This study describes a multi-modal use assessment of the digital collections and corresponding special collections materials at Wilson Library, the University of North Carolina at Chapel Hill. The study includes: a study of Google Analytics data relating to specific digital collections, an analysis of physical collections use based on metadata provided by the Aeon request system, and a survey-based exploration of current user experiences and expectations regarding materials in Wilson Library’s Special Collections.

Collections that data indicated were more popular had a higher bounce rate and a lower depth of exploration by patrons than collections with a smaller user population, the use of which suggested an in-depth, purposeful exploration of the collections. Subjects indicated interest as the most likely reason to use physical collection materials or visit a physical exhibit incorporating said materials, but also privileged accessibility and outreach as key components in use decisions. The study indicated an interest, among subjects, in more visible outreach and advertising regarding programming at Wilson Library and a need for greater awareness regarding the accessibility of special collections materials at Wilson Library.

Headings:

- Academic archives
- Access to materials
- Digital humanities
- Digital archives
- Special collections
VIRTUAL SPACES AND PHYSICAL PLACES: ANALYZING PATRON USE OF DIGITAL
AND PHYSICAL COLLECTIONS AT THE LOUIS ROUND WILSON LIBRARY,
UNIVERSITY OF NORTH CAROLINA, CHAPEL HILL

by

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# Table of Contents

1.1 **INTRODUCTION**  
2
1.2 **LITERATURE REVIEW**  
6
1.3 **METHODOLOGY**  
29
1.3.1 **BASIC METHODOLOGY AND SITE SELECTION CRITERIA**  
29
1.4 **DATA COLLECTION**  
34
1.5 **LIMITATIONS OF THIS STUDY**  
39
1.6 **DATA**  
40
1.6.1 **GOOGLE ANALYTICS DATA**  
40
1.7 **PATRON USE OF PHYSICAL COLLECTIONS MATERIALS**  
56
1.8 **SURVEY RESULTS**  
57
1.9 **FINDINGS**  
68
1.9.1 **DISCUSSION OF FINDINGS**  
68
1.10 **WORKS CITED**  
72
1.11 **APPENDIX**  
75
1.1 Introduction

In an information environment firmly rooted in the use and continued development of digital space, cultural heritage institutions and archives are faced with the struggle of maintaining the role that defined their purpose just decades ago: that of the physical space where information meets the public.\(^1\) The increasing dependence on the functionality of Web 2.0 may mean that users of digital collections space come to expect a greater degree of interactivity with digital collections. Academic libraries and archives are, in the broad sense, cultural heritage institutions. The culture that they promote may adhere to an established status-quo that privileges academia and demands a level of exclusivity, but the accessibility of archival resources and the opportunities for archivists to interact with patrons outside of their immediate communities are changing as libraries and archives open up to the public via digital spaces. Optimizing the use of digital space promotes access to potential patrons who do not have the ability or inclination to access the physical collections space, but may threaten the continued viability of traditional archival spaces due to an increased perception that all information is available digitally, when, in fact, it comprises only a miniscule section of the information available to the

public. The opportunity for interaction posed by Web 2.0 has increasingly broadened the scope of what information individuals are able to access, how they interact with that information, and what they value as meaningful interaction with information.

While librarians, archivists, and some public historians explored digital methods for disseminating information to an increasingly technically savvy public, as early as the 1970s, the early 21st century is seeing an increase in institution-specific initiatives, inter-institutional collaboration, and personally developed projects on an unprecedented scale. This is particularly true in the subject area of the humanities, where qualitative methods are increasingly accepted means of displaying humanistic inquiry. The increasing popularity of digital initiatives and the plethora of open-source, user-friendly content management systems have, collectively, made this shift possible. Open source content management systems and other digital platforms are allowing academic departments, special collections, cultural heritage institutions, and independent researchers to develop a digital presence at little to no financial cost with minimal technical expertise.

“Everyman” is capable of becoming his own historian in a more public manner than Carl

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2 Shan Sutton presents a series of case studies on digital collections spaces within special collections. Sutton states that libraries and, particularly special collections, are at a “point of no return” in fostering digital initiatives. The practice is becoming expected in the archival environment, but is outside of the purview of some special collections’ areas of original focus and cannot reasonably include the entirety of most collections. Sutton advocates for greater collaboration and standardization of best practices in digital initiatives among archives professionals.
Becker could have imagined possible and this freedom is not limited to personal historical scholarship.³

Academic institutions, particularly special collections with designated research spaces, often maintain the exclusivity of being open, primarily, to students and faculty researchers. In physical form, some maintain the appearance of grand reading rooms, as does Wilson Library at the University of North Carolina, Chapel Hill, while others employ an increasingly popular modern, open spaces with increasingly new technological advances.⁴ Regardless of physical appearance, research spaces are becoming increasingly digitally oriented, while those that do not make accommodations for technology suffer via the loss of a convenience factor for patrons. Via digital means, the collections space is extended into an intangible arena where patrons interact with information differently, but more frequently. The increasingly digital nature of information retrieval and use calls into question the continued viability and use of physical collection spaces as research spaces. Archives, after all, are only as valuable as they are useful. A well-appointed repository does little to further the archivist’s mission if the items that it stores remain unused.⁵ Yet, reading room visitation is at an all-time low and, as archivist of the United States, David Ferrerio, stated in his address to the Society of American Archivists at Archives New


Orleans, Joint Annual Meeting of CoSA and SAA. In response to this trend, academic and cultural heritage institutions continue to explore the use of digital collection space over traditional, physical collection display. Although the digital user experience is, necessarily, different and, according to some cultural theorists, potentially less meaningful, it is increasingly popular due to ease of accessibility and the increasingly popular nature of a digital medium.

The keyword at the crux of this trend is “digital humanities,” and, while scholars debate the exact meaning of the term and parameters of its practice, the move towards a community-oriented, interactive patron space has been in motion for the past several decades. Regardless of how “buzzword worthy” the term, digital humanities offers the potentiality of humanistic practice within formulaic space. At its best, digital humanities initiatives offer the opportunity to create collaborative intellectual spaces that draw the best of scholarly resources into conversation with a knowledgeable public, thus, providing a sense of ownership and investment in knowledge extending beyond academia. Alternately, the increased use of open-source, user-friendly software by independent historians and archivists and an increased reliance on remote, digital retrieval of information by the “Google generation,” may produce a plethora of poorly curated and improperly-sourced material, while decreasing the visibility and viability of

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physical repositories. The study seeks to answer whether the launch of a digital exhibit serves as a potential advertising tool for corresponding physical collections or whether it, effectively, displaces the need to use corresponding physical material by providing a highly-accessible alternative to visiting a physical location. This study would, ultimately, judge the effectiveness of digital exhibits as a tool for increasing patron use of collections and aid in the understanding of how the shift towards digital display has affected patrons’ perception of the usefulness and their personal use of physical repositories.

1.2 Literature Review

The term “digital humanities” used in modern scholarship with interest, cachet, and skepticism. While digital humanities emerged as a separate discipline in the late 20th archives and museums are becoming increasingly eager to practice digital humanities: curating online exhibits, digitizing manuscripts, and creating virtual user experiences that can be engaged with remotely. The increasing accessibility of digital humanities-focused, open source tools, like Omeka and, more recently, DHPress, allow repositories with small budgets to extend their exhibit space without necessitating the use of often-

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9 Digital Humanities Quarterly, an academic journal focused on aspects of emergent digital humanities scholarship, was first published in 2007.
limited physical space.\textsuperscript{10} Although museums and archives do not share a common field or set of scholarship officially, conjectures regarding patron use in both spaces may be applicable. More recently, museums and archives are embracing the commonalities within their shared goal to make information accessible to the public and, while museums and cultural heritage institutions are traditionally the institutions that provide a contextual framework for this information, archives and special collections are moving, increasingly into that purview.\textsuperscript{11}

While a study cannot determine definitively whether digital humanities is a tenable discipline, it can investigate the ability of digital humanities projects to provide access to archival materials and the practical use implications that the launch of a digital humanities initiative has on the use of a repository’s physical space. Does the virtual presentation of physical materials significantly change the user experience for those who access both digital exhibits and physical exhibits? More pressingly, what kinds of impacts do digital exhibits have on the physical use of the sponsoring repository? Are

\textsuperscript{10} meka is an open-source content management system created by the Roy Rosenzweig Center For History and New Media at George Mason University. DHPress is a project of the Digital Innovation Lab at the University of North Carolina, Chapel Hill. DHPress is a digital humanities toolkit built on the Wordpress platform.


they significantly more used than physical collections, or are they simply click bait, garnering little depth of use. An institution-specific study can aid in establishing a sense of how digital exhibits may correlate with the physical use of a repository. While the information gathered will only apply to the studied repository, it will add to scholarly literature on this subject and provide examples of how a space might optimize the use of both digital and physical collections within an academic special collections environment. This inquiry is important because small archives and cultural heritage institutions do not have the luxury of being permanently necessary, as large, government-funded institutions like the National Archives and Records Administration of the United States. Rather, smaller cultural heritage institutions are subject to budget cuts, decreases in visitation, and the continued need to justify and defend their existence in the modern era.

The Louis Round Wilson Library is part of a public academic institution, barring the library from some of the funding and support issues faced by small, non-profit institutions. It is unlikely that Wilson Library will ever be forced to close its doors due to lack of funding or resources. As part a network of academic libraries in a prominent scholarly institution, the Louis Round Wilson Library is home to the University’s Special Collections, including the North Carolina Collection, the Rare Book Collection, the Southern Folklife Collection, the Southern Historical Collection, and University Archives and Records Management Services. The library’s broad scope of collection materials, its prominence within University of North Carolina system, and its continued engagement with the public via exhibitions, both physical and digital, make Louis Round Wilson
Library an integral part of the University Library system at the University of North Carolina at Chapel Hill.  

Prior to this study, many students chose the Louis Round Wilson as a subject for master’s papers, presumably as the accessibility of the institutions to students interested in academic libraries and special collections. In 2014, Jennifer Coggins submitted, “Telling the ‘Carolina Story’: An Assessment of UNC’s Virtual Museum of University History.” Coggins’ study assessed the Carolina Story Virtual Museum, a digital exhibit space concentrated on the history of the University of North Carolina at Chapel Hill. Specifically, Coggins surveyed potential users and current users of the Virtual Museum to assess whether the current design best facilitated usability and access. Coggins’ study discovered a moderate to high interest in University history as the primary reason for use of the Virtual Museum. The top three qualities of the Virtual Museum were, “quality of information (accuracy, thoroughness, etc.),” “ease with which one can find something/ease of searching,” and “ease with which one can browse interesting information.”

