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CULTURAL INSTITUTIONS' DIGITAL RESPONSES TO COVID-
19 TEMPORARY CLOSURES

by

BRITTANY RYDER

A thesis submitted in partial fulfillment of the requirements
for Honors in the Major Program in Hospitality Management
in the Rosen College of Hospitality Management
and in the Burnett Honors College
at the University of Central Florida
Orlando, Florida

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Thesis Chair: Dr. Tingting Zhang

ABSTRACT

The purpose of the study was to explore what types of digital content cultural institutions implemented during COVID-19 temporary closures and their effects on social media engagement. Existing research identified the role of digital content and social media in cultural institutions, but only in times of normal operations. The study adds to the existing literature by exploring types of digital content implemented, impacts on social media engagement, measures of social media engagement, and future implications in regard to COVID-19 temporary closures.

The study recruited 16 cultural institutions from across the United States to take part in in-depth semi-structured phone interviews to fulfill the research goals. Museums, zoos, aquariums, performing arts organizations, heritage foundations, and historical societies were represented. The results indicated that cultural institutions implemented digital content to build communities through live and serialized content, partnerships, fundraising, increased transparency, and increased accessibility during temporary closures. Using primarily Instagram and Facebook with their digital content, cultural institutions increased social media engagement during this time. Although there was no consensus on best practices in measuring social media engagement, many institutions highlighted tracking active engagement such as likes, comments, and shares. As a result of the success of the digital content, cultural institutions planned continued digital content campaigns such as videos, blogs, partnerships, and paid educational content in times of normal operations.

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To my loved ones, thank you for believing in me, especially when I didn't believe in myself.

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INTRODUCTION

The outbreak of the COVID-19 pandemic transformed the way cultural institutions presented their content to visitors. Cultural institutions such as museums, zoos, aquariums, botanical gardens, performing arts organizations, galleries, and libraries (Carr, 1990; Strom, 2002) typically rely on communicating their content via in-person experiences. However, as a result of temporary closures enacted internationally during the COVID-19 pandemic, cultural institutions could no longer engage guests in person. They turned to introducing new digital content or further promoting pre-existing digital content to connect with audiences. Although each institution varied, many took advantage of social media to support their digital content during the pandemic. This transformed digital content into their central message and social media into their primary communication medium. Social media allowed institutions to not only communicate their digital content with a wider audience but also receive measurable and significant feedback from this audience (Iwasaki, 2017). This feedback took the form of social media engagement (Iwasaki, 2017).

The aim of the study is twofold. First, the research aims to investigate the types of digital content implemented by cultural institutions during COVID-19 temporary closures. It also aims to investigate the impact of the types of digital content on the institutions' social media engagement. Second, the research specifically aims to draw conclusions about the popularity and effectiveness of the different types of digital content used by cultural institutions during this time. Moreover, it seeks to conclude best practices in how cultural institutions measured changes in social media engagement during this period of temporary closures.

The three research questions in this research are:

1. What types of digital content did cultural institutions implement during COVID-19 temporary closures?
2. How was cultural institutions' social media engagement affected by the types of digital content implemented during COVID-19 temporary closures?
3. What digital content did cultural institutions plan to continue implementing after COVID-19 temporary closures?

The highlights of the study's significance can be stated in the following four ways. First, from a theoretical perspective, the research will fill a gap in the literature regarding best practices in types of digital content and social media engagement metrics for cultural institutions during COVID-19 temporary closures. Although research has been conducted regarding the purpose of digital content hosted on social media platforms and most popular measures of social media engagement (Iwasaki, 2017), this research is not applicable to times of COVID-19 temporary closures. The current study will provide best practices in measuring social media engagement for cultural institutions when it is essentially the only way to measure audience engagement and has a low chance of being influenced by in-person experiences. Second, the research will add to the existing literature by establishing a theoretical relationship between digital content and social media engagement for cultural institutions. Third, the current research will identify specific types of cultural institutions' digital content during temporary closures, changes in social media engagement, and plans for continued digital content campaigns, which were not addressed in a study about COVID-19 temporary closures by the American Alliance of Museums (2020).

Fourth, from a practical perspective, the findings from the research can indicate best practices in types of digital content and measures of social media engagement to be used by cultural institutions during temporary closures and normal operations. The impact of this

adoption is twofold. One, cultural institutions can continue to engage audiences by leveraging various types of digital content during temporary closures. Two, optimal digital engagement approaches may be identified in the current study to provide valuable suggestions for cultural institutions or even other related service organizations which intend to better engage their customers during temporary closures and normal operations.

The paper will follow the following structure. First, literature relevant to cultural institutions, types of digital content, and social media engagement will be critically evaluated. Second, the methodology of the current research will be provided, followed by a thematic analysis of the qualitative data collected in this study. Last, the paper will present results, conclusions, implications, and suggestions for further research and practices to be implemented by cultural institutions.

Literature Review

Cultural Institutions

Cultural institutions consist of museums, zoos, galleries, wilderness areas, botanical gardens, parks, historic restorations, and performing arts centers (Carr, 1990; Strom, 2002). According to the National Humanities Alliance, a majority of these institutions view their primary purpose as education. As of 2012, they dedicated \$2 billion to educational programs and staff annually and hosted 90 million student visits (Kisida, 2015). In addition to providing education, they also meet the needs of visitors by presenting cultural achievements. Kochoska and Petrovski (2015) argue that cultural institutions' presentation of cultural achievements allows visitors to be active and informed in society. This overall purpose is implemented in a variety of ways. Cultural centers encourage others to create and learn from cultural goods. Museums foster inspiration, learning, and enjoyment of authentic artifacts that citizens can use to connect with

their cultural history (Kochoska & Petrovski, 2015). Museums are reliable sources of information and are considered more trustworthy than local newspapers, nonprofit researchers, academic researchers, and the United States government (American Alliance of Museums, n.d.). Libraries encourage visitors to read and connect with cultures through increased access to educational material (Kochoska & Petrovski, 2015). Science museums, science centers, zoos, and aquariums further visitors' understanding and engagement in the sciences (Schwan, Grajal, & Lewalter, 2014). Despite having nuances in their specific goals, all cultural institutions are connected by their drive to educate, inform, and connect societies.

Cultural institutions play a significant role in the lives of the public. American museums see approximately 850 million visitors annually (American Alliance of Museums, n.d.). In 2018, 108.1 million people visited the top 20 museums worldwide, including the Louvre, National Museum of China, and the Metropolitan Museum of Art (Themed Entertainment Association & AECOM, 2018). In the same year, 57.3 million people visited the top 20 museums in North America, the top three of which were the Metropolitan Museum of Art, National Air and Space Museum, and American Museum of Natural History (Themed Entertainment Association & AECOM, 2018). Furthermore, in 2017, 23.7% of adults had visited an art museum or gallery in the previous 12 months (American Academy of Arts and Sciences, 2019).

