


2014

Role of Digital Collections in the Cultural Heritage Institution: Pathways for Strengthening Social Identity

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Arleth, Kimberly A., "Role of Digital Collections in the Cultural Heritage Institution: Pathways for Strengthening Social Identity" (2014). *School of Business*. Paper 1.

Role of Digital Collections in the Cultural Heritage Institution:

Pathways for Strengthening Social Identity

By

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Thesis

Submitted in partial fulfillment of the requirements for the degree of

Master of Nonprofit Management

Hamline University

School of Business

Saint Paul, Minnesota

October 2014

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18 October 2014

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Acknowledgments

I would like to thank the members of my committee, David Schultz, Kate Borowske, and Molly Hazelton for all of their support and guidance through this process. Thank you to the staff at the Hill Museum and Manuscript Library, Leo Baeck Institute, Mount Holyoke archives and the South Asian American Digital Archives for opening your doors and allowing me to work with you on this research. Thank you to Aida Audeh for her continual confidence in my studies and professional goals. Special thanks for my silent editors, Gabe Lyrek, Joan Arleth, and Travis Thompson. Thank you to Dawn Bentley and Sarah Barsness, who were always there when I hit a wall, to Aimee Renaud for all the coffee during the late nights, and to Emi, Larissa, Nikki and Radford for believing in me. Finally, a most special thanks goes to my family; Joan Arleth, Michael Arleth, Mabel Fikentcher, Uncle Joe and Aunt Debbie for supporting me from the beginning. I could not have done this without all of you.

Abstract

According to the theory of social identity, the more connected an individual feels to other group members, the more likely they are to feel a part of this group. The stronger the connection is, the more likely the individual is to become an active member. Cultural collections illustrate the shared history of a group. By increasing access to these collections via online access, organizations expose more users to these shared histories. Viewing such shared history, individuals will experience stronger connections to the history and members of the group resulting in an increase in social identity. When this connection solidified, users become more likely to actively participate in the cultural organization. A survey of organizations and detailed cases study sites who maintain digital collections have shown that this type of increase in engagement is happening. To maintain the relevance and livelihood of cultural heritage organizations into the future, institutions need to engage in online collections and opportunities for online engagement of users. Ventures into the digital realm have been shown through this study to increase public engagement with the organization, particularly among younger generations. By increasing users' social identity through digital collections, cultural heritage institutions will see a growth in engagement from users that allows for the work of these organizations to stay relevant in today's society.

Keywords: Cultural Heritage, Cultural Heritage Institutions, Social Identity, Digital Collections, Public Engagement, Digital Culture

Table of Contents

| | |
|---|-----------|
| I. INTRODUCTION | 6 |
| II. LITERATURE REVIEW | 8 |
| III. METHODOLOGY | 30 |
| IV. SURVEY RESULTS..... | 34 |
| V. CASE STUDY RESULTS..... | 47 |
| HILL MUSEUM AND MANUSCRIPT LIBRARY | 48 |
| LEO BAECK INSTITUTE..... | 57 |
| MOUNT HOLYOKE COLLEGE ARCHIVES | 62 |
| SOUTH ASIAN AMERICAN DIGITAL ARCHIVES | 70 |
| VI. ANALYSIS OF RESULTS | 76 |
| VII.FURTHER DISCUSSION | 85 |
| VIII. CONCLUSION | 86 |
| REFERENCES | 91 |
| APPENDIX A: SURVEY QUESTIONS | 96 |
| APPENDIX B: INTERVIEW QUESTIONS | 101 |

I. Introduction

Families serve as the first place where people are able to identify self and place within a social group. My personal experience growing up in a family spread across a large geographical region meant we rarely saw each other. My ability to place my personhood in Minnesota with my parents and siblings into a context with my uncle and grandparents on the East coast was difficult. When the opportunity to spend time together as a family unit was presented, it could be transformative.

During one of the first childhood visits, my Grandmother shared her passion for genealogical research with me. She had created a large binder filled with historical birth, death, and census records of her family members dating back to the 1600's. As she went through these records, she began to tell me more about the family members whose names appeared in the fancy writing of long ago. She related stories about relatives who saw the dedication of the Statue of Liberty, fought in the American Revolution, set out to America from the tiny country of Liechtenstein at the age of 16, were vaudeville dancers, and played piano in scores of silent film movie houses. These narratives, in connection to the papers she had collected, helped me begin to identify self in a new social context as part of my familial group.

My grandmother's genealogical work was dedicated to my mother's side of the family, leaving me with little information about my father's lineage. My grandmother helped me begin a journey of discovery into my paternal family history at the Minnesota Historical Society library where I was exposed to the wonders of microfilm and the stories of past lives contained within the small scrolls. My father's family came from New Jersey which made it difficult to find

detailed information in Minnesota. Even though the first trip was unsuccessful, I left the silent rooms with a buzz of wonder and a desire to learn more.

When the website Ancestry.com was launched in 1997, records were digitized for public use and I was beyond excited. I have since found bits and pieces of familial history that have helped paint a clearer picture of self-identification, group membership, and social context.

Learning about one's history is not solely tied to families. As I have grown older, I realized that my identity is multi-dimensional and comprised of a variety of different areas. With this realization, I developed an interest in knowing more about these groups and their histories. Through research of various groups, one can find the historical narrative to help strengthen connections and create solidarity with the larger collective. Through increased access and exposure to digital collections of cultural heritage institutions, one can more easily continue down the path of self-discovery.

My passion for the historical understanding of where I come from does not make me unique. Culture and group membership is a core part of how we, as humans, identify ourselves and interact with one another. Knowing the important role culture has in our lives causes me to wonder how the increased access to culture found in digital collections helps others access group history and affects self-identity. The following research is intended to understand the role of digital collections in increasing the sense of group identity among collection users. It is hypothesized that when group identity is strengthened among collection users, there will be more active engagement with the organization and its collections.

II. Literature Review

To begin the exploration into how digital collections effect users' sense of social identity and the resulting implications, a survey of the current research must be conducted. Multiple factors are vital in the development of an individual's sense of group identity. Two aspects of individual identity include 'in-group ties' and the 'centrality' of the group. (Bilewicz & Wojcik, 2009; Leach et al., 2008; Obst & White, 2007). The more an individual ascribes such factors to a group in which they hold membership, the greater the sense of group identity. Furthermore, several authors (Bilewicz & Wojcik, 2009; De Cremer & Van Vugt, 1999; Leach et al., 2008; Obst & White, 2007) indicate that the greater one's group identity, the more likely those individuals are to become active participants in the group.

Cultural heritage organizations strive to increase access to their collection materials as its use is central to organizational mission (Prelinger, 2009). Digital collections are a powerful way to open the cultural works to exploration by the public. When viewing a digital collection of cultural heritage, users are exposed to material that has the potential to strengthen in-group ties because they are viewing a shared history between group members. It would stand to reason that by viewing these digital collections, an individual will also be able to strengthen their sense of group identity. Should this happen, an increase in public participation with the organization could be measured in a variety of ways, including increased web traffic, social media interaction, requests for materials, financial contributions, material donations and other areas of public engagement.

The collections of cultural heritage intuitions help exhibit culture of a group for the viewer. Culture can be defined as the "shared beliefs, values, customs, behaviors and artifacts"

(Mason, 2007, p. 26) groups use to orient themselves to the world and one another. Culture is seen in physical spaces such as buildings or temples, through intangible representations of ideas and values such as art, music, literature, or in historical accounts from members of the culture group (Singh, 2012). Cultural heritage institutions have an integral role in society as they “play a major role in expressing, understanding, developing, and preserving the objects, values, and knowledge that civil society values” (Karp, Mullen Kreamer & Lavine, 1992, p. 5), particularly for future generations. Examples of cultural heritage institutions include historical societies, archives, specialty libraries, museums, and even educational institutions. Individuals will connect with components of culture differently depending upon their background.

The way an individual connects to a larger group is studied as part of a theory known as collective, social, or group identity. Bettencourt and Hume (1999) quote Tajfel—the father of social identity theory—to explain this concept further; “Social identity is 'that part of an individual's self-concept which derives from his knowledge of his membership of a social group (or groups) together with the value and emotional significance attached to that membership' (Tajfel, 1981, p. 255)” (p. 113). The stronger the sense of group identity, the more one’s levels of interaction with, public representation of, and overall interest in the group increase (Bettencourt & Hume, 1999; Bilewicz & Wojcik, 2009; Karp et al., 1992; Leach et al., 2008; Obst & White, 2007). The implications of social identity theory will be discussed in depth later in this paper.

Historically, it has been necessary to travel to an institution in order to interact and learn from the collections. Institutions are now able to connect with a broader audience base through the creation of online digital collections. Thus it is the belief of the researcher that cultural heritage institutions that create a digital collection see an increase in participation because of users’ ability to connect to the collections online.

To understand the effect digital collections have on social identity, a better understanding of what social identity is and how it impacts the individual is needed. Group membership carries with it particular emotional value and significance for an individual that can impact both individual sense and group identity.

When we think of and perceive ourselves as we and us (social identity) as opposed to I and me (personal identity) this is ordinary and normal self experience in which the self is defined in terms of others who exist outside the individual person doing the experiencing and therefore cannot be reduced to personal identity. (Turner, Oakes, Haslam & McGarty, 1994; p. 454).

When we see ourselves reflected in a larger group, self-identity morphs to encompass the identity of the collective. When shared experience of the group plays an important role in individual understanding, there is a shift from having a basic knowledge of the group to being psychologically connected with the group (Bettencourt & Hume, 1999).

Connection with a group is the result of a complex variety of psychological factors. Several theories have been presented to explain this complex construction of bonds that result in social identity. The major theories include a 1989 discussion by McMillan and Chavis on the psychological sense of community (Obst & White, 2007), James Cameron's theory on the multi-dimensional model of identification (Bilewicz & Wojcik, 2009), and in-group identification as described by Leach et al. (2008). All of these theories agree that multiple connection points are needed for the construction of a strong sense of social identity.

Membership is crucial for constructing a psychological sense of community (PSOC). With membership, one is provided with a sense of belonging and identification. In order to begin developing a psychological sense of community, "an individual must feel he or she has some

control and influence over [the group] and for a group to be cohesive, the group itself must also have influence on its individual members” (Obst & White, 2007, p. 78). Without reciprocal influence, individuals may avoid establishing long-term investments in the group if there is little benefit perceived in membership status. On a larger scale, without group influence over members, the collective can be easily disbanded and is unlikely to survive the passing of time. If individuals feel a sense of belonging and ability to influence, PSOC ascribes membership should result in increased positive feelings. Affirmative emotional connections with the group are “based on a sense of shared history and identification with the community, and refers to the bonds developed over time through positive interaction with other community members” (Obst & White, 2007, p. 78).

Membership in a group is equally important for James Cameron’s theory of multi-dimensional model of identification which posits that a sense of membership is the result of an individual assessment based on the ideas of centrality, in-group affect, and in-group ties (Bilewicz & Wojcik, 2009). Like PSOC, individuals must have strong positive emotions about the group as a whole (in-group affect) and strong bonds with other members in the group (in-group ties). Vital to identification as a member of a group, centrality is the importance of the group to the individual and the closeness of this group to the sense of personal identity (Bilewicz & Wojcik, 2009; Obst & White, 2007). When an individual feels group membership is central to their self-identity, there is strong in-group affect and in-group ties, and they ascribe themselves as a member of the group.

Expanding on the aforementioned theories, Leach et al. (2008) uses five elements that are required for developing a sense of in-group identification; individual self-stereotyping, in-group homogeneity, solidarity, satisfaction and centrality (p. 144). Much like PSOC, in-group

identification starts with finding a sense of belonging to a larger group. Through individual self-stereotyping, the individual recognizes themselves in other members of the group which leads to development of stronger emotional connections, similar to in-group affect. Leach et al. (2008) argue that in addition to positive emotions for the group, there is also an action step that must be taken through in-group homogeneity. Here, the individual desires to work towards maintaining, “the in-group’s positive distinctiveness from out-groups” (p. 144) as a by-product of solidarity with the group. Solidarity is the psychological bond that causes one to feel “a sense of belonging, psychological attachment to the in-group, and coordination with other group members” (Leach et al., 2008, p. 147). To really feel a part of the group, there must be satisfaction in these elements. If not satisfied in our representation in the group, how the group is distinct from others, or our solidarity with others, we will not be satisfied in our membership. Dissatisfied individuals “may avoid a group with potential hardships due to membership” (Leach et al., 2008, p. 146). This is not to say that if there is a perceived hardship one will automatically abandon their membership, particularly once centrality of the group for the individual is achieved.

Common threads within these theories stress the importance of individual perception of the group and connection to other members. Those with a strong sense of group identity must also have positive feelings towards the group and their membership status. Positive emotions include having a desire to promote an affirmative perception to non-group members due to solidarity with the group in which they are reflected. It is paramount that individuals develop strong bonds with other members for a strong sense of group identity to exist. It is also imperative that the group is central to the individual’s sense of self. When membership in a group results in all of these factors being positively addressed, an individual will be left with a strong sense of group identity.

Identity is a complex concept that is rarely singular. Individuals have multiple group or social identities that make up their whole identity. Gaining membership in a particular group does not eliminate the possibility of being a member in another group. Likewise, one group does not automatically trump another (Kaplan, 2000). Group identities can be made up of far reaching categories such as race, ethnicity, gender identity or sexual orientation. Categories may also be more abstract and fleeting, such as ideological or religious affiliation, interest-based, or even workplace association (Obst & White, 2007). Multiple group identities and various ascribed membership form and define who individuals are. Few of us are just female or able-bodied or of Asian descent. Rather membership can be held in all of these groups as we are multidimensional beings.

Research suggests that when social or group identity is connected to an identity of choice, or a choice group, such as an ideological group, religious group, or self-categorization (self-identifying as a member of an apparently rigid membership-based group, or no-choice groups, such as ethnicity or gender), emotional ties and sense of community for the individual are stronger than when the individual feels they have little control over their group identity (Leach et al., 2008; Obst & White, 2007). A 2007 study conducted by Obst and White found that “levels of social identification with each group membership increased significantly as the degree of choice associated with that membership increased” (p. 84). For example, a self-identifying cisgendered female is likely to have a stronger sense of social identity than a female who does not feel her female identity is within her individual control. Similarly, one who self identifies as being of French ancestry and interacts with that culture is going to have a stronger sense group identity than an individual who knows they are of French ancestry but gives this group little thought. The

key is that the first individual is identifying and actively seeking or embracing membership in the given group, while the second is a more passive group member.

Other studies (Obst & White, 2007) argue that the no-choice groups become so integrated into self-identity that these groups result in a stronger sense of social identity than in choice groups, thus making centrality of the group vital to a sense of identity. An individual will likely place a higher level of importance on a no-choice group to their sense of self than on a choice group. The individual sees this larger no-choice group as being more central to individual identity. Going back to the example above, both women are likely to place more importance on membership in the female gender identity group, than other memberships such as classical music enthusiasts. This is to say, that the identity of classical music enthusiasts likely has less centrality to these individuals than that of being female.

In the examples above, the membership to a gender group is given different levels of centrality which can vary greatly depending upon the social arena in which the individuals find themselves. “We experience [our] identities not as all-encompassing entities but through specific social events” (Kaplan, 2000, p. 1). Our sense of identity is made more or less relevant depending upon the social setting. If the hypothetical women were in a group of all classical music enthusiasts, there may be a stronger sense of group identity towards other women. However, in a group consisting completely of women, they may seek out other classical music enthusiasts.

Numerous studies (Bilewicz & Wojcik, 2009; Leach et al., 2008; Obst & White, 2007) have been conducted analyzing the way individuals interact within communities due to group identity. The focus has primarily been on how an individual’s self-perception of group identity affects interaction with the group because of perceived membership. Results show that the level

of attachment reported, or in-group ties, is directly related to one's level of identification with the group. The greater one's connection with other group members, the greater the chance is that the individual will become involved in the group and its activities (Bilewicz & Wojcik, 2009).

It is not a given that the sense of culture and sense of identity will register at the same level for individuals. "Identity and culture are not synonymous as identity also entails action: the action of making and being a part of" (Anico & Peralta, 2009, p. 1). One will become more invested in a culture if the individual reports higher levels of in-group ties, emotional concern for the larger group and the group is central to self-identity; this is because the individuals connect culture to their identity. Going back to the previous example, the cisgendered woman ascribes to two groups; one group of biologically born females as well as her claimed identity of being female.

Search for identity is tied to history as individuals, like narratives or stories, exist with past, present, and future contexts. A collective history, or narrative, is connected to how people interact with both one another and self-identity. "History is not just something that happened; it is a living part of people's sense of who they are" (Karp et al., 1992, p. 368). History becomes a part of social memory as our lives collect to become part of a larger narrative about the world in which we live. Memory "is essentially motivated; it meets the needs of individuals or groups to make sense of the past in whatever way feels best to them" (Benton, 2010, p. 1-2). Memory is a socially created construct living in the present more than the past (Kugelmass, 1992). Historical memory of a group can help strengthen roots of in-group ties between past, present and future generations because of this collective historical memory, or cultural heritage.

