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Abstract

Roles and Responsibilities of Digital Engagement Managers in Art Museums

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Museology

Digital technology is ubiquitous, inseparable, and permeates all aspects of our lives, but understanding how to use this technology in galleries and online, is not self-evident. As a result, some museums have established professional, salaried positions that focus specifically on delivering compelling content and relevant audience engagement strategies. Through candid interviews with six art museum professionals from across the country, this research paper examines the roles and responsibilities of Digital Engagement Managers (DEM) in developing a digital strategy for their institution. A common theme emerged which was shared by all participants referred to as the “Big Three” which are collaboration, project management, and content balance. The Big Three roles and responsibilities of DEMs shifts the focus away from "digital" as the platform toward more important concepts of content, engagement, and visitor experience. This research paper will suggest how art museums can become pioneers in the digital revolution and offer unique experiences to its audiences.

Keywords: digital, engagement, strategy, content, museum professional
Acknowledgements

Successfully completing a research paper depends on the support of many people along the way. I would like to thank Angie Ong for her support and guidance throughout this process, and for helping me get over many hurdles along the way. I would also like to thank the six participants of this study: Susan Chun, Susan Edwards, Nancy Proctor, Koven Smith, Heather Marie Wells, and Gary Wise for their willingness to participate in this study. Each participant gave me hours of thoughtful reflection and are helping shape this field through their work every day. Thank you to the UW Museology Class of 2016 for keeping the bar high and for being academic role models and friends. I also want to thank Nick Visscher and Beck Tench for their early help and guidance in this process. I want to thank all my friends in OCAA who have provided inspiration and encouragement over the past 7.5 years. Finally I want to thank my family, especially my Dad for always being there for me throughout the years. He has been a consistent role model and has shown me what hard work, dedication, and faith can accomplish.
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Chapter 1: Introduction

Museology is a theoretical perspective that views museums not as static buildings housing objects, but rather, dynamic social and participatory institutions that represent our shared cultural heritage (Desvallées & Mairesse; 2010, Simon, 2010; Weil, 1999). The challenge facing many museums today is how to stay relevant in a culture that values efficiency, technology, and instant gratification. How do art museums respond to the 21st century and continue to capture the imagination and wonder of its visitors? Is there a way to engage tech savvy audiences while respecting traditional ones? How do museum staff cross the invisible barriers between departments and negotiate the use of power and control over their curatorial voice?

This thesis will answer those questions by introducing the reader to exciting changes within art museums and the individuals responsible for managing digital content engagement. These museum professionals open the museum experience for visitors both within the museum and virtually anywhere through the internet to gain access to collections, interactive content, and curated information.

The Virtues of Technology in the Museum

Museum professionals, technologists, and learning theorists are beginning to accept the ubiquity of technology even into the once solemn, contemplative spaces of the art museum. Technology in recent years has expanded beyond the World Wide Web into location based, highly interactive, offline, and cloud-sourced programs. Technology can open collections normally housed in storage and make them accessible to millions around the world to explore and interact with even if they never physically visited the museum. Technology can help change the all too familiar stereotype that museums are dusty and old. Offering ways to link visitors to a museum application (App), social media, digital kiosks and family interactives can breathe new
life into the institution. Apps provide opportunities to engage and interact, while installations like kiosks, touch screens, and even holograms and virtual reality headsets challenge the perceptions of tangible and intangible experiences.

There is a paradigm shift happening within the field that argues museums have a role in using technology to reach the audiences that have been increasingly connected to the web (Conn, 2010; Din & Hecht, 2007; Geisma, 2012; Tallon & Walker, 2008; Wyman, Smith, Meyers, & Godfrey, 2011). This is especially true of younger audiences including Millennials or "digital natives" who have grown up during the digital revolution and are comfortable using technology, and rely on it for learning, research, and efficiency (Prensky, 2001). While technology can be vital to how Millennial audiences consume information, audiences of all generations can also benefit from a more digital experience while in the galleries. They can take advantage of additional information including extended biographies on artists, related works and exhibitions, and other relevant information to the individual visitor or their group. Many museums are passionate about becoming more inclusive and accessible to visitors with disabilities. Creative uses of technology could meet Americans with Disability Act (ADA) requirements and be part of a wider audience outreach program to help visitors with learning disabilities, or visual and hearing impairments.

Finally, there are examples where museums are using technology to create bridges with K-12 educators by creating a shared syllabus and reciprocal programming. There are school-museum partnership programs currently happening in schools throughout America that not only meet Common Core standards, but offer students opportunities to learn through Skype® lectures, digital programming, and the opportunity to interact with actual professionals doing the work they are studying (Sanger, Silverman, & Kraybill, 2015). This also could break the socio-
economic divide many schools have with limited funding for field trips to museums and provide access to some of the most prestigious institutions in the country such as the Smithsonian museums, Museum of Modern Art (MoMA) and The Getty Institute to name a few.

**Technology’s Challenges in the Museum Field**

Many of the challenges facing museums in regards to technology are not unique. Museums are hardly the first industry to radically shift their business model in the digital age, and while change happens, there can be a level of apprehension felt by staff and management with its inclusion. How will power be shared? Will jobs be eliminated? Will departmental funding be negatively impacted? Museum leadership will have to negotiate these concerns and balance them with promise of enhanced visitor engagement.

One challenge facing an institution interested in bringing in more technology is the cost associated with it (Aslinger & Huntemann, 2013). Apps, Smart Tables, and interactives can be expensive and require a lot of time, planning, and strategy to create and maintain (Chan & Cope, 2015). Museums that want to include these types of technologies need to identify which digital approach to programming, exhibitions, and collections the museum should take. The goal here is to spend time and resources on the best digital engagement strategy that will be both relevant and useful to visitors while not pulling too many resources away from existing operational programs. While budgeting compromises may be common, they are likely addressed locally within the institution, and not made widely available to the public. This means there has been little research or documentation available with recommendations and tools to explain to staff and museum leadership how to overcome these obstacles.

Making this kind of engagement sustainable and interesting to audiences also presents a challenge to museum professionals. The ephemeral nature of software and social media sites
make it difficult for the museum to decide where to place their time and energy while reaching the maximum level of audience participation and relevance. Platforms like Snapchat®, Foursquare®, Ello®, and Vine® are extremely popular one day and quickly begin to disappear into obscurity and irrelevance the next day. Even giants like Twitter are not immune from waning audience engagement and they have seen multiple quarters of negative growth and even talk of bankruptcy (Haque, 2015). These challenges extend to branding issues, management bureaucracy, and slow adoption of new platforms.

There are also legal and ethical issues presented to museums that were not as widespread before the digital revolution. The technology widely used by people everyday now fits easily in our pockets, and subsequently, find their way into the museum. A growing trend in museums is the "selfie" culture, where visitors seek out objects on display in galleries, take photos in front of them, and then share them on social media (Gelt, 2015). Should museums turn a blind eye to their "no photography" policy since sharing on social media is a great form of free advertising? There are many legal considerations that museum professionals should be aware of, however, U.S. courts and case law have been slow to set precedent on these issues especially in regards to Fair Use, the Visual Artists Rights Act of 1990, and copyright infringement which is very relevant to art museums (Malaro, 2012). These and many other unknowns have contributed to the confusion and anxiety related to bringing in technology to art museums.

Finally, a major challenge facing the field is the limited number of professionally conducted and published evaluations on visitor efficacy and interest in digital engagement programs. Much of that information is proprietary and used only internally or alluded to in a cursory way on grant applications or other fundraising materials. While some formal evaluations have been published, it is difficult to draw conclusions since the dataset is so limited. The few
evaluations available typically cover topics relating to smartphone applications and cyber-learning for students K-12 (Butler, 2012; Korn, 2014; The ASTA Group, LLC, 2010).

Sparked by both the benefits and concerns associated with the digital creep in museums, this research study was conducted to explore those concepts in terms of the solutions museum professionals are using to engage visitors using digital platforms and programs to deliver content. This then begs the question "who are these people responsible for the content development and management of digital engagement?"

The Emergence of Digital Engagement Managers

In 2016, it is not enough for museums to simply rely on a website and emails to engage and inform visitors. Engagement and interactivity are the hallmarks of Web 2.0 and a participatory culture is emerging alongside with open source media (Bird, 2011). These hallmarks have been incorporated into "new museology" which places a high precedent on participation and interactivity in museums (Bautista, 2014).

Having an individual (or team) who understands how content can be best presented to the public using these methods and how to negotiate between the costs and benefits of implementing them is essential. But who are these people? What do they do? Some refer to them as Digital Content Managers, Chief Digital Officers, Director of Media and Technology, Digital Interpretation Managers, and so on. For the purposes of my research, I will refer to them as Digital Engagement Managers (DEM), which I feel is the best overarching title that incorporates the type of work they engage in.

