ACCESS TO THE ARCHIVES?

ART MUSEUM WEBSITES AND ONLINE ARCHIVES IN THE PUBLIC DOMAIN

By

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Table of Contents

Abstract

This thesis discusses art museum websites and the online archive as they relate to the public mission of American art museums and the increase of public access as a primary goal within the museum community. The historical development of the term, access, and the museum's relationship to the public in Europe and the United States is discussed in order to demonstrate the evolution of the public art museum and its continual, ambiguous conception of the relationship between audience and institution. This thesis reveals the extension of this ambiguity from the traditional to the virtual museum space, using examples of online archives that illustrate constructed barriers to effective access by the public. As potential solutions, the importance of user-evaluation and institutional collaboration are discussed as ways in which museums can address many of the challenges to creating effective online resources and positively empower the virtual experience of the museum visitor.

Introduction

As digital technology has developed within the museum community, many art museums have begun to create online databases of collections and archives for their public websites. These databases combine objects from museum collections with archival material, often presenting digital images of objects and artifacts which are not displayed in the physical museum. The increasing complexity of museum online content has effectively created two museum spaces, the physical institution and the virtual one. In the physical museum, the public audience has access to a limited portion of a museum's collection through its exhibition programs and even more limited access to the archives, which traditionally have been the domain of academics and museum professionals. The archives have been used in exhibition research and scholarship to provide contextual interpretations of artworks to the public, and through this scholars and professionals have acted as intermediaries for the public and its experience of a museum collection.

This relationship between scholars and professionals as intermediaries to the public is fundamental to the identity of the museum space. It has traditionally placed interpretation and the construction of context in the realm of the intellectual and the institution. At the same time, the goals of education and social benefit have also been fundamental to the museum's existence as a public institution, and social shifts in the 20th century have pushed museums ever further into the public realm. This tension between upholding institutional and intellectual authority and maintaining a broad and diverse public audience is best illustrated in Pierre Bourdieu's *Distinction*, in which he characterizes intellectuals and museum professionals as engaging in a

dual discourse of access, where appeals to greater inclusion of the public audience by the museum are accompanied by consistent practice that preserves institutional authority and cultural distinction (1984:229).

In a museum, the archives contain the documented history of the collection and of the museum as an institution. The museum archive is comprised of published and unpublished materials that record fiscal operations, correspondence between museum staff, artists, collectors and others, documentary materials of exhibitions, press releases, exhibition checklists, loan agreements, exhibition catalogs, press articles and reviews and any number of other materials. These materials become the archive, because they document the holdings of the museum and its operations over time and are deemed to be of value by the institution. The exact contents of an archive are subject to the discretion of the museum archivist or other staff members who determine what records are reflective of the institution's operations and may hold value for future research. In this sense, the archives can be seen as a curatorial space as much as any other museum space because institutional choices dictate their contents, and they are categorized and organized to reflect the interpretation of the person or persons who manage them.

Yet, the archives are distinct from other museum objects in the collection and other museum spaces because they are not part of the exhibition purposes of the institution. Both the archive and the art object collection fulfill the educational mission of an art museum, but they do so in different ways. At all times, at least a percentage of the art objects from the collection are on public display in a museum. This public display, the exhibition, provides direct contact between the museum audience and the art object. These objects are on view to any person who visits the museum. Of course, the direct contact between the public and the art object in an exhibition is mediated by the contextual framework of the curator, the artist, and the ideologies

conveyed by the museum as a whole. But it is well established within museum scholarship that visitors are not blank slates. They come with a complex identity and world view of their own that alters their reception of an exhibit both during and after their initial experience, where the creation of meaning is a unique process for every person who participates (Falk and Dierking 2000). Therefore, the public display of museum objects not only provides direct contact between objects and visitors but also engages visitors in an active learning process shaped both by the institution and each visitor's individual identity. The power of the exhibition experience lies in every visitor's ability to enhance and develop the meaning of their experience of the museum and its contents over time.

However, the archive collection is for the most part, not included in the exhibition practices of the museum. In most museums, the archive is housed separately from public exhibition spaces, and visitors must pre-arrange a visit to them, which often requires academic or professional qualifications. The primary purpose of the archive is to serve as a reference body for museum professionals and scholars to interpret the collection and research the history of the institution and its holdings. For those who have the permission to use the archive, the relationship between the institutional perspective and the individual perspective that shapes the experience of an exhibit also exists in the experience of the archive. Every researcher brings their own network of beliefs, values and systems of thought to his or her subject, and while each person may be using the same archival materials, the meaning he or she derives from them can be different each and every time they are used.

This dynamic relationship does not occur for the public audiences who are restricted from direct contact with the archives. The most frequent contact that the public audience has with the archive occurs within the context of the exhibition and is mediated by the interpretative

processes of those who create it. The research conducted by professionals and scholars who use the archive often informs the educational materials and publications that coincide with a public exhibition and these products of the archive's use contribute to the meaning of the exhibition as a whole. The level at which the public audience derives their own interpretation of the archives is limited to what has been pre-selected as relevant to the exhibition by the museum. However, instead of encountering the archives through interpretative materials (the end-result of their use by scholars and professionals), if the public were to have direct contact with the archive itself, as they already have with the collection in an exhibit, it is very likely that the same processes of individual experience that condition the reception and creation of meaning for visitors to an exhibit would also condition the reception and creation of meaning for visitors to the archive. Reducing the mediation between museum visitor encounters with the archive creates an environment where the potential meanings and uses of the archive and by extension of the history of the museum itself is no longer shaped only by scholars and professionals but also by the public audience for whom the museum exists. The effects that this may have on the relationship between museums and the public, although nearly impossible to predict without further research, could result in institutions more actively and directly relevant to the lived experience of a much larger museum audience.

Understanding the role of the archives in this way frames the following discussion of how they relate to the concept of *access* in museum discourse. Traditionally, the concept of access within the museum community has had multiple connotations. The development of the public art museum in Europe during the 18th century established the concept of access as an essential component of the museum mission, whereby cultural objects were increasingly transferred from the private to the public domain. Access has quite literally meant increasing the number of

people who physically view a museum's object collection. Yet within this definition are two oppositional connotations. In early museums administered by the state, access to collections also meant that as more people physically viewed the museum and its holdings, these same people also received the ideological messages that the museum space was designed to convey. Carol Duncan illustrates this in her discussion of museum spaces from the early national museums in Europe to modern museums of the 20th century (1995). Yet as museums and the professional culture that evolved out of them have conveyed these messages to the audience that they aspire to increase, there is another connotation of access that is related to Jürgen Habermas' discussion of the public sphere and criticism. Changes to the social structure of society through the 18th and 19th centuries weakened the cultural authority of the state through the development of rational critique within the bourgeois public sphere. Inasmuch as the presentation of art works could be conveyed directly to the wider public, art itself left the confines of state controlled authority and entered the domain of public discussion and debate, thus appropriated by the public audience (Habermas 1989:40). As the professionalism of museums and art criticism increased in the later 19th and 20th century, public discussion of art became mediated by academic authority, situating the intellectual as public authority and as public educator (Habermas 1989; Bourdieu 1984).

As museums increasingly expand their virtual presence through the internet, Bourdieu's theory continues to serve as an effective paradigm for the examination of online practices that perpetuate this ambiguity of access. Online archival collections are often characterized by museums as a means to access and enhance education for the public. In fact, the ability of the archives to exist in the public domain of the institution's website can place the act of interpretation at the level of the individual web-user, potentially shifting the authority of

interpretation from the scholar or museum professional to the public. These databases may enable museum audiences to do more of their own interpretation. But they are also constructed in ways that reinforce the interpretative authority of the museum and act as barriers to effective public use. The online archive contains all the connotations of the term access that are present in the museum community. In terms of physical access, online archives can greatly increase the number of people who physically (although digitally) come in contact with them. Yet, the online archive also addresses Duncan's description of the museum where access is used as a vehicle to convey the ideological constructs of the traditional museum space. Additionally, the online archive also acts as a mechanism through which an audience, in potentially the broadest sense (anyone with internet access), comes in to direct, rather than traditional, mediated contact with the archives. If the online archives can transcend Bourdieu's dilemma of the ambiguity of access, they may create a domain where the archives participate in a more Habermasian kind of access, where the meaning and relevance of the museum's representation of culture is fully subject to discussion and appropriation by the public audience.

This paper investigates the qualities of online archival databases which illustrate the perpetuation of Bourdieu's dual discourse theory from the physical to the virtual museum space. It will examine specific online resources that construct barriers to effective public access. Its goal is to identify how museums can work to eliminate these barriers and seek ways to enhance public use of museum collections on the internet, positively impacting the relationship between museums and their audience.[1]

[1] Art museums are the primary focus of investigation, though the terms "art museum" and "museum" will be used interchangeably.

The Physical Museum

The influence of the virtual art museum must be viewed within the context of its traditional predecessor, the physical museum space and how it has shaped the experience of art over time. Museums are associated with and reflective of social identities constructed over time by governments, patrons, private collectors, scholars and museum professionals, all of which reinforce elite associations with culture. These identities are reinforced through the structure of museums, the ideologies they reflect, and the ways in which they are organized (Bourdieu 1984; DiMaggio 1991; Duncan 1995). Our experience in a museum is anything but neutral. The museum exhibition is a process of selection and interpretive display. The museum object is, by its very nature, isolated and detached from its original context. The museum effect on the object creates a heightened experience of its visual distinction rather than its original cultural significance (Alpers 1991: 26). Its existence in the collection and display in the exhibition is framed by a new context constructed from the representative conventions of the museum as a distinct social, political and cultural space (Kirchenblatt-Gimblett 1998: 18-21).

