Enhancing Museum Victoria's Visitor Journey

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Project # HXA D165

An Interactive Qualifying Project Proposal

Submitted to the faculty of

Worcester Polytechnic Institute

in partial fulfilment of the requirements for the

Degree of Bachelor of Science

Submitted on 2 May 2016

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Abstract

Museum Victoria, one of the largest and most prominent museum organisations in Melbourne, Australia, aims to utilise communications to improve the visitor journey. By collecting information through interviews and surveys, our team assessed the effectiveness of the Immigration Museum Multilingual Tour App and the Scienceworks Visitor Map. Furthermore, our team understood and interpreted the nature of the conversations found on Melbourne Museum's *Jurassic World: The Exhibition Facebook* Event page. Through this project, our team developed recommendations to improve Museum Victoria's current communications and delivered assessment tools to allow Museum Victoria to evaluate future communications.

Acknowledgements

The success of our project would not have been possible without the help of many individuals inside and outside the museum. We would like to start off by thanking Museum Victoria for allowing us the opportunity of working with such a great organisation. In this regard, we would like to specially thank Ms. Carolyn Meehan for her exhaustive support and guidance throughout the Interactive Qualifying Project (IQP). Her oversight and dedication were invaluable to the completion and success of our project. We would also like to thank Ms. Erica Chin, Ms. Rachel Roads, and Ms. Kate Brereton for their active involvement in our project. Finally, we would like to thank the Communications and Partnership Department and all the other Museum Victoria staff for their support, insight and care. We would like to thank all of our family relatives and our friends, among them Jack, for their continuous support and words of encouragement. Finally, we would like to thank our advisors from Worcester Polytechnic Institute, Professor Holly K. Ault and Professor James P. Hanlan, for their guidance and support throughout the entire IQP process. The project would not have reached this point if it was not for their countless recommendations and guidance in solidifying our project report.

Executive Summary

Museum Victoria is one of the most prominent museum organisations in Australia. They strive to educate residents of Melbourne, visitors from other regions of Australia and international visitors through cultural and scientific programs. Museum Victoria creates programs that engage and connect individuals and help create a sense of belonging and purpose. Museum Victoria strives to evolve with the community and to provide an experience that impacts its countless visitors in a constructive way (Museum Victoria, 2013).

Museum Victoria has conducted research into the success of various aspects of their Communications and Partnership (CAP) department's communications. However, they feel that further research is necessary to improve the role played by particular forms of communication. The Worcester Polytechnic Institute (WPI) team assisted the CAP department in developing assessment tools that will help evaluate the current and future performance of Museum Victoria's communications. We recommended improvements to their current Visitor Map at Scienceworks, to the Multilingual Tour App at Immigration Museum, and to the *Jurassic World: The Exhibition* visitor experience. These recommendations can assist Museum Victoria in strengthening communications to further attract and retain visitors, while upholding the values and goals of the organisation.

Methodology

The goal of this project was to develop methods and assessment tools that measure the effectiveness of some of Museum Victoria's communications in directing visitors along three stages of the visitor journey: 'Pre-Visit', 'During the Visit', and 'Post-Visit'. We accomplished our project goals by meeting the following objectives:

1. Understand CAP department members' contribution to the visitor journey;
2. Evaluate the effectiveness of specific communication tools used at two museums:
    a. Scienceworks' Visitor Map;
    b. Immigration Museum's Multilingual Tour App.
3. Understand the nature of the conversations found on Melbourne Museum's *Jurassic World: The Exhibition Facebook* event page.

In order to accomplish these objectives, we gathered information on the CAP department's involvement in the visitor journey. With the help of the CAP department and the general knowledge acquired through our own research, we designed surveys to gather specific data from the visitors. We then surveyed fifty one people at the Immigration Museum and one hundred and three people at Scienceworks. To further our objectives, we completed a content analysis on the *Jurassic World: The Exhibition Facebook* event page. After analysing

the collected data and evaluating the current success of the initiatives based on the three objectives outlined above, we delivered assessment tools for future research and recommendations for improving the overall visitor journey and communications.

Findings

After evaluating the collected data, we discovered steps that Museum Victoria can take to improve their visitor journey. First, we found that the awareness of the Immigration Museum Multilingual Tour App is particularly low. Second, the consistently low use of the Scienceworks Visitor Map is due to the significant number of returning visitors who are already familiar with Scienceworks' layout and the fact that many visitors prefer to follow their children around Scienceworks. Furthermore, the visitors who utilise the map believe it is achieving its goal; however, it was determined that the map can be improved by offering more information and detail. Finally, the major 'pain points' of the *Jurassic World: The Exhibition* are the high entry cost and the lack of velociraptors. Moreover, negative comments voiced on *Facebook* seem to have a low impact on potential visitors' decisions on whether or not to attend the exhibition.

Final Thoughts and Recommendations

The WPI team measured the satisfaction of the on-site visitor experience by analysing two different communications: the newly created Immigration Museum Multilingual Tour App and the newly revised Scienceworks Visitor Map. Through visitor surveys, informal interviews with Customer Service Officers (CSOs) from Immigration Museum and Scienceworks, and discussions with relevant Museum Victoria staff members, the WPI team developed recommendations to further improve the Immigration Museum Multilingual Tour App and the Scienceworks Visitor Map. Lastly, through a content analysis we understood and interpreted the nature of the conversations on Melbourne Museum's *Jurassic World: The Exhibition Facebook* event page, and derived recommendations for the *Jurassic World: The Exhibition* visitor experience

Our recommendations are as follows:

1. **We recommend implementing a promotional campaign both onsite and offsite, to raise awareness of the Immigration Museum Multilingual Tour App to its intended end-users**
2. **We recommend displaying larger and more engaging signs at the Immigration Museum ticket desk written in each of the languages offered in the app**
3. **We recommend including an in-app optional 'Feedback' survey at the end of the Multilingual Tour App**

4. **We recommend providing multilingual fact sheets to explain the device-loan process**
5. **We recommend reviewing design issues and required information on the Scienceworks Visitor Map**
6. **We recommend installing an interactive digital map at Scienceworks for children and adults**
7. **We recommend communicating future exhibitions using content from the exhibition**
8. **We recommend implementing a process where social media commentary on touring exhibitions be analysed each week in the first month of opening**
9. **We recommend developing strategies to reach out to individuals who no longer wish to attend the museum based on negative word of mouth**

Through our background research, survey field work, and content analysis the WPI team determined specific ways to improve the visitor journey by recommending changes in specific communication elements. Finally, the WPI team delivered assessment tools that Museum Victoria can use to further their research of the visitor journey.

1.0: Introduction

Museums fill a unique and important role in modern society. They are often viewed as trustworthy and nonbiased, making them excellent institutions for the spreading of knowledge (Museums Association, 2016). Museums provide opportunities for inquiry-based learning that allow people to explore their passions (American Alliance of Museums, 2014). They can preserve and promote the identity of people, a group, a city, or a nation. To fully utilise the potential of these benefits, museums must reach an audience that is not only large in number, but also diverse demographically, geographically, and socioeconomically. Thus, museums need effective communication strategies.

An effective museum communication strategy requires a number of complementary activities that are undertaken both offsite and onsite at the museum. Off-site communication entices potential visitors with information about current and upcoming exhibitions and events using different platforms such as print media, digital media, and increasingly, social media. While off-site communication is crucial for attracting visitors, on-site communication is just as critical in keeping the audience interested and providing other opportunities to engage them. Effective on-site communication activities require knowledgeable staff, clear signage, and informative handouts (Wallace, 2013).

As one of the most prominent museum organisations in Australia, Museum Victoria faces challenges similar to those many museums face around the world. The museum aims to positively impact the state of Victoria and Australia by exhibiting and promoting the values of respect, reconciliation, and impartiality (Museum Victoria, 2013). To this end, Museum Victoria decided to examine the nature and use of their communications, to more effectively include the use of new digital technologies, including social media.

As a result in November 2014, a new department was launched, the Communications and Partnership Department (CAP). The new CAP department is responsible for “reputation management and publicity, marketing core products and special exhibitions to achieve visitation targets; the membership program, researching audiences, and evaluating product” (Museum Victoria, 2016). Their emphasis on the use of digital tools coincided with a push towards becoming an audience-driven organisation. CAP determined that all communications should be tailored to specific audiences differentiated by age, gender, or ethnicity (Amato, 2015). The goal of this change was to implement communication activities that connect with visitors on an individual level.

This audience-driven approach also determines that a visit is more like a journey, which starts the moment potential visitors hear about the museum and concludes long after they have exited the building. This concept can also be applied equally well to the intellectual journey that a museum visitor undergoes while interacting with the exhibitions onsite. The

communications provided along the way influences the path, and ultimately the success, of the journey. Since each visitor reacts differently to the messages they receive and the experiences they have, it is essential for a museum to consider visitors' journeys from a personal perspective (Richards, Marques & Mein, n.d.).

Museum Victoria has conducted research into the success of various aspects of CAP's communications. However, they feel that further research is necessary to improve the visitor journey and the role that particular forms communications play. Thus, the CAP department would like to evaluate a number of touchpoints on the visitor journey, in particular those that relate to visitors' interaction with navigational aids and social media platforms.

Thus, the Interactive Qualifying Project team, hereafter known as the WPI team, identified assessment tools to measure the effectiveness of the selected forms of communication. The WPI team collected data at the three museums: Melbourne Museum, Immigration Museum, and Scienceworks. Analysis of the data allowed the WPI team to evaluate the success of individual forms of communication and present these findings to the museum. This material informed the WPI team about future strategic planning regarding communications.

2.0: Literature Review

It was important to have a strong understanding of the nature of communications in a museum context and the effectiveness of various forms of communication in order to help Museum Victoria. We can measure the effectiveness of communications by looking at how well differing forms achieve their goals under specific circumstances. Effective communications must be clear, brief, and concise (Agarwal, 2009). Thus, we researched specific aspects of communications, including:

- The visitor journey as a tool to plot communications;
- The use of communications between museums and their audiences;
- The assessment of the effectiveness of some communications;
- The current communications used by Museum Victoria.

2.1: The Visitor Journey

The visitor journey encompasses the entire experience from the moment a visitor hears about the museum until his or her return home. Before a person visits a museum, he or she essentially is on a journey following their exposure to museum promotions. If these promotions are successful, they create awareness and stimulate interest to visit. Each visitor reacts differently to the messages they receive and responds by deciding whether to visit the site or not (Richards, Marques & Mein, n.d.).

Throughout the journey, the visitor will encounter many different communications, some of which will be more effective than others. These communications can use different and sometimes multiple forms of media. It is the duty of the museum to utilise a variety of communication techniques that will address the varied preferences and needs of their audience. The overall goal is to satisfy the customer; therefore, it is essential for museums to comprehend and address the individual journey of each visitor. This way, visitors are assured that they are the first priority of the museum, encouraging them to become more involved.

To help organisations analyse each stage of a visitor journey and the differences between the journeys of different visitors, six stages of a journey have been identified (Lane, 2007). These six stages were used by the London Development Agency (LDA) to increase tourism in London. The first and most important stage is 'Managing and Understanding Information and Communication,' which covers all aspects of communications with visitors, including how to communicate most successfully. The next four steps are to make the following processes easy and enjoyable: booking, accessing the destination, the destination experience, and the exit. The final step is to leave an impact and a memory for the visitor.

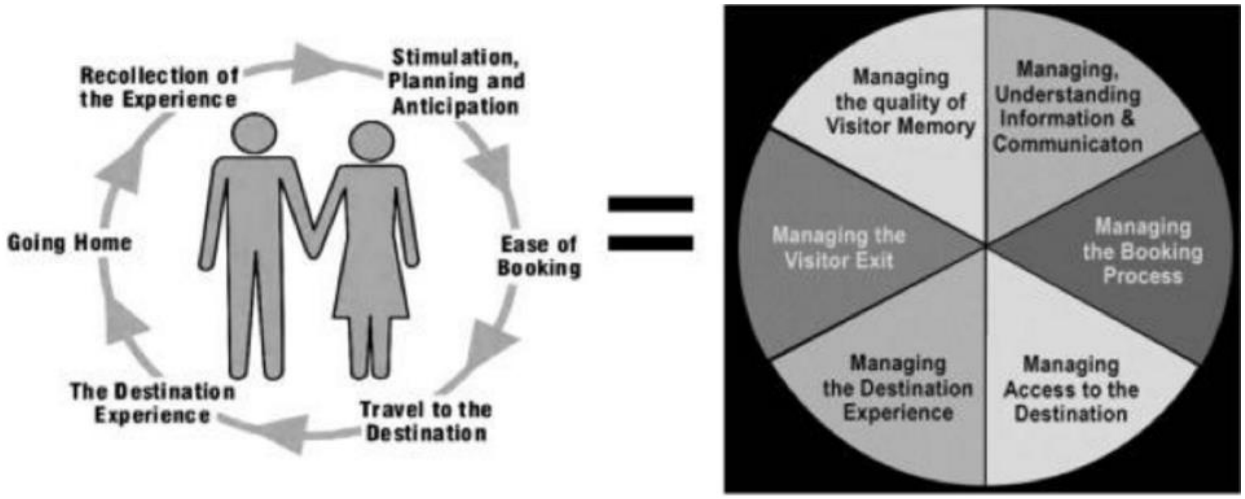


Figure 1: Visitor Journey Stages (Lane, 2007)

The LDA used this process to determine gaps within the visitor's journey to help create a more fluid and enjoyable experience for visitors to London. The system helped make the journey appealing to people of all groups. For example, the LDA discovered there was an unfulfilled need when it came to mothers traveling with children. To bridge this gap, the LDA ensured all public transportation options are stroller friendly. The LDA also explored the accessibility to toilets within the tourist areas of London. Then, they encouraged the city to address any shortfalls. The LDA determined the visitor journey is most effective when organisations within the area of the destination or region collaborate.

The visitor journey analysis strategy can also be used by an individual organisation, such as Museum Victoria, to increase the satisfaction of their visitors. Three aspects of this analysis strategy on which the WPI team can focus are managing communication prior to the visit, within the destination experience, and at the conclusion of the journey. Through the evaluation of the three visitor journey stages, we can help determine communication issues within Museum Victoria's visitor journeys.

2.2: Museums and Communications

Following the six stages of the visitor journey will not only allow the museum to focus on the needs of its visitors, but can allow opportunities to further engage them. A museum depends on repeat visitors and the main goal of subsequent communications is to maintain and sustain the repeat visitors' bonds, which have resulted from a visit (Richmond, 2005). However, museums also understand the critical role new visitors can play in in increasing visitation. Museums need to actively communicate with their current and potential visitors to build visitation and to develop stronger and ongoing bonds with them that will lead to continual visitation.

During the visitor journey, many different communications are encountered, including digital media (i.e. apps and social media) and communication tools that can be implemented on-site. These will be examined in the next sections.

2.2.1: Digital Media

Digital media plays a significant role in the first and final stages of the visitor journey, 'Stimulation, Anticipation, and Planning' and 'Recollection of the Experience' respectively. Museums can enhance the effect of the visitor journey by utilising digital media, specifically social media. Social Media provides many different ways to communicate with the public prior to attendance. It also provides a pathway for visitors to reflect and comment on their museum experience once they leave the museum. *Facebook*, *Twitter*, *Instagram*, and *Flickr* are among the different types of digital platforms used by organisations to communicate with their constituents. In order to attract a wider audience and encourage repeat visitation, the integration of social media into the communication activities is a must. Social media is organised around the user, where users who follow or like the social media agents will be updated with new events and information (Marakos, 2014). Thus, social media is very relevant to Museum Victoria's goal of being an audience-driven organisation who wants to build a relationship with their visitors.

The Australian Museum tested the effectiveness of using social media to gauge interest in a certain exhibition, 'All About Evil.' This exhibition contained controversial subject matter and the museum created a *Facebook* group to hear audience feedback and concerns. This *Facebook* group was utilised to spark conversation between the virtual audience and museum staff. In a matter of three weeks, the group attracted 200 members and a great deal of activity between both the audience and museum staff. Using *Facebook* proved to be an effective way for the museum to communicate with the public (Marakos, 2014).

The Currier Museum of Art, in Manchester, New Hampshire, utilised *Twitter* before and during the opening of a new exhibition and this generated interest in the exhibit and helped grow the museum's *Twitter* account. The exhibition, 'The Secret Life of Art: Mysteries for the Museum Revealed,' released in 2010, used social media to both promote the exhibition and keep visitors engaged in the information provided. The museum also utilised *YouTube*, a blog, and a newsletter to promote interest in the exhibition. Over the four-month duration of the exhibition, the museum's *Twitter* gained almost 50% more followers, the museum's *Facebook* gained 24% in the number of likes, and the museum's newsletter subscriber list gained more than 700 names. The Australian Museum and Currier Museum of

Art examples demonstrate how social media can develop new models of participation and feedback and promote a museum's activities (Marakos, 2014).

As seen from the information above, many museums care about how they communicate with their visitors. Museums can utilise social media to promote exhibitions, receive feedback on the exhibitions, answer questions, and comment on concerns. Social media contains both quantitative and qualitative data. Quantitative data includes the number of likes, shares and retweets, whereas qualitative data includes the text that the museum and visitors write as comments. Analysis of qualitative data can help museums understand feedback, comments, and concerns from visitors. These data can be useful for authenticating social patterns observed in everyday life (Akid, 2014).

2.2.2: Content Analysis

An effective way to evaluate qualitative data collected from any piece of writing is through content analysis. Content analysis allows words or concepts within a text to be analysed and measured in terms of their meaning. Text can be found in books, essays, interviews, discussions, newspapers, or any other written or spoken media. To assign a meaning to a set body of text, the text must be coded, or broken down, into categories and then examined (Busch, 1994-2012). Two basic content analysis methods are conceptual and relational analysis. Conceptual analysis focuses on a research question or objective to be studied within text. The chosen concept is then quantified, by counting the number of times a certain word is used. Relational analysis furthers the study by examining the relationships between the selected concepts. For example, in her Kaupapa Māori research, Dr. Leonie Pihama uses conceptual analysis to examine the concept of loneliness and then further develops the idea of loneliness by using relational analysis to find a connection between loneliness and isolation (Pihama, n.d).

A content analysis can be used to identify intentions, focus, or communication trends of an individual, group, or institution. Since social media is one of the most important components of electronic commerce and information management (Lai, 2015), it is important to identify and understand the user's intentions of their messages and opinions. A social media content analysis can be applied to study and understand the public's beliefs, values, attitudes, and perceptions. Through text mining, written comments or opinions in social media can be classified. A content analysis traditionally has the following ten steps:

1. Selecting a topic;
2. Deciding on the sample;
3. Defining concepts or units to be counted;
4. Constructing categories;
5. Creating coding forms;
6. Training coders;
7. Collecting data;
8. Determining inter-coder reliability;
9. Analysing data;
10. Reporting results.

In order to turn social media texts into concepts, this ten step process is narrowed to four simple stages: the definition of the goal and scope, data collection, data transformation, and the interpretation of findings. In the first stage, it is necessary to determine the overall goal, objectives, and research questions. During data collection, the information sources and sample sizes are chosen. Then, the text is downloaded, transformed, and categorised using computer-aided software. Finally, the last phase involves interpreting the findings. Figure 2 outlines the four-step process.

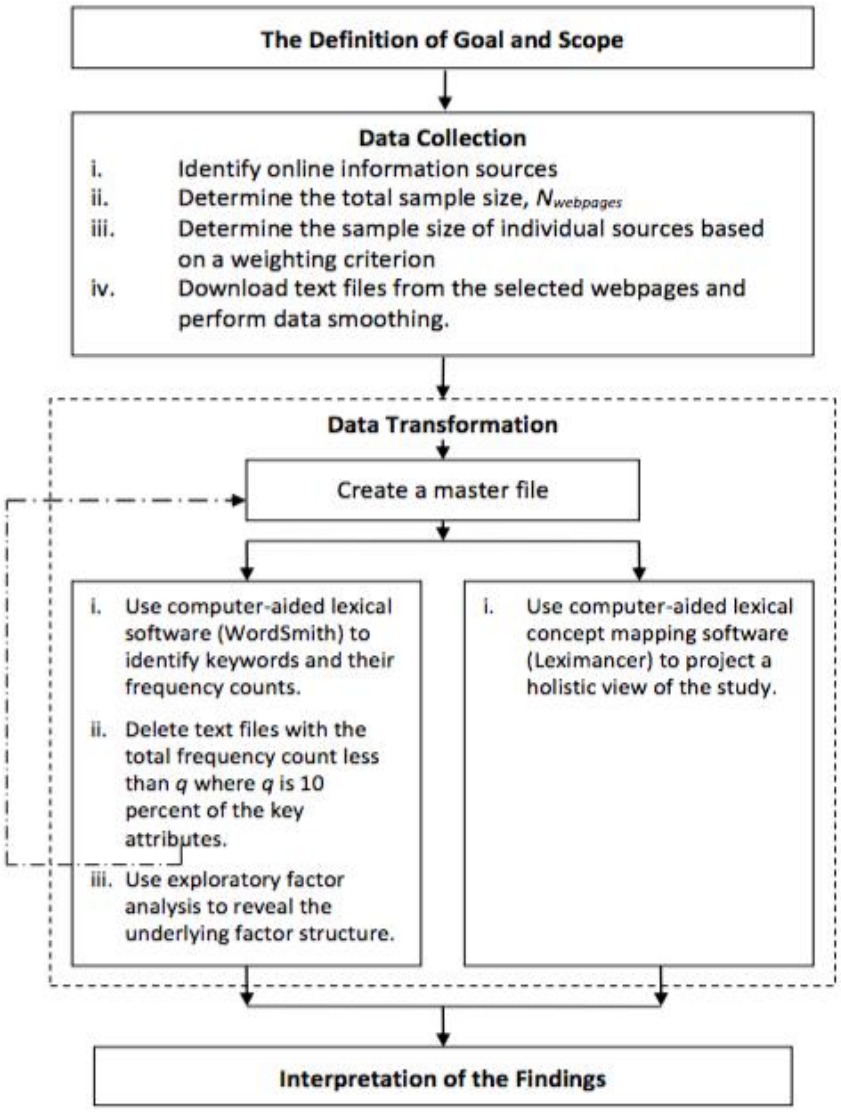


Figure 2: 'Social Media-to-Concepts' Methodology (Lai, 2015)

2.2.3: Digital Media Content Analysis Case Study

Organisations can use content analysis studies to remain competitive or improve customer satisfaction. For example, in the Illustrative Case Study of Macao performed in 2015, a content analysis was performed to determine which activities or aspects of the visitor journey can keep the Macao region competitive with other tourist destinations. The region of Macao is a popular tourist destination for Hong Kong citizens because it is the only Chinese city where casino gaming is legal. By 2013, Macao had a tourist-to-population ratio of 50:1. The goal of the study was to identify the destination image of Macao by evaluating tourism-related social media websites. The study chose three popular websites: *Tripadviso*r, V*irtualtourist*, and *Travelblog*. Before analysing, the data were first transformed into a quantitative data set. The computer-aided software performed three main tasks:

1. Compiled a list of keywords through WordSmith;
2. Grouped keywords into themes using International Business Machine (IBM) Corporation's Statistical Package for the Social Science (SPSS);
3. Generated a concept map using the image of Leximancer.

First, the computer-aided software, Wordsmith, generated a list of most frequently used words from the chosen data set. Then, the software provided a list of word frequencies. Next, these words were imported into SPSS and grouped into themes. Finally, Leximancer analysed the themes and words and identified high-level concepts. Powerful interactive visualisations that delivered key ideas and actionable insights were then created from these high-level concepts. Through this process, 64 keywords and 9 themes were identified. The concept map generated a coloured visual of the primary keywords, the relationship between them, and their popularity. Figure 3 represents the concept map.

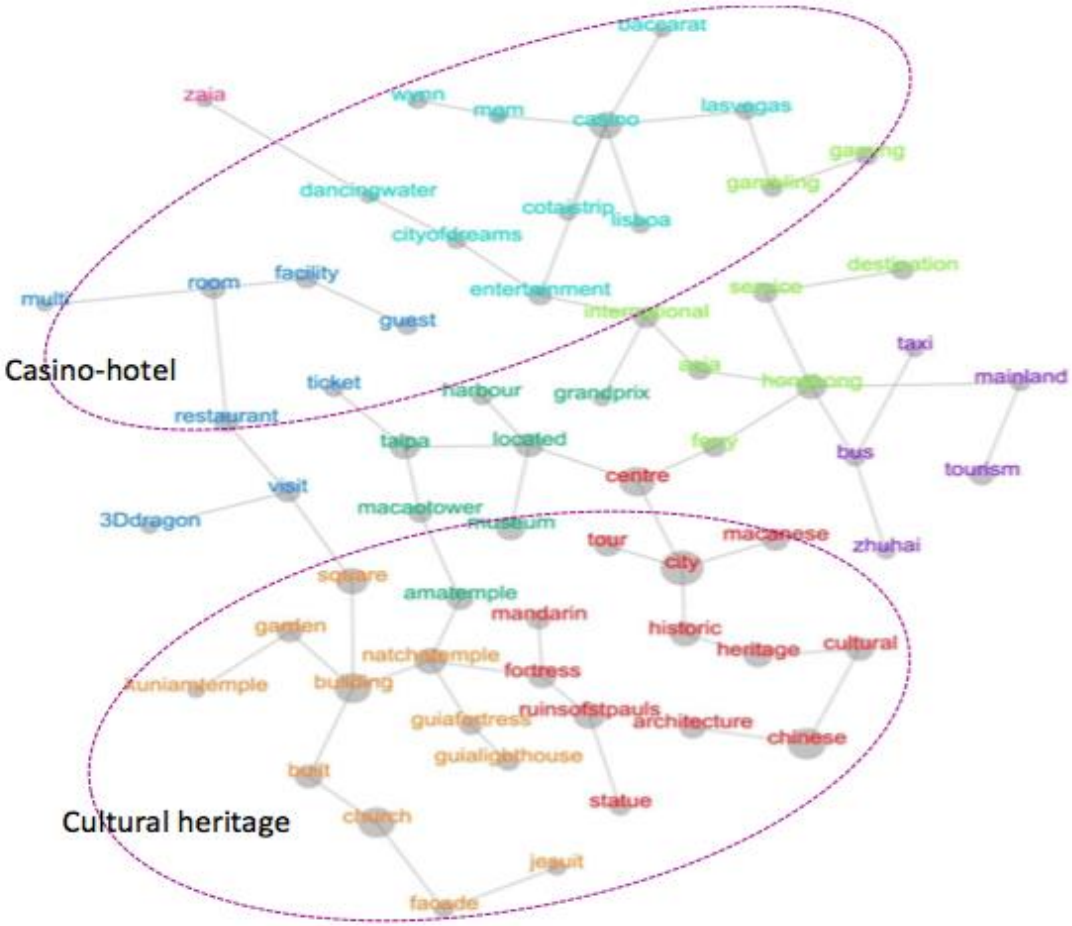


Figure 3: Concept Map for Macao (Lai, 2015)

The destination image of Macao was determined by frequency of keywords along with the relationship to other frequently used keywords.

