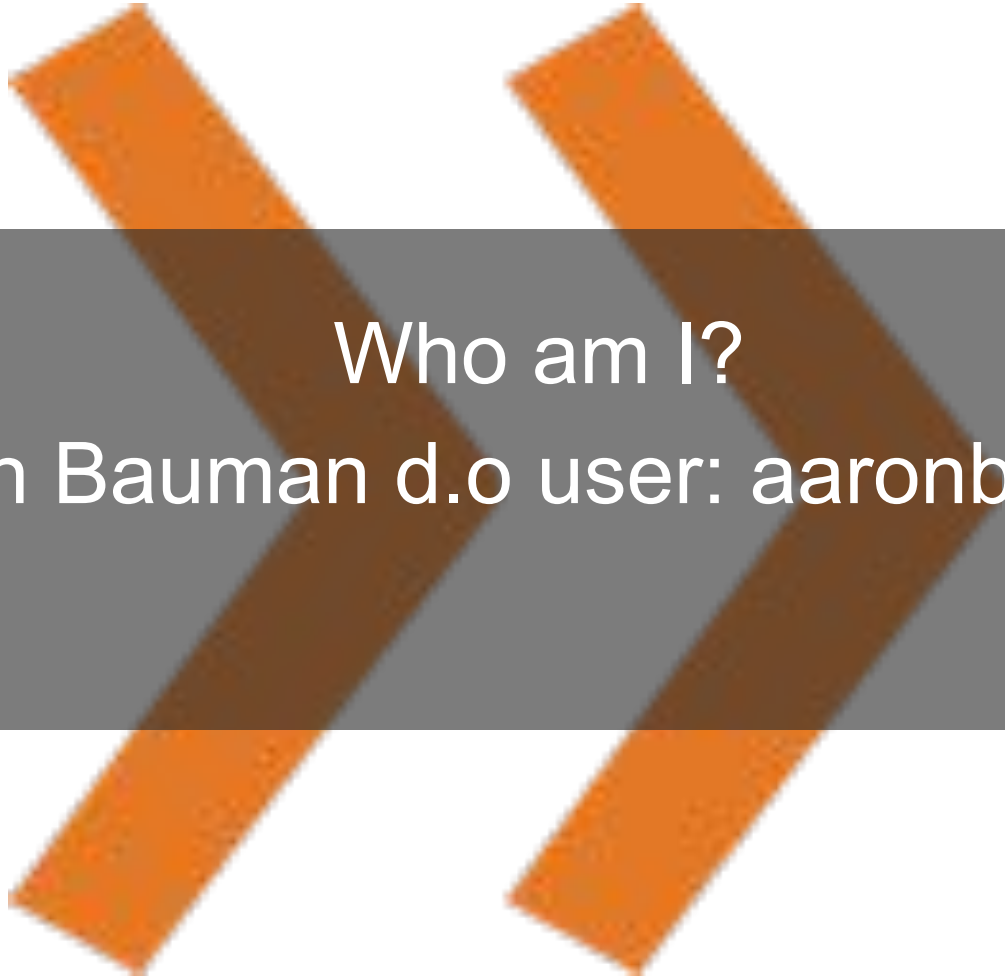
MESSAGE AGENCY

LIBRARY SCIENCE

Integrating Drupal with DAMS

DrupalCamp NJ >> February 1, 2014

A Quick Introduction



Who am I?

Aaron Bauman d.o user: aaronbauman

Why Integrate?

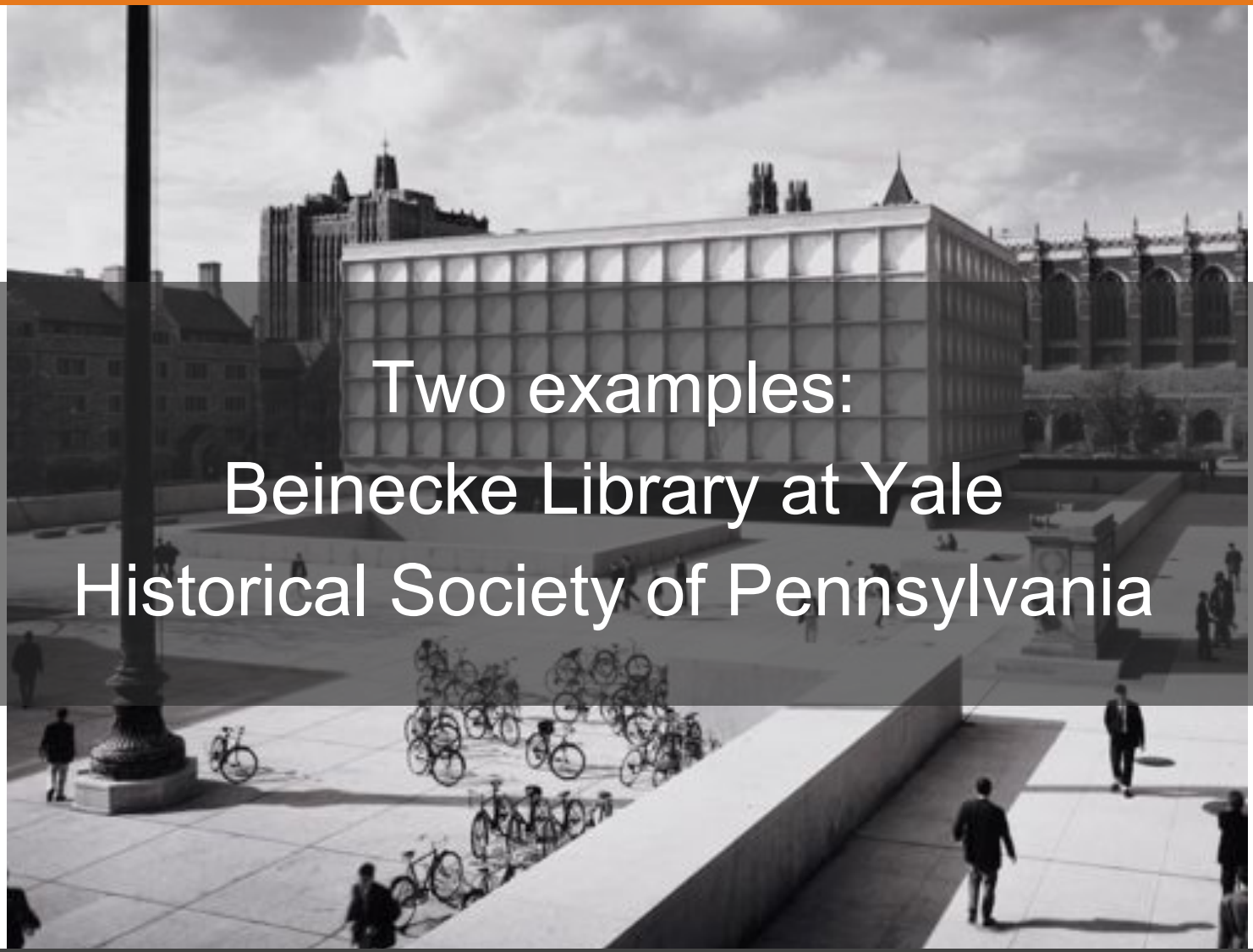
- ➔ DAMS are usually powerful but ugly.
- ➔ Expose material in an interactive, curated user experience.
- ➔ You can appeal to a wider audience, by providing your content in multiple forms.
- ➔ Ease the content management burden when new material moves around on its own.

What do I need?

- ➔ Someone who understands how to get stuff out of your DAMS.
- ➔ Someone who understands how to import things into Drupal.

Both of these are usually harder than they first appear.

Case Studies



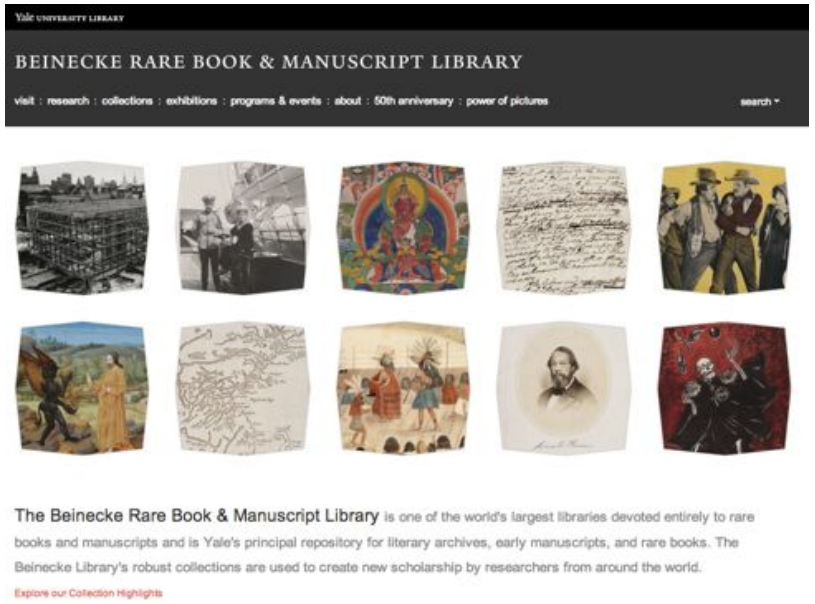
Two examples:

Beinecke Library at Yale

Historical Society of Pennsylvania

Beinecke Library

- ➔ Replace old static HTML site.
- ➔ Several DAMS that needed to be discoverable in one place.
- ➔ Provide rich media experience for great material.
- ➔ Ease the flow of new material from their DAMSs to the site.
- ➔ Keep the integration light weight.



