# **Improving Marketing at the Kempton Steam Museum**



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# Improving Marketing at the Kempton Steam Museum

An Interactive Qualifying Project submitted to the Faculty of WORCESTER POLYTECHNIC INSTITUTE in partial fulfillment of the requirements for the Degree of Bachelor of Science

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# **Abstract**

The Kempton Steam Museum aims to increase annual visitation from 4,000 to 20,000 and achieve UK Museum Accreditation in the next five years. Through interviews with trustees along with conventional and intercepted surveys of visitors, we determined that the museum could gain more visitors by increasing marketing to families and younger audiences. Through observations in the Kempton Steam Museum and related museums we developed ways to enhance the visitor experience to increase visitation. We have eight recommendations for the museum pertaining to visitor demographics, social media, website, ticketing, volunteering, membership, signage, and special events. These recommendations can improve the visitor experience and garner more interest in the museum from both new and returning visitors.

# Acknowledgements

We would like to thank the volunteers from the Kempton Steam Museum for allowing us the opportunity to work alongside them. We were inspired by their dedication to the museum and its impact on the local community. Within the organization we would like to thank all of the trustees that responded to our questions, their insight was instrumental to the completion of this project.

We would like to extend a special thanks to David Lawrie, John Anderson, Stephen Fielding, and Abdullah Seba for their continuous support and hospitality throughout the duration of our research.

We would also like to thank our advisors Professors Ruth McKeogh and Shamsnaz Bhada, our ID2050 Professor John Michael Davis, and our site director Dominic Golding for their guidance through this project.

# **Executive Summary**

## **Background**

The Kempton Steam Museum is a rarity among London's industrial museums in that the site has remained mostly unchanged since it terminated operation in the 20th century. The museum maintains a steady rate of growth thanks to its status. Now, the museum is looking to expedite its growth by expanding its audience and marketing its offerings to fulfill Sections 8 and 9.2 of the UK Museum Accreditation Scheme. To achieve this, the Kempton Steam Museum is enacting a five-year plan, which involves improving its marketing strategies and offerings within the museum. In this project, which marks the first year of this five-year plan, we helped the museum develop strategies to better market itself to a broader audience.

#### **Project Objectives**

To increase visitation and improve marketing within the museum, we established the following project objectives:

- 1. Determining the main demographics of visitors of the Kempton Steam Museum.
- 2. Determining the attractions and engagement for visitors of the Kempton Steam Museum.
- 3. Assessing the effectiveness of the Kempton Steam Museum's current marketing efforts.
- 4. Developing a taxonomy of marketing strategies for the Kempton Steam Museum.

#### Methods

To achieve these objectives we surveyed museum visitors, interviewed trustees, observed behaviors of visitors, and conducted a benchmarking study. To define the Kempton Steam Museum's current demographics, we conducted surveys with visitors during the two open weekends at the museum. The results of this survey also helped us analyze the effectiveness of the Kempton Steam Museum's marketing. To determine the attractions and engagement for museum visitors, we observed the museum on the days it was open to see how visitors interacted with the museum. To further understand the effectiveness of current marketing strategies, we conducted interviews with the museum's trustees to understand their views on the museum's

marketing. To further understand which marketing strategies to recommend, we conducted a benchmarking study comparing the Kempton Steam Museum to other mechanical museums in London.

#### **Findings**

#### **Trustee Interviews**

During our interviews with trustees, we found that trustees frequently mentioned that data is required to determine the effectiveness of social media marketing, related museums share audiences with the Kempton Steam Museum, and the museum should market membership opportunities further and add more benefits to the membership plan. The trustee interviews helped us recognize patterns between trustee responses, which we considered when analyzing our results from other methods.

### Survey Data

Using the results from the visitor survey, we found that most visitors to the Kempton Steam Museum were over 40, white British, and male. The museum visitors contradict the relatively high diversity in the borough of Hounslow, in which white and male residents both make up less than half of the population (Hounslow, 2021). 72% were first-time visitors, primarily informed by word of mouth or social media, with the latter attracting a higher percentage of younger audiences. The Weekend of Power event drew a larger crowd with more returning visitors than the non-event weekend, indicating the event's strong appeal. Most visitors spent one to three hours at the museum. Most visitors arrived by car due to limited transportation options, with many coming from nearby areas like Twickenham. The information provided in the guidebook and guided tour satisfied most visitors.

#### Observations

We observed dwell time, visitor interaction, visitor questions, and guidebook use through the four major exhibits at the museum. We found that both engines received far more interaction and visitation compared to the turbines and Mercury Arc Rectifier, especially during the first hour of the museum opening. Dwell time varied by visitor, with noticeable trends in 1.5 hour intervals in line with the startup times of the steam engine. Common questions visitors had

across all exhibits related to access and signage. Using these findings, we could better understand visitors' interactions with the museum during their visit.

## Benchmarking Study

During our benchmarking study we observed the physical media, main attractions, and membership plans for three other mechanical museums. We found that the London Museum of Water and Steam, the Walthamstow Pumphouse Museum, and Brooklands Museum all shared sufficient signage explaining exhibits or guiding visitors through the museum, spaces dedicated to children, and membership plans with clearly listed benefits. Based on the findings from our survey, observations, trustee interviews, and benchmarking study we developed a menu of evidence based recommendations.

#### **Recommendations**

We divided our recommendations to the Kempton Steam Museum into eight suggestions. Recommendation one addressed determining the main demographics of visitors to the museum. Recommendations four through eight addressed determining the main attractions and engagement for visitors at the museum. Recommendations two, three, five, and six addressed assessing the effectiveness of the museum's current marketing efforts. Our recommendations all address objective four, providing the museum with various improvements which can be made to enhance the visitor experience and increase visitation.

#### 1. The Kempton Steam Museum's Market

We recommend that the Kempton Steam Museum expand its audience to a younger demographic, since it was found that 75% of the museum's visitors were over the age of 40. Increasing the number of interactive exhibits inside and outside the museum can help the museum gain the interest of families and children. We recommend placing interactive exhibits outside the museum on the front lawn and renovating current displays in the museum to satisfy these visitors. We also recommend creating easily digestible signage for younger audiences, since the current signage and explanations for the exhibits are very academic. An event where kids can create signs for each exhibit can get younger audiences more involved and create kidcentered signage for use in the museum.

#### 2. Social Media

We recommend that the Kempton Steam Museum increase its promotional content on Instagram. We found that the museum has more younger followers on its Instagram compared to its other platforms. Increasing promotional content on this platform will help the museum draw in a younger audience.

#### 3. Website

We recommend that the museum replace the visitor feedback survey on its website. The new survey is easily accessible, shorter, and produces data that is easy to analyze. This will help the museum understand the effects that different marketing strategies have on visitation after our project.

#### 4. Ticketing

We recommend the Kempton Steam Museum split its opening hours into two ticket times. The museum can double the number of daily visitors by selling separate tickets for 10AM-1PM and for 1PM-4PM. This will not affect the time most visitors spend in the museum.

### 5. Volunteering

We recommend increasing the promotion of volunteer sign up and benefits within the museum. Moving volunteer information to the front of the museum will increase visibility to visitors. Promoting the benefits of volunteering and featuring current volunteers will enhance the volunteer culture at the Kempton Steam Museum and encourage visitors to join.

#### 6. Membership

We recommend increasing the promotion of museum membership in the museum and online. Currently, there is no marketing of the membership plan within the museum, and the membership plan is not easily accessible on the website. Promoting the membership more should help to increase the number of visitors that join the plan. We also recommend improving the membership benefits to include an all-day pass, emails with schedules of future events, and members-only events.

#### 7. In the Museum

We recommend increasing signage around the museum to help visitors navigate the exhibits. Adding signage to the gates on the driving floor will inform visitors that they have access to the downstairs floors. Adding locations of interactive displays and engine start-up times to the guidebook will help visitors better navigate the museum.

#### 8. Special Events

We recommend increasing special events hosted by the museum. Special events at the museum attract more returning visitors and can be tailored to engage different audiences. For example, interactive events during the day can attract younger visitors and families. On the other hand, late-night events cater more towards older audiences.

Our report outlines the history of marketing in museums and the Kempton Steam Museum. We defined our methods as interviews with museum trustees, assessment of visitor engagement, analysis of social media marketing, and a benchmarking study of related museums. We then used these findings to compile a menu of recommendations to the museum. Our research marks the start of the Kempton Steam Museum's five-year plan, and provides a foundation upon which the museum can build upon with future research to improve marketing and increase visitor engagement.

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3.4	Jonah, Sumi	Connor
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# 1. Introduction

During the turn of the 20<sup>th</sup> century, the Thames River was polluted with sewage, and the city of London did not have the infrastructure to deliver clean water to its residents (Douet, 2021). Steam-powered pumping houses were developed to address clean water circulation in London. The triple-expansion steam engines, used for water circulation stand 62 feet tall and revolved at 25.4 revolutions per minute during their working years to move 12 to 19 million gallons of clean water per day. The Kempton Steam Museum is one of these pump houses, now dedicated to preserving steam technology, including the largest currently functioning triple-expansion steam engine in the world (Kempton Steam Museum, 2024).

Despite the cultural significance and rich history of its attractions, the Kempton Steam Museum struggles to receive visitation rates on par with other industrial museums in the area as of 2024. The primary motive behind increasing visitation is achieving Museum Accreditation, a set of guidelines defined by the Arts Council of England. If a museum meets these requirements, it will be deemed an "Accredited Museum." This title would give the Kempton Steam Museum leverage in applying for future grants.

With the recent rise of digital marketing, museums shifted their attention to the interaction between their brand and visitors. To do this, museums developed social media pages, websites, and visitor feedback collection methods. Digital marketing challenges include understanding your current audience, and developing outreach to broader audiences. The Kempton Steam Museum is currently working to improve its recently established social media marketing.

Our project explored different marketing strategies the Kempton Steam Museum could use to increase visitation. This study researched effective marketing strategies and related these strategies to museum visitation. We collected data to help the Kempton Steam Museum meet the requirements for sections 8 and 9.2 of the Museum Accreditation Scheme, which addressed visitation. As of 2024, the Kempton Steam Museum attracted approximately 4,000 annual visitors. By 2029, they aimed to increase this number to 20,000. Though other industrial museums had seen success in implementing their own appropriate marketing strategies, there was a lack of research to support whether these practices could benefit the Kempton Steam Museum.

This report outlines museum marketing strategies and the history of the Kempton Steam Museum's marketing efforts. Additionally, we define our interviews with museum trustees, Kempton Steam Museum visitor engagement assessments, social media interaction analysis, and benchmarking study of related museums as methods of data collection. We used our findings to compile marketing recommendations for the museum. Our final recommendations construct a foundation for future research to bolster the growth of the Kempton Steam Museum over the following five years.

# 2. Background

Marketing is used in museums to identify the needs of its audience and to ensure demand for museum offerings (AiM, 2020). A strong marketing strategy will allow a museum to understand its audience, enhance brand image, build credibility, and drive participation and sales (AiM, 2020). Brand image refers to the way visitors view the museum and its offerings, and is important for visitation and visitor retention (Pusa, 2014). Visitors play an important role in museum income as ticket sales from visitors are a main source of revenue. Additionally, many governmental grants like the National Heritage Memorial Fund use visitors as a condition in receiving grants (Heritage Fund, 2024).

