Open Access to Working Notes in the Humanities

Michael K. Buckland School of Information University of California Berkeley, CA 94720-4600, USA 01 510 642 3159

Patrick Golden Sch. of Information & Library Science Sch. of Information & Library Science University of North Carolina Chapel Hill, NC 27599-3360

Ryan B. Shaw University of North Carolina Chapel Hill, NC 27599-3360

buckland@ischool.berkelev.edu

ptgolden@berkeley.edu

ryanshaw@unc.edu

ABSTRACT

A web-based tool for making and sharing research designed for authors, curators, and editors in the humanities is described, editorsnotes.org. Notes are a varied genre not limited to annotations. The data for the tool is modeled as three kinds of records: Notes created; Documents cited; and Topics, headings for names and subjects. Structured records are needed for interoperability and sharing. Open access, sustainability issues, and how working notes can complement other infrastructure are discussed in a status report.

Categories and Subject Descriptors

H.3.7 [Digital Libraries], I.7.4. [Electronic Publishing]. J.5. [Arts and Humanities].

General Terms

Documentation, Design, Economics, Reliability, Standardization.

Keywords

Documentary editions, Editors, Historians, Working notes.

1. INTRODUCTION

The humanities' concern with the human experience is very complex and resists being reduced to tidy simplifications. Multiple interpretations, the lack of clear-cut definitions, and the need to return continuously to primary and secondary sources demand the management of a diversity of questions, notes, and collected fragments of evidence. Working notes have been pervasive in humanities scholarship. A succession of tools have been used: memory techniques, writing, printing, slips of paper, cards, binders, and, now, digital technology.[1] The humanities are rich in interpretations, figurative language, and multiple narratives which are ill-suited for the routinizing of business operations that have dominated the development of digital technology.

Notes on persons, places, events, institutions, and topics are needed to understand context. Working notes vary greatly in form. They ordinarily include fragments of relevant evidence: photocopies, newspaper clippings, quotations, and other material. Often notes start with a question and an answer is gradually

Permission to make digital or hard copies of all or part of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage and that copies bear this notice and the full citation on the first page. Copyrights for components of this work owned by others than ACM must be honored. Abstracting with credit is permitted. To copy otherwise, or republish, to post on servers or to redistribute to lists, requires prior specific permission and/or a fee. Request permissions from Permissions@acm.org.

OpenSym '15, August 19 - 21, 2015, San Francisco, CA, USA © 2015 ACM. ISBN 978-1-4503-3666-6/15/08...\$15.00 DOI: http://dx.doi.org/10.1145/2788993.2789852

compiled.

Working notes mostly remain unpublished and inaccessible. The nineteenth-century periodical Notes & Queries: A Medium of Inter-Communication for Literary Men, Artists, Antiquaries, Genealogists, Etc., pioneered the sharing of notes, questions, and evidence with the slogan "When found, make a note of it".

The work practices of the historians and research assistants preparing scholarly editions of historically important documents illustrate the problem well. The documents being edited cannot be properly understood without reconstructing their context. Alternative explanations are possible. Some questions may never be fully resolved. Years of painstaking investigations generate unwieldy collections of notes. Funding, however, only supports the eventual formal published edition in which explanation and supporting evidence can be included only sparingly. The extensive working notes are not shared and are, usually, eventually discarded.

Digital humanities projects have typically focused on notes as annotations of documents, but even documentary editions also have explanatory notes not linked to any specific point in the edited text. More importantly, scholars assemble large numbers of working notes about unresolved questions, sources examined, intriguing leads, and useful explanations, which may not cite a point in some text. Working notes deserve attention in their own right. Not all are worth preserving, but current practice is very wasteful. This paper is based on four years of providing a stable platform for research notes.

2. METHODS

2.1 Technology

The design of the tool is based on:

- Treating working notes as genre liberated from a restrictive focus on annotation;
- The leveraging of Web technology to empower individual scholars to greatly increasing the return on investment in humanities scholarship by making their research open to others;
- A structured data model that promotes interoperability with other humanities and library developments; and
- An architecture designed for robust, low cost preservation and sustainability with reduced dependence on specialized software and service oriented architecture.