While the “Carolina Story” is different from Wilson Library’s digital exhibits, specifically in terms of web platform, layout, and its broad scope of content, Coggins’ inquiry into use and accessibility precludes the information gathered in this study. Mary

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12 Coggins, Jennifer. Telling the "Carolina Story": An Assessment of UNC's Virtual Museum of University History, A Master’s Paper submitted under Dr. Christopher (Cal) Lee to the University of North Carolina at Chapel Hill, School of Library and Information Science, Spring 2014.

13 Mellon, Mary. The Use of Cyrillic Metadata for Enhancing Discovery of Russian Digital Collection Items: A Case Study of the Bowman Gray World War I Postcards Digital Collection, A Master’s Paper submitted under Denise Anthony to the University of North Carolina at Chapel Hill, School of Library and Information Science, Fall 2014.
Mellon, a SILS graduate in 2014, studied the digital collections at Louis Round Wilson Library, specifically, the *Bowman Gray WWI Postcards Collection*. Mellon used Google Analytics data to assess the use of this collection after Cyrillic metadata was added for the subset of Cyrillic language postcards in the digital collection. Mellon used Google Analytics data to analyze demographics of use for the *Bowman Gray Collection*. Specifically, Mellon studied whether the collection experienced greater remote use from Russian patrons after the inclusion of Cyrillic text. Mellon’s paper focused on issues of access for non-English speakers and the bars to access potentially facilitated by the use of Anglo-centric metadata. Within Mellon’s study, Russian postcards were, still, underutilized by remote patrons in Russia. Access, it seems, is always an issue within archives and, while the Archivist’s Code of Ethics, created by the Society of American Archivists, privileges “access and use” as the first ethical responsibility of the American archivist. Access in academic libraries and special collections, like access in historical societies, is a complicated issue. Not only must patrons be physically able to access the space, they must feel welcome to access the space and of value as a potential user. The archive is, as Randall Jimerson states, a place of power. The manner in which the institution exercises this power is dependent on the individual institution, but has been significantly changed by the preponderance of open-source, easy-to-use, digital options.

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for expanding archives space into digital space. The Internet, unlike an academic library building, is more universally accessible to interested individuals, regardless of geographic location.

Archives evolved, quite literally, from sacred spaces and places of power. Monastic libraries with chained books and government offices served as the first keepers of written records, placing Church and King in charge of the keeping, curation, and representation of the historical record. Places of information storage became, implicitly, spaces filled with pre-determined power. In this sense, the archive and the museum are not at odds in their evolution. Products of conquest symbolic of forcibly attained knowledge, the library of Alexandria and the British Museum held something in common. No matter how publically-oriented their scope, these collections were created by and for a public in power, physically isolating and making curiosities out of otherness and exoticism. The transition of these institutions to the digital arena was and is long process. However, the digital arena, with its malleable, intangible space, offers a level of public participation unrealized prior to the “digital turn.”16 The “digital turn,” in this context refers to the shift in scholarship that is increasingly centered upon the use of digital materials, big data, and remotely accessed resources.

The relative accessibility of digital materials, the possibilities for user-collaboration and crowdsourcing with these materials, and the ability of digital

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humanities initiatives to provide alternate perspectives on resources points to the reality that this trend in scholarship and use is dramatically changing the profession. This reality was staggeringly apparent when, at the 2012 Society of American Archivists’ Conference in New Orleans, Louisiana, Archivist of the United States, David Ferriero, offered the large goal of digitizing all of the materials within public record in the National Archives and Records Administration. Ferriero’s goal is, presumably, to provide greater archival access to the Google generation and to maintain the public use and relevance of NARA into the future.

However, with a change of space and a shift towards the digital arena, a shift in power and in the role of the physical archival spaces from which these materials are shifted is implicit, calling into question the effect of digital humanities initiatives on the use and continued relevance of traditional archival spaces. Ideally, this study will focus on cultural heritage institutions which present literary and historical material from niche scholarship, specifically women’s literature and social history. The inclusive term, “cultural heritage institution” is used liberally to refer to any repository, museum or archive, that may be deemed a collector, keeper, and disseminator of materials related to the historical, cultural, and artistic development of a community, while user population refers to patrons of an institution whose purpose for use is not explicitly academic, for example, those users of a repository who do not have the increased access to materials afforded as beneficiaries of an academic institution.

17 Specifically, referring to “public use” and “public relevance” because a large-scale digitization initiative would not affect governmental use or continued relevance of NARA’s records, but it would, possibly, make the public feel a greater sense of use and relevance regarding these materials.
Central to early inquiries was how users would interact differently with digital materials and how the growing popularity of the digital might impact the use of physical resources.\textsuperscript{18} Conferences, specifically the Association of Digital Humanities Organizations (ADHO), emerged in the late 1980s and early 1990s, and continue to flourish in an attempt to promote interdisciplinary discourse on the use and effect of digital cultural heritage materials on the continued development of academic and cultural practice. Though many of the studies reviewed here relate to general theories regarding cultural heritage institutions’ assimilation into “culture 2.0,” the concepts offered can be applied to the use of digital vs. physical materials in a variety of arenas, offering a practical application of these larger concepts to an often-overlooked arena: the small, underfunded cultural heritage institution struggling to remain current and keep its doors open.

Digital humanities scholarship focused on access and use is becoming increasingly prominent and increasingly complex.\textsuperscript{19} The interdisciplinary critical discourse \textit{Theorizing Digital Cultural Heritage}, edited by Fiona Cameron and Sarah Kenderdine, provides a comprehensive introduction to the issues surrounding digital cultural heritage, defined as in the UNESCO Charter on Digital Heritage “resources of information and creative expression…increasingly


produced, distributed, accessed, and maintained in digital form.”20 The articles in this discourse that were especially pertinent include, Peter Walsh’s “The Rise and Fall of the Post-Photographic Museum,” Anita Whitcomb’s “The Materiality of Virtual Technologies,” Fiona Cameron’s “Beyond the Cult of the Replica: Museums, Objects-Traditional Concerns, New Discourses,” Susan Hazan’s “A Crisis of Authority-New Lamps for Old,” and Angelina Russo and Jerry Watkins’ “Digital Cultural Communication: Audience and Remediation, and Beryl Graham’s “Redefining Digital Art: Disrupting Borders.”

Walsh’s article offers a new interpretation of the digital turn in museology by studying the trajectory of another technological turn: the development of commercial photography and its effect on the art museum. Walsh posits that the development of photography did not necessarily detract from an appreciation of and a patronage of art, but, rather, created an “aura” of sanctity and uniqueness around original art that could not be replicated by a more accessible photographic duplicate. The concept of an “aura” surrounding original art was first posited by Walter Benjamin and has been investigated by theorists and artists alike.21 Though Walsh’s argument deals specifically with the art world within the microcosm of the 19th century post-photographic art museum, he parallels this earlier phenomenon with the current popularity of new media.


interpretation, physical patronage is privileged over the intangible presence of artifacts’ and exhibits’ less evocative and less-physical digital counterparts.\textsuperscript{22} The concept of an audience experience unique to being in the physical presence of an object that existed in a certain period of time is encapsulated in the term “power of place,” which is used to describe a unique, visceral reaction exclusive to being in the presence of the object in question. Though the importance and validity of this concept is occasionally questioned, the presence of physical objects appears to correlate strongly with a heightened emotional response in patrons.\textsuperscript{23} This concept, applied to digital collections, suggests that the digital exhibit may not eventually privilege the physical. Like the initial allure of the photograph, the “power of place” and the desire to be physically near actual objects may trump the current popularity of the digital exhibit.

This concept is elaborated upon and challenged in Fiona Cameron’s “Beyond the Cult of the Replicant.” Cameron investigates the relationship of the digital object to its traditionally privileged physical counterpart, noting that longstanding cultural associations with the physical object are shifting, as the “object-centeredness” of

\begin{itemize}
\item \textsuperscript{23} Wright, P. (1989). The quality of visitors’ experiences in art museums. \textit{The new museology}, 119-148, (147). Though art-centric, these concepts may be universally applicable.
\end{itemize}
historical objects becomes part and parcel of the Web. Cameron suggests that the “object-centeredness” of museum culture contributes to the idea that physical objects have a distinct value based upon their tangibility, but argues that these concepts are being challenged by post-modern theories. Cameron notes that 3-D imaging in digital displays is increasing the fear that the materiality value of museum objects will be threatened. However, Cameron notes the work of several prominent historians who claim that a post-modern approach defines museum objects and exhibits as decontextualized and reframed representations of an object’s original setting. The act of museum interpretation acts, in much the same manner as a digital exhibit, to challenge the immediate materiality of an artifact by removing it from its original and irreplaceable original environment.

Libraries, archives, and special collections are not exempt from this fear, though the focus on materiality in archives is less prominent than it is in museum culture and theory. Cameron also cites the concept of the “aura,” and suggests the following:

In terms of digital copies, I would argue the opposite [that digital replication does not affect authenticity]. Deciding what to digitize and render in 3D—and what not to—involves an active process of value and meaning making equivalent to that of the physical object. It enacts the curatorial process of selection of what is significant, what should be remembered and forgotten, and what categories of meaning such as classification, cultural values, or aesthetic attributes are, given pre-eminence. And the value of the “real” increases when digitized, enhancing its social, historical, and aesthetic importance, owing to the resources required in the compilation of a 3-D rendering, and through distribution.

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26 Cameron, Fiona. "Beyond the cult of the replicant–museums and historical digital objects: traditional concerns, new discourses," 57.
Although Cameron is, specifically, addressing 3-D renderings of museum artifacts, the concept that selection for digitization increases an object’s importance is a salient consideration for digital exhibits within archives. What an institution chooses to display online determines what is made most accessible and what is limited in accessibility and in dissemination to the public. The archivist, despite his attempts at objectivity, often decides which stories are told and which are silenced. The digital exhibit component of many archives challenges the tradition of unbiased appraisal, bringing archival theory into communication with best practices in museology. While both disciplines seek to display an unbiased, content-rich story, the choice of what is displayed digitally and how it will be displayed challenges these ideals in Cameron’s view. However, the theoretical privilege and materiality granted by the digital exhibit does not necessarily imply the experiences of individual patrons with the use of artifactual materials. Whitcomb offers a more user-oriented perspective in his article, “The Materiality of Virtual Technologies.”