2.2.4: Limitations on Qualitative Analysis

When performing a qualitative analysis, such as the Macao content analysis, reliability is critical in order to ensure that the methods and results are replicable (Leung, 2015). In the context of qualitative research, reliability is defined as "the extent to which results are consistent over time" (Golafshani, 2003). While quantitative researchers constantly worry about the reliability of their research, qualitative researchers seem to believe reliability does not have a place in their work (Armstrong, 1997). However, researchers Egon Guba and Yvonna Lincoln have adopted quantitative research techniques to their qualitative studies in order to better reflect the underlying assumptions entailed in these qualitative studies (Cohen, 2006).

Qualitative analysis is a form of interpretation and can be different for every person based on his or her own views. Researchers can question inter-rater reliability during a qualitative data research experiment. Inter-rater reliability is defined as the way two or more researchers give consistent interpretations of the same phenomenon (Trochim, 2006). Many qualitative researchers, among them Doctor Janice Morse, believe that it is unrealistic to expect other researchers to share the same understanding of a certain qualitative data set (Armstrong, 1997).

The case study tested the concept of qualitative inter-rater reliability. The study brought in six well-known qualitative researchers. These researchers analysed a set of data from a focus group and identified a maximum of five themes from the focus group transcript. After choosing their respective themes, it was apparent that there was a degree of consensus in the identification of themes. Each of the researchers in this study had different interpretations of the themes, but also agreed on some of the themes in a broader sense (Armstrong, 1997). The study concludes "that there is a degree of consensus in the identification of themes between the different analyses but the packaging of these themes showed a number of different configurations. Social representation theory has argued that people's representations are embedded in a network of other related representations" (Armstrong, 1997). This validates the argument that if two researchers were to conduct the same qualitative analysis, their results may differ in some degree.

Similar to the issues of reliability present in quantitative studies, having multiple coders in a qualitative study can bring about bias (Barbour, 2001). Each coder must cross-check and calibrate their coding strategies and their interpretation of data. Multiple coding can lead to potential discussions on alternative interpretations and alert researchers to other

ideas they might not have envisioned. Reproducibility is therefore not always guaranteed in a qualitative analysis with multiple coders.

2.2.5: On-site Communication

Museums are similar to commercial businesses in that they must engage their visitors. There is no doubt that museums should stress the importance of their promotion efforts in attracting visitors, but they must also realise that the experience within the museum itself is critical in retaining an audience. There are many factors that can enhance or detract from the visitor's experience. The location of the museum, the admission process, and navigation through the museum are among a few critical factors than can enhance or detract from the visitor's experience (Wallace Foundation, n.d.).

The visitor journey continues as the visitor walks through the museum doors and encounters communications that will be within the spaces of the museum. The museum needs to create a comfortable, welcoming, and engaging atmosphere to motivate visitors to extend their visit and return another day. Even more importantly, on-site communications help guide visitors on their journey, both physical and intellectual, through the museum and its offerings.

There are many examples that show how different museums are working on engaging specific audiences on-site to improve the visitor journey. Exceptional customer service helps improve on-site communications. Recognising the need for good customer service, the Cleveland Museum of Art requires all employees to attend customer service training workshops and rewards above-average performance with bonuses (Wallace Foundation, n.d.). Aside from customer service, other important factors that can positively influence the visitor experience include knowledgeable staff, community outreach, audio tours, and adapting to new technology (Wallace Foundation, n.d.).

The Museum of Contemporary Art in Chicago has marketed itself to an international audience by using gallery guides and maps in five different languages. This not only reflects the importance of their international audience, but also proves that this museum is committed to being more inclusive and mindful of the needs of non-English speaking tourists. Another example can be found at the Art Institute of Chicago, where the development of a pamphlet that details the accessibility services offered has helped mitigate any potential physical barriers to visiting their museum. In addition, they provide free wheelchairs and strollers on the premises, which shows how much value the museum places on its audiences who have special needs. This museum also formed a signage and wayfinding committee to help standardise the extensive signage within the galleries (Wallace

Foundation, n.d.). From the examples above, two important communication tools commonly used throughout the visitor journey are maps and audio tours.

2.2.6: Map Design

Maps are an important method of communication used by museums. A good and effective map will let the visitor know three things (State of Victoria, 2011):

1. Where they are;
2. Where they want to go;
3. How to get there from their current location.

When using a map, there are two different approaches to travel: macro-minded and micro-minded (State of Victoria, 2011). People who use the macro-minded approach see the entire journey, and will plot a route in relation to landmarks. On the contrary, people using the micro-minded approach travel towards desired locations and search for familiar landmarks. Therefore, map designs should accommodate both macro-minded and micro-minded navigational strategies (State of Victoria, 2011).

The details on a map are important to consider when creating an effective map. A map should not overwhelm the visitor with information, and should have a simple design. Good design uses colour intensity to direct focus, colour fading to reduce focus, and a uniform font. Font size, patterns and textures are also used to direct focus (Ryder, 2015).

2.2.7: Immigration Museum's Need for a Multilingual Tour App

Museum Victoria learned from past studies that 24% of the Immigration Museum visitors are non-English speakers, which means that they are less able to read or understand any audio that is available onsite. To ensure the Immigration Museum is as accessible to most non-English visitors, museum staff proposed a pilot program to create a Multilingual Tour App that would provide information in a number of languages other than English. In their Multilingual Tour App proposal, the Education and Community Programs team determined that the following specifications were most suitable for the Immigration Museum:

- The tour should be about 60 minutes in length;
- The tour should use existing content from Immigration Museum and rely on My Tours' web-based tour and app builder program in order to ensure that all mobile programs owned by Museum Victoria have the same structure and design;
- The app should be designed to enhance the museum experience (by opening the information in exhibitions to foreign visitors) and not replace the museum experience;
- The app should provide wayfinding;

- All images used in the app should be directly linked to Museum Victoria's own EMu database[1], in order to ensure that it is easily updatable.

The app currently offers the tour in six different languages: Arabic, English, French, Italian, Japanese and Mandarin. This multilingual capability was an opportunity to bridge the information gap between the content provided and the communication needs of the non-English speakers. This initiative coincides with Museum Victoria's innovative push towards adopting technology as a mechanism to improve the visitor's journey.

During the design process, a major goal was to ensure that the App had high quality translations. In order to better understand the factors that define a high quality translation, it is important to first make a clear distinction between literal, or word-by-word, translation and cultural translation. In his *Experiences in Translation* book, world famous novelist and literary critic Umberto Eco argues that "a good translation is not concerned with the denotation but with the connotation of words" (Eco, 2000). Therefore, meaning in words is found based in the context of a situation; this means that words go beyond their dictionary meaning, rendering literal translation ineffective. Umberto Eco goes further and claims that translations are "not only connected with linguistic competence, but with intertextual, psychological and narrative competence" (Eco, 2000). Eco also considers the act of translating as a process in which the translated text changes one culture into another one by ensuring that the translation of a text conveys the same effect intended by the original author (Tempel, 2012).

In order to address the cultural translation issue, Museum Victoria partnered with the Australian national public broadcaster, Special Broadcasting Service (SBS). SBS exists to provide multicultural television and radio content to people living in Australia. SBS has different radio hosts who have their own SBS television or radio show in their respective mother tongue, meaning that each of them is already engaged with different multicultural and multi-ethnic communities within Australia. By choosing to employ these hosts' voice as the voice for the different multilingual tours, Museum Victoria is employing them as advocates for the museum.

2.3: Museum Victoria and Communication

Museum Victoria is the most prominent museum organisation in Australia. They strive to educate residents of Melbourne, visitors from other regions of Australia and international visitors through cultural and scientific programs. Museum Victoria creates programs that engage and connect individuals and help create a sense of belonging and

[1] EMu is a proprietary museum content management software developed by KE Software Pty Ltd. An EMu database is an object and relational database that supports text as well as multimedia objects. It runs on a wide variety of platforms.

purpose. It is a goal for the organisation to evolve with the community and to provide an experience that impacts its visitors in a constructive way (Museum Victoria, 2013). The organisation has five visiting venues: Melbourne Museum, Scienceworks, Immigration Museum, the Royal Exhibition Building, and IMAX Melbourne. Scienceworks is an entertaining and interactive science museum that challenges curious minds; Melbourne Museum offers rich and surprising insights into the life of Victoria, from the natural environment to the culture and history; the Immigration Museum offers a unique experience to visitors, giving them the opportunity to learn about real stories of people from all over the world who have migrated to Victoria; the Royal Exhibition Building, a World Heritage site, is one of the world's oldest remaining exhibition pavilions that is used to present trade shows, fairs, and cultural and community events; and IMAX Melbourne, which has the third largest IMAX screen in the world, provides an immersive cinematic experience to visitors.

Museum Victoria would like to ensure that every visitor can have a satisfying and meaningful visitor journey, which will help convince them to come back in the future (Museum Victoria, 2013). Throughout the whole visitor journey, Museum Victoria attempts to utilise effective communications. In order to best connect with their audience, the CAP department utilises both technology and non-traditional promotions to inform the visitors of the museum's current and future events. About two years ago, Museum Victoria restructured to create CAP as part of an initiative to transform Museum Victoria from being a product-driven to an audience-driven organisation. The creation of this team allowed Museum Victoria to have a unified Communications and Partnership department working across the whole organisation, as opposed to individual Public Relations and Marketing teams at each museum site. The role of the CAP department is to drive the culture within Museum Victoria from being product-driven to audience-driven.

2.3.1: Effective Museum Communications

Museum Victoria utilises a non-traditional approach to communications which prioritises the media they buy and determines how to utilise it. This non-traditional approach separates the different forms of media into three categories: Bought, Owned, and Earned (BOE).

Bought media is utilised to reach a broad audience and target new visitors. New visitors are not a part of the museum's database and need public promotion to be influenced to attend. These promotions include radio and television ads, letters, *Facebook* ads, and other social media ads.

Owned media are the channels Museum Victoria controls. Through owned media, the message, environment, and audience are controlled. Museum Victoria utilises its owned media for maintaining their relationships with the visitors. For example, it is cheaper to maintain relationships with their current members than to seek new visitors. Relationships are maintained through posts and events created on the museum's *Facebook* or *Instagram* accounts. Additionally, anything that is onsite at the museums is owned as these spaces are controlled by the museum and can be used to promote programs and engage visitors.

Earned media can be difficult to maintain, but is free of charge. Through earned media, the museum relies on others to convey good messages about what is happening at the museums. Earned media can be highly beneficial because when there is surplus of earned media, there is less need for bought media, thereby reducing the money spent by the museum to publicise its programs. Figure 4 outlines the BOE approach.

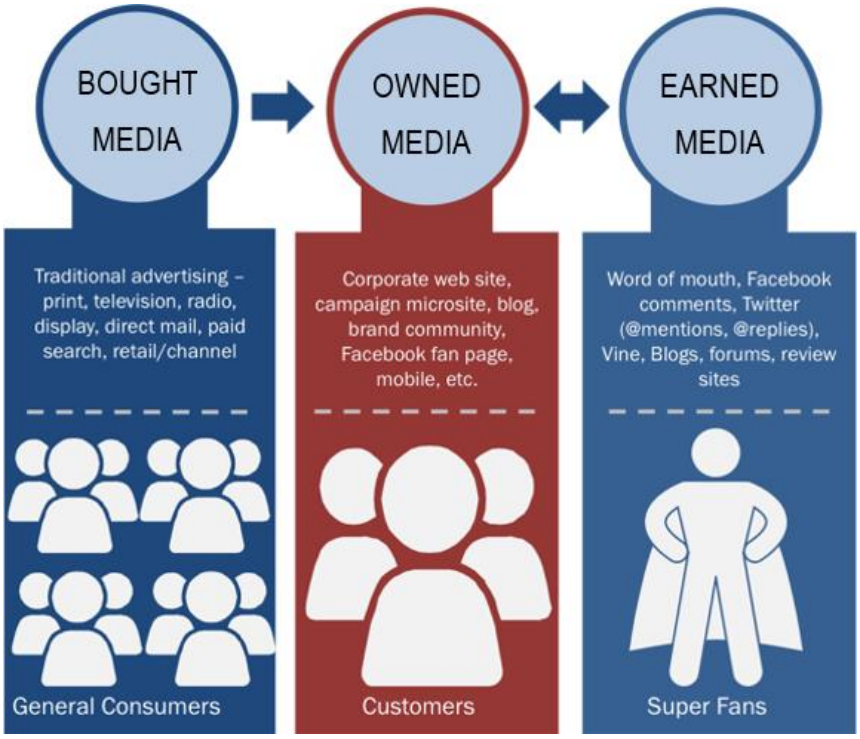


Figure 4: Adapted Visual of BOE (Brito, 2013)

Social media is an important aspect of owned and earned media. Through social media, events, messages, pictures, videos, and other posts can help promote the museum. Museum Victoria's *Facebook* page features posts on new and interesting exhibitions or installations in their museums. The Museum Victoria *Twitter* and *Instagram* accounts mirror the content on the *Facebook* page. Owned and earned media can be utilised in conjunction with one another. Through the Melbourne Museum's *Facebook* page, different exhibitions and events are promoted. However, customers post to praise, criticise, and recommend comments about the experience. It is necessary to utilise all types of media, both new and

old. Owned and earned media help sustain the bought media (Savar, 2013). This allows the brand to reflect and respond to the desires of the audience.

2.4: Summary

Embedded within its strategic vision is Museum Victoria's desire to become an audience-driven organisation. In order for this to happen, Museum Victoria will require a strong performance assessment of its communications with its audience. By monitoring how the museum engages with its audience, gauging the effectiveness and clarity of its off-site and on-site communications, and analysing the impact of the concept of a visitor's journey to the overall satisfaction of its visitors, the WPI team developed assessment tools to help evaluate the performance of some of Museum Victoria's communications. Furthermore, conclusions were made that can assist Museum Victoria to strengthen communications to further attract and retain visitors, while following the values and goals of the organisation.

3.0: Methodology

The goal of this project was to develop methods and assessment tools that measure the effectiveness of some of Museum Victoria's communications in directing visitors along three stages of the visitor journey: 'Pre-Visit', 'During the Visit', and 'Post-Visit'. In order to achieve our goal, we developed the following research objectives:

1. Understand CAP department members' contribution to the visitor journey;
2. Evaluate the effectiveness of specific communication tools used at two museums:
    a. Scienceworks Visitor Map;
    b. Immigration Museum Multilingual Tour App;
3. Understand the nature of the conversations found on Melbourne Museum's *Jurassic World: The Exhibition Facebook* event page.

Figure 5 shows an overview of the steps the WPI team followed to reach the project goal.

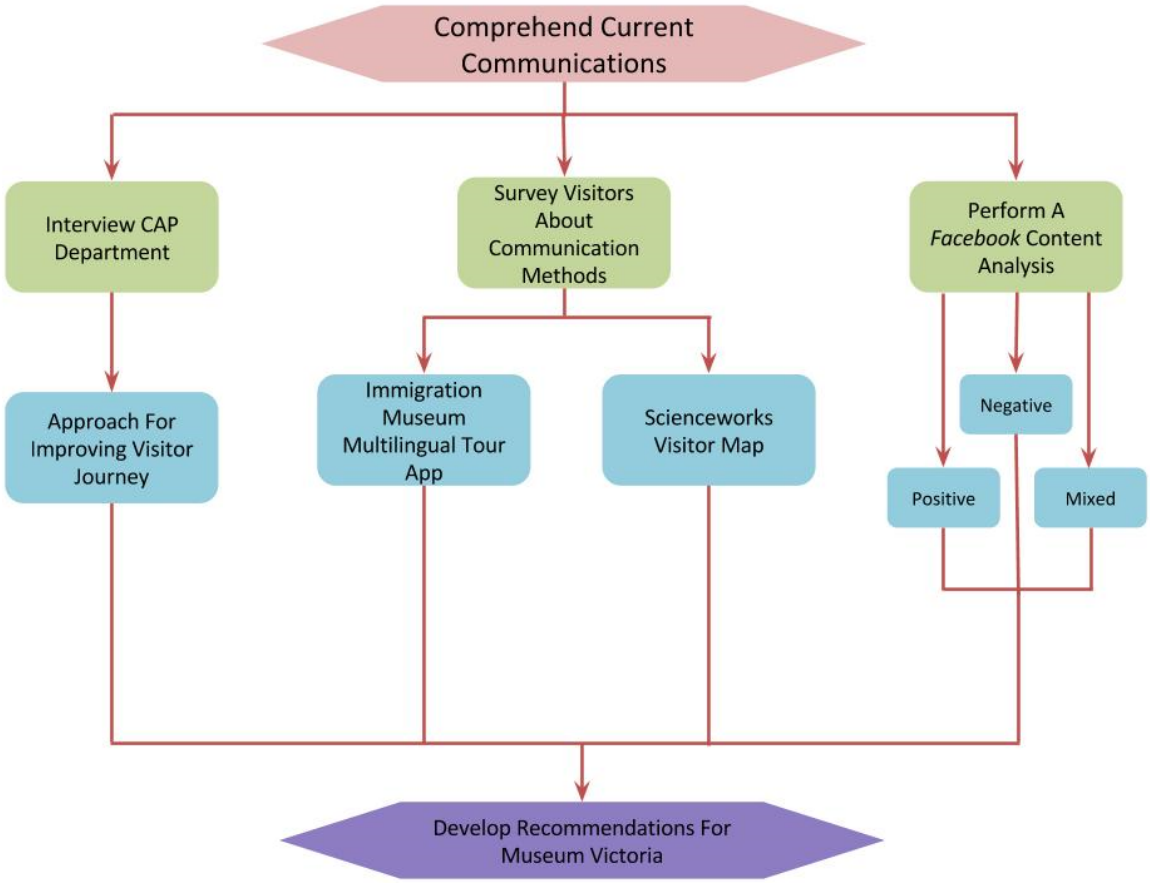


Figure 5: Project Flowchart

This chapter will describe the methods the WPI team developed to gather and analyse data on communications at Museum Victoria. The results of the analysis were used

to provide Museum Victoria with recommendations on improving their communications throughout the visitor journey.

3.1: Understandings of the role of CAP at Museum Victoria

In order to evaluate Museum Victoria's communication strategies and develop communications assessment tools, we had to understand the goals and perspectives of the CAP department. To gather this information, the WPI team conducted interviews with four key staff members from the CAP department:

- Rod Macneil: Head of Communications and Partnership Department;
- Carolyn Jones: Head of External Relations;
- Jareen Summerhill: Head of Branding;
- Kate Brereton: Head of Family Audiences.

The interviews allowed the WPI team to ask in-depth questions and to formulate follow-up questions based on interviewee responses. We inquired about the role of each CAP member's team in the visitor journey, as well as their team's approach to communications. Through these interviews, the WPI team gained knowledge about the CAP department's role within the museum and their ideas and goals for Museum Victoria's communication strategy. Additionally, the CAP interviews presented the shared knowledge found across the various teams, allowing them to deliver an enhanced visitor experience. Notes from the completed interviews appear in Appendix A. Figure 6 is an overview of the Communication and Partnerships department.

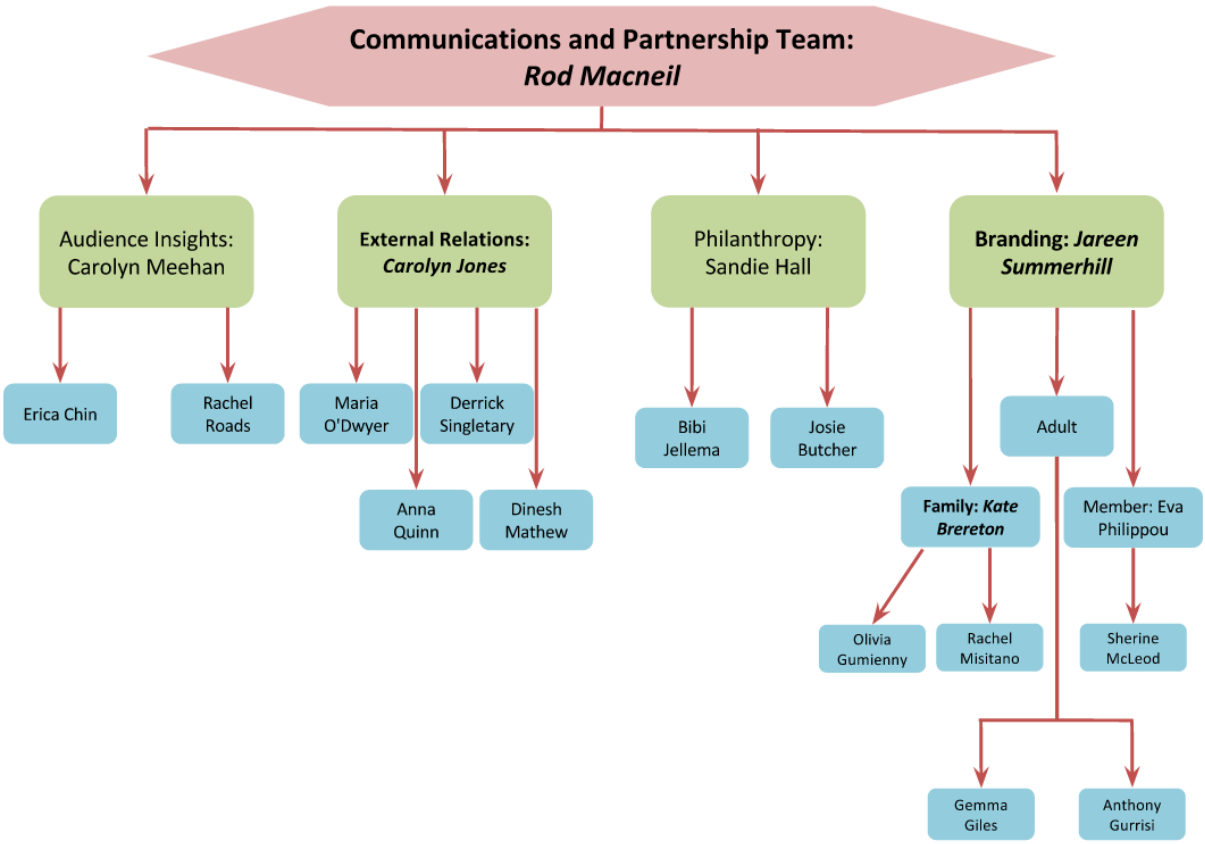


Figure 6: Overview of the CAP Department
(Our team interviewed the CAP department members in bold italics)

The WPI team sought to understand the role of each individual team in improving the visitor journey. Therefore, the WPI team chose to interview these four members because each of them has a leadership role in CAP that influences the visitor journey and advises other staff members on visitor communication. Through the interviews, we determined the role of the CAP department throughout the three steps of the visitor journey.

We standardised our interview methodology to ensure consistency. All interviewees received the questions beforehand, ensuring they had adequate time to process and understand the questions. While two WPI team members performed the interview, the remaining team member took notes on the interview. With the interviewee's discretion, the WPI team recorded the interviews in case any information was missed or misunderstood. Recordings were then stored on a password-protected computer and destroyed at the conclusion of the project.

3.1.1: Analysing the Data

After interviewing the four CAP members, the WPI team analysed the collected information to identify the CAP department's role in the visitor journey. The WPI team connected the tasks of different CAP teams with specific parts of the visitor journey, namely, the 'Pre-Visit', 'During the Visit', and the 'Post-Visit'. Based on this information, the WPI team created a timeline of the visitor journey to better visualise the effect that the different CAP teams have on the visitor journey.

3.1.2: Limitations

The WPI team encountered two limitations when scheduling the CAP interviews. First, the CAP department was extremely busy during the first two weeks of our project due to the premiere of the *Jurassic World: The Exhibition*. Second, some of the staff members were on holiday around that period of time, and another was on the verge of leaving the organisation. Due to these limitations, scheduling conflicts were encountered, which delayed our data collection.

3.2: Measuring the Effectiveness of Specific Communications Used by Museum Victoria

After gathering background knowledge on the Scienceworks Visitor Map and the Immigration Museum Multilingual Tour App, we designed evaluation tools that measured the effectiveness of these devices. It was intended that the methods and assessment tools the WPI team used to survey visitors at Scienceworks and Immigration Museum could become instruments that Museum Victoria could utilise to evaluate future communications.

In order to evaluate the effectiveness of Museum Victoria's communications, we used the following criteria: the extent to which the two communication devices discussed above achieve their intended goals and the impact these devices had on the visitor journey. Our team drew on background research related to the visitor journey to further our understanding of museum communication.

3.2.1: The Scienceworks Visitor Map

Due to the redesign of the Scienceworks Visitor Map in 2015, the WPI team conducted visitor surveys to gather feedback on the aesthetics and ease of use of the new map. Based on our background knowledge, the three main qualities included in the survey were the characteristics of a good map: did the map help the visitor know where they are, tell them where they could go, and how to get there from their current location. Visitors were asked if the map achieved each of these goals all of the time, most of the time, sometimes,

or never. Besides the ease of use of the map, the WPI team asked visitors to rate the design and map details. The survey is included in Appendix C.

3.2.2: The Multilingual Tour App at Immigration Museum

In response to the development of Immigration Museum's pilot program of the Multilingual Tour App in 2015, the WPI team conducted exit surveys to assess the effectiveness of the app's multilingual capabilities. The app's intended goal is to provide an enhanced experience for non-English speakers by guiding them through the museum. Keeping the app's goal in mind, the WPI team surveyed visitors asking them to rate the app's usage and their reason for using the app. To create recommendations for the app, the WPI team inquired about possible app improvements as well as potential features respondents would like to see in the app. Finally, the age and gender were recorded to determine the correlation between demographics and the app usage. The survey is included in Appendix B.

3.2.3: Survey Administration

The WPI team followed Museum Victoria's survey guidelines to ensure future reproducibility. The WPI team randomly asked museum visitors at each site if they would take a survey, advised them it would take at most five minutes, and then asked the survey questions while recording their responses. The WPI team administered the survey for several days at each museum and recorded about 100 responses at Scienceworks and 50 responses at the Immigration Museum. Surveys were administered near the exit of the museums to ensure the least amount of annoyance to visitors and to gather their responses about their entire visit. By doing so, the WPI team ensured that the visitors experienced the museum and any interruption of the visit took place towards the end of their journey.