Zoos also receive a significant number of visitors, welcoming more than 700 million visitors annually (Gusset & Dick, 2011). According to a 2018 survey of Americans, 30.84% of 18 to 29-year-olds, 33.84% of 30 to 49-year-olds, and 18.91% of 50 to 64-year-olds reported visiting a zoo within the past 12 months (Kunst, 2020). The zoo and aquarium sector is continuing to expand, as exemplified by the industry growth rate of 1.8% between 2014 and 2019 in the United States (IBIS World, 2019).

As for the performing arts sector, a Nielson Scarborough survey in 2016 revealed that 73.5 million Americans experienced a performing arts event in 2013 (Fuller, 2018). Overall, arts and cultural institutions were responsible for 4.3% of the United States' GDP in 2016, making them of significance to the general population (Bureau of Economic Analysis, 2019).

However, although many cultural institution experiences are free—approximately 37% of museums—or offer discounts, this cannot be constituted as providing accessibility to all who wish to visit them (American Alliance of Museums, n.d.). Part of this gap is bridged by digital content.

Digital Content

Digital content is defined as bit-based objects distributed through electronic channels and can also be referred to as information products and goods (Koiso-Kanttila, 2004). Simply put, digital content is content that is created and uploaded to a website, such as web pages, videos, podcasts, and user-generated content (Holliman & Rowley, 2014). It also includes blog posts, white papers, e-books, podcasts, and more (Bogle, 2020). It is what audiences expect to experience when visiting a digital platform (Halvorson & Rach, 2012). Some take the perspective that the term "digital content" is too technical (Lister, 2010). "New media" is an alternative name for digital content that emphasizes digital media that is interactive and involves computing. It can easily be processed, stored, and accessed (Southeastern University, 2016). According to Southeastern University (2016), the five types of new media are blogs, virtual reality, social media, online newspapers, and digital games. New media can also refer to social networking, social bookmarking, wikis, P2P file sharing, video clips, and virtual worlds (Friedman & Friedman, 2008). Cultural institutions use content that is defined as both "digital content" and "new media."

Digital content is considered to have no intrinsic value. Its value can only be determined by its context, audience, and the time during which it is used (Rowley, 2008). This concept is particularly relevant to cultural institutions during COVID-19 temporary closures. Although digital content has had a role in cultural institutions for decades, it can be argued that it became much more valuable in the time and context of the COVID-19 pandemic.

The Role of Digital Content In Cultural Institutions

Cultural institutions, museums in particular, have been providing digital content since approximately 1995 (Keene, 1996). Museums that incorporated digital content early valued the opportunity to build an online community and invest in interactive programming (Allen-Greil & MacArthur, 2010). The Museum Computer Network categorizes the most popular digital content created by museums under the following areas: portals, virtual tours, online exhibits, e-learning, online collections, and digital archives and libraries (Byrd-McDevitt, 2020). According to a 2013 survey by Pew Research Center, 81% of arts organizations believe that the internet and digital technologies are essential for promoting the arts (Thomson, Purcell, & Rainie, 2013).

The 2018 Themed Entertainment Association report projected that an upcoming trend in museums is customizing experiences to individuals through technology and digital media (Themed Entertainment Association & AECOM, 2019). This projection is consistent with Gartner's identification of the top ten technology trends for 2020, which include virtual reality, augmented reality, and mixed reality (Gartner, 2019).

However, the introduction of digital content from museums has challenged museums' traditional role of presenting authentic artifacts rather than copies or digital versions. According to Kalay, Kvan, Affleck (2008), "[U]nlike traditional means of dissemination, digital media

presents viewers with the unique problems of authenticity, interpretability, guidance and contextuality – or rather, the lack thereof" (p. 6).

Diverging from this challenge is a new opportunity that digital content brings. Digital content within cultural institutions offers the opportunity to provide visitors with more accessibility to culture. Digital content allows museums to reach new audiences, specifically, those who traditionally "lacked an access point to the museum and its collection" (Adamovic, 2013, p. 18). Considering that education and service to the visitors are paramount to cultural institutions, the importance of cultural institutions providing digital content when possible cannot be ignored.

In most Western European countries, the creation and disbursement of culture are considered to be a public responsibility. Just as valued is the process of making it accessible to visitors. According to Hylland (2017), around the same time that museums began providing digital content in 1995, the democratic potential of digital content was acknowledged by Norway in 1996. Research from Hylland (2017) explores how Norway views information technology as a potential method to make museum content more accessible to the public. A report from the Auditor General of Norway asserted that one of the primary goals for digital cultural heritage is providing access (Hylland, 2017). This largescale acknowledgment of the significance of using digital content to provide access to cultural institutions indicates that not only should this content have a considerable impact on audience engagement, but that there should be further discussion about making it the standard for cultural institutions beyond times of temporary closures.

Social Media and Social Media Engagement

Social media is a term that is difficult to define. The term first appeared in the early 1990s to indicate web-based communication tools that allow users to interact online (Treem,

Dailey, Pierce, & Biffi, 2016). Asur and Huberman (2010) define it as a form of online discourse where users create, share, bookmark, and network. Treem et al. (2016) define it as online offerings such as blogs, social networking sites, and microblogging that have emerged since the 1990s. Beer and Burrows (2007) refer to social media as establishing web-based applications that allow users to write and contribute content, also known as Web 2.0. These different approaches all emphasize the role of interactivity and engagement, which are paramount to cultural institutions.

According to Muñoz-Expósito, Oviedo-García, and Castellanos-Verdugo (2017), social media engagement refers to audience involvement in the production and performance of the service. It is a bidirectional interaction between the creator and users and is beneficial for both parties (Muñoz-Expósito et al., 2017). Tiago and Veríssimo (2014) argue that entities can improve their digital engagement by focusing on these relationship-based interactions. These interactions include improving dialogue, communication, and customer brand-awareness through consistent feedback and information gathering (Tiago & Veríssimo, 2014). Organizations have opted to measure social media engagement to determine the effectiveness of their digital and social media content. There are many methods used to measure social media engagement.

First, the types of social media engagement must be explored. At the most basic level, social media engagement is defined as impressions, likes, and comments (Lee, Hosanagar, & Nair, 2018). More expansively, likes, dislikes, shares, visits, views, clicks, tags, mentions, hovers, check-ins, pins, embedding, endorsements, uploads, and downloads as social media actions can be used to measure social media engagement (Perreault & Mosconi, 2018). Paine (2011) divides social media engagement into a series of phases. It begins with clicking and liking, elevates to commenting, following, retweeting, and hashtagging, and ends with advocacy.

Cultural institutions thrive on support from their audience, so this suggests that social media engagement can be a useful measure of the overall success of cultural institutions (American Alliance of Museums, 2017).

