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The perspective of the conservator has been largely ignored in the literature on digitization projects within research libraries, despite the growing influence that these projects have on the priorities and funding of those organizations. This exploratory study attempts to identify the factors that may influence how library conservators collaborate with curators and digital production staff on special collections digitization projects. Semi-structured interviews were conducted with ten conservators from a range of research institutions to document their activities and perspectives concerning digitization and collaboration. Library organizational structures, professional relationships, and project funding are compared across several institutions to see how they may impact conservator involvement. The study found that social capital, liaison positions, standardized digitization workflows, and the physical proximity of the conservation lab to special collections influence the way that conservators are involved in digitization projects.

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"TALK TO ME IN A YEAR": THE CONSERVATOR'S PERSPECTIVE ON COLLABORATION FOR SPECIAL COLLECTIONS DIGITIZATION PROJECTS IN RESEARCH LIBRARIES.

by
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Introduction

American research libraries have experienced significant change and have faced many challenges in the past two decades. Special collections departments are no exception. As funding for cultural institutions has fluctuated with the national economy, collections of born-digital items and projects to create digital surrogates of analog materials have been proliferating in these departments. Research institutions have committed resources to new digitization projects and technologies, but their traditional responsibilities for the preservation of the collection have not disappeared. The process of creating digital objects from special collections materials involves extensive collaboration and communication between several professional groups within the library. The primary players in these projects are most often curators, conservators, and digital production staff.

The literature since the mid-1980's documents a long and sometimes tumultuous collaborative relationship between library conservators and curators in the context of conservation treatments and exhibitions (Cullison & Donaldson, 1987; Henderson, 1987; Murphy, 1994; Pilette & Harris, 1989). Both conservators and curators have contributed to this body of literature focused on the differences in education and approach of each profession. Recent articles suggest that library digitization may also complicate efforts toward collaboration (Seo & Zanish-Belcher, 2005). In the literature surrounding special collections digitization projects, attention has been paid to the process of digitization, namely handling techniques, imaging technology, and lighting that reduce the risk to collections (Dean, 2003; Sutton, 2004; Taranto, 2009). Little has been written about the

collaborative methods and motivations of the library departments working on these projects.

In the broader library context, a great deal of literature has considered collaboration among employees and departments in complex organizations (Ellero, 2009; Fox & Faver, 1982; Hart, 2000; Hrycaj & Russo, 2007; Knoke, 2009; Presser, 1980; Putnam, 1993). While several theories have been posited about relationships among social capital, personal work perspective, and collaboration, none of these has been applied to the professional relationships between conservators, curators, and digital production technicians in the special collections context.

Questions remain unanswered concerning conservators' activities and attitudes about collaborating with curators and digital production staff on special collections digitization projects. Much of the literature that does exist in this area calls for new partnerships between different library players in the development of digital projects (Dooley, 2009; Traister, 2003; Whittaker, 2006), but offers little insight as to where or how these partnerships should or do occur. Very few articles have even discussed the role of the conservator in these projects. While several authors offer their opinions on the frequency and extent to which conservators should be involved in digital projects (Dean, 2003; Paris, 2008; Seo & Zanish-Belcher, 2005), little information exists about what conservator involvement actually entails. None of the literature examines these projects from the conservator's perspective across multiple academic research institutions. To understand how changes in the special collections landscape – especially the proliferation of digital projects – may have altered the interaction between conservation and special collections departments, more research is required.

This study attempts to identify the primary factors that influence the role a conservator plays in special collections digitization projects in research libraries. The study

explores how conservators view their role in these digitization projects and asks if they see collaboration on such projects as a means to maintain or increase social capital within their organization. The study also looks at the types of collaborative relationships conservators have with curators and digital production staff. Factors such as location within the organizational structure, previous professional relationships, and funding sources for digital projects are compared across several institutions in order to see how they may shape interactions on digitization projects.

Literature Review

The literature surrounding the interaction between conservators, curators, and digital production staff working on special collections digitization projects is almost non-existent. The changing landscape of special collections serves as the background for the kind of projects under discussion and the literature in this area is more extensive.

Since the 1980's, multiple scholars have argued that special collections became marginalized from academic users by changes in scholarship (Cohen, 1984; Cordes, 2006; Oram, 1993; Ryan, 1991). Collection development became more complex as academic focus shifted from the traditional canon toward a body of texts formerly ignored and as disciplines hybridized (Cohen, 1984; Oram, 1993; Ryan, 1991). In addition, the traditional practice by special collections librarians of limiting access in the name of preservation began to meet resistance. As readers are increasingly concerned with receiving materials as expeditiously as possible, special collections librarians were forced to expand access and adopt more open attitudes (Traister, 2003).

Special collections directors and curators responded to some of these criticisms with calls for new collaboration to address problems of access, conservation, and funding within library special collections (Ryan, 1991). Traister (2000) states, "Managers of [special] collections must seek innovative ways of increasing their functionality or expect to

see these collections cease to exist" (p. 55) and recommends that the old motto of "get it, catalog it, preserve it" be replaced with "get it, catalog it, promote it" (p. 88). The literature suggests greater collaboration between special collections staff and other library employees as a means for increasing the relevance of these materials to the wider research audience (Byrd, 2001; Cordes, 2006). Allen (2006) endorses digitization of special collections as a way for academic research libraries to remain significant to scholars both within and outside the institution.

In the same context, several articles describe the increased demand placed on research institutions by digitization projects, while library budgets have not increased proportionally (Neal, 2003; Smith, 2003). Conversely, these digital projects frequently prove to be attractive funding opportunities through grants (Dooley, 2009; Jefferson & Vince-Dewerst, 2008; Traister, 2003). The literature also suggests that conservators may have a vested financial interest in these projects. Lusenet (1998) and Neal (2003) conclude that the digitization of materials is increasingly one of the only ways to get preservation funding. While Dean (2003) recognizes the funding opportunities that digitization projects afford for libraries through grants, the author warns that the cost of conservation and post-scanning housing must be accounted for in grant requests to avoid disrupting regular conservation activities (p. 137). The literature does not address the extent to which conservation treatment is or is not accounted for in grant budgets.

In academic research libraries, challenging economic conditions have fostered a greater emphasis on collaboration in special collections. Taranto (2009), writing about the New York Public Library's (NYPL) recent effort to improve cooperation between curators and digital production staff, describes previous errors in funding plans for digitization projects. In the 1990s, the digital library program at NYPL funded digital projects as if they were "fixed-cost" items that had strict beginnings and ends (p. 31). When this model was

determined to be unsustainable, the organization shifted to a "more holistic, distributed approach" in which staff from across the library collaborated on the projects over time (p. 31). The NYPL is an example of the increasing commitment of research libraries to digitization projects in their core operations and funding.

Sutton (2004) observes that while the literature has paid much attention to the process of digitization, little has been discussed about the impact on library organizational structures. Sutton (2004) claims that many institutions in the Association of Research Libraries (ARL) have reached a "point of no return" in which digitization is now a core duty of the organization and that special collections, in particular, are already required to participate (p. 235). Using the results of the 1998 ARL survey on special collections (Panitch, 2001), Sutton argues that digital production centers are a natural partner for special collections and have been made permanent parts of the organization (p. 239). This author calls for library-wide standards and overlapping strategic plans in the interaction between special collections and digital production staff, as well as other stakeholders, in order to implement digital projects (p. 242). Sutton does not, however, indicate how conservation staff are involved in these overlapping plans. While the literature suggests that collaboration within libraries is on the rise, articles also suggest that strain on the departments and employees is increased.

Hewitt and Panitch (2003) summarize the 1998 survey of ARL institutions concerning special collections and note that digitization programs based in special collections involve "complex questions of priority, standards, funding, and coordination" (p. 161). The survey suggests that special collections librarians are being asked to take on greater responsibility in the development of digital projects. The authors note that it remains unclear if staffing levels are appropriate to support these changing roles and responsibilities. Prochaska (2009) describes some of the challenges special collections face

when entering digitization projects, such as scarce resources, changing technology, library politics, and organizational boundaries. Traister (2003) points to digital collections as an increasing area for new partnerships in libraries, but states that monetary cost, time demands, and encroachment on limited physical space may also act as sources for disengagement by library parties (p. 93). In order to increase organizational effectiveness, the literature encourages greater collaboration on special collections digitization projects, but also acknowledges how disruptive these activities can be to the day-to-day work of the different departments involved.

Many of the articles focused on new models of collaboration in academic libraries do not mention conservators as stakeholders in digitization projects. Traister (2003) describes, in brief, the process for making a digital surrogate, but does not mention conservators as agents in this process. Hewitt and Panitch (2003) do not address the role of the conservator in the 1998 ARL survey, only the number of staff members devoted to the conservation treatment of special collections material. Dooley (2009) and Whittaker (2006) also call for more cooperation between special collections staff, information technology staff, and others in the library, but fail to mention conservators specifically.

Conservators and Curators

It is unclear from the literature if the professional relationship between curators and conservators working in special collections has an influence on the role that conservators play in digitization projects. The working relationship between these two professional groups has, in the past, been characterized by accounts of conflict. Literature that discusses the relationship between conservators and curators is extensive. Cullison and Donaldson (1987) acknowledge that the professional goals of both conservators and curators include the maintenance of materials for as long as possible in the best condition possible (p. 229); however, the literature describes a difference in approach to the materials

by each profession. Much of the literature suggests that conservators approach issues from the item level with a focus on preservation while curators approach issues from the collection level with more of a focus on access (Bigelow, 1990; Cullison & Donaldson, 1987; Henderson, 1987; Pilette & Harris, 1989; Seo & Zanish-Belcher, 2005).

When an item is identified for conservation treatment, conservators and curators must interact. Because treatment options range from placing an item in a protective enclosure to full conservation treatment, many issues must be considered in order to determine the type of treatment. These issues include, but are not limited to, the value of the item to the collection, the difficulty of the treatment, the level of intervention, cost, and time required (Cullison & Donaldson, 1987; Jefferson & Vince-Dewerse, 2008; Pilette & Harris, 1989). The literature acknowledges that a thorough examination of the item before treatment may not reveal all the complicating factors, and therefore, communication between conservator and curator should be ongoing (Bigelow, 1990; Pilette & Harris, 1989; Seo & Zanish-Belcher, 2005). Jefferson and Vince-Dewerst (2008) note that miscommunications arise between conservators and curators from a lack of understanding of one another's professional concerns (p. 46). Many authors conclude that conservators and curators must work in partnership and that each is responsible for educating the other about the issues and priorities that shape choices to be made (Cullison & Donaldson, 1987; Henderson, 1987; Murphy, 1994; Pilette & Harris, 1989; Seo & Zanish-Belcher, 2005).