Beinecke Library

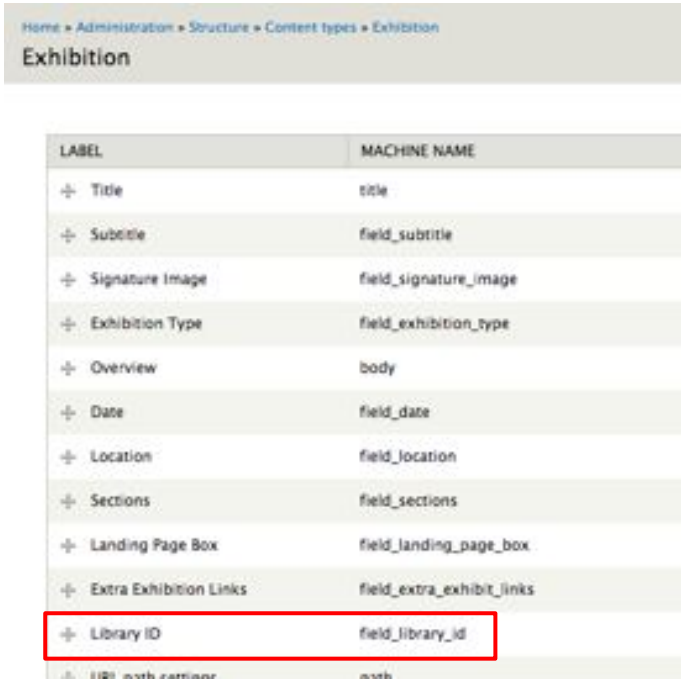
Level 1: Integrated Searches

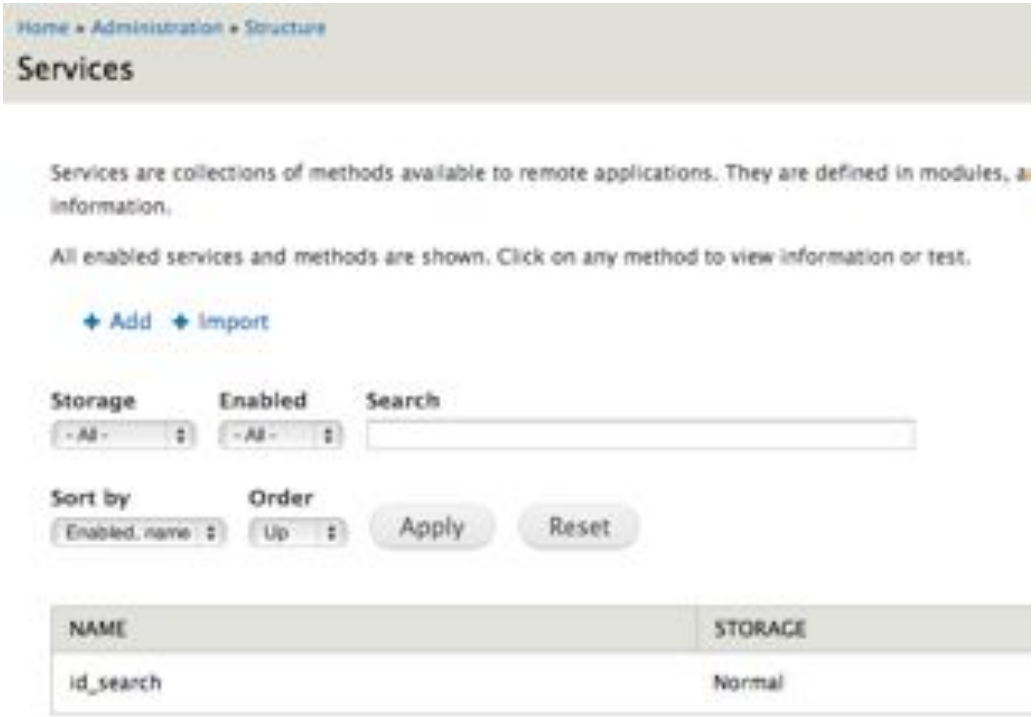
Beinecke Library

Level 2: XML and RSS import

Beinecke Library

Level 3: Relate content and export





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- ➔ Digital History Exhibits Project
- ➔ Client need: Branded digital exhibit template
- ➔ Drupal content generated by importing a TEI-encoded XML document
- ➔ Pulls digital assets from DAMS via API

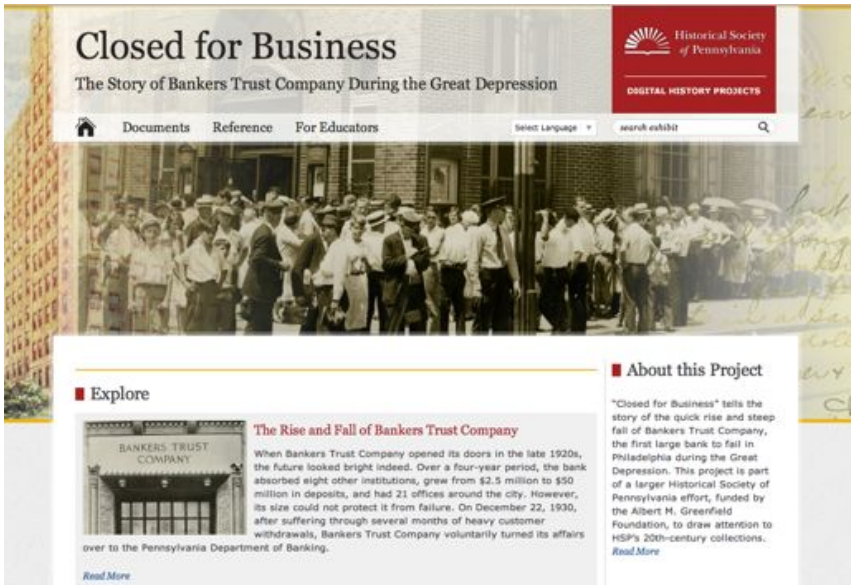

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Exhibit Structure

- Objectives
  - Drupal admins can create new exhibits as needed
  - Curated narrative to expose depth of content
  - Relate content to primary asset (documents)

- Application
  - Node type drives context via Reference fields
  - Feeds, XML Parser
  - Customizations to accommodate TEI, field collections, other exigencies