The tool is implemented as a RESTful web service for storing and searching over notes, bibliographic data, and their related data, and a browser-based client interface for authoring, organizing, and consulting notes.[2]

2.2 Project History

The Electronic Cultural Atlas Initiative (ECAI) is an informal international collaboration based in the University of California, Berkeley, School of Information, with fifteen years' experience promoting innovation and best practices in the humanities and social sciences.[3] In 2010 the Coleman Fung Foundation gave ECAI a challenge grant to make knowledge more shareable. The diminished return on investment when research findings remain inaccessible led the A. W. Mellon Foundation Scholarly Communications program to support a project entitled *Editorial Practices and the Web* [4] to transform the work environment of documentary editors as they move from existing practices (notes in memory or handwritten; working notes in folders and boxes; and brief notes very selectively published in the eventual edition) towards a more online world with notes scanned or keyed, files in digital repositories, and detailed notes rapidly Web accessible.

We have worked primarily with three substantial documentary editing projects with overlapping interests: The Emma Goldman Papers Project (Berkeley), the Margaret Sanger Papers Project (New York University) and the combined Elizabeth Cady Stanton and Susan B. Anthony Papers Project (Rutgers). Other users include archivists preparing a research guide and the curator of a library special collection. To facilitate shared access and well-structured records a Web-based platform named Editors' Notes was provided for editors and their assistants to place, share, and revise their working notes within projects and between projects: editorsnotes.org [4]. The site was made open for all on the Web with the editors' agreement in 2012. Webcrawlers indexed the site and soon people across the world were accessing these notes.

3. DATA MODEL

The Data Model (Figure 1) has three elements:

Notes: Free-form notes created by scholars with provision for adding citations to documents, references to other notes, and topic headings. An example is in Appendix 1.

Documents: Bibliographical citations, usually created using Zotero as a front end, to documents elsewhere. Scans and transcriptions of the cited document can be added. See Figure 2, Philip O. Keeney's, *Unified Library Service for Japan* manuscript, which has links to a transcript (solid circle) and to a related Note (dashed circle).

Topics: Names of persons, places, institutions, and topics, with provision for a scope note, authority source, links to associated notes, and Linked Open Data records ("Factoids"). For an example see Appendix 2).

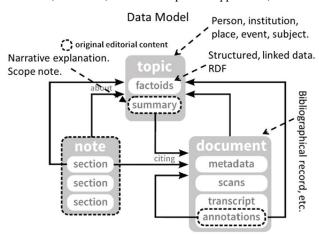


Figure 1. Data model of the Editors' Notes website.

The data structure is designed for interoperability and Linked Open Data using common standards. The ability to add scans and transcripts to Documents is important because it means that otherwise inaccessible primary sources can be made available.

Other good ways do exist for scholars to share notes (blogs, wikis, web pages), but the effective use of digital humanities tools requires the kind of structure this approach provides.

Info Transcript Related Notes & Queries (1)	
ITEM TYPE	Manuscript
TITLE	Unified Library Service for Japan
AUTHOR	Philip O. Keeney
TYPE	Typescript memorandum and cover note
PLACE	Tokyo
DATE	8 April 1946
# OF PAGES	1 + 5
SHORT TITLE	Keeney Plan
ARCHIVE	University of California, Berkeley. Bancroft Library
CALL NUMBER	MSS 71/157 Box 2
RIGHTS	Public domain
EXTRA	Photocopy of carbon copy

Figure 2. Document: Unified Library Service for Japan.

3.1 Use

Editors Notes has also been used for working notes of archivists, library special collection curators, and an historian. Once assembled, notes can serve multiple purposes. Working notes made at the California State Archives on radical and labor activities during the Emma Goldman era led easily to preparation of a research guide to labor history resources.[5]

The software, which integrates a number of existing open source tools, and is available on GitHub [6][7], has also been deployed by CENDARI, a research infrastructure project for integrating digital archives for the medieval and World War I eras.