Carol Duncan characterizes the museum context as a ritual space, which articulates the values, beliefs and systems of thought of cultural elites. The museum is a constructed site that creates its own context for the viewing of art that is displaced from its original location and time.

Not only does it reinforce this context through the display of objects, it also constructs its own audience as "the public", which stems from the evolution of museums as educational tools of citizenship. Duncan argues that in the development one of the earliest public museums, the Louvre, "as a public space, the museum also made manifest the public it claimed to serve: it could produce it as a visible entity by literally providing it a defining frame and giving it something to do."(1995: 24). The earliest public museums identified their audience and its role, providing a physical representation of the state as a cultural benefactor to the public. Therefore, the act of visiting a museum is a ritual practice of cultural consumption that is a learned experience constructed by the museum itself (Duncan 1995:24). It is an induction into the ideologies of the society which created it.

The ritual space of the art museum was first developed by the Louvre in Paris and the National Gallery in London (Duncan 1995: 21). The Louvre and the National Gallery were established to craft a national identity and reinforce the concept of citizenship. Each museum was programmed around a universalizing conception of the progress of civilization toward a European ideal of beauty and citizenship, instructing its visitors in a cultural and historical worldview and their collective place within it. An essential component of the ritual of going through the national museum was establishing and reinforcing one's identity as a citizen of the nation. This was expressed in all aspects of the museum space, from the architecture to the signage, to codes of behavior and the curatorial organization of the objects on display (Duncan 1995:21-47). The National Gallery's creation in London acted in response to the opening of national public collections on the European continent and presented itself as an educator to the English masses in citizenship and civility. Its placement in Trafalgar Square situated the national museum as a centralizing structure for the city's segmented classes, and its curatorial approach

reflected not only a rational approach to history but also a developing reform movement to manipulate the social behaviors of the lower class (Taylor 1999: 40-51).

The most powerful example of the construction of the museum ritual is the curatorial style of the Louvre. The adoption of an art-historical rationale for the display of works in the museum organized the collection in a rational, cultural-historical progression that presented a unified world view of the progress of artistic and cultural achievement. As property of the state and, by extension, its citizens, this narrative ritual also presented the heritage of the nation to its public (Duncan 1995: 25-27). Furthermore, the organization of the Grand Gallery by director, Dominque Vivant-Denon, created a visual sequence from the Italian schools to contemporary French art that positioned the French as the inheritors of the legacy of the Italian Renaissance. Paintings were arranged to reveal the progression of individual artists from pupil to master creating an expanded canon of artistic genius from which future artists could emulate in their own careers. This conscious didactic approach of the Louvre was created not only to assert the upward progression of French art but of the nation as a whole (McClellan 1994: 147-49). Visitors to the museum would physically follow the development of European civilization towards an ideal of beauty, ritualistically placing themselves within that progress as citizens of the French nation.

The first national European museums were highly influential to the formation of civic museums in the United States, which emulated their architecture, collections, and curatorial styles. However, American museums developed out of a very different social structure than their European counterparts. The earliest civic art museums in the country were established by the entrepreneurial elite in an effort to institutionalize the cultural status of this group and align themselves and their cities with the European concept of civilization. These museums could offer

social distinction to those who founded them by maintaining and displaying class boundaries and announcing the arrival of the American cultural elite (Duncan 1995: 54; DiMaggio 1991).

Even though American museums preserved the class boundaries of urban elites, as public institutions, they also had to provide demonstrated benefits to society. This can be seen in the tension present within American art museums at their very onset between their desire to maintain the cultural status of American upper classes and their existence as public institutions. Duncan states that,

> "[in order for these early museums] To thrive as art collections, they needed money and art from the rich, but to work as ideologically effective institutions, they required the status, authority, and prestige as public spaces. However much they catered to elites, museums had to appear, at least to the middle class and their press, as credible public spaces, above politics and class interests and accessible to all." (1995: 57).

This tension is already evident in the earliest of American art museums and can be illustrated by the Museum of Fine Arts, Boston (MFA, Boston) in its relationship to the public. The museum first opened in 1876 and was one of the earliest civic art museums in the country. It was founded and largely funded by private patronage and modeled after European collections. In his analysis of the development of Boston cultural institutions in the nineteenth century, Paul DiMaggio argues that the creation of these institutions was largely motivated by upper-class desires to define and maintain cultural boundaries in the city. However, there was also the presence of a conflicting desire among the upper class to educate the community, in part as a social good and to increase public awareness of the associations between high art and elite status (DiMaggio 1986:47). As a reflection of this attitude, Benjamin Ives Gilman, secretary to the MFA Boston during the late 19th century and one of the earliest advocates of the educational philosophy of museums, promoted the museum as an educational benefactor to the public. Gilman stated that, "The problem of the present is the democratization of museums; how they

may help to give all men a share in the life of the imagination"(McClellan 2003: 16). He saw the museum as a respite from the conditions of the modern world and promoted it as an aesthetic ideal available to all. However, a share in the life of the imagination cannot be said to equal the material and symbolic ownership of cultural capital that the museum represented for the Boston elite.

Although educational components of museum activities increased over time based on the work of Gilman and others, wealthy patronage remained essential to the sustainability of these institutions and curatorial practice developed in tandem with the increasingly self-contained and insulated world of academic art historical discourse. There were notable reforms in museum practice, begun as early as the 19th century, which extended operating hours to accommodate the schedules of the working classes, removed restrictions to admission (such as the requirement of membership to view a collection), and the reduction or even elimination of admission fees (Orosz 1990:196-214). Yet the development of donor memorials was contrary to efforts to create a more democratic institution. These new collections donated from wealthy patrons catalogued, preserved, and displayed the possessions of the upper class. Thus, while middle- and lower-class individuals were better able to access a collection, they were also continually reminded as they viewed them that these works originally belonged to someone else and represented the lifestyle and identity of a social group of which they were not a part (Duncan 1995: 74).

Much of the rhetoric of early American museums spoke of bringing the values of American citizenship to the public as their European predecessors had done, acting as a form of social and cultural education, but at the same time these institutions were reconstructing and reinforcing class barriers. This rhetoric of access and education served both the wealthy patrons of museums and those who administered them by maintaining their cultural status behind the

veneer of social benefit. Bourdieu characterizes this tension as the ambiguity of access, where demonstrations of accessibility are required, but, in excess, may threaten class distinction (1984). Where Carol Duncan discusses museums in terms of citizenship, Pierre Bourdieu examines museums in relation to class in his discussion of cultural capital. As T.S. Eliot explains, culture at its most basic unit is formed from shared interests among a social group, and over time, distinct groups emerge around a cultural identity and develop into hierarchies of class (1949: 22-24). Culture is an entire way of life, and each member of a class produces and transmits their group culture to following generations; each is actively involved in the process of preserving cultural identity and distinction (Eliot 1949: 40-41). For Bourdieu, culture is a hierarchy of values, beliefs and systems of thought established and maintained by elites. This is not culture, but Culture not culture, an increasingly specialized, hierarchical and class-based notion (Arnold 1869). This form of cultural distinction within the museum is a power relationship that equates elite social identity with high culture and in which high art acts as the most potent symbol of cultural status. Elites not only define themselves through high culture, but they also establish the hierarchy by which everyone else is defined. As a result, this social class possesses the greatest amount of cultural capital, acquired either by birth (a material ownership of culture) or by education (a symbolic ownership of culture) (Bourdieu 1984; Eliot 1949). The art museum is an incredibly powerful source of cultural capital as it represents both the economic status of its wealthy patrons and the educational status of its professional staff, reasserting the status of the cultural elite at both the material and the symbolic level (Bourdieu 1984:228-29). American civic art museums thus served as both a symbolic and material representation of the ownership of culture by the city's wealthiest and most educated occupants.

The schism between material and symbolic ownership of culture means that those who must accumulate cultural capital through education, museum professionals and scholars, face the greatest risk of losing their own cultural authority if access to that education increases. Bourdieu states that,

> "Intellectuals and artists are thus divided between their interest in cultural proselytism, that is winning a market by their audience, which inclines them to favour popularization, and concern for cultural distinction, the only objective basis of their rarity; and their relationship to everything concerned with 'the democratization of culture' is marked by a deep ambivalence which may be manifested in a dual discourse on the relations between the institutions of cultural diffusion and the public" (Bourdieu 1984:229).

Thus while American civic art museums have reflected the class consciousness of both the financial and intellectual elite, it is the latter whose distinction is most threatened by a true democratization of culture in their efforts to maintain their own cultural status and much needed financial support from patrons and collectors. As the organizational structure of museums in the United States shifted in the 20th century to an increasingly professional field reliant on public support, this ambiguity in institutional efforts to increase access to the museum became even more pronounced.

