

The Value of Virtual Programs in a Post-Pandemic Society:

A Comparison of Visitor Engagement of In-person and Virtual Programs Hosted By

Art Museums

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Abstract

While the COVID-19 pandemic has taken a significant economic toll on cultural institutions, it has also facilitated the surge of virtual programs hosted by art museums. Today, as the world gradually moves out of the pandemic and returns to a new normal, art museums have begun to reopen and restore in-person programming. Consequently, an important question has emerged: what is the value of virtual programs in a post-pandemic society? One approach to determining value is looking at how well the program engages audiences and facilitates learning. Therefore, this research study hopes to uncover the value of virtual programs by gauging the opinions of art museum staff regarding how visitor engagement differs between in-person and virtual programs. Interviews and surveys of staff members of art museums in the Midwest region of the United States are used to examine the differences in engagement of in-person and virtual programs, the current best practices of measuring engagement, and how staff will likely navigate the benefits and challenges of virtual programming in the future. Though the findings suggest that engagement is generally higher for in-person programs, most of the responding staff believe that some level of virtual programming is here to stay.

Introduction

At first glance, art museums are spaces dedicated to the display of art objects for public or private audiences. However, at their core, museums provide three key services to the communities they serve: collection, preservation, and education. These services distinguish museums as memory institutions that house and communicate the histories of art and life. To provide the first two services of collection and preservation, art museums accumulate and conserve art objects. Traditionally, education was provided through the display of art objects at exhibitions and in galleries. However, by the 21st century, the missions of art museums had

expanded beyond the display of art objects to include programs, such as behind-the-scenes tours, artist lectures, classes, social events, and festivals (Kotler). The engagement of audiences at museum programs is a primary way museums fulfill their educational responsibility; for instance, it is the museum's Education department that is tasked with developing a calendar of public programs that are in conjunction with the collection and/or exhibitions (Williams, 36). Museum programs can be facilitated in-person as well as virtually, though we do not see museum programs entering virtual spaces to a large extent until the COVID-19 pandemic.

The COVID-19 pandemic forced all non-essential businesses, including cultural institutions, to close. With in-person business no longer an option, a surge in virtual programs hosted by art museums ensued that allowed the institutions and their audiences to stay connected and engaged from the safety and comfort of peoples' homes. Therefore, virtual spaces allowed museums to continue providing educational resources to their communities. For example, "during the pandemic, 75% of museums stepped into their pivotal role as educators providing virtual educational programs, experiences, and curricula to students, parents, and teachers" (Khashan).

Unfortunately, the financial crisis arising from the COVID-19 pandemic led to the prediction "that one out of every three museums may shutter forever as funding sources and financial reserves run dry," according to a 2020 survey conducted by the American Alliance of Museums (AAM) of more than 750 museum directors (Khashan). Along with the threat of closure, museum directors predicted cuts to programming and staff; for instance, "two-thirds (64%) of directors predicted cuts in education, programming, or other public services due to significant budget cuts" (Khashan). Therefore, because of the financial impact of the pandemic, art museums are forced to carefully decide where to direct their limited resources, both human

and monetary, to lower the risk of disinteresting and disengaging audiences, losing funding from public and private donors, and facing potential closure.

Today, the world gradually moves out of the pandemic and slowly returns to a new normal, allowing art museums to reopen and restore in-person programs. With in-person engagement and education once again an option, an important question has emerged: what is the value of virtual programs in a post-pandemic society? One avenue for determining the value of programs is program evaluation, which often looks at how well the program engages audiences and facilitates learning. Therefore, this research study hopes to uncover the value of virtual programs by analyzing the perceptions of art museum staff on how visitor engagement differs between in-person and virtual programs hosted by art museums.

The purpose of this study is to examine how art museum staff negotiate the benefits and challenges of virtual programming in a time of limited resources during which their survival may be under threat. The findings are meant to help art museums decide whether to continue virtual programs as well as what proportion of in-person to virtual programs to maintain in order to engage the most audience members. The research design will include interviews and a survey of staff from art museums in the American Midwest to understand the differences in engagement of in-person and virtual programs as well as the best practices of measuring engagement of museum programs.

Literature Review

There are many important debates relevant to the comparison of visitor engagement of in-person and virtual museum programs. These discussions are often centered around issues of accessibility, experiential differences, motivations to attend, challenges of implementation, and the best practices for measuring engagement. Acting as a catalyst for many virtual museum

programs, the COVID-19 pandemic is also a topic entrenched in this discussion, especially since many art museums still maintain limited capacity regulations and have yet to return to a pre-COVID state of operation. Before analyzing the relationships between these issues and museum programs, the two program formats and engagement are defined.

Defining Concepts

This research study aims to look at how museum staff perceive the relationship between the format of museum programs and engagement as well as their opinions on what the future of museum programming will look like. For the purposes of this study, the format of museum programs is broken down into in-person and virtual. In-person programs are on-site events hosted by the museum. Examples include guided tours, artist lectures, youth programs, maker events, summer camps, etc. Some of these programs can also be adapted to the virtual format. Because of the short time span that virtual programs have been around, the terminology for virtual programs is not unified across art museums and museum studies literature. One term that has been used is Interactive Virtual Learning (IVL). An IVL Program consists of “live synchronous educational lessons facilitated by virtual museum educators who actively teach groups using the collections, interactive discussion, hands-on activities, and technology” (Gaylord-Opalewski, 232). An important component of all museum programs, regardless of their format, is the presence of museum staff who act as a facilitator and educator.

There are many ways to define engagement, and it is often defined by “how visitors experience museums, including how they move between exhibits, form and express interests, and acquire knowledge and understanding” (Nathan Henderson, 93). Though many museums evaluate their programs, there is no consensus in the literature on how best to go about measuring engagement of museum programs, especially virtual programs. Since this research

study is centered around the future of virtual programming, it is important to note that “...as we look at how digital programs continue to iterate and evolve post-pandemic, there will be a need to define a better digital engagement reporting strategy” (BrodeFrank, 30-31). Thus, this study will attempt to garner the opinions of art museum staff regarding the best practices for evaluating programs and measuring engagement for both in-person and virtual programs.

Impact of COVID-19 on Museums

According to a survey conducted by the International Council of Museums, 92.6% of North American museums closed during the COVID-19 pandemic (International Council of Museums, 3). Depending on state social distancing mandates and safety restrictions, museums were closed for different periods of time. According to a survey conducted by *The Art Newspaper*, “the number of extra days institutions were closed last year [in 2020] ranged from 75 (Crystal Bridges Museum of American Art in Arkansas) to 293 (National Museum of the American Indian in New York)” (Sharpe). When museums were able to reopen, they did so at limited capacity; many reopened at around 25% capacity like the Metropolitan Museum of Art in New York City (Sharpe). Moreover, the subsequent halt of in-person activity drastically impacted the attendance of museums in 2020. For instance, the “overall attendance of the world’s 100 most-visited art museums dropped by a staggering 77% in 2020—from 230 million in 2019 to just 54 million as museums worldwide were forced to close” (Sharpe).