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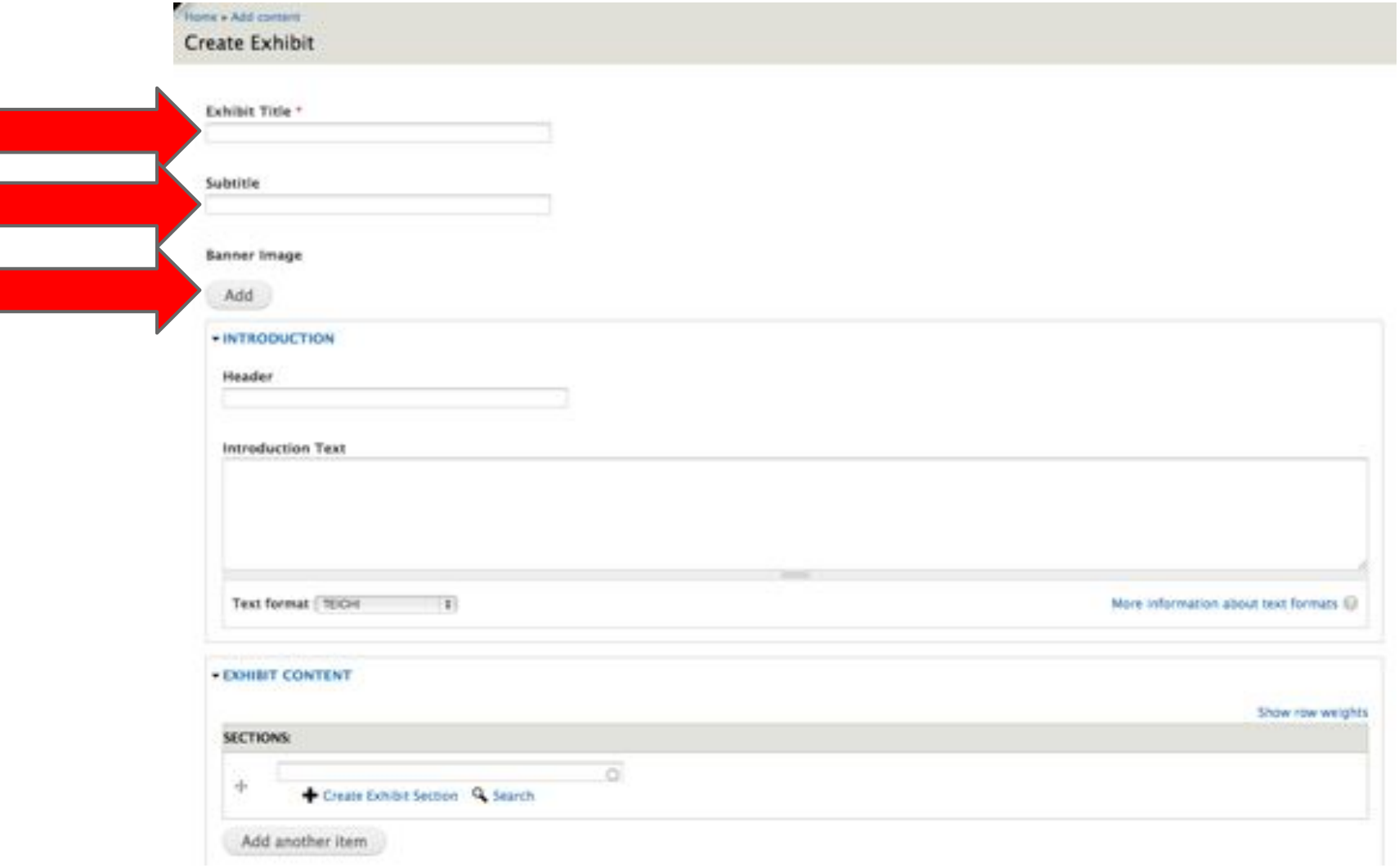

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TEI Parser

- Objectives
  - Semantic encoding of historical documents
  - Consolidation and unification: D.R.Y.

- Application
  - Import TEI (xml) file to create/update Drupal nodes
    - Feeds
    - XPath Parser
    - hooks
    - patches
  - **Warning**: feeds and field collections don't get along

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Notable Hooks and patches

- views_query_alter
- block_view_alter
- menu_block_tree_alter
- search_api_page_search_form_alter
- search_api_query_alter
- menu_alter
- form_feeds_import_form_alter
- feeds_after_parse
- feeds_presave

- Patches created by Message Agency are always contributed back to drupal.org
- 1424086--ignore_destination_GET_parameter-1.patch
- 2006870-1--negated_fulltext_filters.patch
- date-date_plain_format_settings-1806856-2.patch
- date-plain_text_formatter_respect_settings-1763788-3.patch
- eck-admin_paths-1836892-1.patch
- entityreference-feeds_integration-1616680-66.patch
- feeds-DateTime_support_for_php_5.3-1258582.patch
- field_collection-feeds-1063434-93.patch
- field_collection_feeds_multiple.patch
- hide-empty-field-collections-1276258-33_0.patch
- leaflet-markercluterer-outsideInteraction-100644.diff
- relation-7.x-1.x-dev--feeds-integration-1345958.patch
- search_api-1694832-7--field_changes.patch
- search_api-add_templates-1313676-26.patch
- search_api_db-prevent_infinite_recursion-1917592_0.patch
- search_api_facetapi_0.patch
- timeline-date-field.patch

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Import	Description
Single Document	ONE-FILE-AT-A-TIME Single Document importer
Multi-Document Corpus	MULTIPLE file upload for documents containing multiple transcripts
Genres	
Organizations	
People	
Topics	

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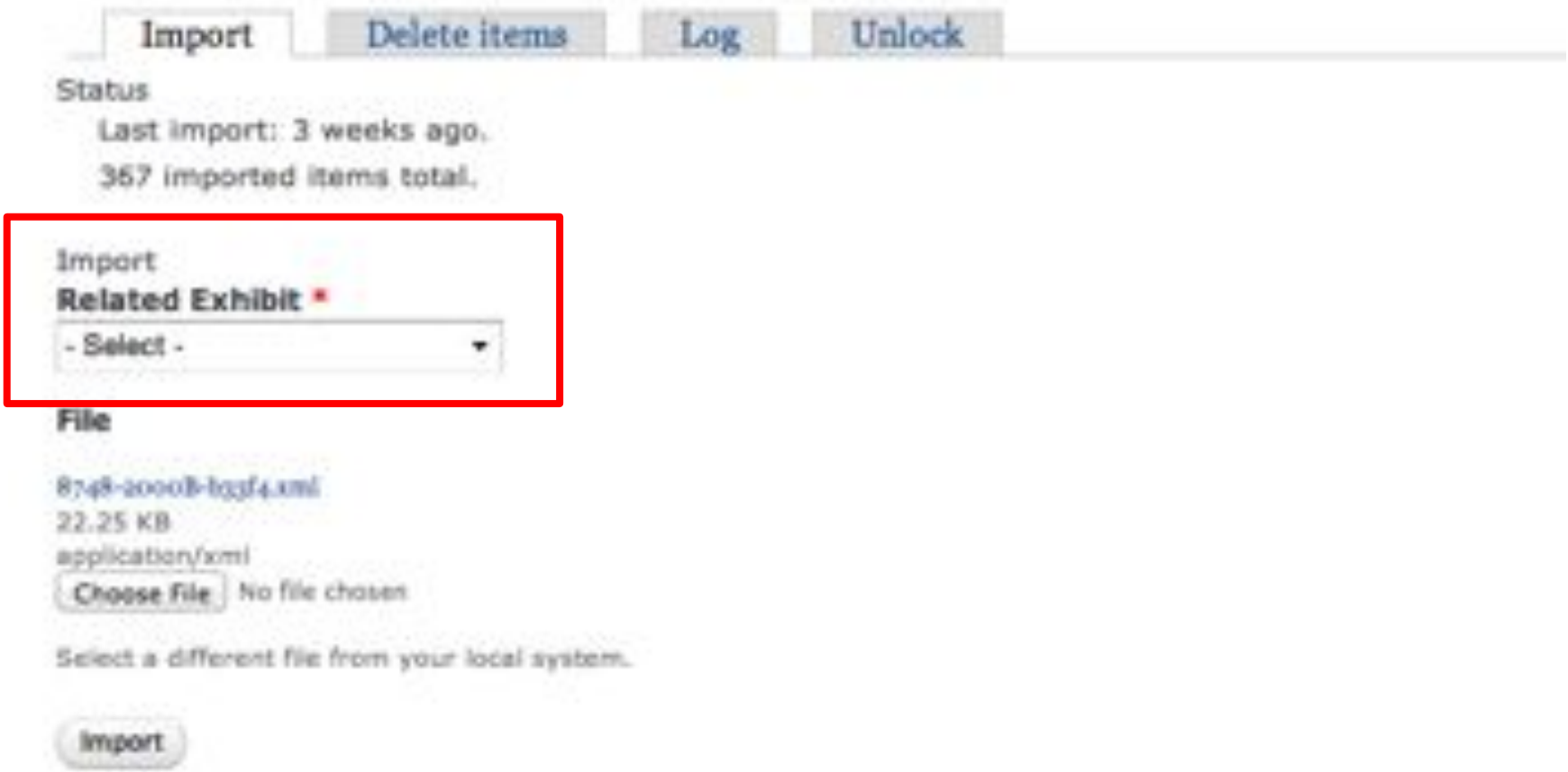