These organizational shifts in the cultural context of museums during the later half of the 20th century were due to changes in the character of the cultural elite in the United States. In contrast to the concentrated networks of wealthy urban elites in the 19th century, the new American elite is national, pluralistic, more educated, and more middle-class than its predecessors (DiMaggio 1991:48). As a result, what constitutes high culture has become increasingly decentralized and diverse, and funding structures for museums must now rely on more varied sources of income from government, private individuals and corporations in addition to a rising need for earned revenue (DiMaggio 1991: 48-49). Because museum funding

is now decentralized and diverse, high levels of attendance are increasingly necessary for earned revenue and to provide to funders as evidence of public use. The argument for museums to act as democratic institutions for all has become even stronger as a result of these forces. A discourse of access now exists which equates a large and diverse audience for museum services with a democratic museum worthy of support. Yet the idea of the museum as a truly democratic institution continues to be in conflict with the social and cultural exclusivity it has displayed since its inception in the United States. Increases in museum attendance may not represent a breakdown of cultural barriers or a broader community of people who feel true symbolic or material ownership of the collection. However, demands for increased audience attendance continue in the museum community, and new methods for the dissemination of information to potential visitors are now incorporated into museum activities.

The Internet and the Museum

One of the most significant technological and cultural developments of the late 20th century was the advent of the internet. As internet use skyrocketed among the U.S. population, more commercial businesses and services began to develop an online presence. It became increasingly important for organizations to have websites, and a critical mass of museums began to establish them in 1995 (Rinehart 2003: 1). Museum websites act as a marketing tool to attract potential visitors to the physical museum and as an educational outreach tool for learning before and after a museum visit. As museum websites developed, educational content expanded with developments in online technology such as podcasts, online exhibits, and virtual museums. The museum website developed its own identity separate from but highly reflective of its physical counterpart. Today, the virtual experience of the museum invokes a structure that mirrors the physical museum with ticket booths, online gift shops, and virtual tours (McTavish 2006). The

virtual museum can also provide a unique experience to visitors with interactive content, online-only exhibitions, and image databases of collections that are normally in storage. As a result, many museums and the agencies and individuals that fund their online projects claim that an online presence allows the public greater access to museum collections.

The Institute of Museum and Library Services (IMLS), which provides numerous grants to museums for digitization projects, conducted a study in 2006 entitled *The Status of Technology and Digitization in the Nation's Museums and Libraries*. The language of IMLS illustrates the ideology that digital resources increase public access to museum collections. IMLS reported that,

> "The use of technology and particularly digital technology has affected nearly every aspect of library and museum services...digital technology enables the full range of holdings in our museums, libraries, and archives-audio, video, print, photographs, artworks, artifacts and other resources- to be catalogued, organized, combined, and made accessible to audiences in new ways. It provides the public with new pathways to access museum and library collections and brings them 'face-to-face' electronically with librarians, curators, scientists, artists, and scholars. By using technology, rich scientific, historical, aesthetic, and cultural resources can be presented with contextual information that enhances educational value" (IMLS 2006:1).

The Museum Archive and the Internet

Many museums and cultural organizations promote the archive in particular as an area where the availability of online resources serves to increase access and educational value for visitors. In professional museum practice, the archives are primarily the domain of the scholar, curator or museum educator, and the public rarely enters them. The archives are comprised of purchase records, catalogues, photos, personal artist files, correspondence, films and numerous other published and unpublished documents related to objects and artists in the collection. As

such, the archives act as a research tool for publications and exhibitions for the museum and the academic community. For example, in preparation for an exhibition of paintings from the collection, the museum curator may examine the archives relevant to the exhibition as sources for the catalogue essay, while the museum educator may use them to develop interpretive materials for visitors. The majority of public visitors to the museum do not directly encounter the archives; rather these records are used to inform the ways in which the exhibition is interpreted for them. Unlike the exhibition space of art museums, access to the archives is not guaranteed to the public. Due to conservation and preservation concerns, it is standard practice for museums to require appointments for viewing and researching archival collections in addition to often requiring letters of recommendation and proof of institutional affiliation.

In contrast to the physical archive collection, the availability of archival materials online removes some of the traditional restrictions in access to the archives. It eliminates concerns about conservation and allows users to survey the entirety of a collection that they may never encounter during an on-site museum visit. It is clear in statements from museum online archival projects that these resources are meant to dramatically change the way the public experiences the museum collection and remove the traditional barriers to public access. For example, the Smithsonian *Archives of American Art* is in the process of digitizing its collection for online public use, having received $3.6 million from the Terra Foundation for American Art to do so. The *Archives of American Art* aims "to dramatically increase the accessibility of its resources", calling the web project

> "an innovative new tool making primary source research in American art history accessible to all. The result is unprecedented access to the content and context of thousands of documents, photographs, diaries, sketches, writings, and rare published materials" (Smithsonian Institution 2008).

In addition, the Collaborative Digitization Program, a comprehensive collaboration among libraries, museums and archives in the state of Colorado to develope online resources states that it "endeavors to provide meaningful content on human culture, science, and art to everyone connected online" (2008). A similar state-wide project, the Online Archives of California, describes its digital collections project as "California museums working with libraries and archives to increase and enhance access to cultural collections" (2008). These statements make it clear that the word *access* has become essential to the stated aims of archive digital projects. Inherent in this particular usage is an implication that greater access to these resources would counter restrictions to them in the physical collection, and in turn create a more democratic institution, changing the relationship between museums and the public, thus translating the rhetoric of access from the physical to the virtual realm.

Freeing the archives from the spatial constrictions of the physical museum space does have positive implications for their use as an educational resource. In terms of research, the digital format of these collections spatially condenses archival information in a way not possible with physical documents. A researcher can view in a matter of seconds related documents, which may take hours of searching in libraries or across multiple museum collections. In addition, the search capabilities of a digital resource create visual relationships between artifacts, documents and locations that may encourage new areas of research and exploration.

Wolfgang Ernst suggests that in drawing these connections, online resources are analogous to the *Wunderkabinett*, curiosity cabinets that developed during the Renaissance and achieved wide-spread popularity well into the 18th century (2000:30). The *Wunderkabinett* was an elaborate table top cabinet devised to display human-made and natural objects acquired by

amateur European collectors. Curiosity cabinets were filled with complex arrangements of shells, insects, rare species of plants, minerals, jewels and objects of art as a kind of universal survey of the exotic and the rare. As their popularity increased, these cabinet collections grew as large as entire rooms, and some were open to the public for viewing. Frances Terpak describes the *Wunderkabinett* as an example of early cataloging by amateur collectors, using methods of display to elicit wonder and to educate by visual description. She characterizes these cabinets as signs of wealth, knowledge, and power, and their prevalence in the collection of Habsburg rulers in the 16th century serves as evidence of their association with status and prestige. They presented the world in microcosm and, as such, acted as a symbol of the appropriation of the known universe by their owners (Terpak 2001:156).

Ernst argues that digital collections take online users back to the days of the *Wunderkabinett,* which he identifies as "the very origins of the museum as an inventory of the world in combination with the notion of a universal library, a text-related space where semiotic inventorying operations made the world readable" (2000:18). The organizational schemes of these online resources, such as linking and searches that yield results across media, space, and time, promote visual connections and links that free objects from the limitations of the traditional art historical narrative and undermine the contextual framing of the art museum, allowing for a more flexible and individual level of interpretation. Ernst calls the virtual museum a "digital wonderland [that] signals the return of a *temps perdu* in which thinking with one's eyes (the impulse of *curiositas*) was not yet despised in favor of cognitive operations. Curiosity cabinets in the media age, stuffed with texts, images, icons, programs, and miracles of the world, are waiting to be explored..." (2000:30). Like the *Wunderkabinett*, these curiosity cabinets of the media age present the world in microcosm, at once presenting the wealth,

knowledge, and power of the museum while at the same creating a sense of ownership for the individual user who may organize and sift through material freely outside the physical boundaries of the traditional museum space.

Barriers to Effective Access to the Online Archive

Ernst's discussion identifies ways in which traditional approaches to the study and use of the archives are transformed by their presence as a virtual resource, which creates new patterns of interpretation and organization that free materials from the confines of physical museum space and the traditional art historical narrative. Yet these transformations for research and interpretation are still conditioned by the traditional context of the archives as the domain of the scholar. While the archives embody the educational aim of the museum, they are traditionally less about direct public use than they are about institutionally sanctioned scholarship and museum practice. As museum libraries, the archives house significant records and documents related to a museum's collection and serve not only to catalogue and preserve the museum's history, but also to encourage and generate ongoing research on the significance of the collection. The virtual museum is still a construct of the physical institution that creates it, and the traditional tensions that exist between cultural distinction and public accessibility are manifested in the barriers which characterize museum online content, particularly in the relationships they create between the online museum and the online audience.

The barriers created by museum websites can be identified within multiple aspects of their design. Barriers to effective access are constructed by the promotion of passive learning and participation of website users as well as by deliberate audience segmentation in content design. In addition, a lack of standardized content organization and variation in content scope

and availability from one museum to the next are a substantial barriers to effective public access, as are the technological requirements of some websites that are not reflective of actual user capabilities. Evidence of these barriers can be seen in multiple institutional models of online archives at the Andy Warhol Museum, the MFA, Boston, the *Archives of American Art* and the Museums and the Online Archive of California.

Passive Learning and Participation

When addressing the creation of a passive learning environment, Lianne McTavish argues that virtual museums presuppose and may even produce an ideal visitor, one who is well behaved, predictable, and enjoys a primarily visual experience. She also argues that the virtual museum creates an illusory sense of freedom for the visitor because, while pointing, clicking, and even searching may appear to be active processes, they are primarily engaging the visitor to survey and observe (2006:233). By extension, the archival resources on a museum website also engage visitors in a more passive style of learning, especially when a large quantity of images is available but lacks reference to their significance within a collection, their physical conditions, or their history.