“The Materiality of Virtual Technologies” offers the alternate perspective that a digital object, including a digital reproduction, though intangible, “is an object in its own right,” not simply a digital facsimile. Whitcomb’s proposed perspective on digital materials offers a stance unique from that of Walsh by

positioning the digital object as an object of equal value to the object in a museum display, rather than an inferior form of a similar item. Whitcomb’s concept of the digital object is more congruent with the modern archival perspective that counts digital objects and records as an essential and increasingly prevalent part of the archival collection. Born-digital materials do not have a tangible counterpart, aside from the devices on which they may or may not be stored. Consequently, most archivists are trained to assess the digital object as its own entity with specific preservation requirements and a specific lifecycle within the archive.\textsuperscript{28} Tangible, printed instances of born-digital material and 3-D printed models of such material are not considered within the scope of this study because these types of printed material represent parallel forms that are, essentially, a replication in an entirely different medium from the original. While digital facsimiles are similar in this regard, the transference of a digital entity into a physical object is not being considered in this specific study, though it does point to an interesting aspect of emergent museology and archival practice which will soon be ripe for study.

However, this preservation-centric aspect of archival training does not account for the scholarly and perceptual divide between physical objects and their digitally rendered components, i.e. the physical/digital divide. A tendency still exists to triumph one form over the other, though digitally rendered exhibits are

gaining ground in institutions that can afford them. Susan Hazan explores this phenomenon in her article “A Crisis of Authority-New Lamps for Old,” in which she investigates the way in which digital exhibits “modify the relationship between the museum and the visitor in “any meaningful way.” Looking closely at exhibits in the British Museum and the Smithsonian, Hazan offers a theoretical discourse on how the audience experience and, consequently, an audience’s use of an institution’s resources may be affected by the existence of a digital component of the physical institution’s exhibitions. Specifically, museum patrons felt that the physical museum was not fully integrated into or inclusive of the community. Patrons cited feeling as though the museum was “floating above the community,” a euphemistic phrasing intended to communicate the perceived disconnect between the museum’s physical space and its community. While the digital exhibit included in Hazan’s study was not intended as a “replacement of the physical object with an electronic surrogate,” the community feelings regarding the museum and the subsequent perceived accessibility of the digital exhibit echoes stubborn concepts that physical space is sacrosanct, reserved for academic study or highbrow culture, and inaccessible to patrons in a community-oriented manner.29

Benjamin Flynn’s “The Morphology of Space in Virtual Heritage,” expands upon the concepts offered in Hazan’s article by proposing theoretical approaches for maximum audience satisfaction in the experience of virtual history exhibits, specifically, recreations of physical spaces in a virtual arena. Flynn notes that the tendency of audience members to take the virtual as an unadulterated replica is problematic and offers solutions for improving the user experience, while realistically owning that virtual recreations will bear some difference from their physical counterparts—past and present. Flynn suggests that digital humanists borrow concepts from virtual reality video games and scholarly theory on virtual heritage, specifically interrogating what can be sufficiently rendered in a digital environment, specifically experiences, rituals, and cultural acts; how users can interact in a meaningful way with digital space, and how museums and archives think about patron agency in exploring the digitally created spaces of these institutions. Flynn’s work is particularly relevant to highly complex digital humanities projects that bridge the gap into the “virtual humanities” which incorporates virtual reality elements into the digital humanities practice.30

While each of these articles are highly-theoretical and rooted in academic discourse independent of experimentation, each presents a unique facet of user experience with digital cultural heritage materials and is highly applicable to studies of the digital humanities in general. While a majority of the scholarship in

A Critical Discourse focuses on the use of digital components in museums and includes information about art museums within its discourse, many of the ideas put forth in the discourse are applicable to archival repositories that exhibit materials from their collections or engage patrons with physical collections materials via a reading room. The movement from academic theory to practical application of theoretical concepts is, ultimately, the goal of the access-centered archivist. The conjecture of an overly scholarly focus may also be made about The Virtual and the Real: Media in the Museum and The Wired Museum, both academic texts on the nature of museology in the information age.31 While both specifically deal with the museum in the information age, not all of the concepts offered by the contributing scholars are inherently museum-specific. It is important to note that, while museums and archives diverge monumentally in their historical development, particularly within the United States, and continue to diverge in theoretical approaches to practice, both sets of institutions are currently struggling with maintaining relevance and embracing modernity in the era of Web 2.0.

Museums, as a whole, have been more willing to embrace the dichotomy between the digital and physical space, as patrons have come to expect the integration of technology and virtual experience in those institutions that can

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afford it. Archival institutions are not necessarily lagging in this trend, but many
are less open to the public due to the fact that they reside in academic institutions
and are less popularly advertised than museums, which are more commonly
associated with some degree of entertainment accompanying patron edification.
The distinction between the museum and the archive is both practical and
philosophical, based in sources of origin, sources of funding, and the trajectories
of scholarship within the profession. It is also largely dependent upon the culture
in which the institution exists.

Archives and museums in America are discovering increasing
commonalities as their collections materials are finding shared space on the web
and as they struggle to remain funded and functional while facing increasing
budget cuts and questioning of their usefulness. Archivists, whose field has
evolved much like the museologist’s from that of the displaced historian to the
pointedly-trained professional, are likewise continuing to realize the importance
of outreach, exhibition, and interaction with a broad user-audience. The Society of
American Archivists’ recent publications: Museum Archives: An Introduction
(2004) and Exhibits in Archives and Special Collections Libraries (2013) reflect
this emergent trend among American archivists. It is important that researchers
acknowledge the parallels and intersections between these two arenas, namely:
their roles as repositories of information of cultural, informational, and practical
value; the need for continued commitment to a patron base whose needs and
expectations are changing in the era of Web 2.0, and their long-established
association with the roles of keepers of history and culture which, however problematic these roles may be, imbue such institutions with a sense of authority.

Studies related to user frequency and experience in digital versus physical arenas are less numerous than theoretical pieces about the nature of digital humanities as a discipline and the theoretical conjectures regarding humanities computing, but they do exist. Studies of archival use include Helen Tibbo’s “Primarily history: historians and the search for primary source materials” which studied the “first phase of an international project” assessing access to primary source materials at the dawn of the digital age.\textsuperscript{32} The study advocated for a multifaceted approach to providing physical and digital access, as scholars used both means. However, this study was conducted in the early 2000s before the boom of digital humanities proper. A number of studies explore the use and effectiveness of the digital finding aid, including: “Colophons and Annotations: New Directions for the Finding Aid,” "Popularizing the finding aid: exploiting EAD to enhance online discovery and retrieval in archival information systems by diverse user groups,” and "The evolution of the finding aid in the United States: from physical to digital document genre.”\textsuperscript{33} The general consensus is that digitization of finding aids encourages access, offering information more readily to an emerging


generation that considers Google and its counterparts to be the most reliable, extensive, and available archive. Digitization of finding aids and providing features of interactivity, like samples of digitized documents, and entire digitized folders prevents the archive from suffering extreme lack of use in an era of extreme convenience.34

Published studies on use of digital humanities materials in archives focus, almost exclusively, on scholarly use of archives, perhaps in part because the archive is still considered part of the purview of academia and is often less useful or accessible to those outside of the academy. Private and special-interest archives are less numerous, if only due to a lack of stakeholders and the decreased longevity often associated with being independent of a larger institution. User-focused studies of the use of digital archival materials include: “Why Study Users? An environmental scan of use and users of digital resources in social sciences and humanities undergraduate education.” This study determined that, within academia, a variety of resources in digital and non-digital formats were used, depending on the preference of the instructor and that a primary reason for eschewing use of digital resources stemmed from discrepancies in pedagogy between their disciplines and the mode of presentation for the materials. Furthermore, what is deemed “good enough” for users will depend on the problem at hand; a single individual may have different standards and strategies that are determined by the immediate objective, time constraints, budgets, personal and institutional equipment, and support

34 The Southern Historical Collection digitizes entire folders within the Digital Southern Historical Collection.
staff, among other variables. Related to this issue is the large majority of faculty who maintain their own personal digital “collections” for teaching.” Although the prevalence of faculty-curated and distributed materials raises further inquiries about future potential use of emergent digital humanities tools, the observation that use of materials is largely focused on individual research motivation is useful to consider when studying use outside of a strictly academic environment. It would be useful, though not explicitly necessary or feasible, to obtain information about the intended use of research materials when studying use. Much has also been focused on user-generated content, particularly within museum websites, an example being “Museums Curating Online Content Using Web 2.0: Making Cultural Production More Democratic?” though less so on explicitly museum or archive generated content. Since the nature of Web 2.0 relies on conversation between users and creators, this focus is a logical progression.

Those studies that have looked explicitly at use of digital archival and/or museum materials include: “Four steps in the history of museum technologies and visitors’ digital participation,” and “Embracing Web 2.0: Archives and the Newest Generation of Web Applications,” a masters’ paper by SILS graduate Mary Samouelian, approved by Christopher Lee. Both studies found that digital participation and use is an emergent, but highly popular area of patron participation. Christensen’s paper provided a theoretical

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exploration of the development of user-theory in the modern museum, citing that the use of digital means to display objects and information has moved “towards increased user participation,” and “away from the historical context of the object and towards the contemporary world of the visitor,” in the sense that a displayed object is always intimately related to the context in which it is displayed. Samouelian’s text studies “college and university repository websites in the United States,” to determine how the use of digital content defines and redefines an institution’s relationship to its patrons. Both studies suggest that the increasingly user-centric and user-engaged environment implicit in Web 2.0 resituates the user experience from one of passive reception to active engagement, effectively changing the power dynamic between patrons and collecting institution.

Claire Warwick’s article “Library and information resources and users of digital resources in the humanities,” at University College London is most similar to the proposed study below. Warwick’s paper explored the results of the Log Analysis of Internet Resources in the Arts and Humanities (LAIRAH) study which used web long analysis of portals for humanities scholars “to determine which resources were accessed most often,” while collecting data about user perceptions of digital resources via a survey. The study found that, in the United Kingdom, both physical and digital materials were used with a fair degree of equality. Neither resource seemed to be in

immediate danger of overtaking the other, but Warwick’s focus was on academic use; furthermore, a similar study has not yet been conducted on this scale in the United States.

While scholars struggle to define the digital humanities and repositories struggle to define their place in an increasingly digital information environment, the multifaceted, extensive discussions on these issues display a strong case for their importance. It is difficult to move, as scholars and as practitioner, from important, but intangible theory to concrete studies monitoring the user experience beyond mere academic conjecture. Digital finding aids provide evidence of increased patron use of and access to archives, at least on the level of a specific institution. European scholars are beginning to theorize how digital exhibits, digitization projects, and other digital humanities related projects would change the face of cultural heritage and individual experiences of a collective cultural identity. Technology has the power to be both harmonizing and monopolizing, publicly and accessibly promoting a shared concept of culture that may or may not accept outlying perceptions of that culture.38 As professionals, objectivity, access, and transparency are key qualities in exhibit preparation. Studying how an institution’s patrons respond to interactive digital arenas as opposed to their static physical counterparts focus on pertinent emergent issues

for scholarship while providing a useful set of practical information for museum
and archives professionals.
1.3 Methodology

1.3.1 Basic Methodology and Site Selection Criteria

In analyzing use data of several digitized collections at the Louis Round Wilson Library, this study seeks to determine potential trends between digital and physical use of collection materials. The Louis Round Wilson Library maintains data on physical use for all of its materials, via the Aeon database and maintains Google Analytics on all of their Content.dm collections. A corresponding survey, presented to the library’s user population and master’s students in Library and Information Science, will provide subjective, qualitative data to assess alongside relevant use data.