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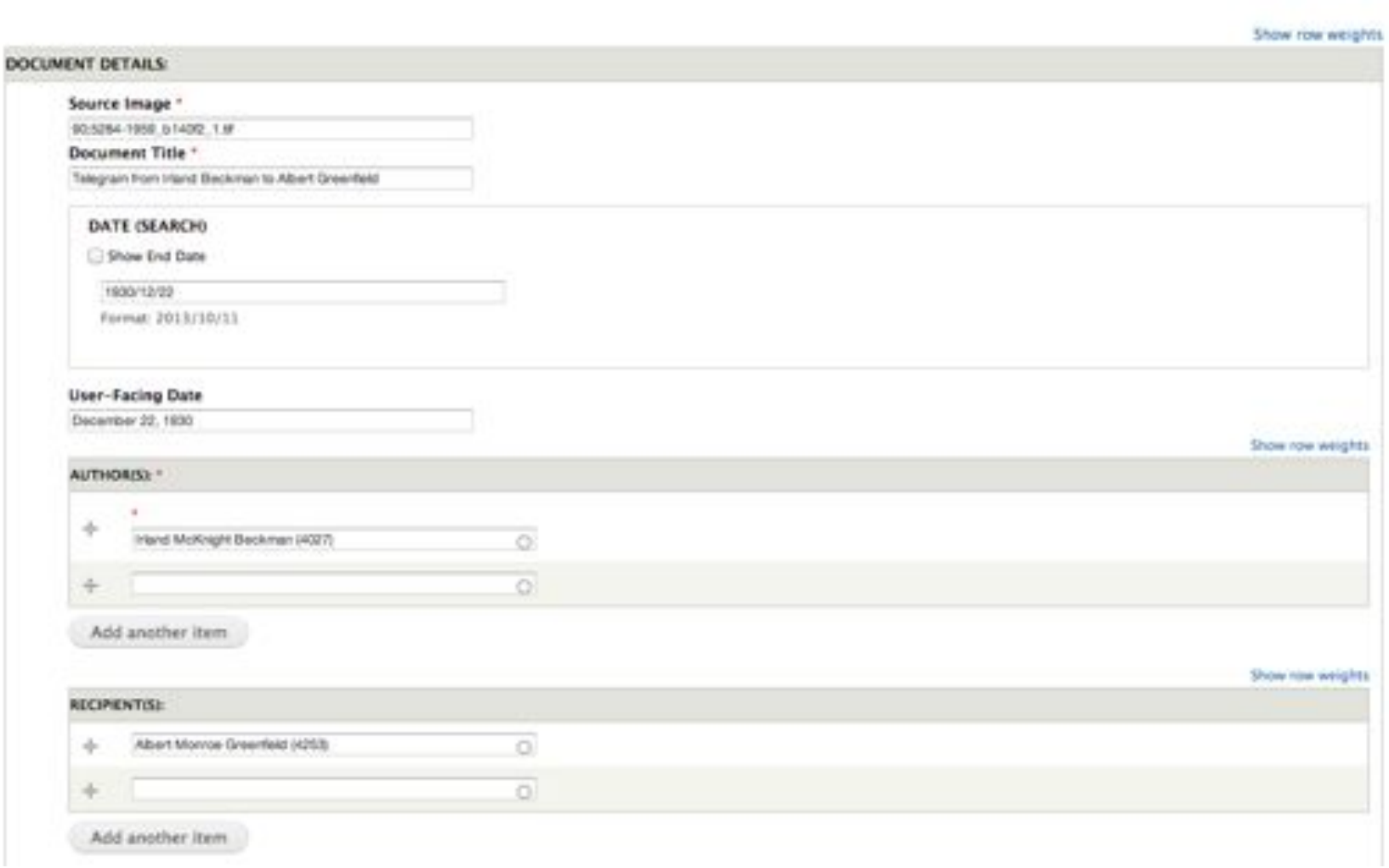

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XSL Filter

- Objectives
  - Non-destructive import of TEI markup
  - Provide source XML documents for download
- Application
  - TEICHI input filter provides starting point
  - Use XSL to transform TEI markup into HTML

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XSL Filter

- Key features
  - Tailored XSLT and XSL stylesheet
  - “Fuzzy dates” for display; real dates for search
  - XML id -> Feeds GUID -> Node id translation
  - Modals!

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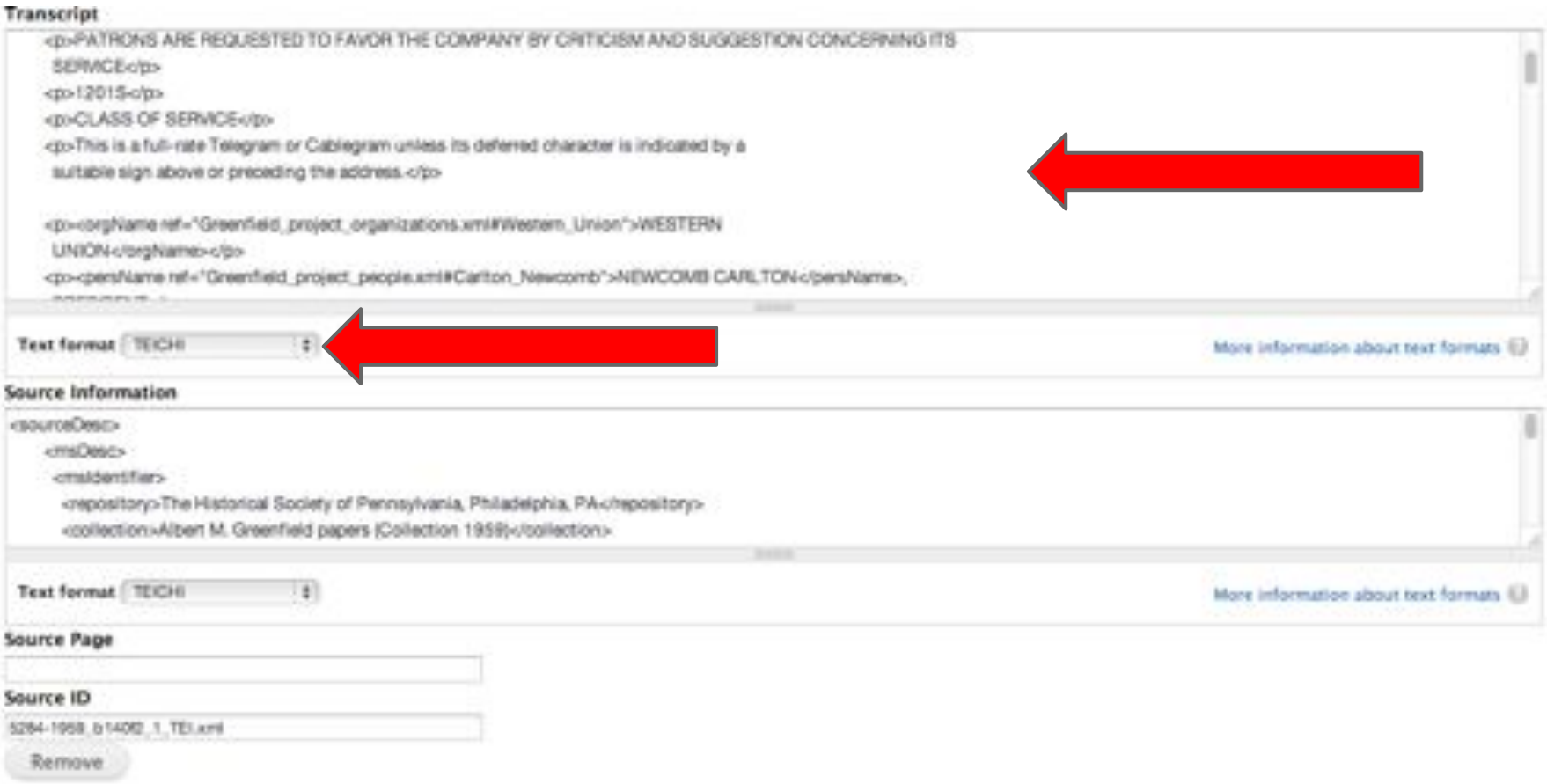