These forms of social media engagement can be measured through a variety of proposed methods. At its most basic, Lee, Hosanagar, and Nair (2018) propose that engagement on Facebook pages can be measured by the number of comments, likes, and impressions generated. According to Agostino and Arnaboldi (2016), levels of public engagement with social media content can also be separated into two levels—public communication and public participation.

Public communication measures popularity, and its metric for Facebook is:

$$\text{Public Communication} = \frac{\frac{\text{Total \# of Likes}}{\text{Total \# of Posts}}}{\text{\# of Fans}} \times 1,000$$

Public participation measures commitment, and its metric for Facebook is:

$$\text{Public Participation} = \frac{\frac{\text{Total \# of Comments}}{\text{Total \# of Posts}}}{\text{\# of Fans}} \times 1,000$$

For social video engagement, Barry and Graca (2018) suggest measuring engagement with the ratio of the number of comments relative to the number of views. This accounts for differences in the average number of total comments that could vary based on certain videos having a high number of views.

For Twitter engagement, Muñoz-Expósito et al. (2017) outline the most effective measurements. They suggest that effective metrics must consider user interaction in relation to the total number of users exposed to and reached by the same content. To fully explore their metric, which can be applicable to other social media platforms, several terms must first be defined. According to Muñoz-Expósito et al. (2017), interactions refer to retweets, shares via

email, replies, likes, detail expands, embedded media clicks, hashtag clicks, follows, user profile clicks, link clicks, permalink clicks, app install attempts, app opens, and leads submitted.

Impressions refer to the number of times a Twitter user is exposed to a tweet on a timeline or through search results, regardless of whether the user chooses to click it. Reach is defined as the size of the single audience for a set of tweets. Bringing all of these individual metrics together, Muñoz-Expósito et al. (2017) propose the following formula to most accurately measure engagement on Twitter:

$$\text{Engagement on Twitter} = \frac{\frac{\text{Interactions}}{\text{\# of Tweets}}}{\frac{\text{Average Impressions}}{\text{Average Reach}}} \times 100$$

This ratio indicates the quantity of interactions an organization receives in proportion to the times that the content has been shown and the number of people it has reached (Muñoz-Expósito et al., 2017). Although there are a wide variety of methods to measure social media engagement, the importance of measuring it cannot be understated. In times of temporary closures, it may be one of the only metrics that organizations can use to measure audience engagement.

The Role of Social Media Engagement In Cultural Institutions

Social media is valued in cultural institutions due to its ability to connect institutions to their audiences and measure their engagement. Pew Research Center conducted surveys with American art organizations. Results indicated that 78% of the organizations say that the internet and digital technologies are very important for increasing audience engagement and 92% agree that technology and social media have made art a participatory experience (Adamovic, 2013).

According to Dawson (2020), Twitter is the most popular social media platform for museums. The top 100 museums worldwide have a total following of 45.7 million followers on Twitter and 41.7 million followers on Instagram (Dawson, 2020). However, according to Iwasaki (2017), 87% of 84 museum professionals surveyed indicated that Facebook was their institution's most followed social media platform. More than 50% of these respondents' institutions were active on Facebook, Instagram, YouTube, and Pinterest (Iwasaki, 2017).

Russo, Watkins, and Groundwater-Smith (2009) reason that social media has transformed learning from art museums from a unidirectional experience to one of engagement and participation. This engagement is valued because it results in increased investment from audiences (Muñoz-Expósito et al., 2017). This increased participation and investment makes measuring social media engagement a worthwhile venture for cultural institutions.

An online survey by Iwasaki (2017) of a sample of museums accredited by the American Alliance of Museums explored what metrics museums use to measure social engagement and how they determine their impact. Out of 84 respondents, the most selected metrics, in descending order, were "tracking the number of views or impressions on social media platforms", "tracking the number of likes or dislikes", and "reporting the number of shares (retweets. repins)" (Iwasaki, 2017, p. 81). Fifty percent of these respondents' museums have an internal protocol to determine the impact of their social media platforms. In descending order, the most popular methods were monitoring and responding to comments, monitoring and reporting social media analytics, and responding to messages (Iwasaki, 2017). It should be noted that 92% of the respondents monitored and reported social media analytics, which indicates that measuring engagement is a priority for museums, and, most likely, cultural institutions as a whole (Iwasaki, 2017).

To effectively measure engagement, cultural institutions have taken various approaches. A case study of three museums in the San Francisco area found that each institution focused on slightly different metrics (Adamovic, 2013). At the Santa Monica Museum of Art, the Director of Marketing focused on the number of likes, followers, fans, weekly posts, and weekly new followers. The Director of Executive Communications at the Los Angeles County Museum of Art measured engagement by looking at what posts are most shared, retweeted, and liked. The Director also determined which types of posts receive this type of engagement (Adamovic, 2013). This case study indicates that measuring social media engagement is valued among professionals in cultural institutions.

COVID-19 Temporary Closures

During the COVID-19 pandemic, most affected countries enacted some level of social distancing measures. According to the Santa Clara Valley Health and Hospital System (n.d.), social distancing is defined as actions that are taken to stop or slow the spread of contagious diseases. Social distancing measures restrict where and when large groups of people can gather, close buildings, and cancel events.

Upon the outbreak of COVID-19, the Centers for Disease Control and Prevention in the United States (2020) defined social distancing, or physical distancing, as staying at least six feet apart from others, avoiding gathering in groups, and staying out of crowded places and mass gatherings. The World Health Organization (2020) recommended a more conservative three feet distance between oneself and any individual who is coughing or sneezing, avoiding crowded places, and self-isolating if exhibiting any symptoms. The National Health Service in the United Kingdom (2020) suggested staying six feet away from anyone that an individual does not live with and to only leave home for work, shopping for essentials, exercising or for medical

purposes. As a result of these restrictions, a majority of non-essential businesses temporarily closed their physical locations, including cultural institutions. Cultural institutions traditionally cater to audiences in situations that do not foster social distancing, so these measures drastically altered how cultural institutions could communicate their content with their audiences and receive feedback. Their solution to these temporary closures was digital content and social media.

Methodology

The goal of the study is to answer the following research questions:

1. What types of digital content did cultural institutions implement during COVID-19 temporary closures?
2. How was cultural institutions' social media engagement affected by the types of digital content implemented during COVID-19 temporary closures?
3. What digital content did cultural institutions plan to continue implementing after COVID-19 temporary closures?