DEM's differ from Information Technology (IT) Managers by focusing first on the visitors and then on the technology as their primary responsibility. DEM's also differ from the Marketing department in their scope and focus. While both Marketing and DEM's share an
external focus to engage visitors using the Internet, DEM’s also engage audiences within the museum. Their scope goes beyond advertising programs and events, to creating dialog, interaction, and learning opportunities in similar way curators would when developing an exhibit. In fact, the DEM has attributes of many departments and has an important role and responsibility to find ways to synthesize information (content balance), work between departments and push for consensus (collaboration), and manage multiple, ongoing programs and projects as exhibits rotate (project managers). These attributes represents a common thread shared by each DEM. Referred to in this research paper as the "Big Three," the role of the DEM is more about creating bridges between departments and the curation of ideas, rather than simply writing code and tinkering with electronics.

And while DEMs may exist in all types of museums, there are several reasons why the DEM is unique in art museums and why they were the focus of this research paper. First, exhibits in art museum rotate more frequently and often cover topics and approaches that are more esoteric. The subject matter can be difficult for some audiences and even intimidating to individual who do not have a strong background in art. This could create a barrier that might even lead some potential visitors to avoid art museums all together (Sayers, 2014). Second, many art museums show contemporary art, which may require collaboration with the artists exhibiting their work. Unlike other museum disciplines, contemporary art relies on exhibiting living artists work, and their opinions and input become factors in how the DEM makes their decision in developing content. A third reason art museums are unique is the deep messaging that may be imbedded in their work which might not apparent to visitors seeing their work for the first time. Technology can help address this by providing additional perspective and descriptions of their work, add an interactive element, link to social media, or a number of other
methods that would not simply develop on their own without a dedicated person facilitating that experience.

To address this, the DEM partners with curators, exhibit designers, registrar, marketing/PR reps, IT professionals, educators and public programmers to create content and experiences for audiences. These experiences not only help the visitors understand the material but also connect to it in a way that passive viewing may not be able to accomplish. Ultimately, while the DEM is not unique to art museums, these three factors highlight some of the reasons why a dedicated position tasked with coordinating and managing content for digital platforms could benefit the museum in developing their engagement strategies.

**Research Goal**

As mentioned above, the existence of staff who are specifically tasked with developing a digital strategy is still a relatively new phenomenon, and therefore, the roles and responsibilities of digital engagement managers are still developing. There are however many art museums providing excellent learning opportunities and visitor experiences using technology like The McNay Art Museum in Texas; Hammer Museum in Los Angeles, CA; and the Museum of Contemporary Art in Chicago (MCA), to name only a few. What these museums have in common is a dedicated museum professional (or team) responsible for managing and developing digital programs, interactives, and content within the organization.

These examples will help further the discussion of the unique benefits and challenges facing art museums in the 21st century. My research will explore the roles and responsibilities of a digital engagement manager in art museums, and define their value and contributions to an institution’s digital strategy. This study seeks to determine if incorporating a DEM as part of an overall institutional digital strategy will help the museum realize new approaches to engaging
with audiences of all ages, abilities, and levels of understanding; and identify important elements and contexts for museums interested in developing their own digital initiatives. While this research is not intended to show the DEM is necessary in all art museums to successfully develop a digital strategy, the interviews, case studies, and examples discussed in this thesis explores rationale for having a dedicated staff position responsible for collaboration, project management, and content balance to help the museum meet their goals of engaging audiences and to create more relevant experiences for visitors.
Chapter 2: Literature Review

Introduction

In the past decade, there have been numerous books, journal articles, and case studies published about how art museums are using technology to engage and interact with audiences as well as the many benefits and challenges associated with bringing in technology to exhibits and galleries. While much has been written about technology and digital engagement in museums, little has been written specifically about the people or teams who use those tools to create digital content and experiences in art museums. This chapter will explore how technology is being used both in galleries and online as well as situate where the field is in the year 2016. This includes: case studies about successful digital strategies and the emergence of digital labs in art museums, topics relating to audience engagement strategies, the visitor experience, school partnerships and the challenges a DEM may experience with project management and collaboration.

Technology Use in Museums

Art museums are unique from other disciplines not simply with their subject matter, but how they engage with visitors. Susanna Smith Bautista writes that art museums have a "particular ability to sustain a discussion around issues pertinent in the digital age such as authenticity, contemplation, discourse, expertise, creativity and authority (Bautista, 2014). By building a digital framework around content, art museums are able to enhance the level of engagement that empowers visitors to explore and learn topics specifically important and relevant to the individual. This "free-choice learning" theory of visitor engagement developed by John Falk provides visitors a sense of empowerment and freedom from the constraints of the elusive 'curators voice' which Museologists have been earnestly moving away from (Falk, 2009). By working with curators, exhibit designers, and the artists themselves, digital engagement
managers can develop programs and interactives around content that allow for this enhanced level of engagement and participation both in galleries and virtually through the internet.

*Museums Engaging Audiences*

There are many art museums doing innovative work to meet the changing demands of audiences in the 21st century. The Cleveland Art Museum is an excellent example of using technology in creative ways to highlight their expansive permanent collection with an emphasis on "play" (Alexander, 2014). In 2010 they opened a highly interactive and digital space Gallery One which includes a 5'x40' interactive touch screen wall with over 4,100 pieces of art in their permanent collection. The design was influenced by Falk's *Identity and Visitor Experience*, specifically with his theory of Free-Choice Learning and features augmented reality software, digital kiosks, and games as part of their re-designed museum experience (Alexander, 2014; Falk, 2009). An evaluation study conducted one year after its opening concluded that audiences have responded well to Gallery One especially when given the opportunity to "brows[e] according to their own preferences" (Alexander, 2014).

The Cooper Hewitt in New York is another example of a museum using technology in creative ways to highlight their unique collection with an emphasis on design. Opening in 2014 after a complete museum remodel, they adopted a digital engagement strategy as part of their strategic plan that transforming the visitor experience from a passive observer to active participant. Like the experience in Gallery One, the Cooper Hewitt wanted to encourage the idea of "play," and in that spirit, they wanted to get visitors to explore their creative side by providing interactive touch-tables, a "making app" to give them the opportunity to design and save their work, and offer a virtual tour of its historic building (Chan & Cope, 2015; Fogarty & Margulies, 2014). Two of their most exciting experiences for visitors is their Immersion Room and 'Pen'.
The Immersion Room gives visitors a chance to browse their collection of wall coverings, design their own and project it on the walls creating a "selfie worthy experience" (Chan & Cope, 2015). The 'Pen' is offered to visitors when they buy their ticket and gives them the opportunity design, collect objects and save them to its own dedicated web address.

Another museum offering a great digital experience is the Brooklyn Museum in, *Click! A Crowd-Curated Exhibition* (June 27-August 10, 2008). The concept behind this exhibit was based on the book *The wisdom of Crowds* by James Surowiecki and empowered the visitor to curate their own exhibits online by ranking and tagging photos in an exhibition and was incredibly popular (“Click! A Crowd-Curated Exhibition,” 2008). It operated under the assumption that the visitors were capable storytellers and challenged the traditional notions of the 'curatorial voice' many museums operate under (Proctor, 2010).

What The Cleveland Art Museum, Cooper Hewitt, and Brooklyn Museum demonstrate is how technology can be used to engage visitors’ interests while providing them with an exceptional opportunity to explore their collections, engage with art on display, explore their creative side, and become active participants rather than passive observers. Helping visitors become active participants in the galleries is what the theory of Museology has been trying to accomplish as it moves from a collection-focused model to a visitor-focused model (Bautista, 2014; Simon, 2010; Weil, 1999). Without technology present in these galleries, visitors to the Cleveland Art Museum would never have the opportunity to experience many pieces of their permanent collection, visitors to the Cooper Hewitt would not be able to explore their creative side, and the online visitors to the Brooklyn Museum would not have the opportunity to act as curators and have their voices heard. Furthermore, studies show that interactive elements in
museum have a positive effect on visitors’ socio-emotional experience in addition to providing an opportunity to learn (Dancstep (née Dancu), Gutwill, & Sindorf, 2015).

Meeting Visitors Demands

As visitors move toward active participation in galleries assisted by interactive media in exhibits and mobile apps, museums are also using technology to gain insight into visitor preferences. While many apps and websites use analytics to track quantifiable visitor engagement, some are looking toward new ways of collecting visitor feedback. The Brooklyn Museum has created an app called **ASK** where visitors can send text messages directly to museum staff to offer feedback, ideas, or share their experience (Browne, 2014). Once the staff receives the message they will respond directly to the visitor “in under a minute”, opening up a line of communication and dialog (Stapley-Brown, 2016). Opening a line of communication can help museums understand and address visitors in a more dynamic way. Falk writes: "If we know something about who visited museums and what meaning they make, we would also understand something about the role museums play in individual people’s lives" (Falk, 2009). This type of visitor/staff experience through apps and technology further create an opportunity for the museum to engage audiences and meet their missions.

School partnerships

Museums at their core are institutions of learning. Technology has broadened our horizons and provided new platforms and avenues to pursue knowledge and learning. Teachers are now looking outside the classroom to take advantage of these new technological advances, through a variety of online tools. The article *Developing a Model for Technology-Based Museum School Partnerships* describes how Holy Angels Regional School partnered with the
MOTE Marine Laboratory and the Aquarium in Sarasota, Florida for a nine lesson course to explore how ecosystems work. The class went on virtual fields trip to the aquarium and MOTE, submitted questions to scientists, and were given disaster scenarios where they could apply their knowledge. After nine weeks "the teacher reported that the students were far more engaged with this approach and their projects reflected a deeper understanding of content" (Sanger, Silverman, & Kraybill, 2015).