More recent literature concerning the relationships between special collections conservators and curators describes the complications that digital projects may pose. Dean (2003) describes the process for digitizing materials, noting that an object is first identified for digitization by the curator, and then assessed by the conservator, taking into account fragility, light sensitivity, and structure (p. 134). The conservator may make recommendations on how the item should be scanned, such as the imaging equipment,

lighting used, supports, or handling (p. 135). A case study of the Iowa State University

Preservation Department's work on digitization projects notes workflow bottlenecks and

the effect of unplanned treatments on the conservation lab (Seo & Zanish-Belcher, 2005). In

this example, items for digitization projects remain in a workflow separated from existing

preservation activities, but require additional staff time and materials. These items can

dramatically change treatment priorities for the collection and may require conservation

treatment both before and after imaging, interrupting pre-existing work plans within the

conservation lab (Seo & Zanish-Belcher, 2005, p. 16). Seo and Zanish-Belcher (2005) note a

dearth of models for interaction between curators, conservators, and digital production

technicians. While this article examines the work of conservators with digitization projects

using special collections, it is only a case study of one particular institution.

Discussion of when library conservators are typically brought into digitization

projects is also absent from the literature. Traditionally conservators are involved early in

the process when exhibits are planned (Murphy, 1994) and Paris (2008) illustrates the

similarities between planning for exhibits and planning for digital projects. It is not clear

from the literature whether conservators are consulted at the same point in the process for

digital projects as they are for exhibits.

In the literature that does discuss conservator involvement on digitization projects,

authors treat the subject differently. Dean (2003) states, "It is the overall goal of the curator

and conservator to protect the artifact, minimize its physical handling, ensure that the

scanning function does not cause any damage and that the artifact is stored or treated in a

secure and stable fashion following scanning" (p. 134). The scope of Dean's article is limited

to the technical considerations of a single project. Paris (2008), however, sees broader goals

and approaches the topic of the role of conservator in digital projects from a different

perspective. Drawing parallels between selection for digitization and selection for

conservation, the author calls for new models of collaboration between curatorial, preservation, and technical staff (Paris, 2008, p. 311). Paris (2008) highlights the specific concerns that a conservator will have regarding digital conversion that are distinct from the concerns of curators or imaging technicians, and emphasizes the importance of the involvement of conservation professionals from a project's inception through digital production (p. 312). The author states that all parties must balance the costs for digital capture with costs for conservation in the context of institutional priorities, weighing potential gains through increased access against potential losses from damage to the item (Paris, 2008, p. 318). This article is distinct from other literature on the topic because it considers the decision making process from the conservator's perspective as it relates to the overall mission of the organization rather than focusing only on the needs of the individual object (Paris, 2008, p. 313).

Other literature has described collaboration between conservators and digital production staff on projects using special collections. Whittaker (2006) describes the benefits of collaboration between conservation and digital production staff, noting an example of Ohio State University taking the opportunity to digitize a rare volume when it was disbound for conservation treatment (p. 128). Dean (2003) describes the intersection between conservation and digitization, noting the two professions represent different philosophies of approach, but are increasingly working on the same projects.

In recent years, several studies have examined both the activities and subjective attitudes of conservators, but none address digital projects with special collections specifically. Starmer, McGough, and Leverette (2005) examine the methodology of special collections condition surveys, while Taylor and Stevenson (1999) suggest that conservator attitudes affect condition survey results. Baker and Dube (2010) use surveys to catalogue and compare the types of treatments used to maintain book collections in research libraries.

Pavelka and Hammeke (2006) make use of an online questionnaire and the Delphi Method, a systematic forecasting method which relies on a panel of experts, to study the attitudes of library conservators. In this study, conservators expressed fear that conservation is losing institutional consideration to digitization projects and electronic media (p. 99). Responses suggest that conservators feel that conservation treatment is underfunded and that awareness of preservation concerns is low (p. 102). Some respondents pointed to a greater need of conservator involvement in the administration of institutions, stating, "Conservators must get out of the basement and into the boardroom" (p. 103). In this study, the number of responses was low (p. 101) and may not completely represent the professional population.

Models of Collaboration

Several models exist that describe general factors related to collaboration in organizations, which could be applied to digitization projects in research libraries. Knoke (2009) and Putnam (1993) discuss the effect of social capital on collaboration. Putnam defines social capital as "features of social organizations, such as networks, norms, and trust that facilitate action and co-operation for mutual benefit" (p. 35). Knoke (2009) posits that social capital does not depend upon an individual's attitudes, but "involves actual or potential transfer of control over resources through the joint relations of two or more actors" (p. 1692). In this way, a corporate player's social capital consists of his or her potential to access the knowledge, authority, or resources of other players (Knoke, 2009, p. 1694). Coupled with the literature on funding and digitization in special collections, social capital concerns may be a growing factor in collaboration between conservators, curators, and digital production staff. At present, none of the literature has examined this relationship.

Fox and Faver (1982) define two possible types of collaboration for writing academic papers, which can be applicable in the context of special collections digitization projects. A "peer" or "collegial" alliance is comprised of one or more authors of relatively equal standing. This type of partnership is more open to the sharing of ideas, but lacks clear lines of authority (Fox & Faver, 1982). A "junior/senior" or "directing" collaboration model exists when the parties are of unequal standing in terms of seniority or organizational hierarchy. Hart (2000) examines the attitudes and behaviors of co-authors in academic library literature. The author studies the benefits of collaboration, the nature of the relationship, and the division of labor using a survey questionnaire (Hart, 2000, p. 339). Respondents indicated that collegial or peer relationships work more collaboratively than directing relationships (Hart, 2000, p. 342).

In a follow-up study, Fox and Faver (1984) also outline the advantages and costs of collaboration. The authors describe the socioemotional investment required to maintain collaborative relationships, including the time and emotional expense required to maintain interdepartmental relationships via telephone and email (p. 353).

Ellero (2009), studying librarians working with physicians and hospital administrators, suggests that collaboration between professional groups may be increased through the assistance of a liaison (p. 100). While Pilette and Harris (1989) describe examples of large institutions that have created liaison positions between curatorial and conservation staff to mitigate the time-consuming process of treatment coordination (p. 106), most articles that describe the working relationship between conservators and curators do not describe the organizational context of the relationship. Neither does the literature on the traditional interaction between curators and conservators indicate if a collegial relationship is more or less common than a directing one.

Some literature has described problematic areas in collaborative efforts between librarians and other professionals. Obstacles reported include ignorance on the part of one party about either the professional abilities of the other party (Lau, 2002) or the fact that the other party is willing to participate (Hrycaj & Russo, 2007). Byrd (2001) suggests that some special collections in ARL institutions remain isolated because curatorial staff members are not interested in collaboration. De Stefano and Walters (2007), in a repeat study, surveyed ARL institutions and determined that conservators and archivists reported feeling that collaboration is desirable, yet do not often interact. These studies introduce the concept of "social desirability bias" which may cause respondents of surveys to express interest in socially desirable activities, such as collaboration, while actually harboring negative views toward those activities (Hrycaj & Russo, 2007, p. 694; Lau, 2002, p. 53).

While there is literature that suggests certain styles of collaboration are more effective than others (Fox & Faver, 1982; Hart, 2000), there are no articles that discuss styles of collaboration between curators and conservators working in special collections. More recently, literature from the conservation perspective suggests that many conservators of special collections support greater involvement in digitization projects (Paris, 2008) and library policy (Baker, 2004; Pavelka & Hammeke, 2006), but the percentage of conservation professionals working in research libraries that hold these views remains unknown.

Method

In order to address the gaps in existing research, this exploratory study used qualitative analysis to investigate the activities and perspectives of conservators participating in special collections digitization projects in research libraries. This study attempted to gather information from conservators in research libraries of varying size. Among other variables, the study collected information on the responsibilities of the

conservator within the organization, the size of the collections, the scope of digitization projects within the institution, and perceptions about how digitization projects affect regular workflows in the conservation lab. Additionally, questions were asked concerning working relationships between conservators, curators, and digital production staff. Subjects were also asked to describe the ideal role a conservator should have in these projects.

Population and Sampling

This study focused on professional conservators working in American research libraries, in which special collections are being digitized. This is a very closely defined professional population for which eligible members of the sample are difficult to identify. Professional conservators are usually distinguished from conservation technicians by formal graduate-level training; however, some conservators may have received their training through apprenticeship. For the purposes of this study, conservators were defined by their job title. Gender, ethnicity, and race were not considered as factors for inclusion or exclusion in the study population. In the interest of clarity within this paper, however, all subjects will be referred to as "she".

While many conservators are members of the American Institute for Conservation of Historic and Artistic Works (AIC), a national professional organization, membership is not required. Additionally, conservators who are members of AIC may choose to opt-out of the membership directory. Similarly, research libraries that employ conservators are not required to publicize their job responsibilities or contact information. Large institutions may employ several conservation professionals, and some of them may not be responsible for any aspect of digitization projects.

Because of the difficulties in identifying the target population, chain referral sampling provided a means for developing the sample. Heckathorn (1997) suggests that referral sampling can make a potential subject's participation in the study more appealing.

Members of a closely connected community may be more likely to participate if their peers have already done so. Additionally, chain referral sampling has been effectively used to gather large samples very quickly (Wejnert & Heckathorn, 2008). Because of the exploratory nature of the study and the constraints on time and resources, chain referral was deemed the best possible sampling method for this population.

Several conservators who met the characteristics for the study were known to the author. These individuals were the first recruited, and, during data collection, asked to suggest other conservators who met the inclusion criteria for the study population. Suggested potential subjects were contacted through publically available email addresses or telephone numbers and asked to participate in the study. This process continued until data collection was complete.