The surveys were conducted by individual team members using SurveyGizmo for an easy and paperless survey. The sliding scale was used for rating questions per Museum Victoria's request. During these questions, the surveyor showed the visitor the tablet to record their answer. For non-rating questions, the surveyor recorded the visitor's responses. Using the stated methodology, the WPI team ensured an easier and quicker survey process for the visitor since they would not have to stare at the screen throughout the entire survey. SurveyGizmo automatically compiled our results into a spreadsheet, which allowed the WPI team to process the data more efficiently. The WPI team utilised Museum Victoria's SurveyGizmo account, which allowed the organisation to keep the developed surveys and all collected data.

3.2.4: Survey Analysis

The WPI team analysed the collected data to gain an understanding of the effectiveness of the Scienceworks Visitor Map and the Immigration Museum Multilingual Tour App. Information was collected about why the visitors were using the communications and if they were satisfied with them. Specifically, the WPI team evaluated whether each communication method fulfilled its intended goal; the goal of the map is to aid Scienceworks visitors in navigating the premises more effectively, and the goal of the Immigration Museum's App is to bridge the language gap between the communication needs of non-English visitors and the tour experience. Finally, the WPI team critiqued and updated the surveys for Museum Victoria's assessment of future communications.

3.2.5: Limitations

While measuring the effectiveness of Museum Victoria's communications, the WPI team encountered several challenges. Basic survey questions are sometimes unable to precisely assess the opinions of respondents, potentially contributing to incomplete or misleading results. Therefore, the survey used sliding scales to rate the usefulness of a communication device; but it is possible that visitors with the same opinion may rate the communication device differently on these scales. Even though the survey lasted about five minutes, there is always the possibility that a respondent provides less than fully candid answers if the respondent is eager to finish.

3.3: Social Media Feedback on *Jurassic World: The Exhibition* at Melbourne Museum

Museum Victoria recently opened a world premier exhibition and in their initial weeks wanted a better understanding of visitor's opinions on their *Jurassic World: The Exhibition* experience. Although *Jurassic World: The Exhibition* is managed by Universal Studios and their contractors, Museum Victoria has partial responsibility for advertising and media. Many visitors posted *Facebook* comments about their experience directly to the Melbourne Museum's *Jurassic World: The Exhibition* Event page. Museum Victoria wants to increase the cohesiveness between two vital stages of the visitor journey: the preparation for the trip and the actual experience itself. As a means to understand the connection between the communications of the exhibition and the actual experience, the WPI team collected and analysed the *Facebook* comments by following the four step process (Lai, 2015) found in Figure 7.

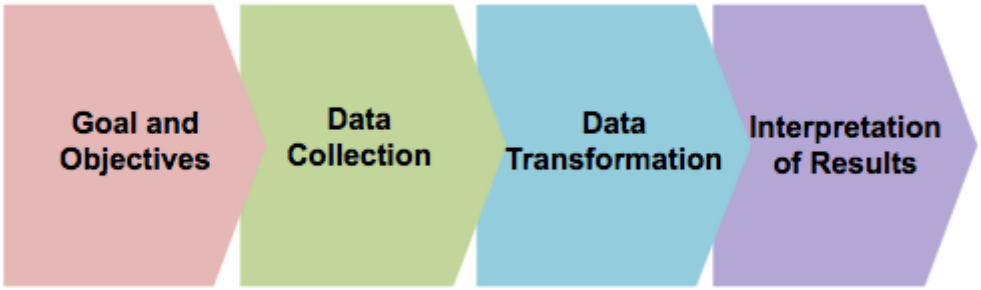


Figure 7: Four Step Content Analysis Process

To collect the data, the WPI team downloaded all posts and comments from Melbourne Museum's *Jurassic World: The Exhibition Facebook* Event page. The WPI team used Microsoft Excel, with the help of *Facebook's* Graph API, to import all of the posts and comments from the event page to an Excel spreadsheet. This spreadsheet was delivered to the museum as a separate document. A detailed explanation of transferring the comments from *Facebook* to Excel can be found in Appendix H. The data collected between March 19th and April 2nd described opinions after the opening of the exhibition. The raw data were organised, and any unnecessary information was removed.

The WPI team read through each comment, marking each comment with a specific colour signifying a specific type. The five types identified were:

- 'Tags': comments that include individual's' names without any context;
- 'Pre-Visit': comments from individuals who have not attended the exhibition;
- 'Post-Visit': comments from individuals who attended the exhibition;
- 'Questions': made by individuals seeking information about the exhibit;
- 'Other': comments from museum staff, as well as comments that are difficult to interpret.

A keyword book was not used for the first separation because the WPI team thought the comments were clear enough to be sorted into their respective types, and the data set was relatively small, thus did not require automated data sorting. After the data were organised, the WPI team focused on the 'Pre-Visit' and 'Post-Visit' comments with the intention of conducting a further analysis of each type. Each type of analysed comment was broken down into several categories, which have the same general context or shared characteristics. Within the categories were several themes, identifying the subject or underlying reason. Figure 8 shows the breakdown of one type of post or comment and its underlying categories and themes:

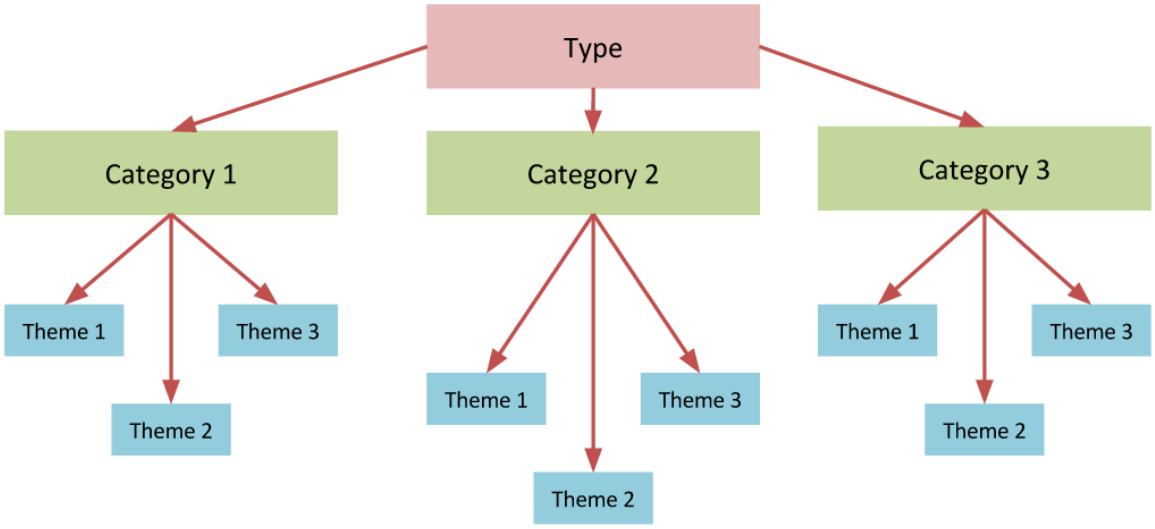


Figure 8: Comment Theme Tree's Template

For example, the comment “Considering all the velociraptors in the hype. Why weren’t there any in the exhibition? Very disappointed…. :(“ was placed into the type ‘Post-Visit’ because the person indicated that they visited the exhibition. Then, the comment was placed into the category ‘Negative’ because it is a complaint with respect to the exhibition. Finally, the comment was placed into the theme ‘Content Expectations’ because the individual expected velociraptors. Another example, “Looking forward to seeing this in June with my Son :)” was placed into the type ‘Pre-Visit’ because the comment indicated the individual has not yet attended the exhibition. Then, the comment was placed in the category ‘Going’ because they indicated they were attending in June. Finally, the comment was placed in the theme ‘Excited’ because the individual expressed their desire to attend the exhibition.

The template shown in Figure 8 is the generic chart used to organise the categories and comment themes. Using this template, ‘Pre-Visit’ and ‘Post-Visit’ types were analysed. After analysing these types, the themes were identified and organised in the charts displayed in Chapters 4.1 and 4.3. Sections 3.3.1 and 3.3.2 are the specific methods our team used to conduct our content analysis of *Jurassic World: The Exhibition Facebook* event page. The identified categories and themes are not necessarily generic, and therefore may or may not be applicable for a future exhibition content analysis. However, the steps taken to find the categories and themes can be applied to future exhibitions.

3.3.1: 'Pre-Visit'

'Pre-Visit' comments are from people who have not visited the exhibition. The step-by-step methods our team used to sort comments into different categories and themes are as follows:

1. Read each comment and understood the context behind them;
2. Created the categories ‘Going,’ ‘Decided Not To Go,’ and ‘Maybe Going;’
3. Read through the comments and sorted each comment into a category;
4. Created themes:
    a. ‘Going’ had themes ‘Excited,’ ‘Not Excited,’ ‘Nervous,’ and ‘No Theme;’
    b. ‘Decided Not To Go’ had themes ‘Content Expectations,’ ‘Cost,’ and ‘Time;’ (The themes are further explained in Chapter 4.1);
5. Sorted each comment into a theme;
6. Extracted frequently used keywords from each comment.

After reading through the comments, the WPI team identified three different categories based on the context of the comments. The ‘Going’ category includes comments where people state they are actually going, are excited to go, or cannot wait to go. The ‘Maybe Going’ category includes questions directed to other friends about their potential visitation date, comments stating they want to go, and comments claiming they still need to book the tickets. Finally, the category ‘Decided Not To Go’ has comments from individuals stating that they no longer wish to visit *Jurassic World: The Exhibition*. Our team further looked into the reasons, namely themes, people decided not to go due to a negative comment.

3.3.2: 'Post-Visit' Feedback

'Post-Visit' comments are from people who have attended the exhibition. The step-by-step methods our team used to sort comments into different categories and themes are as follows:

1. Read each comment and understood the context behind them;
2. Created categories ‘Positive’, ‘Mixed’ and ‘Negative;’
3. Read through the comments and sorted each comment into a category mentioned above;
4. Created themes:
    a. 'Positive’ had themes ‘Realistic/Scary’ and ‘Satisfied/Happy;’
    b. ‘Negative’ had themes ‘Content Expectations,' ‘Cost,’ ‘Time,’ and ‘General Disappointment;’

c. ‘Mixed’ had both ‘Positive’ and ‘Negative’ themes;

(The themes are further explained in Chapter 4.3).

5. Sorted each comment into a theme;
6. Extracted frequently used keywords from each comment.

It is important to understand the aims of an exhibition when developing keyword books for a content analysis. Sorting certain comments depend on the context of the exhibition. For example, if a puppy exhibition was scary, keywords related to ‘scary’ would then be considered negative. However, scary-related keywords can be considered positive for other events, such as a haunted house. In our case, our team talked to Kate Brereton, Head of Family Branding, to understand whether to classify certain aspects of *Jurassic World: The Exhibition* as positive or negative, such as 'scary' or ‘realistic.’ Following the discussion with Brereton, our team read through the comments, sorting each comment into three groups: Positive, Negative and Mixed. Having read through the comments, our team understood several reasons/themes behind certain comments.

3.3.3: Limitations

There were several limitations associated with text mining and content analysis. The most critical factor when two or more researchers analyse a large qualitative data set is the consistency in the analysis. As mentioned in the background, qualitative analysis is a form of interpretation and can be different due to personal bias (Armstrong, 1997). Keeping this limitation in mind, the WPI team believes it would be likely for different researchers to produce similar results within an acceptable margin of error using the same data set.

Given the fact that human emotions experience a wide and varying range between depression and exaltation, different emotions are to be expected. Some of the *Facebook* comments had both negative and positive feedback because visitors expressed their satisfaction or happiness, but also gave criticism. Therefore, some comments were deemed both positive and negative. Finally, identifying and classifying emotions through text is not always accurate. In his *Sentiment Analysis* book, Bing Liu, researcher at University of Illinois in Chicago, argues that sentiments and opinions are hard to classify due to their subjectivity. According to Liu, subjectivity comes from different sources: "First of all, different people may have different experiences and thus different opinions. Second, different people may see the same thing in different ways because everything has two sides. Furthermore, different people may have different interests and/or different ideologies" (Liu, 2015).

3.4: Summary

Throughout the visitor journey, the visitor encounters many different forms of communication. We have gathered the following three different sets of data:

1. Face-to-Face Interviews;
2. Visitor Surveys;
3. Content Analysis.

To begin, the CAP members' interviews informed the WPI team of each team's specific role in the visitor journey. Furthermore, the visitor surveys generated feedback on how to improve specific communications used in the visitor journey. Finally, the content analysis allowed the WPI team to understand the nature of conversations found on Melbourne Museum's *Jurassic World: The Exhibition Facebook* event page. Through these data sets, the WPI team created methods for measuring the effectiveness of museum communications. The following chapter explains the results of our analysis.

4.0: Evaluating the Visitor Journey

Improving communications throughout the visitor journey is essential for Museum Victoria's growth strategy and visitor sustainability. In the 'Pre-Visit' stage, the visitor encounters different forms of communication, such as newsletters and social media posts, whose primary function is to attract visitors to the museum. In the 'During the Visit' stage, the visitor will come across navigational and informational signage or other media describing the current offerings and their respective locations. In the 'Post-Visit' stage, visitors will reflect on their visit and hopefully share their experience with others. Figure 9 demonstrates the typical visitor journey.

Figure 9: Three Phases of the Visitor Journey

The visitor journey can continue to have an impact in a repeating pattern if the visit is enjoyable and memorable. In the journey through each of Museum Victoria's venues, each visitor will encounter many different forms of communication, which could positively or negatively influence their experience. The Audience Insights Team identified three communication tools that Museum Victoria needed to assess in order to better understand and personalise their visitor journey: the recently rebranded Scienceworks Visitor Map, the recently introduced Immigration Museum Multilingual Tour App, and the *Facebook* comments on Melbourne Museum's *Jurassic World: The Exhibition* event page.

The WPI team was tasked to create two surveys, one to evaluate the effectiveness of the recently rebranded Scienceworks Visitor Map and the other to gather data on the recently introduced Immigration Museum's Multilingual Tour App. Museum Victoria plans to develop a similar app for Melbourne Museum; however, they would first like to understand the way visitors use the Immigration Museum's Multilingual Tour App and its effectiveness. Surveys are the most appropriate evaluation tool in this setting as surveys can help organisations understand the impact of their product in an unbiased setting (Wreden, 2002). Furthermore, Museum Victoria could utilise either of the surveys at its other venues in the future.

The WPI team helped Museum Victoria understand the role that social media plays in influencing an exhibition's visitation rate by using content analysis to evaluate visitors' social media feedback of a large exhibition. This method can also be applied in future situations where feedback monitoring on social media platforms will be necessary. By connecting the results obtained from the *Facebook* content analysis and the surveys of the other two communication tools, along with the results from the CAP department interviews, the WPI team helped Museum Victoria understand the effectiveness of information provided to their visitors. The WPI team organised the communications into a timeline revolving around the visitor journey, as shown in Figure 10. Using this timeline, we can visualise the role of each form of communication in accordance with the different stages of the visitor journey.

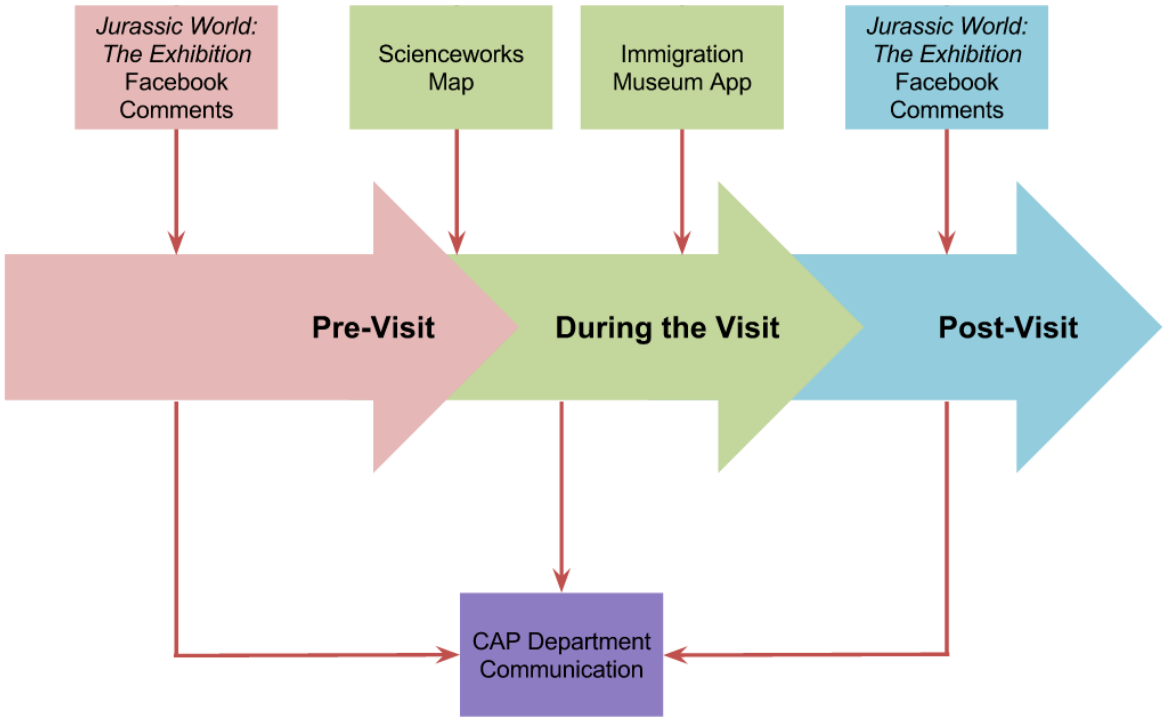


Figure 10: Visitor Journey Timeline

The CAP department was not directly involved in the development of the Immigration Museum Multilingual Tour App, however they led the development of the Scienceworks Visitor Map and developed all communications for *Jurassic World: The Exhibition*. The visitor journey was evaluated through each of the chosen communications in order to determine possible improvements to the communications methods as well as to the overall visitor experience. Below are the findings and explanations for each phase.

4.1: Building up Visitor Anticipation

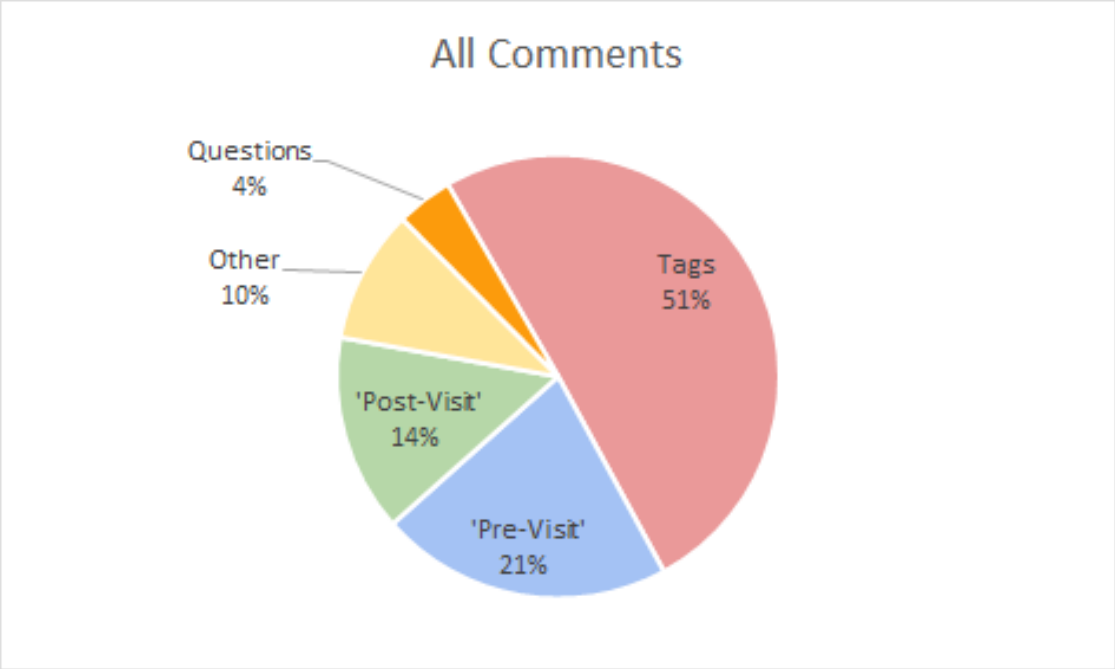
The surge of digital technology constantly changes communication dynamics, yet Museum Victoria still acknowledges the continuing role and value of traditional media channels as one of a range of communication tools (Marakos, 2014). Through the BOE system, the CAP department utilises many different communications to inform visitors of the museum's current and future events as well as provide additional experiences of the museums. The External Relations (ER) team, led by Carolyn Jones, focuses on building interest in new exhibitions, and does so primarily by using 'Earned' media. Creativity is of utmost importance for this team in piquing visitors' interest to visit the museum. Jones' team helps build interest in new exhibitions by building and utilising the relationships they have with media partners (i.e. Channel 9, Sunrise, and Herald Sun). Those media partners then become advocates for Museum Victoria and help publicise information about Museum Victoria's research and collections as well as the exhibitions and programs at its visiting venues. The ER team tries to build momentum, within the first stage of the visitor journey, by offering a taste of the exhibition experience. One recent example is the *Jurassic World: The Exhibition* publicity campaign at Federation Square, Melbourne, pictured in Figure 11. The campaign involved an actor wearing a velociraptor costume, owned by Museum Victoria, 'terrorising' the general public. The ER team informed the media of this event to spread awareness of the upcoming *Jurassic World: The Exhibition*. The media responded by discussing the velociraptors as well as *Jurassic World: The Exhibition* through their respective media outlets (i.e. newspaper, TV, radio, blogs). However, Jones stated that ER does not directly interact with individual visitors as their role is to build the profile and reputation of the museum whereas the Branding team's role is to achieve visitation.

Figure 11: Velociraptors Campaign in Federation Square, Melbourne, Australia (Museum Victoria, 2016)

As an audience-driven organisation, Museum Victoria personalises interaction with individual visitors in order to maintain a high customer satisfaction and understands that different visitors have different needs and interests. The museum satisfies the visitor's information needs by guiding them throughout the exhibitions, providing the right information at the right time, engaging them through interactive experiences, and stimulating them to visit the museum more often.

According to both Jareen Summerhill, overall Brand Manager, and Kate Brereton, Brand Manager for Families, the Branding team aspires to communicate with visitors on an individual basis, mainly through the use of social media and other digital platforms. The Branding team ensures that visitor expectations are met when they arrive at the museum by using information about current or future exhibitions as a 'Pre-Visit' tool. Making certain that visitors' expectations are met is crucial in developing positive 'Earned' media. Otherwise, visitors are likely to write negative reviews, which is considered negative ‘Earned’ media. Both negative and positive reviews have a strong impact on attendance numbers and are often the deciding factor of whether a potential audience visits the museum or not. The decision making process is enhanced or marred by exposure to both negative and positive reviews (Fotis, 2011).

During the first two weeks following its opening, the *Jurassic World: The Exhibition Facebook* event page collected 730 posts and comments. Several different posts and comments had different intentions. Figure 12 shows the distribution of different types of posts and comments.



n = 730

Figure 12: Distribution of all *Facebook* responses

According to Figure 12, about half of the posts and comments were users tagging other *Facebook* users in order to directly draw their attention to the exhibition, namely ‘Tags,’ and were not further analysed. Of the 730 posts and comments, 156 were ‘Pre-Visit’ Comments. The comments from potential or future visitors can be described as a source of 'Earned' media. To delve deeper into negative 'Earned' media, our team analysed the detrimental effects that negative comments might have in discouraging potential visitors from attending *Jurassic World: The Exhibition*.

After reading all of the ‘Pre-Visit’ comments, it was clear that individuals were either going to the exhibition, were considering going to the exhibition, or had decided not to visit the exhibition as a result of encountering negative comments. Figure 13 shows the ‘Pre-Visit’ tree used to organise the comments or posts.

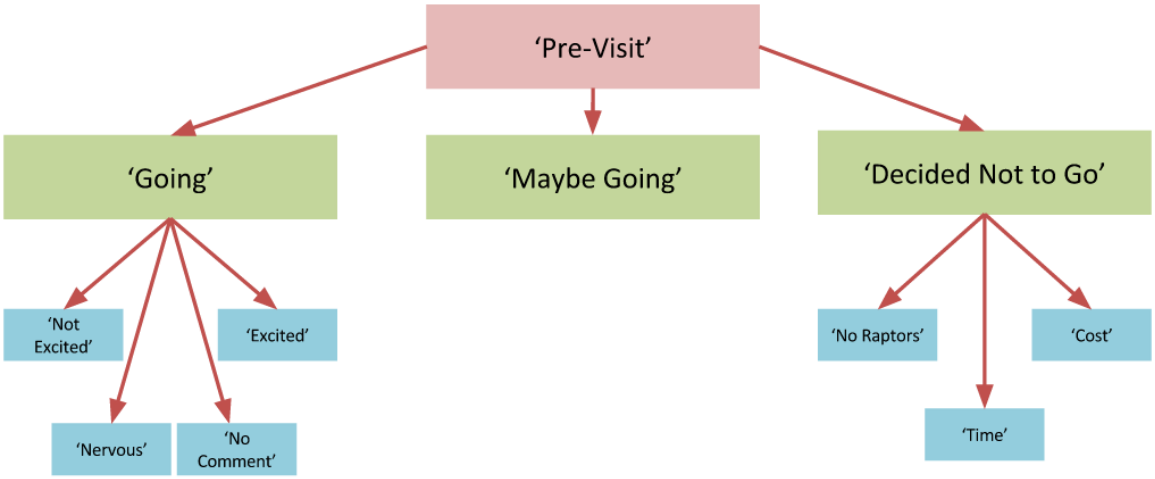
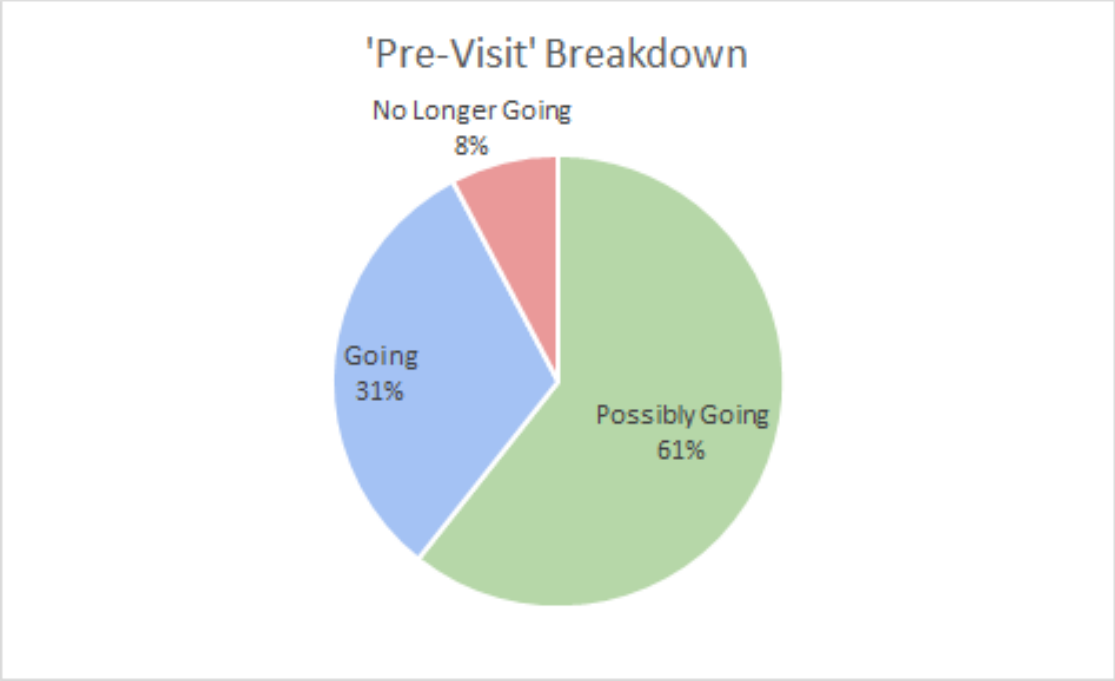


Figure 13: 'Pre-Visit' Content Analysis

The WPI team used these three themes as the basis to organise the comments. Keywords were extracted from each comment and a keyword book, found in Appendix E, was created to help organise comments into 'Going,' 'Possibly Going,' and 'Decided Not to Go' themes. The WPI team then made judgements about an individual's decision by reaching an understanding of the conversation within the post. The results from this 'Pre-Visit' analysis are shown in Figure 14.



