



TOWARD COLLABORATIVE MODELS

for

SUSTAINING DIGITAL SCHOLARSHIP

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Coalition for Networked Information

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COLLEGE OF
INFORMATION
STUDIES

MARYLAND'S iSCHOOL

*DH is a
“semi-normal
thing”
-Underwood, 2019*

Torn Apart / Separados

Volume 2 of Torn Apart is a deep and radically new look at the territory and infrastructure of ICE's financial regime in the USA. This data & visualization intervention peels back layers of culpability behind the humanitarian crisis of 2018.

#Separados #TornApart

Virginia 11th District
ICE money received since 2014:
\$1.3B

Democratic Rep. Gerry Connolly
Biggest Profiteer: CSRA, \$200M

THE WILLIAM BLAKE ARCHIVE GALLERY MODE

Illuminated Books

Commercial Book Illustrations

I AM A MAN

HOME INTRODUCTORY ESSAY LIVES OF THE SANITATION WORKERS THE STRIKE BEGINS
NEGOTIATIONS, VIGILS, AND SANDWICHES THE MARCH MARCH A COMMUNITY AWAKENS
A NATION AWAKENS DR. KING ARRIVES IN MEMPHIS TERRIBLE THURSDAY
THE MARCH THE GUARDS WATCH I'VE BEEN TO THE MOUNTAIN TOP LORRAINE MOTEL

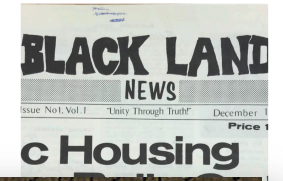
LINKED JAZZ

THE Shelley-Godwin ARCHIVE

COLORED CONVENTIONS PROJECT

dc1968 project: 365 stories re washington dc in 1968

Enslaved Peoples of Historic Sites



OPEN ISLAMICATE TEXTS INITIATIVE (OPENITI)

*DH is a
“semi-normal
thing”
-Underwood, 2019*

*But
sustaining
DH is not.*

“Even on campuses with DH centers, there is rarely an end-to-end solution”
-Maron & Pickle, 2014

*DH is a
“semi-normal
thing”*

-Underwood, 2019

*But
sustaining
DH is not.*

Why not?

- Context-dependencies
- Familiar sociotechnical challenges: Short-term funding, creator-dependence
- Lack of clarity about “ownership” and value (Maron & Pickle, 2014)
- Institutional capacity
- **Need for new models of institutional partnership for living, community-centered collections**

404

**This is not the
web page you
are looking for.**



Today's agenda...

- Research on scholar-generated collections
- Defining sustainability
- Existing approaches to sustainability
- Toward collaborative, community-centered models
- **Goals:**
 - **Give us a conceptual handle on *contribution***
 - **Rethink what sustainability means**
 - **Persuade you of the need for systemic re-orientation toward collaborative models**

*Overarching
research
project:*

*Scholar-
generated
digital
collections*



The Vault at Pfaff's

An Archive of Art and Literature by the Bohemians of Antebellum New York

- What are these collections and **how do they contribute** to scholarship?
- What are the **challenges for libraries** and scholarly publishing entities in supporting this mode of digital scholarship?

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The Vault at Pfaff's

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Two main findings:

- Varieties of contribution
- Difficulty of sustaining and preserving

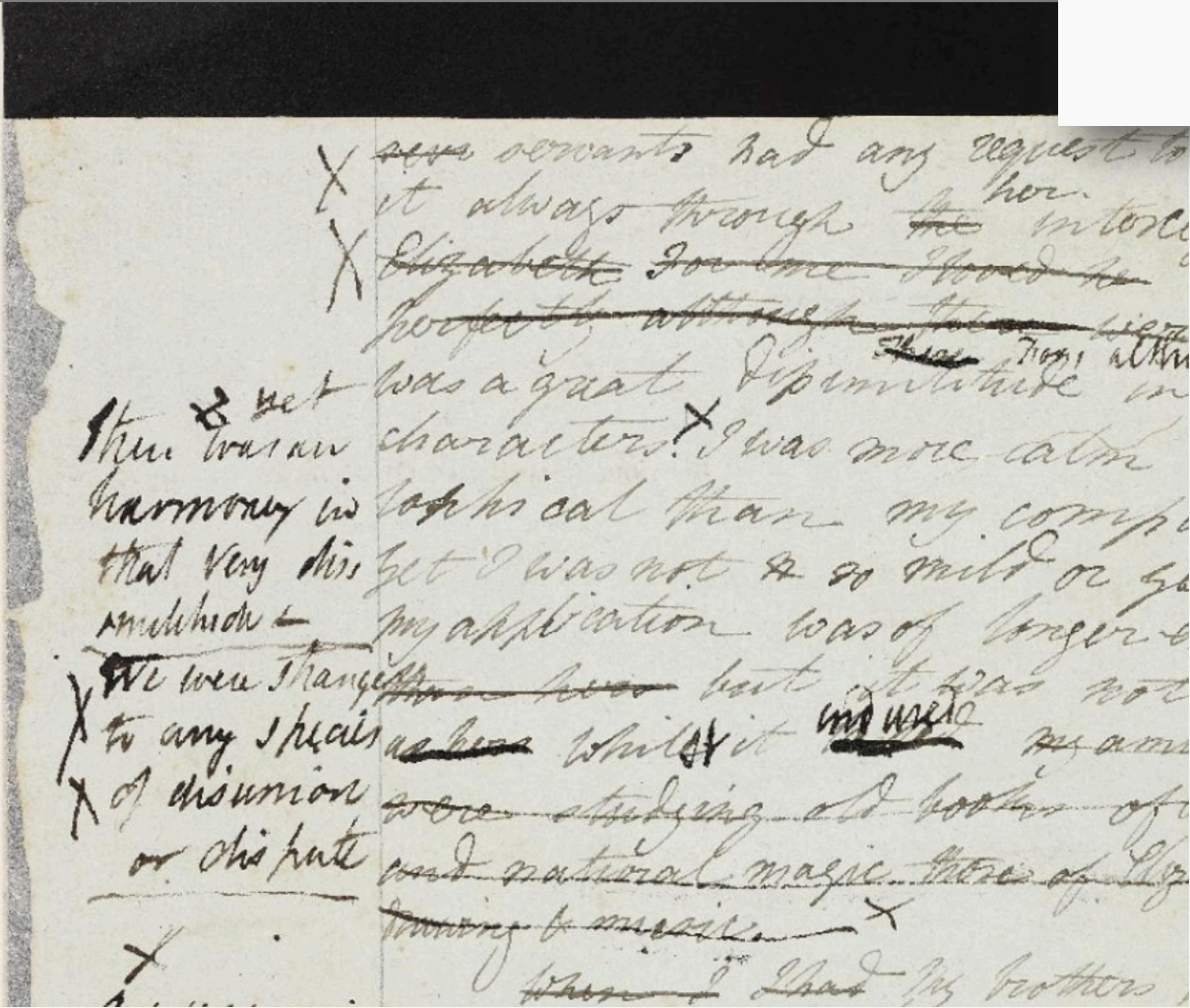
*Overarching
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collections*

Varieties of contribution

A collection's contributions are defined around what it means for the collection to be **complete**

- Is it mainly providing a **definitive** set of sources?



X yet
there was an
harmony in
that very diss

~~sevr servants had any request to make~~
~~her~~
~~it always through the intercession of~~
~~Elizabeth For me I loved he We agreed~~
~~perfectly although there were many~~

There For, although

~~was a great dissimilitude in our~~
~~characters. X I was more calm and phi~~
~~losphical than my companion~~
~~Yet I was not n so mild or yielding.~~
~~My application was of longer endurance~~
~~than hers but it was not so severe~~

X We were strang
to any species
X of disunion

~~endured~~
~~as hers whilst it lasted my amusements~~
~~were studying old books of chemistry~~

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- Is it mainly providing interpretive **context** for **exemplary** sources?