Data Collection

Qualitative research was the chosen research method for the study to provide rich, dynamic data and flexibility. The researcher created a semi-structured phone interview protocol to collect data. Participants were recruited by the researcher selecting cultural institutions that received media attention for the digital content they implemented during COVID-19 temporary closures. After receiving the recruitment email with details of the study, interested cultural institutions consented to a 30-minute phone interview to discuss their digital content and social media engagement during COVID-19 temporary closures. To limit response bias, all institutions were informed that their identity would remain confidential, leading questions were avoided, no

incentives were offered for responding a certain way, and no incentives were offered for participation. Interviews took place between July and September 2020. The researcher reached data saturation at 16 interviews (Fusch & Ness, 2015). Although interviews were scheduled for 30 minutes, each one lasted between approximately 10 and 30 minutes, depending on the scope of each institution's digital content and social media use.

Data Analysis

All interviews were recorded with the participants' consent and transcribed for data analysis. Transcriptions were inputted into MAXQDA Analytics Pro 2020 Demo software to assist with thematic analysis (Guest, MacQueen, & Namey, 2012). Using open coding, common themes were identified and expanded throughout a careful reading of the 16 transcriptions. A codebook was created using the themes found during open coding. Using axial coding and selective coding, these themes were then consolidated, and the codebook was finalized (see Appendix A). The primary researcher coded the transcripts and achieved inter-rater reliability by having a second individual code a random sample (8 transcripts-50%) of the interviews. The inter-rater similarity was over 85%, ensuring there was sufficient inter-rater reliability (Landis & Koch, 1977).

RESULTS

Descriptive Information About Participants

To be representative of the scope of cultural institutions, the researcher recruited museums, zoos, aquariums, performing arts organizations, historical societies, and heritage foundations across the United States. The final sample included 6 museums, 3 zoos, 1 aquarium, 4 performing arts organizations, 1 historical society, and 1 heritage foundation. The Southeast, Northeast, and Southwest were represented in the sample. Sizes of the institutions ranged from five employees to 400 employees.

Table 1 Information About Participants

Item	Range	Percentage
Category	Museum	38%
	Zoo	19%
	Aquarium	6%
	Performing arts organization	25%
	Historical society	6%
	Heritage foundation	6%
Location	Southeast	63%
	Northeast	6%
	Southwest	31%
Size	Small	25%
	Mid-size	63%
	Large	12%

Digital Content

Live Digital Content

The first theme to emerge from the research was the use of live digital content during COVID-19 temporary closures. Thirteen out of 16 participants reporting implementing live digital content immediately or soon after temporary closures were enacted. Of these institutions,

eight reported using Facebook Live regularly. Four institutions also reported using Zoom for live content, alone or in addition to Facebook Live. With this live digital content, six institutions reported implementing youth education and seven hosted events. Although several of these institutions indicated that they had used live digital content prior to temporary closures, none reported using it with as much frequency as they did during closures. Several institutions reported that this live digital content maintained or enhanced the connection between the institution and its audience. Four specifically reported interacting with viewers live in the comments to enhance engagement and personal connection. In this scenario, live digital content built communities and facilitated real-time interaction.

Serialized Digital Content

Serialized digital content was another theme that emerged from the data. Nine institutions discussed the implementation of serialized digital content to engage audiences during COVID-19 temporary closures. Of these nine institutions, four reported using daily themes such as Throwback Thursday, comedy, health and wellness, and story times. Eight institutions reported creating series that occurred weekly or when possible for the institution. Serialized content was presented live, through pre-recorded video, social media posts, and blogs. This provided predictable content for audiences to choose to engage with, much in the way a daily schedule would for an in-person experience.

Fundraising

Although, to the researcher's knowledge, no literature exists regarding cultural institutions' most common methods of fundraising prior to COVID-19, the Smithsonian Institution indicates that in-person events are a primary method (Smithsonian Institution, 2001). The absence of these events made digital content a key method of fundraising. Five out of

sixteen cultural institutions reported using digital content to increase donations to their organization. Two institutions provided personalized videos in return for donations. Both of these institutions were zoos or aquariums and would engage audience members with an animal and message of their choice. One institution raised over \$10,000 within approximately three months with this method. Two more institutions reported requesting donations through their Facebook pages, and one performing arts organization had donors supporting performances. This suggests that digital content is not only a major avenue for fundraising for cultural institutions during times of temporary closures and times of normal operations, but also a novel way to engage audiences.

Partnerships

Of the 16 institutions interviewed, six indicated that they built community partnerships via digital content during COVID-19 temporary closures. The primary type of partnership was with community partners such as local artists and nonprofit organizations. In the performing arts sector, two institutions discussed partnerships they developed with a radio station and television station, respectively. This expanded their reach and allowed them to broadcast performances that otherwise would have had to be experienced in person. Additionally, one institution reported partnering with approximately 20 influencers to promote the work of the institution. Although this may be outside the scope of many cultural institutions, it indicates the ability of cultural institutions to have a major digital and social media presence with strategic partnerships.

Transparency

A focus on transparency was another theme identified in the study. Five cultural institutions reported a greater emphasis on transparency in building connections with audiences through digital content during temporary closures. Benefits of this shift in tone included live

content feeling more natural, an increase in dialogue between institutions and audiences, and an increase in social media followers.

Increased Accessibility

Increased accessibility was a final major theme of digital content identified by participants during COVID-19 temporary closures. Eleven participants, of their own accord, discussed the increased accessibility to cultural institutions that digital content offered. Of the 11 participants that discussed increased accessibility, nine indicated that digital content increased accessibility to the institution to a wider geographical range. Institutions reported reaching audiences across the state, country, and world that they otherwise would not have engaged. Reports included audiences watching Facebook Lives from across different states, taking lessons from Germany, livestreaming from Vietnam, and partaking in summer programs from Japan. Additionally, three of the institutions indicated that they provided free content to audiences who, prior to COVID-19 temporary closures, were unable to visit for financial reasons. Finally, two institutions reported that they continued their digital content after reopening to engage audiences with health concerns without compromising their safety.

Social Media Engagement

Higher Social Media Engagement

Social media was a primary platform for cultural institutions to create and share their new digital content. Almost every cultural institution (14 out of 16) reported higher social media engagement during COVID-19 temporary closures. Institutions proposed different reasons for this increased engagement, but two common themes were the new types of digital content and that audiences spent more time on social media during temporary closures. In regard to new digital content increasing engagement, participants also indicated that certain tones or themed

days influenced engagement. Digital content with high social media engagement included comedy, positivity, children's activities, hands-on activities, and popular animals at zoos and aquariums. Notably, two out of three of the zoos interviewed reported that the host of live digital content influenced social media engagement. Hosts that were comfortable speaking to the camera and engaging with audiences performed better than those who were not.

Of these 14 participants, four reported that they experienced a steady decrease in this increased engagement as the months of temporary closures continued. Two reported that their social media engagement, although higher than pre-COVID-19 temporary closures numbers, fluctuated over the months of temporary closures and social distancing. Suggested reasons for this included the loss of novelty, audience fatigue, the gradual reopening of institutions, and changes in content. Only two out of 16 participants reported no change in social media engagement after the start of temporary closures.