One way museums show progress and engagement with their visitors is by applying for Museum Accreditation through the Arts Council of England. The Kempton Steam Museum is currently attempting to attain Museum Accreditation, which would allow them to apply for grants to pay for full time staff and expand the size of the museum. Kempton Steam Museum still needs to fulfill requirements in the accreditation scheme pertaining to its marketing strategy and audience demographics before they are accredited (Arts Council England, 2024). Helping the Kempton Steam Museum define its current audience and modify their current marketing strategies are the main problems our team addresses in this project.

This section will first explain the use of marketing in museums and changes in the utilization of marketing. We discuss different strategies in marketing specializing in websites, social media, and special events are discussed, then explain different marketing strategies in mechanical museums. We end the section by elucidating the growth aspirations of the Kempton Steam Museum and its goals of Museum Accreditation.

# 2.1 The Evolution of Museum Marketing

Museums are an integral part of cultural heritage and serve as a reminder of appreciation for humanity's achievements (Vareiro, 2020). A museum can attract visitors through features such as accessibility, admission, and visit duration; however, the main motivator that attracts visitors is the museum's identity (Cotter et. al, 2021).

The concept of a museum's identity is tied to its brand image. Museums that market themselves as intriguing, modern, and safe environments tend to see higher visitation rates as well as more diverse audiences (Baumgarth, 2009). To ensure that visitors decide to return in the future, the museum must live up to the expectations set by their marketing campaign. Creating an experience that satisfies these expectations increases the likelihood of visitors recommending the museum to others (Baumgarth, 2009).

Increasing visitation through an effective marketing campaign is important to museums because visitors give museums revenue and social service (Cortell, 2011). Revenue is necessary to keep the museum running, add new collections, host different events, and pay staff. In some cases, museums are publicly funded by grants and government donations, reducing reliance on ticket sales. In publicly funded museums, visitors are more so seen as a way to spread information and promote inclusivity in the community (Cortell, 2011). The role a museum plays in its community is used to justify why the government should continue funding its efforts (GOV.UK, 2018). If museums want to be a significant facet of the community, it is crucial that members of the community visit their museum (Arts Council England, 2018).

However, a majority of museums weren't always focused on social service and promoting inclusivity in their communities (Calvi, 2023). Prior to the last decade, museums did not see themselves as businesses that required marketing since they were considered centers of information and history (Leoni et al, 2020). Now, museums are places in the community for relaying experiences and creating memories (Calvi, 2023). With this shift in focus, the definition of museums had to change. In 2022, the International Council of Museums redefined a museum as:

[a] permanent institution in the service of society that researches, collects, conserves, interprets and exhibits tangible and intangible heritage. Open to the public, accessible and inclusive, museums foster diversity and sustainability. They operate and communicate ethically, professionally and with the participation of communities, offering varied experiences for education, enjoyment, reflection and knowledge sharing (ICOM, 2022).

In response, museums have begun to focus on promoting themselves as accessible and interactive experiences and to widely advertise the exhibitions and experiences they now offer (Leoni et al, 2020). This has made marketing a necessity for museums wanting to maintain relevance with their visitors (Kotler et. al, 2008).

To publicize this shift, museums have redirected their focus from traditional marketing strategies toward the digital sphere (Leoni et. al, 2020). Traditional marketing strategies for museums included billboards, paid commercials, and features in trip guides (Naiditch, 2017). Digital marketing gives museums access to a larger audience, to which they provide these updated events and experiences. The shift from traditional marketing to digital marketing was slowly adopted by many museums starting around 2010, creating the concept of internet marketing (Ahmad, 2016).

Research studies, such as that conducted by Philip Kotler, have exposed the potential downsides of digital marketing within the museum industry. The most significant drawback is the cost of implementation, which more adversely affects smaller museums with fewer resources. In addition, older visitors may have trouble interacting with the digital media. Despite this, if the museum has the resources available to pursue a digital marketing campaign, the positives are likely to overcome these negatives (Kotler et. al, 2008). Other research studies, such as that completed by Luna Leoni and Matteo Cristofaro, have shown the benefits of adopting a digital marketing campaign. Leoni and Cristofaro's study in Italy analyzed small museums' adaptation to digital marketing. Museums that failed to develop social media platforms or websites for marketing did not experience the same increase in visitation compared to those that successfully adopted these changes (Leoni et al, 2020). It is important for museums to keep up with changing perceptions from their visitors, and adapt to the expectations of marketing in our digital world to maintain relevance (Kotler et. al, 2008).

# 2.2 Current Strategies in Museum Marketing

With multiple platforms to choose from, internet marketing allows a museum to share its message through the most creative means possible. Though there is no one superior form of internet marketing, there are several methods that have proven successful. These include search engine optimization, content marketing, social media, email marketing, affiliate marketing, and online events such as webinars. This section will discuss some of the most common marketing

platforms and strategies used by museums, and the way museums utilize these strategies to accomplish different marketing messages.

Creating an effective website is important for museums to gain credibility with potential visitors and provide information about museum attractions (Ahmad, 2016). An effective website should allow for easy access to information that a visitor would need to know before their trip (AiM, 2017). This may include contact information, a description of galleries, and hours of operation. In addition, adding supplementary content to a website can enhance visitor experience. For example, an updated attraction or news banner on the website is a commonly used strategy to inform visitors of upcoming events. Returning visitors often utilize this feature to determine when to return to the museum, and potential visitors may also use this feature to determine when to visit (United Kingdom Government, 2020). Another useful aspect of a website is a space for visitors to provide feedback on their experience (AiM, 2017). Positive reviews allow museums to determine which exhibits visitors think are the best part of the museum, giving them a subject to center future marketing strategies around (Naiditch, 2017). In some cases, even negative feedback can be incorporated into a marketing strategy. For example, the Museum of Old and New Art made a marketing campaign surrounding bad reviews they collected from their online visitor feedback survey (Mona, 2022). This campaign centered around the message, "A bad review is a work of art. These are the best of Mona's worst." The satire in this marketing campaign garnered publicity online for the museum and helped boost visitation for a short while after the campaign launched in 2022 (Mona, 2022). Ultimately, a successful website should envelop every aspect of the museum that they would want reflected to the public.

Similarly, a strong social media campaign can spread public awareness around the museum (Ahmad, 2016). Social media networks like Facebook, Instagram, X (formerly known as Twitter), and TikTok, can help museums update visitors on upcoming events and allow for visitor interaction and feedback. Marketing through social media can create big changes in visitation, as shown by the Natural History Museum of London. After shifting to social media marketing in 2019, with the intention of directing their marketing towards a younger demographic, the museum saw a 24% increase in attendance (SomeOne, 2019). This marketing consisted of multiple advertisements showing the most popular exhibits in the museum with lighthearted comments. Many of these advertisements also featured children with the exhibits,

including their targeted demographic in the campaign itself. An example of an Instagram post used in this marketing campaign is found in Figure 1.

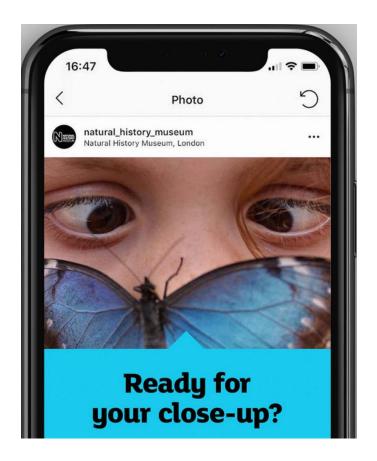


Figure 1: Example Instagram post from the Natural History Museum's new marketing campaign (SomeOne, 2019).

The goal of this campaign was to establish a community among museum visitors. Other common marketing campaign goals include informing visitors about events and the collection of user-generated content (Kidd, 2011). To share content with a wider range of potential visitors, museums can include hashtags with their posts. In 2015 the trend #WhyDoYouMuseum was started by the National History Museum of Los Angeles in collaboration with the La Brea Tar Pit Museum. This event increased engagement on the museum's platforms and contributed to higher visitation rates (Nadiski, 2017).

Special events are employed by museums to generate excitement and interest among potential visitors. They are a novel way to attract both new and returning visitors by creating experiences outside the museum's collection. For example, competitions encourage visitors to engage with museums. In March of 2021, the Beamish Museum launched a golden ticket competition. Entry to the competition involved purchasing a tin of candy from the museum's

online shop, and the winners would receive free exclusive tickets to the museum (Beamish Museum, 2021). As a result, the Beamish Museum saw increased sales and visitation (Beamish Museum, 2021). Themed events are another strategy used by museums, typically featuring a customizable spin on the normal exhibits to target specific demographics. A popular category of themed events is referred to as "Lates" (Choi et. al, 2020). During Lates, museums are open later in the night, catering to older demographics. In some cases, museums will bring in DJs or have catered food and drinks to attract groups of adults looking for entertainment or socialization. One such event is the Kempton Steam Museum's "An Evening at the Museum" event, shown in Figure 2, during which the museum hires jazz performers to entertain the museum's late night visitors in tandem with the operation of its steam engines.



Figure 2: Kempton Steam Museum's "An Evening at the Museum" late night event in March 2024 (Kempton Steam Museum, 2024).

Lates have been widely adopted in museums and are popular in London where there is already an affluent late-night scene. Museums can also schedule coordinated events with other organizations and brands. Several museums have partnerships with big brands to increase publicity. In 2024, the Van Gogh Museum and Vans started a partnership that used collections from the Van Gogh Museum to create designs for shoes (Van Gogh, 2024). The museum received increased public attention and the partnering company saw increased revenue. Collaborations with schools, local businesses, charities, or other museums are all common

organizations museums partner with to spread publicity and increase visitation (CapeAnn, 2024; Worcester Art Museum, 2024, Museum, 2024).

All these marketing strategies share a clear message about the museum's target and purpose, whether promoting exhibits, increasing visitation, building a community, or expanding the audience. Creating a central marketing message is the most important aspect of developing a successful marketing strategy for a museum. A marketing message, or marketing mission, is a declaration of a business's "reason of being," or the benefit the museum thinks they are providing their visitors (David et al., 2014). Centering a museum marketing campaign around a mission statement clarifies the purpose and desired visitor experience. A successful marketing campaign depends on data collected from these strategies, which can tell the museum about its visitor demographics and behaviors.

Museums target their marketing strategies by collecting and analyzing visitor demographic data and their behavior patterns while viewing the museum's exhibits.

Demographic studies are commonly used to determine marketing audiences and the factors that motivate them to visit a museum. For example, a 2011 study focused on determining the factors that were likely to cause a higher attendance of younger audiences. The study used interviews with customers to gather data and determined that factors, such as in-house restaurants, were draws for the younger audience (Gofman et al. 2011). Visitor behaviors such as engagement with certain exhibits are also common targets of study for museums. Understanding the popularity of their exhibits helps museums tailor their marketing to either emphasize popular exhibits or bring attention to less popular exhibits. An example of one such study is the visitor engagement study in the National Museum of Scotland, in which observations and structured interviews were utilized to determine the most popular exhibits. This study found that easily accessible exhibits within the main area of the museum were more frequently visited than adjacent galleries (Barron et al. 2017).