The Vault at Pfaff's

An Archive of Art and Literature by the Bohemians of Antebellum New York

Relationships of Clare, Ada

To explore the relationships between the various bohemian writers and artists who frequented Pfaff's bar, select a person or group, and then select a relationship type. This section of the site is currently under construction; new content is being added on a regular basis.

Displaying 1 - 80 of 80

Select Person or Group

Select Relationship

- Any -

- Any -
- groups
- housemates
- lovers
- friends
- family

Apply

acquaintances

Aldrich, Thomas Bailey (1836-

Greenslet, Ferris. *The Life of Thor*
Aldrich was familiar with Clare dur

Burroughs, John (1837-1921)

Parry, Albert. *Garrets and Pretend*
Parry quotes Burroughs's 1862 de
Parry also cites evidence of Burro
for Abbey!" for her reviews of H.A

Howells, William Dean (1837-

Parry, Albert. *Garrets and Pretend*
Howells met Clare at Pfaff's and s

Menken, Adah Isaacs (1835-1868)

Houghton Mifflin, 1908. [pages:38]
"Bohemia" of New York.

ism in America. New York: Covici, Friede, 1933. [pages:18,29]
"is really beautiful, not a characterless beauty, but a singular, unique beauty" (18).
"is caustic woman" who "ought to be sentenced to forty years' silence: 'My heart bleeds
ay Dreams (29).

ism in America. New York: Covici, Friede, 1933. [pages:28]
"anted that she was a brilliant woman."

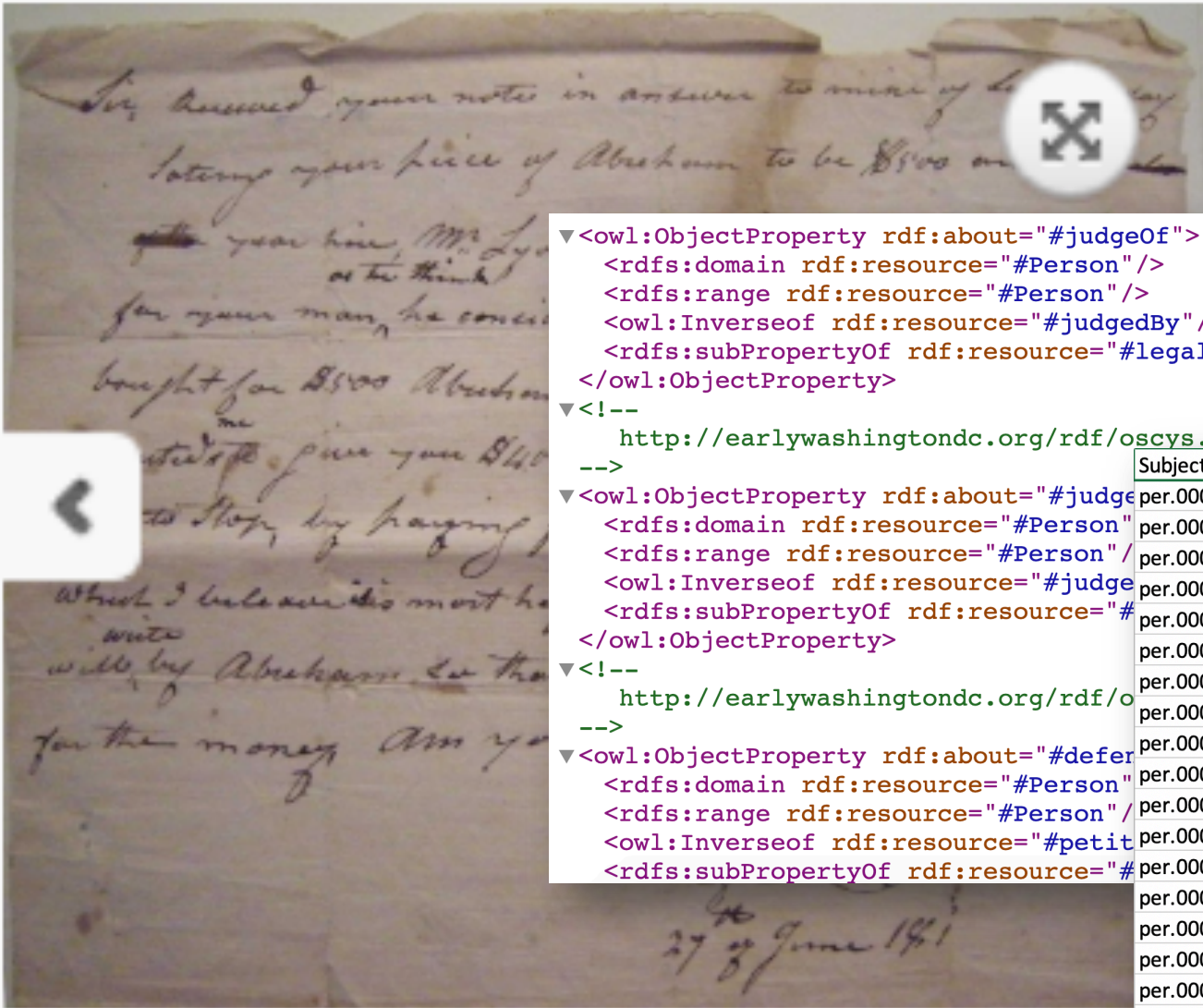
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- Is it mainly providing interpretive **context** for **exemplary** sources?
- Is it mainly providing **platforms** for new uses / new kinds of **evidence**?
(e.g., remodeling sources as data)