Most Engaging Platforms

When discussing social media engagement, 14 out of 16 participants indicated that Facebook and Instagram were the platforms that received the most engagement. Out of these 14, seven identified Instagram as the platform with the most engagement, three identified Facebook, and four identified them as receiving equal engagement. Even when either Facebook or Instagram was identified as receiving the most engagement, several participants still indicated that the other platform closely followed. Reported discrepancies were that one of these platforms had more followers but the other had more engagement, the platforms were used for different purposes, or the platforms had different audiences that used the platforms differently. Therefore, even if either Facebook or Instagram received more engagement than the other, both were kept as priorities for most institutions. In regard to other social media platforms, out of all the

participants, one reported using TikTok as a major platform, six reported tracking Twitter engagement, and two reported tracking LinkedIn engagement. Although three institutions mentioned YouTube, only one of these three used it as a primary social media platform.

Measures of Social Media Engagement

Of the 16 institutions, 13 discussed how they measured social media engagement. Although there was no consensus among participants about the best way to measure social media engagement, some common themes did emerge. Although three participants used the term *engagement* to define how they measured engagement, several participants specified the metrics they tracked. The most common metrics in descending order were likes, shares, comments, reach, and followers. Three participants reported using engagement rate as a primary method of measuring social media engagement. Two indicated that they measured social media engagement success by their conversion rate to website views and ticket sales. Although no clear consensus was found, it is evident that passive metrics such as followers, reach, and impressions were not valued as highly as active audience engagement. In fact, one institution indicated that it was planning to create a custom value system to assign different weights to different types of engagements, with engagements such as comments being given more weight than likes.

Digital Content Beyond COVID-19 Temporary Closures

The Continued Implementation of Digital Content

Fifteen out of 16 participants discussed their plans to continue with their digital content beyond COVID-19 temporary closures. Fourteen institutions planned to continue implementing their digital content in some capacity. Digital content they planned to continue included lessons, personalized videos, blogs, live videos, and pre-recorded videos. All 14 suggested that certain content would be scaled back as in-person offerings began again. However, seven out of these 14

institutions reported clear plans for growth in digital programs they found success in. Notably, four participants indicated that they planned to continue or expand partnerships that were built digitally during COVID-19 temporary closures. One museum in particular indicated strong interest in building partnerships with community organizations and members. Other plans for growth included creating paid educational content, transitioning from Facebook Live to a different livestream platform, and using new social media platforms. Two institutions not only planned on continuing to implement video content, but also improve its quality. Plans for better equipment and studio space were discussed to achieve this goal.

Several institutions indicated that they had intended to increase their digital content and social media presence prior to COVID-19 temporary closures, but did not have the opportunity to do so. Several institutions also indicated that temporary closures highlighted the role and importance of digital content for cultural institutions. Given this, it is evident that COVID-19 temporary closures were the catalyst to build and maintain increased digital content and social media engagement.

Challenges

Three out of 16 institutions reported that a lack of time was a major challenge in determining the digital content they could continue implementing after COVID-19 temporary closures. Two of these three institutions were zoos that indicated that animal care staff would not have the time to engage with audiences in person and virtually throughout the day. Given the unpredictable nature of animals, this is a challenge that not only involves the employees' time, but the comfort of the animals. A performing arts organization was the third institution and stated that performers would also no longer have the time to engage at the same capacity during performance season.

Another related challenge that was mentioned by one participant was layoffs, which resulted in a lack of specialized staff to create digital content at the same capacity once temporary closures ended. Although other participants did not explicitly state a lack of time and specialized staff as a factor, many placed an emphasis on reducing certain digital content when focus shifted back to in-person content to meet demand in normal operations. Notably, two institutions indicated that they were pressured to continue the digital content they implemented because they set a precedent and created audience expectations during temporary closures. One institution stated, “*We opened the virtual door and it's going to be hard to close it.*” This indicates that institutions may have been pressured to meet renewed audience expectations, even when faced with challenges such as staff and time constraints.

DISCUSSION

Research into cultural institutions' digital content and social media engagement has gained traction as cultural institutions adapt with a changing society. Existing literature has identified the role and impact of cultural institutions' digital content, as well as common categories of their social media content (Allen-Greil & MacArthur, 2010; Iwasaki, 2017; Thomson, et. al., 2013). The current research adds to this literature by exploring cultural institutions' digital content and its effects on social media engagement specifically during COVID-19 temporary closures. This not only provides insight into digital content and social media engagement during COVID-19 temporary closures, but also explores implications of their roles in times following them.

Cultural institutions' common use of live digital content and digital partnerships during COVID-19 temporary closures highlights what cultural institutions valued most during this time. The commonly reported focus on live educational programming, events, replying to comments, and transparency indicates that direct engagement with visitors and community-building was a priority for institutions. Digital partnerships also worked to further relationships within the community. One of the most significant findings of this research was the increased accessibility to cultural institutions that digital content provided. Audiences who wanted to visit but were unable to do so due to geographical distance, financial reasons, or health concerns were given an access point they otherwise would not have had. Mercier found that in addition to cost, those who do not typically visit museums identify atmosphere as a primary barrier (2017). By meeting non-visitors in the more familiar environment of the digital realm, cultural institutions also became more accessible to those who otherwise may not have had a desire to visit. Institutions in the current research recognized the value of this accessibility in building new communities and

several indicated their desire to continue with digital content primarily for this reason. Therefore, a theoretical connection between the accessibility of digital content and community-building for cultural institutions has been identified in the study.

The lack of focus on producing virtual exhibits and tours suggests that institutions valued their intangible offerings over their tangible ones and that digital content was not intended to completely replace in-person experiences. Rather, digital content was primarily used to build and maintain connections that are typically facilitated by tangible, in-person experiences. This is contrary to research that indicated prior to COVID-19, only 26% of museums considered building and sustaining communities the most important content for their social media (Iwasaki, 2017). This indicates that in times of temporary closures, there is an increased focus on community-building digital content for cultural institutions compared to in times of normal operations.

Most of the digital content was hosted on or promoted through Facebook and Instagram. Although other platforms such as Twitter, TikTok, and YouTube were mentioned, most institutions identified Facebook and Instagram as their focus because they typically received the most engagement on these two platforms. As a result of the digital content and use of Facebook and Instagram, almost every institution experienced an increase in social media engagement during temporary closures. Although there was no consensus on best practices and metrics for measuring social media engagement, institutions emphasized measuring an increase in active engagement such as likes, comments, and shares over passive metrics such as reach, impressions, and followers. This further supports the researcher's theory that building connections and communities was the primary goal of digital content during COVID-19 temporary closures. Once again, this countered existing literature that found views and impressions to be the most

tracked metrics for museums (Iwasaki, 2017). This suggests that COVID-19 temporary closures may have caused a shift in best practices in measuring social media engagement for cultural institutions.