Each of the strategies above contribute towards a successful marketing campaign in different ways. Publishing a website allows a museum to contain all of their information and media in a single location, but comes with a heavy time cost to develop and maintain (Wilson, 2019). Social media marketing has a minimal entry barrier, but requires constant maintenance and engagement with the account's followers to maintain its effectiveness over time (Hensel, Deis, 2010). Special events provide novel experiences for new and returning visitors alike, but

have a high time cost for setup and require publicization through other marketing strategies (Daniel et al, 2008). Understanding the benefits and drawbacks of each of these strategies and their applications to a specific museum is necessary to develop an effective marketing campaign. Mechanical museums in London have a unique history that can be incorporated into their marketing strategy.

# 2.3 History of Mechanical Museums in London

London's rich history is preserved in museums across the city. Between antiquated methods of transportation housed at the London Transport Museum, scientific breakthroughs reflected at the London Science Museum, and the British Museum's ever-expanding collection of relics of days past; London's collection of over 192 museums bear no shortage of attractions that reflect its cultural influence (London Assembly, 2024).

Within this array of museums lies a niche selection dedicated to the history of London's steam engines. Mechanical museums preserve some of London's oldest pumping stations and waterways responsible for delivering the earliest clean water supply to households. The London Museum of Water and Steam is London's most popular museum of this kind, garnering 22,000 visitors annually (London Museum of Water and Steam, 2018). Popular attractions include interactive tunnels and sewer networks, the Hindley Waterwheel, and the pumping station responsible for the first-ever clean running water pumped to houses across the city. The museum's purpose is to educate visitors on the impact of historic steam technology on today's clean water industry.

Another London museum dedicated to preserving the history of water technology is the Walthamstow Pumphouse Museum. Specifically, the museum focuses on the industrial and transport heritage of Walthamstow. Stored within this Grade II listed Victorian pumping station lies an antique pair of 19th-century Marshall steam engines, which were responsible for the draining of sewage that was produced across London's Lea Valley (Walthamstow Pumphouse Museum, 2024). Neighboring the pump house, the museum preserves a fire station that tells the story of firefighting technology. In addition, original Victoria Line tube carriages are open for exploration, along with a model train exhibit depicting the Liverpool to Chingford line. The Walthamstow Museum emphasizes the importance of steam technology in transportation and sewage flow (Walthamstow Pumphouse Museum, 2024).

The Brooklands Museum highlights the history of other forms of transportation in the London area. The museum is located at the Brooklands racing circuit, which was the first purpose-built motor racing track (Brooklands Museum, 2023). On display at the museum are historic race cars preserved to celebrate racing achievements and show the evolution of racing technology. Furthermore, the story of London's aircraft history is told through the Brooklands Aircraft Factory, the Barnes Wallis Stratosphere Chamber, and the Aircraft Park. The historic aerospace and road transportation technology on display demonstrates the variation in innovation over different periods (Brooklands Museum, 2023).

Finally, the Kempton Steam Museum was a clean water pumphouse that provided water to London. The steam engines in the museum were installed in 1924 to go with the new building which started construction in 1926. These engines ran until 1980 when they were decommissioned and abandoned. In 1995 the Kempton Great Engines Trust was formed to oversee the restoration of the two triple-expansion steam engines, as well as the rest of the site. One such engine is the William Prescott engine which has now been operational and open to visitors since 2004 (Kempton Steam Museum, 2024). Figure 3 shows The William Prescott Engine, the first triple expansion engine restored by the volunteers at the Kempton Steam Museum.



Figure 3: Kempton Steam Museum's Sir William Prescott Engine, which can be seen in operation during the Museum's Steaming Weekends (Kempton Steam Museum, 2024).

The Kempton Steam Museum is first and foremost a mechanical museum, and all the exhibits currently contained within are machinery that the site formerly used and currently

operates. The largest exhibits within the Kempton Steam Museum are the two triple-expansion engines which dominate a large portion of the pump house building. Specifically, the functioning William Prescott engine provides the most unique attraction on the site and is the basis of most of the marketing and current popularity of the Kempton Steam Museum. In addition to the engines, there are two steam-powered turbine pumps, No. 8 and No. 9 which were added in 1933. Turbine No. 9 is partially disassembled to provide a clearer view of the inner workings for museum visitors. The final major exhibit in the museum is the set of Mercury Arc rectifiers, which are used to convert the DC power input of the engines and turbines into an AC output for the power grid (Kempton Steam Museum, 2024). The museum's purpose is to elucidate the site's importance in providing clean water to London, as well as highlighting the technological significance of the triple expansion steam engine.

# 2.4 Growth Aspirations of the Kempton Steam Museum

The museums above are of great importance to the history of London, having contributed to a large portion of the city's clean, running water. To spread this message to a wider audience, the Kempton Steam Museum seeks to expand its marketing to more potential visitors. The Kempton Steam Museum aspires to garner an annual visitation rate of 20,000 within the next five years, and to market more effectively to a younger audience between the ages of 18-40. Another aspect of this growth plan is to apply for Museum Accreditation from the Arts Council of England to secure the funding required for future expansion.

Museum Accreditation is a set of national standards for museums which covers the way museums are run, the management of the collections in a museum, and the engagement with visitors to that museum (Arts Council England, 2018). Our research is directed at Sections 8 and 9.2 of the Museum Accreditation Standards, which pertain specifically to understanding audience demographics, as well as engaging with the audience through promotional material (Arts Council England, 2018). These sections are of increased importance to the Kempton Steam Museum due to the high ethnic diversity of the Hounslow area, with minority groups making up 56% of its population (Hounslow, 2021). These sections of the Museum Accreditation scheme can be viewed in Appendix A. Upon meeting all standards set by the Arts Council of England and obtaining accreditation, the Kempton Steam Museum may apply for grants, further increasing its potential to grow.

To achieve sections 8 and 9.2 of the Museum Accreditation Standards the Kempton Steam Museum is in the process of overhauling its social media, with a focus on Instagram, YouTube, TikTok, and Facebook. In addition to social media marketing the Kempton Steam Museum also wishes to evaluate its current demographics, both to achieve 8.1 of the accreditation standards, and to better market to their desired audience.

# 3. Methods

The goal of our project was to develop a marketing strategy for the Kempton Steam Museum to increase visitation. To accomplish this, we focused on the following objectives:

- 1. Determining the main demographics of visitors of the Kempton Steam Museum.
- 2. Determining the attractions and engagement for visitors of the Kempton Steam Museum.
- 3. Assessing the effectiveness of the Kempton Steam Museum's current marketing efforts.
- 4. Developing a taxonomy of marketing strategies for the Kempton Steam Museum.

Data collection for our first and second objectives was limited to four days, as the Kempton Steam Museum was only open for two weekends during our study. We used trustee interviews to collect qualitative data to direct related museums researched in the benchmarking study and to shape the information and data presented in the final marketing plan. Finally, we visited other local mechanical museums to compare the Kempton Steam Museum's digital and physical marketing, attractions, and atmosphere. The following sections describe the methods used for our research, the participants and the desired outcomes to help develop the marketing strategy for Kempton Steam Museum.

# 3.1 Current Visitor Demographics and Engagement

Our first two objectives were focused on visitor demographics and engagement. The Kempton Steam Museum had limited visitor data from their online visitor survey, all of which was recorded prior to the Covid-19 pandemic. A comprehensive view of visitor demographics and engagement required a mixed methods approach. We used the following methods to help build that comprehensive view:

- Conventional surveys
- Intercepted Surveys
- Observations

We were able to gauge the effectiveness of the Kempton Steam Museum's marketing strategies in attracting visitors to the museum, and visitors' satisfaction with the museum experience.

## 3.1.1 Conventional Surveys and Intercepted Surveys

A conventional survey is a set of pre-written questions that are administered in a way that does not require a team member's involvement. Our team utilized a Google Form for our survey. The survey consisted of 12-13 multiple-choice questions and a final open-response question.

Intercepted surveys have a similar pre-written setup to conventional surveys but are instead verbally administered by a member of our team. The information from intercepted surveys is likely more representative of the total demographics of a museum during the day surveyed despite containing the same questions (Larouche, 2006). In addition, a greater percentage of visitors, up to 70% in some cases, will agree to an intercepted survey rather than a conventional survey (Larouche, 2006). On the first steaming weekend, we positioned two members of our team at two locations on the Kempton Steam Museum grounds to administer our intercepted survey. One team was located immediately outside of the building exit, while the other team was located next to the car park. Both teams offered to ask the same questions to exiting visitors.

Our team was only able to conduct the exit surveys and intercepted survey on the days when the museum was open for a steaming weekend. Since there was limited time available for data collection, our team decided to give visitors the option to partake in the conventional survey via QR code. By using the same questions with the survey and intercepted survey, we were able to obtain a large dataset despite the time constraints.

Responses from our multiple-choice questions provided data that defined visitor demographics as well as visitors' feelings about the museum. We then sorted responses into quantitative data. Overall, questions in our survey explored reasons for visitation, interactions with museum exhibits, and demographic information. Survey questions for both weekends can be found in Appendix B and C.

## 3.1.2 Observational Study of Kempton Steam Museum

Our group performed observations during each steaming weekend to determine visitor interaction with museum exhibits. We conducted observations in the first two hours of the museum's opening during the first steaming weekend. We conducted observations for the duration of the museum's opening during the second steaming weekend since there were no outdoor activities. We used observational studies to gain information such as dwell time at exhibits, attention span, and movement through the museum, which cannot be gathered from the survey or interview data (Bollo et. al, 2005). Our team separated the museum into four zones respective to the entrance foyer; the William Prescott engine located on the left of the driving floor, the Bessie Prescott engine located on the right of the driving floor, the Mercury Arc Rectifiers located on the left of the turbine floor, and the Turbines located in the middle of the turbine floor. The location of these exhibits can be seen in Figure 4.

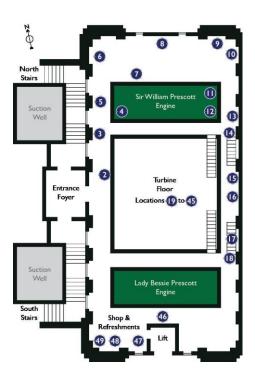


Figure 4: Floor plan of the Kempton Steam Museum

These zones allowed us to more accurately observe visitor interactions within each exhibit (Addis, 2024). We noted the number of people per exhibit, interactions with displays or volunteers, length of interactions, as well as any other observations that may be coded into data afterwards (Addis, 2024). Museum visitors were observed to see which attractions proved more

effective than others in drawing visitor engagement, and which features of the attractions caused this difference.

# 3.2 Current Marketing Strategies

Our third objective was to determine the effectiveness of marketing strategies employed by the Kempton Steam Museum. We achieved this through examining the museum's social media marketing and interviewing the museum's trustees.