McTavish's characterization of the virtual museum's ideal visitor is exemplified by the Andy Warhol Museum's online project, *Time Capsule 21.* This project is an interactive site, which allows users to select scanned images of objects from the artist's personal archives. Links to interpretive text about the relationship between archival material and artworks and events in Warhol's life are also present on the site (The Andy Warhol Museum 2005). *Time Capsule 21* explores the connections between what the artist accumulated in the creation of archives of his daily life and the works which he produced during his career. In this sense, the site acts as more

of an online exhibition than a searchable database for scholarly research. It is designed with limited flexibility. Users must follow specific paths from one object to the next and may view only a small portion of the records that exist in the museum's collection. The site is actually a visual survey of selected content that promotes itself as an educational tool but fails to engage visitors in an active process that is freed from the interpretive authority of the museum. However, the site does enable viewers to see objects from Warhol's extensive archival collection, which would normally require special permission to view in the physical museum. As such it represents a positive step towards greater physical accessibility for the public to view archival material, and with further development may also allow greater interpretative freedom to the audience as well.

The *Giza Archives Project* at the MFA, Boston also illustrates McTavish's argument about the illusion of visitor empowerment. The site was designed as an "evolving resource that will serve as a centralized online repository for all archeological activity at the Giza Necropolis, beginning with the Harvard University-Boston Museum of Fine Arts excavations" (MFA, Boston 2008). It features an interactive digital collection of archival documents from the excavation history of the necropolis.

The sheer amount of information available on the site is staggering. Currently, it contains thousands of files of archival information spanning decades of history. Catalogue entries of artifacts, virtual models of the excavation site, a library of articles and books on the excavations, as well as photos, plans, drawings, and even diary entries from archeologists comprise much of its content.

According to the site, "The *Giza Archives Project* is a work in progress that will evolve to better serve the scholarly community"(MFA, Boston 2008). As a result, it offers a unique opportunity for scholars to take part in the creative process of developing the website. Users are encouraged to contribute their own or others' research and publications on Giza, as well as provide feedback to the site administrators about its content. This encouragement of user-submitted content and feedback can be seen as an important characteristic of the virtual museum as an alternative to the largely self-contained curatorial practices of traditional museum spaces.

In the physical MFA, Boston, it is the museum administration and the curatorial staff who control the content of the collection. As in other museums, there may be input on acquisitions from board members, donors, and even the public, but these instances are not a part of general museum practice. Too much input from outside of the institution is often viewed as a threat to the authority and autonomy of curators in the professional community.

In contrast to this attitude, the *Giza Archives Project* explicitly solicits scholars to contribute to the project, asking them through an online submission form to provide their general opinion of the site. Users are queried for their suggestions for content improvement, areas of research, articles or materials they believe should be added to the site, and any mistakes or discrepancies they may find. This array of options for submitting feedback on the collection of a museum is not typical practice in traditional museum settings. In addition to encouraging a direct relationship between the site and its users, this practice also benefits the directors of the project by promoting an ongoing process of evaluation targeted at scholars who may posses large amounts of expertise in the field.

A paradox emerges in that, at the same time that the *Giza Archives Project* encourages scholars to take an active role in the evolution of the site, it also seeks to maintain the institutional authority of the project directors and, by extension, the museum. In her discussion of the virtual museum, McTavish suggests that a common misconception among museum administrators is that the online site empowers users and removes some of the constraints of institutional authority in traditional museum spaces. She explains that while interactive experiences are often an integral part of the virtual museum and can engage visitors with collections in stimulating ways, they are not entirely utopian spaces undermining the authority of the museum (2006:229). For example, while the virtual reality gallery may allow online visitors to choose their own pathways through the virtual museum, zoom into a work to view it more closely or create their own personal online galleries, the experience is still framed by the museum. The museum controls which objects and galleries are included on a virtual site and the viewing position is determined by the software designer. In most sites, a viewer can only examine a gallery from a fixed position and cannot experience a truly three-dimensional space. These factors in addition to the isolation of the viewer from real world distractions in a gallery may actually allow for greater control of the context for viewing a work than in the real museum (McTavish 2006:233).

In these online spaces, there is a flux between greater user freedom and the authority of the museum. The *Giza Archives Project* promotes an active role among its users in content development, yet it also limits that role by preserving the right of the project directors to evaluate the competency of submissions through review of the surveys before new content is published to the site. This effectively controls the learning environment and leaves the user in a passive role.

Audience Segmentation

An additional area of site design where constructed barriers to effective access exist is in audience segmentation of online archival resources. Audience segmentation is quite common in museum practice and can enable museum programming to reach wider and more diverse audiences by identifying and meeting specific needs. However, it can also isolate and exclude audience members who do not identify themselves as part of a target audience. If online archives are meant to promote accessibility to all museum audiences, their deliberate audience segmentation is contrary to that goal. Turning again to the *Giza Archives Project*, in addition to interactive content that fosters passivity and reinforces institutional authority, the site also reveals certain limits to its accessibility in its audience segmentation. The site explicitly designates itself as a resource for scholarly research and not as a general educational tool for the public. It is deliberate in its distinction of the intended audience. By stating that the site is designed to serve the scholarly community and by appealing to scholars for input and feedback, a specific audience is identified for the project. Unlike other content areas of museum websites which present more broad based gallery tours, selected collection highlights, user created image galleries, or interpretive commentary on collection objects, the Giza project is designed as a source of research material that presents objects and documents with little or no interpretation or commentary.

In contrast to the *Giza Archives Project*, another site designed by the museum is *Explore Ancient Egypt* (MFA, Boston 1999). While this site contains images of collection objects similar to those found on the *Giza Archives Project*, it provides much more interpretative content, such as detailed textual explanations of the significance of objects from the collection, video footage of curators discussing the collection, and interactive content that places the

collection in a social and historical context. The existence of these two sites suggests that the museum promotes audience segmentation by targeting a distinct audience for each.

Just as the *Giza Archives Project* identifies itself as a scholarly resource, *Explore Ancient Egypt* targets a more general audience, describing itself as a space to "learn about Egyptian art and go behind the scenes of spectacular excavations" (MFA, Boston 1999). The apparent audience segmentation in these two sites may not be reflective of its actual users and, in fact, may impede increased use of online content. Visitors to these two sites may experience barriers, or "threshold fear", which are the constraints people feel that prevent them from participating in activities meant for them (Gurian 2005:203). On the MFA, Boston website, the explicit audience segmentation between its Egyptian content can trigger threshold fear for potential users of the Giza Archive Project who would not identify themselves as scholars.

The virtual space of the MFA, Boston reproduces a domain for the scholar and a domain for the general user regarding its Egyptian content. The language and content of the *Giza Archives Project* asserts its importance to the research and the academic community, indicating to the virtual user that this is the domain of the scholar. In contrast to this approach, the language and content of *Explore Ancient Egypt* gives basic information, selections of the collection, and interactive games that indicate to the virtual user that this is the domain of general user. The designation of the *Giza Archives Project* as a scholarly resource may impede some visitors from feeling comfortable with use and understanding of the site.

The use of the word *scholar* by the *Giza Archives Project* carries within it certain social implications of education and prestige. A scholar is typically identified with the highest levels of education, academic publications, and other professional activities in a given field of study,

qualities not applicable to large sectors of American society. As a result, visitors who do not identify themselves as scholars may be discouraged from exploring the *Giza Archives Project* site because of its language. With the *Explore Ancient Egypt* site as their alternative, these visitors are provided with a larger degree of interpretation and simplification of concepts than they would encounter on the other site. This distinction carries with it the implication that users of one site are more capable of making their own interpretations and connections between collection objects than the users of another.

Variation in Content Organization, Description, and Scope

An additional barrier to effective access for users is demonstrated by widespread variations among different resources in the organization, description, and scope of content. When the organization and description of archival material on museum websites is specific to professional practice in the museum community or even more specifically to practices within an individual institution, general users unfamiliar with a museum's ontology may be unable to effectively interpret an interface (Speroni, Bolchini, and Paolini 2006:6). These variations across online content act as a deterrent to the general user who may be uncomfortable with encountering so many different qualities of information available online, especially if they are unfamiliar with museum terminology or archival standards, like finding aids, or if they lack adequate research skills to narrow a search field in order to yield relevant results.

As a research tool, online archival databases may be frustrating for the user who encounters a wealth of information at one institution and a significant lack of information at another. Without adequate search fields, a researcher may not be able to access relevant information from one section of a database simply because the various content areas are not

cross-referenced. Variations in content description across museum websites make it difficult to find related information from one site to another if descriptions and search terms are not consistent. In another instance, detailed finding aids may be included for a collection which provide historical context to an object or artist on one site, while a search on another site may provide little to no contextual information at all.

These barriers are illustrated in the variations that characterize the *Giza Archives Project*, the Smithsonian *Archives of American Art* website, and the *Museums and the Online Archive of California* database. The Giza Archives site does not provide a strong narrative direction for its users. The available entry pathways to the site are *search, about, news, library, interactive, copyright, contact, sitemap* and *help*, none of which are particularly helpful as to guide to content, or how to approach the site if merely browsing. In this case, a visitor may have already designated him or herself as outside of the intended audience, and he or she may even be inclined to abandon the site due to confusion about how to navigate it.