For institutions that may doubt the value of increased social media engagement beyond closures, it should be noted that social media has been found to increase involvement, membership, and donations for nonprofit organizations (Waters et al., 2009). Therefore, the identified digital content in the current study has the power to increase involvement, membership, and financial contributions for cultural institutions during COVID-19 temporary closures and normal operations.

Most cultural institutions indicated a strong desire to continue employing the digital content they implemented during COVID-19 temporary closures to some extent. As shown in Figure 1, community-building digital content in conjunction with the use of Facebook and Instagram resulted in increased social media engagement, and therefore led to plans to continue these digital content campaigns beyond times of COVID-19 temporary closures. Although the gradual reopening of cultural institutions and other businesses took focus away from institutions' digital content, the newly recognized value of building and maintaining digital communities remained. The intention of digital content during COVID-19 temporary closures was never to fully replace the in-person experience of visiting an institution, so it follows that a return to normal operations did not negate the need for digital content. No longer only supplemental to in-person experiences, digital content became an entry point for those who once lacked access to institutions. It also became another equally valuable avenue to build community with traditional visitors. This has the longstanding potential to transform how the public views and engages with cultural institutions, far beyond times of COVID-19 temporary closures.

Theoretical Implications

The current research fills a gap in the literature regarding best practices in digital content for cultural institutions. It found that live content, serialized content, fundraising, partnerships, transparency, and increased accessibility were of most importance to cultural institutions and the most effective during COVID-19 temporary closures. The current research also draws a theoretical connection between digital content and accessibility to cultural institutions. Furthermore, it also identifies that active metrics such as likes, shares, and comments are the preferred method of measuring social media engagement for cultural institutions. Finally, the research identified that the use of community-building digital content and Instagram and Facebook positively influenced social media engagement for cultural institutions during COVID-19 temporary closures.

Practical Implications

There are several practical implications of the current research. Cultural institutions can continue implementing the identified digital content to effectively increase social media engagement and provide more accessibility during COVID-19 temporary closures. They can also continue measuring social media engagement by likes, shares, and comments as a best practice. Furthermore, cultural institutions can continue these identified actions in times of normal operations for sustained success, as can other service-oriented businesses.

To overcome the identified challenge of a lack of time in continued digital content campaigns, cultural institutions can consider providing a financial incentive for employees who are featured in the digital content. Rather than including digital content as part of the employees'

regular duties, institutions can reward participation with the financial benefits reaped from the success of the digital content campaigns.

Additionally, given the indication that initial increased social media engagement may slowly decrease over the course of temporary closures, cultural institutions can minimize this by preventing audience fatigue. Some recommendations are to provide varied content, compelling hosts for live content, and personalized experiences.

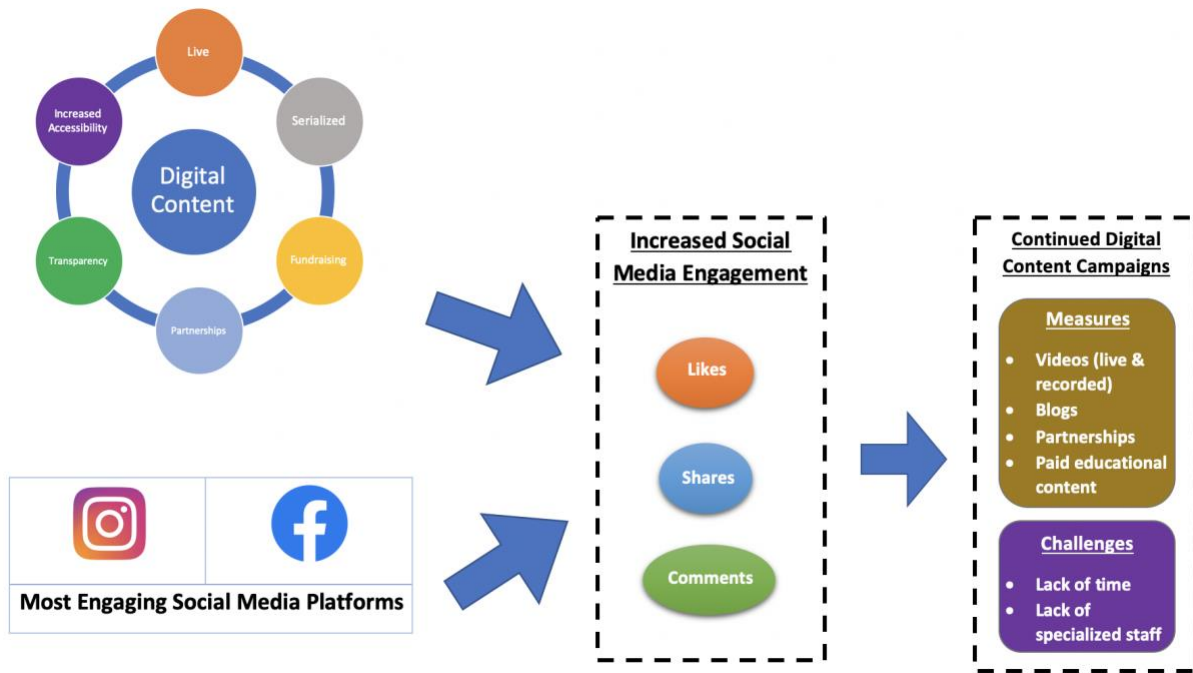


Figure 1: Factors Influencing Continued Digital Content Campaigns After COVID-19 Temporary Closures

LIMITATIONS AND FUTURE RESEARCH

Though many rich findings are presented in the current study, there are several limitations which require future research efforts. First, the current study addressed the types of digital content implemented and their effects on social media engagement during COVID-19 temporary closures, however, it did not isolate a direct cause-and-effect relationship between digital content and social media engagement for cultural institutions. Second, the study did not quantify the changes in digital content and social media engagement. Given that the study took place during the first six months of COVID-19 temporary closures and social distancing measures, the interviews were conducted during different phases of COVID-19 social distancing measures. Institutions were permitted to incrementally open and increase capacity according state and local guidelines, which resulted in interviews occurring prior to and after the reopening of cultural institutions (The White House, 2020).

Future research should aim to quantify the changes in digital content and social media engagement in a time when all institutions are in the same phase of operations. Future research should also aim to identify changes in cultural institutions' digital content and social media engagement between COVID-19 temporary closures and after a return to normal operations. This will indicate the long-term effects and success of the digital content implemented.