## 3.2.1 Visitor Engagement with Social Media

Visitor engagement on social media is defined as a construct of thoughts or feelings about experiences relating to the consumer (Voorveld et. al, 2018). In our research, we looked at quantitative metrics provided by the analytics of the social media accounts, as well as the data provided by the visitors during the Kempton Steam Museum's steaming weekends.

The Kempton Steam Museum had four active social/multimedia media accounts on Facebook, Instagram, YouTube, and TikTok. Similarly to the previous objectives, we used multiple-choice questions from our conventional survey and intercepted survey to quantify visitor interaction on all social media platforms. We then compared results from our collected data with pre-existing data from the Kempton Steam Museum's social media analytics. The Kempton Steam Museum volunteers collected the pre-existing data using the inbuilt social media analytic features. We conducted a comparison of platforms receiving the most engagement and major demographics on each platform using both data sets. Both the survey responses and the preexisting social media metrics provided useful data to achieve our third objective.

#### 3.2.2 Trustee Interviews

The Kempton Steam Museum's board of trustees oversees decision-making related to the museum and its marketing. We interviewed five trustees to determine the trustees' vision for the museum's development. Similar to our exit survey, we used a semi-structured interview to format our questions. Interview questions explored the trustees' likes and dislikes about the Kempton Steam Museum's current marketing, their ideas about future marketing strategies, along with their motives behind increasing Kempton Steam Museum's visitation. Our questions also examined which museums in London the trustees believed could influence the future

marketing of the museum. Interviews lasted 30 to 60 minutes and were held online via Zoom. The full list of questions we asked the trustees can be found in Appendix D. After completion of each interview, we coded it into a list of responses depending on the frequency of the answer. We prioritized answers multiple trustees vocalized as issues and key improvement areas in the museum's marketing.

# 3.3 Exploring Strategies Used in Other Museums

We explored other museums to better understand which marketing strategies are popular in the museum industry. We decided to incorporate a benchmarking study to understand where the Kempton Steam Museum's strengths and weaknesses lie in relation to other mechanical museums. A benchmarking study consists of measuring products, processes, and services against those of other organizations (ASQ, n.d.). Exploring effective marketing tactics in other museums can direct possible improvements to marketing within the Kempton Steam Museum.

Our team followed the benchmarking wheel template to form a cohesive benchmarking study (Bhutta et. al, 1999). We identified that the Kempton Steam Museum's marketing was the aspect that we needed to focus on when planning our study. Our group dedicated different components of the study to individual members based on our strengths. We searched for mechanical museums in the London area and asked trustees of the museum which organizations they thought competed for a similar audience. The London Museum of Steam and Water, Brooklands Museum, and Walthamstow Pumphouse Museum were included in our study. These museums provided insight into marketing exhibits similar to those at the Kempton Steam Museum. The data we collected pertained to each museum's digital media such as physical marketing within the museum, main attractions, and membership plan and benefits. For the final step, our team used this data to shape our final marketing plan to the Kempton Steam Museum.

# 3.4 Marketing and Accreditation Plan

Our final objective was to develop a menu of potential marketing strategies that we proposed to the Kempton Steam Museum. We determined areas the Kempton Steam Museum could improve to increase visitation using the data collected by all previous methods. Our final recommendations were compiled into a menu of options for the museum to consider. We also

addressed the marketing and demographic sections of the Museum Accreditation scheme and provided the Kempton Steam Museum with our data to inform their five-year plan.

# 4. Findings

We conducted interviews with five museum trustees, gathered 172 responses to our visitor experience survey, visited three related museums, and performed visitor observations over the course of two Steaming Weekends. These methods aided us in addressing our initial objectives. The findings in this section are representative of the data collected from these methods and were used to direct our marketing recommendations to the museum.

## 4.1 Trustee Interviews

We conducted interviews with five of the Kempton Steam Museum's trustees. We found that trustees frequently mentioned three key points: data is required to determine the effectiveness of social media marketing, there are related museums that share an audience with the Kempton Steam Museum, and membership opportunities can be further marketed, and more benefits can be added to the membership program. The trustee interviews helped us recognize patterns between trustee responses, which we summarize in the following sections.

## 4.1.1 Digital Marketing

Many of the trustees expressed doubt about the social media marketing causing tangible increases in visitors. For example, when we asked trustees, "What marketing strategies implemented by the Kempton Steam Museum do you believe are working?" four of the trustees answered that there was a lack of data correlating social media followers to museum visitors. While the trustees recognized that their social media accounts had followings, they were unsure if this translated to the museum's visitation. As such, we prioritized studying which social media platforms were contributing the most visitors to the museum, which is discussed further in section 4.3.

Trustees also expressed doubts about the visitor feedback survey used on their website. It was unclear between trustees who had access to this survey and the data associated with it. Three of the trustees answered that the visitor feedback survey was too long and contained superfluous questions.

#### **4.1.2 Related Museums**

When interviewing the Kempton Steam Museum's trustees, we found that the museum trustees do not see other mechanical museums as competition. When we asked, "Who do you perceive to be your competition in getting the attention of potential visitors?" all trustees expressed that related museums are not seen as competition, but rather opportunities to collaborate. Three trustees stated that those who visit the other museums are likely passionate about antique steam technology and would also visit the Kempton Steam Museum. We analyzed the marketing strategies used by those museums and the way they may apply to the Kempton Steam Museum, which is discussed further in section 4.5.

In addition to other mechanical museums, we were also interested to see if the trustees believed the museum was competing with other heritage sites. To this end, we asked "Do you believe there to be competition outside of other museums?" A recurring theme in responses was the various other cultural sites in Feltham, including Hampton Court Palace and Freddie Mercury's house. One trustee believed that this was because those attractions were more easily accessible by public transportation. These results are discussed further in section 4.3.

# **4.1.3** Membership Opportunities

Three out of five trustees mentioned the membership plan in response to the question, "Are there any marketing strategies that you think could be improved?". These trustees expressed that the museum does not market this plan to visitors. Additionally, two of the trustees felt that the membership did not offer enough perks to current members. During observations of the second steaming weekend, we looked for membership marketing throughout the museum, which is discussed in section 4.4. Similarly, we included membership analysis of other museums in our benchmarking study to understand the benefits members of those museums received. The results of this analysis are included in Section 4.5.

# **4.2 Survey Data**

Findings concerning visitor demographics, reasons for visiting, transportation and location, dwell time, and guidebooks and tours were developed by analyzing the data gathered from our trustee interviews, observations, and visitors' surveys.

# 4.2.1 Kempton Steam Museum Visitor Demographics

Attendance was low with visitors under the age of 40 at the Kempton Steam Museum. This claim is supported by the survey data, with 53% of surveyed being >60 years of age and 26% being between 41 and 60. The high age of visitors demonstrates a potential opportunity for the museum to market to younger audiences. A plot comparing the age groups of the visitors across both weekends is shown in Figure 4.

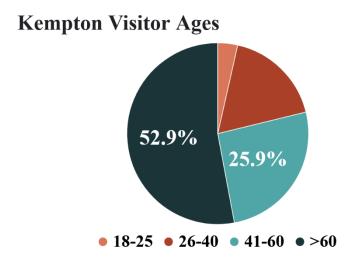


Figure 5: Age ranges of visitors in the Kempton Steam Museum

Attendance was low among female visitors. Surveyed visitors were predominantly male, 63% were male and 35% were female. A pie chart comparing the gender groups of the visitors on both weekends is shown in Figure 5.

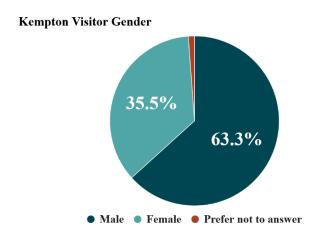


Figure 6: Gender of visitors in the Kempton Steam Museum

The borough of Hounslow is highly diverse, with white British only accounting for 44% of the population (Hounslow, 2021). Despite this, the ethnicity of the Kempton Steam Museum's visitors was overwhelmingly white British. 83% of surveyed visitors responded White British. As previously mentioned, trustee interviews indicate that there is a desire for the Kempton Steam Museum to draw on these populations which are not currently represented. A pie chart comparing the ethnicity of the visitors across both weekends is shown in Figure 6.

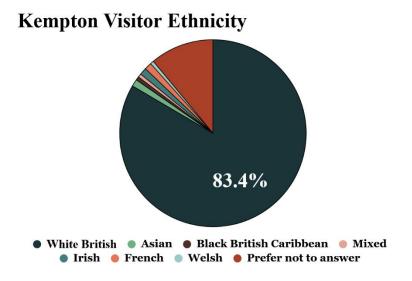


Figure 7: Ethnicity of visitors in the Kempton Steam Museum

#### 4.2.2 Reasons for Visit

We found that visitors were more likely to return to the Kempton Steam Museum for events. 62% of visitors surveyed during the May steaming weekend attended for the first time. During the June steaming weekend, most visitors were new, with 94% of visitors surveyed attending for the first time. 46% of visitors during the Weekend of Power event answered that they attended at least partially due to the event. This data shows that events such as the Weekend of Power were draws for returning visitors. A graph of first-time attendance at the Kempton Steam Museum is shown in Figure 7, and a plot of whether visitors attended an event at the Kempton Steam Museum is shown in Figure 8.

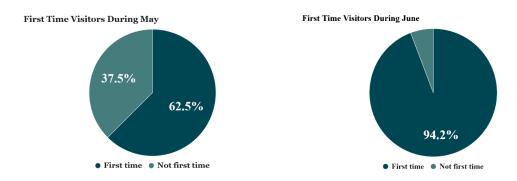


Figure 8: Percentage of visitors attending Kempton Steam Museum for the first time.

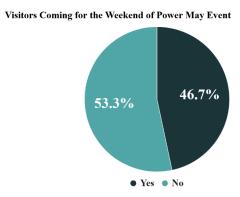


Figure 9: Percentage of visitors attending Kempton Steam Museum for the May Weekend of Power event.

Word of mouth was the most popular way in which visitors learned about the Kempton Steam Museum, followed by social media and the website. 36% of surveyed visitors learned about the museum through word of mouth, 21% found the museum on social media, and 18% through the website. Trustee interviews mentioned that social media and the website would be the focus of future marketing efforts. A plot of the way surveyed visitors discovered the Kempton Steam Museum is shown in Figure 8

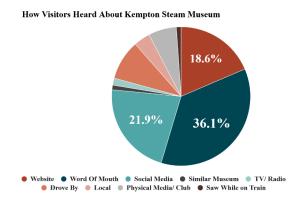


Figure 10: How surveyed visitors discovered the Kempton Steam Museum.

Most social media users surveyed had seen the Kempton Steam Museum on Facebook. 63% out of 78 surveyed visitors who interacted with Kempton Steam Museum on a social media platform had seen their Facebook. The next largest social media site was Instagram, with 18% out of 78 visitors. The Kempton Steam Museum's Facebook had 12,000 followers at the time of recording, while Instagram had 26,000. The discrepancy in response rate compared to view count can be explained by the demographics of users, as according to the museum's social media analytics the Facebook account sees more U.K. followers, while the Instagram has more worldwide followers. The survey data also noted a larger number of >60 age range visitors interacting with Facebook, with 28 out of 32 respondents in that age range using Facebook over other social media. A plot of which social media sites survey visitors had seen the Kempton Steam Museum is shown in Figure 9.