In the article *Embracing Change: Museum Educators in the Digital Age*, Claire Moore (2015) discusses how the MET used Google+ Hangouts on Air to engage students in classrooms. In the series *Ask Big Questions* (2015) as a way to spark curiosity in students through lectures and demonstrations online and *Speaking and Listening in Museums* (2014) students and museum curators together to experience art and to spark discussion and debates (Moore, 2015).

What these examples demonstrate are the multiple opportunities to engage students using the technology available today. Formal education relies on a teaching method using intangible tools to deliver content, while museums provide 'the real thing' that children are drawn to especially if they relate to their day-to-day life (Munley, 2012). Museums are now experimenting with ways to actively engage students using interactive technology and develop "long-term partnerships" through "virtual field trips and travelling educators" (Tally-Foos, 2014). It is difficult to conclude how future schools will partner with museums and implement programs large-scale, but it can be effective not only in meeting Common Core Standards, but also create a community of critical thinkers and active learners (Sanger, Silverman, & Kraybill, 2015). Thus there is opportunity for museums to make a tangible contribution to engaging students and provide them with museum resources that support their classroom experiences that would not be possible otherwise.
Emergence of Digital Labs

Some larger, well-funded art museums have begun to explore how augmenting their digital engagement can help attract new audiences by creating 'Labs' at their institution. These labs are staffed by museum professionals from multiple departments and are used by the museum as a way to meet their mission by engaging with local artists and creative's, students, and museum visitors to create a 'makers space' where they can explore technology, prototype, and even provide a safe space to fail.

Several examples of this are the Carnegie Museum- Innovation Studio, The Metropolitan Museum of Art (the MET)- MediaLab, Los Angeles County Museum of Contemporary Art- LACMA Art+Technology Lab, San Francisco Museum of Modern Art- SFMOMA Lab, and the Indianapolis Museum of Art- IMA Lab. Each Lab is intended to help that museum meet its mission and has developed programming, creative space, funding, and support to explore how museums can help the broader creative communities surrounding the museums. Another interesting hybrid Lab is the Balboa Park Online Collaborative that predates many of these Labs. Founded in 2008 it focuses on the collection of the 17 cultural organizations and museums located within Balboa Park to "foster a culture of innovation and collaboration" and develop a digital strategy (“Overview,” 2016). See Appendix 1 for a longer description of each Lab.

These digital labs share a reoccurring theme of the freedom to fail, prototyping and collaboration in an open-source mentality. These Labs are in areas that take advantage of the creative communities surrounding the museum and see collaboration, access to scholarship, and research and development as their goal.
Challenges of Technology

Museums today can be inclusive places allowing access to the widest audiences possible, especially those that have been traditionally neglected (Dodd & Sandell, 2001). While "museums, galleries, and other cultural institutions normally pride themselves on their physical accessibility," the challenge for many museum professional is how do they use the benefits of technology to include visitors with other forms of disabilities and special needs (Lisney, Bowen, Hearn, & Zedda, 2013)? According to the CDC, about 1 in 68 children living in the U.S. fall within the autism spectrum disorder ("Facts About ASDs," n.d.) In 2010 18.7% or 56.7 million Americans had some level of disability, and of that, 38.3 million qualified as having a severe disability (Brault, 2012). The American Alliance of Museums (AAM) has stated in their code of ethics that museums have a responsibility to "serve society by advancing an understanding and appreciation of the natural and cultural commonwealth" and that museums should ensure that "programs are accessible and encourage participation of the widest possible audience consistent with its mission and resources" ("Code of Ethics for Museums," 2000).

Technology offers new ways to reach those audiences, but understanding how these communities and individuals consume information is important to understand. This includes balancing the need to be accessible and inclusive, while at the same time, not changing the fundamentals of the exhibition, become a distraction to other visitors, and be consistent with the artist’s intent (Linzer, 2013). Exhibit designers and curators could also incorporate concepts of Universal Design for Learning (UDL) by "providing not only physical access but also access to engagement in learning" that allows for the widest accessibility to all audiences regardless of their ability (Rappolt-Schlichtmann & Daley, 2013).

If creating an accessible experience is the intent, there are additional challenges museum professionals face when creating a digital strategy for their institution. Some audiences may
have trouble navigating the touch screens or may not have a smartphone device to bring with them to the gallery. While many visitors may have experience with touch screen technology, some audiences may find them too confusing or intimidating to use (Linzer, 2013). Touchscreen devices may also be difficult for older visitors with limited vision or hearing as well as the small size of the touch screen (Lisney, Bowen, Hearn, & Zedda, 2013). There are also stereotypes made about young people and their consumption of technology which assumes all 'digital natives' use social media and technology with expertise and in similar ways (Lupton, 2015). While they may be comfortable with social media and technology, assumptions made that they would rather have digital experiences with art and exhibits might not be accurate (Hetherington, 2015). There is even evidence to suggest that social media adoption may actually be leveling off (Bobkowski & Smith, 2013; “Social Networking Fact Sheet,” 2013). While it may be easy to paint some of these demographics with a broad brush, the DEM has a responsibility to avoid making assumptions that could deny access to content for some audiences.

As social media and photography becomes more prevalent in galleries, art museums have to be aware of issues relating to copyright and respect for the artist’s work. How do museums empower visitors to make a personal connection and share their experiences on social media, while respecting the artist’s rights and copyright issues? While all museums touch on these issues, art museums may work with living artists to develop an exhibition or installation. There are a variety of laws that art museums have to negotiate that include U.S. Copyright, the Fair Use Act, the Visual Artists Rights Act of 1990, and also other state, national, and international laws. These issues now include digitizing collections, which creates an additional layer museum professionals must be aware of and costs associated with physically digitizing it, as well as legal and contractual costs that may be involved (Malaro, 2012).
While technology offers the DEM many opportunities to engage with audiences, there are still audiences who may prefer the traditional museum experience. In an article written for the Los Angeles Times, Jessica Gelt writes that:

"For every app-loving, gadget-embracing museum curator or visitor there is a solitude-craving, analog enthusiast who feels that pixilated screens and interactive devices interfere with the very soul of the museum-going experience. Their goal is to stand quietly in front of art and ponder its significance and place in history — without technological intrusion" (Gelt, 2015).

The difficulty with incorporating a digital strategy in museums is the potential distraction it could cause. "The aim should be for the technology to become as invisible support for the experience as possible" (Rodley, 2011, p. 36). With the multitude of opportunities available to us through technology, it is important to reconcile the needs of those who will never need it for an experience in gallery.

Summary

To establish relevance with 21st century audiences, museums must continue to evolve, follow trends and meet visitor expectations (Tallon & Walker, 2008). Rather than challenging digital innovation in galleries, curators and museum professionals can embrace technology as a "multi-layered approach to storytelling" where interactions can take place between visitors and the museum (Wyman, Smith, Meyers, & Godfrey, 2011). This includes social media, user generated content and participation, and the opportunity to interact with exhibits through the many digital platforms and programs available.

While digital could offer new approaches to audience engagement, using technology simply for the sake of having it in gallery is not the correct application (King - Sears, Swanson, & Mainzer, 2011). It is not enough to create a museum app, put in a digital kiosk, or have an interactive ‘big- screen’ on the wall (Wyman, Smith, Meyers, & Godfrey, 2011). Content and
narrative are more important than any platform, program or hardware. As Stephen Weil so concisely stated in his prolific article *From Being About Something to Being For Somebody*, it is not simply about any given technology and more about the content and how it is used to reach audiences wherever they are (Weil, 1999).

Since the dawning of smartphones, Web 2.0, and interactive technology, museums have been moving toward digital storytelling and using interactivity to chip away at the traditional barriers and misconceptions museums face (Grant, 2014). This 'bottom up approach' has "open[ed] the museum to other voices and constituencies" including "the visitor contributing to the museum space" leading "toward personal relevance and interpretation, interactivity, and easy access and control of content" (Tallon & Walker, 2008). Haidy Geisma (2012) writes that some museum professionals are celebrating this emergence of technology as the "democratic expansion of [the] commons of cultural information and objects" reaching more people than traditional methods. Geisma also states that the role of digital technology in the museum has changed how museum professionals address their audiences and even the objects themselves "may no longer be understood in and of themselves, but as part of broader fields of representation, mediation, and communication (Geisma, 2012).

Now curators are expected to be more like storytellers and facilitators of conversation, than the controllers of knowledge micromanaging the visitors experience in gallery (Proctor, 2010; Wyman, Smith, Meyers, & Godfrey, 2011). Museums are experimenting with these new ways to tell a story and are creating interactive learning experiences for content distribution and museum administrators are beginning to expand their staffing to address this growing movement (Din & Hecht, 2007). It is within this context that Digital Engagement Managers can find their
place and create a digital strategy allowing for deeper audience engagement, opportunities for learning, and the opportunity to interact with the museum.
Chapter 3: Methodology

This study investigates the emergence of a new salaried staff position in art museums, responsible for the development and management of digital engagement for audiences. The study is driven by the following research questions:

1. How would you define your roles and responsibilities?
2. How do you define digital engagement?
3. How do you create a digital strategy for the museum?
4. Are there any misconceptions about your role in the museum?
5. What are some successes and challenges you have experienced in this position?
6. Do you have advice for professionals interested in this field?