In order to be meaningful, heritage has to be based on a credible memory collectively sanctioned and approved. In this early twenty-first century, people need more than just a

flag to identify with. They need more than physical heritage; they urge for references that represent their collective soul. This entails both engagement and demission towards the past. (Anico & Peralta, 2009, p. 2).

At this point, society will turn to cultural heritage institutions to act as a point of connection to an authentic truth about the past so as to better understand current situations (Graburn, 2007). When cultural heritage institutions share collections of a cultural group digitally, more people are able to access authentic truths about their past.

Cultural heritage institutions have not always existed in the access conscious way we know them today. Up until the 1900's, cultural institutions were separated out from general society and kept in the realm of 'learned men' as evident in the clergy, universities, private societies, wealthy class, and government (Burke, 2000). Universities and other educational institutions are a prime example of where culture and history were housed and accessed. From 1400 to 1600, universities were strongly tied to the teachings of the Catholic Church in the Western world. Where women, ethnic minorities, and the poor were not granted the privilege of accessing culture (Burke, 2000). Collections being maintained at this time had little representation for those individuals and their history. Instead, the focus was on the history of white, rich, European males.

The late 15th century and early 16th century saw the creation of culture houses. Located primarily in port cities, they held records of people, flora, fauna, geographical maps and other information about newly discovered locals including India and the Americas (Burke, 2000). These institutions were also only open to select male individuals deemed appropriate to receive knowledge by the society of the time.

With local governments, there has been interest in collecting information about the populations under their rule since ancient times. The Assyrians most notably kept detailed records of their populous (Burke, 2000). It was in the best interest of those in power to discover as much as possible about populations in newly acquired territories. Such efforts to understand populations were also prevalent in European governments during the period of colonization. The collection of information was done systematically, often through examination of new subjects. Surveying was also a popular method of data collection during the Inquisition (Burke, 2000). As centralized governments began these endeavors, it created a mass of paperwork to manage, resulting in the rise of special collections. Eventually the volume of historical records became such that special areas were created and managed by trained professionals, introducing the archive (Burke, 2000).

Modern historical societies began in America in 1791, with the creation of the Massachusetts Historical Society in Boston, which was modeled after European repositories such as the Society of Antiquaries in London (Kaplan, 2000).

By the 1890's, state and patriotic historical societies played an integral role in the shaping of 'American identity'. The historical society had become, by this time, almost obligatory for groups seeking to establish and present to the larger culture a cohesive identity.

(Kaplan, 2000, p. 135)

Such concerns can be seen in the founding records discussions of new immigrant historical societies which revolved around how to create collections that served "as vehicles for promoting and publicizing their accomplishments as Americans, as well as repackaged versions of European backgrounds that seemed consistent with American values" (Kaplan, 2000, p. 131). Immigrant communities coming into America in the 1800's and 1900's wanted to see their

collective memory and history preserved for future generations. When groups see their identity being denied social presence, there is a fear of the identity dying out altogether (Karp et al., 1992). Establishing an archive, historical society, or museum, “turns members of the community into witnesses to the community’s aspirations and difficulties in managing change [...] that work of cultural documentation is an organic process that is part of how a changing community defines itself” (Karp et al., 1992, p. 154-155). Looking back at social identity, what we see happening can be explained by individuals in the group having a strong connection to their social identity. It is this group that is moving into the next phase by directly engaging with and influencing the future of the group by preserving the group’s cultural heritage.

Just as the founders looked towards the future, users of cultural heritage institutions are looking to the past for a better understanding of their history. Without the ability to access one’s history, one may find difficulty in orienting him or herself in greater society (Berger, 1997). There is great power in recording a cultural legacy as a means to provide users with a way to engage in discourse about the past (Prelinger, 2009). Not only are institutions charged with preservation, but they also need to “make the past accessible and usable” (Cloonan & Harvey, 2007, p. 2) for users.

Today archives and cultural institutions house collections that represent a wide range of cultures and social identities. This is “a cultural legacy which is both ‘good and necessary,’ something that should be cherished and preserved” (Anico, 2009, p. 63). By preserving cultural heritage online, institutions invite group members to explore and connect to history in new ways. Online access to digital collections opens a new realm of discovery that was previously limited to selected groups. The general public can explore both their own history and the histories of previously unfamiliar groups (Graburn, 2007; Prelinger, 2009).

More and more focus is being given to the need for recording and preserving the unique communities and cultures of the world. Countries such as Canada, India, England and the United States have government departments dedicated to the efforts of cultural preservation (Hand, 2008; Singh, 2012). The advancement of technology has taken the focus on digital heritage preservation to an international level. UNESCO noted in the 2003 Charter that, “the digital heritage of all regions, countries and communities should be preserved and made accessible, so as to assure over time representations of all people, nations, cultures and languages” (Singh, 2012, p. 290). The value of recognition from government entities can be seen through an increase of dedicated funding opportunities (Field, 2003; Smith, 2007), however slight. In the United States, the National Endowment for the Humanities (NEH) offers funding opportunities to encourage preservation of cultural collections. What began with physical collection preservation has moved in recent years towards digital preservation efforts (Field, 2003). There has also been legal action to safeguard cultural collections and encourage greater preservation efforts (Smith, 2007).

Digital collections serve as a method of preservation and play a role in establishing unique networks of culture for individual group members to access (Obst & White, 2007). Production of replicas and historical records is not new to human history (Benjamin, 2006; Berger, 1997). Ancient Romans replicated original Greek statues using bronze casting. The advent of the printing press allowed the written word to be replicated on an unprecedented scale. Wood engravings were once a cheap way to create multiple prints of an image for the masses. Digital technology is the next step in the history of material reproduction (Benjamin, 2006; Berger, 1997). Digital collections provide a space for keeping social memory alive, as well as building and making community (Hand, 2008; Lynch, 2007).

[Well-crafted digital collections] make content alive, that help you find it, that allow you to manipulate it, analyze it, annotate it, comment on it... [They] attract, they create, they define community. But they also let the members of that community talk to each other. (Lynch, 2007, p. 97)

When viewing material in a digital collection, an individual is able to make connections with areas of history which they may previously have been unaware, thus strengthening in-group ties. Objects of culture are more than just their physicality; they hold the memories, traditions, and traces of those who used, and handled the items (Hand, 2008). The digital collection acts as an entrance point for potential and self-recognizing members of the group to more easily make the connections that lead to a stronger sense of group identity.

The production of digital collections for public access is a large and continuous endeavor for the organizations that proceed down this path (Field, 2003; JaJa & Song, 2009). A digital collection has the potential to help an organization achieve its mission. However, administrators must weigh the potential benefits against the significant commitment it requires. Without full administrative backing of a digital collection, it will become unsustainable.

Creation of digital collections can be used as part of disaster planning to protect valued historical material from damage and preserve items for future generations (Bradley, 2007; Smith, 2007). Once original material is damaged or destroyed, it is virtually impossible to recover the loss. The 1966 Arno River Flood in Florence is just one example of a natural disaster that resulted in the loss of cultural history that cannot be retrieved (Smith, 2007). The flood was a catalyst that highlighted the need for organizations to re-evaluate their disaster plans.

Natural disasters are not the only danger to cultural preservation. Humans have a long history of intentionally seeking to destroy the history of other cultures, as demonstrated by the

burning of Mayan codices, the destruction of Jewish scholarship during the time of Nazi Germany, and the systematic demolition of revered statues of Buddha by the Taliban. Intentional and unexpected dangers highlight the important and difficult charge to preserve cultural material for future generations by cultural heritage institutions. Although the use of digital technologies to assist in these preservation efforts is a great advantage, it does not mean that physical preservation efforts stop. Digital preservation should go hand in hand with the physical preservation of objects (Field, 2003).

One of the biggest benefits of creating a digital collection is the increased accessibility (Benjamin, 2006; Evens & Hautekeete, 2011; Smith, 2007). By providing a digital collection online, the public is able to more closely interact with material in the collection. Such ease of access was not possible in the cultural heritage institution of the past where people needed to visit the physical site. Even then, certain items may not be available due to deteriorated conditions that necessitate limited handling.

Today, people are able to easily access material without having to travel to the organization location, and can do so at almost any time of day from anywhere there is internet access (Smith, 2007). This autonomy of self-discovery benefits the organization by allowing more people to become familiar with its work. As users explore digital collections, they start making their own meanings or connections to collection material (Benjamin, 2006; Smith, 2007).

Access also allows individual items of a collection to become more visible and gain greater intellectual value than before digitization efforts (Fleischhauer, 2003). All of this discovery can result in elevated ties to past group members and group history. These increases have been shown to positively affect one's sense of group identity (Bettencourt & Hume, 1999; Bilewicz & Wojcik, 2009; Leach et al., 2008; Obst & White, 2007).

Digital access is often open ended. Despite having a standard community interested in the organization because of the collections held, “digital materials find their own unexpected user communities” (Lynch, 2007, p. 97). While members of the community being represented in collections are likely to become an audience for the digital collection, there are also going to be out-group members of the general public that will take an interest. Users of all types will be able to connect to the histories of the group and can become greater allies of the group in question.

For both in- and out-group members, digital collections of cultural heritage institutions can help bring a sense of authority to the information made available online. The internet has few safeguards against what information is published, which is a change from the historical realm of information (Burke, 2000). Prior to the internet, publishing companies and paper costs may have limited distribution and public access to information and at what stage in the writing process the public was able to access information (Burke, 2000). However, the internet has changed the game, and because of this, we are now aware that there is too much information to ever truly know (Weinberger, 2011). There is need for a trusted authority amongst the volumes of information to which we are now exposed. Trusted institutions can act as specialists in cultural heritage. By providing a digital collection, institutions bring this authority and expertise to the digital world.

The creation of a digital collection results in improved access to a collection, increased authority online, and enhanced multifaceted preservation efforts—particularly against the total loss of material. Yet the benefits are not without challenges. First, the entire organization must be committed to moving forward with the digitization project, beginning with the creation of cohesive, definable goals and benchmarks throughout the process (Buchner, 2010; McGovern & McKay, 2008; Smith, 2007).

To invest in the creation of a digital collection means also investing in staff. Highly trained individuals are needed for the digitization process as well as the safeguard and management of materials once the project is complete (Bradley, 2007; Evens & Hauttekeete, 2011; Smith, 2007). Creating a digital collection includes more than just digital images of material, “it includes metadata, standards, digital asset management, online delivery and user’s experience, all of which require expert knowledge for creating useful and sustainable digital collections” (Buchner, 2010, p. 152). Quality work by staff members results in seamlessly smooth access and maintenance of the collection. Efforts may go unnoticed in larger organizations with multiple departments (Brown & Duguid, 2000), but staff must be kept a priority for the continued success of the collection.

Digital collection personnel are charged with many vital components that allow for a successful collection to exist; data purity, quality control, and technology management. As collections are digitized, a digital record must be created for each item. Records require the input of metadata to identify and describe the item. To ensure vital information is recorded accurately, the organization must invest in its staff. While some effort has been made to auto fill certain pieces of metadata creation, it cannot be left up to automatic systems alone (JaJa & Song, 2009).

Metadata is a huge component of a digital collection. It enables users to navigate through a collection and understand the items they discover (Field, 2003). There are three main types of metadata that are associated with a record: descriptive metadata includes the title of a work, description of the work, and date of creation; structural metadata includes such information as page count or the materials used for the creation of the artifact; and administrative metadata that is most useful for the organization, and includes things like catalog or inventory numbers and access rights for the record. The way an organization chooses to use descriptive metadata can

have a drastic effect on how a user responds to the material. If description metadata on a Van Gogh painting states that the painting is ‘a landscape with birds,’ it gives the user one kind of idea about the work. If the same painting is viewed with the metadata saying that the painting ‘was the last work known to be created by the artist before he took his own life’, the user will be left with a very different impression of the piece (Berger, 1997).

The challenge with metadata is the variety of standard systems that could be used, and organizations may choose to use a different system than similar institutions. Organizations should “look into the specific advantages and disadvantages of each metadata standard, because sector-related metadata schemas might be more appropriate for long-term use” (Evens & Hauttekeete, 2011, p. 159). Dublin Core is a common standard system for metadata records because it offers more flexibility (Evens & Hauttekeete, 2011).

Quality control of collection content can present another challenge to organizations. Staff need not only monitor the quality of the digital materials, but also work to maintain authority over these materials online. With the internet, there are instances when collection material may be recorded and uploaded to outside websites by visitors. The organization must work to present the best quality record of material online which often requires continuous staff attention (Evens & Hauttekeete, 2011).

The second biggest challenge to an organization looking to invest in creating a digital collection is technology. Digitization efforts are dependent upon technology available to an organization. Today’s technology is different than that of 10, 20, 50 years ago—as will be the case 10, 20, 50 years into the future. As technology changes, pieces of cultural heritage can be at risk of becoming obsolete due to the material format, especially true when specific technology is required to access material, as with audio and film. Once digitized, the resulting files are at risk

of becoming obsolete. Throughout the brief history of technology, previously standard file types have quickly been abandoned in favor of more universal or easily updated programs. There is no safeguard on future longevity of today's new digital material. Organizations will need to continually invest in technology (Bradley, 2007; Evens & Hauttekeete, 2011; Hand, 2008).

The challenge of technology and proper staffing are dependent upon adequate funding. Many times, funding for digitization is given on a one-time, project specific basis (Bor Ng & Kucsma, 2010; Buchner, 2010; Evens & Hauttekeete, 2011). The ongoing cost of staff and technology is not insignificant. Organizations need to acquire continued funding to maintain existing digital collections and cultivate future materials. Funding for digitization efforts should begin with long-term budget planning and visioning at the start. Many organizations avoid starting a digital collection because they are unable to envision the sustainability once special funding runs out (Evens & Hauttekeete, 2011). To help offset costs, some organizations have collaborated with neighboring institutions. For example, the Gruss Lipper Digital Laboratory in the Center for Jewish Heritage (Buchner, 2010) is available for a collective of five major organizations to use when digitizing materials. These organizations (American Jewish Historical Society, American Shepardi Foundation, Leo Beack Institute, Yeshiva University Museum, and YIVO Institute for Jewish Research) may use the facility pro-bono or access technology for a fee when external funding is available (Buchner, 2010). The Minnesota Digital Library is another instance where smaller organizations can tap into the resources of a larger group to complete digitization projects. Collaboration may not work for all organizations, but is a potential way to assist in lowering costs of the necessary technology for digitization.

Funding concerns mean organizations are confronted with the challenge of prioritizing collection items for digitization (Benton, 2010; Evens & Hauttekeete, 2011; Smith, 2010).

Institutions are faced with finding a balance between items of interest to general public and those of value for scholars (Benton, 2010). There is an added concern when the conditions of the original items require preservation before further damage occurs. Some argue that the process of selecting items for digitization should consider the representation of minority groups not traditionally highlighted (Li Liew, 2006). Weighing the need for adequate representation of multiple cultures against the logistics of funding is of particular concern for large organizations that house collections featuring many different cultures or social groups.

While no global criteria standard exists for the selection of objects to be digitized, there are guidelines being suggested. Ooghe and Moreels proposed a set of “25 sector-independent selection criteria grouped into six categories: institutional frameworks (e.g. copyright restrictions), value of the material (e.g. completeness), physical criteria (e.g. quality after digitization), uniqueness and digital multiplicity (copies), selection through metadata (absence or presence) and financial framework (costs)” (Evens & Hauttekeete, 2011, p. 158). The suggested guideline is a place for organizations to begin determining which material should be prioritized digitally—especially when the material is going to be made public. There are arguments against post-digitization quality ruling out an item for consideration, especially if the condition of the original item is compromised.

As Evens and Hauttekeete (2011) point out, there are legal issues and copyright restrictions to consider when digitizing material for public access. Digital content is subject to the same copyright laws as the original item. Depending upon the material with which the organization is working with, there may be major barriers in this area.

When an organization consciously chooses to address the challenges of digitization and proceeds into the digital realm, there are agreed upon best practices. Planning ahead before start

of the digital project includes the creation of technology procedures, risk and data management protocols, continued sustainability, and safeguards for data integrity (JaJa & Song, 2009).

Provision of clean metadata and controlled vocabularies for collections (Buchner, 2010; Evens & Hautekeete, 2011; Weinberger, 2011) is vital to making the collection available, usable and accessible.

Collection elements should be easy to locate and simple to navigate (Landis & Chandler, 2006). Digital data will require constant curation by the institution. Once a record is up and accessible, it does not mean it can be ignored. As time passes, the record will need to be updated (Bradley, 2007) and re-evaluated.

Publicly accessible digital archives invite organizations to experiment with how best to get users more engaged with collections. Museums, in particular, are testing methods to encourage user participation. User assisted curation of exhibits is demonstrated by the 2008 “Click!” exhibit held at the Brooklyn Museum when artists were encouraged to submit digital material around the theme *The Changing Face of Brooklyn* (Geismar, 2012). Submissions were ranked by visitors on the museum website. The highest rated items gained placement in the exhibition.

