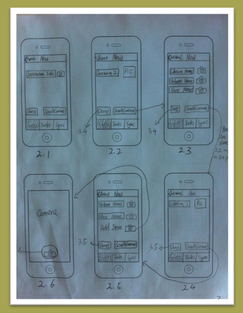

Infrastructure and the Archive: Supporting Information Management Practices in the Humanities

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ABSTRACT

Research libraries and archives, as well as groups from within the humanities disciplines themselves, are being tasked with providing robust support for information management practices, including helping to engage humanities scholars with appropriate digital technologies in ways that are sensitive to disciplinary-based cultures and practices.

However, significant barriers impede this work, primarily because the infrastructure (services, tools, and collaborative networks) to support scholarly information management is still under development.

Under the aegis of the Scholars Tracking Archival Resources (STAR) project we are studying how humanities scholars gather and manage primary source materials with a goal of developing software to support their information management practices.

The results of this project include findings from interviews with twenty-six humanities scholars, in conjunction with a set of initial requirements for a mobile application that will support scholars in capturing documents, recreating the archival context, and uploading these documents to cloud storage for access and sharing from other devices.

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INTRODUCTION

Under the aegis of the STAR project, we are studying the complexities involved in creating and managing distributed, multi-format, personal digital primary source collections and exploring mechanisms to support the information management activities associated with this scholarly work. Borgman argues that the suitability of data for subsequent “curation, reuse, and sharing,” is dependent on “capturing data as cleanly as possible and as early as possible in its life cycle” (Borgman, 2009, para. 44).

We argue that such data capture can be achieved by harnessing the emerging digital hardware and software infrastructure to create a ‘gathering tool’ for humanities scholars (a tool to “gather, arrange, organize, store, and share objects”) (University of Minnesota Libraries, 2006, p. 50). Although such a tool has been imagined as an online resource, we imagine this tool as a mobile application that gives scholars the ability to capture, organize, and track digital images while working in an archive and, in the process, form a uniquely personal, sharable, and reusable personal archive.

METHODS

Research Questions

- How do scholars working in archive reading rooms gather primary source documents for their research projects?
- How do scholars create a structure for managing the collected primary sources, and associated notes, in order to use this material in their own work environment?
- What are the perceived unmet needs in primary source materials management, and what opportunities exist for harnessing emerging technology (devices and software) to simplify materials management?
- Which commonalities in strategies and tasks, if any, could serve as guidelines for designing software to help scholars manage their primary source materials?

We interviewed and issued questionnaires to 26 participants (12 male and 14 female), ranging in age from 18 to over 65, and affiliated with institutions in eight countries: USA, Canada, Great Britain, France, Germany, Switzerland, Austria, and Italy.

FINDINGS

In studying how scholars capture and manage the primary source materials that they locate in the archives, they exhibit a number of common research behaviors or activities (‘scholarly primitives’), the identification of which is seen as a precursor to building appropriate tools to aid in the humanities enterprise. Interview data showed these practices to be clustered around the activities of collecting (gathering and organizing), note-taking, and tracking, with digital technology often playing a key role in these processes.

Scholars reported a lack of widely accepted systems for managing their primary source materials, in the absence of which, they have cobbled together mechanisms based on available hardware and software infrastructure. Overall, scholars’ practices combine diverse, unrelated devices such as digital cameras and smartphones for capturing document images; paper-based or digital notes to contextualize these images; spreadsheets, small databases, and folder structures to manage and integrate the images and notes; and cloud-based storage for accessing these documents from various devices, regardless of their location. Although these ad-hoc systems are functional, scholars expressed support for, and interest in, an integrated solution that seamlessly supports their scholarly information activities and scholars were able to articulate what such an integrated solution should look like (see the feature set for a mobile app in next column).

With the US National Archives calling for the development of a mobile app, a ‘Pocket Archivist’ to facilitate the research process in the archive, our research shows that such an application has merit, under certain circumstances. In particular, a mobile application would seem to be a viable tool for those scholars who, from preference or necessity, adopt an *ex situ* model of working in the archive where the work process is centered on information gathering, and where information capture and annotating are the chief order of the day.

FURTHER INFORMATION

- Ciaran B. Trace and Unmil P. Karadkar, “Information Management Practices in the Humanities: Scholarly Processes, Tools, and the Construction of Personal Collections.” Article forthcoming in the *Journal of the Association for Information Science and Technology.* Available online via Early View (March 2016).

FEATURES REQUESTED IN A MOBILE APP

Category	Feature
Archive policies and workflow	Request documents online from an archival repository
	Access archive’s copying policies and acceptable use permissions
	Get information about surroundings (food, coffee)
Scholarly processes and primitives (*Collecting – Gathering*)	Capture document images
	Compare documents
	Measure and record size of objects
Scholarly processes and primitives (*Data Pre-Processing*)	Convert among different file/image formats (for example, save as PDF)
	Save multi-page documents
	Relate documents to each other
	Perform OCR to recognize text in documents
	Analyze metadata and find patterns
Scholarly processes and primitives (*Collecting – Organizing*)	Organize documents
	Provide an overview of stored documents
	Share documents and metadata across projects
Scholarly cross- cutting primitives (*Note-taking*)	Take notes (text, audio, image)
	Annotate document images
	Automatically capture metadata
Scholarly cross- cutting primitives (*Tracking*)	Search and locate sources and notes
	Create citation metadata for documents
	Generate citations in various formats
	Keep track of viewed documents from archive
	Scan call numbers
	Demarcate significant documents
	Track cross-references between documents
	Save rights and permissions for documents
	Create to-do lists
User interface features	Customize user interface
	Autocomplete for search
	Provide visualizations of documents and data
Integration and platform support	Provide cloud support (Dropbox)
	Provide platform-specific support (iPad, Android tablet)
	Integrate with Web services
	Save notes in popular note-taking software (Evernote)

REFERENCES

- C. L. Borgman (2009). The Digital Future is Now: A Call to Action for the Humanities, *Digital Humanities Quarterly* 3 (4), 1-30.
- University of Minnesota Libraries. (2006). A Multidimensional Framework for Academic Support http://www.lib.umn.edu/about/mellon/UMN_Multidimensional_Framework_Final_Report.pdf