Because these questions are exploratory in nature, a qualitative approach was used for this research focused on how museum professionals are creating digital strategies and how they leverage the technology when developing programs.

Method

The primary data collection method was one-on-one, semi-structured interviews with museum professionals identified as digital engagement managers (DEM). Interviews took approximately 30-60 minutes and were conducted via Skype and over the phone. All interviews were recorded and transcribed using Audacity®. Each participant was directly quoted when necessary to ensure context and accuracy.

Interviews were conducted between February and April 2016. The interview covered a range of topics including general questions specific to job title and general job descriptions, how they use digital content in gallery and remotely, and how their digital content is connecting to audiences (see Appendix 2).
Participant Selection and Recruitment

Individual participants were identified through websites like LinkedIn®, by recommendations from connections made in the field and thesis advisors, and also through conference presenter lists from professional trade organizations including American Alliance of Museum, Museum Computer Network, and Museums and the Web. The search involved identifying words like "digital", "content", "interpretation", and "engagement" to filter through staff that might be a good fit. Other descriptors of job titles like "chief", "director", and "manager" were also searched to ensure the staff members selected would be full-time and salaried employees. Their selection was also based on their geographic locations. It was important to select participants from art museums across the country to ensure the sample was reflective of the field nationally and to avoid any regional bias in the sample.

Ten participants were identified and they were contacted through their perspective museum websites directory lists, LinkedIn messaging, or personal websites. A brief email was sent to each participant (see Appendix 3). In the email, there was a longer explanation of the researcher’s role as a graduate student as well as the research purpose and primary questions. Interviewees were also given the opportunity to review any quotations used in the research paper. Each participant was sent an email listing every reference and direct quotes made in Chapter 4 and 5 and were given the opportunity to clarify or have their name removed. Some quotes were altered in response to their feedback.

Description of the Sample

Of the ten professionals contacted, six agreed to participate in this study. When the study was developed, an initial number of 3-5 participants seemed reasonable to recruit for interviews. This number was augmented to six to address the unexpected number of participants who
showed interest in this research as well as a shift in focus to emphasize a more national approach of the roles and responsibilities of Digital Engagement Managers. The interviews were conducted with:

- **Susan Chun** - Chief Content Officer, Museum of Contemporary Art, Chicago, IL
- **Susan Edwards** - Associate Director of Digital Content, Hammer Museum, Los Angeles, CA
- **Nancy Proctor** - Deputy Director for Digital Experiences and Communications, Baltimore Museum of Art, Baltimore, MD
- **Koven Smith** - Director Digital Adaptations, Blanton Art Museum, Austin, TX
- **Heather Marie Wells** - Digital Media Specialist, Crystal Bridges Museum of American Art - Bentonville, AR
- **Gary Wise** - Manager of Multimedia and Digital Services, McNay Art Museum - San Antonio, TX

These individuals represent the lead staff position in the museum responsible for creating a digital strategy and managing digital projects and programs. Each participant has between 2-18 staff members who directly report to them. Each participant has been in the museum field for a large part of their professional career and has extensive experience developing digital programs and content.

While the interviews focused on each participant’s experience creating digital content, the museums in this study also play an important role setting the context for how each DEM operates. Specifically, their mission and vision are crucial to how the DEM identifies their role in developing digital content. The museums that are part of this study vary not only geographically, but also with their governance, staffing structure, and budget size. The budget for each museum varied dramatically from $6 million to over $20 Million. The initial focus for this research was to identify professionals who worked in "medium-sized" museums, but after conducting the initial survey of the field, that became a difficult prerequisite since museums are not officially classified using those metrics. AAM uses a system to classify museums they have
accredited based on several budgeting thresholds. The following accredited museums represent the sample size of the research (Figure 1).

<table>
<thead>
<tr>
<th>Annual Budget</th>
<th>Percentage of Accredited Museums</th>
</tr>
</thead>
<tbody>
<tr>
<td>$350,000 and under</td>
<td>8%</td>
</tr>
<tr>
<td>$350,000–$499,999</td>
<td>6%</td>
</tr>
<tr>
<td>$500,000–$999,999</td>
<td>18%</td>
</tr>
<tr>
<td>$1,000,000–$2.9M</td>
<td>30%</td>
</tr>
<tr>
<td>$3M–$4.9M</td>
<td>12%</td>
</tr>
<tr>
<td>$5M–$14.9M</td>
<td>17% (Baltimore Museum of Art, Blanton**, McNay)</td>
</tr>
<tr>
<td>$15M and over</td>
<td>10% (Crystal Bridges, Museum of Contemporary Art, Hammer)</td>
</tr>
</tbody>
</table>

* Figure 1: sourced from AAM Accreditation Statistics 2014. Percentages based on accredited museums surveyed through AAM. Museums were assigned a position in this chart based on their most current audited financial statements, 990 IRS reports, or Annual Reports available both through their websites and online. These are an estimation based on my understanding of their financial position and are not based on GAAP standards nor have they been professionally verified.

** Based on 2010 operating budget.

This data is not reflective of all art museums with a DEM positions, but it does show that the institutions selected for this study had budgets that reflected the top 27% of all museums.

**Data Analysis**

Qualitative data from semi-structured interviews were analyzed using an inductive approach focused on identifying particular trends, patterns, and explanations. Specifically, data was compiled into a Microsoft Excel® spreadsheet that described commonalities between the
participants. The responses were organized by question and discussed in the Results chapter of the thesis.

**Limitations**

Key limitations of this study are as follows:

1. There were only six (6) participants in this study, which is a relatively small sample size. Participants did not answer all questions prepared for the interview. The interview was semi-structured and focused on qualitative data. Participants spoke at length about some topics and given the direction of the conversation and length of interview, some questions did not get discussed which left a gap in some of the data.

2. Much of what the participants discussed could not be externally verified, and therefore all their responses were assumed accurate.

3. Sites may also be in the process of creating new projects or programs and may be unwilling or unable to discuss them with me.

4. Many questions dealt with collaboration and working with fellow staff on programs and projects. This may have unintentionally affected some of the responses and key elements could have been left out or exaggerated.

5. Some of the participants’ identities were masked both by the participant’s request and by the interviewer's discretion. Anonymity was needed for some responses to not avoid unnecessary negative reactions from readers.

6. The conclusions and results were only in response to the interview participants and not reflective of the entire field.
Chapter 4: Results & Discussion

This research study focused on the roles and responsibilities of the museum professionals who create a strategy using digital platforms to deliver content to engage audiences. Since there has not been an official title attributed to this position, the title Digital Engagement Manager (DEM) was selected as a term that best reflects the responsibilities of these individuals and their teams. Each participant was asked a series of semi-structured questions that revolved around six themes. These included: 1) their roles and responsibilities, 2) their definition of digital engagement, 3) how to create a digital strategy, 4) misconceptions about their roles and responsibilities, 5) successes and challenges, and 6) advice for museum professionals interested in this field.

Question 1: How would you define your roles and responsibilities?

At the beginning of each interview the participants were asked a series of foundational questions such as job title, tenure of current position, a brief history of how they got to their current museum, and what their daily responsibilities were. They were also asked questions pertaining to their department such as who they reported to, the number of people who report to them, where funding comes from, and which department they work with closest.

The average time in their institution was between 1-3 years, with the exception being Heather Marie Wells, who has been with Crystal Bridges for over 5 years, first as an Education Technology Coordinator and then as the Digital Media Specialist. The remaining participants had been hired through a recruitment process where the director or their direct supervisor was responsible for bringing them into the museum. Each participant in this study mentioned they were the first in their institution specifically tasked with developing a digital strategy as a full time, salaried employee. Most were hired in response to a strategic plan to develop a digital
strategy or integrate more technology in gallery. Although each institution had previously incorporated technology in the gallery, each participant mentioned that the job they currently occupy did not exist prior to their arrival.

While each participant represented the first in their institution to hold this position, their departmental affiliation varied widely depending on the museum. Some were more closely affiliated with Communication and Marketing, while others, closer to Education. Koven Smith was unique because he described his department comprising mostly of himself, with two other direct reports who were placed in his department because "they didn’t fit into another department" logically. Wells was the only one interviewed that had been at the museum long enough to transfer departments into her current position. Her department evolved out of the education department into its own Digital Media Department. Susan Edwards saw a similar shift in departments when the Hammer was thinking of hiring a digital staff person and realized they needed someone to manage not only their digital engagement strategy, but also hire someone to manage their digital assets.