Data Collection and Analysis

Data was collected using semi-structured interviews, a form in which topics and questions were predetermined, but the wording and order of the questions could be altered by the interviewer on-site (Wildemuth, 2009). Adaptability of interview questions was an important consideration when gathering data from conservators in research libraries. The structure and size of each cultural institution can vary greatly. Departments may interact differently – or may not interact at all. Additionally, the organizational culture of each institution can be highly variable. For these reasons, a strict interview style would not have worked well for all subjects in the study.

Before interviews began, an interview guide (Appendix B) was constructed. Throwaway questions to establish rapport between the interviewer and the subject, and probing questions to provoke the subject to elaborate on a topic (Berg, 2001) were included as needed at the time of the interview. The guide was first pretested with individuals who met the inclusion criteria, and revised before interviewing began. Interviews were

conducted in person or over the telephone. Audio of the interview was recorded with the

subject's permission.

Following the interviews, a transcript with notes was made and all identifiers were

removed. As a measure to protect the identities of study participants, the audio recording

was destroyed following transcription. This study is exploratory, and the author is not an

expert in the field that is under examination. No other research had used these methods to

study special collections conservators concerning their roles in digitization projects;

therefore creating definitions and a set coding scheme before conducting interviews could

have allowed critical concepts to go unrecorded during analysis. Therefore a coding scheme

was developed as interviews were conducted and transcribed, making analysis more

flexible. Hsieh and Shannon's (2005) method of conventional qualitative content analysis

was used to inductively code categories directly from the transcripts. This method of

analysis examines meanings, themes and patterns both manifest and latent in the text of the

interview (Wildemuth, 2009). The study established single themes that emerged as

interviews were conducted as the unit of analysis. In this way, categories and codes were

developed directly from the data. The Constant Comparative Method developed by Glaser

and Strauss (1967) was also employed in the analysis of the transcripts. As a portion of a

transcript was assigned to a category or code, it was systematically compared with each

other text already assigned that code. The advantage of this method is that it "stimulates

original insights and makes the differences between categories apparent" (Wildemuth,

2009, p. 311). This also provided a better understanding of the theoretical properties of

each category and those properties were better integrated through the development of

interpretive memos (Wildemuth, 2009). A coding manual evolved throughout the process of

data analysis, and because of this, the author completed all coding. This particular method

of data analysis does have a weakness, because multiple coders and their agreement are

important in establishing the objectivity of the coding scheme; however, the consistency of coding was rechecked after all data had been collected as a means of improving coding reliability.

Results

About the Organizations

Ten conservators working in academic research libraries across the United States were interviewed for this study. The institutions for which participating conservators work have collections of circulating and special collections materials ranging from three million to over 44 million items. For the purposes of description throughout the reporting of the study results, collections composed of less than 5 million items will be referred to as "smaller" research collections. Institutions which contain 5-9 million items are considered "medium-sized", and those with over 9 million items are described as "large" research libraries. All collections described herein contain both monographs and manuscript materials.

In the first part of the interview questions, conservators were asked about the training level of the employees working in their conservation lab and the types of materials that are treated there. Of the ten conservators interviewed, five are the only professional conservator; two subjects reported that one other professional works in her lab; and two reported that three conservators are employed. The individual from the largest research institution indicated that eight conservators are employed at her institution.

Library conservation facilities can be divided into two categories based upon the materials treated. Some institutions maintain separate facilities for the treatment of circulating versus special collections. Other institutions consolidate all collection treatments in one unit; these labs are sometimes referred to as "hybrid" labs (Baker & Dube, 2010). Seven of the ten conservators who participated in this study work in hybrid labs.

When asked about the number of curators employed at their institution, several subjects had difficulty answering because that title was not used by their libraries. In those cases, conservators were asked to give an estimate based upon their working knowledge of the organization. The number of curators employed at the libraries represented in this study range from three to 30 individuals.

Organizational structure.

One of the central questions behind this study is whether the organizational structure of a library affects the ways conservators, curators, and digital production staff interact. Conservators were asked to describe the location of conservation within the library's organizational chart and how it relates to the position of Special Collections and what will be described generally as Digital Production Services (DPS). Of the conservators interviewed, three (30%) said that Conservation, Special Collections, and DPS reported to the same division director or Associate University Librarian (AUL). Conversely, three other conservators (30%) reported that all three departments existed in separate divisions within the library. Two conservators (20%) said that Conservation and Special Collections reported to the same AUL or director, while DPS reported in a separate part of the organization. One of those subjects, from a smaller library, indicated that Conservation reports directly to a curator and that all digital imaging is contracted through vendors outside the organization. Only one institution had a completely unique organizational structure. The conservator from that library described a reporting scheme in which Conservation was a centralized department serving many small Special Collections departments, where each of those collections maintains their own digital production facility.

Two of the three (66%) conservators from institutions in which Conservation, Special Collections, and DPS report in separate divisions expressed dissatisfaction with the

level at which they are consulted in the context of special collections digitization projects. The one subject reporting from the library in which Conservation is a centralized service interacting with many Special Collections departments, also expressed more dissatisfaction than other subjects. (For further discussion of conservator satisfaction, see pg. 28). While the number of dissatisfied subjects is not statistically significant, there may be a relationship between organizational structure and conservator involvement in digitization projects.

Generation of digitization projects.

When asked to describe how digitization projects are typically generated at their institution, three conservators said they could not definitively answer the question because they are not "in-the-know" about project creation or because they are "not generally at the table when projects are initiated." Subjects typically described two types of projects: single items digitized at the request of researchers and larger projects that featured many items grouped around a single theme. Half of the subjects (5 out of 10) said that patron requests are a source of digitization projects at their institution. Eight of the conservators (80%) mentioned curators as the generators of larger library imaging projects and three (30%) indicated that those projects sometimes begin with faculty members. One conservator said that a steering committee was responsible for digitization projects, but that "exact protocols for special collections projects are in the process of being developed and tested as we speak."

Imaging Equipment

Subjects were asked questions that attempted to determine if the imaging equipment employed at their institution may be a contributing factor to their involvement in special collections digitization projects. Conservators described several types of equipment that are currently in use in their digital production centers. The most often

mentioned style of imaging equipment was flatbed scanners, although many conservators suggested that those scanners are quickly being replaced by face-up scanning equipment (e.g. Zeutschel™ book scanners). Eight subjects described camera equipment for imaging oversized materials. Seven conservators said that they are using copy stands for digitizing bound items, and five conservators indicated that automatic feed scanners are in use at their imaging facilities.

Most of the conservators interviewed (90%) perceive a relationship between the imaging equipment available and what is digitized. Conservators noted that finances play a decisive role in this relationship: "It all comes down to money", said one. Unbound objects or books that lie flat can be imaged quickly and cheaply by less-skilled staff or student assistants using face-up scanners. One subject noted, "If something can withstand the rougher handling of 180 degrees with a plate of glass on top, more stuff is going to be digitized. But the conservation staff have a big amount of input into that decision." Items that are large or three-dimensional and bindings that do not open to 180 degrees must be digitized in a copy stand or with an overhead camera. These methods of imaging sometimes require advanced lighting for good image capture, are much more time consuming, and usually have to be completed by a highly-trained staff member. "So those can be done, but they aren't done as often", concluded one conservator.

Several conservators also mentioned space requirements as a common limiting factor. Oversized objects often require more table space or room clearance for imaging than is currently available in even the best equipped digital production centers. A conservator at a very large research library pointed out that, "Those are some of the same constraints that we have in terms of treatment".

A study participant from a smaller research collection reported that her institution has adopted a policy in which vulnerable materials are set aside until the technology is available to digitize them properly.

The only conservator who did not agree that a relationship exists between imaging equipment and digitization, reported that, at her institution, each special collection had its own digital setup and would typically image items using whatever equipment they had available – regardless of how appropriate it might be to for the item. This conservator also said that she is rarely consulted on any of the library's special collections digitization projects.

Conservators were evenly split on whether a relationship exists between the equipment available for imaging the collection and how they are consulted on a project. One conservator stated that forgiving equipment or easy to image items do not require conservator input as often; unbound archival materials are relatively easy, whereas books that are being digitized with copy stands may require more frequent consultation. Copy stand imaging with a fragile or tightly bound book might also require conservators to fabricate custom cradles or straps to support the volume through the process. Additionally, the more automated the equipment, the greater the potential risk to the item. Several conservators reported more frequent consultation on scanning equipment with rapid or automated feeding mechanisms.

Two of the five conservators who do not see a relationship between the equipment and the level of consultation either indicated that they are rarely consulted for digitization projects anyway or there is a system in place in which conservator consultation is mandated. Two other subjects in that group viewed the type of equipment as less important than the expertise of the individuals operating it. One of those conservators indicated that consultation is required less with more experienced staff because "they know the

limitations of the equipment." Experienced digital production staff are more likely to have encountered problematic situations in the past and "have developed a way to handle [them] using equipment that we have."

Project Funding

Funding sources can sometimes be an important factor in the way that library projects are conducted. When asked about how digitization projects are typically funded at their institution, three subjects (30%) said that their projects are entirely run on internal library funding. Three other conservators had only a superficial awareness of funding structures – saying that they are usually not given that information – but indicated that grant-funded projects had been completed in the past.

Of the seven conservators who reported some kind of grant-funded digitization projects, only two (29%) indicated that conservation work completed in their lab was always accounted for in the grant budget as cost share. Two other conservators reported that they were only written into the grant budget occasionally. Interestingly, both conservators who are routinely included as cost share do not believe that being accounted for in the grant affects the way that they are consulted on the project. Those subjects said that the cost share element only seemed to increase the kind of record-keeping that was required. Both conservators who are only occasionally included as cost share believe that they are much more involved in digitization projects when they are written into the budget.

Conservators who have never been included in grant budgets noted that conservation components to the projects have not been anticipated by the library. One conservator said that when conservation treatment for digitization projects is required, "we've just been told that we have to absorb the cost." These unanticipated projects have sometimes had a negative effect on the conservation department's ability to budget for materials later in the fiscal year.

Professional Relationships

This study also asked if social capital plays a role in the way that conservators, curators, and digital production staff interact on library digitization projects. Putnam (1993) suggests that social networks, trust, and organizational culture are the defining factors that facilitate cooperative action. One conservator noted that because most libraries are still establishing their workflows, figuring out capacity, and project management is still relatively fluid, "personal relationships play a huge role in the extent to which [conservators] are involved, consulted, and considered." Another subject said, "I think a lot of library work is based upon personal relationships and how effectively you negotiate those. It's the same with digitization." During the interview process, conservators were asked to describe their professional relationships with both digital production staff and special collections curators.

