

INTERPRETING ART DIGITALLY

The Evaluation of Digital Interpretation of Art in Museums

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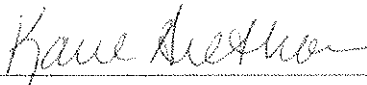
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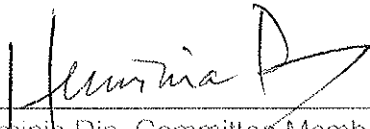
To the Faculty of The University of the Arts

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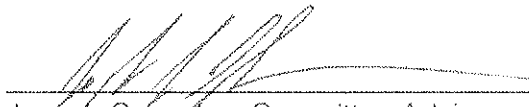
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ABSTRACT

In the 21st century, people utilize digital media to access information, education, and even to experience art. The innovation of Internet technology has altered the way that people work to acquire knowledge. Museum curators and educators have observed that digital media and Internet technology could impact the interpretation of artwork. Some scholars have redefined museum interpretation in order to make it more successful. Others have argued that an overuse of digital media might replace physical interpretive media. This study considers whether the advent of digital interpretation can help museums convey art more accessibly. It might benefit museums and cultural institutions to enhance traditional interpretation, and to extend visitors' museum experience and their self-learning experience. Further, given scholars' concerns as to whether museums understand digital media sufficiently to develop digital collateral, this study also evaluates their digital interpretive media. In order to examine the potential and the challenge of museums utilizing digital interpretation, this study also includes a comparison of digital interpretive media and physical interpretive media. It concludes by demonstrating that both digital interpretive media and physical interpretive media cannot replace one another because they interpret art in different ways.

DEDICATION

— To my parents, friends, and everyone I love.

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NOMENCLATURE AND ABBREVIATIONS

Interpretation

Many museum professionals and educators define interpretation as a way to transmit museum messages to the public. An important question arises as to how to make museum collections accessible and understandable to their audience. Essentially, interpreting an object in a museum includes defining the meaning of the object in various ways. In a sense, the interpretation of an object involves not only how the museum explains the object to the audience, it can also include the interpretation of the object from the audiences' point of view. Interpretation in museum does not fully comprise the educational information of the object. The educational information is only the beginning of the interpretation process.

Physical (Traditional) Interpretation

Physical interpretation occurs when audiences encounter the meaning of artworks through physical interpretive media. This type of interpretive media usually means traditional interpretive media in museums, found during an onsite visit to a physical museum space. As such, this media includes: texts (wall texts and labels), exhibitions, public programs and special events (public tours, lectures, video and films etc.), augmented material (audio tours, smart phone applications, multimedia tools), print media (museum publications, brochures, booklets, guidebooks and exhibition catalogs), and interactive materials.

Digital Interpretation

Digital interpretation occurs when audiences encounter the meaning of artworks through digital media such as museum websites (including online tours, online programs, online exhibitions and virtual reality.) By Edward and Mary Alexander's definition, a museum website functions as orientation material to provide audiences with pre-visit guidelines for planning a site visit or for conducting personal research. Beyond museums' websites, digital interpretive media include other internet-based non-print media (Google searches, unofficial websites, museum/art professionals' blogs, social networks etc.)

Onsite Visit

For this study, I evaluated three museums' multiple interpretative media at their physical sites, and then compared it with their digital interpretative media. I define the term "onsite visit" to mean my visits to exhibitions in physical museum spaces.

Online Visit

I also evaluated museums' digital interpretive media through the museums' websites along with any internet-based media. I define the term "online visit" to mean my experience of museums' internet-based content.

Abbreviations

AAM – American Alliance of Museums (formerly American Association of Museums)

PMA – Philadelphia Museum of Art

DAM – Denver Art Museum

1 / INTRODUCTION

Museums act as human cultural institutions that collect objects, conserve cultural heritages, and convey cultural education to the general public. Interpretation is one of the significant methods for conducting museum communication. Traditionally, museums provide readable interpretive media such as text-based materials (e.g. text labels, brochures and guidebooks), interactive and participative media such as public programs (which includes docent tours, school programs and family programs), and further, museums create an atmosphere that leads visitors to explore the museums' message and knowledge of human cultural heritage, for which museums usually create conceptual exhibitions.

Today museums are in a digital age; and they increasingly utilize digital media and Internet technology to enhance their traditional interpretive media. Most museums use websites as a platform to deliver their digital interpretation. Also, some modern museums utilize "new media" to create mobile and multiple digital interpretive media. Museums call the media multi-functional and mobile digital media "augmented tools". This study focuses on art interpretation in museums and cultural institutions, in that art demands a very complex interpretation. In addition, different institutions will bring different perspectives to bear upon each art piece.

Most museums understand the advantages and necessity of information digitization. However, mere information digitization is not digital interpretation. Many museums maintain websites to offer their audiences a deeper engagement with art. These museums need to consider that what they have posted on their websites could impact audiences' individual interpretation. Some museum communicators and educators have a vision for new interpretive media and can envision innovations in the very definition of interpretation. These museums believe a cultural institution should be able to offer audiences manifold choices of interpretation.

Furthermore, personal preference affects visitors' choice of interpretive media for self-learning experience. Some visitors prefer to join public programs, following a docent's lead to explore museums; some prefer readable text media that provide them as much information as possible; some desire to experience a museum by participating in a social group and discussing the art; some might seek a private conversation with art within the atmosphere of a museum and its collections.

What happens then when visitors must obtain all their information about the museum and its art collections through digital media? Some art museums now barely use any text label or printed materials. This trend raises several questions:

- 1) Can digital media interpret every kind of artwork?**

- 2) Can a museum's digital interpretation extend audiences' museum experience and engagement with art objects? Or does this limit visitors' interpretation?
- 3) What challenges does a museum utilizing digital media to interpret art face?
- 4) Will digital interpretation replace traditional interpretation on site?

I study these questions to test my thesis: digital interpretation has the potential to help museums convey successful interpretation. Yet, neither can physical interpretation be completely replaced. For my study, I adopted the Denver Art Museum's (DAM) theory in *Redefining Successful Interpretation in Art Museums* – to evolve interpretation from a “museum wants you to see” to a “museum gives you options to see what you want to see.” Finally, museums such as DAM want to implement interpretation as “collaborative interpretation”, “two-way communication”, and “serving visitors with choice” in the future.¹

On the other hand, museums can use digital interpretation to impose less traditional interpretation, as we will see in my second case study, The Barnes Foundation. The impact of digital interpretation may enable museums to create manifold unique interpretation options. Or, they may go too far and use digital interpretation to entirely replace physical interpretation.

In this study, I evaluate museums' implementation of digital interpretation through case studies of art displayed in three museums / cultural institutions: the Philadelphia Museum of Art, The Barnes Foundation, and The Rosenbach

¹ Fischer, Daryl, and Lisa Levinson. “Redefining Successful Interpretation in Art Museums.”

Museum and Library. I address my research questions in Chapter 4. The study concludes that audiences can indeed have better experiences of art from some certain interpretive information or for certain types of artworks online. Yet, digital media must be supplementary; digital interpretive media cannot and should not completely replace physical interpretive media.

2 / LITERATURE REVIEW AND THEORY

In this study, I explore the meaning of art interpretation in museums. Also, I want to understand the features of art interpretation across multiple media. This chapter is divided into three sections: **(1) Defining Interpretation of Art in Museums** – I define art interpretation, and ask what has traditional interpretation meant in the past two decades. **(2) Strategy of Interpretation and Art Interpretive Media** – How do scholars define interpretation? What interpretive media do museums usually have for conveying their works of art? Finally, I illustrate features of digital interpretation through discussions with museum scholars in **(3) Rethinking Art Interpretation in a Digital Age**.

Defining Interpretation of Art in Museums

In this study, the term “Interpretation” is used often. Yet, what does “interpretation” mean to museums? In particular, this study is concerned with several issues related to art interpretation. What is art interpretation? Why does interpretation matter to art and to museums?

In general, the word “interpretation” denotes a concept or an explanation of some thing or behavior. According to the dictionary, “interpretation” is a noun, “the act of interpreting; elucidation; explication”², and it can represent “a way of interpreting.”³ However, these definitions only partially indicate the meanings of a museum’s interpretation. Interpretation in museums is the way that museums communicate their collections and missions to audiences, and also, interpretation in museums can entail fostering self-learning.

Before we move to a discussion of defining art interpretation, I want to address how museum professionals and scholars define interpretation in their field.

Museums are cultural institutions that aim to acquire, conserve, research, communicate, and exhibit their collection in order to provide education, enjoyment, and experience of the museum environment to the public.⁴

Therefore, museum exhibitions, public programs and any supplemental material support museums in interpreting the messages of their collections for visitors.

The purpose of interpretation is to provide a lens that transmits the meaning of the objects to the public.

In fact, many museum activities can be seen as interpretation.⁵ Museums start by collecting, and conserving their objects; they then display objects through exhibitions; in addition, museums create programs and interpretation to define the meaning of objects. In this sense, the museum itself is an interpretive media of human cultural heritages. The issue is that museums can make all the choices for their audience, even as they develop this interpretation using their judgment

² The definition from Dictionary.com

³ Ibid.

⁴ Alexander, Edward P. and Mary Alexander. *Museums in motion: An introduction to the history and functions of museums*. Second Edition. (New York: AltaMira Press. 2008)

⁵ Ibid. P. 257.

and perspective. As Edward Alexander and Mary Alexander argue in the book *Museums in Motion: An Introduction to the History and Functions of Museums* “museum interpretation (or education) is the multilayered process of museums issuing messages – intended and inadvertent – to the public.”⁶ Alexander and Alexander note that no matter how museums try to avoid personal convictions coloring interpretation, it is impossible to interpret objects purely without any personal perspective. Further, audiences also have their own convictions to re-interpret the information furnished by the museum. How museums add new ways for audiences to receive better interpretation and art experience thus becomes of central importance. Providing information is not the only element in successful interpretation. In fact, the information alone is not interpretation, but only a part of interpretation. As Freeman Tilden defines it;

Interpretation is revelation based upon information. But they are entirely different things. Audiences are able to interpret the objects through museums’ interpretive media supports, also, to experience the object interpretation within the atmosphere representation. However, all interpretation includes information.⁷

Of course, the information is part of the interpretation of an object, but it cannot be defined as the only interpretation. John Cotton Dana also states, “[a] good museum attracts, entertains, arouses curiosity, leads to questionings – and thus promotes learning.” Eilean Hooper-Greenhill also argues that an object cannot be interpreted in any single way.⁸

The meanings of objects are constructed from the position from which they are viewed. The gaze of the knowing subject, the individual standing in a particular place within history and culture, focuses on those aspects of the object which s/he is able to recognize and thereby grasp both visually and conceptually.⁹

⁶ Alexander, Edward P. and Mary Alexander. *Museums in motion: An introduction to the history and functions of museums*. Second Edition. (New York: AltaMira Press. 2008),P.258.

⁷ Ibid.

⁸ Hooper-Greenhill, Eilean. *Museums and the Interpretation of Visual Culture*. First Edition. Routledge Press, 2000.

⁹ Ibid.