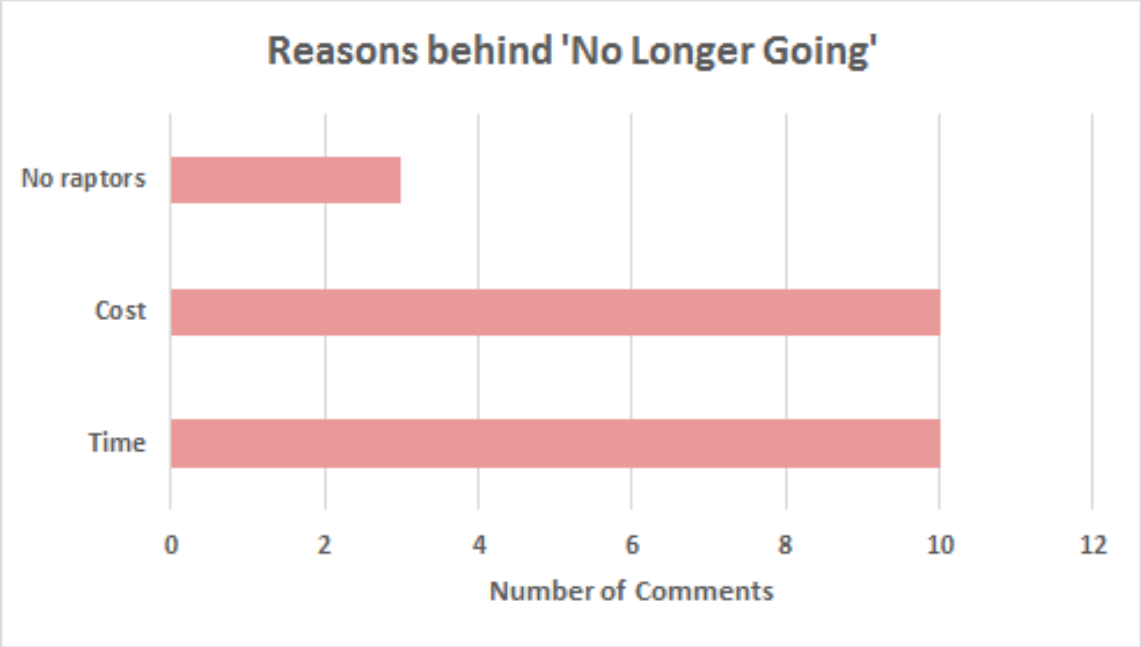
n = 156

Figure 14: 'Pre-Visit' Comments After Exposure to Comments

Figure 14 shows the following:

- Less than a tenth of the potential visitors exposed to comments on *Facebook* stated they decided not to visit the exhibition;
- Nearly two-thirds of the potential visitors are thinking of going to the exhibition;
- Over a quarter of the potential visitors confirmed they are going to the exhibition.

Based on the various comments visitors have made on the *Jurassic World: The Exhibition Facebook* event page, it is possible that negative comments do not have a strong impact on the actions of other potential visitors. However, it is not possible to know whether there were any individuals who were affected by negative comments and did not voice their opinion. Moreover, individuals exposed to the comments may have decided to attend the exhibition based on positive comments. Out of 156 people who commented, only 12 individuals commented on their decision to not attend the exhibition. Figure 15 shows the reasons cited by those who decided not to visit the exhibition:

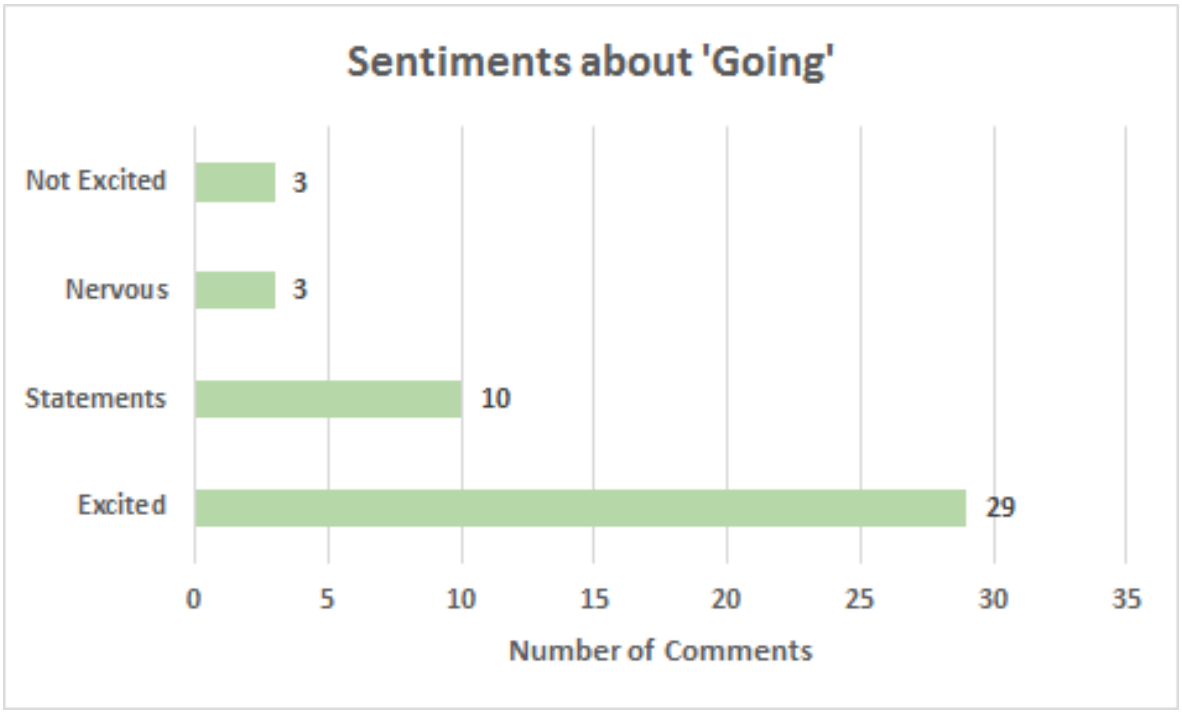


n = 12

Figure 15: Negative 'Pre-Visit' Themes

The negative comments that dealt with the long queue duration and the short exhibition duration were categorised under the theme 'time.' Ten out of the twelve people claimed they decided not to go because of concerns with both the cost of the exhibition and the negative time factors. This matches the information collected from the ‘Post-Visit’ analysis and the *Jurassic World: The Exhibition* on-site survey reports conducted by Museum Victoria, found in Appendix F. Our ‘Post-Visit’ analysis shows that over half of the visitors had time-related complaints. Similarly, the *Jurassic World: The Exhibition* on-site surveys show that 45% of the visitors would recommend improving the exhibition by extending the duration of the exhibition experience, adding more dinosaurs, or increasing the exhibition size.

To better observe the impact of all comments on individuals who had already purchased their exhibition tickets, the WPI team looked at the emotion or sentiment behind visitors’ comments. Looking through the keywords, the comments were organised into 4 different groups: ‘Excited’, ‘Uncertain’, ‘Not Excited’ and ‘Statement.’ ‘Excited’ comments are those that show the visitor's excitement for the exhibition. 'Uncertain' comments display the visitor's uncertainty as to whether or not they will enjoy their experience. ‘Not excited’ comments represent the visitors who are no longer excited to attend the exhibition. Finally, ‘Statement’ comments simply show that visitors will attend the exhibition. Figure 16 shows the visitor sentiments of those who claim that they were planning to visit the exhibition.



n = 45

Figure 16: 'Pre-Visit' Sentiments for Visitors Who Plan to Attend the Exhibition

After an exposure to all comments, one-sixth of individuals who indicated they were going had become 'Uncertain' or 'Not Excited' about going. Even though only a few visitors had low expectations about the exhibition, their 'Pre-Visit' experience was partially sullied, therefore affecting their visitor journey.

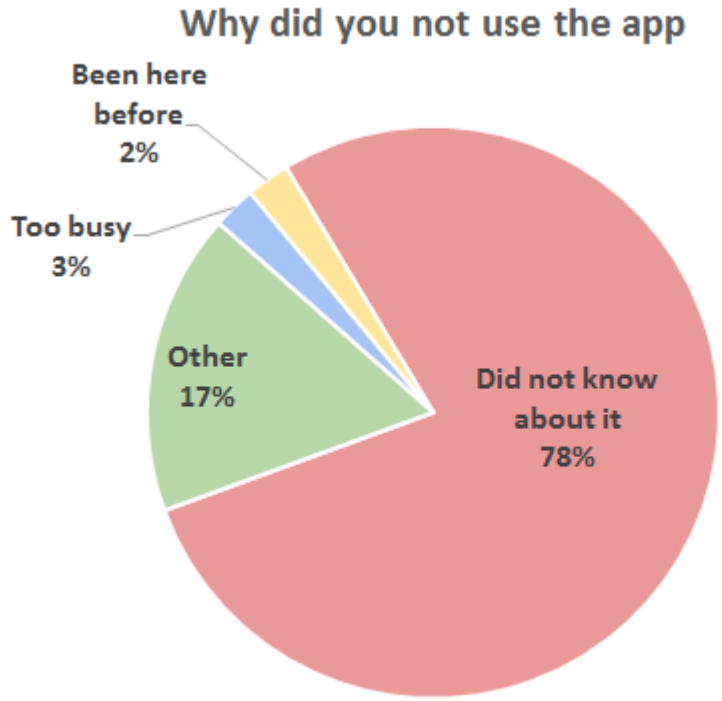
4.2: The Visitor Experience at Museum Victoria

A vital stage within the visitor journey includes the experience on-site. Regardless of the venue, Museum Victoria works to ensure that their audience is the first priority and constantly strives to personalise the experience by catering to visitor's needs. The WPI team measured the satisfaction of the on-site experience by analysing two different communications: the newly created Immigration Museum Multilingual Tour App and the newly revised Scienceworks Visitor Map.

4.2.1: Taking the Immigration Museum Tour

The Immigration Museum offers a Multilingual Tour App as part of a pilot program that Museum Victoria started to help bridge the gap between non-English speakers and the information presented in their museum exhibitions. A total of 51 surveys were collected, during school holiday weeks and non-holiday weeks, at Immigration Museum to determine

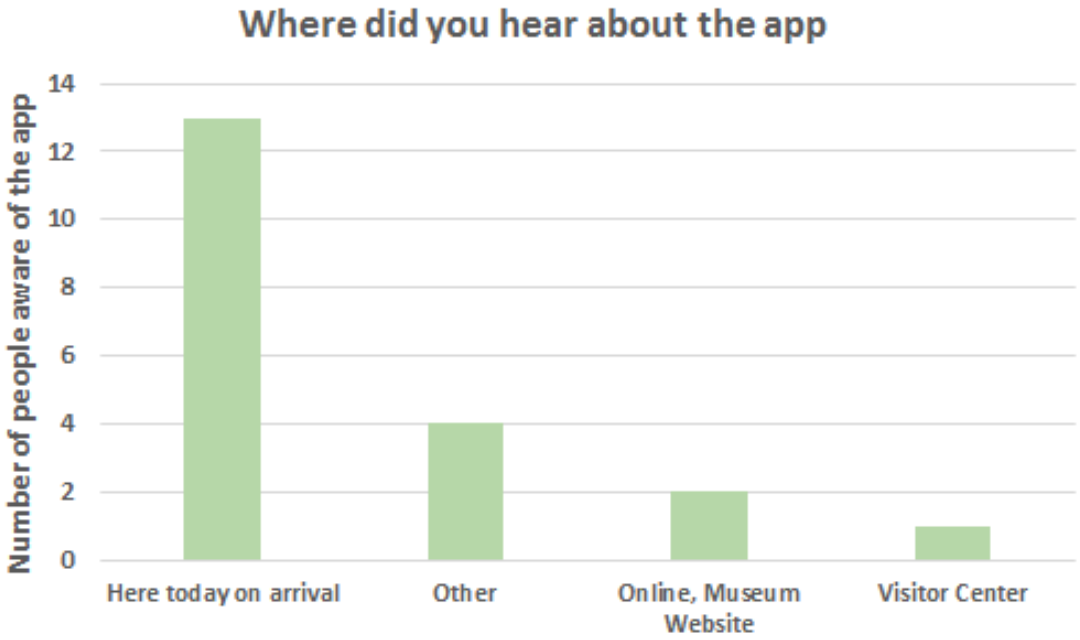
the effectiveness of the app's multilingual capabilities. Initially, the WPI team sought to collect 100 survey responses, however due to low visitation at the Immigration Museum and schedule limitations on the project, only 51 surveys were collected. Twenty of these respondents were aware of the existence of the app, recorded as 'aware respondents,' and 10 of the aware respondents used the app. The reasons people did not use the app are shown in Figure 17. Among the visitors who replied ‘Other,’ most of them preferred to not take the tour because they claimed they were not very technical and would rather experience the tour in-person.



n = 41

Figure 17: Reasons for Not Using the Immigration Museum Multilingual Tour App

As shown in Figure 17, over three-fourths of the visitors did not use the app because they were unaware of its existence; over half of these visitors stated that they would have used the app had they been aware of it. One factor that contributes to the lack of awareness is that Immigration Museum Customer Service Officers (CSOs) are not obliged to promote and recommend the app to visitors. Additionally, the low awareness can be linked to the lack of promotional content on the app both onsite and offsite. Figure 18 shows that only 15% of the aware respondents heard about the app through the City of Melbourne Visitor Centre or from Museum Victoria's website.



n = 20

Figure 18: Where Visitors Heard About the App

It is clear that the off-site promotion of the app is not strong and will need to be addressed if awareness is to grow.

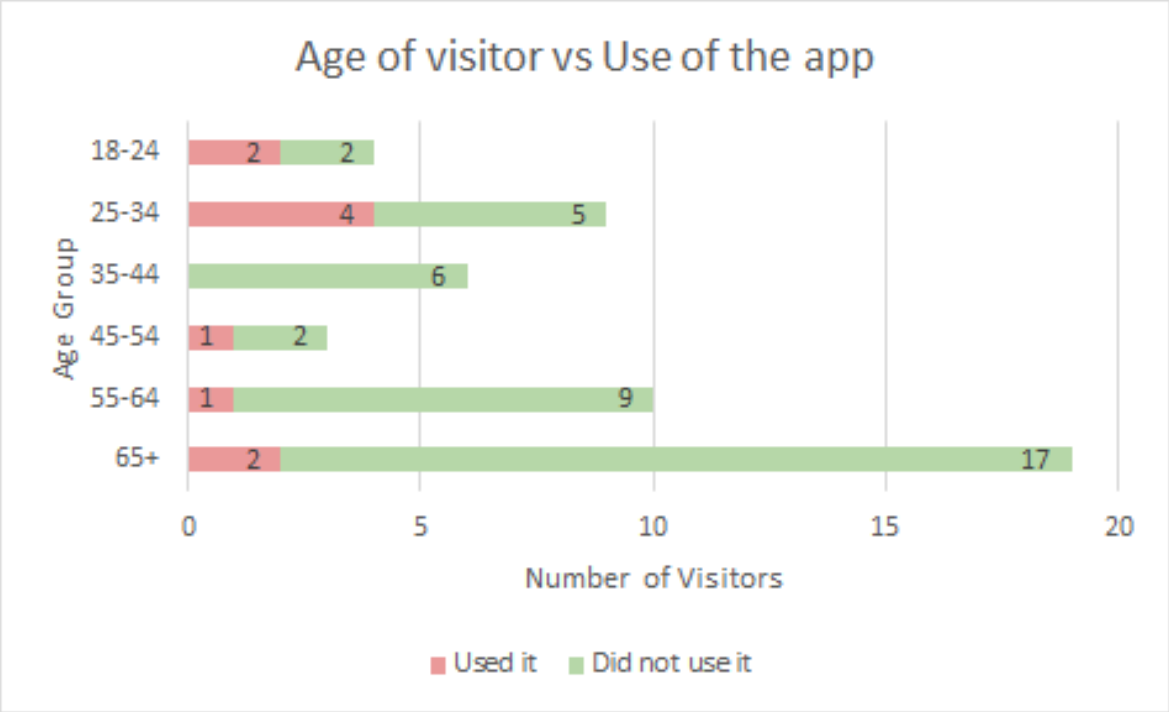
The app was designed to enhance the on-site experience for non-English speaking visitors. The app provides non-English speaking visitors with an overview of the content of various exhibitions within the museum, thus making their visitor journey a more enjoyable experience. A statistical study, included in Appendix D, of the on-site app downloads was conducted by Museum Victoria over the past six months. In these six months, the app was downloaded by roughly equal numbers of English-speaking and non-English speaking visitors. Based on visitation data of the museum, included in Appendix D, approximately 11% of the non-English speaking international visitors used the app. Three possible reasons why these non-English speaking international visitors do not use the app may be:

- Limited availability of languages offered;
- Inadequate signage (further explained in Chapter 6.1.1);
- Language barrier between non-English speaking visitor and CSOs (further explained in Chapter 6.1.1).

The WPI team believes that there is a gap between the intended goal of the app and the expectations of the English-speaking audience who choose to use the app. From our

conversations with Immigration Museum Customer Service Officers (CSOs), English-speaking visitors assume that the app contains all of the content presented in the museum exhibitions, which does not match the original goal of the app.

Additionally, another obstacle to the success of the app's pilot program is the visitor age demographics at the Immigration Museum. A majority of the surveyed visitor population is 45 years or older, as shown in Figure 19.



n = 51

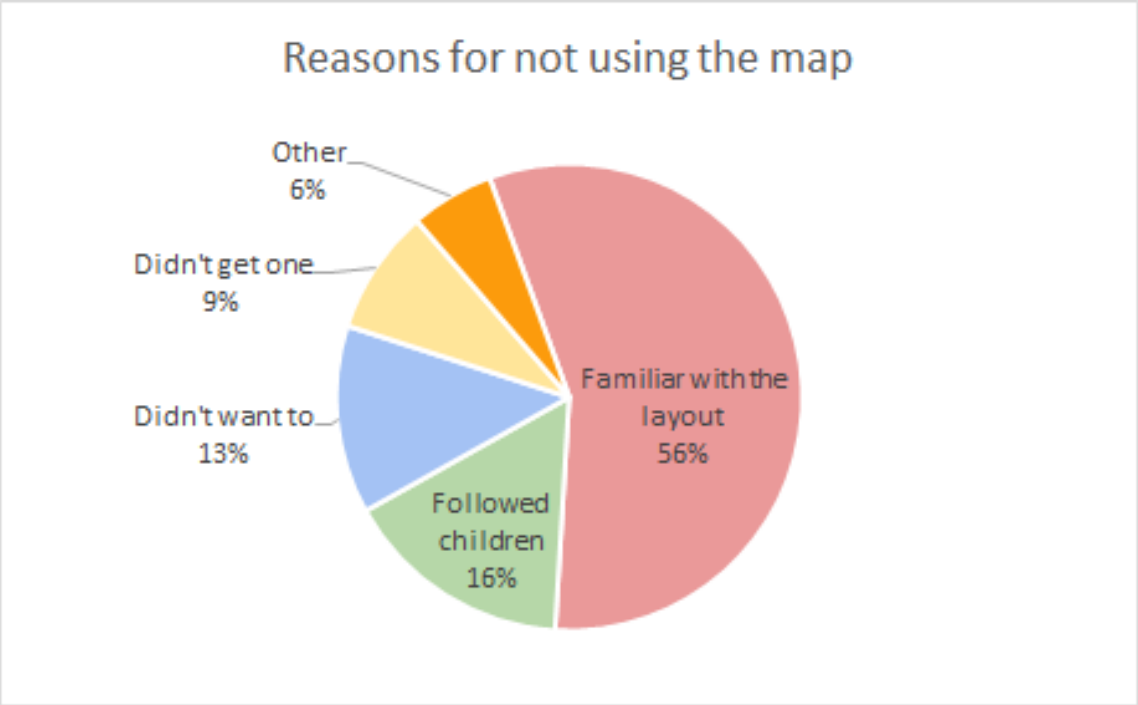
Figure 19: Age of the Visitors Who Used the App

When asked why they chose not to use the app, most of the older visitors claimed that they would rather invest their time experiencing the exhibitions in-person, as opposed to spending their time touring the museum with the app. The fact that most older visitors would prefer to read the exhibition signage correlates to the idea that typically younger generations are more willing to adopt technology in their lives (Feist, 2013). Based on the limited amount of data collected, Figure 19 suggests that younger generations are more willing to adopt technology since visitors between the ages of 18 and 34 account for over half of the total app usage.

4.2.2: Navigating Scienceworks Using the Visitor Map

Scienceworks utilises navigational and informational tools to facilitate the experience of the visitor. A total of 103 surveys were collected at Scienceworks, during holiday and non-holiday, to determine the effectiveness of the new map. Initially, the WPI team sought to

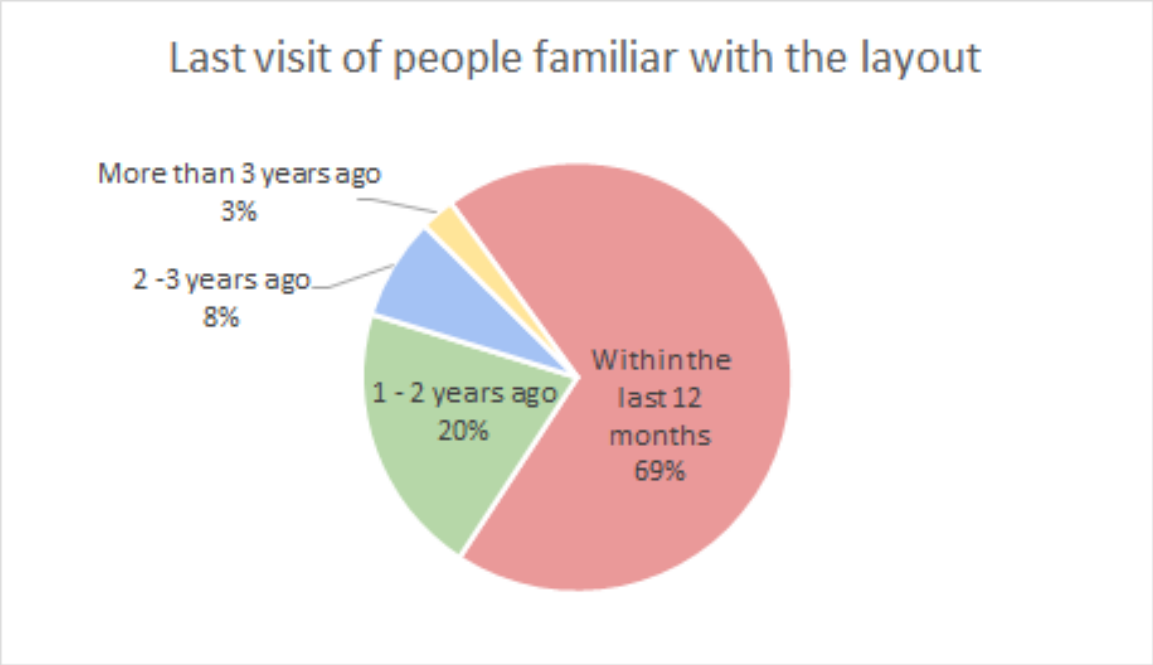
collect 150 surveys, however due to the end of school holidays when visitation is strong and scheduling limitations imposed by museum staff, we were only able to collect 103 surveys. Out of the 103 respondents, two-thirds did not use the map. The reasons for not using the map are shown in Figure 20.



n = 69

Figure 20: Reasons for Not Using the Map

Of the visitors who did not use the map, more than half were already familiar with the layout of the museum. Of these respondents, almost seventy percent had visited the museum at least once within the last twelve months. Figure 21 shows a comparison between the visitor's familiarity with the museum's layout and their last visit.