O SAY CAN YOU SEE

EARLY WASHINGTON, D.C., LAW & FAMILY

```

<owl:ObjectProperty rdf:about="#judgeOf">
  <rdfs:domain rdf:resource="#Person"/>
  <rdfs:range rdf:resource="#Person"/>
  <owl:Inverseof rdf:resource="#judgedBy"/>
  <rdfs:subPropertyOf rdf:resource="#legalRelations">
</owl:ObjectProperty>
<!--
  http://earlywashingtondc.org/rdf/oscys.objectproperties.owl#judgedBy
-->
<owl:ObjectProperty rdf:about="#judgeOf">
  <rdfs:domain rdf:resource="#Person"/>
  <rdfs:range rdf:resource="#Person"/>
  <owl:Inverseof rdf:resource="#judgedBy"/>
  <rdfs:subPropertyOf rdf:resource="#legalRelations">
</owl:ObjectProperty>
<!--
  http://earlywashingtondc.org/rdf/oscys.objectproperties.owl#deferred
-->
<owl:ObjectProperty rdf:about="#deferred">
  <rdfs:domain rdf:resource="#Person"/>
  <rdfs:range rdf:resource="#Person"/>
  <owl:Inverseof rdf:resource="#petitions">
  <rdfs:subPropertyOf rdf:resource="#legalRelations">