The interpretation is not an explanation of an object. Yet, interpretation is disclosure based on explanation and information.¹⁰ In this sense, interpretation can be a hook to inspire audiences' desire for knowledge. And, museums can utilize successful interpretation to embody the atmosphere and aesthetic from objects. Further, cultural objects and art objects include personal memories and meaning from the makers' and owners' convictions. The Director of Conservatories for the Chicago Park District, Lisa C. Roberts expects that interpretive media is able to "illustrate messages and to provide atmosphere" from the art.¹¹ In sum, many scholars and museum professionals believe that successful interpretation should be able to stimulate audiences' interests to form their own interpretation.

My study concerns art interpretation issues. Particularly, the presumption of this study is that digital interpretive media can enrich traditional interpretation in the physical environment. Possibly, audiences' experiences can be extended through museums' successful digital interpretation. How then to further define art interpretation in general?

Christopher Whitehead, in his essay "What is art interpretation? Why interpret art?" in *Interpreting Art in Museum and Galleries*, argues that art interpretation is "necessarily complex" compared to other objects. Interpreting art requires museums to exemplify art from the creator's view (artist's view), also, to convey art from aesthetic criteria. As Whitehead states:

¹⁰ Alexander, Edward P. and Mary Alexander. *Museums in motion: An introduction to the history and functions of museums*. Second Edition. (New York: AltaMira Press. 2008)

¹¹ Roberts, Lisa C. "Changing Practices of Interpretation." *From Knowledge to Narrative: Educators and the Changing Museum*. Smithsonian Institution Press.

For many people today the ability to value something as a 'work' of art lies in the perception that certain criteria have been met in the production of that work. Commonly, these might include: the application of sophisticated technical craft skills (like drawing); close observation and possibly mimetic translation of external reality, as in a realistic portrait or landscape image; the expenditure of considerable effort; if not on the work itself then on the buildup of skills and creative abilities that led to the work's genesis; and maybe even the selection of appropriate 'subject matter'.¹²

Consequently, interpretation of art stands related to a work of art's subject and the technique of its creation. The subject of work may arise from the artist's conviction and concept, yet, we as viewers may interpret it subjectively. There is no consensus on the definition of the meaning of an artwork, or rather, there is more than one definition as to interpreting a thing as art. In addition, interpreting a work as art also relates to how modern societies regard aesthetics, and what is more, it is related to "the historians' gaze".¹³ Thus for museums to interpret art successfully, they focus on how to convey art in the appropriate environment with accessible media to lead visitors to engage with it. In fact, some visitors might identify works as art when they walked into museums to 'learn' to appreciate art, because they might not be familiar with certain cultural criteria. For example, a foreigner might not identify Andy Warhol's *Brillo Box* as a work of art if they never had Western cultural education. Thus, museums cannot assume every visitor will have the same level of knowledge. And this is why art interpretation matters. It matters because if art would not be able to identify itself as art, neither could artists. The definition and interpretation of a work as art must pass through many agreements from trustworthy sources. Finally, the work can be collected and displayed in a museum – an institution of public trust –

¹² Whitehead, Christopher. "What is art interpretation? Why interpret art?" *Interpreting Art in Museum and Galleries*. Routledge Press. 2012. Print. P.4.

¹³ Ibid.

where the public can have the chance to understand artwork using their choice of interpretation.

Strategy of Interpretation and Art Interpretive Media

Before museums start developing interpretation and creating interpretive media (whether in a traditional way or digital way), museums should have a strategy of interpretation. Although interpretation is not fully equal to museum education, museum interpretation is strongly tied to museum education. Also, museum education is a significant component for museums creating interpretation. In 1992 the American Alliance of Museums (AAM) provided six recommendations to define museum learning:

- 1) Develop and expand audience research methods that will test and document how people learn in the museum environment. Apply the findings to exhibitions and program development.
- 2) Develop educational experiences for schoolchildren, families, and adults that reflect [knowledge] of the different learning styles visitors bring to museums.
- 3) Experiment with exhibition and program strategies and innovative technologies to enhance the capacity of museums to reach a wider audience through exhibitions and programs.
- 4) Assess the effectiveness of exhibitions and programs in an ongoing evaluation process that encourages revision and experimentation to improve the visitor's experience of learning from objects and exhibits.
- 5) Utilize the growing potential for extending the educational role of museums beyond their walls through electronic media, and conduct systematic studies to assess the effectiveness of these resources.
- 6) Establish "learning laboratories" in selected museums for research, experimentation, and dissemination of information about exhibitions and program development, implementation, and evaluation as well as

about the special nature of museum learning and museum audiences.¹⁴

Although the recommendations were codified two decades ago, the main concept of museums providing multiple pathways of learning to audiences in order to connect with audiences and enhance their museum experiences still impacts museum practices today. Notably, the fifth recommendation indicates museum professionals expect modern museums to utilize electronic media to provide richer experiences and information to visitors. This underscores the major concern of this study – the issue of museums utilizing digital media supporting visitors to achieve better learning and interpretation of museum objects.

Commonly, museums provide visitors with various interpretive media in the physical environment. Museums traditionally utilize text-based materials, public programs and environment in order to interpret collections in exhibitions. Text-based materials involve labels and printed materials with related information (brochures, museums' publications...etc.); public programs include public tours, or any interactive, participatory programs for visitors; environment can be defined as the museum's interior and exterior surroundings, its exhibitions, and ambience.¹⁵ Additionally, some museums offer interpretative information through non-print media such as video; or museums install and position interactive media to offer visitors diverse engagement with art. Recently, museums often provide audio / digital tour media (through Mp3 players or free phone calls). These interpretive media engage visitors with orientation, a personalized

¹⁴ *Excellence and Equity: Education and the Public Dimension of Museums*, Washington, DC: American Association of Museums, 1992, p.17

¹⁵ Alexander, Edward P. and Mary Alexander. *Museums in motion: An introduction to the history and functions of museums*. Second Edition. (New York: AltaMira Press. 2008) P. 257- P. 280.

learning experience and information alike. In all, traditional interpretive media act to supplement visitors' ability to self-learn about artworks in their physical environment.

Rethinking Art Interpretation in a Digital Age

Daryl Fischer and Lisa Levinson have discussed how to redefine interpretation in art museums in order to help museums provide successful interpretation to audiences.¹⁶ They describe how the Denver Art Museum (DAM) has focused on the innovation of interpretation project since 1990. After two decades, they have redefined what makes interpretation successful to visitors in art museums.

From the earlier DAM publication *The Denver Art Museum Interpretive Project* (1990), the main focus of interpretation is "on ways of conveying information, and success was measured by visitors' acquisition of knowledge or visual skills."¹⁷ And in the museum's recent publication *New Angle on Interpretation* (2007), the primary mission of interpretation became to focus on "serving visitors with choices." Since that time, the idea of "human connection" has become the major goal for creating interpretation in DAM.¹⁸ In fact, AAM has already noted the importance of connecting with visitors, and supporting visitors' varied learning choices in 1992 (as mentioned above). The difference is DAM wants to convey that successful interpretation not only helps visitors have better educational experiences, it also helps museums better connect to their visitors. Thus, modern museums like DAM have started to see interpretation in a new

¹⁶ Fischer, Daryl, and Lisa Levinson, "Redefining Successful Interpretation in Art Museums." *Curator: The Museum Journal* (2010): 299-324. Web. 20 Nov. 2012.

¹⁷ Ibid.

¹⁸ "Introduction". *New Angle on Interpretation*. Denver Art Museum 2007. Web. Nov. 2012.

way, which allows museums to see beyond interpretation as just an orientation tool. According to Fischer and Levinson's conversation, museums have sought to extend the meaning of traditional interpretation from "object-oriented learning" to "personal meaningful experience".¹⁹ In this sense, museums' interpretation aimed to improve visitors' engagement with artworks. Unlike the traditional idea that interpretation should provide visitors information to teach them about art and cultural heritages, nowadays, audiences do not want to have limited interpretation in their museum experience. In fact, as Lindsey Housel mentions in the discussion, most adult audiences want to engage with artwork through interpretative media. She thought adult audiences "demand and require it (to engage with art successfully), but what they don't want is top-down interpretation or the kind of engagement that museums have typically offered in the past."²⁰ In a sense, most adult audiences want to have multiple interpretive media, to personalize their learning experience and engagement. Housel's arguments point out the idea that museums' visitors should not engage with artworks through a one-way learning, museum-tell-you experience.²¹ Museums need to foster manifold interpretations for visitors. In addition, Housel envisions that museums could also collect data about audiences' feedback and self-interpretation in order to inform further successful, accessible and diverse interpretations.

The new angle of interpretation from DAM is all about offering multiple choices of interpretation and cultivating audience participation. This thought relates to Nina Simon's claim about "Museum 2.0" (a term derived from

¹⁹Fischer, Daryl, and Lisa Levinson. "Redefining Successful Interpretation in Art Museums." *Curator: The Museum Journal* (2010): 299-324. Web. 20 Nov. 2012..

²⁰Ibid

²¹Ibid.

Web 2.0) and its impact on contemporary museum practices. Her book *The Participatory Museum* declares that museums should involve visitor participation.²² Simon and DAM all believe that museums can utilize digital media, especially internet technology, to not only provide accessible knowledge to broader audiences but also engage larger audiences.

The transformation and innovation of museum interpretation cannot occur without digital technology. Most modern museums have thought to publish their content (e.g. collection archives, relevant information, historical resources...etc.) on their website. Increasingly, museums provide as much information through digital programs online as they did on site. Museums' websites are becoming a new interpretive media to online visitors.

Indeed, digital interpretation makes it possible to provide different audiences with different museum experiences. The question then is how do we define successful digital interpretation? Many museums digitize traditional interpretation by simply copying existing textual labels and audio tours onto their website. This is merely digitization of existing interpretation. In order to create deeper digital interpretation, museums have to understand the language of digital media. In the essay "Museums and Virtuality" from the book *Museum in a Digital Age*, Klaus Müller thinks "virtuality" is a new medium to transmit museums' messages, and it enables and benefits museums to create multiple interpretive programs.

Müller's term "virtuality" obviously implies that Internet technology cannot replace reality. Yet, "virtuality" can bring nearly real images to broader

²² For a discussion of "Museum 2.0" and the participation in museum, see Nina Simon's "From Me to We." *The Participatory Museum*. P.85 – P.126.

audiences. Virtuality helps museums to develop supplementary online museums (whether virtual museums or web museums), and it promotes visitors' learning experience, unbounded by time and space.²³ Yet, some museums have put virtual features on their websites without careful consideration. Before museums develop any new website features, they should consider whether the digital feature is necessary to supplement limited interpretation at their physical site.

Most of today's museums have an official website, and some museums utilize the web as a platform for digital interpretation. Museums can provide complementary information on their website in order to support visitor self-learning. Also, some museums now serve augmented media to visitors.

Augmented media is novel interpretive media which usually can be used by mobile devices (e.g. personal cell phone). The term "augment" was adopted from a digital technology term "augmented reality"(AR).²⁴ Augmented media goes beyond traditional audio clips by providing audio tours with visual elements to support visitors' engagement with nearly authentic perception. At the 2007 Museum and the Web conference, Beth Twiss-Garrity and Matthew Fisher investigated the impact of Web 2.0 on museums –

Remixing Exhibits: Constructing participatory narratives with on-line tools to augment museum experiences. There, they described how augmentation tools could successfully enrich museum visitors' experience.