By treating notes as a distinct genre including but not limited to the annotation of literary or historical texts and by allowing Web access to them, isolated scholars can share their own work, identify related work, and reduce duplicative effort. This greatly increases the return on the original investment of effort and of the limited funding. It also opens new possibilities for collaboration and for low-cost, long-term digital preservation and sustainability.

3.2 Related Work

Prior attention to working notes has been heavily focused on the limited case of annotation. The UVa Scholars' Lab's Prism tool enables "crowdsourced" annotation and highlighting of online texts. The MIT Hyperstudio's Annotation Studio is similarly focused on collaborative annotation of texts. The Schoenberg Institute for Manuscript Studies recently received an ODH Implementation Grant to develop annotation tools for digitized medieval manuscripts. Many of these projects are involved in efforts to standardize an Open Annotation Data Model through the W3C. These are just some high-profile examples: the Digital Research Tools directory (dirtdirectory.org/) lists a total of eighty-four tools for annotation. Our approach differs in focusing on

working notes whether they annotate some text or not, as a genre in their own right.

There are a number of general-purpose note-taking tools (Evernote, Tinderbox) and tools primarily intended for other purposes that also can be used for note-taking (Zotero, Scrivener). The former lack critical features needed for scholarly work, such as integration with a citation database. The latter do not focus primarily on note-taking but on related and complementary practices. All of these tools assume that notes are for personal use and not something to be shared more widely. Editors' Notes is a note-taking tool focused on the needs of scholars but with the goal of making their working notes widely sharable.

3.3 Development

Some additional developments are in progress.

3.3.1 Tools to add data and visualizations

Tools to allow users to add and maintain geospatial or biographical information, events including dates, and other structured data are intended, and a simple interface to allow users to invoke three kinds of visualizations based on targeted Topics: Maps, timelines, and network graphs, which correspond most naturally to places, events, and interpersonal relationships. These intended additional features are not essential but would be attractive enhancements.

3.3.2 Redundant Sustainability

Editors Notes already follows usual best practices for sustainability and data management: open source software on GitHub, adherence to common standards, documentation, regular back-up, and easy content export in standard formats. The Achilles heel in standard best practice is dependence on Internet-connected servers in service oriented architecture. We are working towards a fail-safe collection oriented architecture so that both the content and some of the basic functionality of Editors' Notes could survive catastrophic, irrevocable failure of server and of software and continue life (possibly with reduced functionality) as a conventional hypertextual website.[8]

4. DISCUSSION

The Editors' Notes is a digital tool suited for implementation broadly across humanities research and education not only in institutional settings but also for the independent, individual scholar using a public library. Editors Notes is designed for conventional software sustainability (open source, GitHub, documentation) but also to be "fail-safe" so that the content can survive software and server failure. By treating working notes as a publishable genre they are moved out of obscurity and into the open, indexed Web. This modest technical change can transform scholarly communication and advance the dissemination of humanities scholarship within and between all humanities fields and for all interested audiences.[9] It is, however, a significant change in work practice.

Linked Data promises to facilitate the collaborative production and use of structured information about historical people, places, organizations, events, and ideas. But few processes have been established to assess and improve the quality of Linked Data. Historians, especially editors preparing documentary editions, are greatly concerned to establish accurate, reliable contextual details concerning events, institutions, places, and persons. Their notes on such points could be prime sources, if accessible, when authoritative resources are needed to establish the accuracy and reliability of Linked Data [10].

The *Unified Library Service for Japan* example shown above illustrates how working notes can complement Wikipedia with its No Original Research policy. Publishing a transcript of this historically important but unpublished and largely unknown document, along with an associated explanatory Note, provided the resources necessary for the Wikipedia article on its author, Philip O. Keeney, to be made significantly more complete [11].