APPENDIX A: CODEBOOK

Themes	Properties	Supporting Interview Quotes
Live digital content	Facebook Live Instagram Live Livestream Events Education Comments	<p><i>“We decided to do some Facebook Live videos, as well as just regular video content.”</i> (Performing arts organization A, Southeast)</p> <p><i>“We did 60 days of Facebook Live.”</i> (Aquarium A, Southeast)</p>
Serialized digital content	Themed days Themed weeks Blogs	<p><i>“So each day of the week represented something different.”</i> (Museum D, Southwest)</p> <p><i>“We actually had a health and wellness series and a weekly mindfulness series.”</i> (Museum A, Southeast)</p>
Fundraising	Donations Paid content	<p><i>“Just trying to engage and thanking people for donating because we added a donate button to every single Facebook Live.”</i> (Zoo A, Southeast)</p> <p><i>“They can make a donation to the aquarium and for that donation, we would send a video around 30 seconds long with any type of special instructions that they wanted.”</i> (Aquarium A, Southeast)</p>
Partnerships	Influencers Community partners Radio TV	<p><i>“We’ve collaborated with other organizations for Facebook Live talks.”</i> (Museum C, Northeast)</p> <p><i>“We work with local artists in the community and they just kind of took us, took our audience on a tour of their studio, and those were doing really well.”</i> (Museum B, Southeast)</p>
Accessibility	Geographical Financial Health	<p><i>“It’s a way to reach schools that aren’t in-state so we can reach a larger audience.”</i> (Zoo B, Southwest)</p> <p><i>“They’re not going to be able to come for a while or they live out of state, but they want to support us. And so the virtual is a way to</i></p>

		<i>engage those people differently.” (Museum E, Southwest)</i>
Transparency	Transparency Community-building Conversation	<i>“Kind of moving towards showing more constant back and forth and transparency.” (Museum C, Northeast) “So everyone is, you know, transparent and clear with everyone just so that we can keep that really strong connection with everyone that we have.” (Performing arts organization B, Southeast)</i>
Changes in Engagement	Engagement changing over the course of COVID-19	<i>“We’ve actually seen an increase. So we’re almost up to 85,000 followers on Instagram and over 150,000 on Facebook, and on Twitter we are almost at 24,000.” (Zoo B, Southwest) “The organic content went further than it ever had.” (Museum A, Southeast)</i>
Most Engaging Platforms	Facebook Instagram Twitter TikTok LinkedIn YouTube	<i>“Facebook for sure, followed by Instagram.” (Zoo C, Southwest) “100% Instagram. That’s where our audience is most active and it’s the platform that’s growing the most for us.” (Museum B, Southeast)</i>
Measures of Engagement	Followers, likes, comments, views, reach, impressions, shares engagement rate, conversion rate	<i>“We usually go off of video views, how many followers we’re up that week and then engagement.” (Zoo B, Southwest) “We pretty much go by the traditional definition of likes comments, shares and clicks.” (Zoo C, Southwest)</i>
Future of Digital Content	Reducing digital content Increasing digital content	<i>“We’re anticipating living both in person and the digital way maybe forever, honestly.” (Museum D, Southwest) “And then our education department is also looking at virtual opportunities that will be paid.” (Museum E, Southeast)</i>

Challenges	Time Resources Audience expectations	<i>“We 100% are keeping with producing this much content only because we kind of have to.” (Museum A, Southeast)</i> <i>“And musicians are definitely going to get a lot busier.” (Performing arts organization B)</i>
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REFERENCES

- Adamovic, M. (2013). *Social Media and Art Museums: Measuring Success* [Unpublished master's thesis]. University of Oregon.
- Agostino, D., & Arnaboldi, M. (2016). A measurement framework for assessing the contribution of social media to public engagement: An empirical analysis on Facebook. *Public Management Review*, 18(9), 1289-1307.
- Allen-Greil, D., & MacArthur, M. (2010, October 27). Small Towns and Big Cities: How Museums Foster Community On-line. Retrieved May 13, 2020, from <http://www.archimuse.com/mw2010/papers/allen-greil/allen-greil.html>
- American Academy of Arts and Sciences. (2019). Art Museum Attendance. Retrieved from <https://www.amacad.org/humanities-indicators/public-life/art-museum-attendance#31768>
- American Alliance of Museums. (2017, September 28). Museums Advocacy Day. Retrieved from <https://www.aam-us.org/programs/museums-advocacy-day/>
- American Alliance of Museums, & Dynamic Benchmarking. (2020, July). National Survey of COVID-19 Impact on United States Museums [PPT]. Arlington: American Alliance of Museums.
- American Alliance of Museums. (n.d.). Museum Facts. Retrieved May 13, 2020, from <http://ww2.aam-us.org/about-museums/museum-facts>
- Asur, S., & Huberman, B. A. (2010). Predicting the Future with Social Media. 2010 IEEE/WIC/ACM International Conference on Web Intelligence and Intelligent Agent Technology. doi: 10.1109/wi-iat.2010.63
- Barry, J. M., & Graça, S. S. (2018). Humor effectiveness in social video engagement. *Journal of Marketing Theory and Practice*, 26(1-2), 158-180.

- Beer, D., & Burrows, R. (2007). Sociology and, of and in Web 2.0: Some Initial Considerations. *Sociological Research Online*, 12(5), 67–79. doi: 10.5153/sro.1560
- Bogle, S. (2020, February 12). What are the 7 Types of Digital Marketing? Retrieved from <https://www.snhu.edu/about-us/newsroom/2017/11/types-of-digital-marketing>
- Bureau of Economic Analysis. (2019, March 19). Arts and Cultural Production Satellite Account, U.S. and States 2016. Retrieved from <https://www.bea.gov/news/2019/arts-and-cultural-production-satellite-account-us-and-states-2016>
- Byrd-McDevitt, L. (2020, March 14). The Ultimate Guide to Virtual Museum Resources. Retrieved from <https://mcn.edu/a-guide-to-virtual-museum-resources/>
- Carr, D. (1990). Qualitative Meaning in Cultural Institutions. *Journal of Education for Library and Information Science*, 31(2), 97. doi: 10.2307/40323393
- Centers for Disease Control and Prevention. (2020, April 4). Social Distancing, Quarantine, and Isolation. Retrieved April 20, 2020, from <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/social-distancing.html>
- Dawson, A. (2020, March 30). Which museums have the biggest social media followings? Retrieved from <https://www.theartnewspaper.com/analysis/museum-masters-of-the-social-media-universe>
- Elliott, N., & Lazenbatt, A. (2005). How to recognise a 'quality' grounded theory research study. *The Australian journal of advanced nursing : a quarterly publication of the Royal Australian Nursing Federation*, 22 3, 48-52 .
- Friedman, L. W., & Friedman, H. H. (2008). The New Media Technologies: Overview and Research Framework. *SSRN Electronic Journal*. doi: 10.2139/ssrn.1116771
- Fuller, S. (2018, August 27). Theater & Broadway in the U.S. - Statistics & Facts. Retrieved