The Museum of New Zealand Te Papap Tongarewa has incorporated an area of its website where visitors can define their New Zealand through pictures and documentation (Geismar, 2012). The material is displayed on a digital wall within the museum’s physical space. Users are able to browse and “create new images and content and create their own cultural map of New Zealand, which they can save on a memory stick to take with them” (Geismar, 2012, p. 271).

Some cultural heritage organizations allow users to freely classify or tag collection material to help contextualize the collection in a way that resonates with participants (Evens & Hauttekeete, 2011). In the 2014 Museum of Modern Art exhibit, *Gauguin: Metamorphoses*, digital material helped to enhance visitor experience when a complete digital scan of Gauguin's journal from his time in Tahiti was available in addition to the physical display. Having the full journal available to browse digitally allowed individuals to look at all the entries and sketches, rather than only being able to view the two visible pages of the open journal in the traditional display case. Visitors with the ability to read French were then able to get a first-hand look into Gauguin's mind by reading the complete journal rather than just curated snippets throughout the exhibition hall. The inclusion of this digital journal helped provide a larger context and narrative of the time the artist spent in Tahiti than was possible by traditional display conventions.

Many organizations have begun to highlight digital collections on Social Media sites, encouraging new methods of interaction. Social networking provides a new avenue for community building. These networks are an ideal place for institutions to provide community members with an expanded narrative of collection material that fosters greater in-group connections. Social media's "main impact is to redress some of the isolating and individualizing impacts of other new technologies that allow people to return to certain kinds of intense and interwoven forms of social relationship that otherwise feared were being lost" (Miller, 2012, p. 148). When organizations invest in having a presence on social media, they become involved in a growing dialogue about issues of culture found in today's social landscape.

The survey of current research has shown that while social or group identity is comprised of many factors, it relies primarily on an individual noting strong in-group ties and the group being central to an individual sense of self. Studies conducted around the effects of social

identity on individual behavior provide evidence that strong connections to other members are likely to correlate increased involvement with the group. Collective histories of a group help individuals form stronger connections to other group members which helps in placing themselves in the larger context of the world. The cultural institution, by its very nature, is able to provide access to the kinds of collective histories or narratives that allow for robust connections and contextual placements to occur. Cultural institutions can also increase connections of individuals to past members to better contextualize their membership in a social group resulting in a strengthening of social identity. Individuals with access to cultural heritage institution collections gain a stronger sense of social identity and are more likely to become involved with the organization. As Berger (2007) states, “the past is not for living in; it is a well of conclusions from which we draw in order to act” (p. 11).

Cultural institutions today are able to reach larger audiences through developing publicly accessible digital collections in an online platform. The development of such collections is a major undertaking that must be carefully considered. To create a quality digital collection, organizations must premeditate a project that includes detailed attention to final digital records, metadata, searchability of records, and the investment in the staff and technology needed to maintain the collection. When the benefits are weighed against the challenges, the result is increased access. When more individuals are able to access the collections, more users will have the potential to gain connections with past individuals and thus strengthen the sense of social identity. As more individuals gain this heightened connection to group membership, the organization will enjoy increased engagement with these new users.

It is still unclear how organizations in the field have experienced changes in public engagement after launching a digital collection. The analysis of real-world applications

determines whether organizations with digital collections see an increase in active participation from the public. Why did organizations choose to begin managing a digital collection and what challenges have they encountered? How are organizations tracking levels of engagement in order to see these changes? Is the expected increase in public engagement with the organization occurring? Are there changes in the depth of public engagement once a digital collection is unveiled? What role do social media platforms play in providing an area for discourse and awareness? Are organizations seeing a change in the type of audience members who become interested in their organization since the launch of their digital collection?

The following study seeks to uncover whether cultural institutions experience an increase in public engagement due to an increased sense of social identity among users of digital collections.

III. Methodology

To investigate the real-world application of how digital collections have affected participation in organizations, a two pronged approach was devised. Through the use of a broad sector reaching survey and four focused case studies, the concluding research results will help provide a detailed understanding of the role that digital collections play in user participation with the organization in the larger field.

The literature landscape on social identity outlined above makes it clear that when individuals have an increased sense of their own social identity due to in-group ties and centrality they become more likely to participate in the group. It is also clear that digital collections, when properly managed, provide a vital place for users of the collection to develop the in-group ties that increase group identity. The following research focuses on the ways

participation in the organization has changed since the creation of a digital collection. Questions about the way in which information is presented to the public, platforms outside of the digital collection, and the way in which users now interact with staff regarding the collection, are asked to determine if access is the sole reason for any changes and if there is an increase in perceived sense of group identity with the culture group.

A short survey (See Appendix A: Survey Questions) was created and distributed digitally to a variety of organizations that hold cultural heritage collections. The survey allowed for a broader understanding of how digital collections are affecting participation in cultural institutions than through interviews alone. Conducted between April 15 and May 31, 2014, the survey was posted on professional group message boards found on social media site LinkedIn.com. The American Library Association, American Alliance of Museums, Digital Libraries group, and Special Libraries Association provided contact with a wide range of librarians, archivists, managers and directors who work with both cultural heritage institutions and digital collections. Members of the LinkedIn groups work at large institutions such as Massachusetts Institute of Technology, The Smithsonian, or British Library; or industry specific organizations including American Library Association, American Association of Law Libraries, or EBSCO Information Services. Still others work at smaller historical societies such as the Wisconsin Historical Society, Minnesota Historical Society, or Latah County Historical Society in Washington State. The Minneapolis Institute of Arts, American Museum of Natural History, The National Archives and the Literary Freedom Project also employed members of these professional groups.

In an effort to increase responses, direct emails were also sent to employees from a sampling of cultural institutions listed on the Museum Directory of the United States of America.

Institutions had to fit under the umbrella of “museum”, “history”, and “cultural” as well as having a website which highlighted a digital collection for public viewing. With an expansive group of potential participants from throughout the sector, the survey results should reflect trends occurring in the field of cultural heritage preservation.

The survey was crafted to elicit information about measurable changes that have occurred since a digital collection was made available to the public. Particular areas of interest discussed in the survey include web traffic, social media presence, reference inquiries about the collection, and changes in monetary donations. The survey was kept anonymous to encourage honest responses.

Four cultural heritage organizations were also selected to participate as case study sites. These institutions were asked to participate in an in-depth interview about the organization, its collections and digitization efforts as well as completing the short survey described above. The interview process was intended to complement the survey by providing more detail into the rationale for creating their digital collections, the groups that utilize the collections, as well as the benefits and challenges faced when establishing a digital collection.

There are many kinds of cultural heritage institutions and each faces unique challenges to preserve and distribute their collections. To get a wide range of experiences, user groups, and collection size, different types of cultural heritage organizations were selected. Participating organizations include a grassroots preservation museum and archive, a traditional archive, an educational institution archive, and a solely digital archive. This sampling allows research that engages with a variety of institutions that represent both choice and non-choice group membership for users in addition to the size and scope of the digital collection in comparison to the physical collection the organization houses. The ability to explore different institutions

within these sub-areas of the cultural heritage field will give conclusive results and the ability to show a greater representation from the whole sector on the ways in which group identity can affect participation after the creation of a digital collection. These four participating organizations are:

- **Hill Museum & Manuscript Library** (Collegeville, MN). The Hill Museum and Manuscript Library has worked since 1965 to preserve manuscripts used in ceremonial and daily life from a variety of culture groups in areas where these manuscripts are potentially in danger due to political or environmental threats. The collection of manuscripts is heavily accessed by researchers. Students and Faculty as well as individuals interested in manuscript culture also access their collections though at lesser rate than their scholarly counterparts. These users are able to access roughly 10% of their collection online.
- **Leo Baeck Institute** (New York City, NY). The Leo Baeck Institute focuses on maintaining a collection of items preserving German Jewish cultural heritage up until the end of World War II. Their archives are accessed largely by researchers, genealogists, and members of the German Jewish culture. Leo Baeck patrons are able to access over 75% of the collection online.
- **Mount Holyoke College Archives** (South Hadley, MA). Mount Holyoke College is one of the earliest all women colleges on the east coast. The archives at Mount Holyoke are in charge of historical records about the college as well as alumnae and past/current faculty. The archives are utilized primarily by researchers, genealogists, faculty and alumnae. Roughly 10-15% of the collection at Mount Holyoke is available online.

- **South Asian American Digital Archives** (Philadelphia, PA). The South Asian American Digital Archive works to highlight the culture of South Asian Americans. The collection is accessed by researchers, genealogists and members of the South Asian American and South Asian community. As a fully digital, post-curatorial archive, the total collection available through the South Asian American Digital Archive is online.

The selected organizations completed the digital survey in mid-April, 2014, followed by a site visit¹ in late-April and early-May, 2014, to conduct a detailed interview. Questions (See Appendix B: Interview Questions) focused on issues of group identity, digitization methodology of the organization, statistical changes in public participation, dissemination of digitized material, makeup of collections, and organizational structures. Additional inquiry was made into select areas of the digital survey for more clarification as needed. Once interviews were completed, a few follow-up emails and phone calls occurred upon return for additional clarification on areas discussed in the initial interview.

The following sections discuss the results of the survey and case study interviews as well as the implications of these results upon the field and the ways in which digital collections may be used to increase group identity and thus participation in the organization.

IV. Survey Results

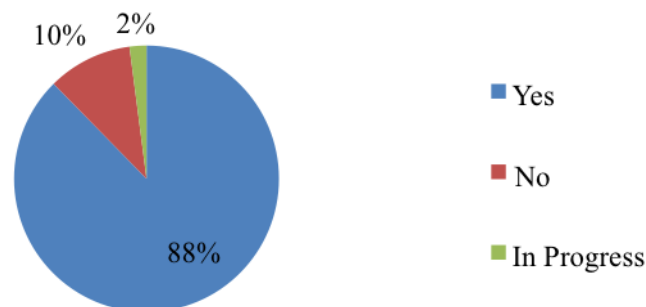
To learn how public engagement with cultural heritage institutions is affected by the development of a digital collection, a brief digital survey was distributed to a broad range of institutions and professionals working in cultural heritage institutions. A total of forty-one (41) institutions completed the online survey, to provide a range of experiences from the landscape of

¹ Due to timing and funding, the South Asian American Digital Archive interview was conducted via phone.

digital collections in the cultural heritage sector. Results from the four (4) case study institutions are included in the survey data. Case study participant responses may be referenced later when discussing the individual case study institutions.

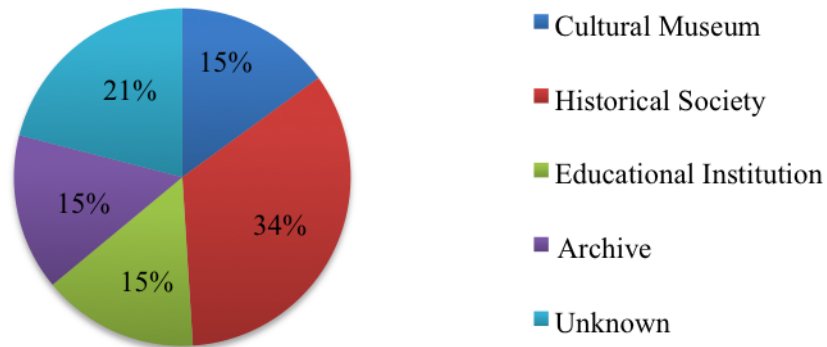
While all respondents have pieces of the physical collection digitized, not all of these components are publically available online (See Figure 1: Online Digital Collection). The overwhelming majority of respondents (88%) indicated that they do have a digital collection available. Four respondents (10%) indicated that they have not yet moved to hosting online. One respondent (2%) noted though they do not have a digital collection available, but they are in the process of preparing the collection for online viewing. The fact that not all survey respondents have digital material available online illustrates the larger landscape in the field. When looking online, it is easily evident that the majority of cultural heritage institutions have some type of digital collection presence, though there are some that do not.

Figure 1: Online Digital Collection



To get a better sense of the types of institutions (See Figure 2: Organization Type) participating in the anonymous survey, general organizational information was asked about organizational make-up; seventy-eight percent (78%) of respondents provided these answers. Respondents represent historical societies (34%), cultural museums (15%), educational institutions (15%), and archives (15%).

Figure 2: Organization Type

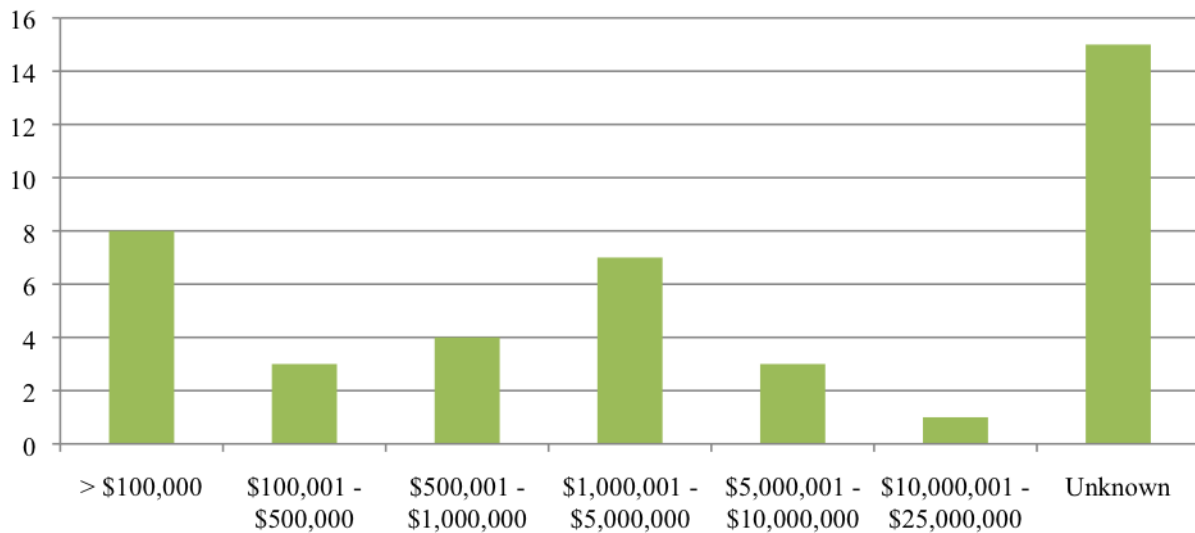


Respondents primarily represented small institutions (See Figure 3: Institutional Size) with less than twenty-five employees (56%), or medium institutions with twenty-five to one hundred twenty-five employees (20%). One respondent came from a large institution that employed between one hundred twenty-six and two hundred fifty people.

| Figure 3: Institutional Size | |
|-------------------------------------|-------------------------|
| Number of Employees | Number of Organizations |
| less than 10 | 15 |
| 11 – 25 | 8 |
| 26-75 | 5 |
| 76-125 | 3 |
| 126-250 | 1 |

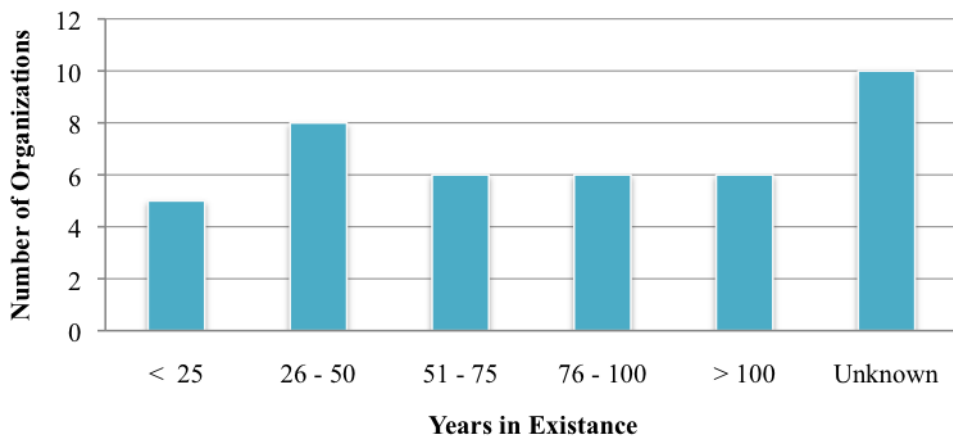
A total of 63% of respondents provided information about the institutional budget size (See Figure 4: Organizational Budgets) of the organization in which they worked. Reported budget sizes range from less than \$100,000 annually to a maximum of \$25,000,000 annually.