The research methods used in this study are both quantitative and qualitative. The study used convenience sampling to determine several potential repositories from which to develop a case study. Prior to choosing a set of repositories, the following criteria were developed to determine the best selection of a set of repositories. Each repository considered for a case study must possess the following criteria: 1) a corresponding digital humanities initiative or digital collections display and a physical collections space, either in the form of a physical exhibit or research room, currently used by patrons; 2) a willingness to participate in the study; 3) the legal and practical means to disclose information needed in the study, specifically information regarding the digital and physical
use of their collections; 4) a reliable and measurable means of determining this information, including some form of server-side transaction log analysis for digital use such as Google Analytics, and a form of steady recordkeeping for physical repository use, defined as patron interaction with physical collections materials or digital renderings of those materials to meet a pre-determined information need. The repository does not need to self-identify as an institution involved in the digital humanities. Though digital exhibits and digitization of collections may be theoretically classed as DH projects, not all institutions view them as such or are willing to associate themselves with the “digital humanities” buzzword.39

Wilson Library was chosen as the proposed location for the study due to its convenient location and wide range of Digital Collections curated primarily from Wilson Library’s Special Collections. The specific area of study encompassed Wilson Library’s Digital Collections. These collections are intended for “teaching, research, and discovery.”40 Wilson Library met the criteria for the

39 THE DPHL does not consider itself to be a digital humanities-based program, although its projects could easily be classed as such by theorists because they involve the digitization of collections materials. In speaking with other professionals in the field, I have noticed a strong dichotomy between an enthusiastic adoption of the term “digital humanities” and a reticence to claim the term as something practiced by one’s institution or as a part of one’s profession. The reticence appears to be linked to the general consensus that “digital humanities” means many things to many people, and that it is often associated with an indefinable “buzzword” and trendy, specialized projects.

study based upon 1) its wide range and high number of digital collections, a majority of which correspond to collections materials available for use in Wilson Library, 2) a willingness to participate in the study and to aid in the process of conducting the study insofar as was necessary, and 3) the ability to efficiently and safely provide de-identified use data on their collections, including their use of Google Analytics to monitor the use of digital collections and a corresponding set of data for users in their Aeon database. The Louis Round Wilson Library was chosen as a repository due to its physical closeness to the study site, the accessibility of relevant data, and the extensive and varied selection of digital exhibits offered on the library website.

The selected digital exhibits were chosen based upon a collaboration of Google Analytics use data, suggestions from Louis Round Wilson’s Special Collections librarians, and academic advisors. Selection criteria also considered the perceived likelihood of patrons viewing both digital and physical collections materials. Perceived likelihood of patron use was based upon the following criteria: 1) input based upon informal informational interviews with Wilson Library’s staff which revealed some inside knowledge on which collections seemed most popular, 2) whether the materials in the collection have an artifactual value that might contribute to a patron wanting to see the materials in person, and 3) what collections would possibly translate well into a physical
exhibit intended for an audience. Based upon the aforementioned criteria, the collections chosen for study were, as follows:

- World War I Postcards from the Bowman Gray Collection
- North Carolina Postcards from the North Carolina Collection at the University of North Carolina, Chapel Hill
- Picturing the New World: The Hand-Colored De-Bry Engravings of 1590
- The Gilmer Civil War Maps Collection
- Historic Moneys in the North Carolina Collection
- I Raised My Hand to Volunteer: Student Protest in 1960s Chapel Hill
- The James Lawrence Dunsbury Journal (1841-1842)
- The Manigault Plantation Journal
- The MacKinney Collection of Medieval Medical Illustrations
- Carolina Keepsakes: Treasured Artifacts from the University’s History
- The Hugh Morton Collection of Photographs and Films

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Jason Tomberlin, Head of Research and Instructional Services, suggested adding the Hugh Morton Collection of Photographs to the survey, due to the popularity of the collection, based upon his experience with researchers.
An “Other” option was provided in the survey to account for respondents who were familiar with the digital collections and chose to respond to a collection with which they were already experienced.

Two collections, the Carolina Keepsakes Collection and the Historic Monies in the North Carolina Collection, were chosen, specifically, to provide feedback to the Library, to aid in future promotion and use of the collection. While Google Analytics data is available on these collections, the use material is not included in Aeon, as the items are stored and requested separately, and many are rotated on display in the North Carolina Collection Gallery. These collections are the only collections included in this study with materials on permanent or continually rotating display. The artifacts and other materials are displayed in the North Carolina Collection Gallery on the second floor of Wilson Library.

Materials in the Carolina Keepsakes Collection are also available by request for patron study, congruent with other collections included in this study. Additionally, I Raised My Hand to Volunteer: Student Protest in 1960s Chapel Hill and The James Lawrence Dunsburry Journal (1841-1842) are Omeka-based exhibits. While Wilson uses both Contentdm and Omeka for the creation of its digital exhibits, the difference in web platforms caused issues with data collection, as Google Analytics data were only available for Contentdm collections and establishing a static link on the Omeka pages was not currently feasible. While the study focuses on Contentdm-based digital collections with corresponding special collections research materials, the research included
collections outside of those specific parameters in the interest of providing useful information to the library.

1.4 Data Collection

Data collected in this study included Google Analytics data on the entirety of Wilson’s digital collections on Contentdm, as well as specific data on the individual digital collections included in the study; de-identified patron use data for specific collections materials; and responses to two similar Qualtrix-based surveys, one distributed via static links on the selected Digital Collections webpages and the other distributed via the School of Information and Library Science Master’s listserv. These two surveys were created to accommodate slightly different user experiences and to ensure an adequate number of respondents. Subjects include all respondents to the surveys, and all users of the physical collections. The expected demographic of the survey, based upon current use data and the nature of the survey distribution, includes adults over the age of 18, many of which are current graduate students.

For the purposes of this study, the Google Analytics data consisted of all of the data for Wilson Library’s Contentdm-based collections. Due to being limited to Contentdm collections, Google Analytics data for I Raised My Hand to Volunteer: Student Protest in 1960s Chapel Hill and The James Lawrence Dusenbery Journal (1841-1842) were not included in the Google Analytics aspect
of this study. Both of these collections use Omeka as their content management system. Consequently this set of Google Analytics data is not stored with the data for the Contentdm collections and not available to the researcher thus, not comparable. Using a different content management system than the other collections also complicated the task of posting a static link to the Qualtrix survey. Consequently, the only data collected on these collections was based upon responses to the student-based survey.

In order to more easily identify and analyze the Google Analytics Collections use data, the researcher created “sections” based on the designated keyword embedded in each collection’s homepage. This allowed each collection to be viewed separately, in comparison to other collections, and as part of the larger Google Analytics data for all Contentdm collections. Patron use data was extracted from the entirety of the Aeon database. The original Aeon database included 87,055 records, including all special collections patron requests from October 13, 2011 to February 23, 2015. This data was stripped of identifying information and transferred to a .CSV file for analysis by the researcher. All non-relevant data, determined as transactions records clearly not applicable to the digital collections included in the study were separated from the database. Each record included the following metadata. Stuff about appendix:

Any personally identifying metadata was removed before the data was provided for research purposes. Even with some data stripped, the large quantity of metadata for a large number of records meant that sorting data manually would
be not only impractical, but also nearly impossible. For the purposes of this study, an Access database was created to retrieve relevant items related to the digital collections. Suggested and attempted search terms for the Access database included:

**Hugh Morton Collection of Photographs and Films**
- Hugh Morton
- Collection P081

**WWI Postcards from the Bowman Gray Collection**
- Gray
- postcard
- Gray_PC
- Bowman Gray
- Rare Book Collection, UNC
- WWI Postcards

**The MacKinney Collection of Medieval Medical Illustrations**
- Loren Carey MacKinney
- MacKinney
- Loren Carey MacKinney Collection on Medieval Medicine #3665, Southern Historical Collection, The Wilson Library, University of North Carolina at Chapel Hill
- Southern Historical Collection, Coll. #3665 University of North Carolina at Chapel Hill

**North Carolina Postcards from the North Carolina Collection at the University of North Carolina, Chapel Hill**
- North Carolina Postcard Collection
- "Postcards - North Carolina."
- Durwood Barbour Collection of North Carolina Postcards

- North Carolina Collection Photographic Archives
- P052
- North Carolina Collection Photographic Archives
- P0077

**Picturing the New World: The Hand-Colored De-Bry Engravings of 1590**
- Thomas Hariot's *A Briefe and True Report of the New Found Land of Virginia*. This book is held by the North Carolina Collection, located in
Wilson Library at the University of North Carolina at Chapel Hill, call number
• FVCC970.1 H28w
• DeBry, Theodore

The Gilmer Civil War Maps Collection
• Collection Number: 00276
• Jeremy Francis Gilmer

The James Lawrence Dunsbury Journal (1841-1842):
• James Lawrence Dusenbery
• James Lawrence Dusenberry Papers (#2751-z) of the Southern Historical Collection (SHC)
• James Lawrence Dusenberry Papers

The Manigault Plantation Journal
• Collection Number: 00484
• Manigault
• Louis Manigault

The Access database was created with the help of Odum Research Lab and utilized to dump relevant data into separate Excel spreadsheets. The selection and sorting process was not flawless, primarily due to discrepancies in metadata entry. For example, not all entries included collection-level metadata, numerous metadata fields were inconsistently spelled and/or capitalized, and the high volume of the data, combined with issues of inconsistent metadata entry, indicated that these errors might have affected the quality of data retrieval. However, the results presented in this study are rendered with the best accuracy possible for the scope of the study, as the researcher manually sorted the retrieved data and excluded any irrelevant items retrieved.

The surveys included in this study consisted of two similar surveys
distributed to two different user populations: actual users and potential users. Actual users were defined as any patron who visited the digital collection’s webpage and opted to take the voluntary survey. Actual users were expected to come to the page organically, without prior knowledge of the option to participate in a survey. The second survey was an adaptation of the first intended to direct subjects to a selection of individual digital collections, based upon which collections were chosen to display a static link of the first survey. Subjects chose a digital collection based upon the title, took some time to explore the collection, and were asked to provide feedback on the collection based on a series of multiple choice, Likert-style scale, and open-ended questions. The option of a second survey was chosen to ensure that the study generated adequate feedback on patron use. It was distributed, primarily, via the SILS masters’ student listerv, both for convenience and for the purpose of having information professionals weigh in on the issues presented in the study.