In contrast, the Smithsonian *Archives of American Art* website employs a different organizational structure for users to navigate. The Digital Collection at the Smithsonian *Archives of American Art* is a much larger resource that aims to digitize substantial portions of its archival collection (1.6 million records by the end of the six year project) and to present content in a variety of ways (Smithsonian Institution 2008). The site contains detailed finding aids for the collection so that it can be easily utilized by those familiar with common archival standards. Visitors to the site may choose to enter into the content using a variety of portals, such as *search images, collections online, oral histories online,* or *exhibits online*. Unlike the *Giza Archives Project*, the search capabilities of the American Archives do not create connections among the different types of materials included on the site.

For example, a search for an artist using the *search images* option does not yield results from online exhibits or oral histories even though the artist may be featured in either of these content areas. In addition, the *exhibits online* option is misleading. While the other content areas of the site lead to complete digital records, such as correspondence files and transcripts or audio files of oral histories, this area does not lead to actual online exhibits. Instead, *exhibits online* leads users to a description of exhibits past and present created by the American Archives at physical sites and contains only a limited selection of images from the exhibition.

The Museums and the Online Archive of California (*MOAC*) is another example of variation in content description, availability, and site design in archival databases. The OAC is a project comprised of a searchable database of finding aids for the collections of museums, libraries and archives in California. It contains a diverse body of material available across institutions, but aims to increase the amount of this content on the site as the project develops. *MOAC* is designed to increase resource sharing across multiple institutions by encouraging the adoption of standardized digital collections methods and creating a state-wide database for researchers and museum professionals that would ultimately become a national network. However, while *MOAC*'s aims imply a focus on the professional museum community, this is not to say that *MOAC* cannot be used by the general public. Portions of museum collections are available online, although navigating to these collections is somewhat confusing.

The *MOAC* homepage does not give a very clear indication of where online collections can be found, but a little exploring yields a search option after selecting *MOAC Classic* from a menu of content areas listed on the site. After linking users to the *MOAC Classic* page, a user can search the database for a specific term or choose to browse. Choosing to provide a search term allows the users to filter their search to a variety of categories such as object or creator

name, culture, title, date, etc…, while browsing links to a page listing all digital collections from museums involved in the project. Some museums have digital scans available of a collection while others only provide detailed descriptions of content. Ultimately, a general user may find *MOAC* difficult to navigate if they are not familiar with the structure of the site. Additionally, if a user does not have a specific object, artist, or collection in mind, the site may prove time-consuming in filtering through the extent of collections information available.

These differences of ontology and variations in content organization illustrate the ambiguity of access in the online archive. While museums claim that these resources effectively enhance education experiences of the museum collection for all users, it is clear that they are applying organizational schemes that reinforce distinctions between museum professionals and intellectuals and general users. In the sites discussed above, a museum professional or intellectual may easily navigate across different resources because of their familiarity with the range of archival methods, content description, and categorization of museum materials. However, a general user unfamiliar with finding aids, keyword searches, or nuances in museum terminology may find a wealth of information available coupled with a wealth of confusion in how to filter it to meet their needs. It is unrealistic to assume that museums can intuit the interpretive skills of every possible user, but establishing mechanisms for ongoing and evolving communication between content creators and content users can make resources better able to meet diverse needs.

Technological Requirements versus User Capabilities

A further variation among museum online content exists in the technological requirements of a site and their relationship to connection speed. The need for a high-speed

internet connection for some online content may act as a barrier for users who use dial-up or older computers to participate in these sites. The PEW Internet & American Life Project reports that connection speed is a significant predictor of online behavior and that adults with high-speed internet connections use the internet more frequently and for more varied purposes than adults with low-speed connections, such as dial-up (Fox 2005:6).

Internet users can be divided into three tiers. The first tier is 22% of Americans who have no home internet access. The second tier includes 30% of Americans with dial-up connection, 5% who have internet access, but use it infrequently and 5% who have internet access that is only used by another family member. The third tier includes 33% of Americans who have high-speed internet that they use frequently for a variety of activities (Fox 2005:7). Because the percentage of Americans with high-speed internet is very close to the percentage of those with dial-up, museums cannot assume that the majority of users of a website can accommodate programs that require high-speed connections.

It is important for museums to determine internet connection speeds among their current audience and targeted website users before creating online content. For example, *Time Capsule 21* informs users that "This online exhibition contains robust audio, video and image features that may increase download times on non high-speed internet connections", which could deter dial-up users from accessing the site (The Andy Warhol Museum 2005). The *Giza Archives Project* also contains some interactive content that specifies, "Please note slow internet connections and older computers may not be able to load this page"(MFA, Boston 2008), which could also deter users. While not all aspects of the Giza Project site or all online archives demand a high connection speed, users without high speed internet or up-to-date computers may find some websites more accessible than others and be deterred from using them because of slow

download times. As institutions develop their online resources to include greater portions of their collection, these potential barriers and discrepancies between different resources will likely continue.

In addition, internet access in general may severely limit the ability for museums to provide access to their collections and archives to all. Paul DiMaggio, Eszter Hargittai, W. Russel Neuman and John P. Robinson argue that increased access to the internet does not guarantee effective access, and other forms of social inequity may condition internet use and the quality of user experience (2001). Examples of potential barriers to effective access can be seen in recent reports of internet use. As of June 2005, 68% of American adults use the internet, but the majority of these Americans are non-Hispanic whites, English-speaking Hispanics, college-educated, and between the ages of eighteen and twenty-nine. Internet use is significantly less among African Americans, non-English speakers, the elderly and individuals with only a high school diploma (Fox 2005:1).

The creation of online content by museums may create expanded access to collections, but it may not actually make collections available to wider or more diverse audiences in the United States. In the physical museum, efforts to attract a larger and more diverse audience took into account the potential barriers that existing practice presented to non-museum goers by extending operating hours, diversifying programming, and reducing admission fees. If museums are to increase public access to their services via the internet, then they must also identify virtual barriers to access, which at their most basic level are reflected in the divide between those who have internet access and those who do not. Museums may be able to do little to address inequalities of internet access in the nation, but they can profoundly influence the experience of their collections for those who do have internet access.

As these museum websites illustrate, there are distinct barriers within the construction of online content that affect the quality of user experience. McTavish identifies the ideal user constructed by museum websites, and this is demonstrated by the passive learning and participation encouraged by *Time Capsule 21* and the *Giza Archives Project*. Both sites employ mechanisms that give the illusion of user freedom but still maintain institutional authority over content and interpretation. Audience segmentation also acts as a barrier to users. The *Giza Archives Project* and *Explore Ancient Egypt* divide the museum audience into scholars and general users, reinforcing the very forms of distinction that the online archive seeks to eliminate. Content organization, design, and scope act as further barriers in the *Giza Archives Project*, the *Archives of American Art,* and the *Museums and the Online Archive of California*. Marco Speroni, Davide Bolchini and Paolo Paolini argue that the institutional ontology of museum websites is unintelligible to the general user. Combined with variations in organization and design from one site to the next, visitor confusion prevents users from accessing the information they need. Finally, technological requirements of museum websites also prevent a further barrier to users. As DiMaggio, Hargittai, Neuman and Robinson argue, other social factors condition internet access that are outside the control of the individual museum. However, in content creation, museums must take into account the inequities that characterize public access to the internet and internet technology. In addressing the barriers that condition public access to their sites, museums should turn to the user community to identify what those barriers are and how their sites can better meet the needs of visitors. As museums increase the online availability of their collections, they must determine how to effectively measure the quality of user-experience. Museums must find effective ways to identify how online resources enhance visitor interactions with the institution and how potential barriers to effective access can be reduced.

The User Experience

One of the most effective ways for museums to eliminate the kinds of barriers to effective access identified above is to pay more attention to the ways in which visitors to online sites use these resources and identify their needs and desires for future project development. If museum online projects are touted as promoting greater public access to the collection, the needs and behavior of online users may be the most significant factor to consider in assessing the importance of these projects as a public resource.

In any attempt to characterize how users may approach online resources and whether they do or do not enhance their educational experience of a museum collection, it is essential to abandon the conception that these sites and their creators control their reception in the same ways that they do in the physical museum. While it has been made clear in the museum examples above that institutions are maintaining traditional practices of exclusivity and authority in the virtual space, there may be a profound difference in how visitors experience a museum when they encounter it in the personal space of an individual computer screen.

Just as Duncan illustrated that the museum was not a neutral space, neither are its visitors neutral persons, and the exact and lasting effects of the interaction between viewers and viewed cannot be accurately defined for every one who walks through the museum door. John H. Falk and Lynn D. Dierking stress the importance of individual factors that condition visitor experience. They state that "Visitor choice in what and when to learn and perception of control over learning tend to be intrinsic to the museum experience," and that

> "Visitors to museums do not come as blank slates. They come with a wealth of previously acquired knowledge, interests, skills, beliefs, attitudes, and experiences, all of which combine to affect not only what and how they interact with educational experiences but also what meaning, if any, they make of such experiences" (2000:87).