Successful digital media can provide visitors access to both virtual experience and in-person experience. With Nina Simon's and other professionals' blessing,

²³ Din, Herminia, and William B. Crow. "Blurred Boundaries: Museums Unfixed in Place And Time." *Museum (Washington, D.C.)* 88.4 (2009): 44-49. *Art Abstracts (H.W.Wilson)*. Web. 30 September. 2012.

²⁴ To discuss more about augmented reality in museum field, see Shelley Mannion's "Beyond Cool: Making Mobile Augmented Reality Work for Museum Education." *museumsandtheweb.com*. Museum and Web 2012. 13 Oct. 2012. Web..

new media or digital technology may play an expanding role to enhance visitors' multilayer interpretation and experience of art. There have however been arguments against museums interpreting art digitally. A century ago, many scholars and philosophers such as Walter Benjamin argued whether reproduction would replace authentic works of art. At the time, Benjamin worried people would ignore the existing "aura" after people got used to seeing a majority of art reproduction as copies.²⁵ Today, we may still face similar controversies wherein scholars worry whether museums overuse digital media to replace traditional interpretation. They worry that museums may try to flaunt their high technology to present nearly real objects. The concern is not whether museums should digitize museums' content, but about whether museums utilize digital interpretive media thoughtfully. Undeniably, digital technology plus Internet media can enable startling effects for museums. For instance, many children's museums are well aware they can provide game learning approaches. Such effects can attract young audiences' attention, but museums should not turn into an amusement parks or video game arcades.

In order to avoid museums creating unnecessary interpretive media, DAM recommends that museums examine the cycle: "innovation = experimentation – > evaluation –> iteration."²⁶ In this way, no matter what museums create, physical interpretive media or digital interpretive media, they can follow the DAM cycle to create the most accessible interpretations in the future.

²⁵ Benjamin, Walter. "The work of Art in the Age of Mechanical Reproduction." *Illuminations: Essays and Reflections*. Schocken; first Schocken paperback edition. January, 1969.

²⁶ Fischer, Daryl, and Lisa Levinson. "Redefining Successful Interpretation in Art Museums." *Curator: The Museum Journal* (2010): 299-324. Web. 20 Nov. 2012.

3 / METHODOLOGY

In this study I aim to define the relationship between museums utilizing digital interpretive media and physical interpretive media. I attempted to conduct this study from the audience's (or the visitor's) perspective to evaluate several museums' specific collections and the multiple interpretive media through engaging in (1) **onsite visits** and (2) **online visits**. Research was completed in 2012 and based on three cultural institutions in the Philadelphia area.

The Sites

The three museums chosen for the case studies – the Philadelphia Museum of Art, The Barnes Foundation, and the Rosenbach Museum and Library – are located in the Philadelphia area and represent cultural institutions that have digitized collections and interpretation.

Philadelphia Museum of Art

The Philadelphia Museum of Art (PMA) has over a hundred and twenty-five year history in the city of Philadelphia. The PMA “seeks to preserve, enhance, interpret, and extend the reach of its great collections in particular, and the visual arts in general, to an increasingly diverse audience as a source of delight,

illumination, and lifelong learning.”²⁷The museum has developed various media bring to the public their collections of art both in the physical museum space and the virtual environment of the museum’s website.

The museum holds collections of art from Western and Eastern cultures. The museum highlights their European art collection, modern art collection, and contemporary art collection in particular. In this study, I focused upon the Impressionist art collection and the Modern and Contemporary art within the museum.

Along with many museums consider digitizing collections and programs in a digital age, PMA has digitized collections and placed them on their website. In addition, the museum created supplemental programs on the website to provide audiences with opportunities to get closer to the museum and its art.

The Barnes Foundation

The Barnes Foundation (Barnes) is an art and horticultural institution in Philadelphia. Dr. Albert C. Barnes and his wife Laura L. Barnes created the foundation in 1922. Originally, the Barnes was located in Merion, a suburb of Philadelphia. In 2012, the new Barnes campus re-located to Center City Philadelphia, and it re-opened to the public in May of 2012.

Dr. Barnes had rich art collections that include western masterpieces (e.g. Impressionism, post-Impressionist, early Modern, decorative arts...etc.), African sculptures and metalwork. The Barnes’ mission is: “the advancement of

²⁷ Philadelphia Museum of Art website. <http://www.philamuseum.org/information/43-323.html> .

education and the appreciation of the fine arts,"²⁸ which shows the Barnes' explicit concern for art education of the public. The new Barnes site employs digital media to provide information and interpretation to its audiences - an example of a museum utilizing online tools to support onsite.

The Rosenbach Museum and Library

The Rosenbach Museum and Library (Rosenbach) is a small American historical institution in Center City Philadelphia. The institution has a rich collection of rare books, manuscripts, historical objects, and fine arts objects. The Rosenbach is renowned for its library and its collection of rare literature.

The museum and its library were founded in 1954 by bequest of the Rosenbach brothers, Dr. A.S.W. and Philip Rosenbach. According to the official website, the institution "seeks to inspire curiosity, inquiry, and creativity by engaging broad audiences in exhibitions, programs, and research based on its collections."

Unlike the other museums in this study, the Rosenbach museum has some limitations to their audience's engagement at both their physical site and digital site. For example some collections are visible only to those participating in public tours.

The Method

In order to evaluate each museum's interpretation in multiple ways, I posed as an audience member to explore their interpretive media, both physical and digital. In the study, I chose two different art objects from each site to examine the museum's interpretation in both online and onsite visits. The chosen objects

²⁸ The Barnes Foundation website, <http://www.barnesfoundation.org/about/mission>

had to fit specific criteria: they had to belong to the museum's permanent collection. The case studies could not include any object from a traveling exhibition or any object borrowed from another institution.²⁹ Two different objects within the same institution/museum were chosen to represent how (1) an artwork can be interpreted through physical media, and digital interpretive media can enrich and supplement the physical interpretation for an audience; (2) a work of art that cannot be fully interpreted through either physical interpretive media or digital interpretive media alone. The second object demonstrates limitations to engagement either in the physical interpretation or the digital interpretation.

This study has been conducted by evaluating museums' interpretive media through an audience's experience of an onsite visit and an online visit to the three target institutions. In order to understand the similarities and dissimilarities of museums' digital interpretation and physical interpretation, I created a framework (see table 1 in Chapter 4) to codify the museums' interpretive media by studying the same artwork across both interpretive media. Since different institutions would interpret similar artwork from different perspectives, I span three cultural institutions in my study.

This study aims to expose the challenges that museums face in using digital interpretation: the concern that digital interpretive media might replace physical interpretive media has been debated in the museum field. Many museums have shown how digital technology can be an effective part of museums' communication. Museums can indeed enrich their interpretation of objects through utilizing and developing digital interpretive media appropriately.

²⁹ The traveling collection and borrowed collection may affect different interpretive media and programs (even the meaning of the collection) in the displayed museum and the owner museum. This study does not want to include this limitation.

Although digital interpretation is a new trend in museum practice, some institutions do not fully understand the purpose and meaning of digital interpretation. Digital interpretation is a supplement to physical interpretation, not a wholesale replacement. Palpable, human sensation cannot be replaced or ignored. Additionally, a piece of art comprises not only its descriptive data, it also relates to aesthetic appreciation. Digital media might be able to mitigate the limitations of time and space, represent the art, and provide users varied experiences.

Yet, there exist many limitations or challenges with digital interpretive media. The study aims to also define the boundary between digital interpretation of art and physical interpretation of art in museums, which will be addressed in the next chapter. In the future, museums may weigh these suggestions and recommendations to create a better relationship between the uses of both mediums, tailored to the museums' missions and purposes.

4 / CASE STUDIES

In Chapter 2, I introduced traditional interpretive media in museums. Also, I investigated how the theory of digital interpretation has been implemented in museums, from philosophical and sociological perspectives. To see if these theories are tenable, I measured various features of three museums' interpretive media. Chapter 3 explained the method used for the evaluation. Now Chapter 4 delineates the case studies' findings along with the results of my analysis of museums utilizing digital interpretive media to communicate about art with their audience.

In the following sections, I present three case studies: the Philadelphia Museum of Art, The Barnes Foundation, and The Rosenbach Museum and Library. In the beginning, the evaluation table (Table 1) presents my research data in case studies. The evaluation table includes museums' interpretive media both on the physical sites and the websites. The research was conducted from May 2012 to October 2012, in order to assess how museums today define and utilize interpretation via new media.

The final goal of the case studies is to verify the thesis: digital interpretive media cannot replace traditional interpretation on the physical site, but successful digital interpretation can provide visitors multilayer interpretation with multiple choices.

Evaluation Table:

Interpretive Media		PMA		Barnes		Rosenbach	
		Object A1	Object A2	Object B1	Object B2	Object C1	Object C2
ONSITE	Text Information	X	X			X	
	Print Materials	X		X	X		
	Public Programs	X	X	X	X		X
	Audio Media	X		X	X		
	Interactive Media						
	Exhibitions	X	X	X	X	X	X
	Multimedia					X	
	Special Events					X	X
ONLINE	Text Information	X	X	X	X	X	X
	Image Display	X	X	X	X	X	X
	Online Tour	X					
	Multimedia					X	
	Interactive Media						
	Online Exhibition						
	Scholarly Resources	X	X			X	
	Sociality	X	X				

Table 1: Evaluation of interpretive media within PMA, Barnes and Rosenbach. (Jun. – Oct. 2012)

<ONSITE DEFINITION>

Text Materials: such as labels.

Print Materials: brochures, guidebooks, handouts, museum's publications.

Public Programs: public tours/ docent tours, school tours, family programs...etc.

Audio Media: audio tours.

Multimedia: videos, slide shows.

Special Events: lectures, curator's talks, artist's talks.

<ONLINE DEFINITION>

Multimedia: videos, slide shows.

Scholarly Resources: relevant research, bibliographies.

Sociality: social tag, social media feature.

Case A: Reviewing Traditional Interpretation and Digital Interpretation in the Philadelphia Museum of Art

In my case study of the Philadelphia Museum of Art (PMA), the first object I chose was the French artist Paul Cézanne's painting – *The Large Bathers* (1900-1906, Figure 1) from its “European Painting before 1900, Johnson Collection”. With this first example from the PMA, I examine the museum's traditional interpretive media to explore whether they offer multilayer interpretation to most visitors. In addition, I compared the similarity and dissimilarity of PMA's digital interpretive media with its traditional interpretive media.

The second example, taken from the “Modern and Contemporary Art gallery”, is the artist Marcel Duchamp's installation artwork (Figure 5)– *Étant donnés: 1° la chute d'eau, 2° le gaz d'éclairage . . . / Given: 1. The Waterfall, 2. The Illuminating Gas . . . (Given)*. Afterwards, I examined interpretive media for engaging *Given* on the physical site and the virtual site (online), to explore whether museums should utilize digital media in interpreting art.



(Figure 1. *The Large Bathers*, 1900-1906. Created by Paul Cézanne. This painting has been conserved and displayed in the Philadelphia Museum of Art. Image source: Philadelphia Museum of Art's website.)