The surveys are replicated in Items A and B, included in the attached appendix.
1.5 Limitations of this study

The study, intended to analyze the use of digital materials versus physical materials in archival or museum settings will be limited in its ability to draw conclusive correlations between the launch of a digital humanities initiative and subsequent use of a repository’s physical collection materials. A large part of this limitation is based on the short duration of the study and the fact that actual users of the digital collections did not participate in the linked surveys. Ideally, a study of longer duration would result in a higher visitation and response rate for digital collections and the linked surveys. Due to the amount of survey respondents who indicated a willingness to use the physical collection for research purposes or visit a physical exhibit based on a strong interest in the subject, smaller subject-based user studies involving specific classes or specific disciplines might be a useful tool for future information gathering. Studying the use of digital and physical materials associated with a repository will allow such institutions to better assess how archives and museums might meet the changing needs of their consumer audience in the digital age, where remote access may be privileged over the physical and intellectual experience of being present with a tangible object.
1.6 Data

1.6.1 Google Analytics Data

The study used the time period covered in the Aeon database transactions (October 3, 2011 to February 23, 2015) to set the parameters for the Google Analytics data. While the Google Analytics data also covers the date range October 3, 2011 to February 23, 2015, the Contentdm-based collections included in this study are not recorded in Google Analytics until September 17, 2013, which is considered the official launch date for the collections in this study. Overall, the Contentdm-based collections at Wilson Library, both those included in his study and others using the Contendm platform, had 432,794 sessions from 312,525 users, averaging 1,888,143 page views and 4.36 pages per session. In Google Analytics, a session is defined as “a group of interactions that take place on your website within a given time frame.”42 Average session duration was 3 minutes and 58 seconds with a bounce rate of 56.79%, meaning a little over half of users did not stay on the site after landing on the page. 83.55% of users are from the United States, with a smaller percentage of users from Europe, specifically, Russia. The top-ten user cities were: Chapel Hill, Raleigh, Charlotte, Moscow, Durham, Greensboro, New York, (not set), i.e. unspecified, Wilmington, and Asheville. 28.6% of visitors were returning users, indicating a

low, but steady rate of return. The Google Analytics data for overall collections use reflects the data in the more-frequently used collections in this study, with a slightly higher incidence of male users than female users and most users falling within the young adult (25-25) age range.

Fig. 1: The overall rate of return was low, but indicated a subset of consistent users.
Fig. 2: The age range reflected in the overall audience of Contentdm collections, including both the studied collections and other Contentdm-based digital collections.
Fig 3: Only slightly more men visited the sites than women. As noted, the overall collections use demographic data is problematic in that it is gathered via cookies, and reflects a series of categories used by Google, but not, necessarily, reflective of its user population.

Of the collections for which Google Analytics data was available, excluding The James Lawrence Dunsbury Journal (1841-1842) and I Raised My Hand to Volunteer: A History of Student Protest at Chapel Hill, the data collected was as depicted in the following graphics. The results are based upon Google Analytics sampling procedures, which select “a subset of data from your traffic and reporting on the trends available to the sample set.”

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<table>
<thead>
<tr>
<th>Collection</th>
<th>Number of Sessions</th>
<th>Pages Per Session</th>
<th>Percent of New Sessions</th>
<th>Number of Users</th>
<th>Average Session Duration (minutes:seconds)</th>
<th>Pageviews</th>
<th>Bounce Rate</th>
<th>Percentage of New Visitors</th>
<th>Percentage of Returning Visitors</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Contentdm Collections</td>
<td>432,794</td>
<td>4.36</td>
<td>72.30%</td>
<td>312,525</td>
<td>3:58</td>
<td>1,888,143</td>
<td>56.79%</td>
<td>72.21%</td>
<td>27.70%</td>
</tr>
<tr>
<td>World War I Postcards from the Bowman Gray Collection</td>
<td>997</td>
<td>4.74</td>
<td>69.01%</td>
<td>668</td>
<td>4:27</td>
<td>4,729</td>
<td>53.26%</td>
<td>68.80%</td>
<td>32.20%</td>
</tr>
<tr>
<td>North Carolina Postcards from the North Carolina Collection at the University of North Carolina, Chapel Hill</td>
<td>43,387</td>
<td>5.23</td>
<td>78.35%</td>
<td>35,877</td>
<td>3:29</td>
<td>226,781</td>
<td>65.93%</td>
<td>78.35%</td>
<td>21.70%</td>
</tr>
<tr>
<td>Picturing the New World: The Hand-Colored De-Bry Engravings of 1590</td>
<td>317</td>
<td>4.15</td>
<td>64.98%</td>
<td>312</td>
<td>2:41</td>
<td>1,317</td>
<td>44.48%</td>
<td>64.40%</td>
<td>35.60%</td>
</tr>
<tr>
<td>The Gilmer Civil War Maps Collection</td>
<td>6,360</td>
<td>9.52</td>
<td>62.41%</td>
<td>4,604</td>
<td>8:47</td>
<td>60,524</td>
<td>4096.00%</td>
<td>62.40%</td>
<td>37.60%</td>
</tr>
<tr>
<td>Historic Moneys in the North Carolina Collection</td>
<td>64</td>
<td>23.53</td>
<td>84.38%</td>
<td>64</td>
<td>15:39</td>
<td>1,506</td>
<td>0%</td>
<td>84.40%</td>
<td>15.60%</td>
</tr>
<tr>
<td>Carolina Keepsakes: Treasured Artifacts from the University’s History</td>
<td>2,477</td>
<td>16.65</td>
<td>62.10%</td>
<td>2,059</td>
<td>13:36</td>
<td>41,245</td>
<td>25.31%</td>
<td>62.10%</td>
<td>37.90%</td>
</tr>
<tr>
<td>The Hugh Morton Collection of Photographs and Films</td>
<td>21,719</td>
<td>5.96</td>
<td>77.41%</td>
<td>17,824</td>
<td>4:19</td>
<td>129,501</td>
<td>61.84%</td>
<td>77.40%</td>
<td>22.60%</td>
</tr>
<tr>
<td>MacKinney Medical Illustrations</td>
<td>5,815</td>
<td>11.47</td>
<td>64.99%</td>
<td>4,158</td>
<td>8:48</td>
<td>66,721</td>
<td>31.78%</td>
<td>64.90%</td>
<td>35.10%</td>
</tr>
</tbody>
</table>

*Fig 4: This chart displays a full rendering of Google Analytics data for the Contentdm collections included in this study.*
Fig. 5: Use data indicated that the NC Postcards Collection experienced the highest percentage of overall use, with the Manigault Plantation Journal experiencing the least use, as measured by number of sessions in the specified date range.
Fig. 6: The North Carolina Postcards Collection and the Hugh Morton Collection of Photographs and Films experienced the highest number of sessions for the specified date range, with the Historic Moneys in the North Carolina Collection and the Manigault Plantation Journal experiencing the smallest number of sessions within the specified date range.
Fig: 7: The percentage of new sessions was comparable over all collections, with the Manigault Plantation Journal, the Historic Moneys in North Carolina, the North Carolina Postcards Collection and The Hugh Morton Collection of Photographs and Films experiencing the highest percentages of new use.
Fig. 8: The percentage of returning visitors indicates a high rate of return for the World War I Postcards from the Bowman Gray Collection, the Gilmer Civil War Maps Collection, and the Manigault Plantation Journal. While less than half of all visitors returned to these sites, a small percentage of users appear to return with regularity.
Fig. 9: The percentage of new visitors reflects the data, in the previous chart.
Fig. 10: Bounce rate reflects the percentage of sessions that do not extend past the initial page discovery. The North Carolina Postcards Collection and the Hugh Morton Collection of Photographs and Films experienced the highest bounce rates, but are among the most popular collections in the study. The Manigault Plantation Journal experienced a zero percent bounce rate. The total number of users in this collection was low, but patrons consistently viewed more than one page while utilizing the collection. The visual versus narrative content difference may be related to this discrepancy.
Fig. 11-13: The following charts reflect more detailed use data for each collection, including pages per session, session length, and the number of total pageviews for each collection.
Average Session Duration in Minutes
(approximated for visualization)
According to Google Analytics, the most visited collection was the *North Carolina Postcards from the North Carolina Collection at the University of North Carolina, Chapel Hill*, followed by *The Hugh Morton Collection of Photographs and Films*. These collections also logged the highest number of sessions with 35,877 and 17,924, respectively. In Google Analytics, a session is defined as “a group of interactions that take place on your website at any given time.”⁴⁴ Since each session incorporates a variety of related interactions with the site from a single source, the number of sessions indicated in Google Analytics is a decent

measurement of use. Bounce rate refers to the “number of single page visits” in a session, measuring use that does not extend beyond the first page of the site.\textsuperscript{45} A high bounce rate indicates that the individuals visiting the collection did not actually explore the collection since they did not progress past the first page.

The collections with the lowest use, with use determined by number of users visiting the site, session number, and bounce rate were the \textit{Manigault Plantation Journal} and \textit{Historic Moneys in the North Carolina Collection}. The journal received only 17 and 64 sessions, totaling at 17 and 64 users. However, a notable correlation existed between lower numbers of visitors and a deeper exploration of the collection. Both collections had a 0\% bounce rate and users viewed and average of 17-23 pages. Visitors also spent more time on these sites, spending, on average, 12-15 minutes. While causal relationships cannot be determined, these statistics may suggest that the visitors using the \textit{Manigault Journal}, the \textit{Historic Moneys Collection}, as well as the \textit{MacKinney Collection of Medieval Medical Illustrations}, which denotes a similar trend, do so with a premeditated intent and explore the collection in more depth, over a greater period of time than is averaged from other collections use data. The Google Analytics data suggests that vested interest and set research intent may increases the likelihood of in-depth exploration, but this level of quality does not necessarily correlate to a high quantity of users. Rather, those collections with high use do not

correlate with statistics that indicate in-depth use. The average session duration of the North Carolina Postcards Collection, the most popular collection by Google Analytics standards, came in at 3 minutes and 29 seconds. This corresponded closely with the average time spent on a site over all collections, of 3 minutes and 58 seconds. The bounce rate for the North Carolina Postcards collection was nearly 80%, suggesting that more patrons saw the site than actually visited for the purpose of using the digital collection.

1.7 Patron Use of Physical Collections Materials

Due to the automatic retrieval methods used in the Access database, it is possible that not all instances of use were retrieved. However, the researcher became very familiar with the large amount of content included in the Aeon metadata and feels that this sampling is representative of physical collections use. The data is visually represented, as follows:
Fig. 14: Physical collection use was not substantial, given the time period covered.