Consequently, the COVID-19 pandemic has taken a significant economic toll on art museums. Regardless of the institutions’ main funding sources, museums are facing cuts to staff and programming as well as the threat of closure. According to the survey conducted by the International Council of Museums, “participants’ responses highlight a widespread climate of great concern and uncertainty, with 12.8% of participants saying that their institution may close

permanently, more than 80% of programmes reduced and almost a third of museums forced to reduce their staff” (International Council of Museums, 6). Only 50% of museums that responded to the American Alliance of Museum’s survey anticipated reopening with 100% of their staff. In addition, 35% of respondents laid off or furloughed up to 20% of their staff, and 30% of the respondents expected to lose up to 20% of their income in 2020 (“National Survey of COVID-19 Impact on United States Museums”).

The halt in in-person activity also resulted in museums pivoting to the virtual space and increasing their digital presence substantially. According to the International Council of Museums, “all digital activities mentioned [including the following: online collections and exhibitions, live events, newsletters, podcasts, quizzes/contests, and social media] increased or began after the lockdowns, for at least 15% of participants” (International Council of Museums, 10). For example, 18.8% of museums surveyed reported an increase in digital live events after lockdown. Additionally, “social media activities increased for more than half of the museums surveyed” (International Council of Museums, 2).

Accessibility of Virtual Programs

When comparing in-person and virtual programs, one important factor to consider is accessibility. One major advantage of virtual programs is that they can serve “as a conduit for greater outreach and promotion to audiences that may never have the opportunity to visit the collections of a museum in person – due to budget, physical limitations, or distance” (Gaylord-Opalewski, 229). Virtual programs can overcome the geographical barriers of visiting an art museum in person as well as limit the economic or time expense (Verde, 51). For example, case studies of the Adler Planetarium analyzed by Jessica BrodeFrank and Dr. Samantha Blickhan found that “the most remarkable thing about pivoting to this digital format is the ability

to reach people from places all over the world, in larger numbers than were ever possible for our in person programs” (BrodeFrank, 32). Virtual programming is also a chance to reach those who infrequently visit (Schweibenz, 42).

On the other hand, one major roadblock to the accessibility of virtual programs is access to technology and the internet. Even today, the digital divide continues to be an issue for equitable access. For example, as of February 2021, 93% of U.S. adults say they use the internet, but only 77% of U.S. adults say they have access at home (“Demographics of Internet and Home Broadband Usage in the United States”). Similarly, the Adler Planetarium case studies found that “the major downside to ‘digital only’ programming is the inability to provide equitable access to the Adler’s experts, collections, and assets without a physical format” (BrodeFrank, 34). The authors discovered that only offering digital programming left certain populations behind. For instance, “upon closure, and at the time of the Adler’s digital only pivot, one in five Chicago students did not have access to broadband Internet to support streaming” (BrodeFrank, 34).

Differences in Programs & Experience

The goals and design of virtual programs are very similar to those of in-person programs. For example, “IVL programs are designed to align with the same goals that drive on-site museum education experiences offered in cultural institutions” (Gaylord-Opalewski, 233). Similar to in-person programs, virtual programs are designed to be interactive and “to engage different types of learners, reinforce classroom units of study, and foster a lifelong love of cultural centers” (Gaylord-Opalewski, 229). The case studies of the Adler Planetarium exemplified how “many aspects of the virtual program were translated directly from [their] in-person programming. The conversational and informal aspects of [their] programs have been maintained through the live chat on YouTube” (BrodeFrank, 31). Guests converse with staff and

other audience members to contribute and help guide the experience in both in-person and virtual programs.

Though virtual programs completely replaced in-person programs during the onset of the COVID-19 pandemic, virtual programs are “not intended to replace the immensely valuable in-person visits to cultural institutions, rather these programs offer the opportunity to introduce or extend an on-site experience (Gaylord-Opalewski, 229). At the center of the debate between in-person and virtual programs is the real-virtual divide, with skeptics often emphasizing the material nature of the physical museum space. The literature “often focuses on this divide and consequently treats remote visits as secondary or surrogate experiences to the physical ones, prioritizing the unmediated experience of the museum object - ‘the real thing’ - over the mediated experience via technology” (Schweibenz, 39).

One important notion in this debate can be found in Walter Benjamin’s essay, “The Work of Art in the Age of Mechanical Reproduction,” and the “concept of the withering of the object’s aura due to reproduction” (Schweibenz, 40). According to Benjamin, the authenticity of the object can not be reproduced digitally because of the dissolution of the object’s aura. The loss of authenticity is also paired with “a loss of the sensory experience” in the virtual space (Verde, 51). However, though the virtual experience lacks the authenticity and sensory attributes of in-person experiences, the virtual space can provide an imitation of the in-person experience.

Motivations to Attend In-person and Virtual Programs

Another important factor of comparison between in-person and virtual programs is the motivations of participants to attend. The main motivations to visit a museum in person are “to see original objects from the collections; to engage in educational and entertaining hands-on interactive experiences...and to explore a public space that often has architectural interest”

(Schweibenz, 46). Virtual programs can not offer visitors the opportunity to see original objects or architectural elements in-person. However, virtual programs do offer visitors the opportunity to engage and learn from the safety and comfort of their own home.

Another important motivation to visit an art museum in-person is the social aspect. For example, “social interactions among family members, friends, or school groups are a main component of a visit” (Schweibenz, 46). Socializing with others is a primary aspect of the physical museum visit as well as an important goal of many virtual programs. However, “there is an imminent danger for the virtual visit to become a solitary one, lacking the social context of the real visit” (Schweibenz, 47).

Since visiting and engaging with a museum most often takes place in a participant’s leisure time, the opportunity cost of the time spent, either in-person or virtually, is an important motivational consideration. For instance, “while visitors to physical museums have high opportunity costs - investments of time, effort, money and information acquisition such as finding the hours of operation, the way to the institution, current exhibitions and guided tours - the virtual visitors only invest a small fraction of time and efforts in their visits” (Schweibenz, 47). Therefore, the opportunity costs of visiting a museum and participating in programs in-person are greater than attending virtual programs.

Challenges of Implementation of Virtual Programs

With virtual programs being a relatively new avenue of engagement, it is important to consider some of the challenges many museums face when implementing virtual programs. For example, one of the main challenges to the implementation of virtual programs is the cost. Depending on the size of the art museum, the institution's human and monetary resources are often limited to some extent. During the 1990s when virtual programming at cultural institutions

was just being born after the advent of the internet, the “technology was expensive [and] thus cost-prohibitive” (Gaylord-Opalewski, 231). From survey and interview research published in the *Journal of Museum Education*, “individuals that were first to implement and support IVL programs in cultural institutions and classrooms” explained how “learning to equip a dedicated broadcast environment, securing funding for the technology needed, and appointing trained staff are some of the challenges many cultural institutions face when integrating new innovative programs into a department” (Gaylord-Opalewski, 231-232).

Therefore, staffing is a major issue when it comes to museums maintaining sufficient resources to implement virtual programs. At the onset of virtual programming in the early 21st century, many museums “simply did not have the capacity to create new content, improve upon current programs, or continue to meet the growing demand of requested IVL programs” (Gaylord-Opalewski, 234). Staffing is still an issue today, since many museums recently began developing virtual programs because of the COVID-19 pandemic. According to the survey conducted by the International Council of Museums, only 26.1% of respondents stated they had full time staff to work on digital activities during the COVID-19 pandemic, while 18.3% of respondents said they do not have any dedicated staff for digital activities (International Council of Museums, 9).