- May 13, 2020, from <https://www.statista.com/topics/1299/theatre-and-broadway/>
- Fusch, P. I., & Ness, L. R. (2015). Are We There Yet? Data Saturation in Qualitative Research. *The Qualitative Report*, 20(9), 1408-1416. Retrieved from <https://nsuworks.nova.edu/tqr/vol20/iss9/3>
- Gartner. (2019, October 21). Gartner Identifies the Top 10 Strategic Technology Trends for 2020. Retrieved from <https://www.gartner.com/en/newsroom/press-releases/2019-10-21-gartner-identifies-the-top-10-strategic-technology-trends-for-2020>
- Guest, G., MacQueen, K. M., & Namey, E. E. (2012). *Applied thematic analysis*. Los Angeles: Sage.
- Gusset, M., & Dick, G. (2010). The global reach of zoos and aquariums in visitor numbers and conservation expenditures. *Zoo Biology*, 30(5), 566–569. doi: 10.1002/zoo.20369
- Halvorson, K., & Rach, M. (2012). *Content Strategy for the Web*. Berkeley, CA: New Riders.
- Holliman, G., & Rowley, J. (2014). Business to business digital content marketing: marketers' perceptions of best practice.
- Hylland, O. M. (2017). Even Better than the Real Thing? Digital Copies and Digital Museums in a Digital Cultural Policy. *Culture Unbound: Journal of Current Cultural Research*, 9(1), 62–84. doi: 10.3384/cu.2000.1525.179162
- Iwasaki, S. (2017). *Social Media and Museums: Reframing Audience Engagement in the Digital Communication Age* [Unpublished master's thesis]. San Francisco State University
- Kalay, Y. E., Kvan, T., & Affleck, J. (2008). Introduction. In *New Heritage: New Media and Cultural Heritage* (p. 6). London: Routledge.
- Keene, S. (1996). Becoming digital. *Museum Management and Curatorship*, 15(3), 299–313. doi: 10.1080/09647779709515490

- Kisida, Brian. (2015). The Educational Benefits of Cultural Institutions. Theses and Dissertations. 1200. <http://scholarworks.uark.edu/etd/1200>
- Kochoska, J., & Petrovski, D. (2015). The Role of the Cultural Institutions in the Civic Engagement. *International Journal of Science and Research*, 4, 1458–1462.
- Koiso-Kanttila, N. (2004). Digital Content Marketing: A Literature Synthesis. *Journal of Marketing Management*, 20(1-2), 45–65. doi: 10.1362/026725704773041122
- Kunst, A. (2020, January 21). Share of Americans who visited zoos in the past 12 months in 2018, by age. Retrieved from <https://www.statista.com/statistics/227507/zoo-visitors-usa/>
- Landis, J., & Koch, G. (1977). An Application of Hierarchical Kappa-type Statistics in the Assessment of Majority Agreement among Multiple Observers. *Biometrics*, 33(2), 363-374. doi:10.2307/2529786
- Lee, D., Hosanagar, K., & Nair, H. S. (2018). Advertising Content and Consumer Engagement on Social Media: Evidence from Facebook. *Management Science*, 64(11), 5105–5131. doi: 10.1287/mnsc.2017.2902
- Lister, M. (2010). *New media: a critical introduction*. London: Routledge.
- Mercier, G. (2017). *Differential Concerns: Perceived Benefits and Barriers to Visitation from the Mental Models of Museum Visitors and Non-Visitors*. [Unpublished master's thesis]. University of Washington
- Muñoz-Expósito, M., Oviedo-García, M. Á., & Castellanos-Verdugo, M. (2017). How to measure engagement in Twitter: advancing a metric. *Internet Research*
- National Health Service. (2020, May 13). Social distancing: what you need to do. Retrieved May 14, 2020, from <https://www.nhs.uk/conditions/coronavirus-covid-19/staying-at-home-to-avoid-getting-coronavirus/staying-at-home-and-away-from-other-people/>

- Paine, K. D. (2011). *Measure what matters: online tools for understanding customers, social media, engagement, and key relationships*. Hoboken, NJ: Wiley.
- Perreault, M.-C., & Mosconi, E. (2018). *Social Media Engagement: Content Strategy and Metrics Research Opportunities*. *Proceedings of the 51st Hawaii International Conference on System Sciences*. doi: 10.24251/hicss.2018.451
- Rowley, J. (2008). Understanding digital content marketing. *Journal of Marketing Management*, 24(5-6), 517–540. doi: 10.1362/026725708x325977
- Russo, A., Watkins, J., & Groundwater-Smith, S. (2009). The impact of social media on informal learning in museums. *Educational Media International*, 46(2), 153–166. doi: 10.1080/09523980902933532
- Santa Clara Valley Health and Hospital System. (n.d.). *Information about Social Distancing*. Retrieved April 20, 2020, from https://www.cidrap.umn.edu/sites/default/files/public/php/185/185_factsheet_social_distancing.pdf
- Schwan, S., Grajal, A., & Lewalter, D. (2014). Understanding and Engagement in Places of Science Experience: Science Museums, Science Centers, Zoos, and Aquariums. *Educational Psychologist*, 49(2), 70–85. doi: 10.1080/00461520.2014.917588
- Smithsonian Institution. (2001). *Fundraising at Art Museums*. Retrieved October 19, 2020, from *Fundraising at Art Museums*
- Southeastern University. (2016, February 15). *What Is New Media?* Retrieved May 13, 2020, from <https://online.seu.edu/articles/what-is-new-media/>
- Strom, E. (2002). Converting Pork into Porcelain. *Urban Affairs Review*, 38(1), 3–21. doi:

10.1177/107808702401097763

Themed Entertainment Association, & AECOM. (2018). Theme Index and Museum Index: The Global Attractions Attendance Report. Retrieved from http://www.teaconnect.org/images/files/TEA_328_381804_190528.pdf

Thomson, K., Purcell, K., & Rainie, L. (2013, January 4). Arts Organizations and Digital Technologies. Retrieved May 13, 2020, from <https://www.pewresearch.org/internet/2013/01/04/arts-organizations-and-digital-technologies/>

Tiago, M., & Veríssimo, J. (2014). Digital marketing and social media: Why bother? *Business Horizons*, 57(6), 703–708. doi: 10.1016/j.bushor.2014.07.002

Treem, J. W., Dailey, S. L., Pierce, C. S., & Biffi, D. (2016). What We Are Talking About When We Talk About Social Media: A Framework for Study. *Sociology Compass*, 10(9), 768–784. doi: 10.1111/soc4.12404

The White House. (2020). Opening Up America Again. Retrieved October 28, 2020, from <https://www.whitehouse.gov/openingamerica/>

World Health Organization. (2020, March 31). Coronavirus disease (COVID-19) advice for public. Retrieved from <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public>

World Health Organization. (2020, March 31). Coronavirus disease (COVID-19) advice for public. Retrieved from <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public>