1.8 Survey Results

Combined, the surveys generated 51 responses, with 51 surveys started and a 14% dropout rate among participants. Ultimately, the survey distributed via the SILS masters listserv, reaching primarily SILS students and other parties with access to the link, generated the only usable data. Despite placing a visible, static link on the collections page of each digital collection in the study, responses to the survey directed at users of the digital collections did not result in the generation of data. This may be attributable to the generally low rate of visitation experienced by the Digital Collections and the relatively short (8 weeks) time of the study. Given a longer period of study, results generated may be more significant.
However, the high dropout rate is worth noting and suggests that patrons were either unwilling or unable, as a whole, to complete the survey process. Consequently, the displayed data is derived specifically from the second user survey, distributed via email.

Forty-nine respondents began the survey voluntarily via a direct link. These subjects chose a digital collection based on its title, which linked to the respective digital collection’s homepage. Respondents were not instructed to limit their exploration of the Digital Collections materials in any way, though they were encouraged to explore all of the collections. Subjects were free to pick whichever collection that they found to be most appealing, whether that appeal generated from prior experience with the digital collections or the interesting nature of a digital collection’s title, but they did not have the initial interaction with a visual website that might influence the choice of an organic user. The issue of respondents being directed to a site that they may not have organically chosen was problematic, but unavoidable, as means to generate organic data from actual users were also in place. Unlike organic users, who may enter the digital collection at any level of the site, users prompted by the survey were taken directly to the collection homepage to being their exploration of the collection. Upon exploring at least one site, subjects were directed to return to the survey to answer relevant questions about their experience.
A majority of subjects chose to explore *I Raised My Hand to Volunteer: Student Protest in 1960s Chapel Hill* or *The MacKinney Collection of Medieval Medical Illustrations*, with each collection receiving 14 respondents. These collections were followed in popularity by the *World War I Postcards from the Bowman Gray Collection*.

The least visited collections were the *Gilmer Civil War Maps Collection*, *Historic Moneys in the North Carolina Collection*, *The James Lawrence Dusenbery Journal* (1841-1842), and *Carolina Keepsakes: Treasured Artifacts from the University's History*. Each of these collections had 2 respondents. Given the number of subjects, these responses are not insignificant, but do not represent a majority. These choices contrasted with the trends represented in Google Analytics, which indicated a high-level of interest for the *Historic Monies in the North Carolina Collection* and the *Carolina Keepsakes* collection. However, the Google Analytics data suggested small user groups with a broad depth of interest in the collections material. While the initial digital collection does not elicit a great amount of interest, those who do possess an interest are not visiting the site on a cursory basis.

A majority of respondents (78%) indicated the reason for choosing the collection as: “I am interested in the exhibit's subject matter, but I am not currently conducting a project based on the subject matter.” A smaller, but not insignificant (43%), number of respondents indicated that, “I would not have
encountered the digital exhibit had I not been prompted to do so.” This response indicates a general lack of awareness of the collections that could be mitigated.
Survey results are represented below, Fig. 15-16.
<table>
<thead>
<tr>
<th>Column 1</th>
<th>Column 2</th>
<th>Column 3</th>
<th>Column 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data 1</td>
<td>Data 2</td>
<td>Data 3</td>
<td>Data 4</td>
</tr>
<tr>
<td>Data 5</td>
<td>Data 6</td>
<td>Data 7</td>
<td>Data 8</td>
</tr>
<tr>
<td>Data 9</td>
<td>Data 10</td>
<td>Data 11</td>
<td>Data 12</td>
</tr>
<tr>
<td>Data 13</td>
<td>Data 14</td>
<td>Data 15</td>
<td>Data 16</td>
</tr>
<tr>
<td>Data 17</td>
<td>Data 18</td>
<td>Data 19</td>
<td>Data 20</td>
</tr>
</tbody>
</table>

Note: The table continues with more rows and columns.
In addition to multiple choice and ranked responses, respondents had the opportunity to provide written information in the survey. Responses were coded based on several primary categories: 1) interest 2) access, and 3) programming and outreach.

Text responses were as follows:

What encouraged you to select this collection from the list? Please choose the answer(s) below which most completely apply to you. Respondents who did not choose a multiple-choice response, responded with the following:

“It’s the kind of thing that if I had been idly googling and discovered I would have visited.”

“Answer box Q1 does not function for me (Firefox): I selected Manigault, but visited them all as suggested; thus responding to Q4 is confusing to me.”

The first response suggests that, like most participants, the respondent would not have chosen to view the collection out of a vested scholarly interest or specifically seeking the exhibit, but might have unexpectedly encountered the exhibit based on a cursory interest. The second response suggests that, of all the possibly collections, one respondent determined that *The Manigault Plantation Journal* was the most interesting, though their web-browser inhibited the ability to fully participate in the survey.

When asked what feature was most useful in the digital collection, with usefulness defined as how well the collection was able to meet their perceived information needs, a majority of participants chose “Contextual information about the collection,” “Digital collections are more easily searchable than physical collections,” and “Browse by subject feature.” When given the choice of “other,” respondents offered the following responses:

1. general layout and word press theme made it very accessible
2. Can view all of the collection - rarely could you visit an archive and browse through an entire collection
3. Bibliography
4. Honestly, the quality of the scans are really impressive. This is redundant, somewhat, but worth noting
5. the fact that it pointed out specific items that I might not have found otherwise
6. The text sizes are appropriate for easy reading; the website has a professional look so it's not distracting from the materials
7. website user-friendliness: these contain fantastic material squirreled away in endless list format with minute (3pt) captioning
8. ability to browse all
9. Creator field
These responses indicate a perception of greater ease of use and full accessibility in digital collections, that respondents feel may be lacking in physical collections. This level of access is, primarily, focused on metadata and interaction with collections materials for informational purposes. Of respondents, a majority responded that they “probably will not” or “don’t know” when asked, “After viewing the digital collection online, how likely would you be to come to Wilson library and conduct research with the physical materials in the collection?”

When queried why this response was given, subjects offered the following responses:

**Interest-based responses:**

1. Needing to do research that requires those materials
2. An interest in the subject. The online exhibit I read was very interesting, and it may be useful in the future, but I chose the collection on a whim.
3. If I were actively researching the topic (for a paper, journal article, etc.), I think I would want to see the items in person.
4. I think I would if I needed to see the physical version, for example for research. As someone just interested in it I'm content to look at it online.
5. None of the collections offered are directly applicable to my research so I have no reason to actually use them. I can learn all I need for my purposes by viewing the online exhibit.
6. Having an assignment or project that required work with primary sources.
7. Having a specific project to do regarding the materials would be the only thing that would make me visit the collection.
8. Needing to research the topic. I'm not working on a project or anything related to the subject matter, so the digital site works great for letting me explore, but I don't feel the need to see the documents in person.

9. If I were using the material for a project, then I would be much more likely to visit the physical collection. Just looking at it because it's neat, though--I feel like visiting the physical collection may impede others who need to be there for real work.

10. If I was conducting research for class. I do not want to risk damaging originals or subjecting them to unnecessary handling for the sake of personal curiosity.

11. I am not doing actual research on this topic. It's cool, but why would I go out of my way to visit it? The only reason I would go in person is if I were assigned a mandatory project necessitating the use of these materials.

12. I chose the collection out of curiosity/interest in the collection name, but it is not related to an area of research for me so I wouldn't go through the trouble and time of visiting in person. It also seems like a difficult medium to view. If there were some kind of special event or activity that highlighted the collection or selections from it, I would be more likely to visit the collection itself.

13. I chose the collection out of curiosity/interest in the collection name, but it is not related to an area of research for me so I wouldn't go through the trouble and time of visiting in person. It also seems like a difficult medium to view. If there were some kind of special event or activity that highlighted the collection or selections from it, I would be more likely to visit the collection itself.

14. If a research project that came up that I could incorporate this study into I would go, but I wrote probably will not as I don't see that happening.

15. A collection that is pertinent to my research.

16. Academic research need.

17. Only if there were a very large or detailed picture that I would need to see in person.

18. I'm not conducting research in this topic.

Access-based Responses:

19. If I wanted a map, for example, at a higher resolution I might visit the collection to take a photo at a higher dpi or negotiate scanning. The resolutions on the NC map collection are often too low.

20. I responded "Don't Know" but as the collection that I chose are slides that are very vulnerable to handling. So, I do not believe that I could make myself handle the collection in any way for fear of damaging it in some way.

21. I would go if there were missing pictures from the digital collections that I would want to see in person, or other documents (letters, notes) that are only accessed in person.

22. '- an exhibit to add contextual guidance, thematic editing and scholarly input.

23. a school field trip to see them. Don't have time to go see them on my own, nor do I know how to get permission to see them or if I even need to get permission.

24. I work in [a library in close proximity] so I will be going and will likely interact with the material, but not because of the digital exhibit.
These responses indicate a willingness to substitute the digital exhibit for physical collections use, but also suggest a perceived sense of inaccessibility to the physical collections in Wilson’s Special, despite the fact that the survey population was made up, primarily, of students at UNC. These responses are worth noting, as the perception that digital collections are more accessible may be augmented by the perception that physical collections and their respective storage spaces are less so.

When asked: What factors would increase your willingness to visit a physical exhibit incorporating items shown in the digital collection? Responses were as follows:

**Interest-based responses:**

1. Interest in subject.
2. A relation to my interest in elite women, or related to my family who has been in NC since before the revolution.
3. Not sure. I think I would attend because I was excited to see a collection that included materials I have looked at.
4. Subject matter - if it was map based
5. If I saw something in the digital collection that blew me away I would want to see it in person if I had the chance
6. The digital collection provides a good example of the items that Wilson holds on the subject. There are plenty of interesting collections online, but now I want to see what else is there.
7. If it was particularly compelling

**Access-based responses:**

1. Convenience and time
2. Presence of items that really demonstrate the high points in whatever historical narrative is being presented, eg. the diary entry from Ms. Parker in the I Raised My Hand –
3. A wider range of World War I postcards. In other words, additional postcards that may not have been digitized and published online.
4. An easily accessible physical exhibit (i.e., close proximity to me, convenient opening hours, etc.).
5. Relevance to my research or proximity to where I live (convenience)
6. The material I was looking at is very fragile so I would want to make sure that the physical exhibit took proper precautions with it. I would not want to go to a
physical exhibit and support the exhibit if the materials were not taken care of properly.

7. I think this is very personal and subjective -- it would really be if I had time and if the exhibit was available for extended hours, i.e. after 5 p.m.

8. It would probably just depend on where the exhibit is and when it is open.

9. My interest in the subject matter primarily, but also the timing of the exhibit and if it would fit into my existing schedule.

10. Convenient hours of the exhibit... being told the exhibit exists.

11. If the exhibit is open at a time when I have free time and am already on campus.

12. More compelling presentation regarding the activism and protest. More info on what might be displayed in a physical exhibit and some emphasis on what one might get from seeing it in person rather than simply viewing content online.