Measuring Visitor Engagement of Museum Programs

Finally, the best practices for evaluating and measuring engagement of museum programs is especially important to consider when comparing the two program formats. Despite a gap in the literature on how to measure visitor engagement of art museum programs, there is a substantial amount of research on measuring engagement of exhibitions, specifically those in science museums. However, there is an important distinction between science and art museums.

Whereas the art museum “emphasises cultural heritage through objects of intrinsic value,” science centers “aim to both enlighten and entertain through contemporary, participatory exhibits” (Rennie, 54). There is also an important distinction between exhibitions and programs, since programs offer a more in-depth learning experience to individuals particularly interested in the subject at hand. Nevertheless, the questions motivating research on engagement in science centers are similar to those being asked of art museums. For example, “evaluating the learning experience of visitors to science centers is increasingly focused on questions from stakeholders who want to see that their investments are contributing to effective programs, that the science center is having an impact in the community and, at the very least, shows evidence that visitors are taking away positive experiences” (Barriault, 91). The same questions can be applied to art museum programs, both in-person and virtual, and become increasingly important because of the economic impact of the COVID-19 pandemic.

Moreover, there are a variety of measures used to evaluate visitor engagement of exhibitions. Early research in measuring engagement of science center exhibitions “characterized visitor learning behavior with such variables as approaching an exhibit, reading signage, asking questions, discussing the exhibit, and duration of time spent at the exhibit” (Barriault, 93). Observing conversations and interactions of visitors has also “become an accepted methodology in assessing visitors’ learning experiences” because “analyzing visitor conversations provides a window into understanding how visitors are making meaning from their experiences” (Barriault, 93). In addition, “visitor engagement manifests through a variety of behaviors such as facial expression, touch, eye gaze, and body posture” (Nathan Henderson, 93). For instance, a study conducted by Wolfgang Leister, Ingvar Tjøstheim, and Trenton Schulz in 2015 observed the behaviors of visitors including the expression of emotions, such as smiling (Leister, 26).

Therefore, researchers have often observed visitor learning behaviors to measure engagement and a museum's ability to educate its audiences.

Similar behaviors may be observed in the context of art museum programs in order to evaluate engagement. For instance, Chantal Barriault and Dave Pearson that created a visitor engagement and exhibit assessment model that was “developed on the foundation of a framework of observable behaviors and activities related to engagement that are indicative of learning” (see Appendix A) (Barriault, 94). This model can be adapted in order to observe behaviors of in-person and virtual programs hosted by art museums.

It is also important to note that collecting observational data on visitor behavior can be a resource consuming process that poses ethical issues. The use of videotapes and other recording devices are not only expensive but also require the visitors' permission and substantial time to transcribe (Rennie, 69). Additionally, “unobtrusive data collection can pose problems of ethics (such as using hidden microphones or video cameras)” (Rennie, 68). Depending on the technique of observation, it is important to recognize whether the natural behaviors of visitors are being adversely affected (Nathan Henderson, 93). Consequently, this research study will inquire about observations of audience behavior made by art museum staff at programs rather than collecting first-hand observations.

Hypothesis

For this research study, I hypothesize that art museum staff will contend that visitor engagement of virtual programs is lower than that of in-person programs. I predict that museum staff will suggest that the authentic, sensory experience and social interaction offered at in-person programs will motivate audiences to attend in-person programs instead of virtual ones in the future. Finally, I predict that museum staff will argue that the value of virtual programs

rests in their ease of consumption for audiences. To test these hypotheses, I rely on interviews with and surveys of staff members of art museums in the Midwest region of the United States.

Methodology

In order to investigate my research question, I conducted interviews of 8 art museum staff members and distributed a survey to 48 art museums. I began by compiling a list of art museums in the Midwest region of the United States, including the following states: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin. Next, I accessed the institutions' Form 990 documents through GuideStar, Cause IQ, and the museums' websites to record the museums' net assets and organize the institutions into tiers. I chose net assets as the factor of comparison, since "net assets of a nonprofit organization are equivalent to the net worth of the organization" (Foley). I only looked at Form 990 documents from 2017-2019 in order to assess the institution's net worth prior to the economic implications of the COVID-19 pandemic. Thus, the population of this study is art museums in the Midwest region of the United States that had between \$1,000,000 and \$500,000,000 in net assets, according to Form 990 documents from 2017-2019.

Once I had a list of the study's population, which consisted of 60 art museums (see Appendix B), I broke the population down into two tiers: art museums with net assets of \$1,000,000 to \$100,000,000 and art museums with net assets of \$100,000,000 to \$500,000,000 (see Appendix C). Subsequently, the 48 museums in the lower net assets tier became the population contacted for surveys, while the 12 institutions in the higher net assets tier became the population contacted for interviews. I decided to break the population down into two tiers based on the assumption that institutions with higher net assets likely have more staff and resources, which might make them more willing to sit down for an interview. Museums with lower net

assets likely have fewer staff members who fulfill the responsibilities of multiple roles and might only have time to respond to a survey.

I reached out to all 60 museums via email or online contact forms accessible through the museums' websites. I sent the same message to all 12 museums that comprise the population for interviews to inquire about interviews with program and/or education staff. Similarly, I sent the same message to all 48 art museums that comprise the population for surveys to increase the number of respondents. The samples of the interview and survey sections of the research design are composed of the museum staff that agreed to be interviewed and the museum staff that responded to the survey, respectfully.

I conducted interviews with the 8 staff members of art museums that agreed to participate in the study. The interviews ranged from 25 to 40 minutes in length and were conducted either via Zoom or telephone. There were 15 interview questions that remained constant for all participants (see Appendix D). The survey was created on Google Forms and consisted of 31 multiple choice and short/long answer questions (see Appendix E). There were 17 staff members that responded to the survey, which resulted in a response rate of 35.4%. The interview and survey were composed of very similar questions that inquired about the impact of the COVID-19 pandemic; attendance and behavior of visitors at programs; changes in membership, visitors, volunteers, and donations; and other mechanisms of measuring engagement at museum programs. However, there were fewer interview questions asked because of time constraints. Virtual platforms such as Zoom and asynchronous data collection strategies like surveys allowed research to be conducted in a timely and efficient manner.

The sample for the survey consists of 17 staff members from art museums located in the Midwest region of the United States. The range in years of the length of time worked at the staff

members' respective institutions is 1.5 to 25 years, with the average being 8.6 years. This wide range indicates a broad gamut of opinions that include the perspectives of staff members that have worked at their respective institutions for relatively long and short periods of time. 64.7% of survey participants (11/15) reported working as an Educator or in the Education Department. Other positions disclosed include Executive Director, Gallery Shop Personnel, Studio Manager, and Operations Manager.

Out of the 12 art museums I reached out to, 8 staff members from 7 of the institutions agreed to be interviewed. Accordingly, the interview's sample represents 66.7% of the population. The range in years of the length of time worked at the staff members' respective institutions is 3 to 23 years, with the average being 9.25 years. Of the 8 staff members, 4 of them work in Education and Engagement, while the other four interviewees work in Studio Programs, Community and Wellness Programs, Institutional Processes, and Visitor Research and Evaluation.