#### Visitor Engagement With Social Media Marketing

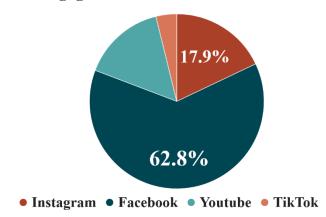


Figure 11: Visitor engagement with Kempton Steam Museum's social media marketing.

## **4.2.3** Transportation and Location

Visitors predominantly came from within a 20-mile radius of the museum. The region with the most visitors was Twickenham, with 20 visitors, followed by Guildford with 13 visitors. This reflects that the Kempton Steam Museum predominantly draws in local visitors, and visitors from outside the country were much less common. Only 4 visitors were located outside of England. This is also reflected in Figure 13 which shows the distribution of surveyed visitors and their locations across England.



Figure 12: Heat map reflecting postcodes of surveyed visitors at the Kempton Steam Museum. The blue circle reflects the location of the Kempton Steam Museum.

The vast majority of visitors drove to the museum. 76% of visitors surveyed arrived by car, while only 16% arrived by using a form of public transport. The museum's location is one cause of this problem, with the nearest bus stop being a 17 minute walk away. As such, the museum sees low visitation from visitors without access to a car. A plot of the way visitors arrived at the Kempton Steam Museum is shown in Figure 12.

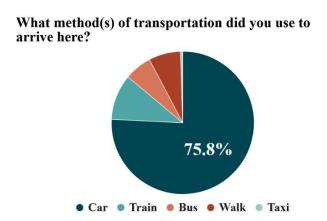


Figure 13: How visitors arrived at the Kempton Steam Museum.

#### 4.2.4 Dwell Time

Although the Kempton Steam Museum allows all day ticketing, visitors rarely spend all day at the museum. 40% out of the 169 visitors surveyed spent 2-3 hours in the Kempton Steam Museum, while 33% of surveyed visitors spent 1-2 hours. Together, about 74% of visitors stayed at the museum for 1-3 hours. In comparison, only about 18% of visitors stayed for more than 3 hours. A plot of visitors time spent at the Kempton Steam Museum is shown in Figure 11.

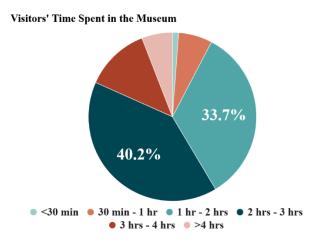


Figure 14: Dwell time of surveyed visitors in the Kempton Steam Museum.

#### 4.2.5 Guidebooks and Tours

Visitors were satisfied with the information provided in both the guidebook and tour. 118 out of 124 visitors surveyed responded that the information present in the guidebook was satisfactory and 40 out of 43 visitors provided the same response for the guided tour. A bar graph of visitor responses to the tour information and guidebook information is shown in Figure 14.

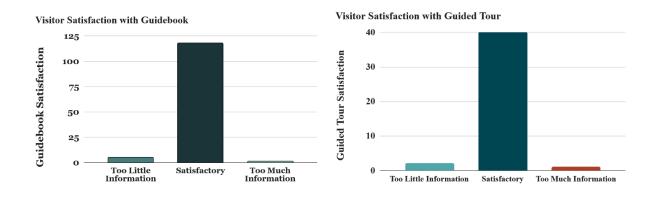


Figure 15: Visitor satisfaction with information provided in guidebooks and tours.

## 4.3 Observations

Dwell time, visitor interaction, visitor questions, and guidebook use were observed through the four major exhibits at the Kempton Steam Museum. It was found that both engines received far more interaction and visitation compared to the turbines and Mercury Arc rectifier, especially during the first hour of museum opening. Dwell time for each exhibit differed and depended on startup times of the engine. Common questions visitors had across all exhibits

related to access and signage. The observations for each exhibit along with the new self-guided tour system are further discussed in the following sections.

### 4.3.1 William Prescott Engine

The William Prescott Engine was the most popular exhibit. The average visitor at the William Prescott engine stayed at the engine for 15 minutes. During this time, half of the visitors interacted with the displays surrounding the engine. Visitors interacted with the engines more in the twenty minutes leading up to the start of the engine than at any other times, visitor numbers were around 30 at the engine's startup time and fell to 5-10 when the engine was running. Most of the displays surrounding the engine were not interacted with in the 20 minutes leading up to the start of the engine. However, when the engine was running the sand filter display received the most attention by visitors compared to all other displays surrounding the engine. Exhibit number nine, the pitometer, was notably overlooked by visitors, especially in comparison to the video of the running engine right next to it. Volunteers at the William Prescott Engine interacted with visitors often, but notably more so when the engines were turned off. This can be attributed to the fact that many visitors were focused more on watching the engine than talking with volunteers while the engine was running. Common questions asked by visitors involved the start times of the engine and the way different parts of the engine worked.

## 4.3.2 Bessie Prescott Engine

The Bessie Prescott Engine was the second most popular exhibit, especially as a viewing point while the William Prescott Engine was running. The average visitor at the Bessie Prescott engine exhibit stayed at the engine for 25-30 minutes, as that was the average length of a guided tour of this engine. The dwell time of visitors at this exhibit was higher during the self-guided tours on the second steaming weekend, around 30-45 minutes. These self-guided tours allowed visitors to explore the engine at their own pace. More visitors interacted with the exhibit after the William Prescott engine started. An average of 15 visitors were present during start-up, and an average of 30 were observed during running. Visitors that used the interactive display located by the engine tended to stay at the exhibit longer than other visitors. We found that a significant portion of visitors stayed at the tables in front of the engine for the whole period of observation. The seating available in front of the exhibit facing the William Prescott engine seated around 15-20 visitors at any given time. An average of 5 visitors stayed at this table for the whole period of

observation on all four days. Visitors to this exhibit were frequently seen in groups, and many of these groups utilized a guidebook while navigating the engine. The booking process to explore the engine could be made more accessible, as a common question asked by visitors at this exhibit was whether they were able to go up on the engine.

#### 4.3.3 Turbines

Visitors were often confused about whether they had access to the bottom floor of the museum containing the turbine exhibit. On all four days of museum operation, the turbines received very few visitors for the first 1.5 hours. We found that many visitors observed the turbines from the floor above and pointed down at the displays while looking at the guidebook. Visitors often walked past the closed gates leading to the turbine floor, since there were no signs specifying whether visitors had access. When visitors were at the turbines, they stayed an average of 10 minutes. Groups were less common at the turbines compared to the engine exhibits. Visitors were often seen interacting with the physical display next to the turbines, but many visitors walked past the digital display located next to the turbines. Since there are notably less volunteers present on the bottom floor, there were also only four visitor-volunteer interactions outside of tours.

### 4.3.4 Mercury Arc Rectifier

Visitors were also confused about whether they had access to the Mercury Arc Rectifier exhibit. Since the Mercury Arc Rectifier was located on the turbine floor, the exhibit also only received visitors after the first 1.5 hours. However, tours were visible at the exhibit during this period. Visitors only interacted with the exhibit for an average of 2 minutes, and many visitors took pictures with the exhibit. We often observed visitors flipping switches in the display and generally enjoyed the lights that came from the exhibit, especially younger visitors and families. Groups were predominantly observed at this exhibit, rather than individual visitors. The digital display next to this exhibit was also popular with visitors. Volunteers were not often present at this exhibit except with a tour group but answered questions from other visitors when present. Common questions from visitors were about the way the exhibit worked, and questions on what they could touch in the exhibit.

#### 4.3.5 Self-Guided Tour

The updated tour during the second steaming weekend allowed for a much larger number of visitors to view the Bessie Prescott Engine. The Kempton Steam Museum tested a new form of tour during the June steaming weekend, in which visitors were allowed to explore the Bessie Prescott Engine without a tour guide. Not only did visitors seem to enjoy these self-guided tours, it also allowed 130 visitors on the engine over both open days, as compared to the usual 56 maximum.

## 4.4 Benchmarking Study

Our team collected data on three mechanical museums related to the Kempton Steam Museum. We focused on physical media, main attractions, and membership plan. All the museums had sufficient signage either explaining exhibits or guiding visitors through the museum. In addition, all the museums had spaces dedicated to entertaining children during their visit. Finally, most of the museums had marketing for membership plans inside the museum, and most museums offered multiple membership plans. The specific observations for each museum are further explained in this section.

#### 4.4.1 London Museum of Water and Steam

The London Museum of Water and Steam had a paper guidebook that visitors pay five pounds for at the front desk. Signage throughout the museum utilized vibrant patterns and large fonts to provide information in an easily digestible format. On the same signs, a cartoon black cat was included providing the same information in a more child-friendly format. Similarly, many exhibits had signs made by children explaining their thoughts regarding the exhibit. Safety signs were prominent in areas near large machinery and gave explicit instructions for families with young children.

The Cornish and Rotative Engines along with the Hindley Waterwheel were the main attractions of the museum. Most attractions were accompanied by an interactive exhibit that reinforced ideas and concepts related to the attraction. Additionally, the museum contains standalone interactive exhibits such as replica pumps powered by hand cranks and the outdoor Splash Zone made up of running water streams that can be rerouted with props.

The membership plan for the London Museum of Water and Steam had ten benefits for members. Notable benefits included a 10% discount at the gift shop, 25% off paid exhibitions

and events, and 10% discount on venue hires. The price of an individual membership was 40 pounds, or 30 pounds for students. Membership advertisements were posted at the front desk of the museum which was visible from the entrance. Paperwork to sign up for the membership was also at the front desk.

## **4.4.2** Walthamstow Pumphouse Museum

Walthamstow Pumphouse had little physical media for visitors. Notably this was the only museum we researched that did not have a guidebook for visitors. Signage in the museum included directions for visitors on exhibit locations, descriptions of exhibits, history of the museum, volunteer information, and event notifications. The museum also had a wall of volunteer pictures with the text "Meet the Volunteers". Walthamstow was also involved in the community surrounding the museum. This included signage promoting community events hosted in the museum, like Supperclub Tube, which allows visitors to dine in the tube train exhibit. In addition, the model train exhibit was decorated with buildings from the surrounding neighborhood.

Walthamstow was the smallest museum we toured. There were four large exhibits for the museum; the fire station, the tube carriages, the model railway, and the Pumphouse. There were no interactive displays, and the only interactive exhibit was an activities table run by volunteers. The model railway display was very popular with kids, and museum volunteers explained that there were plans to allow children to control the railway via remote in the future.

The membership plan for the Walthamstow Pumphouse Museum had two membership tiers. The basic membership offered a 20% discount, entry on any volunteering days, and a quarterly newsletter. The premium membership offered all of these benefits and free entry to paid events, special visits, and discounted venue hire. The actual price of the basic and premium memberships was not listed on the museum's website. There were no pamphlets or advertisements for the membership located within the museum.

#### 4.4.3 Brooklands Museum

Within the Brooklands Museum, there was an abundance of signage explaining the historical importance of each exhibit. Guidebooks reinforcing the signage were free at the front desk of the museum. Along with the guidebook, a calendar was also handed out at the front desk. Notably, there was no promotional media for volunteers inside the museum.