```

Subject	Predicate	Object	Case Id	Notes
per.000001	type	person		
per.000001	fullName	Key, Francis Scott		
per.000001	birth	1779		
per.000001	death	1843		
per.000001	sex	male		
per.000001	attorneyFor	per.000002	http://earlywashingtondc.org/doc/oscys.case.0001.001	
per.000001	attorneyFor	per.000056	http://earlywashingtondc.org/doc/oscys.case.0011.001	
per.000001	attorneyFor	per.000057	http://earlywashingtondc.org/doc/oscys.case.0011.001	
per.000001	attorneyAgai	per.000058	http://earlywashingtondc.org/doc/oscys	
per.000001	attorneyFor	per.000115	http://earlywashingtondc.org/doc/oscys.case.0012.001	
per.000001	attorneyAgai	per.000116	http://earlywashingtondc.org/doc/oscys.case.0012.001	
per.000001	attorneyFor	per.000137	http://earlywashingtondc.org/doc/oscys.case.0016.003	
per.000001	attorneyAgai	per.000132	http://earlywashingtondc.org/doc/oscys.case.0016.003	
per.000001	attorneyAgai	per.000134	http://earlywashingtondc.org/doc/oscys.case.0016.003	
per.000001	attorneyAgai	per.000135	http://earlywashingtondc.org/doc/oscys.case.0016.003	
per.000001	attorneyAgai	per.000136	http://earlywashingtondc.org/doc/oscys.case.0016.003	
per.000001	attorneyFor	per.000213	http://earlywashingtondc.org/doc/oscys.case.0025.001	
per.000001	attorneyAgai	per.000214	http://earlywashingtondc.org/doc/oscys.case.0025.001	
per.000001	attorneyFor	per.000223	http://earlywashingtondc.org/doc/oscys.case.0026.001	

27 of June 1841

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Difficulty of sustaining and preserving

Variety of contributions results in:

- Difficulty of systematizing sustainment and preservation
- Discontinuity with artifact-oriented preservation paradigm

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We lack shared definitions:

- Of different modes of DH *contribution*
- Of what sustainability means for different kinds of projects

What we mean by “sustainability”

- Widely varied definitions (Eschenfelder et al., 2016)
- Organizational resilience, economic viability
- Sociotechnical aspects (Langmead et al., 2018)

Existing approaches

- **DH Centers as memory institutions**
 - Center-level, burdensome maintenance efforts (Smithies et al., 2019; Madsen and Hurst, 2018; etc.)

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- **Infrastructures and aggregations**
 - Creating shared infrastructure for humanities scholarship and collaboration
 - Scaling up: Aggregating digital content toward critical mass
 - Advancing preservation repositories and publishing platforms for more complex and networked digital objects and linked data

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- **Promising movement toward shared stewardship, participatory and post-custodial partnerships**

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Yes, and:

Distinguishing sustainability and preservation for **essentially** interactive resources / components

Digital collections and objects are...

- Metaphorical, computed (Becker, 2019)
- Networked and externally dependent
- Making contributions through active use
- “Living” things serving communities

Community-centered sustainability

Rethinking sustainability

a digital humanities collection is sustained as long as it responsively **supports the endurance of the communities** that create it as a locus of memory, communication, and knowledge production, **for as long as useful**, and in **whatever forms are useful**

-Fenlon and **Muñoz**, forthcoming

What are the implications of community-centered sustainability?

Sustaining collections depends on understanding and **maintaining idiosyncratic, distributed, collaborative workflows** of collection development and maintenance

There are critical roles for libraries here that may not involve a collection “handoff”

But we need more research! On...

- Research communities and their collections
- Workflows
- New models of partnership

*Next phase
of research:*

*Sustaining
Digital
Community
Collections*

How do communities understand and implement the sustainability of their own digital collections?

- The meaning and forms of sustainability
- The meaning, making, and use of collections
- Roles for libraries and cultural institutions

Enslaved

Peoples of the
Historic Slave Trade

OPEN ISLAMICATE
TEXTS INITIATIVE
(OPENITI)



Lakeland Community Heritage Project

MITH

MARYLAND INSTITUTE FOR
TECHNOLOGY IN THE HUMANITIES

Toward collaborative models of sustainment

Reviewing emergent models of partnership and shared stewardship:

Toolkits, best practices, sub-granting, consultation, workshops, minimal computing investments, practices for building personal connections and trust, principles, policies, agreements...