The samples of this study are not random, since they consist of art museums and staff who willingly participated in an interview or survey. Consequently, there are threats to the internal validity of the interview and survey responses. Those who participated may have strong opinions regarding the value of virtual programs in a post-pandemic society that may not be shared by those who did not participate. This could lead to non-response bias that results in responses that are generally of a certain position. In addition, because of the small sample sizes for both the interview and survey portions of the research design, the results will not be generalizable to all art museums in the nation. However, the response rates for the survey and interviews were fairly high, which means that the results may be generalizable to art museums in the Midwest region of the United States with net assets between \$1,000,000 and \$500,000,000.

Findings

Impact of COVID-19 Pandemic

The beginning of both the survey and interview sections of this research study aimed to gauge the impact of the COVID-19 pandemic on the art museums in question. The survey results indicate that 94.1% of museums (16/17) had closed at some point during the pandemic, while all of the interviewees reported museum closures beginning in March 2020 at the onset of the COVID-19 pandemic. Many interview participants noted reopening in the summer or winter of 2020 with various safety protocols in place; these protocols included mask mandates, timed tickets, limited capacity regulations, and limited museum hours. One interviewee reported that many staff members continued to work from home even after the museum reopened. Two interviewees reported that they experienced two separate closures related to the pandemic. One museum closed for a second time in the winter of 2020, whereas the other institution closed for a second time in January 2022 because of the Omicron variant.

In addition, 64.7% of survey respondents (11/17) reported that their institution had cut staff because of budgetary issues arising from the COVID-19 pandemic. Whereas 50% of interview participants noted that they did not cut staff because of budgetary issues arising from the COVID-19 pandemic. These results highlight how there was almost an even split between art museums in the Midwest that cut staff because of budgetary issues associated with the COVID-19 pandemic and those that were fortunate enough to keep all staff.

Moreover, 70.6% of survey respondents (12/17) said that their institution had cut programming because of budgetary or staffing issues arising from the COVID-19 pandemic. On the other hand, only 50% of interviewees reported that their museum cut programming because of budgetary or staffing issues arising from the pandemic. Instead, interview participants

suggested that cuts to programming were likely the result of immediate museum closure, safety concerns, and the uncertainty of the pandemic. Since many of the museums had never produced virtual programs prior to the pandemic, interview participants discussed how museums needed time to develop virtual programs. In addition, interviewees noted that terminated programs did eventually come back, though they might have looked quite different. Thus, when the survey and interview results are compared, it becomes evident that the survey could have exaggerated the percentage of museums that had to cut programming because of budgetary or staffing issues arising from the pandemic. Survey respondents were only given the options of “yes,” “no,” and “not sure;” if survey respondents had been given the chance to offer a written short answer, then the percentage may have been different.

When asked about whether the museum increased the number of virtual programs offered during the pandemic, 100% of survey respondents (17/17) stated that they had increased the number of virtual programs offered. Similarly, all of the interviewees responded that they too had increased the number of virtual programs offered, and four of the interviewees explained that their institutions did not have any virtual programming prior to the pandemic. Accordingly, one respondent discussed how at the beginning of the pandemic, museum staff had to spend a lot of time figuring out the virtual space, which was a new terrain to conquer for many of these art museums. In addition, five interviewees discussed how they translated some of their in-person programs, such as art classes, docent-led tours, artist lectures, book tours, and trivia, into virtual programs as well as created new virtual programs. When the museums first reopened, many began with smaller scale in-person programs that were often held outside. A few interviewees emphasized how one type of new and extremely popular programming that has been adapted to in-person, virtual, and outdoor spaces is wellness/well-being programs, such as yoga and sound

baths. Other respondents noted that their museums have run hybrid programs that are offered in both in-person and virtual spaces.

Survey participants were also asked about their institution's current program offerings. For example, 94.1% of respondents (16/17) said that they currently offer virtual programs, and 88.2% of respondents (15/17) said that they currently offer more in-person than virtual programs. However, 11.8% of survey respondents (2/17) said that they currently offer more virtual than in-person programs, which suggest that some museums may be more hesitant or unable to return to in-person programs because of staffing, safety limitations, or other reasons. These art museums may also be responding to the needs and desires of the communities they serve when deciding to continue to focus more on virtual programs. Nonetheless, while most of the art museums continue to offer some form of virtual programming, many have reinstated in-person programming as the primary program space.

Goals of Engagement for Programs

Furthermore, both interview and survey participants were asked whether they set any specific goals for visitor engagement of in-person and/or virtual programs and if they have been met with any barriers to meeting these goals. The survey results highlight how there are a few respondents whose respective institutions do not set any specific goals of engagement, though they do track attendance numbers for evaluation and transparency reasons. Some survey respondents reported that they do set engagement goals depending on the program. For example, some goals mentioned in the survey include the provision of adequate engagement opportunities between attendees and the program facilitator(s), social interaction, inclusivity, and the offering of experiences in a variety of modes. Similarly, one common interview response was that goals of engagement are dependent on the program as well as the format of the programs. For instance,

one staff member discussed how niche programs, like touch tours, often garner a smaller audience but offer very meaningful experiences for those engaged.

When discussing barriers to meeting goals, one survey respondent described how many virtual programs were canceled because of low enrollment, sickness, or lack of engagement. Another survey participant mentioned online learning fatigue as a barrier to meeting engagement goals as well as the reason the staff member's museum only offered 3 of 40 scheduled classes. Correspondingly, one interviewee noted the difficulties of setting goals of engagement for virtual programs. For instance, at the beginning of the pandemic, museums were unsure how many people would be interested in virtual programs. Depending on the platform used, some virtual programs do not provide any of the immediate audience feedback that is offered in in-person programs (i.e. laughter, body language, etc.). One survey respondent also mentioned how virtual programs require different goals and planning than in-person programs. Accordingly, three interviewees noted that they do not set any formal or codified goals of engagement, especially for virtual programs.

Moreover, many interview participants were quick to note that their institution is hesitant to focus solely on numbers when developing goals of engagement. Instead, art museums are more interested in the quality of the experience for those engaged and the ability of the program to help achieve overarching museum goals, such as inspiring curiosity, encouraging shared authority, targeting different audiences, building awareness, etc. For instance, a goal for many of the institutions at the beginning of the pandemic was to offer some mode of engagement, so that people could feel connected to the museum and community during a time of tragedy and struggle.

One art museum that was part of the interview portion of this research study appeared to have the most codified manner of setting goals of engagement. For example, the museum follows the logic model set up that includes inputs, activities, outputs, and outcomes when developing goals of engagement. Inputs consist of resources put into a program, activities are what the program actually does, outputs refer to things that can be measured, and outcomes are often more intangible and important results. An example of an outcome could be awareness, and a more complex outcome may be that program attendees see themselves as being more creative individuals. Therefore, many art museums lack a systematic method for developing goals of engagement for programs, especially with the nature of virtual programs making goal setting more challenging.