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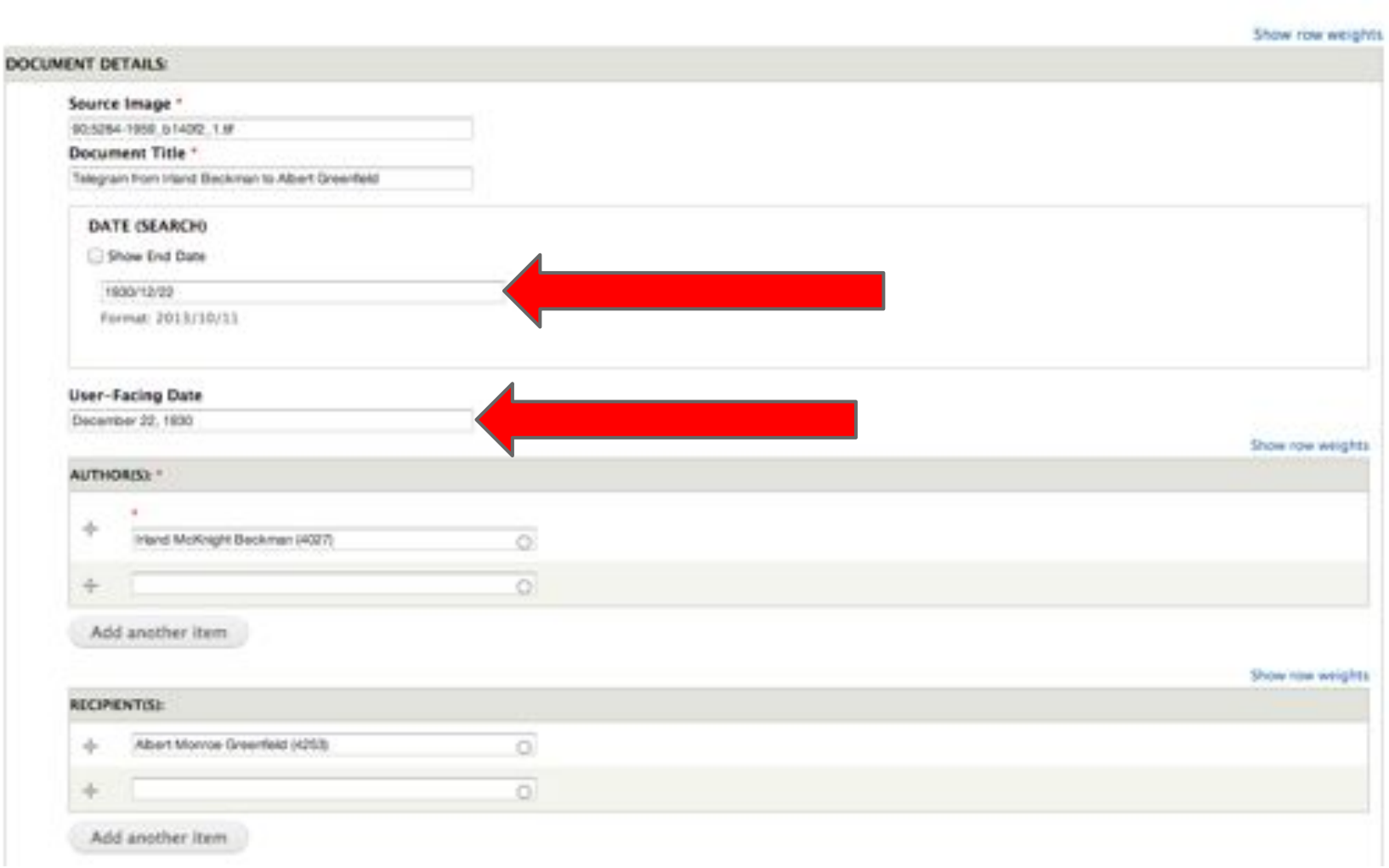

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Document Viewer

- Objectives
  - Expose DAMS assets to Drupal, via TEI
  - Page and transcript side-by-side
  - Access to high resolution image for pan and zoom

- Application
  - Collective Access API
  - Asynchronous image caching
  - New York Times Viewer (OSS, via github)

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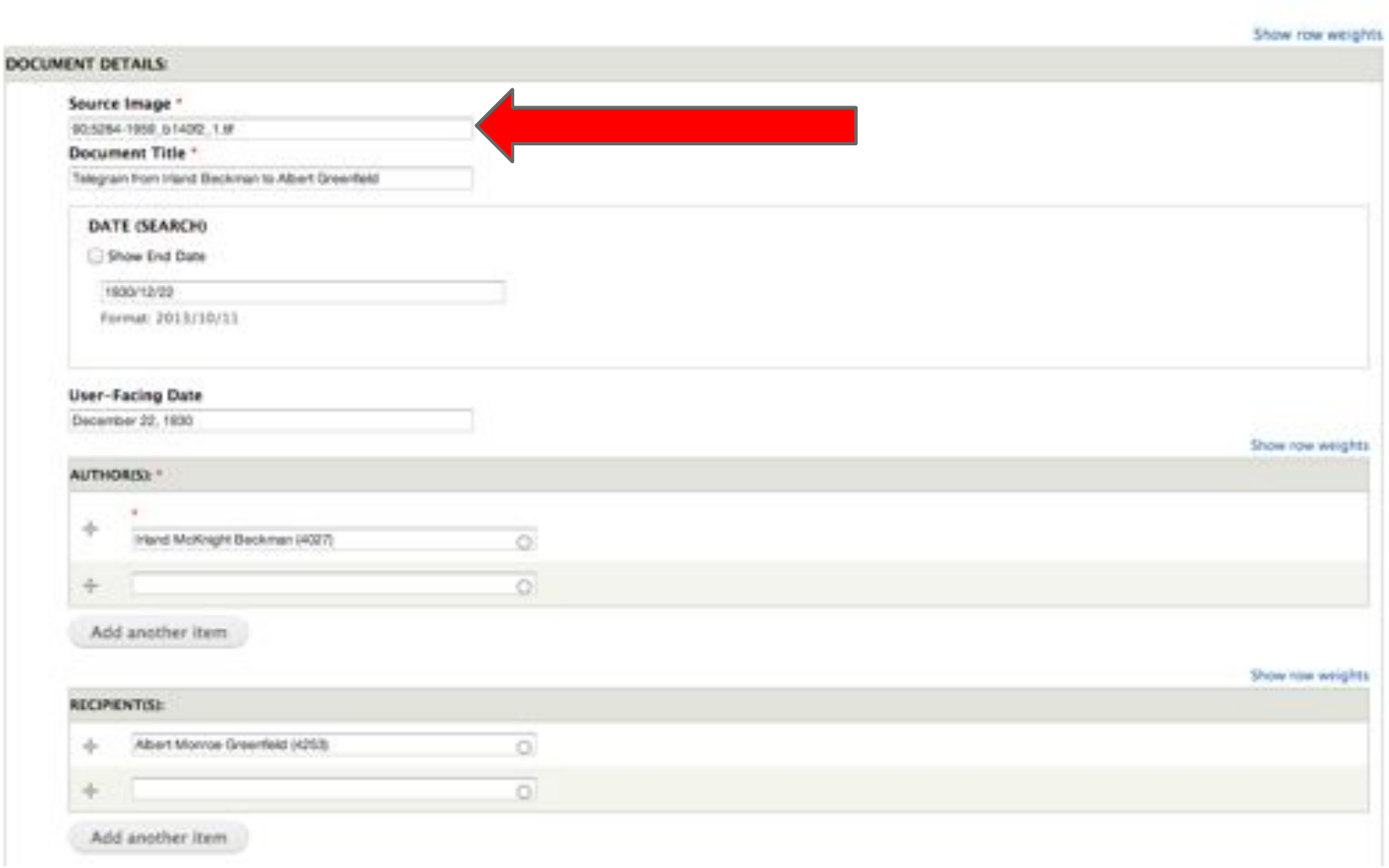

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Telegram from Irland Beckman to Albert Greenfield, December 22, 1930

Telegram from Irland Beckman to Albert Greenfield 1 of 1

Author(s): *Irland McKnight Beckman* | Recipient(s): *Albert Monroe Greenfield*

December 22, 1930

Source Image

PATRONS ARE REQUESTED TO FAVOR THE COMPANY BY CRITICISM AND SUGGESTION CONCERNING ITS SERVICE

Transcript

1201S

CLASS OF SERVICE

This is a full-rate Telegram or Cablegram unless its deferred character is indicated by a suitable sign above or preceding the address.