Digital production services.

Of the ten participants in this study, two never interact with the digital production staff at their institution. One of those conservators is employed at a smaller library that contracts all imaging to private vendors; the other comes from an extremely large and complex research institution and communication with DPS is outside of her duties. Of the remaining eight subjects, all reported positive relationships with the digital production staff, although three of those conservators (37%) noted that their professional contact is limited or inconsistent.

Only two subjects (25%) mentioned any conflict between conservation and DPS. One conservator from a medium-sized library described tensions that sometimes arise between conservators and digital production staff over the cleanliness of the imaging work area. The other conservator, who works in a large research institution, is rarely consulted on special collections digitization projects, but when she is consulted, communication with digital production staff is often unproductive because they seem to view conservators as

obstacles to digitization projects, even though there is no history of that in the organization. The conservator sensed digital production staff had reservations about openly communicating with conservators for fear of being "shutdown or impeded."

Curators.

In general, conservators spoke very positively about their relationships with curators. None of the subjects described their experiences as having the animosity or conflict depicted in the literature from decades past (Cullison & Donaldson, 1987; Henderson, 1987; Pilette & Harris, 1989). Five conservators noted that it was difficult to generalize about such a large number of people; "we work differently with all of them", one said. Two conservators noted that they interact with some curators more than others, but attributed that to characteristics of the collection for which the individual was responsible and to institutional priorities.

While some conservators initially reported their relationships with curators were positive, a more nuanced view emerged in their answers to related questions. A conservator at a large institution who is rarely consulted on digitization projects said that some individual relationships were deceiving, in that "we look like we are collaborating, but we are not." That conservator reflected that some curators were reluctant to involve conservation in projects because they believed that conservators would try to treat every item and that the additional time would cause the project to continue past the deadline. "I still hear a lot of 'I'll never get it back, I'll never see it again.'", she said.

Differences in approach.

When asked if there was a difference in approach to selection of materials for digitization between conservation and the curatorial staff, half of the subjects (5 out of 10) stated that there is usually no difference. One conservator surmised that the decisions were often the same because their goals are aligned: to "help the collection and get collections into the hands of [users]."

One subject who works in a very large research library (44 million items), said that they have no part in the selection of the items; if a curator requests that an item be digitized, the conservator is willing to figure out the best way to do it. The other subject, who works with a medium-sized collection (8 million items), indicated that often they were less worried about the safety of an item during digitization than the curator, because they maintain a very close, trusting work relationship with the digital production staff.

Two conservators from medium-sized collections (7-8 million items) saw themselves as more restrictive as a means to ensure the preservation of the collection. One of those subjects believed that she was sometimes inadvertently forced into being restrictive because all of her time was already committed to grant-funded digitization projects and that other collections which would need treatment to be safely scanned could not receive any additional attention. The other subject said, "Well it's kind of my job to be restrictive." She went on to state that departments in the library wanted to digitize objects as cheaply as possible and that it is the conservator's responsibility to ensure that the equipment and workflow fit the condition of the object.

Finally, the one conservator who is rarely consulted on digitization projects said that curators were very open to digitization, but that they viewed conservators as restrictive. She went on to say her real concern was that she did not know how or why items were being digitized. The conservator felt that regular communication about digitization would benefit other areas in the professional relationship; that those discussions could answer many questions about priority, value, and use that would be beneficial to other library projects.

Fox and Faver (1982) discuss two models of collaborative relationships that can be applied to the ways that conservators and curators interact on digitization projects. While most subjects (80%) described their working relationships with curators as aligned with

the "collegial" or "peer" model, two conservators indicated "directing" relationships from the curatorial staff. One of those subjects does not report in the same division as special collections, but said that individual curators take a more directive tone in their interactions. This conservator sometimes feels like she receives "a conservation order like I'm a take-out window," as opposed to actually collaborating. The other conservator reports directly to a curator. It is unclear if the relationships between most conservators and curators have shifted from "directing" to "collegial" interactions over the past twenty years, however, the equal footing that these parties tend to currently maintain appears to contribute to their positive working relationship.

Seven of the ten conservators interviewed agreed that the relationships they've developed with curatorial staff over time have positively affected their involvement with special collections digitization projects. Two conservators said that trust plays a big part in the development of the relationship between conservators and curators, and that it takes time to establish. The conservators who did not believe time was a factor in their involvement attributed other factors – such as liaison positions – to the success of the relationship.

Conservator Consultation

As part of the interview, conservators were asked several questions about the ways in which they are consulted on library projects that use special collections materials. Subjects were first asked if they worked on special collections exhibits within the library. The literature on interactions between conservators and curators suggests that library conservators have a long history of consultation with special collections curatorial staff about items before they go on exhibit (Murphy, 1994; Pilette & Harris, 1989). Paris (2008) discusses the similarities between planning for digitization projects and planning for exhibits. The question of conservator involvement with exhibits was included in this study

to provide a baseline level of conservator consultation, and a majority (90%) of the conservators interviewed said that they were involved with special collections exhibits. The remaining subject, who comes from a very large organization, reported that while not personally consulted on exhibits, a full-time conservator was devoted specifically to the task at her institution.

Conservators were then asked if they are consulted on special collections digitization projects. Again, a majority (90%) reported that they are; however, two of those conservators (22%) said that they are only consulted on a small percentage of the library's digitization projects. Both of those conservators come from institutions with larger collections (9-11 million items) in which Conservation, Special Collections, and DPS report to separate divisions. One of the participating conservators reported that she is "rarely, if ever" consulted.

As a comparison, conservators were asked if they were consulted as often for digitization projects as for exhibits. Of the nine conservators who are consulted on both types of projects, four (44%) agreed that their level of consultation was equal. One of those conservators attributed her level of consultation to two liaison positions shared between the Conservation and DPS departments. Another conservator who reported equal levels of consultation thought that the "very protocol, procedure-heavy environment" in which she worked was responsible. For more discussion on liaisons and standardized digitization workflows see pages 31 and 32, respectively.

Of the remaining conservators, four (44%) said they were not consulted as often for digitization projects as exhibits. One of those conservators said that conservation is less involved because her institution is mostly scanning unbound, flat objects, which did not have as many imaging or special handling needs as bound materials. Another conservator thought that she was not involved as consistently with digitization projects because of the

number of items involved, saying "with exhibits, it's pretty easy to tell if an item needs to be stabilized... whereas digitization tends to be a much larger scale process."

One of the conservators interviewed could not say if she was consulted for digitization projects as often as exhibits, because of the differences in the points of initial contact. That conservator reported that, in any case, they were consulted much later in the project for digitization than in exhibits.

Initial point of contact.

Murphy (1994) describes the advantages of early consultation with conservators for exhibits preparation, but the existing literature does not address when consultation first occurs in library digitization projects. During the interview, conservators were asked to describe the points in a digital projects conception and workflow that they were usually contacted. Three conservators (30%) stated that the points of contact varied considerably from project to project. Other responses can be grouped into two categories: contact either occurred at the projects planning stage, or after imaging had begun and there were problems with handling. Of the three conservators (30%) who reported consultation in the planning stage, one subject at a medium-sized institution (6 million volumes) said, "We have asked curators and [DPS] to contact us as early as possible in the process to help them plan." Another conservator at a similarly-sized library said that while they, as conservator, might be brought into the project late, someone from the Preservation department is always at the table when digitization projects are proposed. Only one subject reported that the points of contact were early and consistent; in that conservator's institution, a standard digital project workflow has been established in which the conservator must sign a document in order for the project to move forward.

Satisfaction with current consultation levels

Having described the type and timing of contact, conservators were also asked if they were satisfied with the resulting level of consultation on digitization projects. Three of

the ten conservators interviewed were not satisfied, and of the remaining conservators, more than half (57%) would ideally like to be involved more often, but recognize that there are too few conservators at their institution to take on the additional workload. No significant correlation was established between the point at which conservators were initially contacted and their satisfaction with the level of collaboration.

One subject said that a limiting factor of her involvement is capacity. "With one of me and 9 million items in the library, it's hard to gauge how much more I could be involved in the way things stand." Similarly, others reported believing that they could not fit any additional meetings into their schedule, but that other library positions, such as part-time conservators or preservation administrators, are there to coordinate with curators and digital production staff while keeping the conservator up-to-date. Another subject stated that she is currently satisfied with the level of consultation, but expects the rate of digital imaging to "increase dramatically" in the next few years and that her view might quickly change.

One conservator indicated dissatisfaction, not with the level of consultation, but with the deadlines imposed upon her by digitization projects. As she put it, "I don't think it's an easy thing to work out because conservation is really slow and digitization is really fast. I think that often the timing does not work well - but I don't think it's that we aren't being talked to."

When conservators were asked about the aspects of their organization to which they attributed their involvement or non-involvement in special collections digitization projects, most mentioned professional relationships as a primary factor. Similarly, another conservator at a smaller institution (3 million items) attributed the amount of input she had on digitization projects to a division head who was very concerned about preservation. Other conservators reported that having a professional position serving as a liaison was an

important factor in their level of involvement. Finally, one conservator discussed the implementation by library administrators of a new management schema focused on accountability, which requires conservators to be involved in every digitization project.

Other Factors within Organizations

Shifting organizational structures.

Throughout the interviews, it became apparent that organizational structures and workflows for library digitization projects are still developing. Three subjects (30%) had difficulty immediately answering questions about organizational relationships among conservation, special collections, and DPS, stating that their libraries had undergone reorganization so recently that they were uncertain about one of the departments' exact place within the new structure. Those conservators had particular difficulty in describing the location of DPS; one conservator paused in her explanation, saying "I'm only wavering because things change everyday around here." Another subject qualified their response by saying, "because org charts are always changing, I'm not really sure."