When asked what their daily responsibilities were, most mentioned each day is different depending on what project they are working on, their progress, and the level of intra-departmental involvement. Meetings were also a large portion of the average day for each participant with the exception of Smith, who used apps like Trello® and Slack® to digitally collaborate on projects, thus limiting the number of meetings to the occasional face-to-face interactions requested by staff. Edwards said, "It is a rare day when I don’t have any meetings at all" and estimated that half of her day consisted of meetings both for digital projects as well as other museum staff administration. Susan Chun estimated that up to 50% of her time is working on projects with staff members in meetings, and Gary Wise said that each day he sits in several
meetings as well. As part of the collaborative nature of the DEM, their role assumes a job description more of a project manager that oversees the timelines, direction and content of each program or project.

When asked which department they worked closest with, all participants mentioned they worked across all departments. While some mentioned they worked closer with some departments and curators than others, a common theme emerged. The DEM at each museum perceived that they had a responsibility to develop content with the input from many departments. The DEM cannot work in a vacuum and rely on the content and specialization of each department in developing a digital strategy.

Another important task for the DEM is ensuring the content is updated and current. Wells stated, "You can't just publish and put out [the technology], you have to keep iterating and keep it going; keep it moving." For example, she explained that creating an app is not a simple straight-line process. It is more elaborate than loading an app with content and walking away to start a new project. Each digital project needs to be updated and changed depending on the exhibits with new data and periodically refreshed. "It is different from a wall label," Wells suggests, "with digital interactives, audiences are expecting them…to keep up with the changes in time."

An important component of the DEM's life involves understanding where the money will come from to both fund and sustain each digital initiative. The interview results show funding comes from a variety of sources that includes funds from annual budgets, special projects operating budgets, grants, and from money allocated for new exhibitions, installations, and shows.
When asked about funding, Chun mentioned her institution, The Museum of Contemporary Art, Chicago, funds some of their digital initiatives through grants. When writing a grant proposal, their institution must make a strong case and develop a clear narrative why they should receive funding over another organization. There is a side benefit from receiving money from grants that Chun finds especially helpful. A process she describes as:

"the heart of our thinking about what we value and what we do in the institution. You have to really express why a project is more important than the next one, why you want to do this specific one, and why [develop it] for adults and not children, for example."

Whether the project gets funded or not, the process of articulating the importance of a digital program can help the institution better understand the importance of the project, and it also may also create an atmosphere where the institution will fight for implementing new digital initiatives in the future.

**Question 2: How do you define digital engagement?**

Asking the interview participants to define their understanding of digital engagement was important to benchmark against each other to try and uncover some similarities and differences. While not all participants had a clear definition of "digital engagement" some went into great detail explaining what they understood it to mean, as well as problems they have with the qualifier "digital" being used to describe this type of engagement. Nancy Proctor, Chun, and Edwards felt that "digital" as a qualifier may not capture the true essence of what their position entails. While they use digital in many forms to engage audiences, the classification of "digital" could be used in a way that does more to separate and create a false distinction, than it does to deliver content. Proctor pondered whether the qualifier of "digital" will be used in the future and if it will eventually be discussed *only* in terms of "engagement". She made the analogy that it
would be strange if someone delivered a document and exclaimed "here is a document I typed for you on a typewriter." Adding the mode of production and platform as part of the statement seems ridiculous in this context, but she argued that in the future, museums will not make that distinction with "digital," but rather simply define it in terms of "engagement" or "content." Chun agreed and referred to this distinction as a "land grab" where uses of "digital" as a title are "worn like a badge that separates people into their own perspective camps." Edwards referred to digital as "the path taken through the process" where it makes the experience better. She argued that "the idea there is a separate line of activity that is just 'digital' is [a] complete fallacy" and argued that this is not simply the case for art museums, but for all museums.

While Smith, Wells and Wise did not make that explicit distinction separating "digital" from "engagement" and "content," they instead focused more on the practical application of digital and multimedia in exhibits. At the Blanton Art Museum, Smith understood the institutional concept of "digital" to be defined very broadly and suggested that digital allows the museum to "increase institutional agility that allows [for] better focus on the visitors needs." The modes of engagement he suggested included social media, websites, mobile, and optimizing exhibits "to work better to interface with users needs."

Smith also suggested that there may be a difference with how art museums use technology to engage audiences which may differ from science museums, which he suggests, might be more comfortable with screens and digital interactives. While there may exist differences in comfort, he suggested that the end goal of "engagement" does not seem to be unique to art museums and is shared broadly in the field. Wise took a similar practical approach stating that the McNay understands digital engagement to mean multimedia and interactives in
exhibits, social media platforms, websites, smartphones and other technology that can be used to engage.

**Question 3: How do you create a digital strategy for the museum?**

Part of the decision process in developing a digital strategy is determining who will build the platform and create the content. For all their apps, Crystal Bridges partners with Cox Communications, which is the local cable provider in Bentonville, AR. They produce the application framework while Wells manages input from staff and determines what content goes on it. The other interview participants agreed that the usage of third-party developers, off-the-shelf apps and products, and use of technology all depends on the individual exhibition. It may make sense in one gallery to partner with a company for developing an app, while in the next gallery, content could be developed by curators and installed by the preparators and exhibit designers.

As mentioned earlier, meetings were reported to be an important part of the DEM's average day. One important benefit of those meetings is the collaborative environment they foster which gives the DEM opportunities to create the institutional digital strategy. Through collaboration and the encouragement of peers to offer their expertise and opinions, the DEM can manage projects and create meaningful content that can be used to engage audiences.

Another important benefit of encouraging collaboration is the potential to erode some of the barriers and silos that may have developed over the years between departments. It is no secret in museums of all disciplines that a 'silo mentality' can develop where each department becomes an island within the broader organization, and develop a working environment that becomes very insular. Wise saw this effect as problematic and said, "In the museum world…people are [sometimes] in their silo and they don’t want to give up any control" which
makes it difficult especially "with larger media projects [when] you really want everyone's voice and input in order to make it work properly." Wise noted that most museum professionals come from a variety of backgrounds and academic perspectives that can help bring new perspectives, but also cause conflict. Wise noticed this throughout his own career especially with people who see the world through a specific lens. According to Wise, rather than operating in those silos, meetings, collaboration, and team projects can produce a more well-rounded set of data and content, than content produced in isolation.

Edwards holds a weekly hour-long meeting with professionals from a variety of departments called the Digital Working Group. While it has turned out to be a boon for generating ideas, and collaboration, initiating a new way of working cross-departmentally at the museum was a challenge:

“It took quite a lot of effort to set up a cross-departmental group—it just wasn’t a way of working that is familiar here. I had to be very clear about the purpose for it, and ensure management that there would be a reporting structure that would report out to the Deputy about what we were doing, [and] that we were working on projects that would help the whole institution.”

Smith reported using project management applications like Slack and Trello to coordinate through departments, and in the process, achieve many of the same outcomes that traditional meetings seek to accomplish. Slack and Trello were developed to help with group collaboration on projects and both offer many options to share data, set appointments and deadlines, manage workflow, and update the group on progress, thus keeping everyone in the same loop. While this is not a universal method for collaboration in museums, Smith demonstrates that art museums could use these project management software tools to assist with the development of collaborative projects as a digital solution in addition to traditional structured meetings with staff and artists.
As mentioned earlier, an important part of this collaborative process may include the artists themselves. Working with living artists is one way which makes art museums are unique from other museum disciplines. Unlike science, natural history, anthropology, and other museum disciplines, the DEM in art museums has the opportunity to partner with the artists to create content and programs. Chun explained that art museums are "the representative in many cases…of the living artists," and with living artists there are many opportunities to create and develop content for audiences. This collaboration is necessary because the artist may have a very specific image of their work and the DEM has a responsibility to ensure the both the artist vision and the museum brand are accurately represented.

At Crystal Bridges, Wells helped develop a digital experience with artists in *State of the Art: Discovering American Art Now* (9/13/14-1/19/15). This exhibition included 102 artists from across the country to be included in an exhibition about contemporary art in America. In conjunction with the exhibition Wells helped develop an app visitors could use to learn more about the artists and their work. She mentioned many artists were gracious and allowed Crystal Bridges to use their content in the app, but she recalled other exhibitions where artists were more particular with how the content could be used and displayed digitally. She described one occasion where a consensus could not be met, and the digital portion of the project had to be cut out of the exhibition entirely.

When developing content the DEM not only has to take the museum staff’s opinions under consideration, but also respect the wishes and vision of the artist(s). Introducing a digital component to an exhibition could radically change its look and feel. This is something the DEM's and curators understand when working with living artists who are showing their work in the museum and are aware that sometimes consensus or accommodations cannot be met.
Question 4: Are there any misconceptions about your role in the museum?

Each participant was asked about any misconceptions they have noticed from staff and management about their roles and responsibilities as well as the use of technology in galleries and online. Since the DEM is still a relatively new position in museums, it was important to uncover any common misconceptions shared across the field. Edwards recalled when she first arrived at her institution, they did not fully understand what her actual role would be. She mentioned that staff thought she was being brought on board to fix all their digital problems and "make digital happen" on her own, seemingly without any additional staff involvement. Smith echoed those assumptions and confessed that staff at his institution originally thought he was hired to install technology everywhere until they later began to understand that this was not his goal.