The Brooklands Aircraft Factory, the Barnes Wallis Stratosphere Chamber, the Brooklands Race Track, and the Aircraft Park were the main attractions of the museum. There were several interactive displays offering digital games and additional information about the exhibits alongside these attractions. Similarly, several of the main attractions were accompanied by smaller interactive exhibits to engage younger audiences. Visitors were provided with seating and games on a lawn adjacent to the racetrack.

The Brooklands Museum had two membership tiers with multiple membership plans. The individual, double, family, and youth plans all had the same benefits. These benefits included free entry into the museum, a discounted entry to the Concorde plane experience, a discounted entry to premium museum events, and a subscription to the monthly newsletter. The price of an individual membership was listed as 58 pounds, but the individual membership was discounted to 27 pounds for any visitors between 17-21. The Club membership was significantly more expensive at 182 pounds, but offered many more experiences to members. This included free entry to the museum for the member and any two guests, access to a members-only bar within the clubhouse on-site, no charge for any premium events, and special parking access within the museum. Advertisements for this membership were posted on entry into the museum and within the gift shop at the exit.

## 5. Recommendations and Conclusions

Upon arriving at the Kempton Steam Museum and partaking in their steaming weekends, we found that the museum did not have a problem garnering visitation. Rather, the museum struggled to attract diverse visitor demographics. We also noticed a lack of promotion of the museum's interactive exhibits, both online and within the museum itself. These observations paired with our previous findings guided our marketing recommendations for the museum.

## 5.1 The Kempton Steam Museum's Market

We recommend the Kempton Steam Museum expand its marketing to a younger demographic. As many trustees mentioned during our interviews, the Kempton Steam Museum should be looking to attract a more diverse audience. Currently, visitors are predominantly white British, with about two-thirds being male, and roughly half of them over sixty years old. Given the lack of diversity, there were many opportunities for the Kempton Steam Museum to tailor its marketing efforts to reach different audiences. Based on our visitor survey and benchmarking study results, we formulated a list of marketing strategies that specifically targeted families and younger audiences.

We recommend that the Kempton Steam Museum develop more interactive exhibits, both inside and outside the museum. Compared to the other museums in our benchmarking study, the Kempton Steam Museum lacked interactive exhibits. These are an effective way to catch the attention of children and teach them about the exhibit in a hands-on manner. The Kempton Steam Museum could renovate preexisting exhibits inside the museum to create a more tactile visitor experience that would help entertain younger visitors. We also believe that the grass spaces just outside the museum hold potential for future expansion. On steaming weekends, when the museum does not hold an outdoor special event, the front lawn is left unused. As seen in other similar museums, such as the London Museum of Water and Steam, outdoor interactive exhibits are popular with visitors who have children. The Kempton Steam Museum could use the outdoor space to construct a similar exhibit to satisfy young visitors.

To enhance the appeal to younger audiences, we recommend the Kempton Steam Museum make exhibit descriptions more easily understandable. Currently, information within the museum has an academic tone that appeals to older audiences. For example, some exhibits

describe the complex technical details of the steam engines, which can be difficult for younger audiences to understand. To solve this problem, our group suggested the idea of allowing children the opportunity to create signage for the exhibits. During the benchmarking study, we observed a similar idea used in the London Museum of Steam and Water. The Kempton Steam Museum can adopt this idea by setting up a designated station for children to create exhibit signs based on their own interpretations. These signs could then be hung next to the preexisting signage for future child visitors to read. Increasing child engagement within the museum could create a sense of community among younger audiences, as well as help entertain children during their visit. Overall, offering experiences suited to enhance the experience of younger audiences is just one way that the Kempton Steam Museum can broaden its audience portfolio.

#### **5.2 Social Media**

We recommend the Kempton Steam Museum increase the number of paid promotional posts on Instagram. We found that most visitors over 60 years old had seen the Kempton Steam Museum's Facebook. 28 out of 32 visitors over 60 years old answered that they had seen the museum's Facebook account. In the 26-40 and 41-60 age groups, Instagram had 5 viewers from each age group. However, Facebook continued to be the most popular with 8 viewers between 26-40 and 9 viewers between 41-60. From this data, we determined that Facebook was the most popular social media site among Kempton Steam Museum visitors. Instagram was also popular, but more so in the younger age demographics. Although the Instagram page had about double the followers as the Facebook page at the time of this study, it did not attract as many visitors as Facebook. Considering the correlation our team found between visitor age and which Kempton Steam Museum social media page they have seen, improving Instagram marketing could lead to increased visitation from younger audiences. To do this, we suggested that the Kempton Steam Museum increase the amount of promotional Instagram posts. Promotional posts would put content posted by the Kempton Steam Museum's Instagram on the feeds of new audiences. This means that someone could see a Kempton Steam Museum post on their feed, even if they do not follow the museum on Instagram. Thus, the Kempton Steam Museum may attract younger audiences that otherwise would not have heard about the museum.

#### **5.3** Website

For the Kempton Steam Museum to continue evaluating the effectiveness of its marketing techniques, we recommend replacing the survey on its website. Trustees at the Kempton Steam Museum expressed that the visitor feedback survey located on the website was underutilized due to its length. We created a modified version of the survey used in our methods, located in Appendix E. This survey is shorter than the original survey from the website and contains questions about visitor demographics and experiences. This survey could also be on scannable QR codes at the museum's exit.

## 5.4 Ticketing

We recommend splitting the Kempton Steam Museum's ticket times into 2 time slots, one from 10AM to 1PM, and one from 1PM to 4PM. We also found during our survey that 82% of museum visitors surveyed spent less than 3 hours at the museum. We chose a 3-hour timeframe to avoid impacting most visitors' time in the museum. This way, total daily visitors can exceed the building's 350-person capacity.

## 5.5 Volunteering at the Kempton Steam Museum

We recommend that the Kempton Steam Museum further market the volunteer experience. Recruiting new volunteers is crucial for the Kempton Steam Museum's growth, providing more help for marketing and maintenance. Despite the museum's emphasis on the importance of volunteers, they are not strongly marketed within the museum. Improving marketing around the volunteer experience could increase visitor interest in becoming a volunteer.

The Kempton Steam Museum has a volunteer board, as shown in Figure 15, with forms for interested visitors, reflecting its community-oriented volunteer approach.



Figure 16: Volunteer promotion at the Kempton Steam Museum.

We have two recommendations for increasing the effectiveness of this board. First, this board is located in the far-right corner of the museum, behind the Bessie Prescott Engine. This is a low-traffic area on the main floor, limiting the visibility of the board. Moving it to one of two key locations could greatly increase visitor exposure. The main entrance is the first of those locations, which would force visitors to walk past it when entering and exiting the museum. The other spot where this board could go is the cafe, as many visitors stop at the cafe during their visit. Second, the board shows the volunteer responsibilities, without mentioning the benefits that come with being a volunteer. Marketing volunteer benefits would incentivize visitors to become volunteers. The volunteer board is a great place to outline these benefits.

In addition to the museum's current volunteer board, the museum could add another board displaying the museum's volunteers. Figure 16 shows a board located at the Walthamstow Pumphouse Museum. This board contains names and images of each of the museum's trustees and volunteers. Implementing a similar board at the Kempton Steam Museum could further draw visitors' attention to the volunteer team and experience.



Figure 17: Volunteer board at the Walthamstow Pumphouse Museum

## 5.6 Membership at the Kempton Steam Museum

We recommend that the Kempton Steam Museum further market its membership and add additional benefits to the program. The Kempton Steam Museum offers annual and lifetime memberships, granting unlimited free entry and updates on the museum's plans. While the museum currently has over 100 members across all available membership plans, further improvements could be made to incentivize visitors to subscribe. Museum membership could be marketed within the museum to increase visitor awareness. This is especially important for repeated visitors, for whom the membership saves money on subsequent visits. A membership promotion board could be located either by the front entrance or by the cafe.

The membership page can also be reorganized on the website to be more visible to viewers. Currently, the membership sign up is located under the "Get Involved" tab and under the link "Supporter". The membership could instead be located on the homepage of the website, within the embedded slideshow on the first page and below in the links. This way, the membership would be accessible to website visitors with less website navigation required. The membership page could also be changed to list the benefits to visitors, along with the prices and sign-up link. By advertising the membership more and making its benefits more obvious, the museum may see an increase in traffic to this page and, in turn, an increase in its member count. Lastly, the museum could host events open only to members. These events would show appreciation to members, offering exclusive activities not available to the public. By renovating member appreciation efforts, the museum can better incentivize participation in its membership program.

## 5.7 In the Museum

We recommend that the Kempton Steam Museum improve the signage, guidebook, and introduce marketing for the cafe. Based on our observational study and survey data during the May and June steaming weekends, we devised this set of recommendations targeted to improving accessibility and visitor experience within the museum.

We recommend that the cafe be marketed on the website and social media as an attraction. In our survey, multiple visitors cited the cafe and gift shop as a highlight of the museum, however, the cafe was not present in any of the promotional material.

We recommend increasing signage both outside and inside the museum to inform visitors about open areas. During observations, most visitors did not know which areas of the museum were accessible. Visitors often looked down at the Mercury Arc Rectifiers and turbines for close to an hour before asking a volunteer if the bottom floor was open. In addition, some visitors saw the closed front doors and did not know that the museum was open.

We recommend that the museum add the engine startup times to the guidebook and add the locations of interactive displays to the existing guidebook map. At the time of this research, the engine start times were only listed on four posters throughout the museum. Consequently, we observed that visitors often were confused about the engine start times. Additionally, interactive displays that were less visible than others received significantly less use than those in areas with higher foot traffic. Adding information on both engine start times and interactive display locations to the guidebook could remedy both issues.

## **5.8 Special Events**

We recommend the museum tailor more special events to families and increase the number of late-night events. Special event weekends at the Kempton Steam Museum drew in more visitors than non-steaming weekends and had more returning visitors. However, we found that these events could be further targeted towards the museum's younger audience. Events currently utilized by the museum drew in families but were not directly catered to them or children. Special events directly targeted toward kids will help the Kempton Steam Museum reach this audience. For example, an event with kid-friendly interactive activities will attract and be well received by the younger demographic and families.

Late-night special events could be useful in attracting older audiences. Having an event that takes place at night creates a unique atmosphere that would attract returning visitors. Examples of late-night events could include small orchestra concerts, trivia nights based on knowledge of the museum, or special extended tours of exhibits. These types of events would work within the space of the museum and would not be difficult to plan and execute with the Kempton Steam Museum's current budget and staff. By increasing the type and number of special events, the Kempton Steam Museum could draw in a new audience to the museum while also appealing to returning visitors.