Subjects expressed both positive and negative reactions to these organizational changes. A conservator at a very large research collection summed up the frustration of shifting organizational structures in the face of complex projects when she said, "I don't know if I'm the best person to talk to because I don't really know how my institution works. We don't really know – it's all changing." However, some conservators described organizational changes with more positive perspectives. One subject acknowledged that "there are all kinds of institutional changes, reporting changes, and communications changes that have improved over the years." Two conservators from institutions with several special collection units reported that they had recently or would soon be administratively consolidated. One of those conservators, noting that some curators are

"more assertive about seeking my help" than others, thought the future consolidation would prove to be beneficial by "evening out the playing field and making communication easier."

Liaison positions.

The literature that discusses collaboration among library professionals notes the important role that employee liaisons can play (Ellero, 2009), and in the past extremely large institutions have created this type of position between curatorial and conservation staff (Pilette & Harris, 1989). In this study, two conservators from medium-sized institutions (6 million items) described newly created liaison positions that contribute to their involvement with special collections digitization projects. One conservator described a Digital Collections Coordinator, reporting outside of both the Preservation and DPS departments, who is responsible for organizing digital projects between all the entities that that are involved in their creation. That subject attributed her good working relationship with the coordinator for how early the conservator is usually brought into the project so that pre and post-scanning treatment can be scheduled. This conservator also credited the creation of that mediating position with the dramatic increase in time that conservation now has between when they are notified of the project and when the treatment has to be finished. "Before that position was created", the conservator says, "it was like the Wild West. People would just show up and say, 'We're digitizing this, can you fix it now?'"

Another conservator discussed a Digital Content Manager position that equally splits the work-week between the Conservation department and DPS. The subject reported that it has been advantageous to have a technical position in their department, and that communication has improved because the Digital Content Manager "keeps us in the loop" and represents the Conservation perspective at DPS meetings. That same conservator also described a Preservation Archivist position that has recently been developed to handle primarily "digitization issues, metadata, and the preservation of born-digital media", but

also to serve as a liaison between departments involved in any kind of digitization effort. While that conservator felt very positive about these mediating positions, they also recognized that the model was very new, ending the interview with the statement, "Talk to me in a year and see what I say."

Standardizing digitization workflows.

Literature written in the past decade has called for more standardized interaction between library players on special collections digitization projects (Sutton, 2004), and several conservators in this study noted recent institutional movements toward more standard digitization workflows. One conservator who is not consulted often on digitization projects indicated that they saw a growing need for "basic guidelines or protocols from the conservation perspective." A conservator at a medium-sized research library described standard organizational practices for proposing, approving, and implementing digitization projects. In this model, proposed projects are considered by a steering committee composed of librarians and curators from different departments. When the project is approved, it is given to a Digital Collections Coordinator, who organizes the other departments (including Conservation and DPS) that will work on the project. That conservator reported being consulted "pretty early" in the project workflow and did not attribute other factors, such as funding, as having an effect on conservation's involvement.

Another conservator, working in an institution that contracted all digital imaging out to private vendors, described a system that has been in place formally for several years in which they are "written into the workflow" and guaranteed to be consulted on every project. The conservator is required to review all items both before and after scanning and to document that review process on a form. According to the subject, this formal process "creates a paper trail" and fosters communication between conservators and curators. The conservator acknowledged not having "make-or-break authority" for special collections

digitization projects, but has confidence that her recommendations are taken into account in every case. According to this conservator, before the system was implemented, small digitization projects were sometimes completed without her input.

Conservators working in institutions without standardized digitization workflows, but who are satisfied with their level of involvement in those projects noted that an organizational history of cooperation between the different departments has contributed to their involvement. A conservator from a small collection (3 million items) said, "because we've worked together for so long, they probably don't feel reluctant to contact or involve me." Conservators stated that having a good relationship with the curatorial staff means that they are more likely to be involved in projects and that communication built through interaction outside digitization has improved their working relationships on imaging projects. One conservator stated, "I have worked really hard to explain my thinking to people over and over again, [allowing] them to anticipate me and me to anticipate them." In these cases, trusting and informed work relationships have compensated for unwritten or unstructured digitization workflow agreements.

Physical proximity.

One factor that was not originally considered in the design of this study but was frequently discussed by the conservators who were interviewed is the physical proximity of the conservation facilities to other departments in the library. Two conservators responsible for large collections reported that the conservation lab shared a building with DPS apart from the main library and the offices of the curators. Two other subjects from medium-sized libraries indicated that the conservation lab was separate from both DPS and curatorial staff. Interestingly, all four subjects reported that they were not consulted as often on digitization projects as exhibits, and three of them indicated that they were consulted late in the digitization process.

All of those conservators thought that the physical distance between the lab and curatorial staff affected how often they were consulted on digitization projects, echoing some of the hidden costs of collaboration described in the literature (Fox & Faver, 1984). Subjects expressed frustration at the physical separation; one conservator said that they often wished the lab was closer so that when questions about the work came up they could "just bring [the item] over there and show it to them really quickly."One conservator said, "People are just reluctant to ask me to come over sometimes." Another subject described that reluctance as "human nature", reasoning that the time it took the conservator to travel between buildings or the effort to coordinate meetings was perceived by library staff as too costly. "So you have a conversation over the phone, which is never quite as good, or you email or put it off," the subject added. Another conservator thought that communication with curators would be improved if they casually encountered each other more often as they moved around the building.

One conservator who is physically separated from both the main library and DPS reported that, in an effort to bridge communication gaps, library administrators had set up regular meetings between conservation and digital production staff. While that conservator had not yet seen any results from this newly implemented effort, she felt positive about the possibilities of improved communication.

Subjects employed at institutions in which the conservation lab is in close proximity to the area where digital imaging takes place were quick to point out the benefits. Conservators said that being located next to DPS is "extremely useful" and helped to establish a "very close working relationship" because digital production staff can easily bring items over for consultation when they encounter problems. One conservator noted that this practice resulted in greater collaboration, saying, "We'll look at the issue and go through it together and figure out a plan of action." While the relationship between a

library's official organizational structure and the way that conservators are consulted on digitization projects is not so clear, it would be safe to say that the physical distance between conservators and other library departments does affect their collaboration on these projects.

Interdepartmental Collaboration

Effects on conservation lab workflows.

Most conservators (80%) agreed that digitization projects have a significant effect on the regular treatment workflows of a lab. A conservator working in a medium-sized institution (6 million items) mentioned that the growing volume of digitization projects has increased the amount of time that conservators and student assistants must devote to items for those projects. Conservators at larger institutions (over 9 million items) said that, at times, temporary staff positions are created to focus entirely upon one imaging project; however, those conservators or technicians require both lab space and supervision to perform their work. Other effects mentioned include work time devoted to pre-scanning condition surveys and administrative tasks such as item tracking. Some conservators see the glass as half-full and look upon these effects as opportunities to train non-professional staff and to increase lab statistics.

Conservators noted that grant-funded digitization projects often dictate a lot of activities in the lab because they are so tightly deadline-driven. In two institutions with several distinct special collections, conservators described longstanding "hour bank" systems, in which each collection is assigned a certain number of treatment hours every month. These systems were established to ensure that each collection receives equal attention. One of those subjects reported that a common problem with grant-funded digitization projects is that they alter those hour banks, even with "a fair amount of discretionary time" built in. That conservator also said:

> Even if up front I say in a very determined fashion, 'We can only give you 250 hours on this project' - if you are starting to approach 245 hours and they need another 100 hours out of you in order to finish the grant on time, they're just going to [get them anyway].

As a result, curators from other collections feel like they have to compete for lab time and other preservation efforts may also be sidelined. Those conservators reported that the effect is not yet "consistent or overwhelming", but that they are "keeping an eye on it, for sure."

Of the two conservators who do not see digitization projects affecting the workflows or other operations of their lab, both stated that the amount of work they receive from the digitization projects is very low. One of those subjects works for an institution that is digitizing mostly unbound items; the other is rarely consulted on digitization projects and acknowledged that the low level of work could be attributed to poor communication between different departments within the library.

Lead time.

In the reporting of this study's results the amount of time that conservators are given between notification of an upcoming digitization project that requires conservation treatment and the point at which that treatment has to be integrated into the lab workflows is referred to as "lead time."

Conservator opinions concerning lead time were mixed. Only one conservator, who is employed at a smaller institution (3 million items), reported that they definitely had enough lead time for digitization projects. Three subjects (30%) reported that they never receive enough lead time and one of those conservators attributed her view to the inherent differences in speed between conservation and digitization. Another subject said that it had to do with planning: "We never have enough time unless the collection to be scanned is really thought out beforehand", she said.

All remaining conservators (60%) indicated that they generally have enough lead time, but that cases which must be rushed do arise. Half of those subjects indicated that the lead time for digitization projects usually exceeded that of exhibits, but that the volume of material was much higher. Three conservators from medium-sized libraries (6-8 million items) noted that there are times in which projects temporarily overtake lab operations and the entire conservation staff has to devote all their efforts to a project on short notice. Subjects echoed the literature (Seo & Zanish-Belcher, 2005) when they said that those unplanned projects can greatly affect other treatments in the lab's queue. One subject reported learning to build in "very significant discretionary time into my hourly budget or my annual budget of time because I know these last minute things are going to come up and I know there are going to be a really significant number of them." Another subject, however, indicated that those cases have the added benefit of prompting meetings with curators and digital production staff serving as examples of why there is a need to develop more standard protocols for contact and collaboration.

Type and level of collaboration.

When asked how the type and level of collaboration with other library departments affected lab operations, four conservators responded with brief positive statements, such as "We work well together." Two of those subjects indicated that collaboration was absolutely necessary, because as one said, "There is not one department that is charged with getting digital projects together." Three of those four subjects also reported being satisfied with their level of consultation on digitization projects.

Study participants working at institutions with standardized digitization workflows or a liaison position, such as a digital projects coordinator, attributed the high level and quality of collaboration to these resources.

Four other conservators indicated that collaboration was positive, in general, but also included more negative views with their answer. One conservator from a medium-sized institution (6 million items) indicated that collaborating with other departments takes time away from conservation treatment and added to their workload. Another conservator from a similarly-sized institution noted that certain departments are easier to collaborate with than others, saying that efficient or easy communication depended upon the internal organization of that department.