Measuring Engagement of Programs

Because of time limitations for interviews, I only asked survey respondents questions regarding how their respective institutions measure engagement. The survey results indicate that 88.2% of respondents (15/17) measure visitor engagement of in-person programs, whereas 94.1% of respondents (16/17) measure visitor engagement of virtual programs. When asked about how the museums measure engagement of in-person programs, 10 respondents mentioned tracking attendance, 9 mentioned the use of surveys/feedback of attendees, 3 mentioned observation of programs, and 1 mentioned tracking the number of returning visitors. When asked about how the museums measure engagement of virtual programs, 9 respondents mentioned tracking attendance, 7 mentioned the use of surveys/feedback of attendees, 5 mentioned using some form of social media analytics, 3 mentioned observation of programs, 1 mentioned using the time spent online by visitors, and 1 mentioned tracking the number of returning visitors.

Additionally, 100% of survey respondents said that they record the attendance of programs. When asked about how the attendance of in-person programs compares to that of virtual programs, 64.7% of respondents (11/17) said that attendance is higher at in-person programs than virtual programs, while 23.5% of respondents (4/17) said that attendance is about the same for in-person and virtual programs. It is interesting to note that no respondent reported observing higher attendance at virtual programs.

Another interesting finding was that 81.3% of survey respondents (13/16) said that they noticed an increase in the number of in-person visitors when asked about attendance during the lull in the COVID-19 pandemic that occurred in the spring and summer of 2021. When asked the same question except centered on the number of virtual visitors, 31.3% (5/16) reported that the number of virtual visitors remained the same, and 31.3% of respondents (5/16) reported a decrease in the number of virtual visitors during the lull in the COVID-19 pandemic. These percentages suggest that as the pandemic dissipates, audiences may become more interested in in-person programs and less enticed by virtual programs.

However, only looking at numbers does not always provide the whole picture of what engagement at programs actually looks like, as noted in the literature. Subsequently, interview participants were asked to describe the ways engagement of in-person programs compare to that of virtual programs. Five interviewees talked about the lack of social interaction apparent in many virtual programs. For example, some of the social components that virtual programs lack include the following: “real time engagement, participation with the presenter/peers,” and connections between attendees. One staff member went so far as to say that attendees of virtual programs are often there to be more of a consumer than an active participant, which the interviewee supports by characterizing many virtual attendees as quiet and multi-tasking.

Similarly, one survey respondent did mention that virtual programs do tend to eliminate some of the social interaction that in-person programs often produce. Therefore, from the survey and interviews conducted, staff members recognize higher attendance and social interaction at in-person programs, with the caveat that this comparison is between two arguably very different engagement opportunities.

Accordingly, most interviewees were quick to point out that the comparison of engagement of in-person and virtual programs depends on the type of program and how you define engagement. Though one participant offered that their institution has not been back in-person long enough for them to make this comparison, other respondents emphasized how the comparison of in-person and virtual program engagement is reliant on the types of virtual platforms used by the art museums. Some platforms mentioned in the interviews include Zoom, Zoom Webinar, FaceBook Live, and Microsoft Teams. With platforms such as FaceBook Live and Zoom Webinar, which do not allow audiences to turn on their camera or unmute themselves, the interview participants noted that there is minimal social interaction. Most programs that use Zoom Webinar or FaceBook Live are those that broadcast events such as artist lectures and auditorium programs. One interviewee discussed their experience using FaceBook Live to teach art classes to young children. As a teacher, this staff member noted many difficulties in offering artist workshops online, such as the inability of students to respond to the teacher's questions and watch/copy a peer's art making strategies. On the other hand, with platforms like Zoom, which allow audiences to see other faces, speak, and comment in a chat, staff members did notice a bit more interaction occurring.

Both interview and survey participants were also asked whether they look at social media analytics to measure engagement of virtual programs. 64.7% of survey respondents (11/17) said

“yes,” while only 17.6% of respondents (3/17) said “no.” Interview participants noted how social media statistics are often hard to read. For example, FaceBook analytics include a statistic called “3 second views,” but with this statistic, it is not possible to know how long each person attended and were engaged in the program. One staff member stated that it is “tricky” to figure out which data are relevant and to decide when to record the statistics. Virtual programs, including live and pre-recorded videos, can stay up in the online realm for an extended period of time and continue to get views, which is quite different from an in-person program that is over within a designated time frame.

Another way of measuring engagement that does not solely focus on quantitative statistics is the observation of program attendee behavior. In the survey, 76.5% of respondents (13/17) reported observing the behavior of visitors at programs to measure engagement. Of the behaviors asked about in the survey, 73.3% of respondents (11/15) reported observing the approximate time spent at the program and the reading of signage, pamphlets, or other educational materials. Similarly, 86.7% of respondents (13/15) reported observing the level of participation in the discussion/asking of questions as well as observing the interaction with other visitors/staff. Only 66.7% of respondents (10/15) reported that they observe the facial expression, eye gaze, and body posture of program attendees.

Similarly, some interview participants explained that their institutions do evaluate audience behaviors at programs. For example, one interviewee explained how they have conducted in-depth evaluations of program attendee behavior in order to measure engagement. From these evaluations this museum knew that its virtual programs garnered very high engagement from the museum’s members during the pandemic. However, about half of the interviewees explained that they observe behaviors in a more anecdotal rather than data driven

way. For example, after hosting a program, the staff may discuss how there were some great questions asked by the audience. Another interviewee discussed the difficulties of observing audience behavior during virtual programs that were held on Zoom Webinar, since the hosts were unable to see or hear from the audience members besides comments made in the chat.

Other Possible Indicators of Engagement

Another possible indication of the level of engagement of virtual programs is whether the museum has seen an increase in donations that are restricted for virtual programs. This question was asked to both interview and survey participants and was meant to gauge the level of importance placed on virtual programs by art museum donors. The survey results showed that 70.6% of respondents (12/17) did not see an increase in donations restricted for virtual programs, while only 11.8% (2/17) said that they did. Similarly, many of the interviewees did not know or did not believe that their institution had seen an uptake in the number of donations that were restricted for virtual programs, since many of the staff members interviewed do not work in development or finance departments. However, some interview participants reported that they had applied for grants specific for virtual programs and/or grants that were covid related and included virtual components. One interviewee noted that they did receive a grant to improve the museum's digital presence through teaching staff and upgrading technology. The respondent stated that because of issues such as screen fatigue, audiences are wanting higher quality programs.

Moreover, when inquiring about whether museums look at things like visitorship, membership, and volunteers as indicators of engagement of programs, 88.2% of survey respondents (15/17) reported looking at the number of new and returning visitors, 64.7% of respondents (11/17) reported looking at the number of new and recurring members, and only

47.1% of respondents (8/11) reported looking at the number of new and recurring volunteers. Arguably, the number of members and volunteers is likely something tracked by other departments and may not be specifically looked at by those in the Education or Program departments. Similarly, interviewees agreed with this sentiment and noted that visitor, member, and volunteer numbers are collected when able and kept, though often by other departments in the museum. For instance, one interviewee discussed how programs often do not have a large impact on membership; only things such as huge exhibitions or intentional renewal efforts largely affect membership numbers. Also, a few of the participating museums offer free admission, which can make it difficult for museums to gain knowledge of visitors.