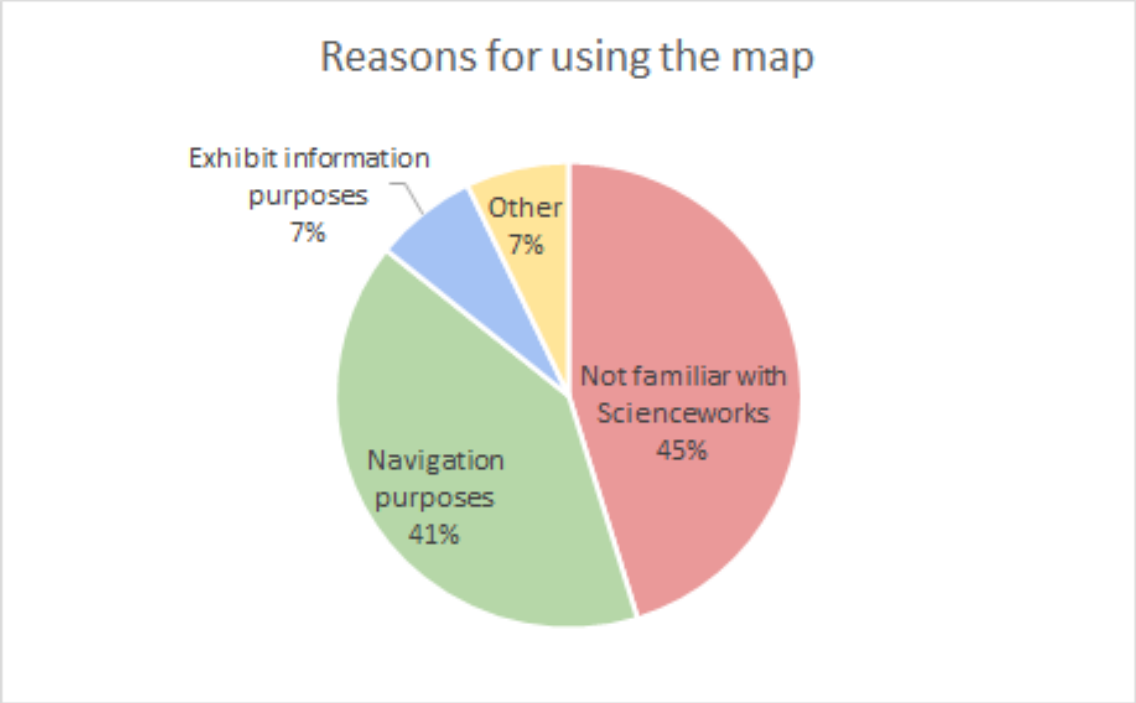
n = 39

Figure 21: Familiarity with Layout and Date of Last Visit

The majority of surveys were conducted during school holidays. Scienceworks includes a new exhibition every school holiday, hoping to attract past visitors and offer them a new experience. This information, along with the data collected, suggests that most of the Scienceworks visitors are repeat visitors and thus might not need a map.

Interestingly, some visitors prefer to follow their children instead of using a map. The 'I followed my child' reason accounted for 11 individuals who did not use the map. The preference to follow their children around Scienceworks was not expected, yet it is not surprising considering that Scienceworks' main target audience is children aged 0-12 years. Our survey corresponds with Scienceworks target audience, showing that 99 out of 103 survey respondents attended Scienceworks with children. These results, shown in Appendix E, are similar to previous surveys administered by Museum Victoria.

Of the visitors who used the map, almost half of them used it for navigational purposes. Figure 22 shows the reasons cited by visitors for using the map.

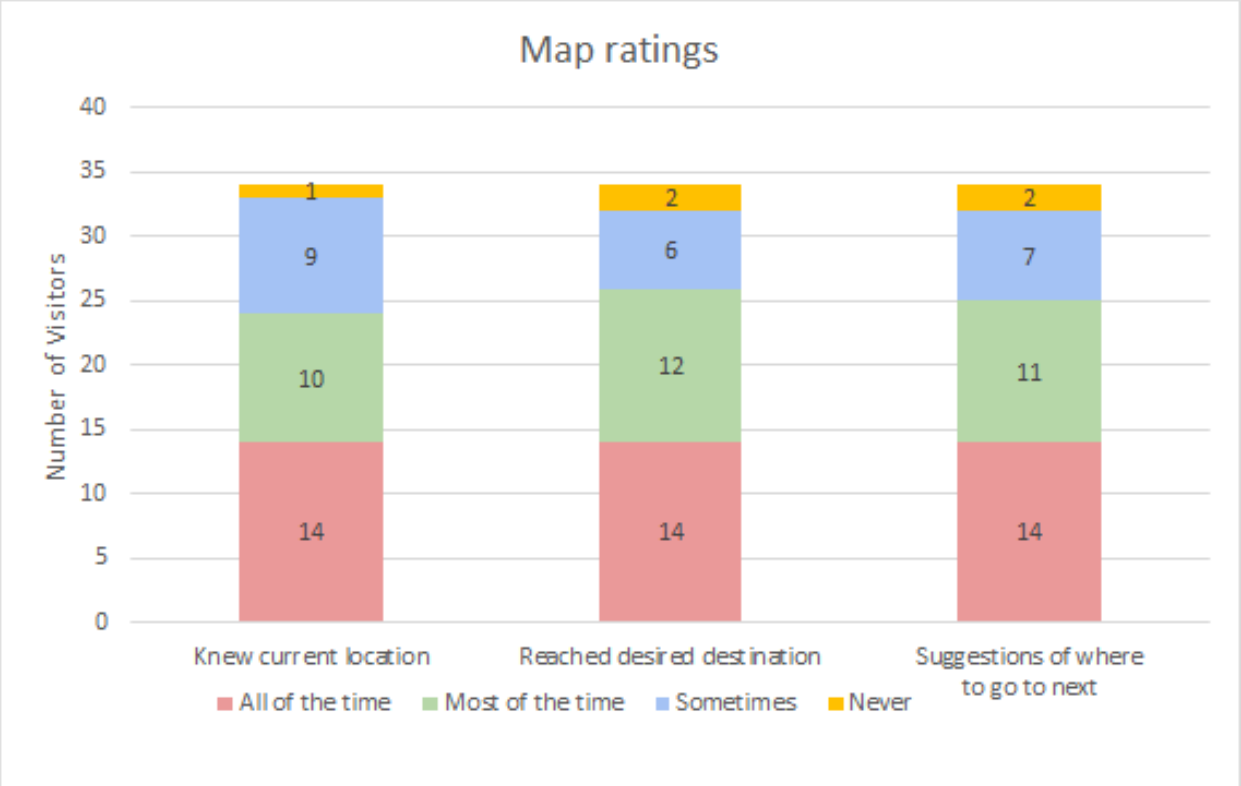


n = 34

Figure 22: Reasons for Using the Map

'Navigation purposes' only accounts for the wayfinding of the map, whereas 'Not Familiar with Scienceworks' accounts for wayfinding, exhibition information, and any other information offered. Almost three quarters of the map users used the map for the first time, requiring them to use the map for more than just navigational purposes.

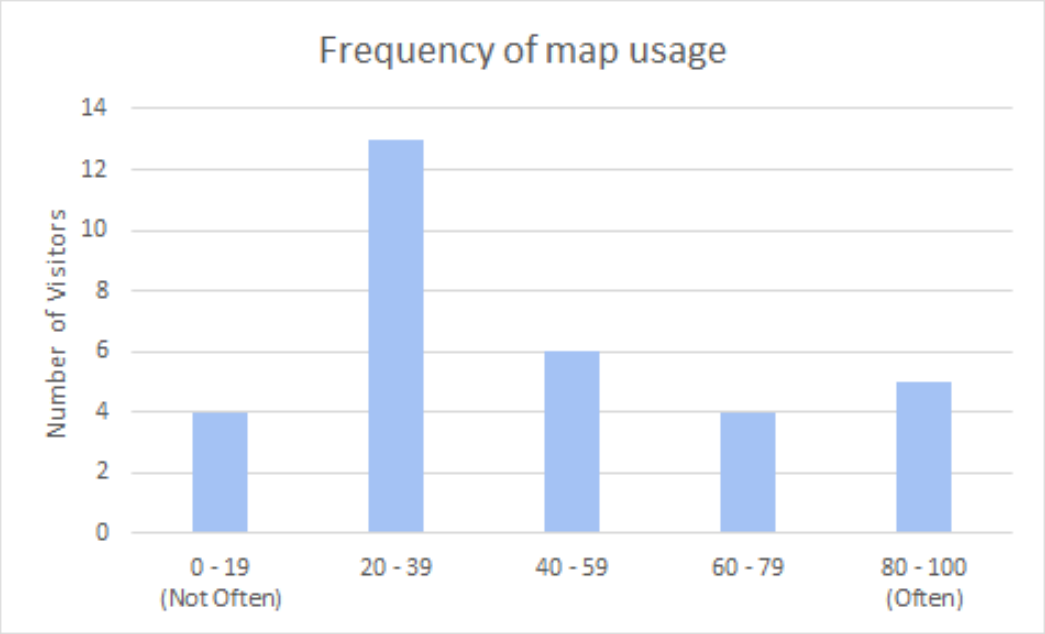
The WPI team evaluated how well the map achieved its goal. Through background research, we learned a map should have 3 qualities: it should help the user know where they are, help the user know where they want to go, and finally help the user get from one location to the other (State of Victoria, 2011). Figure 23 shows how well the map achieved the three qualities it is supposed to entail.



n = 34

Figure 23: Purpose of a Map

Based on the survey feedback, the Scienceworks Visitor Map can be considered effective. The majority of respondents thought the map accomplished its goal either ‘most of the time’ or ‘all of the time.’ However, many people are not frequently using the map during their visit, as shown in Figure 24. The WPI team determined the frequency of visitor map usage by prompting visitors to answer using a sliding scale, where 0 was ‘Not Often’ and 100 was ‘Often.’



n = 32

Figure 24: How Frequently the Map Is Used 'During the Visit'

The low frequency of use can be due to respondents relying heavily on their children to navigate the museum. Additionally, past visitors only need to look at the map once or twice in order to quickly refresh their memory about Scienceworks' layout. Figure 25 shows a picture of the Scienceworks Visitor Map.

Figure 25: Scienceworks Visitor Map

As seen in Figure 25, the Scienceworks Visitor Map only offers certain information: a map along with a list of daily activities[2]. Even though the survey respondents believe that the current map is accomplishing its goal, the Scienceworks CSOs stated that the map is not as effective as the survey results suggest. Several CSOs mentioned that visitors are still asking about where exhibitions are, how to get there, and where the visitor's current location is within the museum. In summary, the CSOs pointed out the following problems with the map:

- Images are not large enough;
- The size and detail of the map creates difficulties for CSOs to provide visitors with accurate directions using the map;
- Lack of information about exhibitions and events on the map, requiring CSOs to spend more time explaining this information;
- Space is wasted on unneeded information.

To determine potential improvements to the Scienceworks Visitor Map, our team interviewed Sue Grieve, one of the Exhibition Project Managers at Melbourne Museum. Although Grieve is a map expert at Museum Victoria, she was not involved in designing the Scienceworks Visitor Map. After consultation, Grieve explained that the elements of the map should be enlarged on the paper so that it is easier to read. Furthermore, Grieve stated that the locations in the map key should be in situ on the physical map and the icons should be larger. The key should also have explanations of each exhibition and event, and it should clearly differentiate between different types of locations (i.e. exhibition or general location). Moreover, the icon key can be easily overlooked due to its placement. Finally, there are several text formatting inconsistencies in both keys.

Grieve explained that most visitors do not think critically when visiting a museum. Instead of focusing on ways to improve small aspects of their visit, visitors enjoy their overall time and experience at the museum. Grieve also stated that there is always room for improvement despite the fact that visitors are usually satisfied with any resource provided by the museum. Based on this discussion, some additional content that can be included in the map are explanations of the exhibits, pictures of the exhibits, and prices of special activities (i.e. the Planetarium Show and the Lightning Room Show). Ensuring that visitors know where they are and how to get to different locations or exhibitions within the museum is essential for a positive experience (Wallace, 2013). A positive experience 'During the Visit' is but one of three phases needed to create a positive visitor journey.

Scienceworks' goal is to allow children to play with science; the museum creates exhibitions and activities that help engage and educate children. Based on the survey results

[2] Daily activities populate the blank area in Figure 25. The schedule actively changes.

at Scienceworks, we researched interactive maps and map designs for both children and adults. The research on possible map designs was delivered to Museum Victoria in order to help their staff implement a new map in the future.

4.2.3: Alternative Map Research

Communication dynamics are constantly changing due to the surge of digital technology (Marakos, 2014). Venues such as the Lynden Park Mall in Ontario, Canada, now have digital directory maps that aid visitors in reaching their desired destination. The digital maps are interactive, meaning individuals can touch a desired location on the map, and the map will show visitors the path to their chosen location. Mall Maverick is one of the many companies that offers the ability to create interactive digital maps. The WPI team believes that Scienceworks, being an interactive museum aimed towards children, would benefit from an interactive map display that can be used by both children and parents alike.

An interactive map would be a great way for children to discover what Scienceworks has to offer. For a successful interactive children's map, there must be pictures and associated sounds (Matsil, 2015). Both images and sound help grab children's attention, drawing them to approach the device. Many children find it easy to adapt to new technology (Feist, 2013). Furthermore, colour is of great importance when attracting children, specifically bold colours and bright contrasts. Children respond more positively to bright primary colours than they do to muted or pastel blends (Daye, 2008). Moreover, the interactive map can include a short and simple explanation for each exhibition, followed by clear directions to the exhibition. However, the museum must write clear and simple descriptions to avoid confusing children who use the map. Finally, Scienceworks may also consider designing an animated character or mascot, as this has been proven to create stronger relationships between a user and a brand (Sherbill, 2014).

After discussing the possibility of implementing a digital display with Sue Grieve, Exhibition Project Manager, we discovered that the map and screen should be oriented in the same direction as the museum layout. For example, if the toilet is displayed to the right of the user on the map, then in reality the toilet should be to the right of the user. The digital screen should be close to the ground so that children can use it, but angled about 20 degrees from horizontal so that parents can also see and use the display. Using this display would be an ideal way for Scienceworks to show current events since display settings can easily be updated. Such a map extends beyond just offering navigational information; the map can be one of the 'activities' of Scienceworks. Being interactive, the map can be fun

and entertaining for children, can teach them small amounts of information, and can then tell them where to go to learn more.

4.3: Recapturing the Visitor Experience

As digital technology helps provide an ever-expanding range of ways to communicate with visitors and influence their decisions, the role online media plays in Museum Victoria's visitor journey must also be considered. It is important for Museum Victoria to constantly monitor their social media outlets in order to reflect on the negative comments and identify pain points in the visitor's experience. Pain points can be defined as problems or needs that visitors encounter throughout their journey, which organisations need to address. By working on understanding and correcting the issues identified by the general public through surveys and social media, Museum Victoria has the opportunity to recover the relationship with the dissatisfied visitor, thereby establishing the importance of maintaining and nurturing a relationship with every visitor in order to enhance the overall visitor journey.

Museum Victoria conducted on-site surveys between March 19 and March 29 to measure visitor satisfaction, receive recommended improvements, and create a visitor profile of *Jurassic World: The Exhibition*, found in Appendix E. Figure 26 is a word cloud that shows how visitors heard about *Jurassic World: The Exhibition.*

Figure 26: Word Cloud Shows How Visitors Found Out About the Exhibition

This word cloud creates an image of words, particularly responses to how visitors heard about *Jurassic World: The Exhibition*, and sizes the words based on the frequency of each response in the survey. As observed on Figure 26, *Facebook* is clearly one of the most predominant sources of information that visitors rely on, with almost half of the 252 *Jurassic World: The Exhibition* on-site survey respondents having heard about the exhibition through *Facebook*.

In addition to being a primary source of information, *Facebook* provides a pathway for visitors to reflect and comment on their museum experience (Marakos, 2014). To further

understand the nature of visitor reflections, we conducted a *Facebook* content analysis of the comments on the *Jurassic World: The Exhibition Facebook* Event page between March 19th and April 2nd. As previously shown in Figure 12, 'Distribution of all 730 responses on *Facebook*,' 104 comments, namely 'Post-Visit,' were from visitors who experienced the exhibition and identified positive and negative themes in their journey. Figure 27 shows the 'Post-Visit' categories and themes.

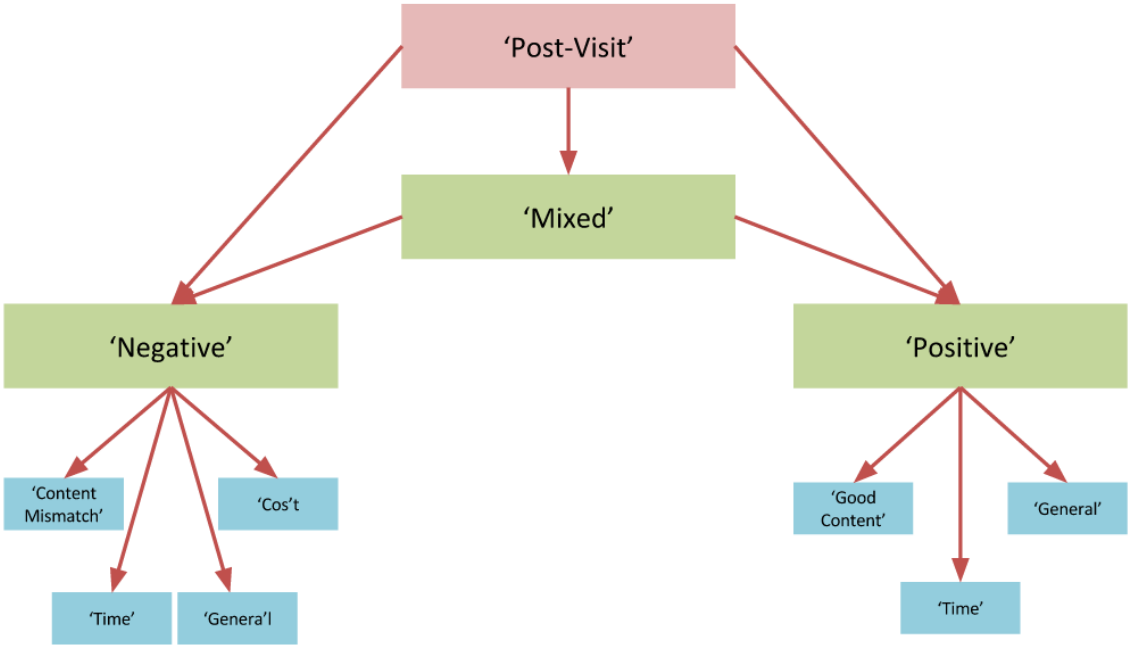
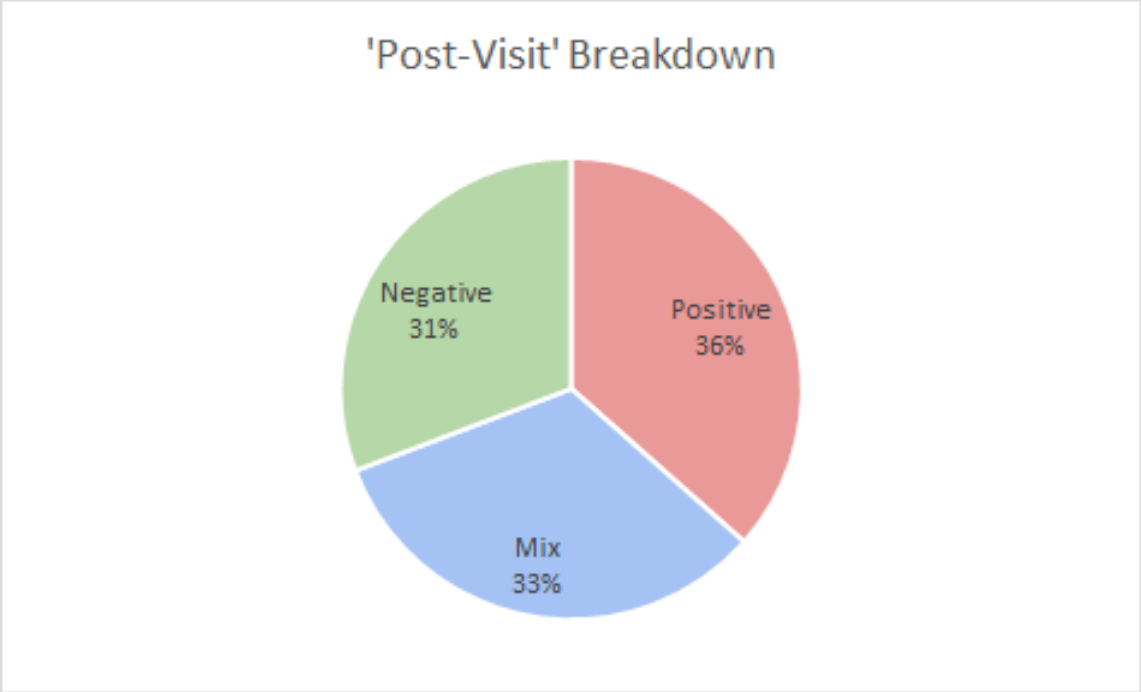


Figure 27: 'Post-Visit' Content Analysis

The experiential comments were placed into negative, mixed, and positive categories. The WPI team sorted the comments into these three categories by reading each comment or post and identifying the sentiment behind each comment with respect to the exhibition's goal. In this particular case, the goal of the exhibition was to create a realistic dinosaur experience. Figure 28 shows the distribution of categorised responses.



n = 104

Figure 28: Categorised Responses

The *Facebook* comments exhibited an even spread of negative, positive, and mixed categories, each accounting for about a third of the 104 comments. In the context of our project, mixed responses express both positive and negative themes. By extracting these negative themes, we identified pain points along the visitor journey.

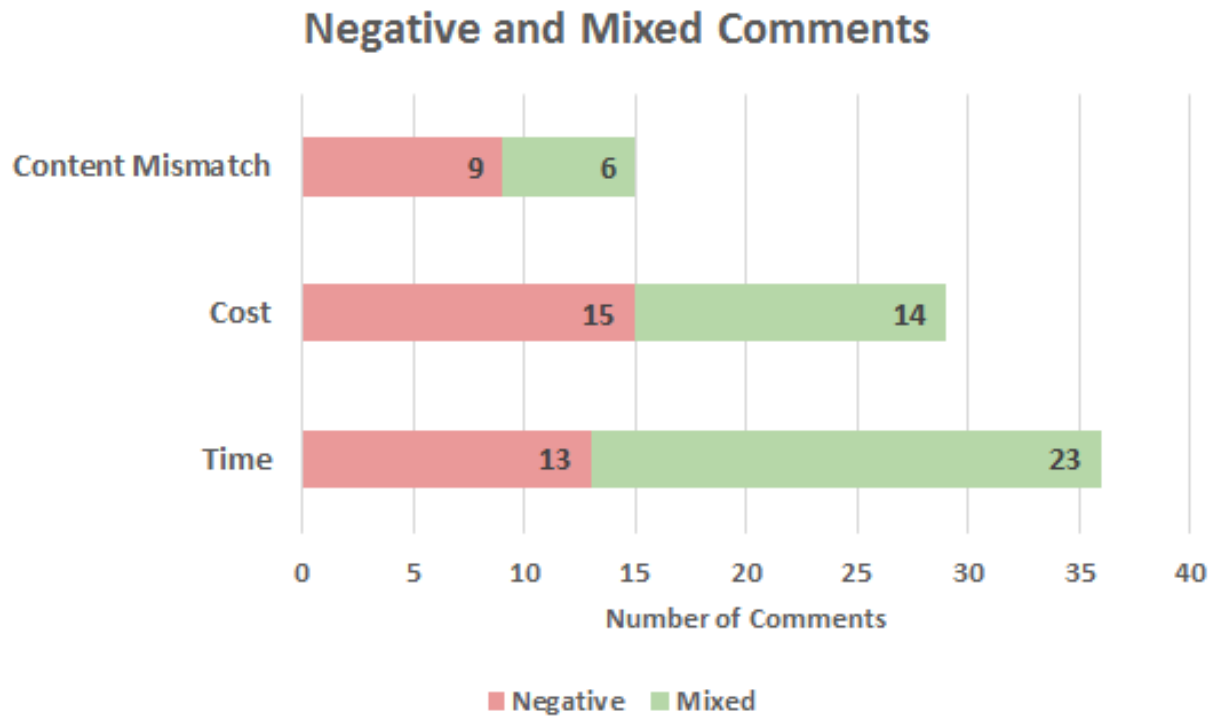
The 31% strictly negative *Facebook* comments or posts does not coincide with the relatively small proportion of negative responses found in the *Jurassic World: The Exhibition* on-site survey. In these on-site surveys, the exhibition was found to have a 3% dissatisfaction rate, with only 8 of the 252 people surveyed rating the exhibition poor or very poor. This phenomenon can be explained by the difference in sample type. Our *Facebook* analysis is composed of an invested sample, whereas the surveys are composed of a random sample.

The invested sample includes individuals who cared deeply about their experience and voluntarily gave their feedback and criticism. These individuals are characterised for being very interested in *Jurassic World: The Exhibition*; they are extreme ends in a population distribution since their passion motivates them to critically evaluate their experience. The random sample of the on-site survey is a representative sample composed almost entirely of non-extreme individuals, which accurately represents the entire sample population. By randomly choosing visitors, the museum received responses from a broad audience, as opposed to the invested sample that *Facebook* attracts.

To help explain the extreme negative comments, the article 'Bad is Stronger than Good' (Baumeister, 2001) argues that bad experiences resonate longer and have a stronger impact on an individual than good experiences. An example would be that people are more upset when losing $50 compared to being happy when gaining $50. Therefore, those who encountered a negative experience are more likely to comment about it on *Facebook*, explaining the high level of negative comments. When looking more in depth at the negative themes of *Facebook* comments, several themes stand out:

- Cost: Poor value or high entry cost;
- Time factors: The extended queue times and/or the exhibition's short timespan;
- Content Expectations: The promotional campaigns run by Museum Victoria included velociraptors, which led many visitors to believe velociraptors would be present in the exhibition. Since there were no velociraptors in the exhibition, some people's expectations were not met;
- General Disappointment: No specific reason.