Figure 4: Organizational Budgets

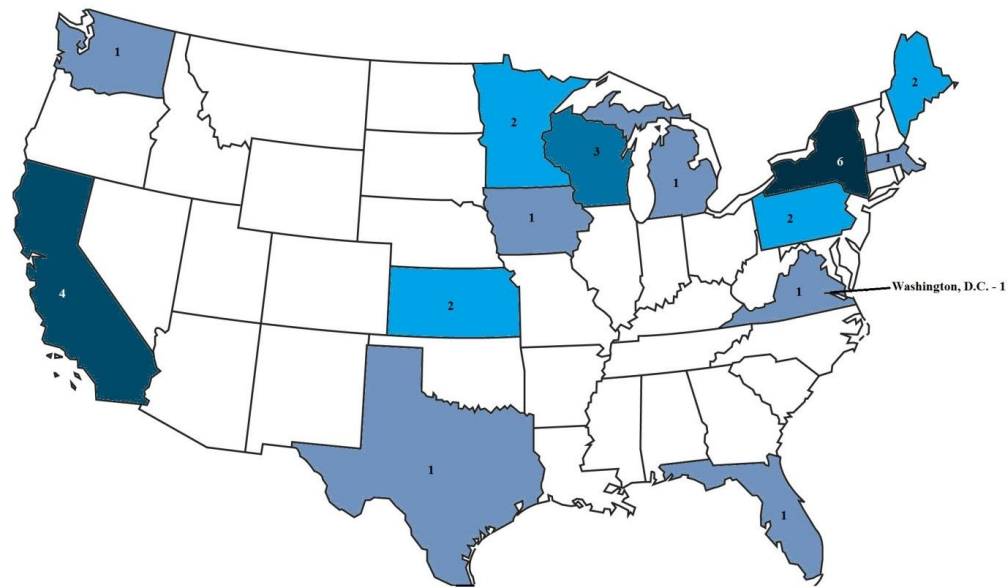


The organizational age (See Figure 5: Organizational Age) of survey respondents varied between six (6) years old to one hundred ninety-two (192) years old.

Figure 5: Organizational Age

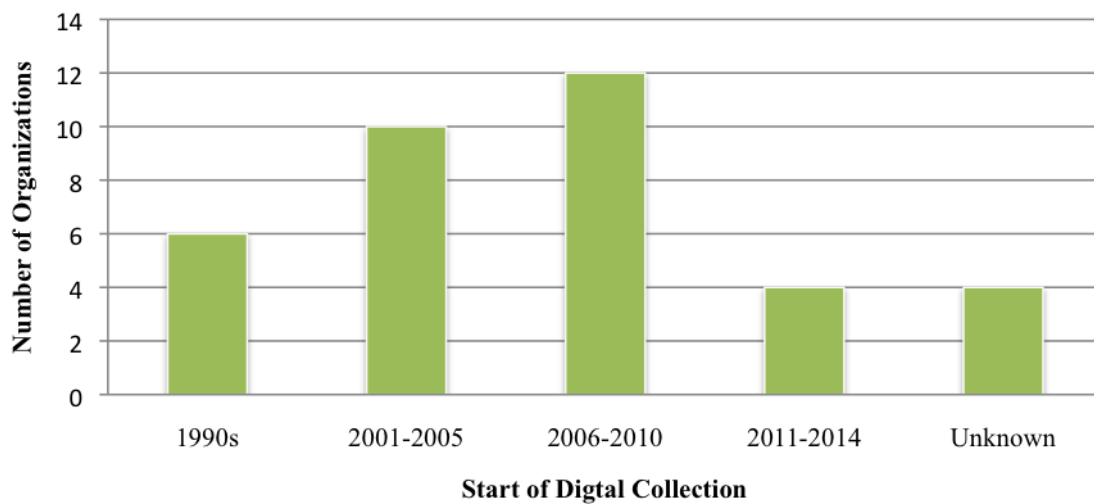


Responses came in from throughout the United States of America (See: Map of Respondents by US Geography). California and New York had the greatest number of participants. The international community was also represented through two survey respondents.

Map of Respondents by U.S. Geography

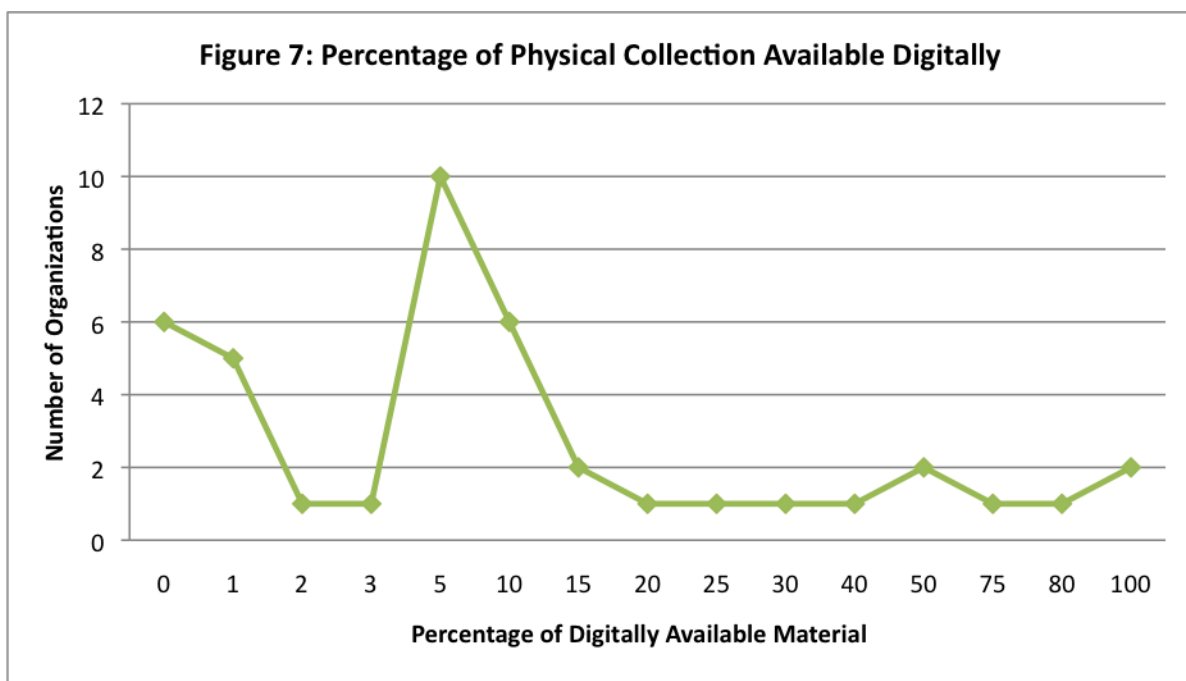
The responding institutions indicated work began on digital collections as early as the 1990's and until 2013 (See Figure 6: Digital Collection Initiation). The earliest initial digital collection work started at 15% of responding organizations during the 1990's. The most active years were 2001 and 2008, each seeing 12% of respondents launching the initial digitization efforts. A small percentage of respondents, 10%, were unsure of the exact year the organization began a digital collection. Uncertainty was most often due to the institutional respondent not having been employed with the organization at the start of these digital efforts.

Figure 6: Digital Collection Initiation



The resulting collections from the institutions vary in size (See Figure 7: Percentage of Collection Available Digitally) from less than 1% of all physical material digitized to 100% of material digitized. Nearly one quarter (22%) of respondents indicated over 25% of the material in their physical collection is available digitally. However, the majority of responses (41%) have digital collections which only showcase 5% or less of all material.

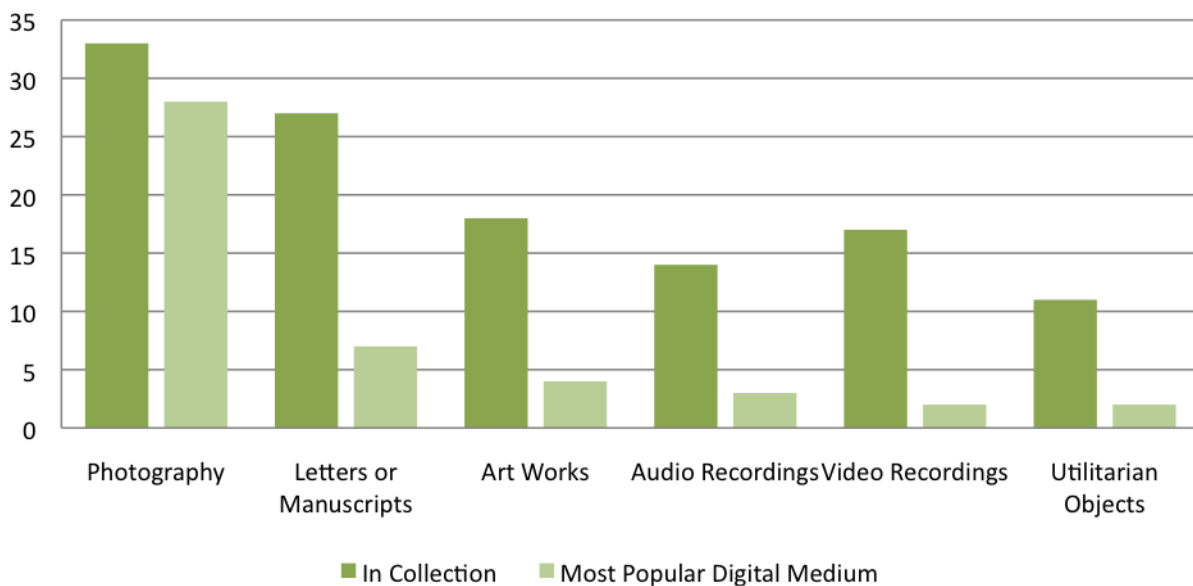
Figure 7: Percentage of Physical Collection Available Digitally



Digital collections of responding organizations showcase a variety of materials. Photography was the most common (80%), but collections also included samplings of letters or manuscripts (68%), artwork (44%), video recordings (42%), and audio material (35%). Collections also featured utilitarian items such as furniture and daily items but to a lesser extent (27%).

Organizations were asked what material in the collection is most popular among users (See Figure 8: Collection Material Type vs. Popularity). According to 85% of institutions with photography in their digital collections, photography was the most popular. Institutions with letters and manuscripts available in their digital collection (32%) found this to be the most popular medium. For organizations that showcase art works, 24% indicated this was the most popular medium. Audio recordings (24%), video recordings (12%) and utilitarian objects (18%) were less likely to be popular among users.

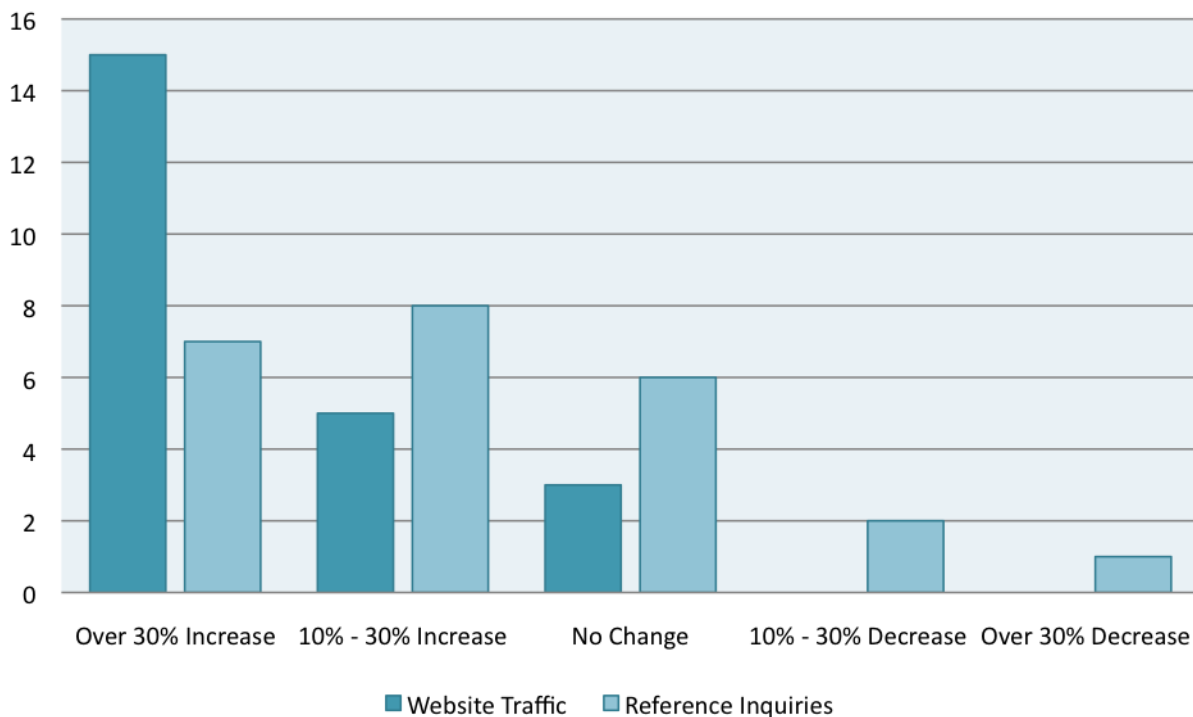
Figure 8: Collection Material Type vs. Popularity



Participants were asked a series of questions about website traffic statistics, the use of social media, and reference inquiries about material in the collection to uncover how these areas of operation may have changed as a result of releasing a digital collection. Over half (54%) of organizations kept statistical information on website traffic and 46% of respondents indicated they kept statistics on reference inquiries made by the public.

There is an obvious increase in participation (See Figure 9: Reported Changes in Web Traffic) with the organization after the debut of their digital collection indicated by 90% of respondents who tracked web traffic. These organizations noted increases in visitors of at least 10% since beginning their digital collection. An increase of at least a 10% increase in inquiries was noticed by 80% of those institutions that track reference inquiries.

Figure 9: Reported Changes in Web Traffic



While the majority of respondents indicate a positive correlation between the launch of the digital collection and reference inquiries, three (3) organizations indicated a decrease. Given space to elaborate on the kinds of inquiries being asked post digital collection, these three organizations all noted that inquiries were now about more specific works in the collection and less about broad topics. This is likely due to the fact that users of the collection were more informed about collection material. Instead of having basic questions regarding the kinds of material available, digital users are asking about specific works indicating they are not new to the collection. This indication is corroborated by statistics, as all three organizations noted more than a 30% increase in web traffic since establishing their online collection. While collections are still being utilized by the public, perhaps people are finding what they are looking for without needing to contact the institution directly. It may also be that the collections in question may not hold the material users were looking for and they moved on to other collections or institutions.

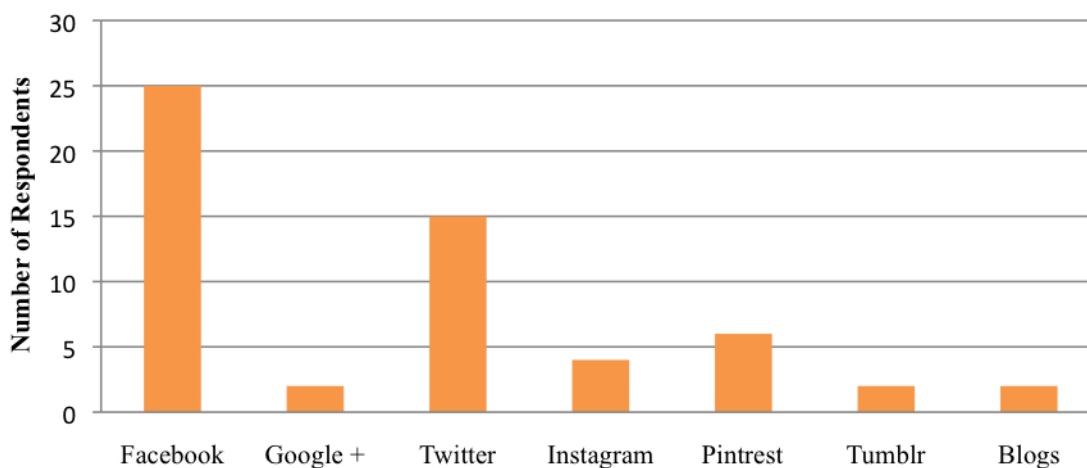
The transition from vague to more detailed inquiries was reported by multiple organizations. Four common threads were evident among institutions discussing the changes of reference inquiries since the digital collections became available. The first notable change is that inquiries are now about specific images or items available online. Users that referenced a specific work in the digital collection often follow-up with the organization asking about similar material that may not yet be available digitally. The second most noticeable change is the sophistication of questions. Because users are able to do some initial research into the collection and the holdings before reaching out to staff, users are now developing specific and detailed questions about specific collections or items rather than general topic inquiries. By knowing more about the organization's collections and holdings, users are able to formulate more detailed and focused questions for staff to assist in research. Users also inquire about technology assistance,

including requests for images or more complete record scans or high-resolution image requests for scholarly publications. Requests for other collections or material to be made available online are also common now.

In addition to web traffic and reference inquiries, organizations were asked about changes to fundraising efforts since they began their digital collections. It should be noted that this section of inquiry did not yield many responses. The majority of survey participants (73%) skipped these questions or responded with “Not Applicable”. While those that answered did so positively, due to the small number of respondents, little is able to be determined from this line of questioning.