## References

AiM - Association of Independent Museums. (2018). *Top 10 Easy Tips To Improve Your Museum Website*. https://aim-museums.co.uk/top-10-easy-tips-improve-museum-website/

AiM - Association of Independent Museums. (2020). *Success Guides. Successful Marketing for Museums*. <a href="https://www.aim-museums.co.uk/wp-content/uploads/2020/06/Marketing-Success-Guide-2020.pdf">https://www.aim-museums.co.uk/wp-content/uploads/2020/06/Marketing-Success-Guide-2020.pdf</a>

Addis, M., Copat, V., & Martorana, C. (2024). Museum experience and its impact on visitor reactions. International Journal of Nonprofit and Voluntary Sector Marketing, 29(1). <a href="https://doi.org/10.1002/nvsm.1826">https://doi.org/10.1002/nvsm.1826</a>

American Society for Quality (n.d.). What is Benchmarking? <a href="https://asq.org/quality-resources/benchmarking">https://asq.org/quality-resources/benchmarking</a>

Arts Council England. (2024). *UK Museum Accreditation Scheme* <a href="https://www.artscouncil.org.uk/supporting-arts-museums-and-libraries/uk-museum-accreditation-scheme">https://www.artscouncil.org.uk/supporting-arts-museums-and-libraries/uk-museum-accreditation-scheme</a>

Baumgarth, C. (2009). Brand Orientation of Museums: Model and Empirical Results. *International Journal of Arts Management*, 11(3), 30–45. http://www.jstor.org/stable/41064996

Barron, P., & Leask, A. (2017). Visitor engagement at museums: Generation Y and "Lates" events at the National Museum of Scotland. *Museum Management and Curatorship* (1990), 32(5), 473–490. https://doi.org/10.1080/09647775.2017.1367259

Beamish Museum (2021). *Beamish Golden Ticket Competition*. https://www.beamish.org.uk/news/beamish-golden-ticket-competition/

Bhutta, K.S. and Huq, F. (1999), "Benchmarking – best practices: an integrated approach", Benchmarking: An International Journal, Vol. 6 No. 3, pp. 254-268. <a href="https://doi.org/10.1108/14635779910289261">https://doi.org/10.1108/14635779910289261</a>

Bollo, A., & Dal Pozzolo, L. (2005). Analysis of visitor behavior inside the museum: an empirical study. Proceedings of the 8th international conference on arts and cultural management, (2).

British Museum. (2024). *Learn* <a href="https://www.britishmuseum.org/">https://www.britishmuseum.org/</a>

Brooklands Museum (2023). <a href="https://www.brooklandsmuseum.com/">https://www.brooklandsmuseum.com/</a>

Calvi, L., & Vermeeren, A. (2023). Digitally Enriched Museum Experiences – What Technology Can Do. *Museum Management and Curatorship*, 1–22. https://doi.org/10.1080/09647775.2023.2235683 Cape Ann Museum. (2024). *Cape Ann Museum School Visits*. <a href="https://www.capeannmuseum.org/learn/schools/#:~:text=The%20Cape%20Ann%20Museum%2">https://www.capeannmuseum.org/learn/schools/#:~:text=The%20Cape%20Ann%20Museum%2</a> Ostrives

Choi, A., Berridge, G., & Kim, C. (2020). The Urban Museum as a Creative Tourism Attraction: London Museum Lates Visitor Motivation. *Sustainability*, *12*(22), 9382. <a href="https://doi.org/10.3390/su12229382">https://doi.org/10.3390/su12229382</a>

Cortell, S. C. (2011). *The Cost of Free Admission: A Comparative Study Examining the Feasibility of Eliminating Museum Admission Charges*. OhioLINK Electronic Theses and Dissertations Center. http://rave.ohiolink.edu/etdc/view?acc\_num=osu1307220379

Cotter, K. N., Fekete, A., & Silvia, P. J. (2022). Why Do People Visit Art Museums? Examining Visitor Motivations and Visit Outcomes. *Empirical Studies of the Arts*, 40(2), 275-295. https://doi.org/10.1177/02762374211011740

David, M., David, F., & David, F. (2014). Mission Statement Theory and Practice: A Content Analysis and New Direction. *International Journal of Business, Marketing, and Decision Sciences*, 7 (1), 95. <a href="https://www.strategyclub.com/wp-content/uploads/2014/09/David-pdf-file.pdf">https://www.strategyclub.com/wp-content/uploads/2014/09/David-pdf-file.pdf</a>

United Kingdom Governmental Department for Digital, Culture, Media & Sport. (2020). *Museums - Taking Part Survey 2019/20.* GOV.UK. https://www.gov.uk/government/statistics/taking-part-201920-museums/museums-taking-part-survey-201920

Douet, James. (2021). The Steam Pumping Stations of the London Main Drainage 1858–75, Industrial Archaeology Review, 43:2, 135-146. <a href="https://doi.org/10.1080/03090728.2021.1973226">https://doi.org/10.1080/03090728.2021.1973226</a>

Gofman, A., Moskowitz H.R., & Mets T., (2011). Marketing Museums and Exhibitions: What Drives the Interest of Young People. *Journal of Hospitality Marketing & Management*. 20(6). 601-618. <a href="https://doi.org/10.1080/19368623.2011.577696">https://doi.org/10.1080/19368623.2011.577696</a>

GOV.UK (2018). *Action Plan: How Government supports museums in England*. <a href="https://assets.publishing.service.gov.uk/media/5fb64cd78fa8f54ab5ee750a/Museums\_Action\_Plan\_2018\_V2.pdf">https://assets.publishing.service.gov.uk/media/5fb64cd78fa8f54ab5ee750a/Museums\_Action\_Plan\_2018\_V2.pdf</a>.

Heritage Fund (2024). *Understanding your heritage*. https://www.heritagefund.org.uk/funding/understanding-your-heritage

Hounslow Data Hub – Census. (2021). *ONS Overview for Hounslow*. https://stats.hounslow.gov.uk/census-2021-ons-overview-for-hounslow/

ICOM. (2022). *ICOM approves a new museum definition*. <a href="https://icom.museum/en/news/icom-approves-a-new-museum-definition/">https://icom.museum/en/news/icom-approves-a-new-museum-definition/</a>

Kempton Steam Museum. (2024) *Kempton Steam Museum - Home of the world's largest working triple-expansion steam engine*. https://kemptonsteam.org/collection/

Kidd, J. (2011). Enacting engagement online: Framing social media use for the museum. *Information Technology & People*, 24(1), 64-77. <a href="https://doi.org/10.1108/09593841111109422">https://doi.org/10.1108/09593841111109422</a>

Kotler, N. G., Kotler, P., & Kotler, W. I. (2008). *Museum strategy and marketing : designing missions, building audiences, generating revenue and resources.* Jossey-Bass Publishers, Cop. <a href="https://www.perlego.com/book/1007453/museum-marketing-and-strategy-designing-missions-building-audiences-generating-revenue-and-resources-pdf">https://www.perlego.com/book/1007453/museum-marketing-and-strategy-designing-missions-building-audiences-generating-revenue-and-resources-pdf</a>

Larouche, C. (2006). Effects of data collection methods on results of a survey of science museum visitors. ProQuest Dissertations Publishing.

Leoni L. & Cristofaro M. (2022). To adopt or not to adopt? A co-evolutionary framework and paradox of technology adoption by small museums. *Current Issues in Tourism*. 25:18, 2969-2990. 10.1080/13683500.2020.1870941

London Assembly. (2024). *20 facts about London's culture*. <a href="https://www.london.gov.uk/programmes-strategies/arts-and-culture/vision-and-strategy/20-facts-about-london%E2%80%99s-culture">https://www.london.gov.uk/programmes-strategies/arts-and-culture/vision-and-strategy/20-facts-about-london%E2%80%99s-culture</a>

London Museum of Water and Steam (2018). *London Museum of Water & Steam: 2018 report*. <a href="https://waterandsteam.org.uk/wp-content/uploads/2019/11/2018-Annual-Report-London-Museum-of-Water-2018.pdf">https://waterandsteam.org.uk/wp-content/uploads/2019/11/2018-Annual-Report-London-Museum-of-Water-2018.pdf</a>

Museum of Old and New Art (2022). *Mona's Best of Our Worst Reviews*. <a href="https://best-of-our-worst.mona.net.au/">https://best-of-our-worst.mona.net.au/</a>

Naiditch , M., Gertz, R., & Charmorro, E. (2017). How do you museum?: Marketing user-generated content to engage audiences. *MW17: Museums and the Web 2017*. <a href="https://mw17.mwconf.org/paper/how-do-you-museum-marketing-user-generated-content-to-engage-audiences/">https://mw17.mwconf.org/paper/how-do-you-museum-marketing-user-generated-content-to-engage-audiences/</a>

Pusa, S., & Uusitalo, L. (2014). Creating brand identity in art museums: A case study. *International Journal of Arts Management*, 17(1), 18.

https://www.researchgate.net/profile/Liisa-

<u>Uusitalo/publication/272008733 Pusa S Uusitalo L 2014 Creating brand identity in museu ms A Case Study International Journal of Arts Management 17 1 Fall 18-30/links/5703f80708ae74a08e245c75/Pusa-S-Uusitalo-L-2014-Creating-brand-identity-inmuseums-A-Case-Study-International-Journal-of-Arts-Management-17-1-Fall-18-30.pdf</u>

SomeOne. (2019). *Natural History Museum* — *New Brand Campaign*. <a href="https://someoneinlondon.com/projects/rewriting-history">https://someoneinlondon.com/projects/rewriting-history</a>

Van Gogh Museum (2024). *Collaboration with Vans*. <a href="https://www.vangoghmuseum.nl/en/about/collaborate/van-gogh-museum-brand-licenses/collaboration-license-partners/collaboration-with-vans">https://www.vangoghmuseum.nl/en/about/collaborate/van-gogh-museum-brand-licenses/collaboration-license-partners/collaboration-with-vans</a>

Vareiro, L., Sousa, B.B. and Silva, S.S. (2021). The importance of museums in the tourist development and the motivations of their visitors: an analysis of the Costume Museum in Viana do Castelo. *Journal of Cultural Heritage Management and Sustainable Development*, 11(1), 39-57. <a href="https://doi.org/10.1108/JCHMSD-05-2020-0065">https://doi.org/10.1108/JCHMSD-05-2020-0065</a>

Voorveld, H. A. M., van Noort, G., Muntinga, D. G., & Bronner, F. (2018). Engagement with Social Media and Social Media Advertising: The Differentiating Role of Platform Type. *Journal of Advertising*, 47(1), 38–54. https://doi.org/10.1080/00913367.2017.1405754

Walthamstow Pumphouse Museum (2024). https://walthamstowpumphouse.org.uk/

Worcester Art Museum (2024). *Worcester Art Museum Business Partnership*. https://www.worcesterart.org/join-give/partnership/business/

Wilson, L. (2019). *30-Minute Website Marketing : A Step by Step Guide*. Emerald Publishing Limited. <a href="https://ebookcentral.proquest.com/lib/wpi/detail.action?docID=5917656">https://ebookcentral.proquest.com/lib/wpi/detail.action?docID=5917656</a>

## **Appendix A – Museum Accreditation Guidelines**

#### 8.1 To understand who uses your museum, and who doesn't

Your museum must be able to identify who uses the museum and the collection. You should also be able to tell who doesn't use it. You should have identified ways to gather this information, as well as finding out about people's needs and expectations for your museum.

#### 8.2 To use information to assess your users' needs

Your museum should use feedback from users to inform the development of the museum and its programmes.