Figure 29 shows the negative themes for each negative and mixed comment.



n = 66

Figure 29: Mixed Comments and Posts

Of the sixty-six comments, each of them contained at least one negative theme about the exhibition:

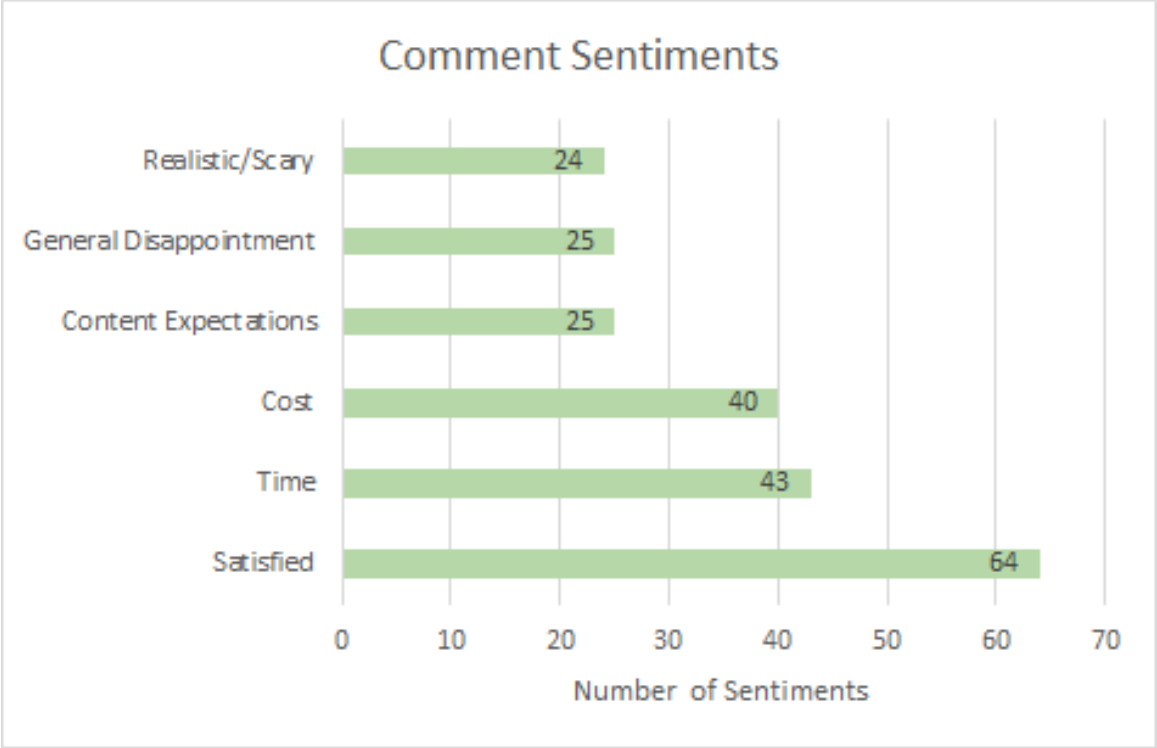
- Over half (36) of the negative comments complained that the exhibition was not long enough or that the exhibition's queue was too long;
- Nearly half (29) of the negative comments complained that the exhibition was too expensive;
- Nearly a quarter (15) of the negative comments complained about the lack of velociraptors within the exhibition.

Next, we counted the number of times different sentiments appeared in each of the 104 comments. In order to identify these sentiments, specific keywords and phrases were extracted. Figure 30 shows the main keywords or phrases used to identify the different sentiment:

Positive:						
Amazing	Want to come back		**Satisfied**	Anything general positive		
Brilliant	Want to go again		**Realistic/Scary**	Anything that dealt with the dinosaurs		
Dream come true	Worth it					
Loved it	Highly Recommend					
Well done	Realistic					
Awesome	Real dinosaurs					
Excellent	Lifelike					
Negative:						
Cost:	**Time:**	**Content Mismatch:**	**General:**			
Extra money for photo	Long queue time	No/Lack of velociraptors	Disappointed			
Expensive entry	Short exhibition	Lack of Dinosaurs				
Not worth the travel	Pressure to move					
	forward/cattle/herded					
Mixed:						
Cost:	**Time:**	**Content Mismatch:**	**General:**	**Positive:**		
Not worth the travel	Short exhibition	No velociraptors	Disappointed	Loved it	Incredible dinosaurs/realistic	
Expensive entry	Pressure to move	Lack of interactivity		Great	Good	
Photo overpriced	forward/cattle/herded	Lack of dinosaurs		Scared/Scary for young kids	Well done	
	Long queu line			Realistic	Dinosaurs were great	
				Enjoyed what was there	Great exhibition	
				Good exhibition	Amazing	
				Kids loved it	Quality was great	
				Enjoyed/Enjoyed it	Took our time	
				Dinosaurs are terrific	Brilliant	
				Really good	Brilliant dinosaurs	

Figure 30: Keywords or Phrases Categorised Into Sentiments

These keywords and phrases conveyed the emotions and opinions of different *Facebook* users, enabling us to determine their reaction to the exhibition. The words and phrases were grouped into overarching sentiments to compare the positive-to-negative sentiment ratio. Figure 31 shows the sentiment distribution across the 104 comments.



n = 104 comments

Figure 31: Comment Sentiment Distribution

Overall, there were 39% positive sentiments and 61% negative sentiments. Within the 104 comments, there were several instances where a comment contained more than one opinion or feeling towards the experience, explaining why the total number of sentiments is higher than the total number of comments. A limitation to our approach using keywords and statements is emotional relativity. Given the fact that human emotions experience a wide and varying range between depression and exaltation, different emotions are to be expected.

When comparing the *Facebook* analysis data sets to the *Jurassic World: The Exhibition* on-site surveys conducted by Museum Victoria, it is clear that there are similarities in the pain points. Both sets of results reveal that exhibition time is the most influential factor of the experience. The visitors desire more, whether it entails additional dinosaurs, extra time to spend within the exhibition, or a larger exhibition overall. Further pain points identified in both data sets include the negative impact of crowding and the lack of velociraptors.

When analysing the dissatisfaction that resulted from the *Jurassic World: The Exhibition*, it is essential to note the substantial contribution that the movie, *Jurassic World,* released June 11, 2015, has on the visitors' expectations. *Jurassic World: The Exhibition* on-site survey data show that 28% of the respondents attended the exhibition because of the movie, in which velociraptors played a major role. Other aspects of the movie that visitors

might presume to be part of the exhibition are the large number of dinosaurs and the extensive duration (2 hours and 4 minutes).

The movie set high expectations for the visitors and they view the exhibition as a chance to experience the life-like dinosaurs portrayed in the movie. Additionally, the advertisement campaigns intensified the visitors' craving for such life-like dinosaur experiences. After experiencing a short exhibition, and only a few dinosaurs, many visitors were left longing for more content and were unable to satisfy this longing through any other means. Keeping all the previous movie aspects in mind, it can be said that the exhibition did not fully deliver the experience some visitors were hoping to get.

5.0: Assessing the Deliverables

One of the goals the WPI team set out to accomplish was to create assessment tools that the CAP department could use for future research. These tools can be used to measure the effectiveness of different aspects of the visitor journey. The tools our team utilised were:

- Content Analysis of *Jurassic World: The Exhibition Facebook* event page;
- Immigration Museum Multilingual Tour App Survey;
- Scienceworks Visitor Map Survey.

This chapter will critique the evaluation tools we used to assess communications within Museum Victoria's visitor journey as well as create more effective evaluation tools based on best practices we identified.

5.1: *Facebook* Content Analysis

Museum Victoria can understand the comments regarding large scale exhibitions by analysing visitor reactions on social media. In doing so, Museum Victoria will further comprehend the strengths and weaknesses of the exhibition. To test our methods, the WPI team conducted a content analysis on Melbourne Museum's *Jurassic World: The Exhibition Facebook* event page. The goal of this analysis was to find pain points in the exhibition. By looking at both 'Post-Visit' and 'Pre-Visit' comments, the WPI team identified the main pain points in the exhibition along with the reason why potential visitors decided not to visit. After performing the content analysis, we developed an improved methodology for Museum Victoria in their analysis of social media comments from visitors touring future large scale exhibitions.

When conducting a future content analysis, Museum Victoria should follow a systematic process. First, keywords and phrases that are commonly found in the comments should be extracted. These keywords and phrases should then be organised into themes to help convey the reason behind the posts and comments. Finally, the themes should be organised into categories to help classify the data into two to five sections, thereby facilitating the analysis. For example, in our 'Post-Visit' analysis, the three categories included positive, negative, and mixed. This process ensures that the analysed results are reproducible and generalisable within an acceptable margin of error (Lai, 2015).

Considering the small size of our sample data, we did not carry out a research team calibration. Carrying out this calibration will verify that each researcher distributes the data into similar groups, categories, or themes. Calibration is important since it ensures that the process remains within a set of standards. By calibrating, a faster process is created and potential errors and mistakes can be prevented by avoiding bias. To calibrate, the researchers begin by analysing the content of a certain amount of data and then develop a

coding and classification scheme that is applicable to the entire data set (Bender, 2011). For example, each individual should first pull out the keywords. Then, each researcher should sort the keywords into themes. Once complete, the researchers should compare and discuss results to guarantee consensual judgement across all coders and the prevalence of a unanimous coding and classification scheme

The WPI team researched SPSS as a way to perform the content analysis but refrained from using it given its limitations. For such a small sample size, the margin of error is too large to justify the use of SPSS in text analyses. Therefore, SPSS should only be used to complete a content analysis with a large sample size. A detailed report on our experiences and the limitations of SPSS can be found in Appendix J.

5.2: Immigration Museum Multilingual Tour App Survey

To evaluate Immigration Museum's Multilingual Tour App, it was of utmost importance to first understand its goal. The intended goal of the Immigration Museum's Multilingual Tour App is to provide an enhanced experience for non-English speakers by bridging the gap between the communication needs of non-English speakers and the informational content available at the museum. To determine whether or not the app was achieving its goal, our team conducted research by surveying visitors at Immigration Museum.

The initial surveys did not allow for a substantial data collection of the app's multilingual capabilities due to two limitations. First, the data collection over a short time period combined with a low visitation rate made it difficult to gather sufficient feedback. Second, our English-only survey complicated our process of collecting feedback from non-English speakers. After identifying best practices from consulting with Jennifer Brook, Humanities Program Manager at Museum Victoria, the WPI team determined that an in-app optional 'Feedback' survey would more effectively target app users.

The in-app optional 'Feedback' survey should be available for completion at the end of the tour in each of the app's offered languages. Offering a multilingual survey will allow non-English speakers to effectively provide feedback. Furthermore, an in-app optional 'Feedback' survey will eliminate the need for surveyors at Immigration Museum, thus simplifying the entire data collection process.

5.3: Scienceworks Visitor Map Survey

Our team sought to measure the effectiveness of the Scienceworks Visitor Map. When surveying visitors, we inquired about the three main qualities of a good map: did the map help the visitor know where they are, tell them where they could go, and how to get there from their current location. After administering our surveys, we discovered that the majority of map users found the map effective. Furthermore, about three quarters of these map users were first-time users. Conversely, two-thirds of the visitors did not use the map because they were either already familiar with Scienceworks' layout or preferred to follow their children. Following our research at Scienceworks, we determined that surveying all visitors was not efficient in determining the effectiveness of the map. We consider it more fitting to target first-time visitors if Scienceworks wishes to further assess map effectiveness.

6.0: Recommendations and Final Thoughts

By understanding the individual teams within CAP, surveying visitors about the Immigration Museum Multilingual Tour App and Scienceworks Visitor Map, and performing a content analysis on the *Facebook* event page for *Jurassic World: The Exhibition*, our team developed methods and assessment tools to measure the effectiveness of parts of Museum Victoria's visitor journey. After gaining a deeper knowledge of the communications, the WPI team delivered assessment tools that will allow Museum Victoria to study future communications. This chapter presents recommendations to improve the communications studied.

6.1: Communications Recommendations

The WPI team measured the satisfaction of the on-site visitor experience by analysing two different communications: the newly created Immigration Museum Multilingual Tour App and the newly revised Scienceworks Visitor Map. Through visitor surveys, informal interviews with CSOs from Immigration Museum and Scienceworks, and discussions with relevant Museum Victoria staff members, the WPI team developed recommendations to further improve the Immigration Museum Multilingual Tour App and the Scienceworks Visitor Map.

6.1.1: The Immigration Museum Multilingual Tour App

The Immigration Museum Multilingual Tour App is part of a pilot program that was established less than a year ago and was in need of evaluation. After collecting data and feedback on the app, the WPI team compiled recommendations for the app itself and for the processes by which Museum Victoria promotes and offers the app. These include:

1. **We recommend implementing a promotional campaign both onsite and offsite, to raise awareness of the Immigration Museum Multilingual Tour App to its intended end-users**
2. **We recommend displaying larger and more engaging signs at the Immigration Museum ticket desk written in each of the languages offered in the app**
3. **We recommend including an in-app optional 'Feedback' survey at the end of the Multilingual Tour App**
4. **We recommend providing multilingual fact sheets to explain the device-loan process**

From our findings, the Immigration Museum Multilingual Tour App appears to fall short of fulfilling the goal for which it was originally designed. The app's intended goal is to provide an enhanced experience for non-English speakers by guiding them throughout the museum. Statistics from previous Museum Victoria studies show the app was downloaded by roughly equal numbers of English-speaking and non-English speaking visitors. The lack of visitor awareness surrounding the app's existence can be considered the greatest obstacle preventing the app from achieving its goal. Most visitors who attend the Immigration Museum do not know there is a free tour app available in different languages. Within the museum, there is only one sign advertising the app. This sign is located behind the ticket desk; however, many people do not seem to notice it. If the intended goal of the app is to attract non-English speakers, one considerable flaw is the signage design and placement. To the right, Figure 32 is a picture of the sign hanging behind the desk at the Immigration Museum.

Figure 32: Immigration Museum Multilingual Tour App Signage

The sign displays the names of the different available languages in their respective languages; however, it does not state that it is indeed a Multilingual Tour App. This can be confusing and detract potential users. In order to address the design and placement issues, Museum Victoria should consider advertising 'Multilingual Tour App' or 'Take the Tour!' in the different languages available, as well as adding larger signs both onsite and offsite.

To collect feedback on the content of the app, the WPI team recommends installing an in-app optional 'Feedback'

survey towards the end of the tour using our developed survey. The in-app optional survey will provide instant feedback from app users and will diminish the need for Museum Victoria staff members to survey visitors.

Another major hurdle that some visitors will face is the device-loan process. Unfortunately, due to the limited number of staff members, CSOs cannot take their time to teach the visitors the basics of the app. Additionally, since the entire device loan process is done in English, it is very hard for non-English speakers to easily utilise the device. To eliminate this language barrier, the WPI team recommends the creation of a fact sheet in other languages that helps guide non-English speaking visitors throughout the loan process.

6.1.2: Scienceworks Visitor Map

Since Museum Victoria implemented revisions to the Scienceworks Visitor Map less than a year ago, the map was in need of evaluation. Through data collection and feedback obtained from both the visitors and Scienceworks CSOs, the WPI team developed recommendations for the map. The improvements will help enhance the visitor's experience when attending Scienceworks. Recommendations for the map are split into two categories:

1. Physical Improvements to the Map Design;
2. Alternative Map Ideas.

Two important factors when re-evaluating the map are the small number of users who utilise the map and their reasons behind using it. The most common map user was a visitor attending Scienceworks for their first time. The first time visitor to a museum needs a wayfinding device, as well as any other informational resources offered by the museum. On the contrary, a repeat visitor does not need the map as they are familiar with the layout and do not feel the need to use a map. From our Scienceworks survey data and consultations with CAP and other relevant Scienceworks staff, we identified that children aged 0-12 are the museum's main target audience. Based on the predominance of these audiences, we propose the following recommendations:

1. **We recommend reviewing design issues and required information on the Scienceworks Visitor Map**
2. **We recommend installing an interactive digital map for children and adults**

The goal of the Scienceworks Visitor Map is to aid the visitor in navigating through the museum, as well as offering additional information about the museum's exhibitions and functions. Even though the majority of visitors currently believe that the map is achieving its goal, the WPI team and the Scienceworks staff members believe that the current

Scienceworks Visitor Map can offer much more. The WPI team issued map recommendations based on the discussion with Sue Grieve, Project Exhibition Manager:

- Elements of the map should be enlarged on the paper to make it easier to read;
- Locations in the map key should be in situ into the physical map;
- Icons (i.e. toilet, stairs, playground, etc.) should be larger;
- Key should have explanations of each exhibition and function;
- Key should clearly state what each location entails;
- Map should include pictures of the exhibitions;
- Map should include prices of special functions (i.e. the Planetarium Show and the Lightning Room Show).

Additionally, the WPI team recommends that Scienceworks implement a digital interactive map that can be used by both children and adults. Based on background research, the following specifications for an alternate interactive map design were issued:

- Have pictures and associated sounds;
- Use bright primary colours;
- Include short explanation of exhibits;
- Direct users from their current location to their desired exhibition or location;
- Incorporate more information (i.e. Show times, Ticket Prices);
- Orient the map in the same direction as museum;
- Create an animated character to develop a stronger relationship between children and the Scienceworks brand.

6.2: Content Analysis of Large Exhibition Social Media

Based on the recent launch of *Jurassic World: The Exhibition*, our team analysed the *Facebook* event page. Our research revealed the following problems:

1. Visitors desire more content;
2. Visitors believe the exhibition is expensive;
3. Visitors are dissatisfied with the lack of velociraptors.

Unfortunately, the exhibition is owned by Universal Pictures, and Museum Victoria does not control the entrance fees or the content of the exhibition. With that being said, our team has thought of the following recommendations for future large scale exhibitions to help prevent negative reviews:

1. **We recommend communicating future exhibitions using content from the exhibition**

2. **We recommend implementing a process where social media commentary on touring exhibitions be analysed each week in the first month of opening**
3. **We recommend developing strategies to reach out to individuals who no longer wish to attend the museum based on negative word of mouth**

It is in Museum Victoria's best interest that they continue to adjust to the visitor feedback in order to strengthen their goal of being an audience-driven organisation. As part of their continuous effort to respond to visitor feedback in a timely manner, Museum Victoria has started using a velociraptor to entertain people who are queueing to enter the *Jurassic World: The Exhibition*. Through these actions, visitors are now eager to attend the exhibition at the same time as the velociraptor is in the museum. Museum Victoria is now working to make the velociraptor a permanent aspect of the exhibition to better the visitor experience. However, this is not the first time visitors have had different expectations of the exhibition content. A previous exhibition, 'Tyrannosaurus' hosted at Scienceworks, had a similar issue of content expectations. A television ad contained a dinosaur rushing through Melbourne to reach Scienceworks. Individuals who witnessed the ad expected dinosaurs at the exhibition, and were greatly disappointed when that was not the case. To prevent visitors from complaining about content expectations, we recommend that Museum Victoria carefully consider the 'hooks' that it utilises to attract visitors to exhibitions, programs and events and ensure these 'hooks' match the content in the exhibition.

To further enhance audience engagement, Museum Victoria can utilise a *Facebook* content analysis for future exhibitions to help identify pain points along the visitor journey and quickly resolve them. Therefore, we recommend implementing a process where visitor's social media comments on touring exhibitions are analysed during each week in the first month of opening. Furthermore, it is in Museum Victoria's best interest to contact individuals who have explained they no longer wish to attend the museum. Museum Victoria should contact these individuals and attempt to resolve the issue that is keeping the individual from visiting the exhibition. Though this will not necessarily affect visitor count, this will help create much more personal relationships between Museum Victoria and its visitors.

6.3: Assessment Tools and Further Improvements to the Visitor Journey

After collecting data and analysing the communications, the WPI team delivered the following assessment tools:

1. Map Survey;
2. App Survey;

3. Method for Content Analysis.

These assessment tools allow Museum Victoria to study the effectiveness of a number of present and future communications. The WPI team recommends taking ‘Chapter 5: Assessing the Deliverables’ into consideration before applying any of the assessment tools to a study. The Scienceworks Visitor Map Survey can be utilised to evaluate the maps at both Melbourne Museum and Immigration Museum. Likewise, the Immigration Multilingual Tour App survey can be used to evaluate any future multilingual app initiatives, especially considering that Museum Victoria is currently exploring the idea of implementing a tour app at *Bunjilaka* Aboriginal Cultural Centre at Melbourne Museum. Finally, the methodology for a *Facebook* content analysis can be utilised for future exhibits. Through this process, the CAP department can identify pain points and quickly resolve them. After exploring the idea of using a statistical analytics software package, SPSS: Text Analytics, the WPI team decided to not pursue the idea due to time and cost constraints. However, we documented our experience with SPSS: Text Analytics, where we explain our use of the software, its strengths and weaknesses, and other details. This document can be found in Appendix J.

6.4: Conclusion

The goal of this Interactive Qualifying Project was to develop methods and assessment tools that can measure the effectiveness of a number of Museum Victoria's communications in directing visitors along the three stages of the visitor journey. First, the research at the Immigration Museum shows the Multilingual Tour App is not well known. Second, the current Scienceworks Visitor Map is mostly used by first-time visitors and underutilised by repeat visitors. Finally, the dissatisfaction among *Facebook* users who attended the *Jurassic World: The Exhibition* are a result of content expectations, cost concerns, and time-related issues. Through our background research and survey field work, the WPI team determined specific ways to improve the visitor journey by recommending changes in specific communication elements. The recommendations include upgrades to the Immigration Museum Multilingual Tour App and the Scienceworks Visitor Map. The WPI team worked on a framework that not only allowed us to gain a better understanding of the elements used within the visitor journey but that will also allow Museum Victoria to study and improve future communications, thus enhancing the overall visitor journey.

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Appendix

Appendix A: CAP Interviews

Introductory Scripts:
Hi! My name is (Name) and this is (Names). We are a part of the Worcester Polytechnic Institute team working for Museum Victoria on analysing their communications effectiveness. We would like to interview members of the CAP team to learn about the goals of the CAP team. With this information and other methods planned, we hope to create suggestions for a more effective communication platform.

(Name) will be taking notes on the questions I will be asking the interview questions. If there is anything during the interview you would like us to exclude from our final report, please let us know. Would you mind if we record the conversation?

Interview #1:

Name - Carolyn Jones
Position - External Relations Manager

What stage of the visitor journey (pre-visit, during the visit, or post-visit) does your team communicate with visitors?

“Overall, we work on activating interest in the exhibition before it actually opens. It is building up that interest and momentum so that people will get a taste of what the exhibition is. Then basically, people would want to book tickets and come and see the show. My team is really involved with driving the asset for the exhibition and try to think of creative ways of organising media stunts, to get the people interested in the exhibition. After this, media will start talking about it and run stories on it and then it will attract the people.”

Does the social media for Jurassic World fall under your team's responsibility?

“The Museum Victoria brand is managed by my team. But in terms of social media across all the sites, that is managed by the Branding team. Particularly with Jurassic World, that was managed by the Branding team activating a lot of those posts.”

How does your department/branch help contribute to improving the visitor journey?
“It is not so much improving it. It is more about informing by the ways we do in terms of getting media interested and organising media events to informs visitors. Again, it is informing them, so then they will know enough about the exhibition that they want to come visit. We try to help the visitor understand what they are seeing/about to see. It might be an exhibition or it might be a short-term educational program.”

What is your approach to communications?

“We don't have a lot to do with the visitors. My end goal is to get them to come through the doors. I must admit that we do not have much to do with the visitors. Maybe the brand team deals with that since they are the ones monitoring comments on social media.”

What methods do you see being successful? How do you know if it is successful? Why do you think that?
“I think it is about being creative in terms of getting that media interest. If we don't get the media interest, potential visitors would not know about the exhibition. We have to be creative and we also need to have contacts in the media. Example of what we tell media: We have this picture opportunity that is coming up, there is opportunity for great footage. You should try and come. We have to proactive in terms of chasing up the contacts, so that they can come and cover it. And then it will feed out to the broader media, and then potential visitors will see it. We did a media event with the raptors, which the minister came to that, so that was organised by us.”

What methods do you see as unsuccessful? How do you know if it is unsuccessful? Why do you think that?
Not really.

Is there a way to measure media effectiveness?
“We get our media monitoring (3rd party company), which tell us audience reach. So with Jurassic World, I have requested a special report from our media monitors. These reports give us an overviews on media activity over the last 3 months leading up to the exhibition. This includes social media activity. Social media hits and traditional media will be taken into account.”

What would you like to improve? How?
“We are doing a pretty good job already. The brand team is focusing on the social media space. We do more on the traditional media side. Being able to do both well is great since it gives you so more exposure to different demographics and people.”

What do you envision to be the next way to communicate with visitors?
“I think it's improving. I think we interact pretty well with our visitors. It's not my area of expertise. The customer service officers are trying to be welcoming to visitors and to make them feel wanted here. I think the overall experience here would be pretty positive for visitors.”

What would you say is the most effective media?
“I think it is a combination. I think that traditional is still very influential. We find that typically a lot of what is on the traditional mask heads (i.e. Herald Sun), whether it is the digital or the printer form, is actually followed up by radio and commentators. So, I do think traditional media does play a big role in getting other media interested. I think there is a place for both social media and traditional media. When you think about it, scrolling through your feed (social media feed) is very quick. You look at something quickly and then move on to the other, whereas if you're looking at traditional media, whether it is digital, printer or the TV news, you get more time to hear, see, and process it.”

“I suppose my team does more earned media. That is where we are more proactive, since we are trying to get media to come to us for free. It is not costing us anything. My team works more in that earned space.”

Some of the challenges your team faces?
“Trying to talk to media to coming here, trying to getting them interested, whether it is a photoshoot or an event with the minister, is hard. We might think it is something interesting but there might be other more important news. Sometimes, we can be lucky and not a lot else is going on news wise. Sometimes, it is the luck of the door. Newsrooms sometimes don't have many newsgroups to send out to cover stories, so that is challenging as well.”

Interview #2:

Name - Jareen Summerhill
Position - Senior Manager Branch and Audience

What stage of the visitor journey (pre-visit, during the visit, or post-visit) does your team communicate with visitors?
“My perception is that we do a lot of the pre stuff, the during is often a collaboration with other people. And then the post, we also work with customer service to correct any gaps. We deliver value in the pre and getting people to come to visit. We want to make sure that what we say in the pre will be delivered on site, during the visit. We want to meet expectations.”

How does your department/branch help contribute to improving the visitor journey?
“We're just one part of the puzzle and everyone needs to play a part of mapping the visitor journey. For us as an organisation, because we’re trying to be audience-led, it means that we want everyone thinking about our audiences. Think of their journey and how they interact with us. That's a way to improve the overall perception. We just play A ROLE. Customer service is very important to understand what people are saying on-site. I'm also responsible for the brand. It's what we stand on, it's how we connect with the audiences. Visitor journey is important because it keeps people coming back.”

What is your approach to communications?
“Just like the organisation is audience-led, our communication is also audience-led. From a marketing point of view, an entity should be audience-led. But it's becoming more common in the industry market. Understanding the motivation of visitation is important.”