While Falk and Dierking spoke of the physical museum, their findings illustrate how the museum experience cannot be totally mediated by the institution in both the physical and the virtual space. This experience becomes even more complex when brought to the level of the individual internet user, whose access to the site may often be a solitary experience on a personal computer. The way art creates meaning for an individual may be very different from the way a museum intends it to, especially when art is removed from the institution and placed in the home (Halle 1993). The meaning of art in the domestic space is characterized by a range of social factors that may have nothing to do with how curators conceptualize their significance in the museum. Museums reflect the conditions of those who organize them, and by paying attention to the museum audience, one attains a deeper understanding of culture as it relates to the conditions of social life (Halle 1993). This is also true of the museum on the internet, and how visitors approach this medium may be influenced by qualities distinct from their approach to a physical museum and conditioned by other social factors. Identifying the personal, individual and social motivations for visitors' use of online museum content may reveal more about how they create meaning for users than studying how museums intend them to be used.

The Institute of Museum and Library Services (IMLS) has begun to identify the importance of the visitor in the development of digital content for museums and libraries and the apparent lack of effective research in this area. They have over the past several years called for developments in needs-assessments, studies and surveys which examine visitor behavior and solicit visitor feedback on various aspects of digital content and online resources. In their 2003 report, *Assessments of End-User Needs in IMLS-Funded Digitization Projects*, IMLS found that the most frequently used needs-assessments did not directly involve the actual users of a site.

Further, for those assessments by institutions that did directly involve their users, few incorporated regular, systematic assessment throughout the design, construction and ongoing existence of the project, and there was a marked lack of standardization in what needs-assessment actually was among institutions conducting them.

Despite IMLS's findings, these problems seemed far from being resolved in the institute's most recent survey of digital content. The Institute's 2006 report on *The Status of Technology and Digitization in the Nation's Museums and Libraries* found that of the 497 museums across a range of disciplines including the fine arts, only 56.2 % had digital images available to the public on their websites and of that, only 10.6% conducted needs-assessments of their projects. If museums are not adequately investigating how visitors use and want to use their online content, their discussion of increased access to collections or enhanced educational experiences exists in a vacuum divorced from the complex realities of actual use in the public they seek to serve. In addition, the report states that among museums, the target audience for online content was mixed: approximately 55% of museums targeted a general audience of anyone with internet access, 53% targeted museum staff and 44% targeted outside researchers and scholars (Institute for Museum and Library Services 2006). While these figures should not be seen to suggest that all museums need to target the same audience for their online content, these variations do suggest that there are multiple interpretations among museums of exactly who the *public audience* is in statements about increasing access to museum collections.

Recent studies of visitor behavior and evaluation of online resources by museums have confirmed the disjuncture between the way museums intend their sites to be used and by whom and how they are actually perceived and used in practice. In 2007, the San Francisco Museum of Modern Art published its findings in a study it conducted on user evaluation for the redesign

of the museum's website. Many of the findings of the study were surprising for the museum. While the museum assumed that its site was primarily used by scholars, educators, and arts professionals, the study showed that this group was actually the smallest category of visitors to the website and that the majority of visitors came from outside the arts and education community (Mitroff and Alcorn 2007:4). Other interesting findings were that visitors did not understand some of the content descriptions of the site, such as the difference between an exhibition and a collection, and the majority of visitors used the website to find out information about trip planning to the physical museum. In addition, most visitors were unaware of the breadth and depth of content available online and found the site difficult to navigate (Mitroff and Alcorn 2007:5).

The latest study on internet use and museums and libraries by IMLS also reveals findings on the way visitors to museum websites use online content. José Marie Griffiths, Donald W. King and Jeffrey Pomerantz found that 83% of visitors to museum websites did so for recreational and informal learning, motivated by a general interest in the museum and its contents (Griffiths, King, Pomerantz 2008:20). Only 7.5% of visitors to museum websites were for work-related purposes, including researching and writing. Those who reported visiting museums for work-related purposes also reported that they were more likely to find the information they were looking for during a visit to the physical museum than a visit to the website (Griffiths, King, Pomerantz 2008:20).

These reports from SFMOMA and IMLS reveal the ambiguity within the museum community about the way they approach their online audiences. Museums assert the benefits of online content to the public but do not create material that is reflective of actual user identities and experiences. It confirms that the majority of visitors comprise a general audience interested

in informal learning and information about the physical museum rather than serious scholarship and research online. The perception among museums that enlarging archival databases increases access to a collection does not coincide with the fact that most people, including researchers, approach a site to gain information for a physical visit. If museum audiences are primarily interested in visiting the physical museum space, providing online archives does not address their needs if they remain restricted in the physical museum. If museum audiences prefer informal learning and entertainment on museum websites, then archival sites that are difficult to navigate and confusing to decipher do not adequately engage public audiences. In addition, merely increasing the amount of archival content online does not provide more access if the barriers identified above do not allow users to find information effectively and efficiently.

Institutional Factors Conditioning the Development of Online Archives

In efforts to create online archival content that is truly accessible to the public audience, museums must also contend with institutional factors that affect priorities for digitization. Many museums lack sufficient funding and resources to digitize collections, so evidence of public use and support of these resources is critical to demonstrating their effectiveness as resources and worthiness of financial support. It is unlikely that most institutions will be able to afford to digitize an entire collection. The cost of digitization can be high, scanners and software can be very expensive, and additional costs are incurred by the need for staff increases or training of existing staff members to embark on a digitization project as well as to maintain and update online resources. Museums that lack significant funding devoted to digitization projects may be hesitant to direct time, staff and income away from other projects and programs. A small to mid-sized museum may be able to apply for grants or appeal to other funding sources for digitization projects, but they typically have limited staff and resources to devote to fundraising, and

priorities may be devoted to other areas such as educational programming, exhibitions, operations, conservation or expansion.

In the IMLS 2006 report on *The Status of Technology and Digitization in the Nation's Museums and Libraries,* of the museums that reported their use of digital images on public websites, 34% or less reported having policies regarding digitization, approximately 56% reported inadequate funding for digitization and 16.5% reported having more than 25,000 items left to digitize from their collections. Additionally, museums reported that the three factors most likely to hinder the progress of digitization projects were inadequate staffing, inadequate funding and other projects with higher priorities (2006). Therefore, while public statements regarding digital resources assert the significance of these projects for museums and the benefits they pose to public access to museum collections, in the museum community there appears to be widespread inequality of access to the resources needed to create, sustain and effectively evaluate these projects. While the statistics above represent the averages of small, medium and large museums included in the study, the project survey did reveal inequalities between small and large museums in the areas of funding for technology, needs assessment and digitization policies (2006).

Demonstrating the significant costs of digitization, the Library of Congress reported that for the average presidential paper, scanning costs up to $11 per page. With 132 million objects in the collection, it is unlikely that more than 10% will be digitized due in part to the expense of such a task (Hafner 2007:1). While the Library of Congress may be an extremely large example of an archival collection, even small museums may have far more documents than they can afford to digitize. A small museum may posses only 10,000 materials in its archive, requiring much less funding for digitization than a larger institution. However, it is also more likely to

have a significantly smaller staff size and operating budget which would present the same financial challenges to digitization as at a larger museum. The sheer volume of a collection not only poses the financial concerns identified above, but also poses significant time concerns where multiple years may be required to complete projects that drain resources from an organization.

These and other factors may affect a museum's priorities for digitization efforts. As a result, most museums have to designate only portions of a collection to be included in online projects. How they make this choice is particular to the needs and desires of curators, project directors, audiences and other stakeholders such as private corporations, government bodies or foundations funding a digitization project. Museum archivists argue that digital records of a collection aid conservation effort by reducing the physical contact with materials, but the scanning process could also pose risks to extremely sensitive materials. Therefore, museums must weigh potential risks to an object against the benefits of online access. In addition, some materials may be difficult to scan because of bulkiness or shape. They may require different scanning tools than other materials, thus increasing costs for a project. With a large archival collection and limited resources, museum administrators may wish to digitize the most at risk materials of a collection first, but these may not always be the most renowned materials that would generate the greatest online interest.

The financial limitations, unequal distribution of resources among large and small museums in addition to the high time and labor costs of digitization are significant factors in the development of online archival resources for museums as effective tools of enhanced public access. Without the resources necessary to evaluate and improve digital collections, museums cannot address the needs of site users and develop more engaging and user-friendly websites.

Yet at the same time, evidence of public use and satisfaction with online content is often the most effective way to gain increased and sustainable funding for new and existing projects. Therefore, museums have two distinct but related problems that condition further development of online content. These can be addressed by examining two projects, the Museum Educational Site Licensing Project (*MESL*) and the Museums and the Online Archive of California (*MOAC*), which demonstrate the importance of collaboration and the value of incorporating educators and content users as mediators of information directed into the design and development of online archival resources.

Institutional Collaboration for Museums and Online Content

Institutional collaboration is one approach that can reduce the financial limitations to content development and evaluation as well as create a more user-friendly interface to be applied throughout the industry. The scope of online archival resources is broad across museum collections as shown by the *Giza Archives Project*, *Time Capsule 21* and the *Archives of American Art*, and there is wide variation in content, depth, quality, organization and technological specifications across online resources. As the Institute of Museum and Library Services has shown, much of this variation among online resources is due to inadequate funding, low priorities, a lack of standardized policies for digitization, and ineffective needs assessment. Further, larger museums have greater access to resources for creating online content. All of these factors act as barriers to a truly democratic vision of public access to online archival resources, especially if larger institutions continue to dominate the digital museum community and other museums are left behind in the virtual world. If museums continue to create online content in isolation, it may become even more challenging for smaller museums to keep pace with rapidly changing technology and the expanding and evolving projects at larger museums. However, if

museums engage in collaborative digitization projects, gaps between large and small institutions could lessen and the quantity and quality of online archival resources could be maintained across a wider range of resources.