There are other ways to share items in a digital collection beyond the organizational website, such as through the use of social network sites (See Figure 10: Social Media Networks). Social media is used by 61% of respondents to further engage the public with collections. All of these respondents indicated their organization used Facebook. Other social networks include Google+ (8%), Twitter (60%), Instagram (16%), Pinterest (24%), Tumblr (8%), and Blogs (8%).

Figure 10: Social Media Networks



It is interesting to examine how the use of social networking links back to website and reference inquiries. Of the organizations who use Facebook, only three (3) of them reported no change in web traffic numbers while the remaining institutions indicated an increase in web traffic. Many (40%) of the organizations utilizing Facebook also reported an increase of over 10% in their reference inquiries. Reference inquiries changed in the level of sophistication in addition to the increase in quantity.

Finally, organizations were asked to comment in their own words on changes they noticed since building their online collection. Examples of responses are given to describe access, community, and social media.

Access

- *“We are able to reach a broader audience, not just individuals in the local area. This has brought new interest to some of our collections.”*
- *“This has impacted programs -- classrooms can use this information without permission/ assistance from museum staff.”*
- *“On the one hand I think we have an increase in public awareness, but perhaps a decrease in actual collection use in person.”*

Access is an extremely important component for both cultural heritage institutions and digital collections. The concern with providing better access to material is indeed evident in both the literature and the increase in user traffic because of digital collections. As seen in the comments above, staff are able to recognize the increased awareness of the organization and its work in the public sphere. Users are accessing the organization and its collections from beyond the traditional community. While this may indeed mean that the physical collections are not

browsed at the same rate as the online collection, the additional use from the online provides an overall increase in access and collection use.

When granting new types of access, some level of hesitation is to be expected. The public having increased access to collection material may also negatively affect the organization's work. One respondent notes that programs have been impacted by the ability of individuals to use information in the digital collection without assistance of staff members. Without completely limiting access or permissions for particular items, it is unrealistic and counter to the goal of increasing access to expect individuals to not use the material presented online. The literature states the best remedy is to present information with as much authority as possible through the use of metadata and narratives. However, this concern does lead to questions of ownership over cultural material and digital material which is not in the scope of this work.

Community

- *“We have many local historical societies that have visited our research center. They have seen our collection online and want to know how it's done, etc. We provide guidance for free too and sure enough, these organizations have been generous in donating appropriate materials (postcards, news clippings, etc.)”*
- *“Our library has received awards from the IMLS and other agencies that demonstrate a greater awareness about our work in general.”*
- *“Changes in personnel have made more of a difference than digitizing collections. Previous staff had a well-earned reputation for unhelpfulness and coldness.”*

The comments above help show the importance of community even in this digital world. By working with other institutions and helping to advance their digital efforts a reciprocal

relationship can be formed. This not only benefits both organizations, but also the general public which will be able to discover culture and histories not previously accessible. It is also important that organizations are aware of maintaining a community in their physical location. The last comment harkens to the importance of welcoming communities into collection spaces. When staff are not helpful or welcoming, negative reviews pose lasting hardships on the organization to effectively maintain its charge as a steward for future generations.

Social Media

- *“With engagement through social media (mostly Facebook) we can have conversations about the materials that we feature online. People ask questions, and add details they remember.”*
- *“Lots of feedback on online images: corrections, additional information, personal memories, etc.”*

Comments from survey respondents about social media showcase the benefits of inviting users into the collection. Engagement shows users are not just passively looking at material. Instead they are joining in the discussion. These important discussions are able to build important in-group ties that allow users to become more engaged with the organization. Adding personal histories, asking questions, and sharing featured content allow visitors a place to strengthen social identity through social media networks.

It is clear that organizations noticed a distinct increase in engagement after launching a digital collection. Such increases are seen via website traffic, reference inquiries, and interaction with the organization on social media networks. An important take-away regarding the increases in public communication with staff is that such communication is occurring with more sophistication and directed inquiries than seen previously. This shows users approach the

organization having already gained connections to material and the culture from which it originates through the use of the digital collection. The survey also helped to illustrate that change in web traffic and inquiries are substantial and noticeable. Even organizations that do not maintain detailed statistic records noticed changes in engagement because of long-term institutional knowledge of staff members. Responding organizations are seeing positive changes in public engagement since launching their digital collections.

V. Case Study Results

The survey results discussed above indicate that cultural heritage institutions are indeed seeing increased public engagement from the development of digital collections. This is evidenced by increased awareness, web traffic, and public connection via social media networks. In order to provide a more detailed discussion on the organizational experience through digital collections, four institutions were selected to participate in an in-depth case study. These studies focused on areas such as the organizational rationale for starting a digital collection, the benefits and challenges faced when establishing a digital collection, the groups that utilize cultural collections pre and post digitization, and an in-depth analysis of how the increase in access has changed the way users engage with the organization.

The four organizations selected as case study sites were Hill Museum and Manuscript Library (HMML), The Leo Baeck Institute (LBI), The Archives of Mount Holyoke College, and The South Asian American Digital Archive (SAADA). The goal of these case studies was to reveal a more detailed picture about the changes organizations experience after developing a digital collection beyond what was determined by the results of the electronic survey. The following is a report on the findings from this process.

Hill Museum and Manuscript Library

The Hill Museum and Manuscript Library (HMML) is a nonprofit organization whose goal is to increase preservation efforts and access for future generations to ancient manuscripts in vulnerable areas of the world in collaboration with the manuscripts holding institution(s). Because of the strong focus on preservation of cultural material and stewardship for the future, HMML is a clear example of the traditional archive cultural heritage institution. Matthew Heintzleman, Curator of Austria / German Study Center and Cataloger of Rare Books at HMML spoke to the history of the organization and the migration of materials into HMML's digital collection.

HMML began its work in 1965 in an effort to help document ancient manuscripts in Europe due to a fear of potential destruction of these manuscripts if a nuclear war was to occur (M. Heintzleman, personal communication, April 22, 2014). The Benedictine Monks from St. John's University in Collegeville, Minnesota, reached out to a variety of religious and state institutions in Europe to gauge interest in such an endeavor. HMML found the first interested organizations in Austria. It is believed that because of the timing of initial contact with these organizations, they were more inclined to participate in a preservation project of this kind (M. Heintzleman, personal communication, April 22, 2014). Austria had, only 30 years prior, been subjected to occupation by German and Allied forces, and the understanding of what another war could mean for the collections and cultural property held within abbey, monastery, and civic vaults was still fresh in their minds.

Upon receiving permission from an organization to come in and photograph their manuscript collections, HMML creates an individualized contract with the site that outlines the

ways in which HMML can work with the resulting microfilm and now digital photographs of the manuscripts to be recorded. Some organizations stipulate that researchers cannot receive copies of the manuscripts, instead only allowing on-site viewing of materials. Others require notification and right of first refusal when researchers request copies, and still others allow researchers open access to the manuscripts. These contracts also hold a special clause that allows the home institution to request all microfilm copies of manuscripts be returned if at any time they feel HMML is not handling the microfilm in a way they deem appropriate (M. Heintzelman, personal communication, April 22, 2014).

With an understanding of the ways in which the product may be used by researchers and HMML's guidelines for distribution clearly laid out, three digital copies of the manuscript are made. Copies are given to the home institution and a copy is housed at HMML's headquarters. A third copy is housed in the Minnesota Library Access Center in the basement of Anderson Library on the University of Minnesota, Twin Cities campus. Should any disaster occur at any two of the three sites, the material will still be available because of the precaution of preserving a third copy.

As the project gained success in Austria, HMML broadened their focus to other areas of the world where manuscript collections were believed to be in danger. This has included locations in Spain, Malta, and Ethiopia in the 1970's. Work was also conducted in Germany, England and Portugal in the 1980's and 1990's. It soon became apparent that some of these later sites had the infrastructure in place to do preservation documentation without HMML's assistance (M. Heintzelman, personal communication, April 22, 2014). HMML thus reevaluated their goals and chose to focus on bringing the necessary infrastructure for this type of documentation to areas where it did not already exist, rather than replicating work that was

already being done. Since the early 2000's their geographical focus has expanded even further to include Christian communities in the Middle East, Syria, Turkey as well as India, Ukraine and Iraq. Most recently, HMML has received funding to begin documenting manuscript collections smuggled out of Timbuktu prior to civil unrest in Mali (M. Heintzelman, personal communication, April 22, 2014).

While much of the work is focused in Christian communities, HMML also hold manuscripts of political importance as well as of Islamic and Jewish significance in daily religious and secular life. The majority of their collection is from within Christian communities because these communities were more comfortable working with HMML due to their Christian affiliation. HMML is aware of the political concern these organizations may hold regarding having an institution from an outside country come in and, in a sense, take some ownership over areas of their culture (M. Heintzelman, personal communication, April 22, 2014). This is why the individual contracts between HMML and the sites with which they work play such an important role in the handling of microfilm and digital photographs.

The reputation of HMML's staff has played an important part in gaining trust in new communities. This can be seen in through the work the organization has done in Ethiopia. Once the organization brought in Dr. Getatchew Haile to catalogue the Ethiopian manuscript collection, more people in the area began requesting the services of HMML and donating physical manuscripts to the rare book collection (M. Heintzelman, personal communication, April 22, 2014). Dr. Haile came to HMML from Ethiopia as a political refugee and to begin cataloguing the manuscripts they had documented from Ethiopia in the 1970's and onward.

About 10 years ago, HMML transitioned from photographing manuscripts on microfilm to digital photography. To digitally process manuscripts in remote and occasionally extremely

remote areas, HMML has created easily transportable digital studios that can be mailed to organizations in other countries. Studios are managed by a site coordinator who hires local workers to assist with the digital photography process. This is to ensure that the people working with the manuscripts are trusted individuals of the home institution, though HMML will send money to help pay the salaries of these workers. This digital studio allow for documentation to be done on standardized equipment and provides the necessary material for home institutions that are not otherwise able to access this kind of technology. Once material has been documented, whether as microfilm or digital photography, it is brought back to HMML's headquarters. Next it must be catalogued and—depending upon the stipulations outlined in the initial contract—made available for public use.

The users who wish to access the collections housed at HMML consist of four main groups; scholars, art interest, general visitors, students and faculty. Scholars make up the primary user group of HMML's collections and as such have traditionally been made a top priority (M. Heintzelman, personal communication, April 22, 2014). Scholars of ancient manuscripts can be found across the globe so there is a large audience of overseas users who wish to access the collection. This is especially true when the scholar is not able to travel to HMML or the home institution in possession of the physical manuscript collection.

The remaining three groups make up a much smaller percentage of HMML's audience. Some users of the collection are interested in the art of manuscripts. HMML has seen these users looking in a broader sense at the art and are not necessarily Art History scholars. General visitors to the HMML location are able to see a gallery display of the new modern manuscript edition of the St. John's Bible. This manuscript was begun circa 1998, 1999 and completed in 2012. It has

since gained local and national attention. Often after this exposure, the art interest group shows a greater desire to learning about manuscript culture.

Finally, students and faculty of the university make up the remaining users of the collection. Professors at St. John's University and the College of St. Benedict often bring classes to HMML's headquarters on campus to expose the students to a valuable resource with which they may not be familiar. HMML uses these student opportunities to teach about manuscripts and manuscript culture. Professors are also encouraged to use the collection, and especially digital items, for demonstrating the historical connections among cultures on a variety of topics during these visits.

To provide increased access to the collection for these user groups—especially the academic researcher—HMML began organizing the creation of a digital collection in the early 1990's. Contract stipulations with home institutions regarding how HMML can distribute manuscript copies are a hurdle to be carefully addressed. Thus these contracts are continually referenced when dealing with the potential for including items in the digital collection (M. Heintzelman, personal communication, April 22, 2014). As HMML has moved into digitizing their collections, early organizations have been contacted to see if providing digital samples (no full manuscripts are available online) is something to which they would agree to now considering when the original photographs were taken; the potential for digital access was not a potential reality.

The process of building the first digital collection at HMML was admittedly designed more for the more traditional researcher than the general public. The initial goal was to improve the cataloguing of the collection for researchers to access online. This began in the 1990's with a service called *In principio*, consisting of a database of manuscript incipits—the first line of

manuscript text—and was funded by the Getty Foundation (M. Heintzelman, personal communication, April 22, 2014). *In principio* allowed researchers to more easily identify text in a manuscript catalogued in HMML's collection. This project was purely text based and did not include any images. One of the major reasons HMML began this project was in response to the needs of the cataloguer (M. Heintzelman, personal communication, April 22, 2014). During the mid 1990's, it was becoming more evident that the Internet was developing into an effective tool that was going to last into the future. Researchers began to want, and even expect, to be able to access collection material online. By providing the incipits online, researchers could search to see if a manuscript they wanted to view was indeed a part of the collection and then inquire further.

In principio was a major step forward but it also had drawbacks. Only savvy researchers would be able to identify material online. HMML followed up this project with the Electronic Access to Medieval Manuscripts (EAMMS), whose guidelines provided the structure for HMML's online manuscript catalogue, OLIVER. EAMMS acts as a guideline for cataloguing manuscripts in a digital platform similarly to the way manuscripts would be found in a library (M. Heintzelman, personal communication, April 22, 2014). This means a lot of detail is recorded. While this was a huge benefit for scholarly users, it was still not a well-rounded solution for all user types. A more general or public audience could not easily browse the collection this way.

HMML thus began working on a new image based collection interface known as *Vivarium*, hosted through a CONTENTdm platform. This online system includes artwork and select manuscript illustrations. *Vivarium* does not, however, showcase manuscript text. The text component is available through the EAMMS based OLIVER catalogue. OLIVER provides users

with descriptions of microfilm and recently digitized manuscripts. The catalogue is continually being developed, and new records are being added as manuscripts become catalogued at HMML. While OLIVER does not have images available, it does link to sample images from manuscripts when they are available in *Vivarium*. Selection of material for inclusion in *Vivarium* is dependent upon the stipulations of the home institution.

As work began on *Vivarium*, HMML began looking at the microfilm in their collection and noticed some disturbing deterioration among the colored microfilm. In order to preserve the images on the microfilm, a reactive digitization effort began in 2004. Much of the microfilm had faded to red, so HMML turned to the color negatives and began digitizing these images (M. Heintzelman, personal communication, April 22, 2014). There are now over 65,000 digital images that are being stored electronically. Again, due to contract stipulations, HMML is unable to provide public access to all of these digital images. HMML has received permissions to include roughly 20,000 images in *Vivarium*. The remaining 45,000 images, while not online, are being preserved for the future (M. Heintzelman, personal communication, April 22, 2014).

To accommodate the goal of increasing awareness of manuscript culture, HMML has begun several social media initiatives. HMML is actively involved in Facebook, Twitter, Pinterest and a staff run Blog. Pinterest is an ideal format for HMML and similar institutions. Once an image is uploaded to Pinterest, the image can link back to the institution's digital collection record for the item. Viewers of the image are able to click on the image on Pinterest and get redirected to the digital record of the image in *Vivarium*. In addition to highlighting the collection and activities on Facebook, HMML provides resources for manuscripts and manuscript collections in the news. This demonstrates to followers that the culture of

manuscripts still affects us today. The blog is a less active tool and highlights important news about the working of HMML as well as awards or grants the organization receives.

Since launching the digital collection and cultivating a presence on social media, there have been noticeable changes with how users interact with the organization. HMML does not keep detailed statistics around inquiries, but staff is able to see general trend changes. Most noticeably, an increase in the sophistication and detail of reference questions. Due to the ability for users to begin research online, they are able to get a sense of the material HMML has available and more easily determine if an available manuscript is needed. There has also been an increase in requests to see full manuscripts online and to publish certain images in researchers' books or journal articles. It is clear from these interactions that the research audience in particular still wants more online access to the collection than HMML is able to openly provide. When requests for full manuscript access come in, if HMML has been given permission from the home institution, it is provided digitally for a designated period of time through a password protected section of the site for scholars to access. Recording statistics of traffic to HMML's website has shown a 30% increase since 2009 (M. Heintzelman, personal communication, April 22, 2014). Prior to this, HMML was not actively tracking statistics of traffic to their website. Without the before and after picture, it is hard to determine the full effect of the digital collection on changes in web traffic.

HMML pays attention to the reactions of those who follow their social media sites, though they are not actively analyzing the response trends at this time. General staff perceptions of the social media campaigns indicate that people are more interactive when HMML provides updates that include images from their collection or links to articles about manuscript culture.

These posts provide a context for the image that allows viewers to connect the work to broader historical and cultural contexts. These posts help the user understand a larger narrative.

HMML's virtual presence has not just caught the eye of those interested in the culture of manuscripts, as national and international funders are taking notice of the work in which HMML is engaged. Most recently, HMML received the 2014 International SUCCEED Award given to institutions that utilize the latest in technology and best practices for digital preservation of historical texts and documents. They also received the 2011 National Medal of Honor for Museum and Library Sciences—the highest honor awarded for the field and given out by the Institute for Museum and Library Services (IMLS). HMML has been represented in a variety of national and international arenas including presenting at the 2012 UNESCO conference on "The Memory of the World in the Digital Age: Digitization and Preservation." Locally, HMML was featured in the 2011 Twin Cities Public Television Documentary "Saving the Sacred: Preserving the World's Ancient Libraries." Such recognition has been given because of the valuable work that HMML does every day. Staff believes this recognition has come because more people and funding institutions are becoming aware of HMML and their work due to their online presence and collection access.