There were also some misconceptions about how visitors are using technologies in galleries, especially with the devices they bring with them. One example of this is the 'selfie culture' that is developing within museums where visitors with cameras and smartphones are taking photos of themselves in front of paintings, statues, or installations and sharing them through social media. Edwards mentioned some curators still have some misgiving about this trend. She stated that some will point to copyright concerns, while others feel visitors are not actually looking at the artwork. Edwards agrees copyright considerations should always be respected, but disagrees with the concern over selfie's. To take a selfie, requires the visitors to actively seek out the artwork, observe and engage with it, and then share it with their network. The fact that visitors are sharing their experience with their social networks demonstrates they have formed a connection with the artwork and want to include others in that experience. Smith mentioned similar concerns he heard at an Art Directors conference. These concerns went a step
further and some suggested that if visitors post photos online to social media then the viewers of those photos wouldn’t want to come to the galleries to see it. While this may seem like a logical concern, Smith pointed to the fact that evidence does not back up those concerns, and in fact, the opposite may actually be true.

Smith also suggested that there is an assumption with staff that having touchscreen and interactive technology in exhibits will attract younger audiences, which he again suggests is not supported by evidence. There is the belief that if you include tablet devices on a railing or a touchscreen kiosk in a gallery it will encourage more youth to visit. With the exception of creating a "fun, tactile experience, for younger children," he again stated that there does not seem to be data to back up those claims. Smith went on to suggest that broadly speaking, museums collectively are guilty of defaulting to smartphone apps for their digital needs because they are 'hot right now' and they solve the "we don’t have an app yet" problem. This touches on the phenomena that Chun, Edwards and Proctor mention above that simply building an app is not enough to engage audiences, and what really matters, is the content and how it is being utilized for engagement.

Technology available today offers many opportunities to create an interactive experience for visitors but Wise suggests that sometimes the media introduced in galleries does not have to be highly interactive and complex. He has witnessed visitors walk right past interactives and stop at a video playing, because it "catches their eye." Finding ways to obtain the attention of audiences and create relevant content that is easily digested and captures their imagination is very important as well. Digital content can be overwhelming if it is all around you, and he suggests that the design of the surrounding exhibit is important as well. If you offer a place to sit and enjoy the video, more people may stop and spend time with it. Chun stated, "It's also
[important to] understanding what the needs are of digital partners and react quickly to their needs…otherwise they walk away."

Question 5: What are some successes and challenges you have experienced in this position?

Near the end of the interview each participant was given an opportunity to share some of their successes as well as some of the challenges they have experienced. Most shared their experiences developing content, creating bridges between departments and also about the success they felt as being able to accomplish so much in the relatively short time they have been in their position. As mentioned earlier, each of the interview participants were the first in their institution to develop a digital strategy, and many of the participants spoke about the difficulty building their department from the ground up, as well as the structural changes in staffing that were needed.

Successes ranged from large, interactive projects to incremental changes in staff culture and event projects that were received with high acclaim by peers. Both Wells and Wise shared some of their successful projects including a couple that have earned awards. Wells recalled one visitor stating at the completion of an audio tour she worked on, that they felt like they "just got a master’s degree in art."

Chun spoke about the development of the MCA's website which she was very proud of. Chun noticed the MCA's website was not in fully ADA accessible and saw it as an important step toward equity to create a website that could be used and enjoyed by every visitor. One of her challenges centered around the highly visual nature of art museums. The question Chun and her team had to answer was how to develop an ADA website that featured a highly visual component while making it accessible to audiences with visual impairments? The process brought the staff together, who previously had no prior knowledge of the experience of
individuals with visual impairments. They were able to create narrative descriptors of content in an empathetic way that went well beyond simple descriptions. "The descriptions are marvelous; they are like little bits of poetry." As an added benefit of their work, Chun also mentioned that the content was created in a way that would be interesting to sighted visitors as well.

Smith identified his work on the 'Mix Tape Project' for the exhibition *Come as You Are: Art of the 1990's* (Feb 21, 2016 - May 15, 2016) which engaged the local community of Austin to create two 45-minute playlists of their favorite songs from the 1990's and share it online through their website. Austin, TX is a city famed for its music scene and visitors of a certain age will remember making mix tapes on cassettes and sharing them with friends. This project created a memorable and collaborative experience for visitors, and helped engage the community in a fun and meaningful way.

Wise mentioned several projects he was especially proud of including the 'Twitter Wall' he developed for an exhibition about architect and designer George Nelson. This project, which received Tweets from around the world, featured many videos and interviews and was co-curated by Nelson and Wise. He was also very proud of a project he created for only $4000 dollars that incorporated many objects from their extensive collection of theatre arts objects including many objects that were too difficult to display otherwise. The exhibit was highly interactive and included music, theory, and design.

Success for a DEM does not necessarily need to be the creation of elaborate interactive experiences for visitors, but rather, could be the smaller incremental changes needed to set the stage for future success. At the Baltimore Museum of Art, Proctor spoke about her ability to integrate different departments and positions to work together toward the same goals. Edwards spoke about the success of creating the Digital Working Group as well as the smaller incremental
changes in staff conceptions of how to use digital and their increased participation in the process. "People are stepping up and saying 'I can help' and it's not just one department trying to operate on their own." Setting the stage for future success is just as important as the end product. Smith also spoke about the "little projects that build on one another" and what "feels minor…turn into different ways of working later." An example of this was a small shift in the format of their institutional emails that netted a 20% increased open rate.

The participants also mentioned challenges they faced while at their organization which include having to repeatedly explain what their roles and responsibilities are with staff and directors, budget and resources limitations, and the feeling that there is not enough time in the day or days in the week to accomplish the many goals each DEM sets out to complete.

Edwards identified the challenge of getting staff "to understand what it means to hire someone like me," and what those roles and responsibilities entail including the perception that she was brought on board to handle everything on her own. Wells mentioned the difficulties of changing priorities when new leadership would join the museum. In her time at Crystal Bridges, there have been several changes in upper management that translated to institutional changes in priorities. She stated that “everyone has their own philosophy as far as how art should be presented, and our department has had to switch gears.” This is a challenge that DEM's will likely face in their museum, especially if those priorities shift dramatically.

Smith spoke about challenges regarding resources and budgeting restrictions that make purchasing hardware and software difficult. Much of the technology purchased has to be “off the shelf” and used with future exhibitions when possible. As mentioned above, it is very difficult to establish an average cost to creating a digital strategy. Technology can range from free/open-sourced to millions of dollars, and the DEM has a responsibility to select the right technology for
the right application. This includes understanding budget constraints and ways to reuse technology when possible. With a smaller budget than the one Smith had at his previous position at the Metropolitan Museum of Art in New York, he has had to be much more conscious about what technology to use and purchase since the budgets between the two museums varied widely.

Finally, there is still the issue of traditional audiences who may not want or need a digital interface to experience the exhibits or gallery. To answer the question of how to respond to the needs of traditional visitors, Smith stated that he prefers to use smartphone apps instead of the bolder digital interactives in the gallery. For him, this offers visitors who prefer a traditional experience a way to enjoy the artwork, and he offers the museum app to the visitors interested in that type of experience. As an added benefit to apps, it is easier to use built in analytics to measure how people are responding to it, rather than trying to use other methods to evaluate people’s excitement or annoyance with digital installations. While apps offer a subtle way to engage audiences, he also believes the traditional visitor should receive the same experience with or without the app so they don’t feel that they are missing out on anything. It is the DEM's responsibility to find a balance when to use technology and when not to.

The concern with the traditional visitor is a conversation that happens a lot at Crystal Bridges. Wells found that there are a lot of visitors that go to museums to get away from technology. Echoing Smith's process at the Blanton Art Museum, Wells gives visitors the opportunity to use technology if they want to use it. She used the analogy that technology should be similar to how visitors use (or don’t use) guided tours. It is there and advertised if you are interested, and if you are not, you still have the same access to the galleries without it. No one forces the tour, and similarly, she feels no one should force the technology. This extends to the use of digital interactive installations in gallery. She prefers them to be in a convenient place for
visitors who want a deeper foundation of knowledge, but not in a place that becomes obtrusive to someone not interested in that experience.

These successes and challenges highlight some very important roles and responsibilities each DEM interviewed experienced. In a short period of time they were able to make positive institutional change and engage with audience in effective ways. The importance of foundational successes like the Digital Working Group and integration of departments helped to create a dialog between departments where collaboration and content development can occur. Those incremental changes could help the DEM create successful projects like the staff directed ADA website or the successful development of the Crystal Bridges app. What these examples demonstrate is the DEM can have a positive effect in bringing ideas and people together to develop a strategy to engage audiences.

**Question 6: Do you have advice for professionals interested in this field?**

Finally, each participant was given the opportunity to offer advice to professionals or emerging museum professionals new to the field interested in becoming a DEM in art museums and speak about any best practices they follow that helps them accomplish their work. To get experience in this field, Edwards recommended looking for individual projects to work on at museums, libraries and archives, especially if the emerging museum professional has experience working with technology and writing code. Many institutions offer contract or short-term work that the emerging professional could use to gain experience working to digitize collections or help create content.