Nevertheless, some interesting findings did result from this question in the interviews. For instance, one interviewee described how even though they have been open since June 2020, visitorship is only 30% of what it was pre-pandemic, and membership is also really low at about 25% of visitors. Though this interviewee described their membership base as strong, the participant noted how their members are just not visiting. The interviewee suggested that this could be because their members are likely part of an older demographic that are still concerned with visiting the museum in-person. Another interviewee also noted a hit in their institution's membership, partly because member benefits (i.e. free art classes) were no longer available during the pandemic. This particular interview participant also mentioned an even larger hit in the museum's docent pool, with only about half of the museum's pre-pandemic docent numbers still volunteering. On the other hand, another interviewee found that volunteers missed the community aspect formed through shared work experiences at the museum and were excited to return to the physical museum space.

Ranking of Engagement of In-person vs. Virtual Programs

In order to answer the research question of how engagement of in-person programs compares to that of virtual programs, I asked the following question: would you rank visitor engagement of in-person programs as higher, lower, or about the same as engagement of virtual programs? According to the survey results, 76.5% of respondents reported higher engagement at in-person programs, while 17.6% of survey participants reported that engagement is about the same at in-person and virtual programs. When asked the same question, 50% of interview participants stated that engagement of in-person programs is higher than virtual programs. However, two interview respondents did note that in-person and virtual programs may not be comparable in terms of engagement, since “in-person [programs] just have more means and opportunities for engagement,” as mentioned by one interviewee. Nonetheless, the far majority of survey and interview respondents believe that engagement at virtual programs is less or about the same as engagement of in-person programs.

Value of Virtual Programs & Will They Continue

One of the last questions for both interview and survey participants asked how museum staff would describe the value of virtual programs to art museums, and whether they think it will change once the pandemic is over and society returns to some sort of normal state. According to the survey results, 80% of respondents reported that the value of virtual programs rests in the format’s increase in accessibility, specifically its ability to reach audiences from all over the world and those unable to visit the museum in-person. Similarly, one interview response that stood out and was echoed by many other participants was the description of virtual programs as “another tool in the tool box.” Many interviewees noted that virtual programs offer museums another avenue of reaching and engaging audiences.

From the responses, one can garner that many of the participants used accessibility in terms of being able to reach audiences outside the walls of the museum. Only one survey participant discussed the diminishing impacts of the digital divide on the accessibility of virtual programs by stating, “virtual programming was limiting for a number of reasons including the discovery that many of the people we serve did not have enough devices in their home to access our programs.” However, a few interview participants also spoke about their institution’s emphasis on belonging. One interviewee discussed a new belonging plan that is being implemented and is meant to make the museum experience more inclusive and ensure visitors feel like they belong at the museum. With plans like these come a shift in focus away from quantitative measurements like attendance to the impact of engagement with audiences. Moreover, further questioning of museum staff and a deeper analysis of museum audiences are needed in order to understand the connection between virtual programs and accessibility beyond the fact that audiences from anywhere in the world with access to the necessary technology can join a virtual program. A closer look at whether museums offer virtual programs for free or not is also needed to further understand the accessibility of virtual programs.

Many of the study’s participants also discussed the likelihood of continuing virtual programs during this question response. Most survey participants noted that virtual programs are likely here to stay, though the number offered will likely decrease. For example, museum staff suggested that programs such as classes, workshops, and fundraising events will likely return in-person, while programs such as artist lectures and exhibition tours may continue in the virtual space. Programs that are easily broadcasted will likely continue as hybrid programs that occur in-person and are shared online for those who cannot travel to the physical museum space. However, 20% of survey respondents (3/15) reported that it is the in-person experience that they

themselves and their audiences prefer over the virtual experience. Consequently, these respondents stated that their institutions are hoping to transition back to in-person programming completely. These respondents suggest that seeing the art and engaging with other artists in-person, accompanied by the sensory experiences of being in the galleries, make in-person programming superior to virtual programs, which often fall tribute to poor video and audio quality.

Similarly, the interview results show that most staff members believe that virtual programs are likely here to stay, though the balance of virtual to in-person programs may shift. Two interview participants noted that the level of virtual programming continued in the future will depend on the capacity of museum staff as well as the expectations held by audience members. For instance, some respondents believe that audiences will expect alternative options to in-person programs, such as the ability to hop online if they are unable to make it to the physical museum space. Many of the interviewees also noted that their institutions will likely continue providing hybrid programs in order to increase the accessibility of their programs overall. Screen fatigue was also mentioned along with the claim that people are less inclined to hop online now than at the beginning of the pandemic. Accordingly, museums will likely focus on creating quality virtual programs rather than an abundance of them. Quality virtual programs offer meaningful experiences and might include more intimate programs such as a discussion with a conservator in the conservation lab. One survey respondent also discussed how more creative virtual programs will likely soon be developed as virtual programming becomes more of a choice and less of a requirement. In addition, while one interviewee spoke of the primacy of the object and the real in-person experience, another participant highlighted the increase in accessibility that virtual programs offer. Virtual programs are more flexible, do not require

commuting, and are more easily fit into people's everyday lives. Therefore, almost all of the survey and interview respondents suggested that though virtual programs are here to stay, the number of them continued will depend on the capacity of staff, audience expectations and needs, and the type of program.

Finally, survey respondents were also asked a short answer question that inquired about whether visitor engagement is a good indicator of the value of art museum programs. 73.3% of respondents (11/15) reported that they believe visitor engagement to be a good indicator of the value of art museum programs. Many of these responses regarded engagement as the main aim of the programs themselves. A few responses did note that although engagement is a good indicator of the value of virtual programs, engagement is difficult to measure. On the other hand, one respondent reported that they do not agree with the statement as a whole. Instead, this respondent suggested that engagement can be suggestive of the types of programs communities would like to engage with, and with the preferences of communities changing often, engagement of programs may be more suggestive of the popularity of a program than its value. Also, 13.3% of respondents (2/15) did provide a response that was both a "yes" and a "no," and they suggested that some visitors do not wish to engage with the art and might be more comfortable being a consumer of the program than an active participant.

Other Findings

The survey results also emphasized the literature's discussion regarding the challenges of implementation of virtual programs. Respondents stated that virtual programs are not only harder to put together than they may appear, but they can also be impeded by technical difficulties. Virtual programs require meticulous planning, technology set up time, and budgets that support high levels of technological capabilities. One survey respondent reported issues with video and

audio equipment as well as wifi connectivity. Interestingly, since the learning curve may be steep for virtual visitors, it was mentioned that museums need to have a contingency plan in place to help audiences through digital processes if problems arise.

Ultimately, the fast and deep dive into virtual programming that ensued at the onset of the COVID-19 pandemic shook the museum world, a world full of future planners and educators. Subsequently, flexibility, adjustment, and innovation became the new names of the game as museum staff were forced to think outside of the white museum walls. Accordingly, the COVID-19 pandemic encouraged innovative thinking that resulted in new and exciting virtual programs as well as other programs. For example, art museum staff took time during the pandemic to speak with teachers and inquire about ways the museums could be of service to them, which resulted in more easily accessible online resources for teachers. While wellness programs are currently selling out and emphasizing art museums as safe and relaxing spaces, visual art making kits are still being sent to after school and community centers because of the success seen with this program during the pandemic. Daily emails to members that include an analysis of a new object from the museum's collection and a call to action has increased membership and proven extremely popular with museum audiences. Moreover, one major takeaway from this research study is that art museums have more than two spaces in their toolbox. Art museums can reach visitors in three buckets: the outdoor museum space, the indoor museum space, and the virtual space. One interviewee stated that their museum attempts to not privilege one format of engagement over the other; rather all of these spaces can offer valuable and meaningful experiences. Therefore, alongside the birth of virtual programming was a plethora of other programs that are also likely to stick around as the pandemic slowly winds down.