A subject from a larger library (11 million items) noted that individual meetings or interactions could be frustrating at times, but that ultimately the effort put into collaboration benefited all library departments. For example, one subject from a large research collection (10 million items) described projects with cataloguing staff to improve item tracking in digitization workflows. Another conservator at a similarly-sized institution indicated that a "growing kind of constant communication" with curators and DPS has reduced the number of "emergency walk-in" treatments. The result is also an improved view of Conservation, because library employees have a better understanding of treatment queues and "know what to expect."

Subjective views of collaboration.

The literature that has made use of surveys to study collaboration in libraries discusses a "social desirability bias" that might interfere with accurate reporting by subjects on their personal views about collaboration (De Stefano & Walters, 2007; Hrycaj & Russo, 2007). Semi-structured interviews and the promise of anonymity were expected to provide subjects with more assurance and allow them to better express their opinion about collaboration within their work environment. All ten subjects initially reported having positive feelings about collaboration in this context, although some conservators felt the need to further convince the interviewer. "I'm not lying when I say that," said one. From the

responses, one must conclude that the methods used in this study were not entirely successful in circumventing a "social desirability bias."

Several subjects indicated that their positive feelings about collaboration were tied to the usefulness of their skills and their contribution to the library overall, suggesting that perceived social capital also plays a role in these interactions. Of collaboration on digitization projects, one conservator expressed interest and excitement that conservation can be relevant to developing library projects. Other conservators reported feeling positive about the act of collaboration because they felt that it had a large impact, and that it was part of their job to serve the collections and the patrons. One conservator said, "I'm pleased to see the library moving forward. I thoroughly approve of what they are all trying to accomplish in everyone's different part of the puzzle."

At times, however, four conservators expressed some less favorable views about their experience collaborating. Two subjects felt frustration at times when projects involved so many different parties and were difficult to move forward. "There are a lot of cooks in the kitchen," one said. Two other subjects did not feel positively about having to insert themselves into projects to which they were not invited. One reported that they did not like the feeling of awkwardness; the other said "I don't always have that positive, warm and fuzzy feeling about individual interactions as we try to sort out who does what and who gets to be involved."

Narrowly Defined View of Conservation

In their discussion of relationships with DPS and curators, library conservators described some of the same obstacles to collaborative relationships that are highlighted in recent literature. Lau (2002) describes ignorance of professional abilities as an impediment to collaboration, and four conservators at larger research collections (more than 9 million volumes) described their personal battles against a limited perception of the abilities and

strengths of their department. One conservator thought that it was a matter of "educating people about what it is we can provide them – not just in terms of physical treatments." Another subject said that they hoped collaboration on different kinds of library projects would lay the foundation for other employees to think of conservators as useful outside of item repair. A conservator pointed out that the head of her department had made it a goal in the past several years to "re-invent who we are in the minds of other people throughout the library." She also indicated that they were trying to market their expertise and knowledge more actively than item treatment.

One subject thought that if more library staff were aware of the full range of a conservator's skills and knowledge that they would be better able to make use of them. One conservator who had not worked very long at her institution found it extremely difficult to juggle improving outreach and awareness among library employees, while trying to determine the different avenues by which digitization projects develop, and making sure that she would be consulted on them. A subject from a larger library (11 million items) noted that collaborative projects offered an opportunity for conservators to advertise their full range of skills, saying:

> I see over and over again the great need for just having dialogue with people about what we do and what we are able to do for them, what we can't do, and the time it takes us to do anything. It's just helpful for us to understand each other's position better.

Several conservators said that curators and digital production staff did not often recognize the connection between conservation and other library activities that could potentially harm collections (e.g. transporting materials) or think of conservators as professionals with project management experience.

Other literature describes ignorance on the part of one party that the other is willing to participate (Hrycaj & Russo, 2007). One conservator who is not currently satisfied with their level of consultation on digitization projects also said, "Too many assumptions are

made about what we are and aren't interested in or what kind of influence we might exert on a process."

Inherent Differences in Speed

Over the course of the study, several conservators expressed frustration about the difficulties that arise from the inherent differences in pace between conservation and digitization: imaging can be accomplished very quickly compared to conservation treatment. Conservators reported that they are aware of the "conservation bottleneck" and that it adds a lot of pressure to their duties. For example, a conservator at a medium-sized institution described a recent book imaging project in which items had to be disbound to allow complete scanning of the text, then rebound afterward. "So you'd be looking at an 8-10 hour treatment for one book that would take 45 minutes to digitize," she concluded. Of that treatment time, another conservator said, "and that doesn't include transferring it from here to there, looking at it, talking to curators – things are much more straightforward with digitization."

As in the literature on conservation treatment (Bigelow, 1990; Pilette & Harris, 1989), subjects acknowledged that special collections conservation is often not a direct process. A conservator with experience working solely on digitization projects said:

> If there is anything about conservation treatment that we know, it's that when you get into something and you have it open on the table, all kinds of things are different from what you proposed. You just have to build that time in.

A conservator at a very large institution reported that current staffing levels contributed to the problem, saying "there are more people doing imaging than there are in the entire conservation division." Conservators also described the added stress of grant-funded projects with strict deadlines and how they can conflict with the long-term preservation interests of the item. One conservator noted that the rush to complete projects can expose items in the collection to greater risk as materials are transported or re-imaging is required.

Another conservator from a large research library (11 million items), who is not satisfied with the level of conservation consultation on digitization projects, said that they often heard frustration from the curators about the time required to complete conservation treatments. That perception created an extra level of stress that the subject said made her want to focus on treatment even more, rather than working to increase participation on digitization projects. Statements like this could indicate that the expectations of conservators held by other library players may negatively affect collaborative efforts.

Increasing Quantity of Digitization Projects

Six subjects, mostly from medium-sized institutions (6-8 million items), echoed the literature (Prochaska, 2009) with concerns about scarce resources and expressed a frustration from the growing quantity of digitization projects in their institution. Some even felt overwhelmed by the additional workload. As one subject said:

> I don't think that digitization has hijacked our entire program. Exhibitions threaten to do that, although they haven't quite gotten everything. Between the two of them? Yes we do occasionally do something that is neither preparation for digitization nor preparation for exhibition… but only occasionally.

One conservator said that working on digitization projects did take time away from other complex treatments, but felt that the scanning projects were an institutional priority for a reason. Nonetheless, she also added that if the workflow was not carefully managed, that those projects could easily take over all lab operations.

These conservators felt they were being outpaced by digitization. One subject from a medium-sized institution felt that digitization projects were "swamping" their lab because they had no funding to hire additional staff and were sometimes "strong-armed" by grant time schedules. One study participant who is the sole professional conservator at her institution agreed that capacity was the issue and reported that since she was already working on so many digitization projects, it was difficult to assess how much more she could actually be involved. She felt that at larger institutions with multiple conservators to

distribute the workload or a single conservator devoted specifically to managing digitization workflows had an easier time in that regard.

Conservators at larger institutions with several professional conservators on staff, however, did not seem any less concerned about the increasing volume of digitization projects. One subject indicated that increasingly, library funding is being earmarked for digital production, despite the increased demand for conservation and said, "I really worry sometimes that we won't have the resources or people or supplies that we'll need to answer that increase in production." Another conservator reported that DPS at their institution was slated to move to larger facilities and expand production, saying "Digitization is really turning into what drives us." They felt that imaging projects were ultimately changing their collection care strategy.

One subject thought that digitization projects gave a false impression of presenting an opportunity for comprehensive physical treatment, saying that in very large collections "this is the only chance this item is going to have in a lab for generations, but you can't [perform the treatment] because of timing and low staff." Another conservator from a medium-sized research library thought that the timing of special collections digitization projects imposed too great a demand upon conservators.

How Conservators View Their Role

All subjects interviewed agreed that conservators should have a role in special collections digitization projects and that active involvement is important. Four conservators (40%) said that they view themselves as the caretakers of the physical objects in the collection, and that they should be consulted on all projects that involve the transport and manipulation of library materials to ensure that they can be retained into the future. One conservator said, "The role is to be the voice of your collections, because they have no physical voice." A subject from a medium-sized institution thought that her department

could not fulfill its duty to the collection without successful collaboration on digitization projects; reasoning that close inter-departmental working relationships could mitigate a lot of the potential damage that the imaging process can cause to materials. Another conservator also noted that it was important to keep digitization projects in perspective, saying, "I think it really impacts our ability to advocate responsibly for the collections if we are responding only to [digitization projects]."

When conservators were asked what they thought their role in special collections digitization projects entailed, many first mentioned treatment as an obvious aspect of that role; however, one conservator felt that other library staff perceived that as Conservation's only agenda. That conservator pointed out that treatment was only part of the conservator's role and that: "we certainly don't want to treat anything that we don't have to."

Like the limited literature on conservator involvement in digitization projects (Paris, 2008), all the subjects said that Conservation should be at the discussion table from the very beginning. One conservator said that it was important to be involved "as a partner in the process of designing how these projects are carried out." Another study participant reasoned, "Conservation should be aware [of what] is coming downstream," so that digitization projects do not derail other collection maintenance activities. Three conservators thought that they should be involved as an advisor, not as a sole decision maker, with one of them saying that she wanted to "be able to make the call about what is and isn't a conservation issue" early in the process. One study participant who is regularly written into grant applications said that conservators can be extremely helpful when it comes to estimating the timeline for a grant-funded project.

Four subjects (40%) thought that a conservator's role entailed determining the imaging equipment that should be used. Two of those conservators, speaking from personal

experience, said that conservators should be involved in the design and setup of imaging workstations.

Five conservators (50%) included physical assessment of items in order to make sure that they could be safely imaged. In some cases, items are considered for digitization because they are extremely fragile, brittle, or are difficult to handle. One conservator said, "With our understanding of materials and structures and the preservation issues of those items, at least we know where the pitfalls are for potential damage." One subject said that conservators are often capable of fabricating custom cradles or supports for objects in order to reduce the risk of damage during image capture. Additionally, conservators noted that they can train digital production staff in item handling, as well as to recognize problems as they occur during imaging.

Conservators also indicated an interest in post-scanning decision making. Three of the ten conservators stated that digitization provides an opportunity to discuss the storage and housing of items with the curators. Often, items need to be re-housed or treated before going back to the stacks. Two conservators thought that, if necessary, it is important to stabilize items after scanning, because of a belief that digitization can increase patron requests to use the physical object.