WESTERN UNION

Entity Reference

NEWCOMB CARLTON, PRESIDENT

J. C. WILLEVER, FIRST VICE-PRESIDENT

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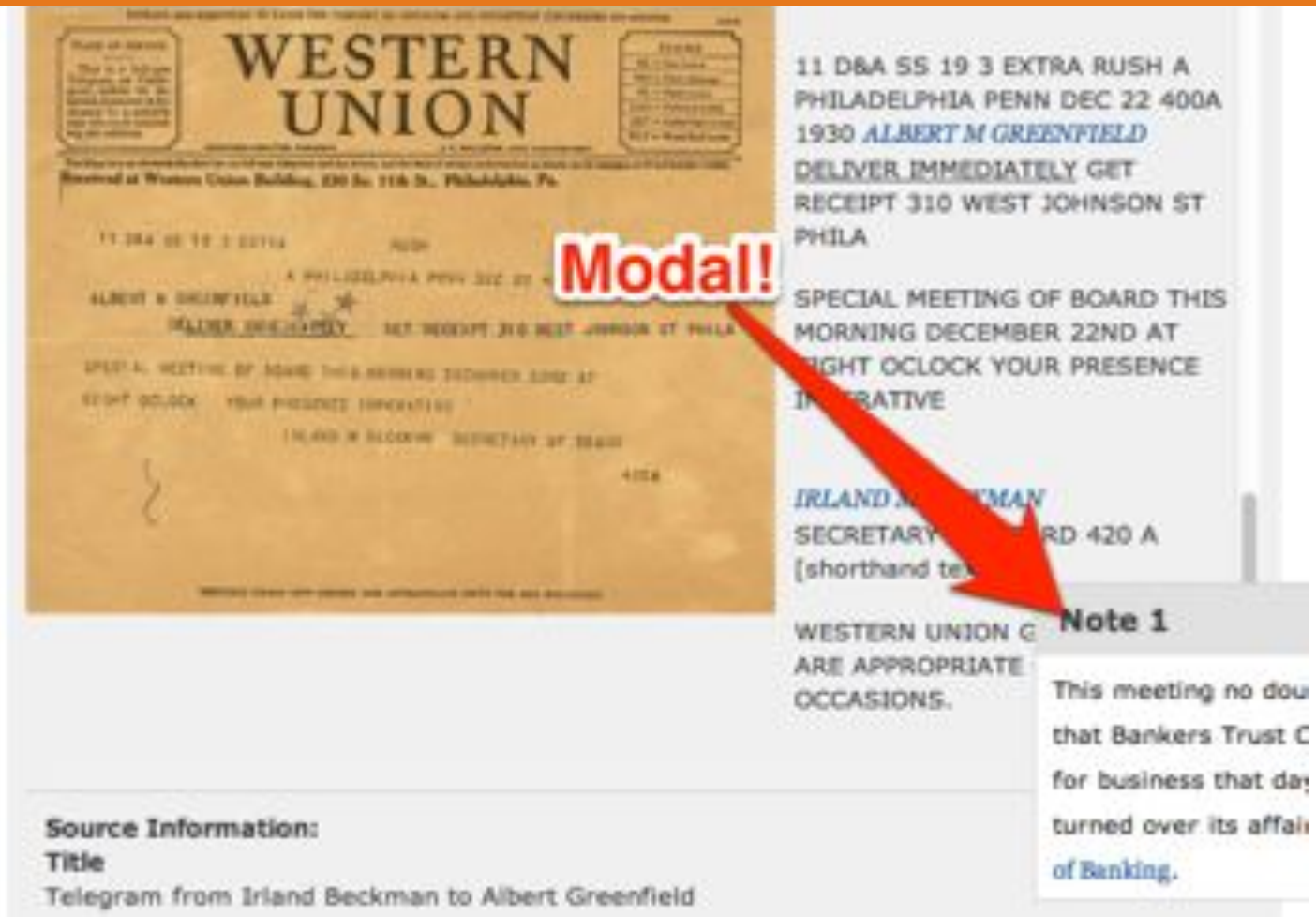

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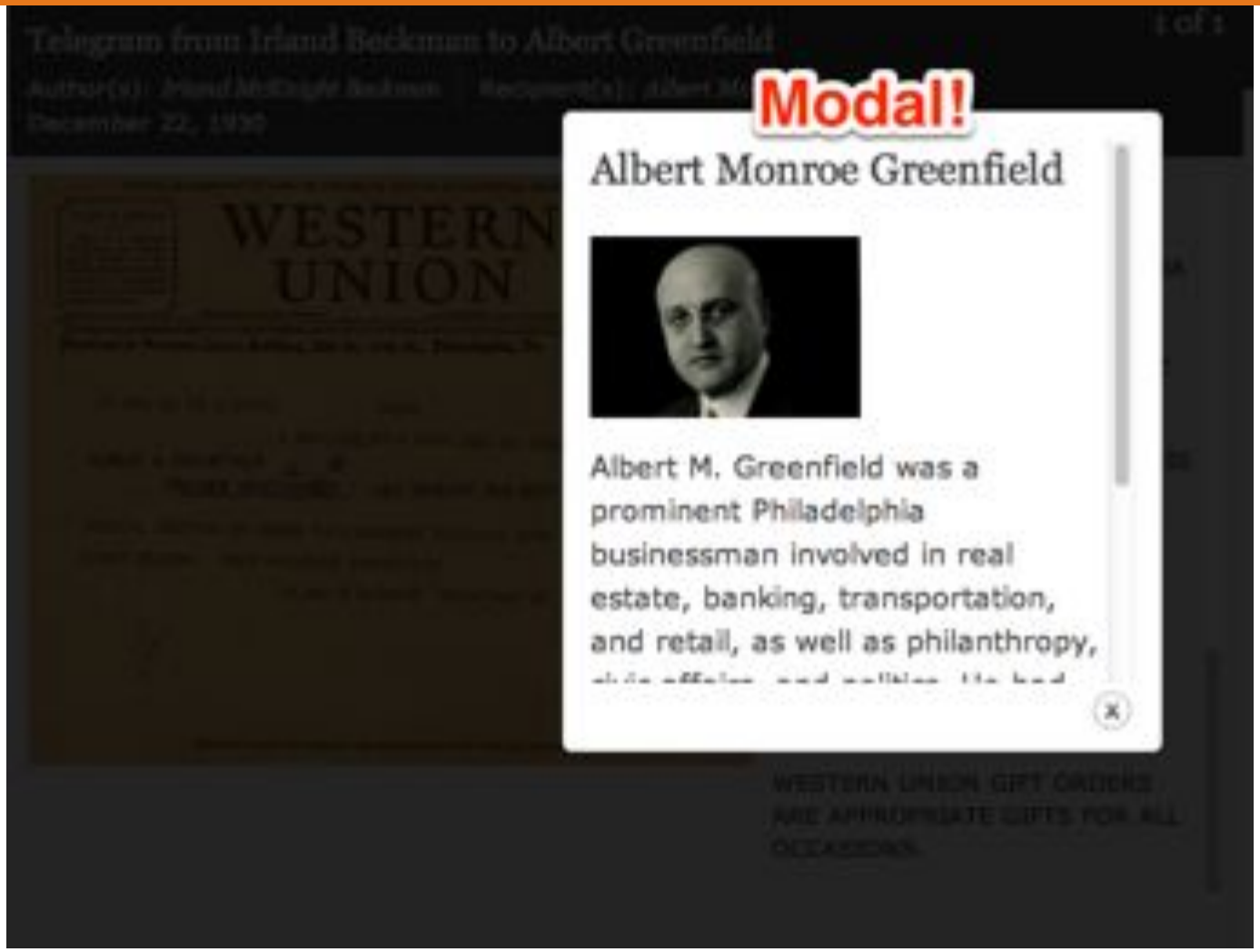

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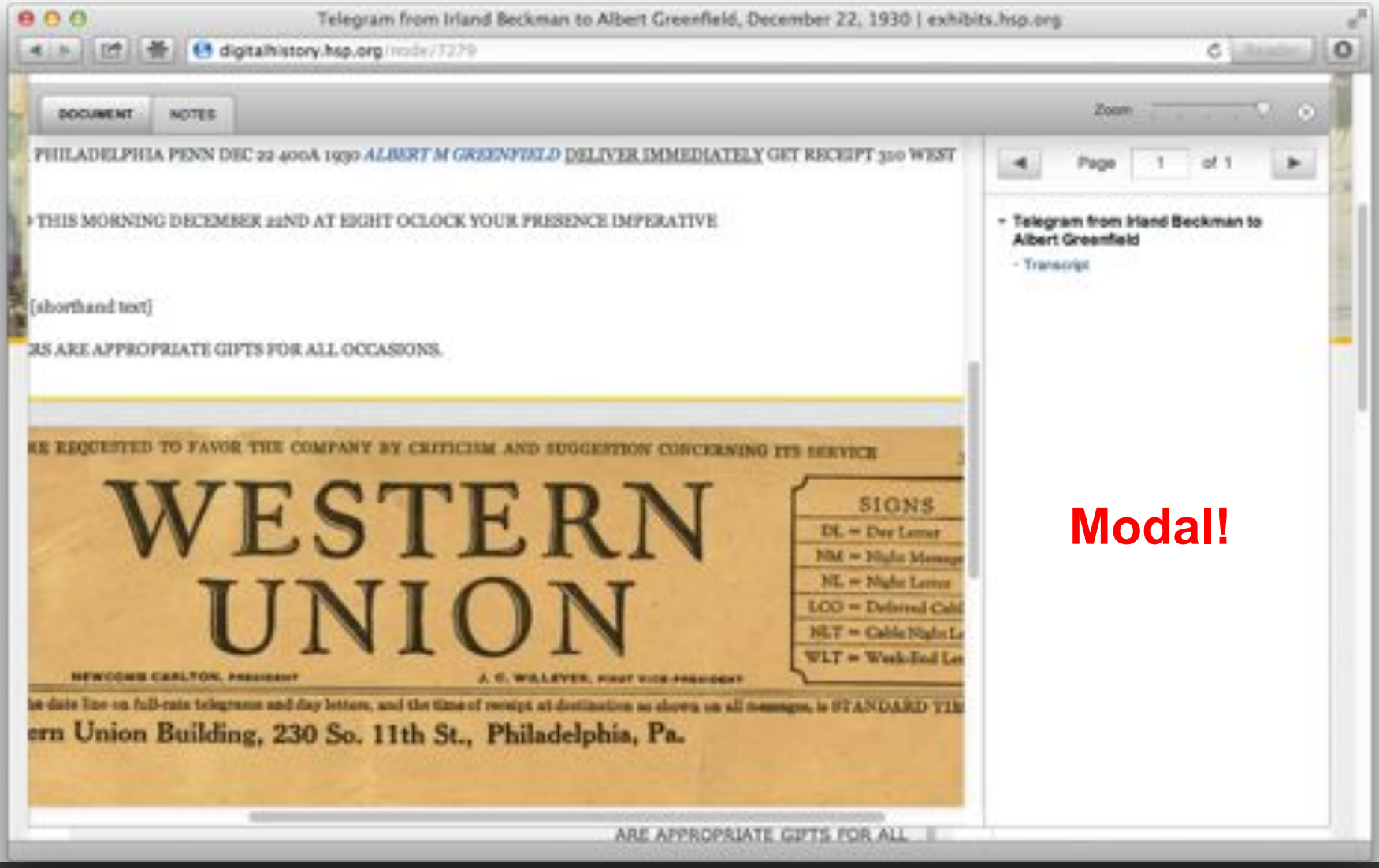

Modal!