Making notes is basic for learning, for teaching, and for research, so improvements in how they can be managed and shared can have wide benefits. In the humanities there is a continuous need to keep posing new questions, to reconsider old answers, to keep returning to primary sources, and to share ideas widely across and between communities. It is this broad need that justifies investment in the wide-spread adoption of new and better tools for making, managing, and, especially, sharing our notes, questions, and evidence.

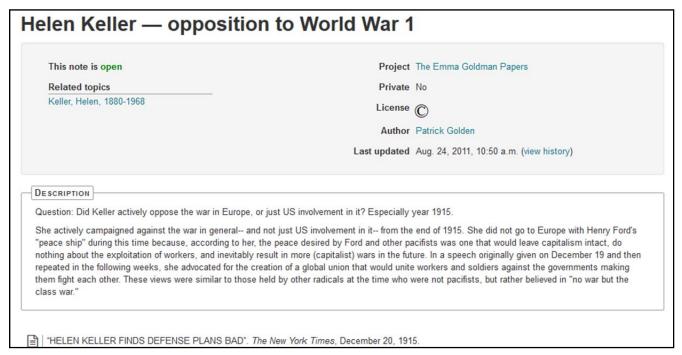
5. ACKNOWLEDGMENTS

We thank our collaborators and the Coleman Fung Foundation and the A. W. Mellon Foundation for their support.

6. REFERENCES

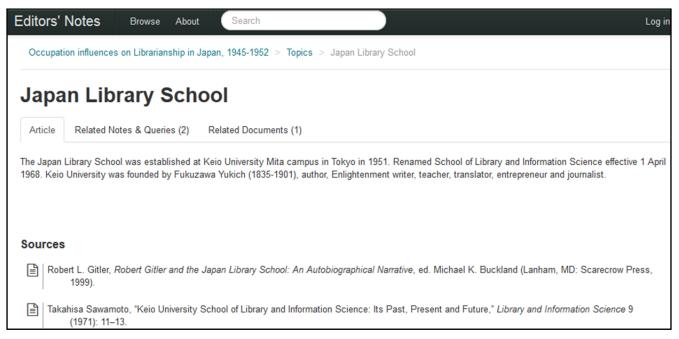
- [1] Krajewski, M. 2011. *PaperMachines: About Cards and Catalogs, 1548-1929*. Cambridge, MS: MIT Press.
- [2] Editors' Notes [Website] http://editorsnotes.org/
- [3] Electronic Cultural Atlas Initiative [website] http://ecai.org
- [4] Editorial Practices and the Web. [Website] http://ecai.org/mellon2010
- [5] California State Archives. (Forthcoming). Records in the California State Archives for the Study of Labor History: A reference guide.
- [6] Editorial Practices and the Web: Phase 2. Proposal Narrative. (2013) http://metadata.sims.berkeley.edu/en2narr.pdf
- [7] Editors' Notes https://github.com/editorsnotes
- [8] Shaw, R, Rabinowitz, A, Golden, P. and Kansa, E. (Forthcoming). A sharing-oriented design strategy for networking knowledge organization systems. *International Journal of Digital Libraries* http://link.springer.com/journal/799
- [9] Daniel, W. C. (2013). Open Notebook History. http://wcm1.web.rice.edu/open-notebook-history.html
- [10] Shaw, R and Buckland, M. (2011). Editorial control over linked data. American Society for Information Science and Technology Annual meeting, New Orleans. Preprint http://metadata.sims.berkeley.edu/posterasist2011.pdf
- [11] Philip Keeney http://en.wikipedia.org/wiki/Philip Keeney

Appendix 1: Note. http://editorsnotes.org/projects/emma/notes/336/



This Note began as a query and was gradually modified as research yielded explanation. It links to the Topic heading *Keller*, *Helen*, *1880-1968*. Addition, annotated sources are not shown.

Appendix 2: Topic record, http://editorsnotes.org/projects/japanese_librarianship/topics/3522/



This "Topic" record has a brief explanatory scope note, cites two authority sources, and provides links within the Editors' Notes site to two related Notes and to one related Document.