Discussion & Conclusion

Though a majority of the study's participants reported engagement to be higher at in-person programs than virtual programs, there are benefits and challenges to both program formats that must be balanced in order for museums to reach and engage the most audiences. One major benefit of virtual programs is the increase in accessibility that many audiences will likely expect going forward. However, there is a growing divide in the museum world between those who believe, like a few of the participants in this research study, in the superiority of the unmediated experience of engaging with a museum in person and those who do not privilege one format over the other and recognize that all of these spaces, the in-person, virtual, and even outdoor, can offer valuable and meaningful experiences.

Despite this divide, the museum world in its entirety has become more flexible and capable of adapting to the current needs of the communities they serve. Though one survey respondent mentioned that "many museums seem to be stuck in the 'old way' of doing things" and an interviewee discussed the hesitation of other museum staff to utilize social media platforms for engagement or host live virtual programs, the fast shift to virtual programs in 2020 exasperated the growth and modernization of museums across the globe. One survey response sums this up perfectly in the following quote: "[art museums] must remain flexible in how we engage our audiences, if we are to remain an important part of the cultural landscape."

These are important considerations for art museums to ponder, especially with the increase in competition that the surge in virtual programs has resulted in. Prior to the COVID-19 pandemic, an art museum's competition was restricted to a regional geographic area, but now art museums are competing against other institutions from all over the nation and world. With many mid-sized museums, like those part of this research study, being unable to compete with the

resources possessed by larger flagship institutions, it is important that art museums highlight the unique features of their collections and the local aspects that differentiate them from other museums.

For similar research studies that are conducted in the future, it would be interesting to observe the behaviors of program attendees at both in-person and virtual programs. Though the survey and interview questions inquire about whether art museum staff observe audience behavior to measure engagement, there are important ethical considerations that must be taken into account when observing participants, especially children, firsthand. However, I have adapted the Visitor Learning Behaviors Observation Plan created by Barriault and Pearson that to be used for observation and evaluation of art museum programs (see Appendix F). The adapted chart includes spaces for staff to fill in their observations of visitor behaviors at programs including the following: approximate time spent at program; participation in the discussion/asking of questions; reading of signage, pamphlets, or other educational materials; interaction with visitors and/or staff; facial expression; eye gaze; and body posture. This chart may be helpful for future program evaluations conducted by art museums.

In future studies, it would also be beneficial to provide a definition of engagement to museum staff before questioning, since this study's results indicate that museums and departments within museums define engagement differently. Finally, once the COVID-19 pandemic has ended, I would conduct a time series comparison or longitudinal study of visitor engagement of in-person and virtual programs before, during, and after the pandemic. In doing so, the engagement of programs can best be measured and compared without the pandemic still influencing whether individuals attend and engage in in-person and/or virtual programs. With this approach, the true value of virtual programs in a post-pandemic society may be uncovered.

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Appendix A

VISITOR LEARNING BEHAVIORS OBSERVATION PLAN *(Barriault, 97)*

Visitor Learning Behaviors Observation Plan										
Exhibit:										
Date:						YC = young child (0-5)		T = teen (14-19)		
Time:						C = child (6-10)		A = adult (20-64)		
Observer:						PT = preteen (11-13)		S = senior (65+)		
Visitor				Initiation Behaviours		Transition Behaviours		Breakthrough Behaviours		
Number	Subject w/ Description	Age Group	Gender	Doing Activity	Observing Others or Exhibit	Repeating the Activity	Positive Emotional Response	Referring to Past Experiences	Seek / Share Information	Involved / Engaged
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										

Appendix B

POPULATION: LIST OF ART MUSEUMS FOR ENTIRE STUDY

Midwest Museum of American Art, Evansville Museum of Arts and Science, Fort Wayne Museum of Art, Eiteljorg Museum of American Indians and Western Art, Indianapolis Museum of Art (Newfields), Richmond Art Museum, Sheldon Swope Art Museum, The Jack & Shirley Lubeznik Center for the Arts, Cleveland Museum of Art, Cincinnati Art Museum, Columbus Museum of Art, Toledo Museum of Art, Springfield Museum of Art, Dayton Art Institute, Akron Art Museum, Canton Museum of Art, Museum of Contemporary Art, Contemporary Arts Center, Museum of Contemporary Art, National Museum of Mexican Art, Rockford Art Museum, DuSable Museum of African American History, Cedar Rapids Museum of Art, Figge Art Museum, Dubuque Museum of Art, Des Moines Art Center, Sioux City Art Center, Wichita Art Museum, Detroit Institute of Arts, Flint Institute of Arts, Grand Rapids Art Museum, Saginaw Art Museum, Ella Sharp Museum of Art and History, Besser Museum for Northeast Michigan, Kalamazoo Institute of Arts, Muskegon Museum of Art, Krasl Art Center, Minneapolis Institute of Arts, Rochester Art Center, Minnesota Museum of American Art, Walker Art Center, Nelson-Atkins Museum of Art, Saint Louis Art Museum, Contemporary Art Museum St. Louis, Laumeier Sculpture Park, Albrecht-Kemper Museum of Art, Bone Creek Museum of Agrarian Art, Norfolk Arts Center, Joslyn Art Museum, Plains Art Museum, North Dakota Museum of Art, Redlin Art Center, Madison Museum of Contemporary Art, Rahr West Art Museum, Milwaukee Art Museum, Bergstrom-Mahler Paperweight Museum, Paine Art Center and Gardens, Racine Art Museum, John Michael Kohler Arts Center, and Museum of Wisconsin Art

Appendix C

POPULATIONS FOR INTERVIEWS AND SURVEY

Interview Population: Indianapolis Museum of Art (Newfields), Cincinnati Art Museum, Columbus Museum of Art, Toledo Museum of Art, Museum of Contemporary Art, Des Moines Art Center, Detroit Institute of Arts, Minneapolis Institute of Arts, Walker Art Center, Nelson-Atkins Museum of Art, Saint Louis Art Museum, and Milwaukee Art Museum