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Event Timeline and Map

- Objectives
  - Personal narratives of the Underground Railroad
  - Extract normalized data from historic documents
  - Expose stories via spatial relationships
  - Navigate spatiotemporal data

- Application
  - Geocode location data
  - Views-driven, contextual map + timeline
  - Time Mapper: http://timemapper.okfnlabs.org

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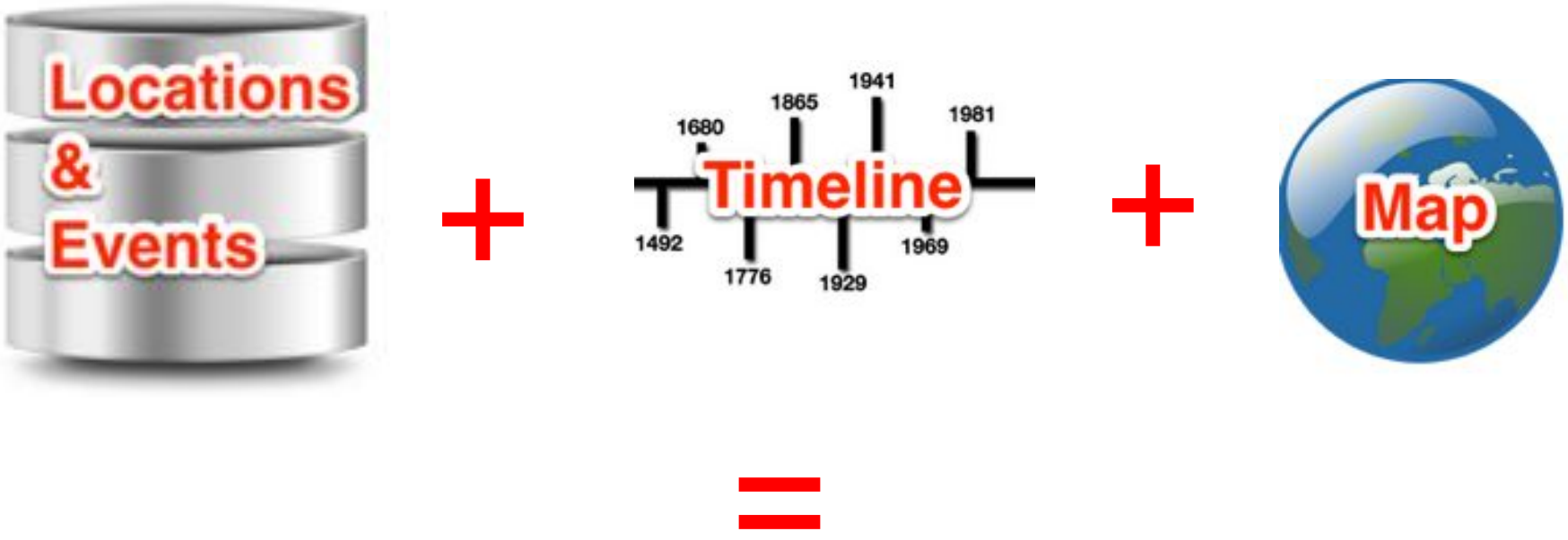

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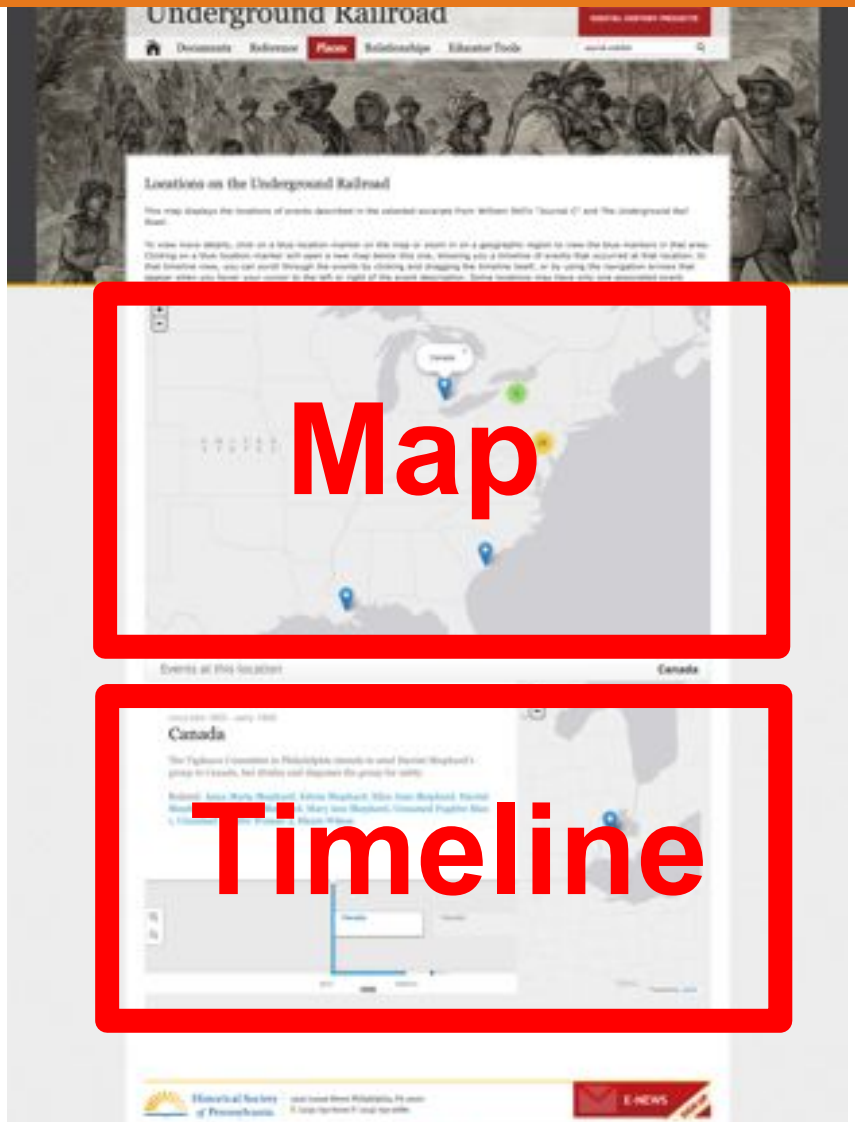