By pooling resources and information, museums working together can develop cost-effective programs for online content that standardize basic interfaces and terminology. The adoption of standards and best practices has a two-fold benefit. First, it allows museums to save costs by reducing the amount of developmental work in launching a new database created specifically for one institution. It creates a community of museums that can assist one another in updating resources, solving problems, and sharing software. Museums can also share information on user identity and behavior to yield a more accurate picture of who users are, how they use online content, and how content can be improved across institutions to meet user needs. Secondly, if sites are organized to fit industry standards, they can easily cross-reference with one another to allow users to navigate across multiple resources, instead of having to master and interpret a new interface with every museum website. By working together to provide a common template for online content, museums can eliminate the confusion users currently feel when confronted with widespread variation from one museum to the next.

Excellent examples of institutional collaboration can be found in the Museum Educational Site Licensing Project (*MESL*) and in the Museums and the Online Archive of California (*MOAC*). These projects demonstrate how institutional collaboration can reduce the financial limitations to digitization for individual museums and lessen the digital divide between small and large institutions. In addition, the projects also identify the importance of user evaluation in site development and implementation. By reducing financial limitations, collaborations can allow museums to design better resources without having to appeal to outside

funders for increased support. Further, through the creation of industry wide standards for content design and needs assessments, museums will be better able to meet the needs of users.

The accomplishments of *MESL* and *MOAC* in reducing costs and encouraging information and resource sharing among museums are great. *MESL* began in 1994 and ran until 1998 and was organized by the Getty Information Institute and MUSE Educational Media. The project matched six museums and one library with seven universities for the creation of a shared digital image collection to use in university courses. The museums were chosen to represent a range of technological capabilities, from having pre-existing content on the internet to barely having an institutional email service. The Fowler Museum of Cultural History, the George Eastman House, Harvard University Art Museums, The Museum of Fine Arts, Houston, the National Gallery of Art, the National Museum of American Art and the Library of Congress. American University, Columbia University, Cornell University, the University of Illinois at Urbana-Champaign, the University of Maryland, the University of Michigan, and the University of Virginia were chosen for their existing technological infrastructure, strong administrative support, and ability to form a project team of librarians, computer programmers, instructional designers and faculty members (Stephenson 1998:1-2).

Each museum chose roughly 500 objects from its collection that were documented as digital images with descriptions and distributed to university course instructors (Notman 1998: 38-39). The project was designed not only to explore the impact of digital images as an educational supplement to university courses, but also to create a testing ground for administrative, legal, economic, technical, and educational issues for collaborative networking of museum content (Stephenson 1998:1). As a collective project, the museums and universities were able to work together to create a methodology for digital access to collections including

creating model terms and conditions for educational site licensing, developing shared technological terminology, and addressing the many technical issues involved in creating, exporting, and delivering digital content across institutions. While not always successful at creating a standardized methodology that fit the needs and capabilities of each institution, the project was able to identify guidelines for future projects and make over 9,000 digital images available to the universities (Stephenson 1998:2-3).

Particularly for those museums with little to no experience in creating digital content, the first two years of the project allowed for rapid improvement in technological capabilities. For example, the George Eastman House and the Museum of Fine Arts, Houston entered the project with no experience in digital imaging and both were able to contribute over 1,000 digital images each in the first two years (Notman 1998:40-45). *MESL* demonstrates how shared information and resources across institutions can even the playing field among large and small museums in the digitization process.

A more recent case where institutional collaboration has had a significant effect on museum online content and the establishment of standards and best practices for the field is in the Museums and the Online Archives of California project (*MOAC*). *MOAC* is an online database comprised of finding aids and digital images from libraries, archives and museums across the state of California. The project developed out of the Online Archive of California, itself a part of the California Digital Library during the late 1990s and continues to expand and develop today.

At the project's onset, *MOAC*'s mission was "to integrate access to collections of art, historical artifacts, photography, and manuscripts from museums, archives, and libraries

throughout California…by creating a standards-based and scalable solution, which could potentially allow every California museum to share collections with libraries and archives online" (*MOAC* report). As a result, *MOAC* was able to apply EAD encoding standards[2] developed for archives to museum collections and enhance them to accommodate item level object description akin to museum collections management procedures. This process enabled the integration of digital resources from libraries, archives and museums into a single, searchable online catalogue (Chandler 2002).

The aims of *MOAC* are not to get museums to adopt EAD as the standard for internal collections management; rather it is promoted as an ideal method for integrated resource sharing among libraries, museums and archives. Other standards may be better suited to internal collections management or resource sharing among only museums based on the kind of descriptive language desired. For example, EAD is not able to accommodate certain kinds of media depictions of artworks such as scans of individual pages of a book or multiple views of a sculpture, which are useful for researchers who wish to go beyond image identification to further visual study of an object (Rinehart 2003)[3].

Unlike the *MESL* project, which restricted content access to museum and university participants, *MOAC* is an online resource open to the public in addition to being an integrated collections database for California cultural institutions. While the potential barriers to effective public access and use of the project's online content have already been discussed, the technical

[2] EAD, Encoded Archival Description, is a finding aid standard developed by Daniel Pitti and colleagues at UC Berkeley Libraries, originally called the Standardized General Markup Language Document Type Definition (DTD). DTD was further developed and endorsed as the standard for archival description by the Society of American Archivists and the Library of Congress in 1995, where it became EAD (Chandler 2002: 3).

[3] MOAC did ultimately develop the project further by using numerous other standards in order to create more media rich content for museum objects.

achievements and success of *MOAC* as a collaborative project deserve to be highlighted. The cooperation of libraries, archives, and museums have been beneficial to project participants.

For example, libraries and archives have been able to convey the importance of standards and best practices for data and content development to be integrated and shared across institutions as well as the benefits of publically available finding aids that act as a catalogue of the collection. By developing finding aids for museum collections and placing them online, museums can indicate the scope and depth of a collection to researchers. In addition, while digital images of the entire collection may not be possible due to volume, time, and expense the publication of finding aids for an entire collection may prevent non-digitized collections objects from going unnoticed in the virtual community. Libraries and archives have also gained from the collaboration with museums, which have brought collections management expertise to cataloging that recognizes the importance of object-level description for a collection (Chandler 2003).

Perhaps the most significant achievement of *MOAC* was enabling small and mid-sized museums to participate in the project in a manner that was feasible and cost-effective. *MOAC*'s project manager identified several key aspects of the project that created a more even playing field for smaller museums to participate in such a large-scale project. Firstly, *MOAC* was organized as a regionally based collaboration where communication could easily occur through media but also in person, and project members were open to resource and information sharing for a collective goal. Secondly, a concerted effort was made from the beginning of the project to establish realistic goals, such as working from pre-existing data and allowing museums to retain current collections management systems and build from existing practices in the field. Finally, a *MOAC* participant, the Berkeley Art Museum, was able to develop a tool, the Digital Asset

Management Database (DAMD) that allowed data from pre-existing collections management systems to be converted and enhanced through multiple processes into EAD and other standards that met the best practices of *MOAC*. This tool was then freely shared among the *MOAC* community and further enhanced, altered and scaled by other museums. DAMD was ultimately able to reduce significant costs to museums of encoding and creating EAD files (Rinehart 2003). As *MOAC* continues to be an evolving project incorporating more institutions and further developing content and methods to accommodate changing needs in the virtual cultural community, its early findings and ongoing development provide an exciting model for institutional collaboration that may allow a more diverse range of museums to participate in the virtual space.

These projects both demonstrate how institutional collaboration was beneficial to individual museums, particularly smaller museums and museums that were not technologically advanced. By sharing information and resources, these projects enabled museums to digitize significant portions of their collection and form a supportive network of colleagues committed to enhancing and evaluating the quality of their digital resources. This is fundamental to the success of future digitization projects because they create a foundation from which museums can build their online resources. They reduce costs during the early stages of development of online content, allowing more time and resources to be spent on evaluation and improvement of sites to meet user needs.

In addition to determining the most cost effective and efficient methods for museums to increase their digital content, *MESL* and *MOAC* both identified user evaluation as a significant factor to the success of digital projects. One of the most significant outcomes of *MESL* was the increased awareness of the importance of communication between the museums and content

users. During the project, some of the participating museums solicited little to no input from university faculty on content, while others worked closely with faculty to provide course specific images (Notman 1998:40-41). The following year, universities requested more direct involvement of faculty in the content selection process, and an online request form was created to submit collection requests to the museums. While there was some increase in faculty involvement, additional delays and setbacks to communication between faculty and museums occurred because of technical problems and incorrect usage by individuals unfamiliar with electronic media (Notman 1998:42-43). As a result, while significant quantities of material were digitized, it did not always meet the needs of the faculty who used it.

MESL participants identified several issues key to content selection. Museums must have firmly established collections management and digital image databases in place before shared resources are created so that as much of a collection as possible is available for content selection. However, it is crucial that as much communication as possible should occur between museums and content users so that users can be more aware of what content is available and be able to adequately request the information they need (Notman 1998:46).