Text-Based Media

ONSITE: Onsite visitors can usually find relevant information from the label next to the painting. A text label shows general information about the artwork, such as the name of the artist / maker, the size of object, what media were used, etc.

709 (AUDIO TOUR)

Paul Cézanne

The Large Bathers

French, 1839 - 1906

Oil on canvas

82 7/8 x 98 3/4 inches (210.5 x 250.8 cm)

This is the largest, the last, and in many ways, the most ambitious work from Cézanne's lifelong exploration of the time-honored theme of nudes in a landscape. It is also, perhaps, in its unfinished state, the purest and most serene witness to the man whom Paul Gauguin described as spending "entire days on mountaintops reading Virgil," dreaming of wooded glades populated with beautiful figures who, if not exactly participants in a narrative as such, are full of animation and interaction. Perhaps it is its grand nobility—its authority as something beyond time, "like art in the museums," as Cézanne said—that made it so attractive to many artists.

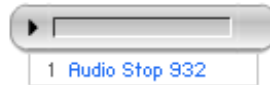
(Figure 2. *The Large Bathers*' text label.)

This label could affect visitors' understanding of the artwork from its short introduction to the painting. For instance, visitors learn that this painting is from the French Impressionist artist, Paul Cézanne. And, this painting is probably his largest and the last painting in a series. Notably, this oil painting might have remained unfinished.

In this type of traditional interpretive media, PMA summarized information highlights for visitors' individual interpreting the painting. Commonly, text labels are not so large as to distract visitors' attention from the painting itself, so visitors can decide whether they want to read them or not.

Text materials are very fundamental and traditional interpretive media in museums. Text provides a meaning or message literally. Beyond a text label or wall panel, many museums also provide exhibition brochures or other printed materials (such as museum's publications) to support their audiences' onsite visit.

ONLINE: The same or similar information is also placed on PMA's website (see Figure 3). It is very common for museums to place text information on their website to offer audiences a more flexible option to engage with the art and interpretation. For example, casual walk-in visitors may not have prepared information to help them interpret artworks in the exhibition. And, this visitor attracted by Paul Cézanne's *The Large Bather* may know little of Cézanne, or Impressionism. This visitor is able to self-learn more about the artist and his works on the museum's website. Furthermore, PMA provides even more supportive information and media to online users who have an interest in the painting, the artist, and other artworks of the same classification. Additionally, PMA displays relevant information from their publications (such as a guidebook or other bibliographies).



European Painting before 1900, Johnson Collection

The Large Bathers

Made in France, Europe
1900-1906

Paul Cézanne, French, 1839 - 1906

Oil on canvas
82 7/8 x 98 3/4 inches (210.5 x 250.8 cm)

* Gallery 164, European Art 1850-1900, first floor
(Women's Committee Gallery)

W1937-1-1

Purchased with the W. P. Wilstach Fund, 1937

Explore the Collections

People who love this
also love

74
love it
❤️

This Artist/Maker
Classification
Curatorial

Country of Origin



Label

This is the largest, the last, and in many ways, the most ambitious work from Cézanne's lifelong exploration of the time-honored theme of nudes in a landscape. It is also, perhaps, in its unfinished state, the purest and most serene witness to the man whom Paul Gauguin described as spending "entire days on mountaintops reading Virgil," dreaming of wooded glades populated with beautiful figures who, if not exactly participants in a narrative as such, are full of animation and interaction. Perhaps it is its grand nobility—its authority as something beyond time, "like art in the museums," as Cézanne said—that made it so attractive to many artists.

Social Tags [?]

cezanne [x] colorist [x] design [x] first modern master [x] historical reference [x] influential [x] inspirational [x] media used [x] modern [x] predecessor of cubism [x] revolutionary [x] structural [x] structure [x] tonal [x] transition from old to new [x] turn of the century [x]

(Figure 3: Philadelphia Museum of Art's website; *The Large Bathers*.)

Text-based materials, or written media, can be easily digitized into online space. Most museums overlap written information from traditional interpretation with their digital media, especially on their websites.

Exhibition and Display

ONSITE: *The Large Bathers* is one of the highlights of the PMA's collection.

Exhibition is a commonly used medium that museums employ for interpreting art collections. In contrast to the experience of a single piece of art with perhaps a single label, exhibition involves displaying several works of art in a deliberate environment accompanied by background media. In order to successfully reveal to audiences the communication between art objects, most museums including PMA plan exhibitions based on artwork classification, type, chronology or the artist's biography. In this sense, a successful exhibition offers visitors a clear layout or context to start interpreting and experiencing art.

Public Programs and Tours

Museums also create public programs in order to offer visitors multiple choices for engaging with art. Usually, museums provide tour programs for various age groups. Sometimes, museums also have tours based on different interpretive themes. For example, a visitor can participate in a PMA tour focusing on Cézanne's life, or a visitor can also follow an Impressionist art tour to learn more about the style and background of Impressionism.

ONSITE: A public tour is “personally conducted” interpretive media. Docents or volunteers usually lead a tour consisting of a small group of visitors. Public tours typically provide onsite visitors a general overview of the exhibition and museums’ collections. Visitors participating in a public tour could help other visitors to interpret art. Public tours are usually of limited duration, so it may only be possible to give visitors a general orientation, and as such they usually provide only limited information about individual works of art. However, public tours permit interaction and socialization. In addition, visitors may have different experiences of tours depending on the different docents’ personalities. The presentation styles of different docents will affect onsite visitors interpreting the objects in an exhibition.

Museums develop tours in order to interpret museum messages and explain the concepts underpinning their collections. A tour is a fundamental interpretive media for a museum. As Edward and Mary Alexander state, museum tours “may be divided into two chief classes – self-guided and personally conducted.”³⁰ A docent tour is a personally conducted program; an audio tour is a self-guided program. Most museums today have applied audio tours delivered by carrying an electronic device (such as MP3 player). Onsite visitors can play the audio tour while they traverse the exhibition. PMA provides mobile tours for their permanent collection that visitors can access free tour programs using their personal cell phone.

From the audio tour, I learned that the figures in the painting came from the artist’s imagination. The nude women in the painting were inspired by images of

³⁰ Alexander, Edward P. and Mary Alexander. *Museums in motion: An introduction to the history and functions of museums*. Second Edition. (New York: AltaMira Press. 2008) P.261.

ancient nymphs. One of the nudes on the left side of the painting mimics an ancient statue of Venus, which Cézanne had sketched many times at The Louvre.³¹ An ordinary visitor might not notice this detail without listening to the museum's interpretive media. Multilayer interpretation thus impacts a visitor's interests to explore art.

ONLINE: PMA also provides audio tours online. Essentially, the content of digital tours overlaps that from the traditional interpretation.

PMA's digital interpretation on their website basically overlaps their physical interpretation. Why then do museums need to offer it? A notable example from my study of PMA's interpretive media involves the original inspiration for one of the nymphs in *The Large Bather*. With only the written information and audio introduction, visitors might still not know what the ancient statue of Venus in The Louvre is. Although the museum's website did not link to supplementary information about it, online visitors could readily "Google" for further information about the statue. I found several possible statue images by searching "ancient statue of Venus in The Louvre". The one I show is *Aphrodite* (also known as the "*Venus de Milo*") from The Louvre Museum's online archives. (See Figure 4)

PMA could create multilayer digital interpretation, offering further historical information and interpretation; digital media actually can be a new media to enrich audiences' art experience. Digital media and Internet technology give visitors a self-guided experience largely unshackled from time and space. Online tours may prepare patrons for onsite visits, after they felt they have been self-educated with the museum's interpretive media at home.

³¹ Sources are from audio tour in the Philadelphia Museum of Art.

Visitors also learn that *The Large Bathers* is part of a series of three paintings. The other two paintings from the same series are not “visible” in the gallery because they are not part of PMA’s collection. And the museum cannot present images of the other two paintings due to copyright restrictions.



(Figure 4: *Aphrodite*, also known as the "*Venus de Milo*". Image source: Louvre Museum’s website.)

My second example, Marcel Duchamp’s work *Étant donnés: 1° la chute d'eau, 2° le gaz d'éclairage . . . / Given: 1. The Waterfall. 2. The Illuminating Gas . . . (Given)*, it is another experience of exploring art in PMA. This work is one of Duchamp’s representative installation works. In order to experience this work, onsite visitors must first enter a small room. Upon entering the room, they find a

wooden antique door in front of them, with an interpretive information label hanging on the wall across the room. The wood door is in fact a part of the art; the rest lies behind the door. When a viewer walks up to the door, they will notice two pinholes in it, and they must then peer through the holes in order to see the art revealed within. Upon doing so they see a female nude supine upon the ground. Her hand is holding a lamp, and we cannot see her face through the pinholes so we do not know if she is awake or alive.



(Figure 5: *Étant donnés: 1° la chute d'eau, 2° le gaz d'éclairage* / English: *Given: 1. The Waterfall, 2. The Illuminating Gas*. Created by Marcel Duchamp. This work of art has been conserved and displayed in the Philadelphia Museum of Art. Image source: Philadelphia Museum of Art's Web.)

Text-Based Media

ONSITE: The concept of *Given* is unclear on the label. PMA did not provide as much information as they did on their written interpretation of *The Large Bather*. Perhaps the museum provides less information on site because the artwork

includes visitor participation and interactive activities. As such, PMA only provides general information on *Given* such as its chronology, materials, and its artist's name and nationality.

ONLINE: PMA's website offers the same written information as the onsite label.

The website collates all relevant information from the museum's interpretive media. Online users are offered a chapter about Duchamp's *Given* from *Twentieth-Century Painting and Sculpture in the Philadelphia Museum of Art*. According to the guidebook, *Given* is the artist's final work, and has been installed at PMA since 1969.

The unsuspecting viewer encounters a spectacular sight: a naked woman lying spread-eagled on a bed of twigs and fallen leaves. In her left hand, this life-size mannequin holds aloft an old-fashioned gas lamp of the Bec Auer type, while behind her, in the far distance, a lush landscape rises toward the horizon. This illuminated backdrop consists of a retouched photograph of a hilly landscape with a dense cluster of trees outlined against a hazy turquoise sky. The only movement in the otherwise eerily still grotto is a sparkling waterfall, actually a flickering light source powered by an unseen motor, which pours into a lake on the right.³²

The interpretation comes from the museum's art historians and educators. Normally, visitors cannot access such a clear description on site, unless they read the guidebook in the museum's library or store. Yet, online the PMA now provides access to their own publications in order to support visitors having a multilayer interpretative experience.

³² Philadelphia Museum of Art Web.
<http://www.philamuseum.org/collections/permanent/65633.html?mulR=9843>|1

Exhibitions and Display

ONSITE: Duchamp's *Given* is part of PMA's permanent exhibition. A number of Duchamp's creations have been assembled in the gallery. Duchamp's works are presented in a permanent Duchamp exhibition.