What methods do you see being successful or unsuccessful? How do you know if it is successful or unsuccessful? Why do you think that?
“I define success in my team in terms of conversion. My definition of convert is I've told someone something, and they've taken action. That action can be positive, negative or neutral. Specific methods that have been successful are social media. Having that relationship is so much stronger than a TV ad because you can get that immediate reaction. It's "free" but there's an opportunity cost to it. 15 sec ad = $3-5k. For a TV ad to be effective, you have to play it at least 20 times in order for them to convert. As for social media, you can have a relationship and add value to their lives. For the longer term, you don't have to spend that much money. And also, when you build social media, you have an engaged and excited audience. Success is if you can build an intimate, connected relationship with your audience.”

“Social media can also be unsuccessful. Through a third-party is awful. Facebook always changes their algorithm and since they don't change their algorithm, we can't control that. From the total number of followers, we can only reach 1-2% of them with each post. We try to think about our content to reach more people more organically. There's a risk, you have to depend on them.”

What would you like to improve? How?
“One improvement is internally. How can we work better together? How do ensure that everyone understands the audience, understands what we want to achieve. We don't often have the opportunity to work cohesively.”

“Externally, the challenge is how do you build/create your organisation to make sure it's relevant to the audience when you have so many audiences. How do you build all three museums’ so it is loved by everyone, without appearing grey or boring”?

How do you accomplish this without being grey and boring?

“Being a gov't organisation, we can't comment on a lot of important topics. People want us to have an opinion, but we can't since we have to appear neutral. We can only present the facts. How can you facilitate a debate without appearing biased?”

What do you envision to be the next way to communicate with visitors?
“We're trying personalisation. How do you personalise and make an experience awesome and tailor it to what an individual wants? How do you tailor the experience so that it's personalised to me? The value it can bring is so strong. It's so relevant to ME. We're not just one group, we're individuals. The museum is beyond the museum facilities. Wouldn't it be great to be able to push content onto followers and attract them back to the museum?”

Can you explain/describe BOE (for Jareen)?
“BOE is a framework that helps us prioritise what we buy and how we communicate.
Buy media. The role of Bought media is to reach a broad audience to get strangers. Owned is the channel we can control. We can control the message, the environment, the website, the newsletter, etc. they're getting what they need to get to convert them. Earned is that word of mouth. You rely on others to write something good about you.”

Interview #3:

Name - Rod Macneil
Position - Head of CAP Team

What are your specific tasks as head of the CAP team?
"I'm Responsible for brand and audience development, self-generation revenue through partnerships and through individual fundraising programs."

What's your involvement with each branch?
"I need to make sure what we bring on the floor meets visitation targets. And I am responsible to see and anticipate where the organisation needs to go and set a strategy to reach that"

How do you determine the CAP team works together in an efficient manner?
"So we have a strategic objective, continually grow our audiences. As a state organisation, we need to be accessible to all Victorians. So we should constantly aspire to broaden our audience. We use audience research to understand who is coming and who is not coming. Where the opportunities and barriers are. Run campaigns to track those audiences. Use surveys to test who our audience is."

Why was the CAP team formed 3 years ago?
"One – two years ago we didn't have a corporate partnership or philanthropy. The executive thought we should diversify the income. I was given fundraising partnerships to establish a program. On the communications side, we had a marketing and PR team and they would build across the 3 museum's and Imax as well. So we had dedicated PR and marketing at each venue. Many cuts in the organisation led to not enough resources to have one at each venue. MV network was separated and was not allowing us to think in a 'network' way, so the CAP team was created to be much more fluid. We also wanted to organisation to switch from product led to audience led. We have a product and wait for audience to arrive as opposed to what does the audience want and how do we engage them. Now we could structure the team around the audience. Audience becomes first."

What positive outcomes were there?
"We are much smarter at communicating with audiences and much more targeted with communication. Which makes us more efficient. Our budget has gone down each year, still doing well with visitation targets. We're working effectively with audiences. "

What would you define as the visitor journey?
"From the moment of the idea of the visit to the point where they have gone home and resolved their visit."

What is your approach to communications?
"Making sure we know what they want to hear. Which means we know who our audiences are, we know how they like to communicate, and we know what they need to hear to drive them to visit."

What methods do you see being successful/unsuccessful? How do you know if it is successful/unsuccessful? Why do you think that?

"I think there is Jurassic is a great example of a huge success. Next, North South Feast West is a program at Immigration Museum, where we work very closely with ECP (Education and Community Programs department). We start with the audience we want to reach and how do we build a program and communication around that. We launched an entire festival series completely out of nowhere. There is nothing like it at the Immigration Museum. We want to build that night-time audience. We were hugely successful the first year. This year we have beginning to hit all of our target audiences. That is a really good example of where we are succeeding.

With Scienceworks, you have been there and you have seen it. We cannot stop people from coming to Scienceworks. We can just shut down all of our communications and you will still see floods of people through the doors anyway. What we want to do there is to start evolving that audience to broaden the age range. So right now, as you would see, it is pretty young. It is children 3-8. We want to move it that up to 2-12. So that is obviously a long-term proposition that we need to do without losing our core audience. We want to expand that out. So it is how we work with the exhibition builders as well to make sure that we are creating things that will work well with them. need to do it over time.

For Melbourne Museum, Jurassic is pulling in our core audience. We are seeing that ¾ of the people that go down there (Jurassic World) are coming back to the house. It is a really good result for us.

What hasn't worked:

In the case of North South Feast West, it is our short-sightedness. In setting the task of reaching the audience, we did not fully think about how to build the audience into the Immigration Museum audience. It is easy to get an event audience, but the challenge is how to make them into a visitor audience. It is great having them in the courtyard through February, but how do we get them coming back into our galleries in July. So in that first year, we did not see any visitation from North South Feast West event visitors. Across the second year we were thinking into making them into visitors and I think we are taking steps in the right direction. For me, coming back to how I communicate with the audiences, I do not think you start a conversation that you do not want to sustain. You do not want to start engaging a new audience if you have no plan for whether you intend on keeping them on their toes. We are now in a position where we have developed that audience, we do not want to lose them, so we have to keep investing on keeping them coming. But I do not think we had that trajectory or that mind-set.

Our audience model is the core business. It is anyone who has come over the last year. We have two developing audiences. We have developing one, which is people who have been over the last three years and then we got developing two, which is people who have never visited, but we know they are inclined to visit. We know from their behaviour that they do go to cultural organisations and they are likely to come to ours but have not made that visit yet. So, by looking at that second developing audience, the opportunity for growth is there. We have to identify where the gaps are and how we engage those people. And that is how we grow. That is what we target museum by museum."

What do you envision to be the next way to communicate with visitors?
“We will get more and more individualised. Content will be pushed onto the visitor through their device, as you cross the plaza, as you walk to the museum, as you walk to a shop that we’re affiliated with. We will push information that will trigger to visit. Right now, the individual has to come to the information and the next step is to provide a highly individualised set of information that arrives at the user.”

How does BOE tie back to Visitor Journey?
“Knowing the right channel for which part of the journey. Getting the right message through the right platform at the right time of day.”

Interview #4:

Name - Kate
Position - Head of Family Branding

What stage of the visitor journey (pre-visit, during the visit, or post-visit) does your team communicate with visitors?
“My team contributes mostly to Pre visit stage because most of my communications are about talking to people before they get here to encourage them to come and then I would give an even weight to during and post.”

How does your department/branch help contribute to improving the visitor journey?
“That can be explained by a campaign. Because mostly when I’m spending money out there and talking to people it’s when I have this visitor campaign to promote, so Jurassic. It’s a really hard example because we didn’t have a lot of content to show what the visit would be, until we open. So now that we’re open we can use different channels to show video content to show what the visitor experience would look like, but generally when we’re talking about school holidays, we aim to produce content that will replicate what the visit will be like.”

What is your approach to communications?
“My approach would be around research first, understanding the audience, and what communication tools they’re using. Then I would use a framework of a BOE approach to get to them.”

What methods do you see as unsuccessful/successful? How do you know if it is unsuccessful/successful? Why do you think that?
“Depends on the audience, need to identify the audience before saying which would and wouldn’t work.”

“Audience team is used to measure the success to see if we reach visitation, we then know we’ve successfully gotten people through the door. Then we evaluate how they heard about it.”

What would you like to improve? How?
“Improve the internal communications within the entire organisation. There is a bit of a hole there. With an outside view, understand different strategic thinking about how to reach audiences.”

What do you envision to be the next way to communicate with visitors?
“Comes down to who we are trying to reach, younger demographic is different, uses social media, Facebook is setting up a new search that works differently. Digital advertising is changing a lot and is important.”

Appendix B: Immigration Museum App Survey

Immigration Museum App Survey

Introduction

Page exit logic: Skip / Disqualify Logic
IF: Question "Did you use the app during your visit today?" #3 is one of the following answers ("No") **THEN:** Jump to page 4 - Reason for Not Using App & Get to Know Melbourne Pamphlet

Hello. My name is [say name]. How are you today?

I am asking visitors to the Immigration Museum about a service that is available for use by visitors and whether there are improvements that can make the experience of it better.

Would you be interested in participating in a visitor survey? It should take around 5 minutes to complete.

LOGIC Show/hide trigger exists.

1. The museum has developed an app that people can use as a guide to the museum. This app is available in different languages. Are you aware of this app? *

- ○ Yes
- ○ No

LOGIC Hidden unless: Question "The museum has developed an app that people can use as a guide to the museum. This app is available in different languages. Are you aware of this app?" #1 is one of the following answers ("Yes")

2. Where did you first hear about this app? *

- ○ Here today on arrival
- ○ Other Museum Victoria museum
- ○ Visitors Information Centre
- ○ Online, museum website
- ○ Online, other website
- ○ Brochure
- ○ Other, please specify

LOGIC Show/hide trigger exists.

3. Did you use the app during your visit today? *

- ○ Yes
- ○ No

Rating and Improvements

4. Did you...

- ○ Download it onto your own device before you came
- ○ Download it onto you own device on arrival
- ○ Borrow the museum device

5. In which language did you download the app?

- ○ English
- ○ Arabic
- ○ Mandarin
- ○ French
- ○ Italian
- ○ Japanese

Why did you choose to use it?

- [ ] For the information about the museum
- [ ] For the map
- [ ] For the tour
- [ ] it is in my language
- [ ] other, please specify

6. Thinking of your use of the app, where do you think the multilingual app sits on this scale? *

Easy to use — Difficult to use

7. Thinking about understanding how to use the app, where do you think the multilingual app sits on this scale? *

Easy to understand — Hard to understand

8. Thinking about any instructions, where do you think the multilingual app sits on this scale? *

Clear — Unclear

9. Thinking of the information in the app, where do you think the multilingual app sits on this scale? *

Content rich — Content poor

10. Thinking again of the information in the app, where do you think the multilingual app sits on this scale? *

Useful — Not useful

11. And in regard to your expectations of the app, where do you think the multilingual app sits on this scale? *

Exceeded expectations — Did not meet expectations

Visitor Feedback

12. What could be improved with the app?

13. And thinking of future development, are there other features you would want an app like this to include? *

Reason for Not Using App & Get to Know Melbourne Pamphlet

LOGIC Hidden unless: Question "Did you use the app during your visit today?" #3 is one of the following answers ("No")

Why did you choose not to use the app? *

- Did not know about it
- Did not want to download it
- Too busy, not enough time
- I've been here before
- Other, please specify

LOGIC Hidden unless: Question "The museum has developed an app that people can use as a guide to the museum. This app is available in different languages. Are you aware of this app?" #1 is one of the following answers ("No")

14. If you knew about the app, would you have used it?

- Yes
- No
- Maybe

LOGIC Show/hide trigger exists.

15. The museum also produces a number of brochures for visitors. Have you seen this brochure?

- Yes
- No

LOGIC Hidden unless: Question "The museum also produces a number of brochures for visitors. Have you seen this brochure?" #15 is one of the following answers ("Yes")

16. Where did you first see it?

- Here today
- Visitor Information Centre
- At my hotel
- Elsewhere

Demographics

And finally, some questions about you.

17. What is your age?

- 18-24
- 25-34
- 35-44
- 45-54
- 55-64
- 65+
- Decline to answer

18. When was your last visit to the Immigration Museum? *

- never been before
- within the last 12 months
- 1 - 2 years ago
- 2 - 3 years ago
- more than 3 years ago
- cannot recall

19. Who did you come to the museum with today?

- ☐ alone
- ☐ parent
- ☐ grandparent
- ☐ spouse or partner
- ☐ adult child
- ☐ another adult relative
- ☐ adult friend or friends
- ☐ organised group, club or tour
- ☐ own children, under 18 years
- ☐ grandchildren
- ☐ other related children
- ☐ other unrelated children
- ☐ other
- ☐ cannot say

20. Do you live in Australia? *

IF YES, What is your home postcode? _____

IF NO, Which country do you live in? _____

21. Any further comments?

_____

That completes the survey. Thank you for taking the time. The information you have provided will be used for research purposes and is strictly confidential as required by the Museum Victoria's Privacy Policy.

Please enjoy the rest of your day!

22. Gender *

- Female
- Male

23. I certify that this is a true, accurate, and complete interview.

Interviewer's initials:

24. Date (DD) *

April 2016

25. Notes

Thank You!

Thank you for taking our survey! Your response is very important to us!

Appendix C: Scienceworks Visitor Map Survey

Scienceworks Visitor Map Survey

Introduction

Page exit logic: Skip / Disqualify Logic
IF: Question "Did you use this visitor map today?" #2 is one of the following answers ("No")
THEN: Jump to page 4 - Reason for Not Using the Map & Get to Know Melbourne Pamphlet

Hello. My name is [say name]. How are you today?

I am asking visitors to Scienceworks about how useful and effective the visitor map is.

Would you be interested in participating in a visitor survey? It should take around 5 minutes to complete.

1. When was your last visit to Scienceworks?

- ○ Never been before
- ○ Within the last 12 months
- ○ 1 - 2 years ago
- ○ 2 -3 years ago
- ○ More than 3 years ago
- ○ Cannot recall

LOGIC Show/hide trigger exists.

2. Did you use this visitor map today?

- ○ Yes
- ○ No

Using the map

3. Was this your first time using the map?

- ○ Yes
- ○ No

4. Why did you use the map today? *

- ☐ Not familiar with Scienceworks, didn't know where to go
- ☐ Exhibit information purposes
- ☐ Navigation purposes
- ☐ Other

5. Which of the following describes your map experience?

	All of the time	Most of the time	Sometimes	Never
The map made sure I knew where I was	○	○	○	○
The map helped me reach my desired destination	○	○	○	○
The map gave me ideas of where to go to next	○	○	○	○

Rating and Improvements

6. Was the map easy to follow?

Not easy to follow — Easy to follow

7. Was the map detailed?

Not Detailed — Detailed

8. How often did you use the map during your visit?

Not Frequently — Frequently

9. Overall, how satisfied are you with the map?

Not satisfied — Satisfied

10. What could be improved with the map?

11. What other features do you wish the map could provide?

Reason for Not Using the Map & Get to Know Melbourne Pamphlet

LOGIC Hidden unless: Question "Did you use this visitor map today?" #2 is one of the following answers ("No")

12. Why did you not use the map today? *

- ☐ Familiar with the layout
- ☐ Don't understand the map
- ☐ Didn't want to use the map/ don't like maps
- ☐ Other - Write In

LOGIC Show/hide trigger exists.

13. The Museum also produces a number of brochures for visitors. Have you seen this brochure?

- ○ Yes
- ○ No

LOGIC Hidden unless: Question "The Museum also produces a number of brochures for visitors. Have you seen this brochure? " #13 is one of the following answers ("Yes")

14. Where did you first see it?

- Here today
- Visitor Information Center
- At my hotel
- Elsewhere

Demographics

15. What is your age?

- 18 - 24
- 25 - 34
- 35 - 44
- 45 - 54
- 55 - 64
- 65+
- Decline to answer

16. Who are you visiting the museum with today? *

- [ ] alone
- [ ] parent
- [ ] grandparent
- [ ] spouse or partner
- [ ] adult child
- [ ] another adult relative
- [ ] adult friend or friends
- [ ] organised group, club or tour
- [ ] own children, under 18 years
- [ ] grandchildren
- [ ] other related children
- [ ] other unrelated children
- [ ] other
- [ ] cannot say

17. Do you live in Australia? *

If Yes, what is your postal code

If No, which country do you live in

18. Any further comments?

That completes the survey. Thank you for taking the time to complete this survey. The information you have provided will be used for research purposes and is strictly confidential as required by the Museum Victoria's Privacy Policy.

Please enjoy the rest of your visit to the museum!

19. Gender *

- Female
- Male

20. I certify that this is a true, accurate, and complete interview.

Interviewer's initials:

21. Date (DD) *

April 2016

Thank You!

Appendix D: Immigration Museum Multilingual App Audio Guide Loan Statistical Study

		Language accessed									
Date		Arabic	English	French	Italian	Japanese	Mandarin	**Sub Total**			Comment
15-Aug	Onsite Loan	0	60	20	20	10	16	**126**			
Sep-15	Onsite Loan	2	69	7	25	26	32	**161**			
15-Oct	Onsite Loan	0	100	18	38	9	14	**179**			
Nov-15	Onsite Loan	0	84	40	19	15	23	**181**			German requested
Dec-15	Onsite Loan	2	90	45	21	11	35	**204**			German requested
Jan-16	Onsite Loan	0	152	65	42	21	26	**306**			German requested
Feb-16	Onsite Loan	0	124	45	16	43	62	**290**			German, Swedish & Dinka requested
Totals:		4	679	240	181	135	208				
							TOTAL	**1447**			

Arabic	**0.3**
English	**46.9**
French	**16.6**
Italian	**12.5**
Japanese	**9.3**
Mandarin	**14.4**

Number of downloads over 6 months	1157
Approximate amount of downloads in a year	2300
Number of visitors to Immigration Museum in a year	132000
Percentage of visitors who are international visitors and do not use English as their main language at home	16%
Total number of international visitors who do not speak English as their main language at home	20909
Ratio between yearly app downloads and total number of non-English speaking visitors	11%

MUSEUM VICTORIA | Immigration Museum | Audience Insights

Immigration Museum At a Glance 2012-13

DATA SOURCED FROM ADMISSIONS AND SURVEY DATA.

Visitors 132,883

Average visitors per day 366

Busiest date. 26 May 2013 (Chocolate Festival: 3,006)
Least busy date ..... 16 July 2012 (116)
Busiest day of week ..... Wednesday (average 430)
Least busy day of week ..... Saturday (average 229)

Type of visitor

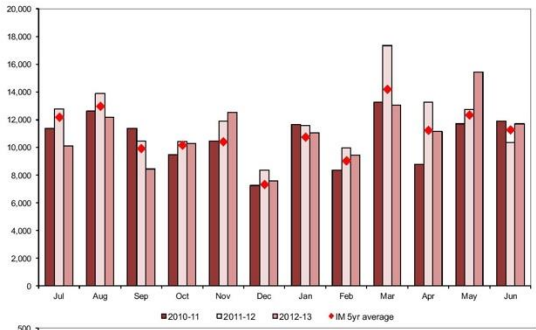
- Independent 60%
  - *metropolitan Melbourne* *21%*
  - *regional Victoria* *4%*
  - *interstate* *11%*
  - *international* *24%*
- members 3%
- education 37%

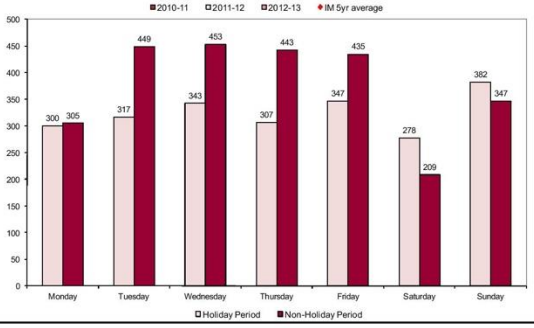
Visitation patterns of visitors

- first visit 86%
- been in the last year 6%
- been more than a year ago 8%

Cross-venue visitation

- Melbourne Museum 44%
- Scienceworks 25%





IM attracts a higher % (not number) of international and education visitors than other MV venues, but fewer MV Members. May 2013 was the busiest month (attributed to the Chocolate Festival) and December 2012 the quietest. Key days of visitation: Wednesday, followed by Tuesday. Cultural Festivals draw the biggest crowds, with these three dates accounting for 6% of total visitors. Festival Days account for 17% of all Members visitation throughout the year. Melt: Chocolate Festival was the highest attended festival in the history of the Immigration Museum.
Education accounts for more than one third of all visitors to the Immigration Museum, with Year 9 and Year 6 students the most visited year levels.

Reach: Top places (LGA) where visitors come from in:

Metro Melbourne	Regional Victoria	Interstate	Overseas
Melbourne	Greater Geelong	NSW	UK/Ireland
Boroondara	Ballarat	QLD	Europe
Port Phillip	Greater Bendigo	WA	USA
Moreland	Latrobe	SA	New Zealand
Whitehorse	Macedon Ranges	TAS	North Asia

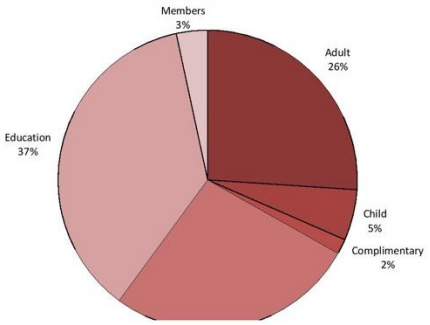
Ticketing

- Adults 34,613
- Child 7,288
- Concession 35,771
- Complimentary 2,168
- Members 4,484
- Education 48,559

Visitation is up 1% against the 5 year average

Members visitation up 26% against the 5 year average

Education visitation up 4% against the 5 year average



Average length of visit 1hr 46min

Where they visit	visitation	rating
Immigration exhibitions (Level 1)	92%	94%
Identity (Level 2)	81%	92%
Community Gallery	79%	90%
Leaving Dublin (Level 2)	78%	89%
Discovery Centre	24%	90%
Ground floor gallery	24%	87%
Tribute Garden	15%	87%

Immigration Museum rating 93%

Segments (5 yrs average)

	MM	SW	IM
Informer	49%	31%	**52%**
Duty Bound	19%	11%	29%
Easy Rider	27%	54%	14%
Inspirer	5%	4%	4%

Leaving Dublin

38% of visitors to the Immigration Museum are aware of the temporary exhibition Leaving Dublin before arrival. Of those aware of the exhibition, half came specifically for it. Outdoor signage strongest source of awareness followed by an online presence.

It has a high score rating of 4.35 (out of 5). Visitors liked the positive and enjoyable experience they had followed by the insights and information visitor's gained through the migrant's stories. Inversely the greatest improvement was the desire for more information on their background & stories, and a greater variety in presentation of material (photography). Primary reasons for not visiting the exhibition include a general lack of time or interest.

Average size of group 2.1

Group Composition

- alone 29%
- with adults only 62%
- adults and children ≤17 years 9%

Who accompanied by

- spouse / partner 44%
- alone 29%
- adult friend 13%
- adult relative 4%
- parent / grandparent 6%

Age of visitor (excluding education groups)

- Under 25 years 9%
- 25–39 years 22%
- 40–59 years 31%
- 60 + years 37%
- *average age of visiting adult* ..... 51 *years*

Gender

- Female 57%
- Male 41%

Ancestry (self/parents)	Metro Melbourne	all	Census 2011
Aust. born/ Aust. born	43%	32%	53%
Aust. born/ O'seas born	16%	9%	20%
O'seas born/ O'seas born	40%	59%	27%

English as main language spoken at home

- Metropolitan Melbourne 91%
- International 66%

Socio-economic status

- in the AB quintile 32%

Work status

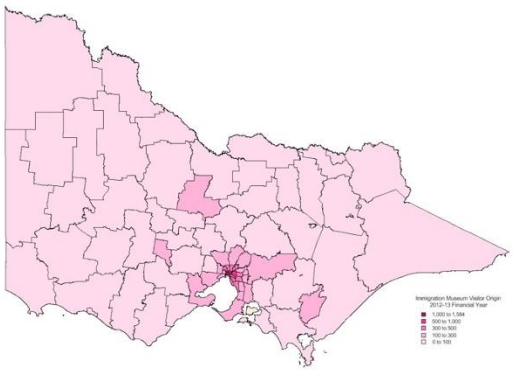
- working full- or part-time 57%
- retired 26%
- student 8%
- home duties 3%

Tertiary qualified visitors 69%

Immigration Museum attracts a high percentage of first time visitors with repeat visitations highest among Melburnians at 25%. Few visitors have been to a previous exhibition in the east gallery space though this can be attributed to the high percentage of new visitors. International visitors were identified from 96 different countries.

Visits to IM tend to be short and concentrated, with the average length of time consistent over that past 2 years. The most "typical" group is a pair of adults. Very few visitors bring children under 17 years of age, though this is more likely to occur during school holidays. IM has a greater variety of age groups distributed across the MV venues, with 1 in 4 visitors a retiree. The average adult and child ages are the highest among all MV venues.