The theme of networking was echoed by most participants. Attending conferences like the Museum Computer Network (MCN), Museums and the Web (MW) as well as the large American Alliance of Museums (AAM) yearly conference were suggested as important ways to
meet other professionals in the field. Proctor described the importance of networking as "your best asset" in establishing a career, and also that the jobs of the future "might not exist yet and you need to be able to learn quickly and adapt to the changing job market." Smith encouraged new professionals look for scholarships and ways to volunteer to offset some of the conference costs. Smith also mentioned that the field is very small, and conferences like MCN and MW are great opportunities to meet others doing digital work in museums in the field. Wells encouraged new professionals to also consider local and regional conferences and consider submitting papers to journals and trade publications. She recommended leaning on your contacts and be willing to make lateral transitions within an organization and be willing to transition out to other institutions.

Discussion

The participants interviewed for this research paper shared many insights into what the roles and responsibilities are for DEM's. It takes time to create a digital strategy and even longer to work out the kinks to establish that the digital initiatives are engaging audiences in ways traditional approaches have not been able to achieve. This might be something museums with limited budgets may not have the resources or time to experiment with as effectively as those like the ones in this study have been able to do. The institutions in this study have made the investments in establishing a DEM on staff along with their support teams, and have been given the support to iterate, experiment, and develop initiatives that may require a large investment. Looking to these institutions who have incorporated a DEM or even those who established a digital lab may offer suggestions and examples to emulate when bringing in technology or developing a digital strategy.
Additionally, these interviews revealed two important concepts: the role of collaboration both with staff and artists, and the changing perception of "digital" in museums. Collaboration and project management are two of the most important roles of this position since both require extensive work to bring multiple voices to the table to create something usable for visitors. Collaboration can resemble the Digital Working Group that Edwards developed at the Hammer or could even be digitally hosted through project management software like the ones they use at the Blanton Art Museum. Whatever forum this collaboration takes place in, the DEM relies on the expertise and involvement of staff and artists. As project managers, DEM's are held to firm timelines and may have to juggle multiple projects simultaneously as the museum opens and closes new exhibitions. This requires making quick decisions with the available data and content, make last minute changes and adjustments, and develop a finished product that both the museum and artist can agree best represents the work.

If the DEM's most important roles are collaboration and project management, their most important responsibility is to understanding the role digital technology has in delivering content. Although technology and digital media permeates our culture, the DEM works to find a balance between traditional visitor experiences and how to use new digital platforms and interactives to use both online and in gallery for those interested learning more about any given exhibit or gallery. While digital is the medium the DEM's work with, the participants in the study remind us the focus should always be "content" first. Edwards, Chun, and Proctor all mentioned their hesitation using the qualifier of "digital" when describing this position and their point is well taken. Whether a science center or small history museum, "content" and its interpretation is the most important component of the visitor experience. Understanding how content drives that experience is where the DEM can use their expertise and insight to help craft how the visitor
learns or experiences the exhibit. Even museums without a DEM could learn from the ones who have incorporated this position and develop their own unique methods of delivery that works best for their own institution.

Collaboration, project management, and content balance are three ways the DEM brings value to their institution. Without these 'Big Three' elements, the DEM cannot bring digital projects and programs to the museum in ways that visitors will appreciate and find meaningful. These characteristics can produce small changes such as institutional understanding of digital and incremental steps toward developing a digital strategy, to the larger successes of projects like the Twitter wall, ADA compliant Websites, and interactive exhibits like *Come as You Are*. In each of these examples, the DEM has a role and responsibility to help the museum achieve its mission through creative ways of content delivery and visitor engagement.
Chapter 5: Conclusion

One of the most important responsibilities of anyone working in a museum is how to attract and engage their audiences. DEM's are not the first to explore concepts of engagement, and traditionally, it has been the objects themselves that museum professionals have used to engage audiences. Since the beginning, museums have used objects to engage and inspire (Conn, 2010). Recently, the museum field has seen a growing emphasis on engagement through visitor-centered participation—where visitors are transformed from passive observers to active participants (Simon, 2010). For the DEM, this means potentially including touchscreen and interactive displays, multimedia, and smartphone apps to supplement this engagement.

The purpose of this research study was to explore the roles and responsibilities of a new position in the museum field referred to as Digital Engagement Managers (DEMs). With very little written about them in the field, this study sought to describe how some art museums are benefiting from their inclusion and how they are able to develop a digital strategy to meet the demands of visitors in the 21st century.

This research begins from the point of view that a DEM is not an IT manager or Marketing associate, but rather, a mixture of all departments. Study results suggest that a DEM is only as successful as the data and content they receive through collaboration with other departments, artists, and community partners. Having a dedicated, salaried position responsible for the developing a digital strategy is only one of the many benefits these individuals and their teams bring to their organization.

One of these benefits comes from the community partnerships that can develop though collaboration. The DEM can act as the point person with collaborative community ventures like the local Austin technology company who worked with the Blanton Art Museum to install beacons for their in gallery applications, or Crystal Bridges who worked with their local internet...
provider to develop their apps. The DEM could also help the museum gain access to new funding opportunities for programs and exhibitions such as technology grants through federal and private donors. This research also shows that the DEM has a role in connecting departments together to collaborate on content development like Susan Edwards was able to accomplish with the creation of the Digital Working Group.

While art museums are moving toward incorporating more technology in galleries, there will still be the audiences who prefer more traditional or 'analog' experiences. This is especially true in art museums, where curators try to create a contemplative, and thought-provoking experience with the art. Some people will sit on a bench and spend a few moments in quiet reflection with an artwork and will never feel the need to interact with it digitally (Gelt, 2015). How does a DEM respect those needs while giving other audiences the opportunity to use technology if needed? Galleries like Gallery One at the Cleveland Art Museum and the Cooper Hewitt in New York are one end of the spectrum, while the salon-style gallery at the Frye Art Museum in Seattle, WA, who use a binder with photos and text as a supplement the gallery visit represent the other end (Trey, 2016). For the contemplative, "traditional" visitor, a 5'x40' wall of interactive touchscreens and digital kiosks might be off putting and they may prefer the quiet space of the Frye instead.

The art museums in this study made a decision to incorporate this position because they identified a need and benefit in doing so, but the research does not lead to a conclusion that the DEM is needed in every museum to achieve the same goals. Museums with a limited budget or those who choose not to include a DEM could learn from the examples set by the ones who did. Whether it is incorporating methods or programs developed by DEM's, observing what the digital labs at IMA or SFMOMA are doing, or replicating programs and projects from case
studies, these museums could learn from their experience and develop their own unique digital strategy. Not all museums have to reinvent the wheel and can learn from the successes and challenges of these institutions and bypass much of the smaller, incremental changes they needed to do to establish the position.

To accomplish this, it requires more institutions and museum professionals to publish papers about their digital initiatives and theories of digital engagement. The interviews demonstrated how fluid this position is within art museums. Each participant operates under a different job title, vary in positions of authority within the organization, and have their own theory to how digital can be used in museums. More research is needed from the field to better understand how these professionals are situated within their institutions beyond just art museums. This includes the need to establish a list of their job descriptions and institutional roles and responsibilities to be used for museums interested in developing their own DEM. It is difficult to hire someone if there are no metrics to gauge success, and no way of knowing what to look for in a potential new DEM. This is what Edwards describes as the classic 'catch-22' situation where there is a need, and no idea how to fill it.

Further research is also needed to explain how museums will respond to the ever changing technological landscape we are living in. How will concepts of "content" and "engagement" change in the future, especially in the context of Web 3.0 and the "internet of everything" age where more and more benign and analog aspects of our material culture are being animated through the web? How will museums interact and engage with audiences in the future? This uncertain future was echoed by Nancy Proctor who stated that many of the jobs for emerging professionals may not exist yet. Museums are already seeing the landscape of job descriptions for prospective new hires change to include basic understanding of web analytics,
Photoshop, social media, and project management software to name a few. More research is needed to define what the roles of future museum professionals will be, especially if the qualifier of "digital" will be assumed in general job descriptions for new departmental hires.

A final unanswered question is posed to the reader as a matter of reflection to the future role of museums. Should museums be pioneers in meeting the demands of the 21st century and become drivers of technology in our culture, or should they wait for culture to change first and then respond to it? Museums with digital labs are pioneers in this context and are developing amazing ways to interact beyond the traditional museum audience to become maker spaces and community assets for research and development. New methods of engagement are being developed constantly, and the museum has the potential to be on the forefront in developing and using new technologies to engage audiences. Some examples include Bluetooth Low Energy beacons and location-based software that remove the barriers of low signals and data consumption, virtual reality headsets that create immersive in-gallery experiences, and asset digitization initiatives that give audiences greater access to their collections.