Two years ago the organization began work on creating a unique online environment where individuals can interact with the collection (M. Heintzeman, personal communication, April 22, 2014). This environment is currently known as *vHMML*. The development of this interface is being funded by the Institute of Museum & Library Services. The end product of *vHMML* will allow users to explore a lexicon of terms associated with manuscript culture, explore reference material on understanding handwriting of the past including how-to lessons, and provide a digital workspace tentatively entitled *Scriptorium*. *Scriptorium* will serve as a

place for virtual collaboration among researchers. Users will be able to work together to catalogue, transcribe, or in other ways better understand a manuscript (M. Heintzelman, personal communication, April 22, 2014). While this is still in development, there is currently a Blog to give interested parties information about the project and how users will be able to interact with the final product. This project will provide a virtual space for users to become active members in a larger community.

HMML began its existence working to build stronger relationships between itself and communities that hold valuable pieces of history from a variety of cultural groups. During the past decade, this work has shifted to place a new focus on providing space for community and relationship building in the online world through the use of digital collection space and social media campaigns. Staff agrees the use of these tools has increased the level of sophisticated engagement between themselves and researchers, provided new and unique avenues for users of the general public to begin to explore the culture of manuscripts, and increased the general knowledge about the need for this kind of work in their sector.

Leo Baeck Institute

The Leo Baeck Institute (LBI) is a research archive and library that focuses on the German-speaking Jewish population of Europe. Founded in 1955 by a collection of the leading intellectuals of German Jews, LBI is charged with preserving the body of culture and history of the German-Jewish population nearly destroyed during the Holocaust. Named after Rabbi Leo Baeck, the last leading Rabbi for Germany's Jewish Community and LBI's first president, the institution holds offices in New York City and at the archives of the Jewish Museum in Berlin. LBI also began with a branch in London, which has since turned into a publishing house, as well as Jerusalem.

The New York office of LBI is home to an 80,000-volume library and an expansive archive of letters, photographs, manuscripts, and other primary source material throughout the history of the German-Jewish population. Items in the collection date from the onset of the population in Europe up until about 1945. Some material dates later than 1945, but the population of Germany changed, as many Jews did not return to the country after the end of the Holocaust. Microfilm copies of original material can be found in the Berlin branch of LBI.

Speaking with Michael Simonson, Archivist and Registrar for the New York office, the audience groups for LBI's collection became apparent. Two major user groups for the collection exist; a traditional researchers consisting of academics in the United States, Germany and throughout Europe and those interested in genealogical research.

The Leo Baeck Institute is unique among many cultural heritage organizations when it comes to their digitization history. In 2007, LBI was approached by an individual in the community who wanted to donate a large sum in order to digitize the entire collection. Through that one generous gift, roughly 75% of the material in the collection has become digital (M. Simonson, personal communication, May 9, 2014). This generous benefactor wanted to do right by the community, the organization, and the collections held. Working to digitize material allowed for an increase in access as well as preservation efforts. The resulting collection from this gift is known as DigiBaeck.

In order to digitize the vast amount of material in their collection, a decision was made to work with an outside vendor to assist in digitizing material. The process allowed for quicker digitization of the volume of work in the collection than if the LBI staff was to digitize the material themselves through the use of the Gruss Lipper Digital Laboratory. However, the vendor was not familiar with the needs of an archive institution regarding the handling of

material as well as image quality issues. LBI required a slightly different process than a more typical client. Image quality is a critical issue for archives that often want a high-resolution image of an item on the back end to share with researchers. Many of the images used in DigiBaeck are of lower quality for hosting space issues and in adherence to copyright laws.

As material became digitized, LBI also wanted better quality microfilm created. The sometimes-poor image quality that was delivered meant that resulting microfilm was dark and hard to read. Efforts are still being made to create better quality microfilm, as this is the industry standard for physical preservation and for material used in the Berlin office. Funding for continued microfilm projects comes in from other smaller grant projects.

While LBI was digitizing the collection through the gift of a single donor, this individual was given updates on the process and wanted to have some say in the vision of the project. The donor in question was not a library or archive professional, but had a broad understanding of the value digitizing the collection for users held for the community and LBI. Due to their broader vision, staff needed to spend time educating this community member about the intricacies of the digitization process and the importance of seemingly tedious processes such as the inputting of metadata. Metadata input itself also posed some complications to the timeline of the digitization project at LBI. Due to changes in the Resource Description and Access (RDA) vocabulary standards, extra time needed to be spent reevaluating LBI's existing metadata.

After determining how the project would look and addressing these initial issues, LBI began uploading the now digitized material and associated records into the new DigiBaeck platform. This database is hosted through ExLibris software. Here users are able to search the digital collection using traditional search methods. There are some preset browsing options based on material types, but for the most part, the user does need to have a good understanding of how

to conduct research. As Mr. Simonson said, the digital collection is set up to be used much like traditional microfilm collections. To help combat this, LBI staff has also created Finding Aids to give an overview of successful methods for searching the collection.

Traditional search methods are most accessible to the main user base of LBI—the scholarly researcher. Simonson notes that some younger users, particularly those conducting genealogical research, have a profound difficulty adjusting to more traditional search methods that are not like internet search tools such as Google (M. Simonson, personal communication, May 9, 2014). Unlike those search platforms, the text of letters or manuscripts is not individually searchable. Instead, searches conducted in DigiBaeck must correspond to available metadata.

The Leo Baeck Institute attempts to reach audiences in new ways such as Facebook, Twitter and a staff run blog. Facebook has been given the most focus of these social network platforms. The page has evolved from text-based posts with links to collection items to becoming heavily reliant on image and article posts (M. Simonson, personal communication, May 9, 2014). The images displayed can be found in DigiBaeck, but are not linked to these metadata records. Instead, a narrative about the item is given for users. Simonson works closely with the Facebook efforts and has noticed that while these posts generate a number of likes, users are not likely to comment on items. It happens occasionally, which LBI staff enjoys but wishes that these types of online conversations were a more frequent occurrence.

The statistics of Facebook user interaction is not something that is gathered or tracked by LBI directly. It is more of a known reality among LBI staff working with the page. General statistics about DigiBaeck are available such as click to view rates. Due to the nature of DigiBaeck's hosting, much of the detailed statistics are recorded by Internet Archive and can be cumbersome for LBI to retrieve. Information pertaining to the catalogue and checking out of

items is recorded by the Jewish History Center, of which LBI is a part. When LBI looks at statistics they have recorded, they are doing so to justify a particular action with the collection.

LBI uses Google Analytics to understand how users interact with the website rather than individual collection items. Google Analytics has allowed LBI staff to see that there has been a significant increase in website traffic since the digital collection became available. This tool allows staff members to understand more about how visitors are entering the website. Behind general Google searches and direct URL visitors, Facebook and Wiki articles are the highest traffic drivers of users. Wiki articles are not as large of a driving source as staff would like. In an effort to increase the presence of LBI collection material in Wiki articles, staff is creating Wiki articles for predominant individuals mentioned in collection material and highlighting DigiBaek in the additional resources section of the articles.

The biggest change LBI staff has recorded since the creation of DigiBaek is the increase in reference questions, particularly for requests of high-resolution images. There was speculation when preparing the digital collection that there would be a decrease in physical material requests once the collection was available online. This expectation even led to discussions of housing original material off-site in a more secure preservation site (M. Simonson, personal communication, May 9, 2014). It was quickly realized this was not a viable option since staff needed to access physical items more frequently than they had previously. While it is true that there has been a decrease in the number of requests for physical materials, the amount of time staff needs to access the material has made up for the change. LBI has had to adjust to the volume of inquiries increasing from ten to thirty contacts per day. Simonson recounts that prior to the digital collection being available, he would field maybe ten questions a day. Now he has seen a steady increase in this number, to the point where thirty requests is a more typical day (M.

Simonson, personal communication, May 9, 2014). Requests include high-resolution image requests from scholars, general assistance questions, and technology guidance.

Simonson notes that through the digital collection—particularly the use of Facebook—there is an added awareness of the organization. This has increased the number of users, particularly among the younger population, which has added to the volume of requests that come in. User groups have been enthusiastic about the inclusion of a digital component of the collection at LBI, especially those users who are unable to travel to the New York City or Berlin offices to view material. With the creation of DigiBaeck, academic users are able to conduct the majority of their research online. Users attempting to do genealogical research have reported more trouble navigating DigiBaeck. At this time, there is no plan to change the way DigiBaeck is structured. However, some discussion has been paid to the potential for setting up a portal to better assist this second user group looking specifically at genealogical materials.

The jump into the digital collection realm was a fast paced venture for the Leo Baeck Institute. Working primarily between 2009 and 2010 on creating the digital collection, LBI was forced to address a variety of initial complications in a very short time frame in order to accommodate funder expectations. There is still work to be done to bridge the gap between the ability of available technology and user expectations. As LBI continues to discover new technology and new expectations of users in the coming years, the result may be a change in the way the digital collection is structured or presented online. For now, LBI staff is steadily working to respond to the influx of user traffic both online and through more traditional means.

Mount Holyoke College Archives

Starting as an all-women's seminary, Mount Holyoke College was founded by Mary Lyon, a pioneering female chemist and educator, in 1837, and was originally named Mount

Holyoke Female Seminary. In 1893, the seminary curriculum was dropped in favor of a more secular curriculum and the school became known as Mount Holyoke College. At its founding, Mount Holyoke became the first of what is now known as the Seven Sister Colleges. The Seven Sister Colleges act as a female equivalent to the historically male Ivy League schools of New England. The archives at Mount Holyoke aim to preserve the history of this all-women's college and document the lives and work of the school's alumnae and faculty. Interviews about the archives and digitization efforts were conducted with Mount Holyoke staff members Deborah Richards, the Special Collections Archivist; Leslie Fields, Head of Archives and Special Collections; and Shaun Trujillo, Digital Collections and Metadata Lead for the Digital Assets and Preservation Services (DAPS) department.

The archives at Mount Holyoke were given an official mandate in 1976 by the Board of Trustees, making their work an official part of the College (L. Fields, personal communication, May 6, 2014). However, the initial work of creating the school's archive of the school began in 1933 with the opening of Williston Library. At this time, alumnae donated special funds to create a unique open space in the library known as the 'treasure room' which contained historically significant materials (D. Richards, personal communication, May 6, 2014). The Library Director at the time was in charge of selecting what material would be made available in the treasure room. Not all of the material that is now stored in the archives was originally available for selection. Many historical items were under the charge of specific departments or professors who produced the material. It was not until 1976 that material from the treasure room, along with the other significant material from these departments, was centralized into the College History and Archives Collection, located in the basement of Dwight Hall (D. Richards, personal

communication, May 6, 2014). Part of this mandate included standard policies for declaring department material inactive at which point the items should be delivered to the archives.

Mount Holyoke's archives contain fairly standard material for an educational institution, including founding records, board material, curriculum catalogues, staff and student directories, as well as photos and other material from campus events. Material is also kept on famous alumnae and staff members including letters, journals, publications and other material that typically is donated to the college upon the death of the individual in question. New material of this nature does arrive on occasion but is slowly transitioning into digitally born items. The inclusion of digitally born material in the collection reflects on the perceived trust of the individual donating the items that the archives will successfully be able to care for the material now and into the future. Such confidence reflects positively on the work the archives has done in digitizing more traditional material under its charge. Once materials are delivered to the archives, they are processed, catalogued and placed in appropriate storage, for physical items including a temperature and humidity controlled space. After material is processed it becomes available for the public to access.

Archive staff recognizes four major types of users who interact with the collection. Individual researchers make up the largest user group. These researchers are typically investigating particular alumnae, faculty members, the history of women's colleges, or the history of western Massachusetts, where Mount Holyoke is located (D. Richards, personal communication, May 6, 2014). Not all researchers have a personal connection to Mount Holyoke prior to conducting their research, but some have been connected to the school beforehand. The second group includes individuals conducting genealogical research and attempting to learn more about a relative who attended Mount Holyoke. Faculty members also make up an important

group who utilize the archives for both personal research as well as research of their department's history. Finally, alumnae from the college often access the archives. Alumnae use is particularly high around the time of reunions, when members of the planning committee are looking in the archives for material about class members and from the school during the class' time on campus.

During the research interviews at Mount Holyoke, both Deborah Richards and Leslie Fields repeatedly discussed the importance of providing increased access to collection material. To be successful stewards of the collections, it is important that people are able to access these materials (L. Fields, personal communication, May 6, 2014). It is with the goal of increased access that the archives joined four other colleges in 1997 to participate in a digital website collaboration known as the Five Colleges Digital Access Project, referred to as CLIO at Mount Holyoke. The five colleges in this consortium were Amherst College, Hampshire College, Mount Holyoke College, Smith College, and the University of Massachusetts Amherst. These five colleges had existed in a consortium prior to the creation of CLIO in which the schools shared library material and allowed students to attend classes at other consortium schools.

CLIO was one of the first projects of its kind, providing a single point of entry into five college's archive material and was funded by the Andrew W. Mellon Foundation. Mount Holyoke digitized historical founding documents, presidential papers, course catalogues and directories up until 1900 for their area of CLIO. Participating institutions selected similar material, though they were all responsible for their own digitization work. To complete the digitization of material at Mount Holyoke, archives staff utilized the assistance of an intern from Simmons College's Library Science program to assist with the project. Once material was

digitized it was uploaded to the central CLIO website and was also highlighted in a digital collections section of Mount Holyoke's website.

After CLIO was launched, it became apparent to staff at Mount Holyoke's archives that members of their core audience were excited to find material from the collection available online. As time progressed and more organizations began to provide online collections, audiences shifted expectations to expect digital materials. Mount Holyoke saw this shift in increased requests for document and image scanning as well as for additional materials to be placed online.

This encouraged Mount Holyoke's archives staff to begin curating more collections for availability on their website. The selection of material for the new digital collections was determined through staff awareness of popular items in the larger collection. When items were requested for high quality scans, staff would look at the total contents of a folder or box and often decided to digitize all quality materials found (D. Richards, personal communication, May 6, 2014).

The Archives Director also selected particular collections for digitization in preparation for larger events happening around the college. This included the digitization of the Caroline A. Henderson papers (L. Fields, personal communication, May 6, 2014). Henderson spoke in detail on the early years of the dust bowl. Henderson's papers were digitized and placed online prior to an exhibit and book called *The Dust Bowl: An Illustrated History* by Dayton Duncan appearing on campus. The book was released in connection to the release of the Ken Burn's documentary *The Dust Bowl*. The book, exhibit and film referenced some of the items in Mount Holyoke's Caroline A. Henderson collection. The choice to digitize and display the collection online was

strategic on the part of Mount Holyoke's Archives, as they correctly anticipated an increased interest in the collection due to this external publicity.

To assist in the scanning of collection material, the archives turned to a newly created department at Mount Holyoke known as the Digital Assets and Preservation Services (DAPS) department. This department was created to serve a growing need for assistance in creating high quality scans, as well as managing the ever increasing digital material produced at Mount Holyoke (S. Trujillo, personal communication, May 6, 2014). Archives staff acknowledges that the amount of material that is currently available digitally—roughly 30,000 items—would have been nearly impossible to accomplish in the past three years without the assistance of this department (L. Fields, personal communication, May 6, 2014). DAPS is also responsible for helping the archives manage their digital collections once they are available online.

The new digital collection material is currently hosted on CONTENTdm. The software is able to do many things that are beneficial to the management of a digital collection, including allowing staff to track information about users and create customized landing pages. Custom landing pages for individual collections help to give greater context to the material in the collection, including links to finding aids that assist in searching and pre-established searches that push users in the direction of individual exploration. It can be daunting to stumble onto a large collection with little context and Mount Holyoke is looking to eliminate this fear of the digital collection world by these simple additions to the website.

Mount Holyoke is a strong proponent of using social media to engage audiences. The Archives have unique Pinterest, Twitter, Tumblr, and Instagram pages and will occasionally have featured posts included on the Mount Holyoke Library Facebook page. Each of these platforms serve distinctive purposes. Pinterest is a way to display photographs from the

collection while linking back to the record for the image in Mount Holyoke's digital collection. Pinterest also allows for the curation of images in a less formal manner. Photographs are arranged into boards with such headings as "Dorm Room Décor", "I want to ride my bicycle", "How Scientific" and "Our Great Grandmothers" as well as more traditional boards for individual classes and architecture around campus. Pinterest allows users to 'pin' images they like in their own boards.

The Twitter account is used to share news information about happenings at the archives. Instagram and Tumblr focus on more behind the scenes events at the archives. After some experimentation it has appeared that posts on these social networks are most successful in engaging users when there is a human aspect to the post. This is most effectively seen in photographs that have uniqueness to them that you might not find elsewhere. Part of the success of these social media platforms is the utilization of student workers. Student workers assist in various components of social networking, including curating Pinterest boards and guest posts on Tumblr. Their work guided by archives staff has maintained a consistent presence on these networks.