13. Perhaps an interactive feature, or a multi-collection exhibit. For instance, these medical illustrations could be shown alongside a selection of items from a related collection.

14. open at convenient hours

15. If there were more photographs. I would like to see a large visual display of photographs. Having them on a website is nice, but the effect of seeing them in a physical display, without the frame of the website, is more compelling.

16. Ease of access like distance and parking.

17. Text along with the images indicating that the items really need to be seen in person, text indicating that the librarians in Wilson can provide resources to help contextualize these images with other research relevant to me.

**Programming and Outreach-based responses:**

1. Descriptive labeling, convenient hours/location for viewing.

2. Advertising showing selected items that are interesting.

3. Actually being made aware that a physical exhibit on the topic exists.

4. Programs related to that exhibit; explain to the public why it's important.

5. If the exhibit was well advertised and the subject matter was related to something I am interested in, I would be more likely to visit.

6. Promotion of the exhibit, and a university event connected to the exhibit.

7. If I was aware of the exhibit and it was open at times convenient to myself.

8. more advertising - I never know what is on display at Wilson

9. Better advertising

10. Additional information beyond the postcards - other artifacts, etc.

11. A greater familiarity with the collections.

For charts on respondent-based data, see Items C, D, E, and F in the appendix.
1.9 Findings

1.9.1 Discussion of Findings

Wilson Library currently lists 69 individual digital collections, accessibly by a hyperlinked box on it’s the Wilson Library Special Collections homepage, as evidenced below:

![Image of link to Digital Collections Homepage from Wilson Library’s Special Collections site, “The Louis Round Wilson Library Special Collections.” University Libraries, University of North Carolina, Chapel Hill, http://library.unc.edu/wilson/](image-url)

Once a patron has navigated to the Digital Collections homepage, a brief introduction to the scope of the collections and a series of links appear. Initially, only 23 links are visible, unless the viewer chooses to “load more” option. The links are not organized based on any specific criteria, meaning that potentially popular collections may
not be immediately visible to potential users, unless a targeted search is conducted. This layout may inhibit optimal access to the collections, particularly since the initial information presented about each collection is its title.

Considering that the survey was distributed, primarily, to Library and Information Science graduate students the fact that 43% of respondents indicated that, “I would not have encountered the digital exhibit had I not been prompted to do so” is troubling, suggesting that patrons and students are not well enough aware of these materials. Over half of all users of Wilson’s Digital Collections do not progress past the first page. However, those that do have a vested interest in the collection, spend considerable time using the materials in comparison to typical users. Digital use was greater than physical collection use, overall. The results of the survey suggest some potential reasons for this disconnect, as respondents indicated a reluctance to disturb serious researchers and a lack of true scholarly need as reasons for not utilizing the physical collections. The responses to the survey indicate that patrons need a reason to visit a collection, preferably based in an academic requirement or serious scholarly interest. The responses also indicate a general lack of awareness about the availability of both digital and physical collections in Wilson Library’s Special Collections.

Respondents did not participate in the survey until prompted to do so and several respondents indicated a complete lack of awareness regarding the existence of Wilson Library’s Digital Collections. Respondents also indicated a slight sense of uncertainty about their ability to use the physical collections, citing a reluctance to disturb “serious” researchers, a concern of damaging collections materials, and an uncertainty as to
whether special permissions were required to access the collections. Building upon this is the repeated responses that better, more visible, and more accessible advertising and outreach would increase interest in access to Wilson Library’s Special Collections. While respondents, generally, required a vested interest to visit an exhibit or utilize collections materials, some indicated a general interest in exhibits, events, and outreach, but a lack of awareness about such initiatives. Issues of access to the space were also a concern, as physical proximity of events, parking, and scheduling conflicts were mentioned as potential inhibitors of attendance to exhibit-based programming.

The attitudes expressed in the aforementioned sentiments indicate a concept of aloofness, inaccessibility, and grandeur that libraries and, more particularly, archives are seeking to dispel. It is clear that the scholarly community sees digital initiatives as a means of increasing access to materials and that some patrons, clearly, share that view. However, patron zeal and general knowledge appear to be lacking for Wilson’s Digital Collections. Those who visit the pages with regularity are high-interest, small-volume groups. A majority of individuals surveyed felt that the digital collections were more accessible, more easily searchable, and more reflective of their individual information needs. However, these respondents were all manually directed to the exhibit via the survey. No visitors to the exhibit participated in the survey responses voluntarily, so it is impossible to deduce the perceptions of those who visit the sites for specific research purposes in this specific study. Alarmingly, while there seems to be a minimal correlation between the launch of a digital exhibit and the use of related physical collections materials, there also appears to be a general reluctance, particularly among students, to feel that they can use collections materials. One respondent was unsure whether this was
“allowed” or how permissions were to be obtained, another feared disturbing “serious researchers” by using collections materials. Furthermore, an alarming majority of respondents admitted to being largely unaware of events at Wilson and suggested a need for “better advertising,” more accessible display times, and, one respondent suggested that parking be made available for specific events. These observations point to a problem that this study did not anticipate, the fact that academic special collections may feel and, thus, become inaccessible to the student population that they claim to serve. Wilson Library often puts on talks, exhibits, and displays, but the response, in the context of this study, indicates that not enough of the student body is made aware of these events. As one of the most prominent libraries in the Southeast, Wilson Library implements a strong schedule of educational, academic, and exhibit-based programming, in addition to providing reference, outreach, and educational services to graduate and undergraduate students. This study indicates a potential need to assess the reach of this programming within the student body. Wilson Library’s Special Collections is one of the most large and well-known collections on Southern history. Wilson Library could further embrace the role as activist and take a more integrated, outreach-based approach to engaging the student body in utilizing the special collections materials accessible to it.
1.10 Works Cited


Coggins, Jennifer. Telling the "Carolina Story": An Assessment of UNC's Virtual Museum of University History, A Master's Paper submitted under Dr. Christopher (Cal) Lee to the University of North Carolina at Chapel Hill, School of Library and Information Science, Spring 2014.


Mellon, Mary. The Use of Cyrillic Metadata for Enhancing Discovery of Russian Digital Collection Items: A Case Study of the Bowman Gray World War I Postcards Digital Collection, A Master’s Paper submitted under Denise Anthony to the University of North Carolina at Chapel Hill, School of Library and Information Science, Fall 2014.


1.11 Appendix

**Item A**

*On-Site Survey*

Q1 Which digital collection did you visit?
- World War I Postcards from the Bowman Gray Collection (1)
- North Carolina Postcards, North Carolina Collection, University of North Carolina at Chapel Hill (2)
- Picturing the New World: The Hand-Colored DrBry Engravings of 1590 (3)
- Gilmer Civil War Maps Collection (4)
- Historic Moneys in the North Carolina Collection (5)
- I Raised My Hand to Volunteer: Student Protest in 1960s Chapel Hill (6)
- The James Lawrence Dusenbery Journal (1841-1842) (7)
- Manigault Plantation Journal (8)
- The MacKinney Collection of Medieval Medical Illustrations (9)
- Carolina Keepsakes: Treasured Artifacts from the University’s History (10)
- Hugh Morton Collection of Photographs and Films (12)

Q2 What brought you to the collection? Please choose the answer below which most completely applies to you.
- I am interested in the exhibit’s subject matter, but I am not currently conducting a project based on the subject matter. (1)
- I am conducting academic research for a class project, paper, or other academic endeavor. (2)
- I am conducting personal research for a non-academic endeavor, i.e. book, article, blog post, or other project. (3)
- I am exploring the library website and encountered the digital collection unintentionally. (4)
- I am browsing the internet and came across the exhibit unintentionally. (5)
Q3 Approximately how useful did you find the digital collection to be on a scale of 1 to 5 with 1 being "very useless" and 5 being "very useful"?

<table>
<thead>
<tr>
<th>Degree of Usefulness (1)</th>
<th>Very Useless (1)</th>
<th>Useless (2)</th>
<th>Somewhat Useless (3)</th>
<th>Neutral (4)</th>
<th>Somewhat Useful (5)</th>
<th>Useful (6)</th>
<th>Very Useful (7)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
</tbody>
</table>

Q4 After viewing the digital collection online, how likely would you be to come to Wilson library and conduct research with the physical materials?

- Definitely will not (1)
- Probably will not (2)
- Don't know (3)
- Probably will (4)
- Definitely will (5)

Q5 Which aspects of the digital collection did you find to be most useful in order of most useful to least useful/inapplicable? Please rank the following options.

1. Browse by subject feature
2. Browse by location feature
3. Option(s) to manipulate, magnify, and otherwise interact with digital images
4. Contextual information about the collection
5. Digital collections are more easily searchable than physical collections
6. Decreased risk of concern for damaging physical collection materials
7. Other

Q6 What "other" factor, if any, did you find to be useful in the digital collection. If "none" please write "none" in the text box below.

Q7 If you "definitely will not" or "probably will not" physically visit the collection at Wilson library, what factors might increase your likelihood of visiting the collection?
Q8 After viewing the digital collection, how likely would you be to visit a physical exhibit incorporating items displayed in the digital collection?

- Very Unlikely (1)
- Unlikely (2)
- Somewhat Unlikely (3)
- Undecided (4)
- Somewhat Likely (5)
- Likely (6)
- Very Likely (7)

If Very Unlikely Is Selected, Then Skip To &...If Unlikely Is Selected, Then Skip To &...If Somewhat Unlikely Is Selected, Then Skip To &...If Undecided Is Selected, Then Skip To &...

Q9 What factors would increase your willingness to visit a physical exhibit incorporating items shown in the digital collection?

Q10 What factors would help you decide whether or not you would visit a physical exhibit incorporating items shown in the digital collection?

Q11 Of the digital collections listed, which do you feel would translate most usefully into a physical exhibit?

- World War I Postcards from the Bowman Gray Collection (1)
- North Carolina Postcards, North Carolina Collection, University of North Carolina at Chapel Hill (2)
- Picturing the New World: The Hand-Colored DrBry Engravings of 1590 (3)
- Gilmer Civil War Maps Collection (4)
- Historic Moneys in the North Carolina Collection (5)
- I Raised My Hand to Volunteer: Student Protest in 1960s Chapel Hill (6)
- The James Lawrence Dusenbery Journal (1841-1842) (7)
- Manigault Plantation Journal (8)
- The MacKinney Collection of Medieval Medical Illustrations (9)
- Carolina Keepsakes: Treasured Artifacts from the University's History (10)
- Celebrating Five Million Volumes: An Exhibition of Materials from the William Butler Yeats Collection (11)
- Hugh Morton Collection of Photographs and Films (12)

Q12 Is there a digital collection not listed above that you feel would translate well into a physical exhibit? If yes, please name the collection(s) in the text box below.