# 9.1 To provide stimulating learning and discovery activities, including exhibitions and programmes based on your collections

You should have a variety of ways for people to learn. These should help a broad range of people to access your museum and collections, bearing in mind that you'll need different approaches to engage with different groups.

# **Appendix B- Kempton Steam Museum Visitor Survey Weekend One**

Our names are Sumi, Connor, Jonah, and Amber and we are university students from the United States helping the Kempton Steam Museum evaluate their current marketing and social media presence. We are conducting interviews to understand the visitor experience at the museum. Can we take 5 minutes of your time to ask you a few questions about your experiences today? Any personal data you choose to share with us will be stored securely and disposed of September 29th, 2024, in line with the UK General Data Protection Regulation 2018. WPI and the Kempton Steam Museum will produce research reports and other outputs using the data we collect from the survey. If you have any queries about the survey, please contact gr-LonE24.kempton@wpi.edu. If you have any questions about how the Kempton Steam Museum uses data please see Kempton's Privacy Policy <a href="https://kemptonsteam.org/privacy-policy/">https://kemptonsteam.org/privacy-policy/</a> or email <a href="museum@kemptonsteam.org">museum@kemptonsteam.org</a>. Participation is voluntary and you do not have to answer any questions you do not want to. [Wait for an answer. If yes:] Would you mind if we record this interview and take notes to aid in our analysis? All information collected will remain anonymous.

- 1. Is this your first time visiting the Kempton Steam Museum?
  - a. Yes
  - b. No
- 2. How did you hear about the Kempton Steam Museum?
  - a. Website
  - b. Word of mouth
  - c. Leaflet
  - d. Poster
  - e. Social media
- 3. Have you seen the Kempton Steam Museum on any of these social media platforms?
  - a. X (Twitter)
  - b. Instagram
  - c. Facebook
  - d. YouTube
  - e. TikTok
- 4. Did the Weekend of Power event influence your decision to come to the steaming weekend?
  - a. Yes
  - b. No
- 5. How long did you spend in the museum today?
  - a. < 30 minutes
  - b.  $30 \min 1 \text{ hr}$
  - c. 1 hr 2 hr
  - d. 2 hr 3 hr
  - e. 3 hr 4 hr
  - f. > 4 hr

The following four questions pertain to potentially sensitive data, and will allow the Kempton Steam Museum to gain a better understanding of their current visitors. All questions in this section are voluntary, and you may skip any questions you do not wish to answer.

- 6. What is your gender?
  - a. Male
  - b. Female
  - c. Prefer not to answer
  - d. Other: (Open response)
- 7. Which age bracket do you belong to?
  - a. 18 25
  - b. 25 40
  - c. 40 60
  - d. > 60
  - e. Prefer not to answer
- 8. What is your ethnicity?
  - a. Prefer not to answer
  - b. Other: (Open response)
- 9. What is the first section of your postal code?
  - a. Prefer not to answer
  - b. Other: (Open response)
- 10. What method(s) of transportation did you use to arrive here?
  - a. Car
  - b. Train
  - c. Bus
  - d. Walk
  - e. Bike
  - f. Other: (Open response)
- 11. Did you participate in a guided tour and/or utilize a guidebook?
  - a. Guided tour only
  - b. Guidebook only
  - c. Both
  - d. Neither
- 12. How did you feel about the information we provided in your guided tour/guidebook?
  - a. Guided Tour
    - a. Too Little
    - b. Just Right
    - c. Too Much
  - b. Guidebook
    - a. Too Little
    - b. Just Right
    - c. Too Much
- 13. Do you have any recommendations that would have improved your experience today? (Open response)

# **Appendix C- Kempton Steam Museum Visitor Survey Weekend Two**

Our names are Sumi, Connor, Jonah, and Amber and we are university students from the United States helping the Kempton Steam Museum evaluate their current marketing and social media presence. We are conducting interviews to understand the visitor experience at the museum. Can we take 5 minutes of your time to ask you a few questions about your experiences today? Any personal data you choose to share with us will be stored securely and disposed of September 29th, 2024, in line with the UK General Data Protection Regulation 2018. WPI and the Kempton Steam Museum will produce research reports and other outputs using the data we collect from the survey. If you have any queries about the survey, please contact gr-LonE24.kempton@wpi.edu. If you have any questions about how the Kempton Steam Museum uses data please see Kempton's Privacy Policy <a href="https://kemptonsteam.org/privacy-policy/">https://kemptonsteam.org/privacy-policy/</a> or email <a href="museum@kemptonsteam.org">museum@kemptonsteam.org</a>. Participation is voluntary and you do not have to answer any questions you do not want to. [Wait for an answer. If yes:] Would you mind if we record this interview and take notes to aid in our analysis? All information collected will remain anonymous.

- 1. Is this your first time visiting the Kempton Steam Museum?
  - a. Yes
  - b. No
- 2. How did you hear about the Kempton Steam Museum?
  - a. Website
  - b. Word of mouth
  - c. Leaflet
  - d. Poster
  - e. Social media
  - f. Other: (Open response)
- 3. Have you seen the Kempton Steam Museum on any of these social media platforms?
  - a. X (Twitter)
  - b. Instagram
  - c. Facebook
  - d. YouTube
  - e. TikTok
- 4. Did Father's Day weekend influence your decision to visit today?
  - a. Yes
  - b. No
- 5. Have you or are you planning on riding the Hampton Kempton Waterworks Railway?
  - a. Yes
  - b. No

- 6. How long did you spend in the museum today?
  - a. < 30 min
  - b.  $30 \min 1 \text{ hr}$
  - c. 1 hr 2 hr
  - d. 2 hr 3 hr
  - e. 3 hr 4 hr
  - f. > 4 hr

The following four questions pertain to potentially sensitive data, and will allow the Kempton Steam Museum to gain a better understanding of their current visitors. All questions in this section are voluntary, and you may skip any questions you do not wish to answer.

- 7. What is your gender?
  - a. Male
  - b. Female
  - c. Prefer not to answer
  - d. Other: (Open response)
- 8. Which age range do you belong to?
  - a. 18 25
  - b. 25 40
  - c. 40 60
  - d. > 60
  - e. Prefer not to answer
- 9. What is your ethnicity? If you do not wish to answer this question, please tick "Prefer not to answer."
  - a. Prefer not to answer
  - b. Other: (Open response)
- 10. What is the first section of your postal code?
  - a. Prefer not to answer
  - b. Other: (Open response)
- 11. What method(s) of transportation did you use to arrive here?
  - a. Car
  - b. Train
  - c. Bus
  - d. Walk
  - e. Bike
  - f. Other: (Open response)
- 12. Did you participate in a guided tour and/or utilize a guidebook?
  - a. Guided tour only
  - b. Guidebook only
  - c. Both

- d. Neither
- 13. How did you feel about the information provided in your guided tour/guidebook?
  - a. Guided Tour
    - i. Too Little
    - ii. Just Right
    - iii. Too Much
  - b. Guidebook
    - i. Too Little
    - ii. Just Right
    - iii. Too Much
- 14. Do you have any recommendations that would have improved your experience today? (Open response)

## **Appendix D- Trustee Interview Questions**

Our names are Sumi, Connor, Jonah, and Amber and we are university students from the United States helping the Kempton Steam Museum evaluate their current marketing and social media presence. We are conducting interviews to understand trustees' thoughts on the Kempton Steam Museum. Any personal data you choose to share with us will be stored securely and disposed of September 29th, 2024 in line with the UK General Data Protection Regulation 2018. WPI and the Kempton Steam Museum will produce research reports and other outputs using the data we collect from the survey. If you have any queries about the interview, please contact gr-LonE24.kempton@wpi.edu. If you have any questions about how the Kempton Steam Museum uses data, see Kempton's Privacy Policy <a href="https://kemptonsteam.org/privacy-policy/">https://kemptonsteam.org/privacy-policy/</a> or email <a href="museum@kemptonsteam.org">museum@kemptonsteam.org</a>. Participation is voluntary and you do not have to answer any questions you do not want to. [Wait for an answer. If yes:] Would you mind if we record this interview and take notes to aid in our analysis? All information collected will remain anonymous.

#### **Kempton Questions:**

- What marketing strategies implemented by the Kempton Steam Museum do you believe are working? Are there any that you think aren't?
- What other museums do you think have effective marketing strategies? Do you believe their marketing strategies could be applied to the Kempton Steam Museum?
- What is your reasoning for wanting to increase visitation?
- Who do you perceive to be your competition in getting the attention of potential visitors? Do you believe there to be competition outside of other museums as well?

#### **About Other Museums:**

- Are you affiliated with other museums? (If so, which?) (If no stop interview here)
- What is the general visitor demographic at your museum? Is your marketing targeted towards the dominant demographics? (If so, how?)
- What marketing techniques have you implemented in the last year? Is there data that supports that these techniques have been successful?
- What marketing strategies have been implemented but not successful?
- How did you decide on your current ticketing system?
- How do you come up with your marketing strategies

# **Appendix E- Modified Survey**

- 1. Was this your first time visiting the Kempton Steam Museum?
  - a. Yes
  - b. No
- 2. How did you hear about the Kempton Steam Museum?
  - a. Website
  - b. Word of Mouth
  - c. Leaflet
  - d. Poster
  - e. Social Media
  - f. Other (Open Response)
- 3. Have you seen the Kempton Steam Museum on any of these social media platforms?
  - a. X (Twitter)
  - b. Instagram
  - c. Facebook
  - d. YouTube
  - e. Tik Tok
- 4. How long did you spend in the museum?
  - a. <30 minutes
  - b. 30 minutes-1 hour
  - c. 1 hour- 2 hours
  - d. 2 hours- 3 hours
  - e. 3 hours-4 hours
  - f. > 4 hours
- 5. Did you attend the Hampton Kempton Waterworks Railway?
  - a. Yes
  - b. No

The following four questions pertain to potentially sensitive data, and will allow the Kempton Steam Museum to gain a better understanding of their current visitors. All questions in this section are voluntary, and you may skip any questions you do not wish to answer.

- 6. What is your gender?
  - a. Male
  - b. Female
  - c. Other (Open response)
  - d. Prefer not to answer
- 7. Which age bracket do you belong to?
  - a. 18-25
  - b. 26-40

- c. 41-60
- d. >60
- 8. What is your ethnicity?
  - a. Other (Open response)
  - b. Prefer not to answer
- 9. What is the first section of your postcode?
  - a. Other (Open response)
  - b. Prefer not to answer
- 10. What method(s) of transportation did you use to arrive at the Kempton Steam Museum?
  - a. Car
  - b. Train
  - c. Bus
  - d. Walk
  - e. Bike
  - f. Other (Open response)
- 11. Did you participate in a guided tour and/or utilize a guidebook?
  - a. Guided tour only
  - b. Guidebook only
  - c. Both
  - d. Neither
- 12. How did you feel about the information we provided in your guided tour/guidebook?
  - a. Guided Tour
    - i. Too Little
    - ii. Just Right
    - iii. Too Much
  - b. Guidebook
    - i. Too Little
    - ii. Just Right
    - iii. Too much
- 13. Do you have any recommendation that would have improved your experience?
  - a. Open response