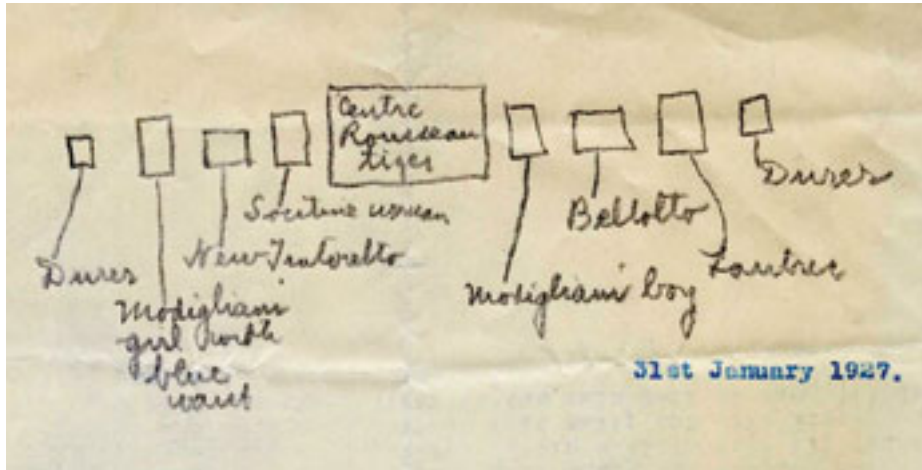
Public Programs and Tours

In order to learn more about *Given*, the PMA provides more than one public program covering Duchamp's art. One of the public tours I followed was the "Marcel Duchamp tour" in which the docent focuses only on Duchamp's work along with other artists who influenced Duchamp or who were influenced by Duchamp. The docent-led exposition led from Duchamp's early artworks to his last works. Through the tour, we were informed that the concept of Duchamp's *Given* is to transform an audience member from a viewer to an advocate. Audiences' activities and interaction are part of the installation's motivation. This work indeed requires visitors' participation. *Given* can only be completed through visitors peering through the pinholes on site.

Research Question (1): Can digital media interpret every kind of artwork?

Duchamp's installation work *Given* illustrates the limitations of digital interpretation. Because of the artist's concept and wishes, *Given* requires physical interaction in order to complete the visitors' experience. Clearly not every artwork can be adequately interpreted through textual and visual media. For art characterized by this complexity, a museum may struggle as to how to present it to patrons in full authenticity.

Case B: Portable Interpretation in The Barnes Foundation



(Figure 7: Exhibition *Ensemble: Albert C. Barnes and the Experiment in Education* in the Barnes Foundation from May 2012 to March 2013. Image credit: The Barnes Foundation.)

Between 1912 and 1951, Albert C. Barnes assembled one of the world's most important holdings of post-impressionist and early modern art, acquiring works by avant-garde European and American artists. Barnes continually experimented with the display of his collection, arranging and rearranging the works in ensembles, symmetrical wall compositions organized according to the formal principles of light, line, color, and space, rather than by chronology, nationality, style, or genre.

The ensembles changed as Barnes made acquisitions, trades and new visual connections between the holdings, which diversified with the addition of African sculpture, antiquities, Asian art, Native American ceramics, jewelry, and textiles, manuscripts, old master paintings, and European and American decorative and industrial arts. Integrating art and craft, and objects from across cultures and time periods, Barnes

*sought to demonstrate the continuity of artistic traditions and the universal impulse for creative expression.*³³

In order to explore how different institutions interpret similar artworks, I also chose Paul Cézanne's painting: *The Large Bathers* (1895-1906), from the series of Cézanne's *Bathers* collection, to examine similar art with different interpretation across two museums. For the second Barnes example, I chose Matisse's mural *The Dance* to demonstrate the challenge of digital interpretation at The Barnes Foundation (Barnes).

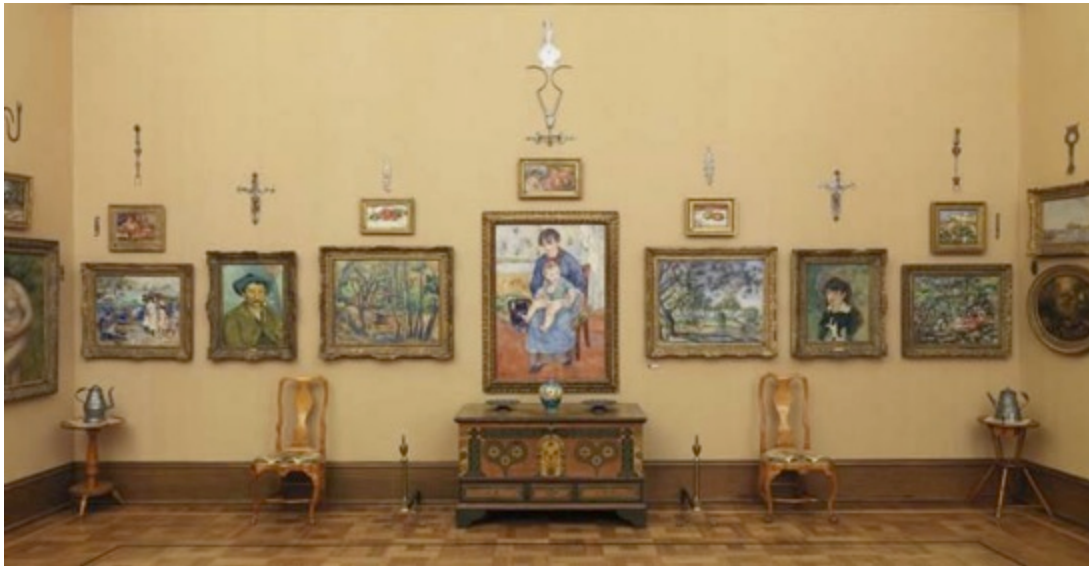
In contrast to practice at most art museums, these exhibits mirror Dr. Barnes's personal collections of art. In the galleries, Barnes displays no labels and little text information. Instead, Barnes offers digital / audio interpretive media and docent tours to interpret collections and exhibitions.

Exhibitions and Display

In the exhibition *Ensemble: Albert C. Barnes and the Experiment in Education*, the Barnes displays combine various media: paintings, sculptures and objects all are presented together (see Figure 6). When Dr. Barnes was alive, he assembled the collections using his special view – calling them “the ensembles”. Dr. Barnes displayed collections of masterpieces (such as those

³³ The introduction of exhibition, *Ensemble: Albert C. Barnes and the Experiment in Education*, in the Barnes Foundation. <http://www.barnesfoundation.org/exhibitions/ensemble>

by Cézanne or Van Gogh) along with ordinary objects that may reflect the line or the shape from the paintings. The Barnes desires to represent Dr. Barnes's "ensembles" by exhibiting collections true to the arrangement of Dr. Barnes's house. Thus, the museum's interpretation often embodies Dr. Barnes's perspective, one with less detailed interpretation of individual artworks.



(Figure 6: Exhibition *Ensemble: Albert C. Barnes and the Experiment in Education* in the Barnes Foundation from May 2012 to March 2013. Image credit: The Barnes Foundation's website.)

The purpose of the exhibition is to interpret art from Dr. Barnes's perspective. The museum claims that they do not limit audiences to interpreting the art by Dr. Barnes's view. The Barnes nevertheless employs Dr. Barnes's interpretation of art and object: that objects should be treated as equals to masterpieces.

Digital Tours and Public Tours

The Barnes uses a mobile digital tour to offer visitors a self-guiding experience of the museum's exhibits. The museum collaborated with an interactive media design firm – *GuideOne*, to create this program. The Barnes provides extensive information through their digital guide, including an introduction to Dr. Barnes and to the museum's architecture. Visitors can also find general information such as a museum map using the digital guide. The museum provides free Wifi to help visitors access their digital guide. Thus at the Barnes, visitors can utilize online digital media to support their visit to the onsite exhibition.

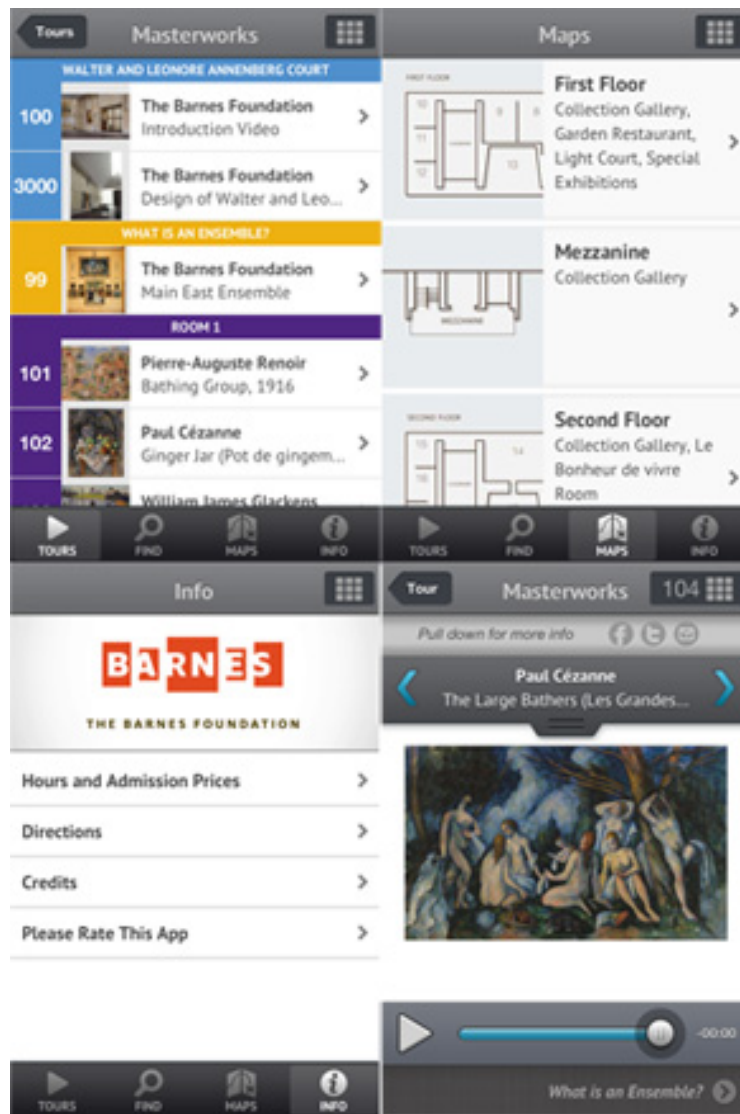
During an onsite visit, visitors can choose if they want to access the digital tour (a free download from Apple's App Store) through their personal cell phone or via a player borrowed from the museum. Visitors may also choose to make an appointment to participate in a public tour (at an additional charge). Although there is no rule requiring visitors to use interpretive media to visit the collections, most visitors follow either the digital tour or a public tour to explore the collections and the exhibition. There are no labels in the gallery. For visitors who do not avail themselves of the digital tour or the public tour, the museum provides several printed booklets to visitors for identifying the art in each room. Still, the booklets only provide the numbers and the titles of the works, and include no interpretive information. Of the three museums, the Barnes used the least text materials in their physical environment.

The content of both the digital tour and the public tour basically overlap. Choosing is a matter of personal preference and need. Visitors who do not use smartphones and who do not want to rent them from the museum, may join a public tour so that they can interact with the docent.



(Figure 8: Digital player app in The Barnes Foundation. Image source: GuideOne's Website <http://guideonemobile.com/apps/barnes>)

Due to time limitations, docents cannot provide information on every object. In the case of *The Large Bathers* (1895-1906), my docent spent little time explaining the art and artist, and instead emphasized how and why Dr. Barnes presents the work in combination with other collections and objects. Visitors opting for the digital tour can choose which works they want to explore and in how much depth.