Survey Population: Midwest Museum of American Art, Evansville Museum of Arts and Science, Fort Wayne Museum of Art, Eiteljorg Museum of American Indians and Western Art, Richmond Art Museum, Sheldon Swope Art Museum, The Jack & Shirley Lubeznik Center for the Arts, Cleveland Museum of Art, Springfield Museum of Art, Dayton Art Institute, Akron Art Museum, Canton Museum of Art, Museum of Contemporary Art, Contemporary Arts Center, National Museum of Mexican Art, Rockford Art Museum, DuSable Museum of African, American History, Cedar Rapids Museum of Art, Figge Art Museum, Dubuque Museum of Art, Sioux City Art Center, Wichita Art Museum, Flint Institute of Arts, Grand Rapids Art Museum, Saginaw Art Museum, Ella Sharp Museum of Art and History, Besser Museum for Northeast Michigan, Kalamazoo Institute of Arts, Muskegon Museum of Art, Krasl Art Center, Rochester Art Center, Minnesota Museum of American Art, Contemporary Art Museum St. Louis, Laumeier Sculpture Park, Albrecht-Kemper Museum of Art, Bone Creek Museum of Agrarian Art, Norfolk Arts Center, Joslyn Art Museum, Plains Art Museum, North Dakota Museum of Art, Redlin Art Center, Madison Museum of Contemporary Art, Rahr West Art Museum, Bergstrom-Mahler Paperweight Museum, Paine Art Center and Gardens, Racine Art Museum, John Michael Kohler Arts Center, and Museum of Wisconsin Art

Appendix D

DATA COLLECTION STRATEGY: INTERVIEW

1. Would you like your responses to this interview, including your name and the name of your institution, to be confidential?
2. Do you mind if I record this interview?
3. How long have you worked at [insert name of museum]?
4. Did [insert name of museum] close at any point during the COVID-19 pandemic and, if so, do you know for how long?
5. Has [insert name of museum] cut staff because of budgetary issues arising from the COVID-19 pandemic?
6. Has [insert name of museum] cut programming because of budgetary or staffing issues arising from the COVID-19 pandemic, and, if so, do you think the museum will have to make similar decisions in the near future?
7. Throughout the pandemic, has [insert name of museum] increased the number of virtual programs offered?
8. How does engagement of in-person programs compare to engagement of virtual programs?
9. Do you set any specific goals of engagement for in-person and/or virtual programs? If so, were you met with any barriers to meeting these goals?
10. Do you look at social media analytics to measure engagement of virtual programs?
11. Has [insert name of museum] seen an increase in donations that are restricted for virtual programs? Do these programs seem important to donors?

12. Does [insert name of museum] look at things like membership, donations, and volunteers when trying to measure visitor engagement of programs?
- a. Do you look at the number of new and returning VISITORS as an indicator of visitor engagement of programs?
 - b. Do you look at the number of new and recurring MEMBERS as an indicator of visitor engagement of programs?
 - c. Do you look at the number of new and recurring VOLUNTEERS as an indicator of visitor engagement of programs?
13. Do you observe the behaviors of visitors to measure visitor engagement, such as the time spent at the program or the number of questions or comments contributed to the conversation?
14. In general, would you rank visitor engagement of in-person programs as higher, lower, or about the same as visitor engagement of virtual programs?
15. Overall, how would you describe the value of virtual programs to art museums, and do you think it will change once the pandemic is over and society returns to some sort of normal state?

Appendix E

DATA COLLECTION STRATEGY: SURVEY

The Value of Virtual Programs Hosted By Art Museums: Survey of Art Museums

This survey is part of a data collection strategy for an Indiana University Honors Thesis that aims to uncover the value of virtual programs hosted by art museums by comparing visitor engagement of in-person and virtual programs. The purpose of this study is to garner the opinions of museum staff on the best practices for measuring visitor engagement of programs.

1. Would you like your responses to this survey to be confidential? Yes/No
2. What is the name of your institution? Short answer text
3. What is your name and your position/department? Short answer text
4. How long have you worked at your institution? Short answer text
5. Did your institution close at any point during the COVID-19 pandemic? Yes/No/Not Sure
6. Has your institution cut staff because of budgetary issues arising from the COVID-19 pandemic? Yes/No/Not Sure
7. Has your institution cut programming because of budgetary or staffing issues arising from the COVID-19 pandemic? Yes/No/Not Sure
8. Did your institution increase the number of virtual programs offered throughout the COVID-19 pandemic? Yes/No/Not Sure
9. Does your institution CURRENTLY offer virtual programs? Yes/No/Not Sure
10. What is the proportion of in-person to virtual programs offered by your institution CURRENTLY? More in-person than virtual/More virtual than in-person/About the same/Other

11. Do you set any specific goals of visitor engagement for in-person and/or virtual programs? If so, what are they, and are you ever met with any barriers to meeting these goals? Long answer text
12. Do you measure visitor engagement of IN-PERSON programs? Yes/No/Not Sure
13. Do you measure visitor engagement of VIRTUAL programs? Yes/No/Not Sure
14. How do you measure visitor engagement of IN-PERSON programs? Short answer text
15. How do you measure visitor engagement of VIRTUAL programs? Short answer text
16. Do you record the attendance of programs? Yes/No/Not Sure
17. In general, how does the attendance of in-person programs compare to that of virtual programs hosted by the museum? Higher attendance at in-person programs/Higher attendance at virtual programs/Attendance is about the same/Other
18. Back in the spring and summer of 2021, there was a lull in the pandemic. Did you notice an increase or decrease in the number of IN-PERSON visitors during this time? Number of in-person visitors increased/Number of in-person visitors decreased/Number of in-person visitors remained the same/Other
19. Did you notice an increase or decrease in the number of VIRTUAL visitors during the lull in COVID-19? Number of virtual visitors increased/Number of virtual visitors decreased/Number of virtual visitors remained the same/Other
20. Do you look at social media analytics to measure engagement of virtual programs? Yes/No/Not Sure
21. Has your institution seen an increase in donations that are restricted for VIRTUAL programs? Do these programs seem important to donors? Yes/No/Not Sure

22. Has your institution seen an increase in donations that are restricted for IN-PERSON programs? Do these programs seem important to donors? Yes/No/Not Sure
23. Do you look at the number of new and returning VISITORS as an indicator of visitor engagement of programs? Yes/No/Not Sure
24. Do you look at the number of new and returning MEMBERS as an indicator of visitor engagement of programs? Yes/No/Not Sure
25. Do you look at the number of new and returning VOLUNTEERS as an indicator of visitor engagement of programs? Yes/No/Not Sure
26. Do you observe the BEHAVIOR of visitors at programs to measure visitor engagement? Yes/No/Not Sure
27. Below is a list of visitor learning behaviors that have been observed to measure visitor engagement in museums and science centers. Please choose all the behaviors that your institution observes during programs. Approximate time spent at program/Participation in discussion/asking questions/Reading of signage, pamphlets, or other educational material/Interaction with other visitors or staff/Facial expressions, eye gaze, and/or body posture
28. In general, would you rank visitor engagement of in-person programs as higher, lower, or about the same as visitor engagement of virtual programs? Higher/Lower/About the same/Other
29. In your opinion, is visitor engagement a good indicator of the value of art museum programs? Why or why not? Long answer text

30. Overall, how would you describe the value of virtual programs to art museums, and do you think it will change once the pandemic is over and society returns to some sort of normal state? Long answer text

31. What have you, or less specifically the museum, learned from hosting virtual programs? Long answer text

PROGRAM OBSERVATION SHEET

*Chart Adapted from Visitor Learning Behaviors Observation Plan by Chantal Barriault and Dave Pearson (Barriault, 94)

YC = young child (0-5)
C = child (6-10)
PT = preteen (11-13)
T = teen (14-19)
A = adult (20-64)
S = senior (65+)

[illegible]