Whether one believes museums should forge new paths or respond to existing ones is a philosophical debate the field will likely continue to have. One of the most exciting elements this research has uncovered is the new possibilities and bright future for museums in the 21st century. Technology has opened new avenues for museums to redefine and reinvent themselves to meet the challenges of today in novel ways. The DEM's role will likely change as technology and theories on content and visitor engagement change, but what this research demonstrates, is the importance of having a dedicated staff and team present to meet those challenges and to stay active in the community throughout that process.
If museums are to continue to be cultural resources to the community, how they respond and participate in the discursive practices in the community will determine if they are to continue to be relevant. The museum of the future will likely continue to push for inclusivity, relevant visitor experiences and open access to collections. With the help of new technological and digital methods, museums can expand their approach to advocacy, creating dialogue around social and cultural events, and develop new engagement strategies revolving around content and collections. These new methods of engagement could provide the community a new resource for learning, research, or general interests. The range of possibilities through technology are limited only by one's imagination and for that reason, DEM's are vital to providing visitors the access to those experiences. While it is difficult to predict the future, this paper hopefully will show how these museum professionals are pioneers in the field and ways to leverage technology to create meaningful visitor experiences.
References


Appendix 1

The following are longer explanations of the Lab Culture some art museums have created to expand their reach to the community using technology.

**Carnegie Museum:** The Carnegie Museum: Innovation Studio is a "post-digital research, design and development laboratory" that was established to support the "experience based interactions modern audiences demand" while taking advantage of the creative community surrounding the museum. The hope with Innovation Studio is to create a space that is "intellectually fulfilling and emotionally stimulating" while being "consistent, elegant and fun"("About the Innovation Studio," n.d.).

**The MET:** Media Lab. The MediaLab at the Metropolitan Museum of Art in New York was created in 2013 by a small team who worked within the Creative Development Group in the Digital Media Department to help the museum explore ways to create, produce, present, and disseminate multimedia in the museum and through collaboration with New York's creative community, startups and students ("The MediaLab,” n.d.). MediaLab acts as a R&D hub for the museum and a place where emerging technologies can tested and prototyped and a space where you can "think out loud, not be afraid of failure" (Cosio & Stimler, 2016). "There is opportunity for more labs in museums, but key to that is having assets and resources you can use. It’s important for museums to structure their data and develop new content with efficiency, scalability and spreadability as priorities" (Cosio & Stimler, 2016).

**LACMA:** The LACMA Art+Technology Lab works like other labs in the field to "explore the convergence of art and technology." They partner with artists and technology companies to create and experiment with emerging technology, but also provide financial assistance and facilities to develop prototypes (“Art + Technology Lab | LACMA,” n.d.).

**Balboa Park Online Collaborative (Hybrid)** Founded in 2008 is similar to the labs individual museums have established, however, it focuses on the collection of the 17 cultural organizations and museums located within Balboa Park to "foster a culture of innovation and collaboration" and develop a digital strategy (“Overview,” 2016).

**SFMOMA:** The San Francisco Museum of Modern Art (SFMOMA) has positioned itself to be the museum of the future with a brand new building opening May 14, 2016 with an emphasis on digital engagement and taking advantage of the creative community in San Francisco. SFMOMA lab is headed by a team of SFMOMA staff from a variety of departments with the intention to create a space where they can "investigate the intersection of art, design, technology, and museums" and will provide a space where "new modes of storytelling, games, location-aware technologies." Similar to other Labs of their type, it is a space where experimentation, prototyping and collaboration with the surrounding community can take place (“SFMOMA Lab,” n.d.).

**Indianapolis Museum of Art:** Similar to other labs, the IMA Lab is staffed with professional technologists, designers and strategists who work on behalf of the museum to benefit the broader community. This include consulting, software, applications, and deployment/systems integrations. They are technologically focused on creating open-sourced content that is intended for the broader use of the cultural sector (“About | IMA Lab,” n.d.)
Cooper Hewitt The Cooper Hewitt Lab In New York has completely adopted to a digital engagement strategy when they reopened in 2014 after a complete museum remodel. They wanted to encourage the idea of "play" since in their new design and in that spirit, they wanted to give visitors an opportunity to be creative and used digital kiosks, interactive tables and a "making app" to give them the opportunity to design and save their work and bring it home with them. Two of their most exciting experiences for visitors is their Immersion Room ("Cooper Hewitt Labs," n.d.) and the Cooper Hewitt Pen ("Designing The Pen | Cooper Hewitt, Smithsonian Design Museum," 2014). As holder of one of the largest collections of wall coverings in the U.S. they created an opportunity where visitors could explore the collection on a digital kiosk and even design their own and have it displayed on a wall in the museum. The Pen was one of their most inventive creations as a way to encourage visitors to design and engage ("Cooper Hewitt Labs," n.d.).
Appendix 2

Interview Questions

The purpose of this research is to examine how digital technology is being developed in contemporary art museums, specifically through the emergence of professional positions devoted to the development and management of digital engagement strategies and programming. Your participation is voluntary, refusal to participate will involve no penalty or loss of benefits, and you may discontinue participation at any time. As a reminder, the identities of both you and your museum will be revealed in the final results of this study. This interview will be recorded, and I may quote you in my final paper. I will give you the opportunity to review any direct quotes before publication.

Do you have any questions before we begin the interview?

I would like to start by asking you to say...

What is your job title?

How long have you been in this position at this institution?

Briefly, what lead you to this position and particular museum?

What are your primary daily responsibilities?

I have some questions about your position specifically to your institution...

What department are you connected to?

How many people are in your department/team? What are their responsibilities?

How was this position first established at your museum? And has it this position evolved over time? How so? Or in what ways?

Where does funding come from? Grants? General Budget? Special Project Budget, Etc.?

Next I would like to learn how your department work with the broader organization

What other departments or positions do you collaborate with when creating and implementing your programs or initiatives?

Describe what that process looks like?

How do you navigate between departments?
Do you work with one more than others?

How close, if at all, do you work with the Director and the board when creating these programs?

*I am interested in the application of digital technology*

How does your institution define “digital engagement”?

What does digital let you do that cannot be done otherwise?

Do you use 3rd party developers or is everything created in house?

Do you think art museums are unique or different regarding the application of digital technology?

How do balance digital with visitors who prefer "traditional" (non-digital) experiences?

What are some, if any, misconceptions about introducing technology in museums you have noticed? Such as fighting for or against certain technologies (i.e. apps, SmartTables, iPads, etc.)?

*Now about the audiences who are using the technology.*

Are there particular audiences that are targeted by digital experiences? (does this differ from other museum audiences?)

What kind of feedback do you collect from your audiences, about your programs or initiatives? What’s the general sentiment been? (how do people feel or react to it?)

Have you conducted any formal evaluation of any of the programs that are part of your digital engagement strategy?

If so, how specifically have you used those evaluations to inform future or ongoing development?

*Finally, I have some 'big picture' questions for you...*

What you say has been your biggest success since you began this position?

Are there particular challenges that you’ve faced since beginning this position?

When creating digital content, are there any professional best practices you follow? (learning theories, frameworks, digital theory or professional sources?)

Do you have any advice for emerging museum professional or other institutions interested in developing a digital strategy?
Appendix 3

Roles and Responsibilities of Digital Engagement Managers in Art Museums
University of Washington
Julian E. Miller
jmillerlb@yahoo.com

Thesis Advisor: Angie Ong, Lecturer, Museology Graduate Program. Phone: (206) 221-0763. Email: aong@uw.edu

Interview Protocol Form

Hi Participants Name

My name is Julian Miller and I am a graduate student studying Museology at the University of Washington, Seattle. I am conducting my thesis research on the roles and impact of museum professionals, like yourself, who develop and manage digital engagement strategies and programming in contemporary art museums. My goal is to get a sense of current trends and developments within this field and uncover ways to reach all audiences regardless of their level of tech experience and comfort.

I am conducting interviews with museum professionals across the country and given your experience engaging audiences in digital media both within the museum and as a consultant, I would be very interested in including you in my study. Would you be available for an interview sometime next week? Our conversation would take approximately 45-minutes and be conducted at your convenience over telephone or Skype?

Your input will be incredibly valuable to my thesis research and I would love the opportunity to get your expertise and viewpoints on this topic.

Looking forward to hearing from you soon. Thank you for your time.

Best,
Julian Miller
UW Museology Class of 2016

Do you have any questions? _________________________________________________

Do you agree to participate in this interview? __________________________

Research: The Roles and Responsibilities of Digital Engagement Managers in Art Museums

Date: ________________________________________________
Time: ________________________________________________
Location: ________________________________________________
I wanted to follow up with you on my thesis research, which is almost complete. After finishing our interview and interviewing five other professionals in the field the results are showing some really interesting data. Three main themes have emerged: 1) the importance of collaboration between artists, staff and community partners, 2) that there is a common theme of being a project manager more than actually computer programmer working in IT code, and 3) the importance of balancing content (both through digital platforms as well as non-digital/tangible content). I also found that there was a commonality shared with all participants that "Digital" is simply a platform and the most important part is the content and engagement that it delivers. I made reference to that in several places to reiterate that content is key and to not get too hung up on the "digital" qualifier.

After our interview, I was able to use a lot of our conversation in my Results and Conclusion chapters and in some places quoted you. I wanted to double check that it would be okay to name you as being a participant in my study and also attribute some quotes to you. You may review my direct quotes if you like.