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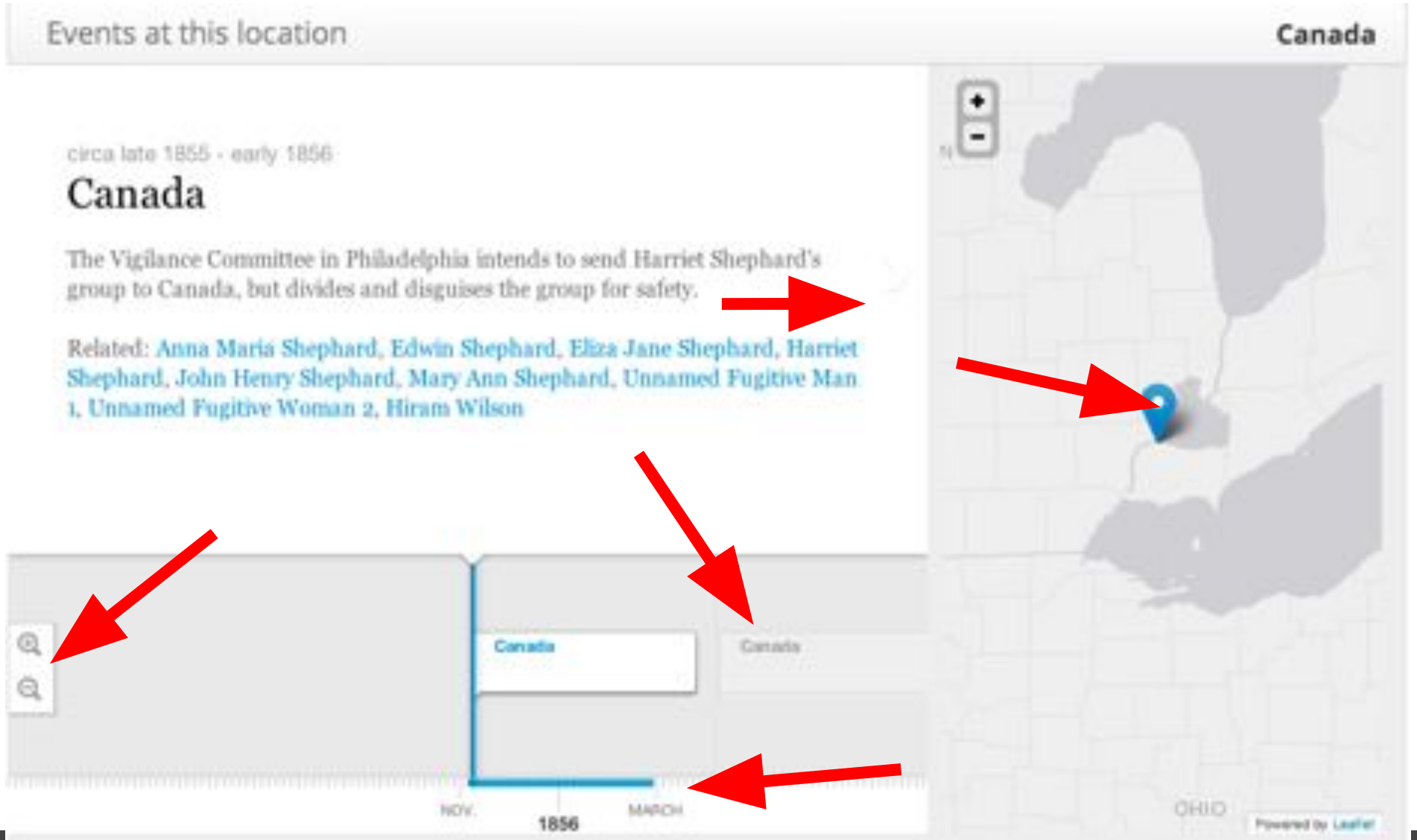

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Relationship Network

- Objectives
  - Surface relationships between all individuals
  - Discover buried stories within network
  - Visualize interactions between key players

- Application
  - D3.js Force Directed network graph http://d3js.org
  - Again, views-driven, contextual graph
  - MIT Media Lab “Immersion” project: https://immersion.media.mit.edu/demo

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Lessons Learned

- ➔ The data will not compile itself
- ➔ Planning is important
- ➔ Flexibility is more important
- ➔ The data may not actually tell a good story
- ➔ Limits of drupal contrib
- ➔ Decide on a vendor, not a pricetag

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The data will not compile itself

- Massive volume of man hours parsing historic documents, organizing and normalizing.
- Underestimating or underfunding this effort will impact a project timeline.
- Once the data is extracted, make sure you have a good place to put it.

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Planning is important

- What data is worth collecting?
- How granular can the data be?
- What DAMS suits our needs?
- What goals should the application fulfill?
- What should be prioritized, and what can slip?
- What is the Minimum Viable Product?

- Bring vendors, consultants, collaborators in early.
- But not too early.

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Flexibility is more important

- Planning the data schema is necessary to integrate with 3rd party systems, but some degree of schema shift should be expected.
- Plan an extensible, pluggable system.
- The lowest bidder is never planning for the next project.
- Don’t hack core.
- Don’t hack contrib.
- Do not reinvent the wheel.

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Data may not actually tell a good story

- You may be expecting too much from your data.
- Data curation can be just as effort intensive as data collection.
- Data by itself is not necessarily interesting.
- Think about your target audiences and user stories.
- Design and presentation are just as important as content in order to reach your constituents.

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Limits of Drupal contrib

- Please refer to slide titled “Notable Hooks and patches”
- Just because there’s a module called “Disqus” doesn’t mean it does what you think it does.
- Just because you know how two modules work doesn’t mean you know how they work together.
- Conflicting pressures: “Right Way” vs. “Fast Way”

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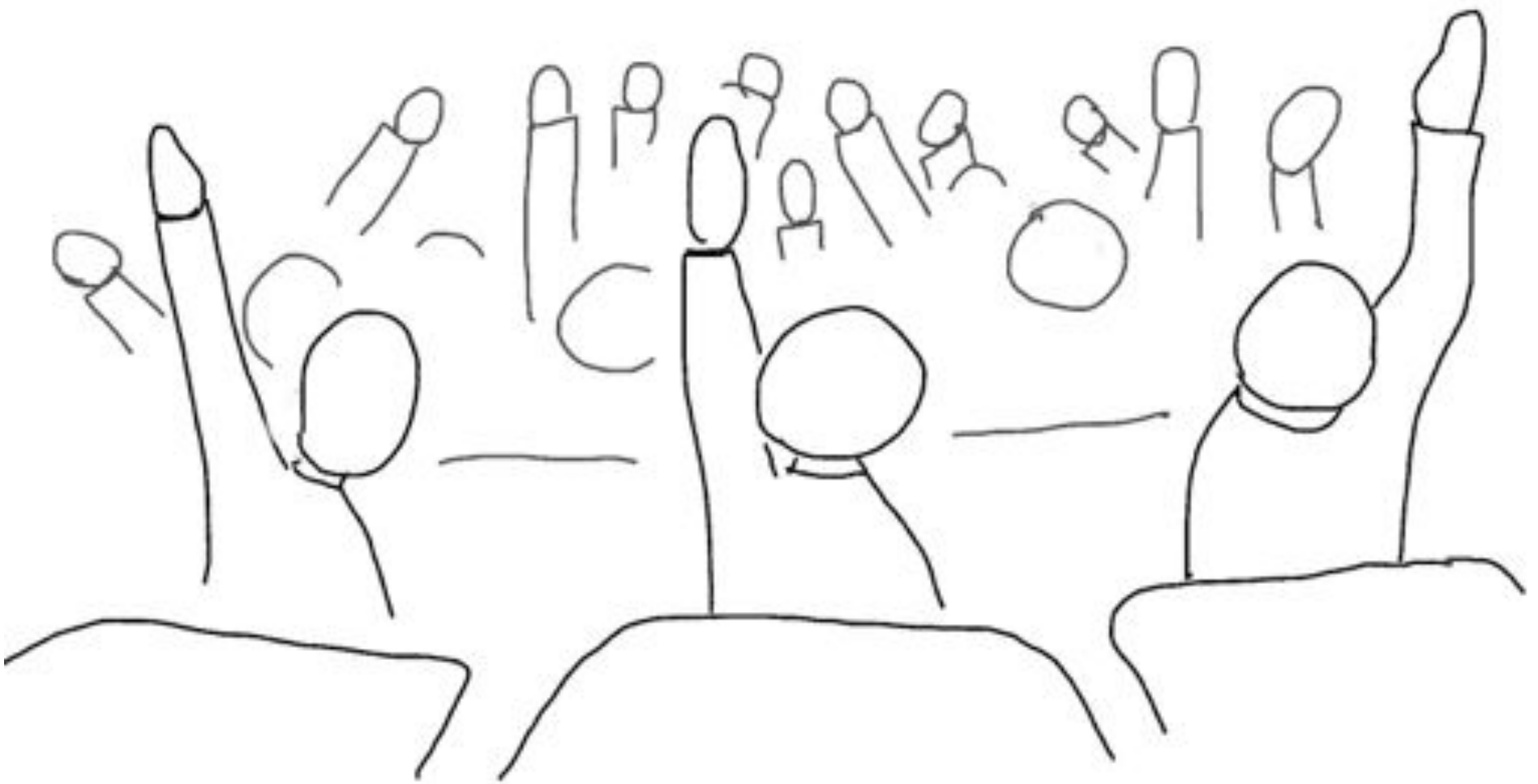
Decide on a vendor, not a pricetag

- Estimation and RFPs are guess work.
- Specify budget or features. Not both.
- Mantra: good, fast, cheap. Choose 2.
- Having a good relationship with a talented vendor will save you time, money, and headache. Full stop.

Questions?



Resources

- D3.js
  http://d3js.org
- Immersion
  http://immersion.media.mit.edu
- TimeMapper
  http://timemapper.okfnlabs.org
- NYT Viewer
  https://github.com/documentcloud/document-viewer
- Leaflet
  http://leafletjs.com
- TEI
  http://www.tei-c.org/release/doc/tei-p5-doc/en/html/index.html
- TEICHI
  http://www.teichi.org/
- Collective Access
  http://www.collectiveaccess.org

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