(Figure 9: Features on the Barnes's digital player app. Image source: Personal cell phone.)

The digital tour analyzed Cézanne's painting in terms of his creative skills and from an art historical perspective. The painting demonstrates how Cézanne tried to enhance painted human figures and make them three-dimensional. This painting and another, *The Large Bathers* (1900-1906, Figure 10), in the PMA, both reveal the artist's ambitious rule-breaking and intention to subvert

traditional aesthetics. The audience could also learn of Dr. Barnes' friendship with Cézanne from the online tour. Dr. Barnes may have been the first American collector to appreciate Cézanne.



(Figure 10: *The Large Bathers*, 1900-1906. Created by Paul Cézanne. This painting has been conserved and displayed in The Barnes Foundation. Image source: The Barnes Foundation website.)

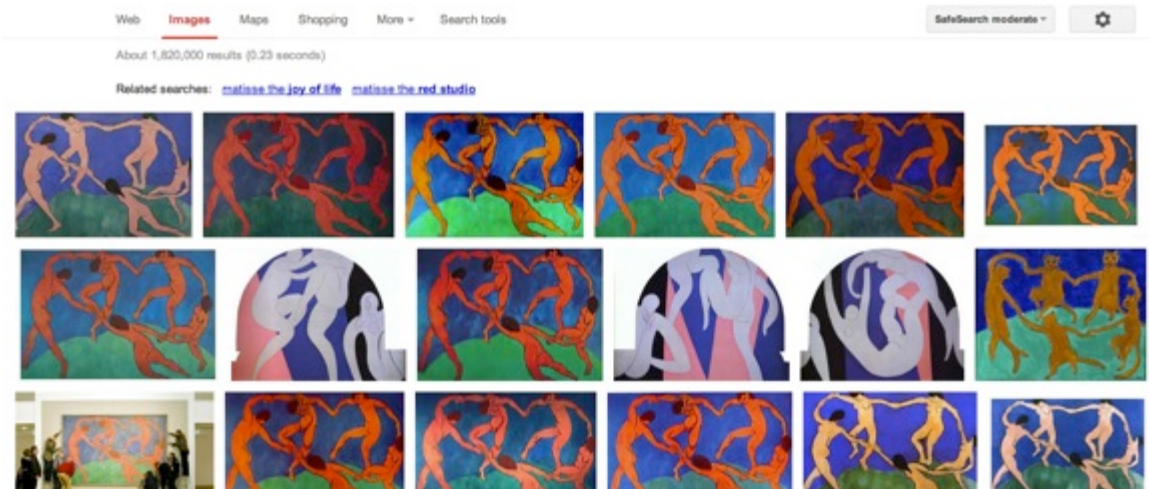
The issue of limited interpretation in the Barnes is also shown in another example, Matisse's *The Dance*, from the same exhibition. The second example in the Barnes – Matisse's *The Dance* – was also subdued, limited in terms of its interpretation and display (see Figure 11).



(Figure 11: *The Dance*, 1932–1933. Created by Henri Matisse. This painting has been conserved and displayed in The Barnes Foundation. Image source: The Barnes Foundation's Web.)

According to the museum's digital tour, this work originated from Dr. Barnes asking Matisse to create this mural in his house. *The Dance* was actually inspired by his earlier works *Dance* series of paintings (Figure 12, searching result from *Google*).

As a visitor I hoped to learn more about the friendship between Dr. Barnes and the artist, or about how Matisse created the mural or how the museum conserves its art. My docent did not have time to discuss this masterpiece due to emphases on other information.



(Figure 12: Searching results of 'Matisse, The Dance' from *Google*.)

The Barnes' Website and Other Internet-based Media

In contrast to the PMA's providing digital tours (audio tours) both onsite and online, the Barnes website users find hardly any online text information interpreting art. The Barnes displays digital images of the artwork along with general information (e.g. artist's name and life dates), yet the Barnes does not offer as many online features as the PMA website.

While the Barnes does not publish their digital tour on their website, visitors can download their digital guide tour to their iPhone whether they are in the gallery or not. The result is that online visitors cannot access much more information than onsite visitors. Perhaps the museum has their own reasons for not supplying all the information and interpretation of art online. Or, their major mission is to utilize digital media to replace traditional text media on the site, because there are so few labels.

Thus, the Barnes did not digitize traditional interpretation, but instead it created a new media guide. In that case, visitors are left with few options of interpretative media onsite: engaging with a machine or engaging with docents, or, they can engage with artworks directly without any instruction from the museum.

OCTOBER 17, 2012

Premium tickets are now available for weekends at 9 am – enjoy the collection with a limited number of guests.



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Paul Cézanne
French, 1839–1906

The Large Bathers (Les Grandes baigneuses)

1895–1906
Oil on canvas
52 1/8 x 86 1/4 in. (132.4 x
219.1 cm)
BF934

★ HIGHLIGHTS

Image © 2012 The Barnes
Foundation

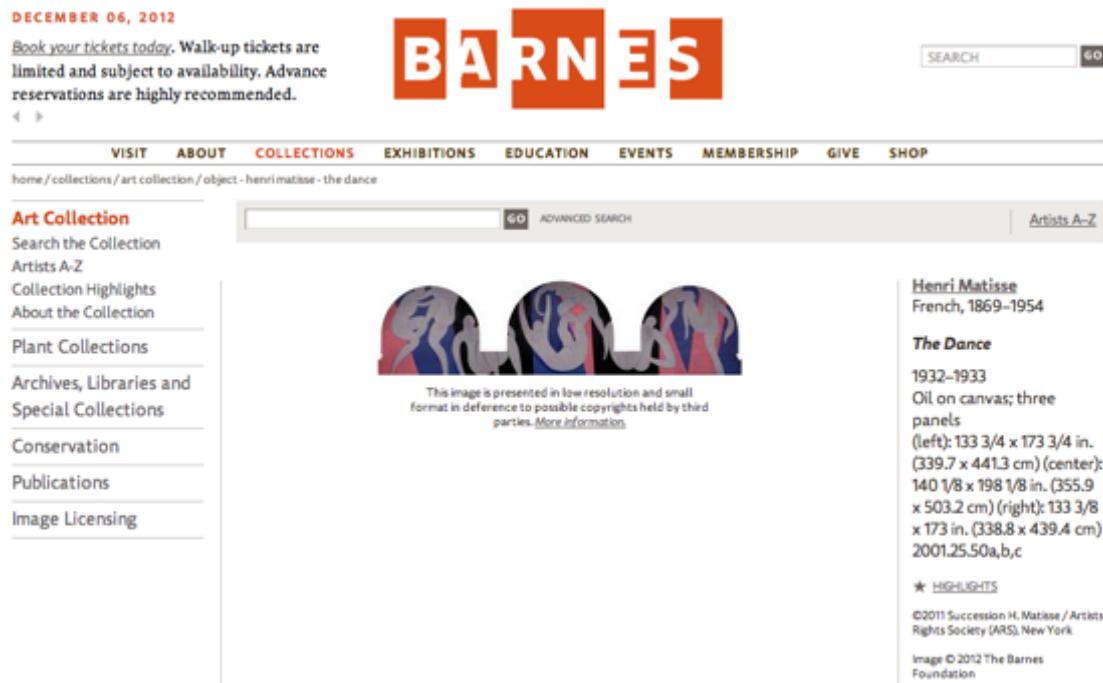
Please note that the cataloging
information included in these pages
is in the process of review and
subject to change.

(Figure 13: The Barnes Foundation's Web; *The Large Bathers*.)

A Google search for *The Large Bathers* (1895-1906) resulted in 303,600 images and 1,060,000 relevant websites, about the same as my earlier search for *The Large Bathers* in the Philadelphia Museum of Art. Cézanne's *The Bathers* collection is one of his most famous collections. It is no surprise that there are so many results for Cézanne's *The Bathers* Series from Google. However, most of the search results are either exhibition reports (exhibitions which display/ displayed Cézanne's work) or educational academic resources from historical scholarship such as the Khan Academy³⁴. The question is, would people want to explore Cézanne's painting through any of these sites? An art history student or scholar may consider visiting these sites, but for an art lover or a museumgoer, exploring art through 1,060,000 websites is not a pleasant way to experience

³⁴ The Khan Academy is a non-profit organization that provides online education to everyone for free. <http://www.khanacademy.org/about>

art. In addition, the general public is unable to confirm the authority of these resources. For these reasons, art fans may prefer visiting museums when they want to be close to art and converse with these masters; it is about public trust, entertainment and enjoyment.



(Figure 14: The Barnes Foundation's Web; *The Dance*.)

Research Question (2): Can a museum's digital interpretation extend audiences' museum experience and engagement with art objects? Or does this limit visitors' interpretation?

With the two examples in the Barnes, the museum does use digital media to interpret collections and guide visitors to experience the exhibition. However, the Barnes might be overusing digital media to replace traditional interpretive media wholesale, thereby limiting the audiences' visiting experience. Most

visitors wear headphones in order to use the digital tour. Yet, the Barnes does not offer visitors an open and equal platform for communication and self-learning.

Case C: Limitation of Art Interpretation in Rosenbach Museum and Library.

At the Rosenbach Museum and Library (Rosenbach), I chose Maurice Sendak's work *The Chertoff Mural* (see Figure 15) as the first example for case study, along with Thomas Sully's painting: *Fanny Kemble as Julia* (see Figure 18) as my second example. Each requires a different approach to interpret.



(Figure 15: *The Chertoff Mural*. Created by Maurice Sendak. The work of art has been conserved and displayed in The Rosenbach Museum and Library. Image source: The Rosenbach Museum and Library's website.)

Exhibition and Display

ONSITE: The first object, *The Chertoff Mural*, has been displayed in the current exhibition – *Maurice Sendak: A Legacy* (June 10, 2012 - May 26, 2013) to honor

the legendary artist's life and works. Visitors do not need to make a reservation to join a tour of this exhibit, which presents Sendak's artworks and his lifelike stories. Maurice Sendak is a notable artist who created many children's books. He died in May of 2012. In a recent interview for the television show "The Colbert Report", Sendak stated he did not draw the books for children, he just drew, and people defined his works as children's books. The exhibition *Maurice Sendak: A Legacy* purposes to interpret Sendak's fascinating artworks to remind the public of his legacy.

The mural was a gift that the artist Sendak painted on the wall of some friends' apartment in New York in 1961. The characters portrayed include Sendak's dog, Jennie, and some fictional characters from Sendak's books. At its exhibition, the Rosenbach displays the actual mural on the wall along with labels describing how this work was moved from the apartment in New York City. Within the exhibition, visitors can also see Sendak's notable achievements such as *Where the Wild Things Are* (1963) and *In the Night Kitchen* (1970). Additionally, the museum displays Sendak's mural artwork donated by his friends Nina and Larry Chertoff. The Rosenbach owns over 10,000 pieces of Sendak's work, which cover a period from the 1940s to 2012. The exhibition recalls Sendak by presenting his works in order to explore the man and his legend.