Discussion

Study Limitations

While the best possible methods were employed to complete this study within the imposed timeline, it is important to outline their inherent limitations. The first concerns the method used to recruit study participants. Non-probability sampling does not guarantee that the resulting sample will be representative of the population, and chain referral sampling is not exempt from that shortcoming (Wildemuth, 2009). For example, the conservators who initially agreed to participate may have only referred other conservators

with the same perspectives and views on digitization projects. However, because the study at hand focused on a hidden population, it may be impossible to ascertain the validity of the resulting sample.

Another limitation of this study's method is that the interview questions used have not been evaluated by previous studies. Additionally, because the interviews were conducted in a semi-structured form, the interviewer was forced to reword or elaborate on certain questions in order for the subject to understand them. This could have potentially affected the subject's response. The effectiveness of the questions or the way in which they were delivered, however, is impossible to determine.

This study was originally designed to continue interviewing conservators until "data saturation" was obtained; Guest, Bunce, and Johnson (2006) define data saturation as "the point in data collection and analysis when new information produces little or no change to the codebook" (p. 65). The authors suggest that data saturation will occur within twelve interviews. This study, however, only collected data from ten subjects. While additional potential subjects were recruited, the extremely short period in which this study had to be conducted limited the final sample size. While data saturation was achieved in certain parts of the study, every interview did in some way evolve the codebook.

Future Research

More research about the ways conservators are involved in special collections digitization projects in research libraries will be needed. Because the way that these projects are developed and conducted is, at present, rapidly changing, some of the contributing factors identified by this study may become irrelevant or be replaced by new factors in the near future. The way that digitization projects are funded in relation to other library operations should be examined as the number of those projects increases. More quantitative study about the volume of material that conservation labs are treating for these

projects must be done in order to have a better view of how the role of conservator is changing. Future research should also examine the types of treatments that conservators perform on items slated for digitization to determine if those are changing with the increased volume as well.

Conclusion

This study attempts to build upon the literature that focuses on special collections digitization projects by investigating the activities and perspectives of conservators from a wide range of American research libraries. The information presented herein may be useful to conservators, curators, and digital production staff attempting to develop or improve collaborative digitization projects and may also provide insight into collaboration on other complex library projects. Conservator involvement in special collections digitization is a multifaceted issue, and though this study did not definitively answer all the questions that it set out to, it did identify some important components of the topic.

This study did not find evidence to suggest that the kinds of professional conflicts between library conservators and curators described in the literature from the 1980's still occur or have an impact on special collections digitization projects. This study can safely lay to rest any stereotypes that conservators are generally opposed to library digitization efforts. While it may appear from the results that conservators have many criticisms about their involvement, in reality, few of the subjects had anything but positive views of the digitization projects on which they had worked. It is also important to point out that conservators who are dissatisfied with their level of involvement often had much more to say about the matter than conservators who are satisfied with their level of consultation.

During the design of this study, the author anticipated that the formal reporting scheme imposed by the organizational structure would greatly affect the way conservators interact with curators and digital production staff on special collections digitization efforts.

Surprisingly, the data does not clearly indicate such a relationship. It does, however, appear that some organizational structures are more conducive to collaboration than others. Institutions in which conservators, curators, and digital production staff report in separate divisions are described with more frustration by conservators than organizations in which the different departments are more closely linked administratively.

Several factors emerged over the course of this research, which were not anticipated by the interview questions, but describe possible negative influences upon the collaborative efforts discussed. Conservators recognize the differences in speed between conservation and digitization, which are inherent to the nature of the work, and they point to the additional stress imposed upon them by expectations from other library staff or grant deadlines as having a negative impact on collaboration. The data also suggests that the physical proximity of the conservation lab to other facilities affects the way that conservators are involved in digitization projects. The additional costs perceived by library staff (e.g. time spent traveling between buildings) may negatively impact collaboration between conservators and other departments by shifting communication to other mediums, such as telephone or email. The quality of information transmitted via these methods may not successfully convey the concerns of the parties involved in such detailed library projects.

Most conservators attributed their level of involvement to professional relationships and their organizational culture. Conservators who have developed trusting work relationships with consistent communication over time reported increased participation in special collections digitization projects. If social networks, trust and organizational culture impact how conservators work on these projects, then this study can safely conclude that social capital does play a role. The data also suggests that conservators look at digital projects as an opportunity to improve social capital within their organization.

Every subject who participated in this study expressed the desire to make the complex skill set that they have developed over their career available to other library players. Subjects also view each project that they collaborate on as improving their chances of being asked to collaborate in the future. Conservators are enthusiastic about being involved in digitization and view these projects as a means to move the library forward.

That said, the collaborative relationships between conservators, curators, and digital production staff are not all as productive as they could be. Library conservators repeat that the differences in skills and knowledge between professional conservators and technicians are not always so clear to other library staff, and some conservators must still actively market the ways that they can contribute to library projects to their colleagues. The difficulty of these outreach efforts is increased in larger institutions.

The results of this study suggest that, generally, library conservators are not consulted as often or as early in the process for digitization projects as for special collections exhibits. Lead time is an important factor in how digitization projects affect conservation workflows, and the impact of those projects with especially short or firm deadlines can be even more pronounced. Greater lead times can reduce the disruptive effects of digitization projects on other preservation activities. Lead times, however, are dependent upon communication and planning between conservators and other library players. If, as the subjects suggest, digitization projects are becoming a driving force for the work done by conservation labs and these projects are having a significant effect on workflows and operations of the labs, then the ways in which these projects are planned and conducted must be improved.

Grant planning is one area in which the benefits of increased conservator involvement could be felt across the organization. Library conservators may provide a fuller picture of the time and resources the institution must commit to successfully complete the

project. By not involving conservators at the planning stage of grant funded digitization projects, it appears that many libraries are not fully taking advantage of their resources.

Conservators generally report that the workload from digitization projects and its effect on other preservation activities is manageable today; nevertheless, they also believe that the increasing number of special collections digitization projects and shifting library resources toward digitization will quickly outpace stagnant funding for conservation staff and resources. The results of this study point to a need for greater communication within research libraries regarding their methods for digitizing collection materials. It is apparent that the organizational structures, project creation, and workflows surrounding digitization projects are still evolving. Many organizations are creating new coordinating positions and standardizing means of communication between departments. However, as the number of digitization projects continues to increase, it is clear that research libraries will require better organizational and collaborative models for the efficient completion of these projects. While the voices of library conservators have been largely absent from the literature on library digitization in the past, the perspectives of all library players should be taken into account as these organizations move forward.

References

Allen, S. M. (2006). Staying in the game. *RBM : a journal of rare books, manuscripts, and cultural heritage, 7*(2), 113-120.

Baker, W. (2004). The hybrid conservator: Challenges in a research library environment. *Library Resources and Technical Services, 48*(3), 179-190.

Baker, W., & Dube, L. (2010). Identifying standard practices in research library book conservation. *Library Resources and Technical Services, 54*(1), 21-39.

Berg, B. L. (2001). *Qualitative research methods for the social sciences.* Boston: Allyn and Bacon.

Bigelow, S. (1990). Duels or dialogues? The relationship between archivists and conservators. *Archivaria, 29*, 51-56

Byrd, R. L. (2001). "One day--it will be otherwise:" changing the reputation and the reality of special collections. *RBM : a journal of rare books, manuscripts, and cultural heritage, 2*(2), 163-176.

Cohen, R. (1984). The impact of changes in scholarship in the humanities upon research libraries. *Advances in Library Administration and Organization, 3*, 271-276.

Cordes, E. R. (2006). A response to Traister. *RBM : a journal of rare books, manuscripts, and cultural heritage, 7*(2), 105-112.

Cullison, B. J., & Donaldson, J. (1987). Conservators and curators: A cooperative approach to treatment specifications. *Library Trends, 36*(1), 229-240.

De Stefano, P., & Walters, T. O. (2007). A natural collaboration: Preservation for archival collections in ARL libraries. *Library Trends, 56*(1), 230-258.

Dean, J. F. (2003). Digital imaging and conservation: Model guidelines. *Library Trends, 52*(1), 133-137.

Dooley, J. (2009). Ten commandments for special collections librarians in the digital age. *RBM : a journal of rare books, manuscripts, and cultural heritage, 10*(1), 51-59.

Ellero, N. P. (2009) Crossing over: Health sciences, librarians contributing and collaborating on electronic medical record (EMR) implementation. *Journal of Hospital Librarianship, 9*(1), 89-107.

Fox, M. F., & Faver, C. A. (1982). The process of collaboration in scholarly research. *Scholarly Publishing, 13*, 327-339.

Fox, M. F., & Faver, C. A. (1984). Independence and cooperation in research: The motivations and costs of collaboration. *Journal of Higher Education, 55*(3), 347-359.

Glaser, B. G., & Strauss, A. L. (1967). *The discovery of grounded theory: Strategies for qualitative research*. New York: Aldine Publishing Company.

Guest, G., Bunce, A., & Johnson, L. (2006). How many interviews are enough?: An experiment with data saturation and variability. *Field Methods, 18, 59 - 82.*

Hart, R. L. (2000). Co-authorship in academic library literature: A survey of attitudes and behaviors. *Journal of Academic Librarianship, 26*(5), 339-345.

Heckathorn, D. D. (1997). Respondent-driven sampling: A new approach to the study of hidden populations. *Social Problems, 44*, 174-199.

Henderson, C. (1987). Curator or conservator: Who decides on what treatment? *Rare Book and Manuscript Librarianship, 2*(2), 103-107.

Hewitt, J. A., & Panitch, J. M. (2003). The Association of Research Libraries special collections initiative. *Library Trends, 52*(1), 157-171.

Hrycaj, P. H., & Russo, M. (2007). Reflections on surveys of faculty attitudes toward collaboration with librarians. *Journal of Academic Librarianship, 33*(6), 692-696.

Hsieh, H. F., & Shannon, S. E. (2005). Three approaches to qualitative content analysis. *Qualitative Health Research, 15*(9), 1277-1288.

Jefferson, R., & Vince-Dewerse, N. (2008). When curator and conservator meet: some issues arising from the preservation and conservation of the Jacques Mosseri genizah collection. *Journal of the Society of Archivists, 29*(1), 41-56.

Knoke, D. (2009). Playing well together: Creating corporate social capital in strategic alliance networks. *American Behavioral Scientist, 52*(12), 1690-1708.