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Integrating new conceptual and empirical work on:

- Slow archives, critical and community archives
(Christen and Anderson, 2019; Caswell & Cifor, 2016; etc.)
- Research communities, community endurance, and workflows

(from CSCW, science of science, public library theory and practice, info sci, etc.)

Future work

- Realizing community-determined, community-led strategies for sustaining digital collections
- With new models of support from cultural institutions

Links to featured projects

- <https://projects.lib.wayne.edu/iamaman/panel4>
- <https://linkedjazz.org/>
- <http://coloredconventions.org/>
- <http://shelleygodwinarchive.org/>
- <http://www.blakearchive.org/>
- <https://xpmethod.plaintext.in/torn-apart/volume/2/>
- <http://enslaved.org/>
- <https://pfaffs.web.lehigh.edu/>
- <http://earlywashingtondc.org/>
- <https://iti-corpus.github.io/>
- <https://www.dc1968project.com/>

References

- Becker, C. (2018). Metaphors We Work By: Reframing Digital Objects, Significant Properties, and the Design of Digital Preservation Systems. *Archivaria*, 85, 6–37.
- Caswell, M., & Cifor, M. (2016). From human rights to feminist ethics: Radical empathy in the archives. *Archivaria*, 81. Retrieved from <https://archivaria.ca/index.php/archivaria/article/view/13557>
- Christen, K., & Anderson, J. (2019). Toward slow archives. *Archival Science*, 19(2), 87–116. <https://doi.org/10.1007/s10502-019-09307-x>
- Eschenfelder, K. R., Shankar, K., Williams, R., Lanham, A., Salo, D., & Zhang, M. (2016). What are we talking about when we talk about sustainability of digital archives, repositories and libraries? *Proceedings of the 79th ASIS&T Annual Meeting: Creating Knowledge, Enhancing Lives Through Information & Technology*, 148:1–148:6. Retrieved from <http://dl.acm.org/citation.cfm?id=3017447.3017595>
- Langmead, A., Quigley, A., Gunn, C., Hakimi, J., & Decker, L. (2018). *Sustaining MedArt: The impact of socio-technical factors on digital preservation strategies* (Report of Research Funded by the National Endowment for the Humanities, Division of Preservation and Access No. PR-234292-16). Retrieved from https://sites.haa.pitt.edu/sustainabilityroadmap/wp-content/uploads/sites/10/2017/01/SustainingMedArt_FinalReport_Web.pdf
- Madsen, C., & Hurst, M. (2018). *Are digital humanities projects sustainable? A proposed service model for a DH infrastructure*. Education presented at the Coalition for Networked Information Fall Membership Meeting (CNI18f), Washington, D.C. Retrieved from <https://www.slideshare.net/mccarthymadsen/are-digital-humanities-projects-sustainable-a-proposed-service-model-for-a-dh-infrastructure>
- Maron, N. L., & Pickle, S. (2014). *Sustaining the Digital Humanities: Host Institution Support Beyond the Start-up Phase* [Research Report]. Retrieved from ITHAKA S+R website: <https://sr.ithaka.org/publications/sustaining-the-digital-humanities/>
- Smithies, J., Westling, C., Sichani, A.-M., Mellen, P., & Ciula, A. (2019). Managing 100 digital humanities projects: Digital scholarship & archiving in King’s Digital Lab. *Digital Humanities Quarterly*, 013(1).
- Smithsonian Center for Folklife and Cultural Heritage. (2019). Shared stewardship of collections policy. Retrieved October 22, 2019, from <https://folklife-media.si.edu/docs/folklife/Shared-Stewardship.pdf>

*Just in
case...*

What makes this hard

- Connective tissue and networked dependencies
- Conditions of creation
- Lack of infrastructure for collaborative workflows

Very, very preliminary observations

- Within-project disagreement about
 - The nature of the contribution
 - The meaning and forms of sustaining the contribution
 - Everyone is right!
- The most unsustainable and vulnerable pieces of a collection infrastructure are processes or workflows
 - Of development, maintenance, and growth
- Need for improved language around contributions and workflows