A significant achievement of the *MESL* project was its user evaluation. Participants conducted a range of evaluations including discussion groups, web surveys, questionnaires, institutional reports, and site visits in order to assess the impact on museums, universities, faculty, and students. The project report published by the Getty Information Institute summarizes findings of the various methods of evaluation of *MESL*:

1. Implementing the *MESL* project was not a trivial exercise and required significant retooling of the infrastructure, as well as a high degree of technical and administrative support at both universities and museums.

2. More standardization at virtually every link in the data delivery and access chain is needed.
3. Improvements in image availability (more images desired), image quality, and delivery mechanisms would be welcomed by all users.
4. There was a steep learning curve for many faculty, but this was less true for students.
5. Digital images enhanced the classroom experience and were easily incorporated into student work.
6. The *MESL* project was a worthwhile experiment and taught participants a lot about what is required to incorporate digital images into the campus information "mainstream".
7. Those involved demonstrated a keen enthusiasm for the potential that *MESL* foreshadowed (Stephenson and McClung 1998:86-87).

It was apparent among the project participants that *MESL* contributed significantly to the development of digital educational resources and participants cited institutional collaboration as a critical factor to the success of the project. Since the *MESL* project, significant improvements have been made in digital technology and the creation of online content by museums has increased dramatically. However, the project's findings resonate with the recommendations of IMLS made over a decade after *MESL* was initiated. The 2003 and 2006 IMLS reports identified the continuing gap between large and small organizations in technology use and access to resources, while the *MESL* project demonstrated that collaboration could greatly benefit both large and small museums in digitization efforts by sharing resources and expertise as well as developing standards to make future projects operate more smoothly. Additionally, while IMLS continues to identify in its reports the need for standardized and more comprehensive user-assessments for digital projects, *MESL* incorporated comprehensive needs assessments throughout its history and its recommendations for content selection and project evaluation can serve as a model for current and future efforts.

Richard Rinehart also suggests that *MOAC* and similar cross-institutional resources may serve the needs of users from the sophisticated researcher to the amateur enthusiast better than isolated institutional websites (2003:2). The development of internet technology throughout the 1990s and early 21st century has created differences between how users seek information in the virtual and the physical world. While traditional research occurred at the level of the individual institution with a phone call and visit to the physical collection, the nature and popularity of search engines in the virtual world created networked communities of information where users expect to draw from multiple collections. Rinehart explains that,

> "One key lesson for cultural institutions is that they should not expect their visitors and researchers to behave in a networked environment in the same way they did before networked access or that they do during physical visits. There is no reason now why a researcher should be satisfied at having to approach at the level of the institution; to divine the URL and contents of each individual institution website separately, learning new interfaces, new search vocabularies, and then collating the disparate information together. For many purposes, from research to instruction, visitors want to approach at the level of content, finding closely connected, if not federated, access to similar content from many institutions easily" (2003:2).

Rinehart's suggestions may in fact be closely aligned to the needs of both researchers and general users. Thus in addition to significantly reducing the financial costs to organizations for digital projects and building a foundational framework from which museums can implement online resources, institutional collaboration can also identify potential barriers to effective access and the needs and wants of users across the industry, ultimately working to provide standard access points and informational pathways that empower users to have effective command of online resources and eliminate the ambiguity of access.

Conclusion

From the traditional art museum in the physical world to the 21st century art museum in the digital world, the experience of art has been conditioned by the cultural values and priorities of elite society. While principals of education and social benefit have always been intrinsic to the mission of the museum, the maintenance of cultural hierarchies and elite financial support has always been a defining factor to a museum's survival. As museums increasingly orient themselves toward earned revenue and demonstrations of public support, this tension between democratic educational goals and the upholding of institutional authority and cultural distinction continues to characterize the discourse that surrounds notions of access. As Bourdieu argues, while museums have a vested interest in enlarging their audiences and appealing to increasingly diverse sectors of the public, they remain equally invested in maintaining their authority as the keepers of culture and knowledge, which leads to a marked ambiguity in any discussions of the democratization of culture and providing access to all.

The notion of creating access carries within it a pre-requisite of something being previously restricted. In order to provide access, something must first be inaccessible, restricted from use by some kind of barrier. Barriers can be physical restrictions, but they can also be intangible barriers expressed through language, organization and content that deter some people from information or services. Within the online projects of the museum community, the term *access* has primarily been successful at removing the physical barriers to information, yet other barriers exist within these resources that may deter museum audiences from using them. Historically, *access* has carried within it the connotation of physical encounters with museum collections and the increase of physical exposure to content for museum audiences. Extended admission hours, reduced admission fees and online collection and archival databases all serve as

examples of promoting greater exposure among the public to the museum and its contents. Yet, these increased physical encounters with the collection remain conditioned by the interpretative frameworks of the museum that reinforce the cultural and intellectual distinction of the institution as separate from that of its audience. This practice has traditionally permitted the intellectual exclusivity criticized by Bourdieu and the mediation of public discussion by the intellectual and professional art community identified by Habermas. Access under such conditions becomes ambiguous because while the museum community cites efforts to increase access to collections as empowering users to direct their own educational experience of the museum, the actual mechanisms used to create access contain barriers to their effective use as an educational resource. While collections are physically more accessible, the ways in which they are presented are not reflective of the needs and wants of those who would use them for formal or informal educational purposes and are still conditioned by the interpretative authority of their creators.

The development of online archives by museums perfectly illustrates this ambiguity and the extension of Bourdieu's theory into the virtual realm. While museums argue that the digital presence of the archive eliminates the traditional barriers to access in the physical museum, new barriers are constructed in the virtual museum that continue to maintain institutional authority and limit the effectiveness of these resources as an educational tool. Again, the access created by these sites increases the physical availability of resources, without necessarily addressing how intellectual, cultural and social barriers to these resources can be eliminated in the virtual realm. In online archives at the Andy Warhol Museum, the MFA, Boston, the Smithsonian and the Museums and the Online Archive of California, we have seen how passive learning and participation, audience segmentation, widespread variation in content description and site design,

and inequalities in internet access and technology all act as barriers to the ability for users to effectively and efficiently use a site. In order for museums to provide archival resources on the internet that enhance user experiences, they must identify any and all aspects of a site that may prevent users from feeling that they belong there and can find the information they need.

In addition, we have also seen how the perceptions of the museum community about who uses online content, how they use it, and why they use it does not always match empirical findings. Both the San Francisco Museum of Modern Art and the Institute for Museum and Library Services demonstrate that museum online audiences are primarily general users interested in obtaining basic information about the museum and visiting the physical institution. Knowing this, it is even more important that online archives be evaluated in order to determine what users are looking for and how sites can better adapt to their needs, especially when users may be viewing them primarily to gather general information about what is in the physical collection instead of conducting detailed research.

The elimination of barriers and implementation of large-scale needs assessments are challenging tasks for the museum to grapple with, and are compounded by the high financial costs and limited resources in most institutions, they may seem insurmountable. However, we see a clear movement in the right direction with effective collaborative projects such as *MOAC* and *MESL*. Institutional collaboration can reduce the costs of digitization projects by encouraging resource and information-sharing among museums and provide both large and small institutions with a foundation of networked support and standards and best practices from which to build online resources. By collaborating with other institutions, much of the expense that an individual museum would incur in the early stages of developing online resources can be deferred to conducting comprehensive user evaluation and ongoing project development to meet

user needs. The interconnected network of resources across museums provided by institutional collaboration may better address the ways in which people seek information on the internet, allowing users to search for content across organizations and collections. In addition, the creation of standard access points and information pathways across museum online archives will enable users to know how to navigate sites and find the information they need. By eliminating the confusion that users experience when encountering different targeted audiences, search terms, content description, site organization, and so forth, museums will empower general users to feel that sites are designed for them rather than as resources for only the scholar or the arts professional. It is through the implementation of standards and best practices and widespread acknowledgement of user needs and wants that museums will be able to provide online archives that do enhance public access to collections, eliminating the current barriers to that access and ending the ambiguity of access in the virtual museum.

Most importantly, these institutional collaborations reveal the role that educators and researchers can and should play in the development of these online resources as educational tools. *MESL* illustrates the importance of ongoing and consistent communication with the educators who use the museum's digital content in order to create resources that actively meet the needs of students and teachers. Furthermore, *MOAC* demonstrates that collaborative models that employ common standards and centralized search resources are likely to be more aligned with the ways in which researchers and educators look for and use information in the 21st century. Museums clearly are successful at making their collections physically more accessible to audiences through online databases, but they should solicit the input of educators and researchers to identify the ways in which their resources can enable people to use them to meet their own educational and other needs. In this way, online databases will act less as a curatorial

space reflective of the traditional barriers to intellectual appropriation of museum content and more as a resource space that facilitates independent research and analysis.

There is an exciting future for the online components of museum curation and education, particularly for the digital archive in its ability to transform the nature of research and interpretation for the public audience. Once a dialogue begins regarding the more effective implementation of guidelines and standards, more comprehensive assessment of the needs and wants of content users, and the active participation of educators and researchers in content development, we will no longer see a disjointed approach that carries over Bourdieu's dual discourse within the museum community and the ambiguity of access into the 21st century. Instead, these resources will better serve the museum audience by enhancing visitor experience and ensuring the continued viability of museum online offerings.

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