Lau, D. (2002). What does your boss think about you? *School Library Journal, 48*(9), 52-55

Lusenet, Y. D. (1998). Conservation is foresight: Creative cooperation in Europe. *Informatie Professional, 2*(10), 24-27.

Murphy, S. (1994). The dilemma of the dialogue: Joint decision-making by curators and conservators. *Modern Works, Modern Problems? Conference Papers*, Institute of Paper Conservation, 128-132.

Neal, J. G. (2003). Strategies for funding preservation and security. *Journal of Library Administration, 38*(1), 123-127

Oram, R. W. (1993). The new literary scholarship, the contextual point of view, and the use of special collections. *Rare Books and Manuscripts Librarianship, 8*(1), 11-16.

Panitch, J. (2001). *Special collections in Association of Research Libraries: Results of the 1998 survey sponsored by the ARL Research Collections Committee.* Washington, DC: Association of Research Libraries.

Paris, J. (2008). Asking the right questions: The role of the conservator in digital projects. *LIBER Quarterly, 18*(2), 310-321.

Pavelka, K. L., & Hammeke, E. (2006). The perceived shift from conservation to preservation: Does it exist? *Proceedings from the First International Conference of the Institute of Conservation,* 99-104.

Pilette, R., & Harris, C. (1989). It takes two to tango: a conservator's view of curator/conservator relations. *Rare Books and Manuscripts Librarianship, 4*(2), 103-111.

Presser, S. (1980). Collaboration and the quality of research. *Social Studies of Science, 10*, 95–101.

Prochaska, A. (2009). Digital special collections: The big picture. *RBM : a journal of rare books, manuscripts, and cultural heritage, 10(1), 13-24.*

Putnam, R. D. (1993). The prosperous community: Social capital and public life. *American Prospect, 13*, 35-42.

Ryan, M. T. (1991). Developing special collections in the '90s: A fin-de-siecle perspective. *Journal of Academic Librarianship, 17*(5), 288-293.

Seo, H. T., & Zanish-Belcher, T. (2005). Pitfalls, progress, and partnership: Collaboration between special collections and preservation in academic libraries. *Collection Management, 30*(3), 3-19.

Smith, A. (2003). What can we afford to lose? *Journal of Library Administration, 38*(3), 175-182.

Starmer, M. E., McGough, S. H., & Leverette, A. (2005). Rare condition: Preservation assessment for rare book collections. *RBM : a journal of rare books, manuscripts, and cultural heritage, 6*(2), 91-106.

Sutton, S. (2004). Navigating the point of no return: Organizational implications of digitization in special collections. *Portal: Libraries and the Academy, 4*(2), 233–243.

Taranto, B. (2009). It's not just about curators anymore: Special collections in the digital age. *RBM : a journal of rare books, manuscripts, and cultural heritage, 10*(1), 30-36.

Taylor, J., & Stevenson, S. (1999). Investigating subjectivity within collection condition surveys. *Museum Management and Curatorship, 18*(1), 21-28.

Traister, D. (2000). Is there a future for special collections? And should there be? A polemical essay. *RBM : a journal of rare books, manuscripts, and cultural heritage, 1*(1), 54-76.

Traister, D. (2003). Public services and outreach in rare book, manuscript, and special collections libraries. *Library Trends, 52*(1), 87-108.

Wejnert, C., & Heckathorn, D. D. (2008). Web-based network sampling: Efficiency and efficacy of respondent-driven sampling for online research. *Sociological Methods Research, 37*(1), 105-134.

Whittaker, B. M. (2006). "Get it, catalog it, promote it": New challenges to providing access to special collections. *RBM : a journal of rare books, manuscripts, and cultural heritage, 7*(2), 121-133.

Wildemuth, B. M. (2009). *Applications of social research methods to questions in information and library science.* Westport, Conn.: Libraries Unlimited.

Appendix A: Study Fact Sheet

University of North Carolina-Chapel Hill
Information about a Research Study
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IRB Study #10-0078   **Consent Form Version Date:** 01-24-2010

Title of Study: Conservator Participation in Digitization Projects in Research Libraries

Principal Investigator: Henry Hébert
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Study Contact Information:
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What are some general things you should know about research studies?

You are being asked to take part in a research study. Joining the study is voluntary. You may refuse to join, or you may withdraw your consent to be in the study, for any reason, without penalty.

Research studies are designed to obtain new knowledge that may help people in the future. You may not receive any direct benefit from being in a research study. There can also be risks to being in research studies.

Details about this study are discussed below. It is important that you understand this information so that you can make an informed choice about participating. You will be given a copy of this consent form. You may ask the researchers named above any questions you have about this study at any time.

What is the purpose of this study?

I want to understand the role that conservators play (if any) in special collections digitization projects in research libraries. This exploratory study will focus on the activities and attitudes of conservators involved in these projects. I want to explore whether the work relationship between conservators, curators, and digital production staff affects the type of conservator involvement in digitization projects. I also want to see whether there is a relationship between the organizational structure of the library and the role that conservators play.

How many people will take part in this study?

If you decide to be in this study, you will be one of approximately 12 participants.

How long will your part in this study last?

The interview will take about one hour. You may choose to stop the interview at any time.

What will happen if you take part in the study

 I will ask you questions about the collection and organizational structure of the library where you work. I will also ask you questions about the professional relationships you maintain with curators and digital production staff at your institution. I will ask you about

your experience working on digitization projects using special collections materials and what you think the role of conservators should ideally be on these projects. With your permission, I will make an audio recording of the interview. You do not have to answer any questions that you do not wish to answer, for any reason. At your request, I will stop the recording device at any point in the interview.

What are the possible benefits from being in this study?
Research is designed to benefit society by gaining new knowledge. Your participation is important to help me understand more about the responsibilities and collaborative relationships of conservators in research libraries, but you may not benefit personally from being in this research study.

What are the possible risks or discomforts involved from being in this study?
I do not think you will experience any discomfort from the interview. This study is expected to pose minimal risk to you. There is the possibility that your identity could be revealed through deductive disclosure, but I will take steps to prevent that from occurring.

How will your privacy be protected?
Any information that could identify you will be maintained in a document separate from the data that I collect during the interview. This document will be strictly confidential and kept in a secure environment. When data collection is complete, the document will be destroyed. You will not be asked to identify yourself or your institution in the audio recording. Should you include any identifying information in the recording, I will remove that information from the interview transcript. When transcription is complete the audio recording will be destroyed. You will not come into contact with other participants through the study. Should you refer other potential subjects, you will not be informed if those individuals end up as participants. I will not disclose your identity to any conservator that you may recommend for participation in the study.

I will not identify you or use any information that would make it possible for anyone to identify you in any presentation or written reports about this study. All information will be analyzed and presented in an aggregate format, and in such a way that specific responses cannot be tied to a particular individual or institution. If it is okay with you, I might want to use direct quotes from you, but these would only be quoted as coming from "a conservator."

With all these steps in place, your anonymity should be preserved; however, I must acknowledge that in some cases it may be impossible to protect your identity from deductive disclosure.

Will you receive anything for being in this study?
I am not going to pay you for your participation, but your information is very important to this study.

Will it cost you anything to be in this study?
There are no costs other than your time for being in the study.

What if you have questions about this study?
You have the right to ask, and have answered, any questions you may have about this research. If you have questions, or concerns, you should contact me at (919) 360-3425.

What if you have questions about your rights as a research participant?
All research on human volunteers is reviewed by a committee that works to protect your rights and welfare. If you have questions or concerns about your rights as a research subject you may contact, anonymously if you wish, the Institutional Review Board at 919-966-3113 or by email to IRB_subjects@unc.edu.

Thank you for helping me with this study.

Appendix B: Interview Guide

The Organization:
1. What is the approximate size of the collection for which you are responsible?
2. How many professional conservators are employed in your lab? Are you responsible for special collections only or also general collections?
3. Where are you located on the organizational chart?
4. How does that relate to where the special collections department is located on the chart (e.g. in same division or not)?
5. How many curators are there?

Digitization projects (General)
1. Does this institution engage in digitization projects using special collections materials?
2. Where in the organizational structure is the digital production service located?
3. How are these projects generated at your institution?

Consultation
1. Are you consulted for exhibits using special collections materials?
2. Are you consulted for digitization projects using special collections materials? If not, are any other conservators in the institution consulted?
3. Would you say you are consulted as often in digitization projects as in exhibits?
4. At what points in the process of digital project conception and workflow are you contacted?
5. Would you like to be consulted more often?
6. To what do you attribute the level of involvement or non-involvement?111

Digitization Projects (Specific)
1. Do the digital projects include both books and unbound items?
2. What equipment is in use in your digital production center (e.g. flat bed scanners, face-up scanners, copy stands)?
3. Is there a relationship between the equipment available and what gets digitized?
4. Do you think the kind of equipment affects how or when you are consulted?111

Funding
1. How are these digitization projects usually funded?
2. For projects that are grant funded, is conservation that is carried out in your lab accounted for in the budget as cost share?
3. In cases where conservation *is* part of the cost share, does it affect or change the way you are involved in a project?

Lab Work Flow
1. Do digital projects have an effect on the workflow in your lab?
2. How does the type and level of collaboration with other departments affect – positively or negatively - the workflow or other operations of your lab?

Professional Relations

1. Speaking generally, how would you describe your working relationship with the curator?
2. Is there a difference in approach to selecting materials for digitization between you and the curator(s)? For example, is one of you more likely to be restrictive or more open to digitizing an item than the other?
3. Do you think your previous relationship with the curatorial departments has a bearing on your involvement with digitization projects using special collections materials?
4. Do you interact with digital production staff?
5. Speaking generally, how would you describe your working relationship with digital production staff?
6. In the context of digital projects, how do you feel about collaboration with curatorial staff? With digital production staff?1111

Role of Conservator
1. Do you think conservators have a role in digitization projects using special collections materials?
2. What do you think that role entails?

Wrap-up
Do you have anything you'd like to add about this topic?

Chain Referral Sampling Script

Thank you for your participation with this study. I am looking for other individuals to participate as well. Can you recommend other conservators that work in academic research libraries that might have information to offer about this study topic? In order to maintain your privacy, I will not reveal to any of those individuals that you have recommended them for the study.