Humanities research infrastructure



Some components of infrastructure for research and communication in the humanities

Challenge 1: Essential interactivity for specialized use

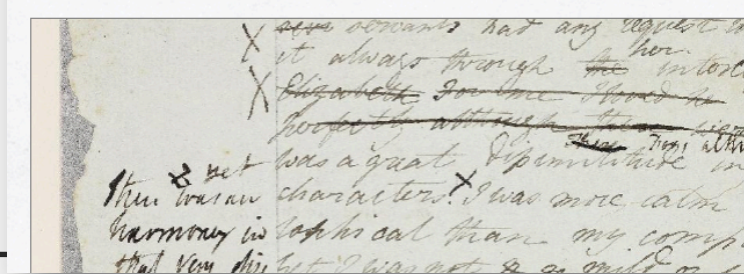
- Much of humanities digital scholarship is *essentially* interactive
 - dynamic, responsive, participatory
- The scholarly contribution is realized by interactive components

Frankenstein Volume I Draft in Chapter Sequence

Author(s) : Mary Wollstonecraft Shelley State : draft Hand(s) : Mary Shelley, Percy Shelley
Institution : Bodleian Library, University of Oxford
Date Written : [August or September]-[?December] 1816 Shelfmark : MS. Abinger c. 56
Title/Literary Work : Frankenstein Folio : 4r

Transcription Status: ●●
Metadata Status: ●●

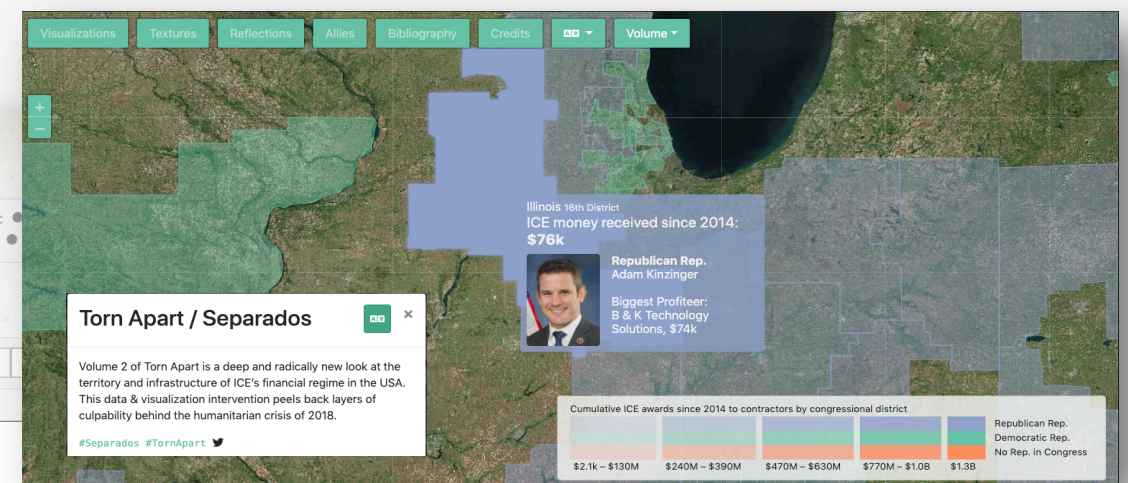
Search [] LIMIT VIEW: ● All ● Mary Shelley ● Percy Shelley



X yet there was an harmony in that very dissimilitude-

X yet there was an harmony in that very dissimilitude-

sevr servants had any request to make it always through ^{her} the intercession of Elizabeth For me I loved he We agreed perfectly although there were many ^{There For, although}



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The Vault at Pfaff's

An Archive of Art and Literature by the Bohemians of Antebellum New York

- Methods:
 - Interviews with experts in established and productive DH centers
 - Typology of ~150 collections
 - Content analysis of 3 collections