- Yes (1) ____________________
- No (2)

Q13 What factors contributed to your selection of the collection above?
Q14 Did you visit other digital collections on the library website? If so, which collections did you visit?

- World War I Postcards from the Bowman Gray Collection (1)
- North Carolina Postcards, North Carolina Collection, University of North Carolina at Chapel Hill (2)
- Picturing the New World: The Hand-Colored DrBry Engravings of 1590 (3)
- Gilmer Civil War Maps Collection (4)
- Historic Moneys in the North Carolina Collection (5)
- I Raised My Hand to Volunteer: Student Protest in 1960s Chapel Hill (6)
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- Carolina Keepsakes: Treasured Artifacts from the University's History (10)
- Celebrating Five Million Volumes: An Exhibition of Materials from the William Butler Yeats Collection (11)
- Hugh Morton Collection of Photographs and Films (12)
- Other (13)

If Other Is Selected, Then Skip To If you selected "other" please name t...

Q15 If you selected "other" please name the collection in the box below.

Q16 Browser Meta Info

- Browser (1)
- Version (2)
- Operating System (3)
- Screen Resolution (4)
- Flash Version (5)
- Java Support (6)
- User Agent (7)

Q17 Timing

- First Click (1)
- Last Click (2)
- Page Submit (3)
- Click Count (4)
Item B

Student Survey

Q1 Please choose one of the following collections that appeals to you. Clicking on the name below will direct you to the digital collection website. Please explore the website before completing the survey.
World War I Postcards from the Bowman Gray Collection
North Carolina Postcards, North Carolina Collection, University of North Carolina at Chapel Hill
Picturing the New World: The Hand-Colored DrBry Engravings of 1590
Gilmer Civil War Maps Collection
Historic Moneys in the North Carolina Collection
I Raised My Hand to Volunteer: Student Protest in 1960s Chapel Hill
The James Lawrence Dusenbery Journal (1841-1842)
Manigault Plantation Journal
The MacKinney Collection of Medieval Medical Illustrations
Carolina Keepsakes: Treasured Artifacts from the University’s History
Hugh Morton Collection of Photographs and Films

Q2 Which digital collection did you visit?
☐ World War I Postcards from the Bowman Gray Collection (1)
☐ North Carolina Postcards, North Carolina Collection, University of North Carolina at Chapel Hill (2)
☐ Picturing the New World: The Hand-Colored DrBry Engravings of 1590 (3)
☐ Gilmer Civil War Maps Collection (4)
☐ Historic Moneys in the North Carolina Collection (5)
☐ I Raised My Hand to Volunteer: Student Protest in 1960s Chapel Hill (6)
☐ The James Lawrence Dusenbery Journal (1841-1842) (7)
☐ Manigault Plantation Journal (8)
☐ The MacKinney Collection of Medieval Medical Illustrations (9)
☐ Carolina Keepsakes: Treasured Artifacts from the University's History (10)
☐ Hugh Morton Collection of Photographs and Films (12)
☐ Other (13)

If Other Is Selected, Then Skip To If you selected "other" please name t...

Q3 If you selected "other" please name the collection in the box below.
Q4 What encouraged you to select this collection from the list? Please choose the answer(s) below which most completely apply to you.

- I am interested in the exhibit’s subject matter, but I am not currently conducting a project based on the subject matter. (1)
- I am conducting academic research on this topic or a related topic. (2)
- I am conducting personal research for a non-academic endeavor, i.e. book, article, blog post, or other project. (3)
- I have worked with or used materials in the collection prior to taking the survey and wanted to explore the digital exhibit. (6)
- I would not have encountered the digital exhibit had I not been prompted to do so. (4)
- Other. Please provide details in the text box below. (8) ____________________

Q5 Approximately how useful did you find the digital collection to be on a scale of 1 to 5 with 1 being "very useless" and 5 being "very useful"? Usefulness indicates how well the site met your information needs and expectations.

<table>
<thead>
<tr>
<th>Level of Usefulness (1)</th>
<th>Very Useless (1)</th>
<th>Useless (2)</th>
<th>Somewhat Useless (3)</th>
<th>Neutral (4)</th>
<th>Somewhat Useful (5)</th>
<th>Useful (6)</th>
<th>Very Useful (7)</th>
</tr>
</thead>
</table>

Q6 Which aspects of the digital collection did you find to be most useful in order of most useful to least useful/inapplicable? Please rank the following options from 1-7, with 1 being "most useful" and 7 being "inapplicable". You may rank the answers by dragging and dropping the selections into a chosen order.

_____ Browse by subject feature (1)
_____ Browse by location feature (2)
_____ Option(s) to manipulate, magnify, and otherwise interact with digital images (3)
_____ Contextual information about the collection (4)
_____ Digital collections are more easily searchable than physical collections (5)
_____ Decreased risk of concern for damaging physical collection materials (6)
_____ Other (7)

If Other Is Greater Than or Equal to 5, Then Skip To What "other" factor, if any, did you...

Q7 What "other" factor, if any, did you find to be useful in the digital collection? If "none" please write "none" in the text box below.
Q8 After viewing the digital collection online, how likely would you be to come to Wilson library and conduct research with the physical materials in the collection?
- Definitely will not (1)
- Probably will not (2)
- Don't know (3)
- Probably will (4)
- Definitely will (5)

Q9 If you "definitely will not" or "probably will not" physically visit the collection at Wilson library, what factors might increase your likelihood of visiting the collection?

Q10 After viewing the digital collection, how likely would you be to visit a physical exhibit incorporating items displayed in the digital collection?
- Very Unlikely (1)
- Unlikely (2)
- Somewhat Unlikely (3)
- Undecided (4)
- Somewhat Likely (5)
- Likely (6)
- Very Likely (7)

Q11 What factors would increase your willingness to visit a physical exhibit incorporating items shown in the digital collection?

Q12 What factors would help you decide whether or not you would visit a physical exhibit incorporating items shown in the digital collection?

Q13 Of the digital collections listed, which do you feel would translate most usefully into a physical exhibit?
- World War I Postcards from the Bowman Gray Collection (1)
- North Carolina Postcards, North Carolina Collection, University of North Carolina at Chapel Hill (2)
- Picturing the New World: The Hand-Colored DrBry Engravings of 1590 (3)
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- I Raised My Hand to Volunteer: Student Protest in 1960s Chapel Hill (6)
- The James Lawrence Dusenbery Journal (1841-1842) (7)
- Manigault Plantation Journal (8)
- The MacKinney Collection of Medieval Medical Illustrations (9)
- Carolina Keepsakes: Treasured Artifacts from the University's History (10)
- Hugh Morton Collection of Photographs and Films (12)
Q14 What factors contributed to your selection of the collection above?

Q15 Is there a digital collection not listed above that you feel would translate well into a physical exhibit? If yes, please name the collection(s) in the text box below.
   ☐ Yes (1) ____________________
   ☐ No (2)

Q16 Why do you feel this collection would translate well into a physical exhibit?

Q17 Have you visited other digital collections on the library website? If so, which collections did you visit?
   ☐ World War I Postcards from the Bowman Gray Collection (1)
   ☐ North Carolina Postcards, North Carolina Collection, University of North Carolina at Chapel Hill (2)
   ☐ Picturing the New World: The Hand-Colored DrBry Engravings of 1590 (3)
   ☐ Gilmer Civil War Maps Collection (4)
   ☐ Historic Moneys in the North Carolina Collection (5)
   ☐ I Raised My Hand to Volunteer: Student Protest in 1960s Chapel Hill (6)
   ☐ The James Lawrence Dusenbery Journal (1841-1842) (7)
   ☐ Manigault Plantation Journal (8)
   ☐ The MacKinney Collection of Medieval Medical Illustrations (9)
   ☐ Carolina Keepsakes: Treasured Artifacts from the University's History (10)
   ☐ Celebrating Five Million Volumes: An Exhibition of Materials from the William Butler Yeats Collection (11)
   ☐ Hugh Morton Collection of Photographs and Films (12)
   ☐ Other (13)
   If Other Is Selected, Then Skip To If you selected "other" please name t...

Q18 If you selected "other" please name the collection in the box below.

Q19 Browser Meta Info
   Browser (1)
   Version (2)
   Operating System (3)
   Screen Resolution (4)
   Flash Version (5)
   Java Support (6)
   User Agent (7)

Q20 Timing
   First Click (1)
   Last Click (2)
   Page Submit (3)
   Click Count (4)
Q26 Please include any other comments you may have about the digital collections at Wilson Library.

*Item C*
Item D

Survey Start Times

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<th>6:00am</th>
<th>9:00am</th>
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<th>3:00pm</th>
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<tbody>
<tr>
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<td>1</td>
<td>1</td>
<td>4</td>
<td>8</td>
<td>3</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>
Item E

Survey Completion Percent

- Survey completion percentage distribution.
Item F
**Item G, Aeon Metadata Fields:**

- Transaction Number
- Site
- Transaction Date
- Document Type
- Item Author
- Item Title
- Item Sub Title
- Item Date
- Item Edition
- Item Volume
- Item Pages
- Item ISx N
- Item Citation
- EAD Number
- Reference Number
- Page Count
- Call Number
- Location
- Sub Location
- Reason For Cancellation
- Maxcost
- Internal Acct No
- Invoice Number
- Web Request Form
- Cancel Note
- Format
- Service Level
- Shipping Option
- For Publication
- Scheduled Date
- Item Info1
- Item Info2
- Item Info3
- Item Info4
- Item Info5
- Creation Date
- Item Place
- Item Publisher

- Special Request
- Bundle Description
- ID2Name
- Description
- Activity Type
- Reference Name
- Reference Number1
- Photoduplication Status
- Begin Date
- Photoduplication Date
- End Date
- Bundle ID
- Active1
- Billing Account ID
- Location1
- Billing Account
- Activity Info1
- Description
- Activity Info2
- Status
- Activity Info3
- Department
- Activity Info4
- Organization
- Activity Info5
- Auth Type
- Activity Status
- Last Changed Date
- Activity Status Date
- Expiration Date
- Display Name
- Billing Category1
- State Code
- Researcher First Name
- Internal Code
- Activity Info3
- Active
- Activity Info4
- Include In Request
- Activity Info5
- Limit
- Photoduplication Queue
- Queue Type
- ID
- Menu Group
- Photoduplication Queue
- Name
- Photoduplication Queue
- Display Name
- Photoduplication Queue
- State Code
- Photoduplication Queue
- Internal Code
- Photoduplication Queue
- Active
- Include
- Photoduplication Queue
- In Request Limit
- Photoduplication Queue
- Type
- Bundle Name