Text-based Materials

The exhibition's written media present information to describe Sendak's background and his works through wall panels: *In Memoriam: Maurice Sendak (1928-2012)* and *Maurice Sendak Biography and Timeline*. The museum

illustrates the relationship of Sendak and Rosenbach by *Why is Sendak at the Rosenbach?* The exhibit successfully interprets Sendak's story through his works. This written information can be seen on both the physical site and the digital site.

Audio and Visual Media

The Rosenbach offers videos, including one showing how curators removed the wall from the Chertoff's apartment, along with an interview with Nina and Larry Chertoff, the owners of the mural, discussing their memories of Sendak and his work, and an introduction of the characters on the mural. Also, this video can be viewed on both the physical site and the website.



(Figure 16: Exhibition *Maurice Sendak: A Legacy*. Image source: Author's pictures.)



(Figure 17: The video devises in the exhibition *Maurice Sendak: A Legacy*. Image source: Author's pictures.)

Web-based Interpretation

The Rosenbach museum provides various programs to support audiences in understanding Maurice Sendak and his works: the museum includes videos, texts and images of his work on their website. The museum provides overlapping information (the same as the physical site's information) online, but online users can link to all the interpretation from the same page. The website can help audiences read and learn about the artwork before and after any actual visit.

Special Program (Curators' Talks)

Overall, the Rosenbach does not have spacious rooms to display art, nor do they have modern technical support. Yet, the first example shows the museum tried to convey as many stories as possible about Sendak and his works. The Rosenbach's regular tour does not include the temporary exhibition. Instead, the museum hosted a special program to feature the Rosenbach's curators and what they know about Sendak. The museum also shows some early interviews with Sendak in the exhibition and also on the website. Although the Rosenbach does not create a digital tour tool like the one the Barnes has, I did not feel I had less engagement with this exhibition and the artist.



(Figure 18: *Fanny Kemble as Julia*. Created by Thomas Sully. This painting has been conserved and displayed in The Rosenbach Museum and Library. Image source: The Rosenbach Museum and Library's website.)

The second example, the painting *Fanny Kemble as Julia*, is presented differently. The Rosenbach is a small historical site where some collections can only be seen by participating in public tours. The museum has limited security for protecting their valuable collections. Parts of their collection can only be accessed via public tours, offering traditional interpretation, because the

museum cannot risk allowing visitors to get too close to the collections without supervision. Conversely, Sendak's works are all available for general visiting. The second art object, the painting *Fanny Kemble as Julia*, is unavailable unless visitors participate in docent tours. Furthermore, this painting has little presence on the museum's website.

Public Programs and Tours

ONSITE: During my tour, a docent began by introducing Dr. Rosenbach and his brother. During his life, Dr. Rosenbach was interested in rare literature. Therefore, the museum owns a rich collection of rare books and valuable manuscripts, such as James Joyce's famous novel *Ulysses*. The docent then guides visitors through several rooms that are not always open to the public, such as its library and Marianne Moore collection. Tour participants can see these collections; visitors must make an appointment to visit the library, and they may need to make a reservation to access the rare books.

In the docent tour, visitors were able to see several portraits by famous American painters, such as Gilbert Stuart, Thomas Sully, Bass Otis, Matthew Jouett, and John Wesley Jarvis. Most portrait subjects are Dr. Rosenbach's family and their friends. The painting *Fanny Kemble as Julia* is a painting by Thomas Sully that the artist painted for the famous actress Fanny Kemble. At the time Sully painted the portrait, Kemble was playing Juliet in Shakespeare's play – *Romeo and Juliet*.

Research Question (3): What challenges does a museum utilizing digital media to interpret art face?

Overall, the Rosenbach is endowed with rich collections with attractive stories. Yet, they have limited approaches for viewing their holdings. Even when participating in a tour, it is still time limited. Unlike what the museum has done for its Sendak collection, visitors cannot obtain much information about Thomas Sully and his works on the website.

Perhaps, the Rosenbach does not have the financial resources to create and provide multiple interpretive media. Instead, the museum uses traditional interpretation to convey information to its visitors. Visitors can only stay temporarily in the “private galleries”³⁵.

On site, the museum cannot permit visitors to visit some galleries and collections without a guide, due to security and conservation concerns. Yet, the museum did not offer website or digital approaches as supplementary media to make art collections visible and accessible. The website only provided general information about the Sully painting, and did not display a high quality image of the painting. Audiences can learn little about Thomas Sully and the painting *Fanny Kemble as Julia* except for visiting the museum for a docent tour.

That said, a Google search reveals 116,000 results for “Fanny Kemble as Julia, Thomas Sully”. Still, online users might not be certain which result provides the

³⁵ The Rosenbach did offer a public program: “Thomas Sully’s Ladies: Real, Imagined and Literary,” which could lead visitors to learn more about the **artist** Thomas Sully and his paintings of ladies. Unfortunately, this program was on February 15, 2012 and I did not have a chance to participate.

most authoritative information. Many small institutions like the Rosenbach have reasons behind their limited interpretation. Perhaps it is due to limited finances or staff. These museums should consider the importance of serving visitors with multiple choices of interpretation. But so far, the Rosenbach has not fully used the potential of their museum website as digital interpretative media.

5 / RECOMMENDATIONS FOR FUTURE INTERPRETATION

Having examined many practical examples of today's museums utilizing digital media to interpret art, my study confirms that digital media is a supplemental tool to fulfill audiences' need for knowledge. In Chapter 4: Case Studies, I addressed three research questions. The PMA study answered question **(1) Can digital media interpret every kind of artwork?** using Duchamp's work. Duchamp's *Given* is a 3-D work, a conceptual artwork, that demands audience participation. While the museum may have a way to present *Given* in certain media, the point is, can the artwork be interpreted via modern technology completely and appropriately? For types of art like *Given*, a museum cannot digitize the physical experience for website visitors. Even if a museum mimics a "virtual experience" for visitors (e.g. displays the work in virtual museum space), the authenticity of art is irreplaceable.

At the Barnes, we saw how this museum applied more new media approaches but less traditional media. This illustrates my research question **(2) Can a museum's digital interpretation extend audiences' museum experience and engagement with art objects? Or does this limit visitors' interpretation?** The Barnes perhaps tried to achieve a new way to interpret art simply and neatly. Yet, they may not have noticed that when visitors use their digital (audio) media, it may constrain their engagement with reality and their sensory perception,

reducing them to more passive “listening and watching”. Yet, human sensory experience includes more than just watching and listening.

Lastly, in the case of the Rosenbach, the study of *Fanny Kemble as Julia* answered the question **(3) What challenges does a museum utilizing digital media to interpret art face?** When a small museum suffers physical restrictions, such as limited funds for media development and security, they are often unable to create new interpretative media. Digitizing museums’ collections and creating new interpretation can be costly and time consuming. Also, some museums contain rare collections that are not easily digitized. These are the challenges many museums face in creating new digital media.

Perhaps, small museums and cultural institutions can consider cooperating with media companies to develop interpretation in new media. For instance, many museums today have been shown on the Google Art Project. The Google Art Project today already includes more than 184 cultural institutions in the world, and they present over 36000 works of art (12/06/2012). Museum goers now can explore high-quality collections of art in many museums’ virtual galleries. In a sense, museums can spend less money and time to develop new media than they would on their own.

Finally, these three questions inform our final question **(4) Will digital interpretation replace traditional interpretation on site?** Indeed, the physical sensation of visiting a real site and experiencing an authentic masterpiece can never be replaced by digital technology. With an online visit to a museum’s website (or other professional site), people can only read, watch and listen to

the programs that museums created, learning about art using personal computers (or smart phones). Perhaps one day modern technology can reproduce the full human sensory-tactile experience, but for now we do not want to lose the joy of experiencing art in situ. However, if future technology were to enable us to transmit the full human sensory experience of art, do we want it? It would be quite controversial. Instead of digital media replacing physical media, museums such as the Barnes adopt a new high-tech approach, deploying augmented tools. In contrast to websites as offsite interpretive media, augmented tools are digital media used to supplement onsite experiences. Future museums might effectively combine “virtuality” and physicality together in a real environment.

In the course of the case studies, two significant issues arose regarding digital interpretation. These issues may affect further research:

Issue 1: Decline of Physical Tour Programs and Less Written Materials

There has been a recent trend in art museums of offering fewer physical tours, while also providing less written materials. Museums today can utilize digital approaches such as audio/ digital tours to guide visitors in engaging with artworks. Public tours can be led by trained docents or volunteers. Many museums today have added more digital programming through web and smart phone to provide visitors with flexible and cohesive tour programs. Also, fewer museums provide exhibition brochures to visitors today. Written materials are digitized and presented on interactive digital devices on the side and on museums' websites.

In using more digital tours to replace docent tours and printed media, museums save the expense of docent training and of printing. Digital tours also let visitors go at their own pace. Without the need to plan time or make reservations, visitors enjoy much more flexible interpretive approaches.

Issue 2: Digital Interpretation Restricts Visitors Interpretation and Experience in Museums.

There is some concern whether museums using digital media would extend visitors' self-learning experiences, or would end up limiting visitors' individual interpretation. In fact, both are possible. While museums argue whether digital interpretation could replace physical interpretation, museums might forget that digital interpretation aims to solve many limitations of physical media. Digital interpretive media should be used to extend audiences' experiences and also to enrich museums' interpretation to offer multilayered choices. Yet, some museums such as the Barnes may overuse digital interpretation to offer visitors only the single interpretation the museum has elaborated.

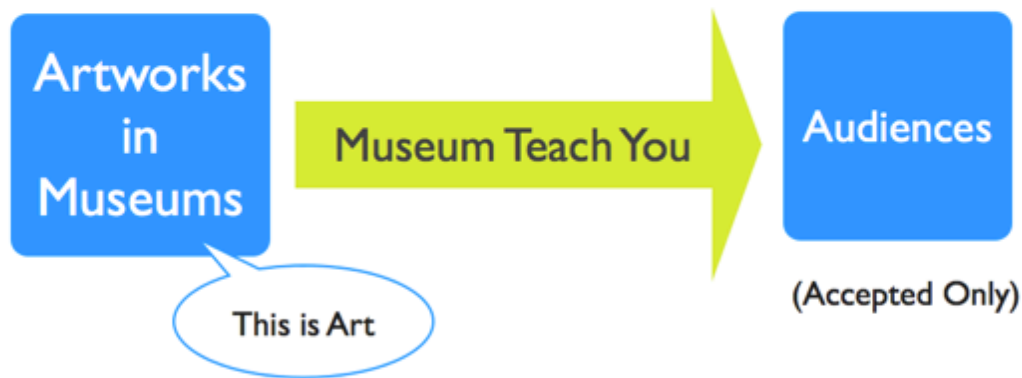
In their role of human cultural heritage interpretation, museums must open themselves to visitors. They can then apply new media to serve them with open communication in their space, both physical and virtual. As DAM's research on innovative interpretation reveals, museums need a collaborative interpretation offering two-way communication between visitors and museums. As such, digital media can act as a platform to enable and receive new interpretations. Digital interpretation should not be another way to limit visitors' self-learning experience that imposes only a single unidirectional official interpretation.