The use of social networks has also proven to have a dramatic effect on traffic to the digital collections. While DAPS records statistics through Google Analytics, it is not analyzed on a regular basis. The statistics are used to investigate questions as they arise or to prove the need of resources for certain collections or projects. Shaun Trujillo emphasized that recorded statistics began to show a strong picture in favor of the effort being placed into the archive's social network presence. The use of Google Analytics began in January of 2012, and since that time Pinterest is the third largest originator of incoming visitors to the collection at 8.3% (S. Trujillo, personal communication, May 6, 2014). Google search results combined with entry into the

collection through direct URL comprise 71% of total traffic. This is a larger source of traffic than Mount Holyoke College's website which is the fourth highest source of traffic at 5.4%. Facebook comes in at number six and Tumblr comes in at number seven with 1.6% and 1.2% respectively. Visitors coming in from Pinterest spend, on average, a little over four minutes on the site visiting an average of nine different pages. Facebook traffic, about 1.7%, typically spends a little over a minute and visits an average of five pages per session (S. Trujillo, personal communication, May 6, 2014).

Google analytics are able to provide information on the number of new visitor sessions to the digital collection and where these visitors originated. 57.5% of visitors originating from Pinterest are new to the collection; Facebook's 1.7% of traffic is made up of 74.7% users who are new to the collection. Of the traffic coming from Tumblr, 67.2% are new to the collection (S. Trujillo, personal communication, May 6, 2014). Taking into account that these statistics have not been recorded for the entire life of the digital collection or social network presence, it is clear that new users are discovering the collection and its material as well as spending a decent amount of browsing time in the collections.

While there are many positives that have come from the digitization process that enhance user experience, there have been challenges from an institutional standpoint. Metadata was not always recorded in the same manner throughout the years due to changes in staff and metadata standards. This has left room for human error that needs to be evaluated again as items are digitized and the associated metadata is recorded. Software limitations of CONTENTdm restrict the ability to cleanly display complex items, such as multipage letters, resulting in a clunky viewing experience for users. This is a big problem for Mount Holyoke as their collections

include a large number of letters and multipage documents. This limitation is being addressed by staff and there have been talks of looking into a new system in the future.

Overall, Mount Holyoke's archives have been able to make great strides in participation in collection material despite these challenges. In addition to clearly recordable statistics on web traffic, reference inquiries have increased since the digital collection became available. Inquiries are not in clear response to a direct item posted on Pinterest or highlighted on Facebook but display more general interest in the collections.

Mount Holyoke staff is excited by the continual growth of visitors to their digital collection as it allows them to share material to a larger user base. While there have been some changes to the demographics of these users, primarily the inclusion of new and recent graduates, there is not a clear 'new user group' that deviates from the four primary user groups originally recognized for the archives. Leslie Fields attributes a good portion of the increase in total users to the use of social network platforms. For Mount Holyoke, these are not "cute extras" but a core part of the mission to get material into the hands of the public. Detailed and strategic planning of Mount Holyoke staff to build up and promote the digital collection has been successful.

South Asian American Digital Archives

The South Asian American Digital Archives (SAADA) is a relatively young organization. Founded in 2008, operations began in 2010 to preserve the history of South Asian immigrants and tell the story of the Diaspora that migrated to America. The digital archive was created to provide the systematic preservation of the history of a segment of the American populace which had noticeably limited representation or focus in many cultural heritage institutions (S. Mallick, personal communication, June 2, 2014). It was important to the founders

that the way in which material was to be presented would be considered accessible and makes sense to the South Asian American community.

Other cultural heritage institutions had physical collections of South Asian American historical material. With a limited budget and no official paid staff, SAADA was created a post-custodial digital collection through the recognized collections of others. SAADA does not hold physical possession of any of the items represented in its online catalogue. Instead, they have worked with other institutions and private collectors to create digital records of physical items and/or catalogue existing digital material according to the standards of SAADA's collection. Not only is provenance metadata utilized to let users know the holding institution for each item in the digital collection, but SAADA's site also links back to the holding institutions digital collection if applicable. While SAADA's collection contains audio recordings, oral histories and moving film, the majority of the items in the collection are letters, advertisements and photographs.

Three main user groups for the collection have been identified. Members of the South Asian and South Asian American community have been the driving force for SAADA's work. This is evident in the recognition that the founding goal of SAADA is to provide easier access to the South Asian American community's history through a digital collection repository. Researchers and academics of South Asian studies, South Asian American studies, and American history are another large group that utilizes the collection (S. Mallick, personal communication, June 2, 2014).. The collection helps illustrate the contribution of South Asian immigrants to the American story, bringing in the third major user group of the collection; those individuals who have an interest in American history and/or immigration history. It is this last group that primarily consists of a more general public audience.

In order to reach these groups, the organization needed to acquire funding for the project which was initially provided by SAADA's founding board members. Today, the majority of SAADA's funding, roughly ninety-five percent, comes from individual donors. Needing to reach out to the community in these early years rather than turning to foundations for financial support has allowed the community to become invested in SAADA from the beginning. The financial support of the community is vital to their success as SAADA's business model of a post-custodial digital archive is not often included in larger funding streams such as grants (S. Mallick, personal communication, June 2, 2014). There is hope that as the organization becomes more established, and as long as the model continues successfully, this will change and more opportunities for financial support will become available.

In addition to funding, SAADA needed to build up a collection of digital materials. Co-founders of the organization reached out to institutions and private collectors known to have quality material representing South Asian American history. The initial phase of gathering digital collection material began around 2010 and continues on. Once the collection became available online in 2012, individual researchers and organizations began approaching SAADA with suggestions for potential collections or materials to be included. To help address this influx of material 'donation' inquiries, SAADA uses a carefully crafted policy statement to guide the direction of the digital archive's overall collection and assist in selecting material that will best help achieve their mission (S. Mallick, personal communication, June 2, 2014). Presently, the board of directors selects an area of South Asian American History on which to try and focus attention for digital material collection within a given year. This does not mean other material will not come in, but it is a way to help focus the need to continue to build the collection for both

SAADA staff and supporters. The focus area is made public with a plea to direct appropriate collection holders to the organization for possible inclusion.

With material collected, SAADA began the work to design a unique platform for its collection that would be user friendly regardless of the group a visitor belonged to. The result is a web platform that allows users to search the collection through a variety of pre-established criteria; collection, subject, and language. As users explore, they can select images which bring them to a detail screen providing more information about the item. Users can click on the item and be directed to the holding institution's digital collection site for more inquiries. The pre-established searches help guide new users in possible ways to explore the collection as well as provide a quick overview of items contained in the collection. Non-group members in particular benefit from this design feature, as it helps remove potential levels of anxiety about how to begin finding material.

To help spread the word about the organization and the collection through featured material, SAADA has utilized social media networks, particularly Facebook and Twitter. SAADA has been careful to monitor the responses of the community and general public since establishing their online presence. Using Google Analytics, SAADA has noticed a steady growth in traffic since they began having a web presence. Interestingly, the organization has about fifty percent of web traffic coming from outside of the United States; the largest of these international users are from South Asia countries such as India, Pakistan, and Sri Lanka (S. Mallick, personal communication, June 2, 2014).

Due to SAADA's structure as an organization, there are no statistics for how people have used the materials represented in the collection prior to the online launch. Communicating with holding institutions for the physical collections, SAADA staff has learned that by having some of

a collection included in SAADA's digital archive holding, institutions have seen an increase in previously underutilized materials. An example of this is seen with the material relating to Anandabai Joshee, the first Hindu woman to receive a medical degree in 1886. SAADA learned from the archivist at Drexel University, which holds the physical material, that since the digital material has been available through SAADA there has been an influx of people interested in the Drexel collection (S. Mallick, personal communication, June 2, 2014).

Looking back to the statistics around web traffic and collection use, staff has noticed the inclusion of narratives about material has helped increase the number of users. Narratives give a greater context for the material being viewed and increase users' connections to both the item and the individual(s) who found the item important. The power of narratives is seen to be most effective through SAADA's First Days Project, which invites users of the collection to submit a personal photo and story about their first day in America. To help provide larger context of these personal narratives, SAADA creates preset searches for items in the collection that originated during the same time period and in the same state as the individual's arrival, which are displayed after each entry.

Narratives have also proven helpful in connecting current and potential collection users through email communication and social media network sites. Social media networks are designed to encourage users to like, comment, or share a posted item to their network of people. SAADA has found that if a narrative is included, the likelihood of interaction with the item is increased and can draw the user back to SAADA's website when the post in question highlights an item from the collection. This, however, is not always the case as SAADA also posts relevant material from other sources such as news articles on South Asian Americans and their history.

Staying aware of public interaction on social media networks has led SAADA to benefit financially. With the reliance on individual donations, the institution has created unique ways to allow individual donors and community members to feel invested in the preservation of the history they find important. One example is reaching out to highly active social network users. In 2013, SAADA reached out to select individuals who often engaged with material they had posted to their Facebook page by sharing items with their Facebook friends. These individuals were asked if they would be willing to campaign on SAADA's behalf. When several individuals agreed, it resulted in a successful fundraising campaign for SAADA (S. Mallick, personal communication, June 2, 2014) while also strengthening the investment of the community to the work the organization is doing.

Another way in which SAADA is trying to engage users while requesting financial assistance is through item sponsorship where an individual provides a year's worth of financial assistance to care for the preservation of a particular item. This is a unique way for people to connect to a physical item they may not otherwise interacted with because SAADA does not house physical objects. This fundraising platform also highlights the importance of stewardship by working to preserve both digital and physical objects for future generations.

SAADA is taking the time to work with the communities served to find creative ways of engaging users with the collection and their histories. Since beginning operations, SAADA has noticed a variety of changes in how users interact with the organization. Holding institutions and private donors were quick to start approaching SAADA; more people are visiting the digital collection annually, indicating an increase in awareness; host institutions are reporting an increase in use of material included in SAADA's digital collection; and people are investing in the work of SAADA through social media networks and by providing financial support.

SAADA staff is very aware of the need for a strong sense of community among users since there is not the traditional physical site to visit. Many people only interact with SAADA and their online collection, but others are interested in the traditionally physical nature of community as well (S. Mallick, personal communication, June 2, 2014). People want to see and interact with items. To address this, SAADA has begun creating community forum events where people can meet staff and other users of the collection while also learning more about the collection. As the organization continues to operate and grow in both collection material and users, it will be a balancing act to juggle the desire for digital and physical access to material. For now, their digital collection has found a place in the South Asian American community that is continually growing in importance.

VI. Analysis of Results

Literature around social identity indicates that when users have strong in-group ties and centrality towards a group the potential for participation in the group is increased (Bettencourt & Hume, 1999; Bilewicz & Wojcik, 2009; Karp et al., 1992; Leach et al., 2008; Obst & White, 2007). Taking a look at the responses of the survey and the in-depth case studies above, it is clear that the investment in digital collections by organizations has indeed caused an increase in public participation with organizations in a variety of ways. With the addition of a digital collection, the vast majority of reporting organizations saw an increase in web traffic, an increase in reference questions—particularly in the sophistication of those inquiries—along with more public engagement on social media platforms. The question is, do these increases occur only because of increased access to material or are users developing the connections needed to strengthen their sense of group identity, leading to increased engagement with the organization? To answer this,

we look more closely at the case study organizations and the changes they have reported since their venture into the world of digital collections.

One of the major goals for creating the initial digital collections for all four case study sites was to provide an increase in access to collection material. There is little to dispute that by having a collection online more people will discover the organization and their collections (Benjamin, 2006; Evens & Hauttekeete, 2011; Smith, 2007). As users explore digital collections, they are able to place meaning on and make connections with collection material. It is this process that is the necessary staging for strengthening one's sense of social identity. Survey results indicated that 90% of organizations with digital collections—including all four case study institutions—saw an increase in their web traffic. This type of change indicates that access to these digital collections allows more individuals to start making the kinds of connections necessary for strengthening their sense of social identity.

While there is a greater ability to access collections which can build connections to a group, it is also important that users feel the group is central to their sense of self. This can be difficult to quantify without examining the experience of users. Looking at the user groups before and after the creation of a digital collection may give some insights into how central the collection group is to the user.

The cultural groups represented by the case study organizations included one no-choice group, one choice group and two that could be viewed as both. Mount Holyoke College represented a culture of women in higher education. The female identity of those represented in the collection is not a choice, but there was a choice for those women to attend college and attend college at Mount Holyoke. Thus women in higher education are likely to gravitate to the archives and even more so if they decided to attend Mount Holyoke. The Leo Baeck Institute

represents an ethnic culture group where there is not a choice factor, as well as a religious group where there is a choice aspect in identifying as a member of the group. The South Asian American Digital Archive represents a purely no-choice group as the main community is that of an ethnical group.

Identifying one culture for The Hill Museum and Manuscript Library's work is more difficult because the organization identifies its work to be with the culture of manuscripts, rather than the manuscripts from a specific culture, religion, or time-period. It is more like a choice-group as the use and creation of manuscripts is not bound to a specific culture per se. and there is not a clearly defined social group for manuscripts which might explain the fact that the main group working with HMML's collection is a scholarly community. Non-scholarly users who find groups creating the manuscripts are central to their sense of self are more likely to become actively engaged with HMML. Engagement of communities where HMML is currently photographing manuscript collections, suggests that non-Western users may report a stronger sense of centrality to manuscript culture. Some examples of this non-scholarly community engaging with HMML include the gifting of manuscripts from individuals in Ethiopia to HMML's rare book collection, as well as with the individuals who are reaching out to HMML for assistance in preserving the cultural history that is important to them. The interaction of these individuals with HMML is in part a reflection of the fact that they are active participants in the culture, or as Karp et al. (1992) explains, they have become "witnesses" to the aspirations and challenges the group faces. These individuals have a clear sense of wanting to preserve their culture for future generations and have moved from existing within the group to being active participants in creating a collective memory for future generations.

As more users are able to access the case study organizations' digital collections, it appears that today's user groups are similar to the traditional user groups on the whole. The Hill Museum and Manuscript Library, Leo Baeck Institute and the archives at Mount Holyoke did not report a change in the types of users accessing their collections but noticed a change in the demographic of users. Greater numbers of young adult users are now discovering these organizations and their digital collections. This would indicate that to reach younger and future generations, organizations must create a presence in areas of the world frequented by these groups. For now, that means going online. SAADA indicated that an unexpected user base is accessing its work. Over 50% of SAADA's web traffic represents an international community that has discovered the work of the South Asian American Digital Archive. To be responsible stewards of history, as cultural institutions are charged, organizations must look to bringing their collections online.

The use of narrative is an extension of the importance of descriptive metadata. The way in which metadata is presented can have an impact on the way in which users interact with items in a digital collection (Berger, 1997). Without the ability to place an item in a larger historical context and understand its significance, users may just look at the item as a pretty picture and move on to the next thing. By helping to provide stronger context through the use of narratives, collection material becomes more understandable and relatable. The need for context is especially valued when working with collections of particularly marginalized groups, as the context of their history is often glossed over. Context allows users the ability to discover history in a way that was not always available to them. Having an online collection with appropriate narrative and context included opens up a new realm of discovery (Graburn, 2007; Prelinger, 2009). When users are able to navigate collections that allow for autonomous discovery, they are

able to develop a strong sense of connection to the item and/or individual who used the item. These connections are a type of in-group ties. The way in which material is being described in collections is a major factor for how individuals develop the necessary in-group ties that will result in their participation with the item and the organization.

The importance of narrative context was discussed in detail by three of the four case study sites. Seeing that the inclusion of a narrative around an item caused more interaction than when no narrative was provided, connects back to the work of Miller (2012) who argues that social networks are helping to rebuild complex social relationships. When organizations give users clear context for material, as they can on many social networking sites, those users will develop stronger connections with the cultural group that lead to strengthened group identity. It is these connections that will lead the user to actively engage with the material and the organization.

The Leo Baeck Institute and the South Asian Digital Archive both indicated that when a narratives were connected to posts on social media sites, such as Facebook, more people interacted with the posts. LBI took this information and reworked how they used Facebook to include narratives and images rather than just text updates and the response has been overwhelmingly positive. Increases in Facebook likes, shares, and comments are accompanied by users of LBI's collection mentioning to staff how much they enjoy the Facebook page.

SAADA took a more strategic approach when monitoring social media engagement. By carefully monitoring the interaction Facebook followers have with posts, SAADA reached out to the most active users to continue their support for the organization financially. SAADA has been able to successfully manage fundraising campaigns because of these networks.

Keeping statistics of collection visitors, Mount Holyoke has been able to see the positive effects of providing context in concrete terms. Users who click through to Mount Holyoke's digital collection on social networking sites, such as Pinterest, are likely to browse the collection for longer times than users who simply stumble across the work via online searches.

Not all items from the collections can be highlighted in a social network campaign. Thus it is important that users are able to easily locate items in the digital collection. If users are able to find a collection but unable to navigate it, there is little chance for them to find items of culture that speak to them. It is, therefore, more difficult for these users to establish the connections necessary to strengthen their sense of group identity. Organizations need to consciously work to create quality collections that allow users to find and work with the data as well as "make content alive" (Lynch, 2007, p. 97). Of the organizations that participated in the case study, SAADA appears to have the greatest forethought in how to make their collection easy to navigate and come alive for users. This is because, unlike the other case study institutions, SAADA was designed to exist completely in the digital world. The other organizations had some challenges as they work to digitally translate an existing physical collection.

Providing reference guides to assist users in searching the collections is one way in which the Hill Museum and Manuscript Library, Leo Baeck Institute, and Mount Holyoke College have tried to address the struggles of taking a physical collection digital. These guides are particularly useful for users not as familiar with scholarly research methods and or the institution. Due to the large amount of material that has existing metadata and search expectations based on the way the physical material had historically been stored and used, the search ability for HMML's and LBI's collections seems more suited for the scholarly researcher who is familiar with the

traditional searching methods. Mount Holyoke is a hybrid of these two extremes, providing some pre-set searches for incoming users to aide in the initial search phase when stumbling onto a new collection. It is also important to note that all of these organizations are aware of the struggles searching a collection can entail and are actively trying to provide the easiest access to collection material with the resources available.

In addition to in-group ties and centrality, Obst and White (2007) discuss the role that a reciprocal relationship between the group and the member can have on one's sense of group identity. "An individual must feel he or she has some control and influence over [the group] and for a group to be cohesive, the group itself must also have influence on its individual members" (Obst & White, 2007, p. 78). The role of influence or a reciprocal relationship seems to be evident through the value that social network plays in increasing participation with the organization. There are a number of ways that users of digital collections are able to have some influence on the organizations and the collections as discussed with the case study organizations. A clear example is users sending suggestions about a collection or updates about information on material displayed in the collection. While organizations may not be able to implement all of the suggestions or requests that come in from the public, the fact that such commentary from the general public is encouraged is a step in the right direction for allowing reciprocal influence on the group.

There are ways in which all four of the case study sites are responding to the desire for a reciprocal relationship. For example, HMML is working to create the unique space of *vHMML* which will allow scholars to work together to better understand newly acquired manuscripts in HMML's collection. SAADA, LBI and Mount Holyoke all reported that individuals will comment on featured items shown in the digital collection and especially on social media sties

with information about people's names, geographical corrections and other information that may have been incorrectly recorded in the original metadata. This type of community engagement is extremely important as it can help identify pieces of history. This is a major example of the ways in which these organizations provide current members of the community the opportunity to preserve history and build the collective memory of the group for future generations. Social networks also allow a valuable space for users to define a sense of community in conjunction with the digital collections of these organizations. Mount Holyoke's Pinterest page is an especially unique way for users to define their connection to the larger community through using images from Mount Holyoke's archive in their own Pinterest boards. The upcoming *vHMML* project, though not a traditional social network, will act in similar ways. The project holds great potential for being a place for scholarly researchers to define and build community around manuscript scholarship. In addition to helping catalogue material, users are able to influence the future course of organizations through monetary donations – that allow for the work to continue – and material donations that help shape the narrative of the whole collection for future generations. SAADA may have the most momentum for this kind of engagement of the four case studies due to the young age of the organization and the fresh excitement that exists in the South Asian American community at having this new resource available.

In summary, the results of the survey and case study institutions show that through digital collections and a strategic use of social media networks, these organizations are working to build user connections to the collection group, to know their user groups and the centrality of their collections to these users, and are allowing for a reciprocal relationship with the user groups. All of these factors help strengthen an individual's sense of social identity. When these factors are addressed, organizations have seen an increase in public engagement with the organization.

Including the four case study sites, 90% of surveyed organizations indicated an increase in web traffic and 80% indicated an increase reference questions since beginning their digital efforts. Over 50% of surveyed organizations indicated using social media with an overwhelming majority noting significant increases in web traffic and reference inquiries. Social media allows users to engaging with the organization in new ways. This is occurring in the face of challenges including organizational structure as seen through the restrictions in place at HMML due to the individual contracts; quickly heading into the digitization world as seen through the Leo Baeck Institute; and through technology and user interface development that has affected all of the case study organizations in one way or another.

Key points should be considered for organizations preparing to embark down the path of digital collection development. Organizations should create a clear plan for designing the digital collection and set manageable goals. It does not need to happen in one month or a year and the effects of the collection do not appear dependent upon the amount of physical items showcased. Organizations must agree to invest fully in this process as, once they start, they will be seeing an increase in web traffic with a nearly guaranteed increase in reference questions. This means that there needs to be a plan for financially maintaining the collection and qualified staff to manage the collection.

It is recommended that organizations showcase their collections through social media and include narrative information in these posts. If it makes sense, build narratives into collection landing pages to provide users with a context for the materials they will see. Organizations also need to invest in creating web platforms that are easy to navigate and search for a variety of users. It is helpful to know the expected audience – are you working only with scholars or genealogists? It is unlikely that only one user group will be accessing the collection. It is

important to accommodate as many of these users as possible. Finally, organizations should actively reach out to the community to share the information available in their collections.

As stewards of the past it is the role of the cultural heritage organization to keep history and communities alive for the future. It is evident that the use of a digital collection not only helps to preserve collections, but also allows for users to build valuable connections with the past and become more engaged with the organization.

VII. Further Discussion

Results from four case studies and a broader digital survey show organizations that create digital collections and strategically use social media networks to build user connections allows for the strengthening of an individual's sense of social identity. The ability to engage communities with digital components of culture are continually evolving. Developing smart phone applications, geo-tagging of collection material, and crowd sourcing are just some examples of the new and exciting ways organizations connect with their user base. Geo-tagging features allow users to view collection items that were created or used near a set point on a map. For example, a new application called "YesterQueer" was developed in connection with the The Jean-Nickolaus Tretter Collection in Gay, Lesbian, Bisexual and Transgender Studies based out of the University of Minnesota, Twin Cities. This application allows users to see pin-points of important historical and social-advocacy events, queer organizations and social establishments related to the queer community in the Twin Cities that are represented in the collection. This format allows users to explore the history of their community, as it happened around them, in new ways not previously anticipated.

Crowd sourcing ventures by organizations invite users to engage in collections by helping to transcribe or catalogue material. Such work is being done at the New York Public Library in a variety of projects. One example is the request for users to assist in the transcribing of newly digitized menus from restaurants and important historical events. User participation in crowd sourcing projects allows for users to help shape the historical memory of a group or culture for future generations. Further exploration on the ways in which this kind of program affects participation with the organization is just one area in which further research should be conducted.

The organizations used in the case study sites work with collections of a specific culture bases. Further research focusing on organizations that represent multiple cultural collections, may prove useful in understanding the role of digital collections for increasing group identity. Multiple culture institutions have added user groups, potentially more recognition, and increased complications of selecting what collections from which cultures to digitize and when.

The research conducted here focused specifically on the ways in which the organizations have seen changes in participation levels. Thus, further research should also be conducted on digital collections and their potential for increasing the sense of group identity among users from the user standpoint. Such a study may give insights into the ability for change on a group's centrality for a user once they are able to experience more of the history and collective memory of a cultural group they hold membership.

VIII. Conclusion

While conducting research for this thesis, it became evident that as organizations invest in building digital collections, public engagement did indeed increase. Cultural heritage

organizations reported seeing positive growth in web traffic, the number and depth of reference inquiries, and interaction on social media sites. Such results pose questions into the underlying reason for these changes. Are such increases in public engagement occurring only because of newly acquired access to digital material, or are users developing the connections needed to strengthen their sense of group identity, leading to the increases of public engagement with the organization?

Part of the increased connections is due to organizations opening up collections to a whole new user base via the internet. Digital collections also allow individual users to begin seeing reflection of self in the content of the organization's collections. This results in stronger emotional ties to the group that build one's sense of group or social identity, as group identity carries with it particular emotional value and significance for an individual (Bettencourt & Hume, 1999). As stronger connections to the group develop, the sense of group identity for the individual is increased, leading to greater involvement in the group itself (Bielwicz, M. 2009; De Cremer & Van Vugt, 1999; Leach et al., 2008; Obst & White, 2007).

Participation among users means that individuals are no longer just interacting with a culture; they are identifying as a part of a culture. Identity and culture are related concepts, but the idea of identity implies action. Digital collections have shown that people are not just seeing cultural heritage, they are actively engaging and thinking about culture because of these collections. Users are seeing connections between the groups' past and themselves, which results in stronger emotional connections that push these users to reach out to the larger group. Such examples can be seen in the increase and sophistication levels of reference inquiries as reported by organizations upon the creation of a digital collection. Users are experiencing, exploring and

contextualizing material prior to reaching out to staff, but they are still reaching out, indicating the desire to continue exploring this part of themselves.

Similarly, organizations stressed the importance of including narrative for increasing engagement with collection materials. When organizations give users clear context for material, as they can through the use of narrative, those users will develop stronger connections with the cultural group that lead to strengthened group identity. It is these connections that will lead the user to actively engage with the material and the organization. Three of the four case study sites noted explicitly that when material is presented as an item without the connective narrative or metadata, the public is less likely to engage with this material. Social media is a particular venue where the narrative is crucial. Organizations with a digital collection should be carefully utilizing this important tool to reach out to the user base in more engaging and familiar ways than is possible in the digital collection alone.

Social media networks play a vital part in developing a user's social identity when institutions showcase collection material. Social media is a place where users can experience the reciprocal relationship with organizations and the group as outlined by the Psychological Sense of Community (PSOC). Here the user is able to feel they have some influence on the group. On social media users are able to like, comment and share material in such a way as to advocate for the group. This space also provides users with a way to shape the collective history of the group for future generations by helping to identify material, share additional stories, and connect other members to the group to help shape the historical memory of the group for future generations. Social media grants the user the ability to become an active participant in the group regardless of their physical proximity to the organization.

All of this shows that when cultural heritage institutions share collections of a cultural group digitally, more people will be able to engage with their past. Through that process, users connect with a group in ways in which they may not have been able to previously to build new connections. Social identity theory predicts the deeper connection results in increased participation. Based on the results from organizations with digital collections, this increase is happening. As users become empowered by stronger connections to the group, a sense of social identity as a member of the group becomes solidified. It is through this strong sense of social identity that users are more likely to become actively engaged with the group. When cultural heritage organizations invest in creating a digital collection, they will see an increased level of engagement by the public. This is important for organizations to understand when developing digital collections.

The initial interest in this area of study stemmed from a personal interest in my own history and growth felt through access to digital material relating to my subscribed identities. I was interested to see if this was just a unique phenomenon or if others experienced a similar connection through the ability to explore digital collections of their cultural heritage. The ability to gain a stronger sense of group identity is important to the value of cultural heritage institutions sharing their digital content. The next generation lives in a digital world and the cultural heritage institution needs to be present to stay relevant.

The connections between group members made visible by digital collections help users realize their similarities with other members and build emotional bonds which result in feelings of solidarity and belonging with a community. Digital collections, when presented in a way that is understandable and accessible to both group and non-group members, may begin to strengthen bonds between members of the human group. The sense of belonging on a human level in a large

arena could make positive changes in our world today by helping to breakdown walls a reality.

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Appendix A: Survey Questions

1. This survey looks at digital collections of cultural heritage and any changes in reference and use that may occur once these collections are available online. By completing this survey, participants agree to allow the researcher to analyze responses and to quote answers as deemed necessary. Participation in this survey is completely voluntary and may be discontinued at any time. The identity of participants is kept confidential. On the following pages are 24 questions that should take less than 15 minutes to complete. Questions about this project may be directed to Kimberly Arleth at karleth01@hamline.edu. Do you agree to the above terms? *Yes / No*

2. Does your organization house a cultural heritage collection? *Yes / No*
Note: For the purpose of this study, a "cultural heritage collection" is defined as a collection that aims to preserve the shared identity, history, values and artifacts of a clearly defined group of people for future generations. *Yes / No*

3. Does your organization house a cultural heritage collection? Note: For the purpose of this study, a "cultural heritage collection" is defined as a collection that aims to preserve the shared identity, history, values and artifacts of a clearly defined group of people for future generations. *Yes / No*

4. Are parts of this collection available online? *Yes / No*

5. When did you start putting material online?

6. What percentage of your total holdings are available online?

7. Check all types of material available online:
Photography / Utilitarian Items (furniture, machinery, everyday items) / Art Works / Letters or Manuscripts / Audio Recordings / Video Recordings / Other (please specify)

8. Do you track statistics of your organization's website? *Yes / No*

9. When did you start tracking these statistics?
10. Have you seen a change in online traffic since your Digital Collection was made available online?
Yes, a significant increase (over 30% increase) / Yes, a slight increase (10% - 30% increase) / No significant changes / Yes, a slight decrease (10% - 30% decrease) / Yes, a significant decrease (over 30% decrease) / Other (please specify)
11. Do you highlight your digital collection on social media networks?
Facebook / Google+ / Twitter / Instagram / Pinterest / Other (please specify)
12. What material is most popular in your digital collection?
Photography / Utilitarian Items (furniture, machinery, everyday items) / Art Works / Letters or Manuscripts / Audio Recordings / Video Recordings / Other (please specify)
13. Do you track statistics for reference inquiries about your collection? *Yes / No*
14. When did you start tracking these statistics?
15. Have you seen a change in the number of inquiries since your Digital Collection was made available online?
Yes, a significant increase (over 30% increase) / Yes, a slight increase (10% - 30% increase) / No significant changes / Yes, a slight decrease (10% - 30% decrease) / Yes, a significant decrease (over 30% decrease) / Other (please specify)
16. Has the nature of inquires changed? *Yes / No*
17. If yes, how have they changed?
18. Do you record statistics of monetary donations to your organization? *Yes / No*

19. Have you seen a change in monetary donations to your organization since your digital collection was made available online?

20. *Response options of: Yes, a significant increase (over 30% increase) / Yes, a slight increase (10% - 30% increase) / No significant changes / Yes, a slight decrease (10% - 30% decrease) / Yes, a significant decrease (over 30% decrease) / N/A*

For the following areas of change:

Change in financial gift amount of continual donors

Change in total financial amount of donations

Change in number of new financial donors annually

Change in percentage of successful grant applications

Change in geographical origin of donations (donations arrive from new cities, states, nations)

21. Have you noticed any other changes to the level of public engagement with your organization since your digital collection was made available online? *Yes / No*

22. If yes, please describe the changes you have noticed?

23. What type of Cultural Heritage Organization do you most identify with?

Cultural Museum / Historical Society / Grassroots Organization / Educational Institution / Religious Organization / Archive / Other (please specify)

24. How many staff members does your organization have?

less than 10 / 11-25 / 26-75 / 76-125 / 126-250 / 251-500 / over 500

25. What is your organizational budget?

less than \$100,000 / \$100,000-\$500,000 / \$500,001 - \$1,000,000 / \$1,000,001-\$5,000,000 / \$5,000,001-\$10,000,000 / \$10,000,001-\$25,000,000 / over \$25,000,000

26. How old is your organization?

27. In what state is your organization located?

Appendix B: Interview Questions

1. Describe the history of your organization?
2. What is your organization's mission?
3. Who is the target audience for the work your organization does?
4. Describe your collections, what kind of material do you work with?
5. What percentage of the budget is allotted for maintenance of the collections?
6. How does your organization acquire new items for the collection?
 - a. If individuals bring material for donation, has there been a change in frequency of donations of collection material since your collection was available online?
7. When did you begin to digitizing your collections?
8. What is the philosophy of your organization towards your digitization efforts?
9. Why did your organization begin the digitization process, what was the push or deciding factor?
10. Was the initial goal to put the collections online for the general public?
11. What was the expectation of your organization for putting the digital material online?
12. How did you prioritize what materials to digitize?
13. What benefits did your organization see by digitizing your collections?
14. Were there any difficulties anticipated when starting to digitize your collections?
15. What about unexpected difficulties?
16. Where did the funding for these digitization efforts come from in the beginning?
 - a. Has that changed over the years?
17. What does your digitization staff look like?
18. How does that compare to other areas of the organization?
19. How did you determine where to place digitized material online?

20. How did you prioritize which materials to put online?
21. Have you had any push back from the community about what material is online?
22. Have you had requests for more material to be placed online?
23. Why did you select the social media networks you did?
24. How do you highlight the collection on social media - weekly postings, daily, etc?

What kind of response are you seeing from the public in regards to your digital material on Social media networks?
25. Historically who used your collections? What was their purpose for coming to your organization?
26. Did you notice any changes in the type of people who inquired about the collections once it was available online? Did people come to you for new reasons, and if so what were they?
27. Have you noticed other changes to the level of public engagement with your organization since your digital collection was made available online?

In addition, questions to clarify survey questions around web traffic, social media, reference inquiries and donations were asked at case study visits.