Recommendations:

- 1) Museums should evaluate their interpretive media for developing successful interpretation. (e.g. DAM's Evaluation Cycle: innovation = experimentation → education → iteration.)
- 2) Museums should understand the features of digital media to develop new interpretation by combining “virtuality” and “physicality” together.
- 3) Museums could cooperate with media companies in order to apply successful digital approaches for interpretation. (e.g. Google Art Project / APP programs.)
- 4) Museums could transform the role of interpretation from “one-way learning” experience to “two-way communication”. The new role of interpretation should include audiences’ feedbacks and visitors’ participation. In addition, visitors should have the power to choose what they want to know.

This study examined how museums created successful interpretive programs through new media. Museums already comprise a framework or filter, attracting people who seek to understand human culture. When a museum is interpreting its artwork, it is impossible to completely set aside subjective convictions. However, it is fair to allow the audience room to have their personal views in interpreting the art.

TRADITIONAL INTERPRETATION: One-Way Learning Experience

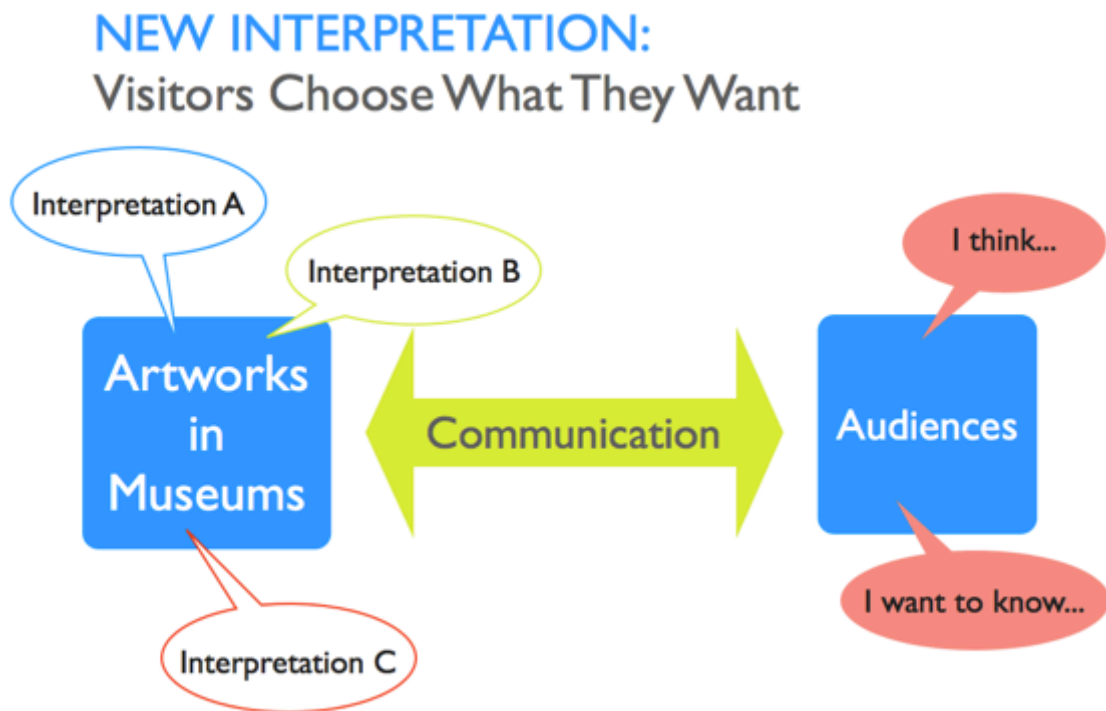


(Diagram 1: Traditional Interpretation.)

As noted in Chapter 2: Literature Review, museum professionals today encourage museums to utilize new media to create new interpretations. In fact, many professionals think museums should inspire visitors' participation and embrace visitors' voices in order to start communication between museums and audiences. Lately, some scholars have concerns about museums treating online users as secondary visitors. The argument reveals a significant issue: that museums and cultural institutions often separate their audience into "physical visitors" and "online users".³⁶ When I posit that successful digital interpretation can extend visitors' experience and knowledge pre-visit and post-visit, my target

³⁶ Ann Nicholls, Manuela Pereira and Margherita Sani. *Report 1 – The Virtual Museum The Learning Museum Network Project*. Vol. 52. Web. 5 Dec. 2012.

audiences are both physical visitors and online users. There is no line separating museum audiences into “visitors” and “online users”. When museums treat their online visitors the same as physical visitors, museums can create more innovative interpretive media providing multilayer information to the composite audience.



(Diagram 2: New Interpretation.)

Museum educators and curators should be fully aware of the advantages of digital media, for example magnified images that a conventional gallery visit would not reveal. Also, museums should develop the balance between utilizing features of “physicality” and “virtuality” in order to deliver an innovative

interpretation in the future. A notable example is the Museum of London's past exhibition *Dickens and London* (ended on June 2012), which created digital programs via iPad and iPhone app devices. Visitors could purchase this program online and operate it while touring the exhibition. For instance, one feature allowed visitors to use smart phones to see what their current location in London looked like in Dickens' time.



(Figure 19: Web page of Museum of London's online features.)



(Figure 20: The digital player app programs for exhibition *Dickens and London*.)



(Figure 21: The digital player app programs for exhibition *Dickens and London*.)

Digital technology is evolving every day. In the museum field, we have only begun to envision the full potential for technology to make human cultural

heritage more accessible. In particular, this study aimed to see if museums could establish criteria for building digital interpretive media, and also could create a principle for museums to maintain a balance between digital interpretation and physical interpretation. I feel however that it is too early to create a framework for digital interpretation because museums have only just begun to implement and value it. Also, I have doubts about the recent argument wherein museums advocate reducing traditional interpretive media (especially paper-based materials) because only casual visitors rely on traditional media. To some visitors, utilizing digital media (including audio, visual and interactive features) to receive information is much more convenient than reading traditional paper-based materials. Yet, museums should not consider replacing traditional media by arguing that only a small group of visitors require it. Instead, museums need to have their own evaluation of museum interpretation before they create new interpretative media.

While there are many limitations to creating interpretation through digital media that challenge museums today, in the future, we can expect many new developments. There is no agreement or consensus on creating a standard of digital interpretive practice in museums thus far. We are discussing the interpretation of art. Art can be categorized in various types, and each must be interpreted from a different perspective. Museums may have historical art, modern art and contemporary art, and these collections may in turn include figurative art and non-figurative art. How can a single principle of interpretation cover this all? Furthermore, different institutions also have their unique perspectives on interpreting art. The Barnes Foundation's goal is to interpret and display its collections through Dr. Barnes' vision. Each museum may have different concerns as to how they interpret art to the public. Yet, it remains

essential for museums to build their own criteria for utilizing and creating digital interpretation in the future.

Conclusion and Recommendations for Further Research

In conclusion, while digital interpretation cannot wholly replace physical and traditional interpretation, it can enhance audiences' understanding of art and museums' collections in order to widen their experience of art. As museums today advocate new media and Internet technology as offering a new gateway to embrace world-wide visitors, the digital interpretations offered by different museums act like different "goggles" (with different filters) that help audiences experience art from various perspectives. Audiences who wear "goggles" can explore further interpretations in their own time and place. In addition, audiences can enhance their aesthetic experience and widen their knowledge of art. Finally, fostering visitors' self-learning experience can inspire visitors to share their individual interpretation and feedback to start conversations with museums.

I remain concerned as to whether museums utilize digital interpretive media appropriately for their purposes. Above all, museums should ask themselves if they really must develop digital interpretative media. From the results of my study, many museums today duplicate the same interpretive information on the website and social media. Historically, museums first provided physical interpretive media to visitors; second, museums created websites and started to digitize their collections. Examining the results, I ask if this is "digital interpretation" or "digitized interpretation"? Is it really necessary to museums to

spend time and money to treat new media as simply replacing traditional interpretive media by duplicating interpretive media in their virtual space? What then is the future step for museums interpretation? How do they balance both traditional media and digital media in order to provide audience with better ways of engagement? Museum professionals and educators should keep researching how to best utilize digital media in interpreting art and objects, establishing criteria that deliver more balanced solutions. As a visitor, I eagerly envision museums that deliver innovative interpretations and deeper self-learning experiences.

BIBLIOGRAPHY:

Alexander, Edward P., and Mary Alexander. Museums in Motion: An Introduction to the History and Functions of Museums. Vol. 67. Altamira Press, 2008.

Ann Nicholls, Manuela Pereira and Margherita Sani. Ed. *Report 1 – The Virtual Museum The Learning Museum Network Project*. Vol. 52. Web. 5 Dec. 2012.

Ann Temkin, Susan Rosenberg, and Michael Taylor, with Rachel Arauz. Twentieth-Century Painting and Sculpture in the Philadelphia Museum of Art Philadelphia, PA; Philadelphia Museum of Art, 2000.

Benjamin, Walter. "The work of Art in the Age of Mechanical Reproduction." Illuminations: Essays and Reflections. Schocken; first Schocken paperback edition. January, 1969.

Carrozzino, Marcello, and Massimo Bergamasco. "Beyond Virtual Museums: Experiencing Immersive Virtual Reality in Real Museums." *Journal of Cultural Heritage* 11.4 (2010): 452–458. Web. 15 Mar. 2012.

Conn, Steven. Do Museums Still Need Objects? University of Pennsylvania Press, 2009.

Din, Herminia, and Phyllis Hecht. Ed. The Digital Museum: A Think Guide. Washington, D.C.; American Association of Museums Press, 2007.

Din, Herminia, and William B. Crow. "Blurred Boundaries: Museums Unfixed in Place And Time." *Museum (Washington, D.C.)* 88.4 (2009): 44-49. *Art Abstracts (H.W.Wilson)*. Web. September. 2012.

Excellence and Equity: Education and the Public Dimension of Museums, Washington, DC: American Association of Museums, 1992, p.17

Fischer, Daryl, and Lisa Levinson. "Redefining Successful Interpretation in Art Museums." *Curator: The Museum Journal* (2010): 299–324. Web. 20 Nov. 2012.

Hooper-Greenhill, Eilean. Museums and the Interpretation of Visual Culture. Routledge Press; first edition, 2000.

New Angle on Interpretation. Denver Art Museum 2007. Web. Nov. 2012.
<http://www.denverartmuseum.org/about/research-reports>

Mannion, Shelley "Beyond Cool: Making Mobile Augmented Reality Work for Museum Education." *museumsandtheweb.com*. Museum and Web 2012. 13 Oct. 2012. Web.

Philadelphia Museum of Art: Handbook of the Collections. Philadelphia, PA;

- Philadelphia Museum of Art, 1995.
- Parry, Ross. Ed. Museums in a Digital Age. London ; New York: Routledge Press, 2010.
- Roberts, Lisa C. "Changing Practices of Interpretation." From Knowledge to Narrative: Educators and the Changing Museum. Washington, D.C.; Smithsonian Institution Press.
- Rishe, Joseph J. Ed. Gauguin, Cézanne, Matisse: Visions of Arcadia. New York; Yale University Press, 2012.
- Simon, Nina. The Participatory Museum. San Francisco, CA; Museum 2.0 Press, 2010.

ONLINE RESOURCE:

The American Alliance of Museums. <http://www.aam-us.org/>

The Barnes Foundation. <http://www.barnesfoundation.org/>

The Philadelphia Museum of Art. <http://www.philamuseum.org/>

The Rosenbach Museum and Library. <http://www.rosenbach.org/>