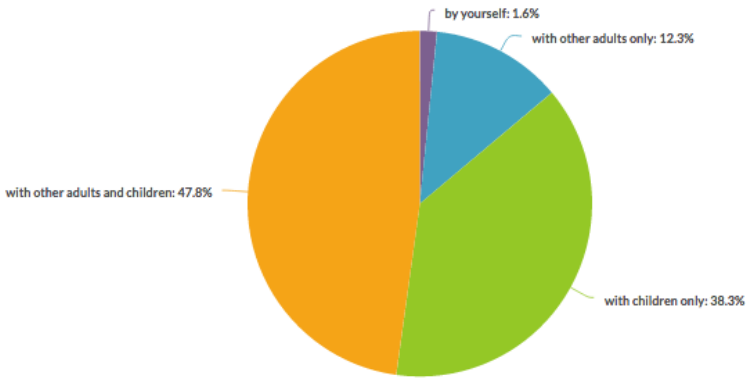
Victorian Postcode Collection



Appendix E: Museum Victoria Conducted Scienceworks Survey: Survey Gizmo Report

553/642 attend Scienceworks with Children

13. Who did you come to the museum with today? Was that . . .



Value	Percent	Count
by yourself	1.6%	10
with other adults only	12.3%	79
with children only	38.3%	246
with other adults and children	47.8%	307
	Total	642

Appendix F: Museum Victoria Topline Report for *Jurassic World: The Exhibition*

MUSEUM VICTORIA | Melbourne Museum | Audience Insights

Topline Report

Report No. 992

JURASSIC WORLD: THE EXHIBITION SUMMATIVE EVALUATION

SURVEY PERIOD: 19 March – 29 March 2016
RESPONDENTS: 252 respondents. Surveys A 146 completed respondents, Survey B 93 completed respondents and Original survey 13 completed respondents
NOTES: the original survey was split into two due to feedback received from the interviews about the length of the survey. Questions relating specifically to survey A or survey B have been identified in the question headings.
METHOD: exit survey conducted onsite at the museum

Summary:

- Attracts a strong **Elite Segment** to the Museum with 28% of all Victorian visitors Elite compared to 4% typically seen on the museum floor.
- There is a split between adult groups and family groups. Visitors are younger adults between the ages 18 – 44 years. Children tend to be in the 4 – 9 year old bracket.
- 1 in 3 visitors to Jurassic World were new visitors to the museum. These visitors tend to be the tourists (Interstate or International).
- Average length of time 45 minutes. Time varied between respondents with 16% spending less than 30 minutes in the exhibition and 16% spending over 1 hour in the exhibition.
- **95%** of visitors aware of the exhibition before they visited the museum.
    - Social media, specifically Facebook was a very strong source of awareness for visitors.
- 1 in 4 visitors do not intent to visit the rest of the museum.
- Main driver for visiting is the **social element** attached with this exhibition. This is split between a 'family' driver and an 'adult' driver with many coming because they perceive the experience to be one enjoyed by their children (family), while other come because of their partner or friends (adult). Behind this is their love for dinosaurs, either for the individual or members of their group. There is also a strong presence of the movies and the franchise that drive people to visit.
- Onsite entry experience: further clarity of the peak and off-peak times and pricing is needed. Additional in terms of wayfinding to the exhibition entry, improved signage is needed as there is some confusion of where to go (pre-purchased tickets) and which queue to line up in.
- **97%** rate the exhibition very good or good.
- What visitors **liked** about the exhibition was the Dinosaurs and all the qualities attached to it put visitors in awe: the realism of the dinosaurs coming to life, the T-rex was frequently mentioned by visitors, the size of the dinosaurs, animatronics behind the dinosaurs and the ability to get up close to them.
- Many colourful words were used to describe the experience including: cool, enjoyable, awesome, fun, immersive and fantastic.

- The **improvements** is not around the exhibition experience, but need for a longer experience through the desire for more of everything. More dinosaurs, more stuff, a bigger exhibition. Some visitors were surprised that they go to the end of the exhibition so quickly. Dwell time also connects to the perceived value for money and expectations. It was also noted by visitors that there were no velociraptors in the exhibition despite being widely used in advertisements (expectation management).
- Highest scoring satisfaction aspect of the exhibition was the enjoyment of the experience scoring 9.3 out of 10. Lowest scoring was the crowding (7.1) and the wait times (7.6).
- Overall, visitors tend to perceive the exhibition to be value for money, realistic, content rich, suitable for young children and exceeding expectations. Where visitors sit undecided is on the museum experience to theme park experience and commercial to educational.
- Strong Net Promoter Score of **+50**. 60% of visitors would highly recommend (9 or 10 out of 10) this exhibition to their friends or family.

SURVEY RESULTS

Length of Visit
Average duration: 45 minutes
Maximum time: 87 minutes
Minimum time: 15 minutes

Less than 30 minutes	16%
30 – 45 minutes	38%
46 – 60 minutes	30%
over 1 hour	16%

When was your last visit to Melbourne Museum?

Never been before	34%
Within the last 12 months	21%
1–2 years ago	17%
2 – 3 years ago	11%
More than 3 years ago	17%
Cannot recall	<1%

Have you seen an exhibition in this same space before today?

Yes	29%
No	71%

And what was the last exhibition you saw here? (filter: saw a previous exhibition)

Tutankhamen	44%
Titanic	16%
Designing 007	15%
A day in Pompeii	4%
Mesopotamia	4%

One off: *Afghanistan, WW1, Ancient Greece, Dinosaur*

can't recall	11%

Segments	**VIC**	**ALL**
Easy Going	28%	25%
Connected	10%	10%
Obligated	16%	15%

Informed	6%	7%
Curious	12%	14%
Elite	28%	30%

Which one best describes your visit today?

I came especially to see MM and after I arrived, I decided to go to JW	6%
I came especially to see JW and now that I'm here, I intend to visit the rest of the museum	52%
I came especially to see JW and do not intend to visit the rest of the museum	27%
I came to visit BOTH MM and JW	14%

Are you aware of the Dinosaur Walk exhibition also on display at the Museum?

Yes	49%	No	51%

And do you intend to visit, or have you already visited Dinosaur Walk with today's visit? (filter: aware of Dinosaur Walk)

Yes	68%	No	32%

Were you aware of Jurassic World: The Exhibition before you arrived at the museum today?

Yes	95%	No	5%

And how did you hear about the exhibition?

social media: Facebook event, ad	36%
TV: Channel 9, Channel 10, Sunrise, interstate	19%
word of mouth: friend, family, partner	16%
online: 'What's on in Melbourne', school holidas, YouTube, Broadsheet, Trip advisor, Time Out	13%
outdoor signage: billboard, banner, poster, outside the museum	6%
museum communication: website, Members	4%
newspaper: Herald Sun, The Age, ad, article	3%
radio	3%
Ticketmaster, Ticketek	3%
flyer, brochure, tourist leaflet	3%
given tickets for Christmas	2%
general: ads, news, media	2%
other: email, virgin, at work, at school	5%

Have you seen or heard any of these promotions? (Survey B)

TV advertisement	21%
radio	16%
newspaper print advertisement	14%
TV program segment	11%
newspaper online advertisement	9%
newspaper online article	8%
outdoor signage	8%
e-news from 3rd party	7%
advent card	5%
e-news from Museum or Members	5%
newspaper print article	5%
none of these	29%

And to what extent did these promotions influence your decision to visit? (Survey B)

a lot	44%	a little	31%	not at all	24%

Why did you choose to come to Jurassic World?

For: family, child, grandchildren, partner, friend (mix of adults and children)	38%
Love dinosaurs, like dinosaurs, T-rex	34%
Love the movies, big fan of the franchise, nostalgia	28%
General: wanted to see, going to the museum, sounds interesting	8%
Someone's birthday (kid, son, friend), present (birthday, Christmas)	6%
Visiting Melbourne – something to do, was in Melbourne	5%
Fun	4%
Cool, exciting	3%
Animatronic	2%
Other	8%

"Love Jurassic world and dinosaurs"

"My partner obsessed with dinosaurs"

"School holidays, bring the kids, son wanted to see the dinosaurs"

"Thought it'd be fun, birthday present"

Are you personally responsible for purchasing your ticket to Jurassic World? (Survey B)

Yes	68%	No	32%

Where did you purchase your Jurassic World ticket? (Survey B, filter: responsible for purchasing tickets)

onsite at the museum	42%
online – Melbourne Museum	32%
online – Ticketmaster	22%
phone booking	1%
other	3%

How do you rate your ticket purchase experience? (Survey B, filter: purchased tickets)

very good	64%
good	31%
neither	3%
poor	1%
very poor	1%

overall	4.5 (out of 5)
onsite at the museum	4.4
online – Melbourne Museum	4.7
online – Ticketmaster	4.6

Is there anything we do to improve your ticketing experience? (Survey B, verbatim)

Faster service and knowing diff off peak and on peak. Charged peak rates for Monday
Drop price by a lot, esp when sign says off peak- don't be charging peak price. Misleading
Off peak/ on peak misunderstanding. School day. Shouldn't be peak rate
Email tix directly rather than through link

Upon arrival at the museum, was the entrance to Jurassic World clear to you? (Survey A)

Yes	73%
No	27%

Is there anything we can do to make it easier for you to find the entrance of the exhibition? (Survey A, verbatim)

Signage:

Better signs to downstairs
Needs to be clearer signage
More direct signs when walking in.
A big sign of a dinosaur saying exhibition that way. We walked up to the cafe and didn't see the escalators.
More signage, more pictures, something larger
Had to ask - so many people. More signs and too many people? Wasn't clear what lines were what
The signage was confusing with regards to what tickets go where
The signs were confusing, need clearer signage for people with pre purchased tickets
More signs pointing people own the escalators
More signs 'Jurassic world downstairs'
Better facing signs at the bottom of the escalator
Signage on the outside of the building, as soon as entering both doors needs to be more visual, line up times need to be improved. Clearer signs for the right queues

Staff:
CSO pointed us in the wrong direction
People giving directions
Staff direction extra signs
We were sent in the wrong direction but it was easy to figure
We had to ask but it was fine
There are no signs so we had to ask. There should be dinosaur footprints
Had to ask at the desk. Sign saying people with tickets go this way
We had to ask. There were so many people so it was hard

Other:
I'm injured so it was a bit of a walk
Needed lift access and this wasn't clear
If one escalator went down instead of both going up
Not much, queues everywhere
Not today, we actually queued up to find which way to go
It was very crowded, might've been easier to spot signs otherwise
More signs leading to it. We got confused by the photography before the entrance. It's a bit confusing from the tram stop to museum.

How do you rate the exhibition overall?

very good	73%
good	24%
neither	1%
poor	<1%
very poor	<1%

What did you like about the exhibition?
Dinosaurs: T-rex, life-like, animatronics, size, coming to life, realism, similar to the movie, getting up close, technology, immersive, moving dinosaurs

Other: Sound, interaction, information, story, narrative, journey, presentation, story, children loved it, atmosphere

"The animatronics they looked amazing the detail and everything"
"Trex"
"Realistic animation"
"Life size dinosaurs and sound effects"
"The big moving dinosaurs it was similar to the movie"

What can be improved about the exhibition?

too short, bigger, more dinosaurs	45%
nothing	16%
expect velociraptor (advertised)	11%
crowding, feeling rushed	10%
shop	4%
value for money	4%
information	4%
interaction	4%
queues, wait times	3%
adult only sessions	2%
lab	2%
vehicle, ride, gyrosphere	2%
school children	1%
other	16%
can't say	1%

"Just a little short? No raptors"

"Wanted to see velociraptors, a bit longer, more stuff"

"Less people and better visuals because sometimes couldn't see"

"Felt rushed, quite crowded"

"Photos too expensive, could be longer, raptors."

"Could have been bigger for the amount of money. Too many school kids, sweaty and smelly"

"More, could be longer, more dinosaurs. Would be good if people could go in cars"

How satisfied or dissatisfied you are with them on a scale of 0 to 10, where 0 is 'not at all satisfied' and 10 is 'extremely satisfied'. (Survey A)

	0-6	7-8	9-10	can't say	**Mean**
crowding	36%	36%	28%	<1%	**7.07**
wait times, queuing	23%	37%	39%	<1%	**7.64**
sound levels	11%	25%	64%	<1%	**8.70**
lighting levels	11%	37%	52%	<1%	**8.51**
ambience	3%	33%	64%	<1%	**8.89**
information	16%	32%	49%	<1%	**8.23**
customer service	5%	23%	69%	3%	**9.05**
enjoyment of experience	4%	17%	79%	<1%	**9.26**
Overall Exhibition Experience	4%	21%	74%	1%	**9.07**

	Group Composition		Day		
	Adult	Family	weekend	school holiday	opening week
crowding	7.3	6.7	6.9	6.1	8.7
wait times, queuing	8.2	6.9	7.2	6.9	9.4
sound levels	8.8	8.6	8.6	8.5	9.1
lighting levels	8.6	8.3	8.6	8.3	8.6
ambience	9.0	8.7	8.8	8.6	9.3
information	8.3	8.1	8.2	8.1	8.4
customer service	9.3	8.7	8.8	8.8	9.7
enjoyment of experience	9.4	9.1	9.2	9.0	9.7
Overall Exhibition Experience	9.3	8.9	9.1	8.8	9.7

Dates: Weekend: 19th, 26th and 27th Opening week: 21st, 22nd, 23rd School holidays: 28th, 29th

Are there any comments you would like to make about the above aspects? (Survey A, verbatim)

Positives:

It was well put together first time seeing something like this and it's fantastic
All staff were really good and it was really good, kids loved it
Loved it. It was all good.
I think the museum needs to keep on doing this, it's great to have shows like this coming to Melbourne.

Sound:

Louder sound in the exhibition
Could have been louder! More time to read every plaque
More thunder for t-rex
The information could be louder
It could have been louder and it was so short
I wouldn't want it any louder
TV near door was too quiet! Real plants, could more info
TV screen was soft
Loved but it was short. Hard to hear info.

Lighting:

Brighter, also we had a bit of a wait to get in
Trex was a little dark at first but I think that's just part of it.
Hard to get photos in lighting
T Rex could be brighter for the kids and crowds more aware of kids
Could have been a bit brighter - maybe photo opportunities with lighting
It could have been lighter and the information/where to find things could have been clearer
Could have been bright, could hardly see some dinosaurs? A book about dinosaurs

Queues:

Bit of a long wait today
My enjoyment was less because of the kids and I had to wait 30 min for entry

Length:
Too short, needs to be more
Could be longer
No it was just the issue of how much was left in the show

Other:
If there was adults only at night I'd do that!
Information was less important
Too many prams
Just what I said with the raptors, and the actors it wasn't clear who they were or if they were doing signings or what.
Hard to get to the information and see some bits
The shop can be improved. Photos are overpriced but need a two for one deal
Made it more like a zoo
More interactive for kids

Where do you think Jurassic World: The Exhibition sits on the following word scale? (Survey B)

	0-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81-90	91-100	
value for money	20%	10%	24%	15%	15%	2%	6%	5%	1%	3%	**not value for money**
artificial	-	1%	3%	6%	3%	6%	18%	21%	25%	18%	**realistic**
commercial	3%	8%	15%	8%	17%	15%	11%	9%	10%	3%	**educational**
content rich	13%	19%	25%	13%	17%	6%	4%	1%	1%	2%	**content poor**
suitable for young children	18%	12%	17%	12%	12%	8%	8%	9%	3%	-	**not suitable for young children**
museum experience	3%	4%	11%	7%	20%	11%	16%	11%	9%	8%	**theme park experience**
exceeding expectations	15%	26%	22%	15%	8%	2%	5%	2%	3%	3%	**not meeting expectations**

	MEAN	
value for money	**33**	not value for money
artificial	**74**	realistic
commercial	**51**	educational
content rich	**31**	content poor
suitable for young children	**36**	not suitable for young children
museum experience	**56**	theme park experience
exceeding expectations	**30**	not meeting expectations

	0-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81-90	91-100	
value for money			23 25	40	46						**not value for money**
artificial								72 75 73 79			**realistic**
commercial						50 53 50 55					**educational**
content rich			29	30 38 32							**content poor**
suitable for young children			23	32 40	46						**not suitable for young children**
museum experience					46	53 57	63				**theme park experience**
exceeding expectations		19	24 30		47						**not meeting expectations**

Duration in exhibition: under 30 minutes; 30 – 45 minutes; 45 – 60 minutes, over 60 minutes

How likely is it that you would recommend the Jurassic World Exhibition to family or friends?

0	1	2	3	4	5	6	7	8	9	10
<1%	<1%	<1%	<1%	<1%	2%	4%	9%	22%	11%	49%

Advocate (9 or 10)	60%
Passive (7 or 8)	31%
Detractor (<6)	9%

Net promotor score: +50

Likelihood to recommend 8.6 (out of 10)

Duration in exhibition x Recommendation

<30 minutes	8.1
30 – 45 minutes	8.4
45 – 60 minutes	8.9
over 1 hour	9.3

What is the one thing we can do to make you rate it closer to 10? (scored 8 or below in likelihood to recommend)

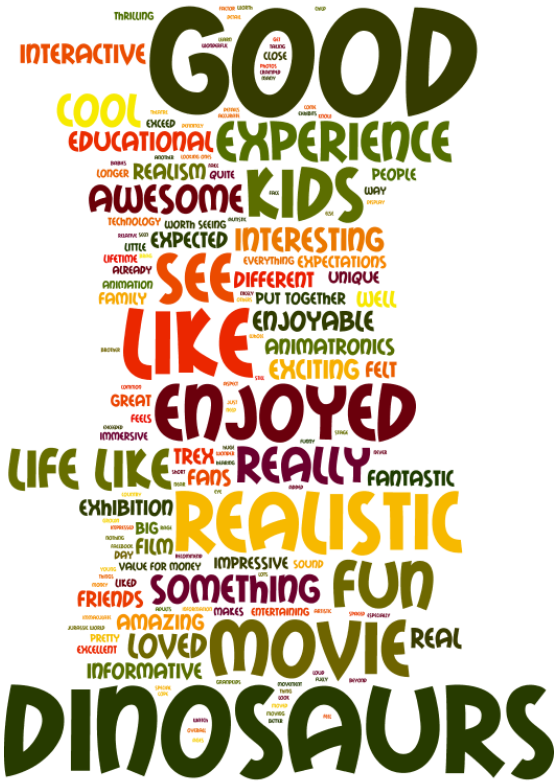
too short, bigger, more dinosaurs, could be longer	44%
value for money: pricing was high	20%
nothing	11%
crowding, feeling rushed	8%
more information	5%
child friendly	4%
shop	3%
queues, wait times	3%
adult only sessions	3%
expect velociraptor (advertised)	2%
interaction	2%
depends on person	2%
other: school children, real samples, repeat entry, gift (take away) for children at end of exhibition, prams, less commercial, free photos	19%
can't say	4%

"If it was a bit longer. I know you can spend as much time as you like but it's over pretty quick"

"It's very good but it'd be good if it could be more interactive maybe. You just walk through and they roar at you. It was a bit short, for the price it'd be good to be in there longer"

"I expected it could go on for an hour or more, time inside was 30mins (same as my queue time), could be longer Also more explanations and education in each room. I would like to sit and listen to someone explaining I don't know difference between many dinosaurs, so not educational enough"

"Drop price, more things in it. People can read stuff anywhere. No school kids"



What is the main reason for the score you gave? (scored 9 or 10 in likelihood to recommend)

fantastic, enjoyable, cool, fun	48%
dinosaurs	36%
Jurassic Park link, movie	12%
different, unique	11%
children loved it	9%
educational	7%
others loved it	5%
exceeded expectations	4%
interactive	3%
already recommended to people	3%
setup, well put together	3%
value for money	2%
sound	2%
other	9%

“Because it’s awesome, if you like the movies or dinosaurs, feels like once in a lifetime experience”

"oh my god, I saw dinosaurs!"

“It was fun. It's cool because they were so real. Hearing the sounds and movements of the dinosaurs”

“I know people are fans of Jurassic world, cool to see animatronics and how big they are.”

“Good experience, well put together, immaculate detail in all the dinosaurs. The trex especially”

“Not many exhibits like this, very entertaining like the movie, lots of interaction”

“Just really good. It did exceed expectations- interactive, good for taking photos, loud, felt like in movie”

How old are you? (adult)

18 – 24	25%
25 – 34	35%
35 – 44	20%
45 – 54	8%
55 – 64	9%
65+	4%

Including yourself, how many adults and children are with you today?

Adult	55%
Adult alone	*4%*
Adult Group	*52%*
Family	45%
Family (1 adult and children)	*6%*
Family (multiple adult and children)	*38%*

And what are the ages of the children who are with you today? (n=229)

0 – 3 years	18%
4 – 6 years	27%
7 – 9 years	26%
10 – 12 years	18%
13+ years	10%

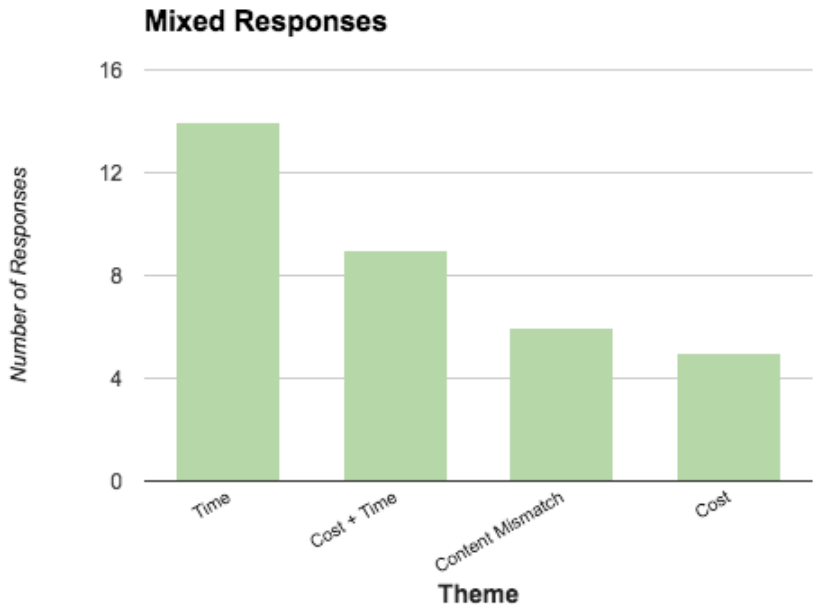
Origin

Metro Melbourne	53%
Regional Vic	18%
Interstate	18%
International	10%

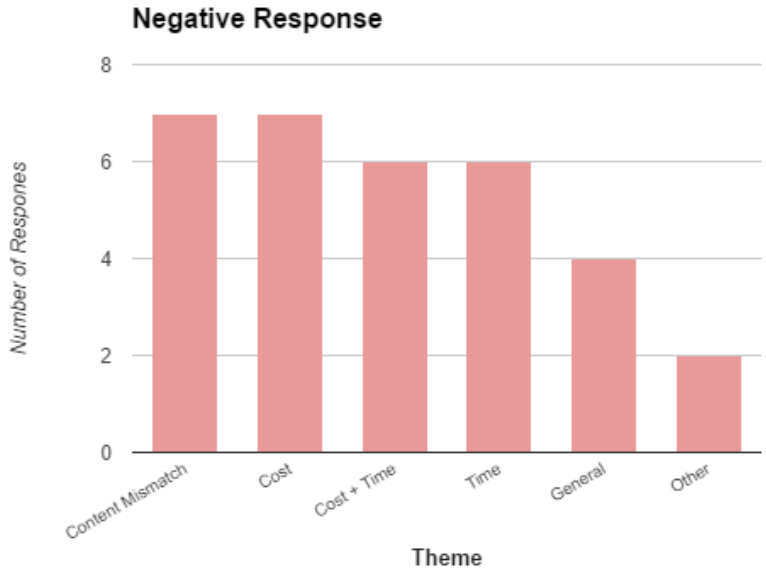
Gender

Male	38%
Female	62%

Appendix G: Content Analysis Graphs and Keywords



n=34



n=32

Table of Keywords and Phrases for 'Post-Visit' Content Analysis

Positive (Happy/Satisfied)	Negative (Cost, Time, Content Mismatch, General)	Mixed	
		Positive	Negative
Amazing, fantastic, brilliant, dream come true, enjoyed it, well done, loved it, smiley emoticon, good, epic, awesome, excellent, come back again, want to go again, realistic, real dinosaurs, lifelike, screaming, worth it, worth every cent, worth the money, highly recommend	Extra cost for photos, expensive entry ticket, not worth the travel, long queue time, short exhibition, pressure to move forward/herded/treated as cattle, no/lack of velociraptors, lack of dinosaurs, disappointed/disappointing	Loved it/kids loved it, great, scared/scary for young kids, realistic, enjoyed/enjoyed it/enjoyed what was there, good exhibition/really good/good/great exhibition, terrific dinosaurs/incredible dinosaurs/realistic/great dinosaurs, well done, amazing, quality was great, took our time, brilliant/brilliant dinosaurs	Not worth the travel, expensive entry ticket, extra cost for photo, short exhibition time, pressure to move forward/herded/treated as cattle, long queue line, no velociraptors, lack of interactivity, lack of dinosaurs, disappointing/disappointed

Table of Keywords and Phrases for ‘Pre-Visit’ Content Analysis

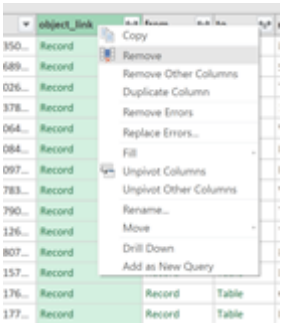
Going					
excited	lets book	taking the kids	expecting so much		
we are going	Im in	need to book			
See you there	going next month	lets do this			
im going	Im there	pick a day			
we'll be there	we can go	next wekeend			
booked	next sunday	so going			
cant wait	definitely going	going tomorrow			
lets go	going to this	taking my son			
Maybe Going					
Sunday?	could go	planning	looks awesome	might have to go	have to go
might like	wanna come?	need to organise	need to take the kids	should take the boys	get me there
wanna go?	family trip?	:)	should go?	would love	want to go
when are velociraptors	looks cool	thinking	gonna go?	have to come	wanna go?
trip?	consider	need to go	interested?	day out?	worth the trip?
should go	going?	bring the kids	kids day out?	trip?	pick me
you free?	go tomorrow?	we should	would love this	would be awesome	wanna go
would be cool	need to plan	could we go	next weekend?	doesnt sound promising	hope we are going
Not Going					
no good	not somewhere could afford				
expected more	was going to go				
not sure	not anymore				
wont be now	wont be				
put me off	wont bother				
was thinking of going					

Appendix H: Content Analysis Method

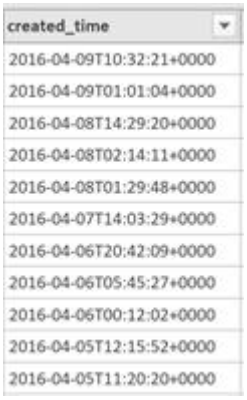
Purpose: Analyse public's view on a certain topic

Overall:

1. Choose data set and time window
    a. Ex: Melbourne Museum's Jurassic World Facebook Event for two weeks
2. Extract Data →
    a. Open Excel (2016 Required on PC)
    b. Data -> New Query -> From other sources -> From Facebook
    c. User ID: 504070569752487 ; Connection: Feed
3. Filter useful data →
    a. Remove all unnecessary columns (Keep at least message and comments



column)

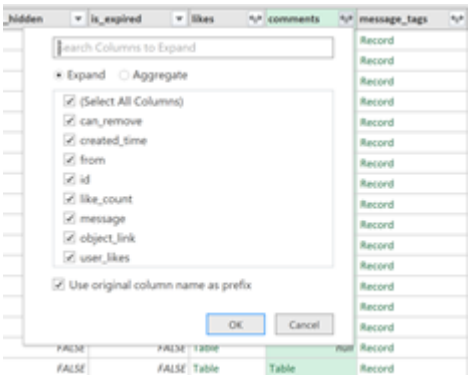


    b. Looking at Time Created, find time range

    c. Remove all unnecessary rows (Identify time frame, remove posts not in it)

i. Keep Rows -> Selected Range -> Insert Range

d. Expand comments
   i. Only include desired elements of table in comments (Keep at least

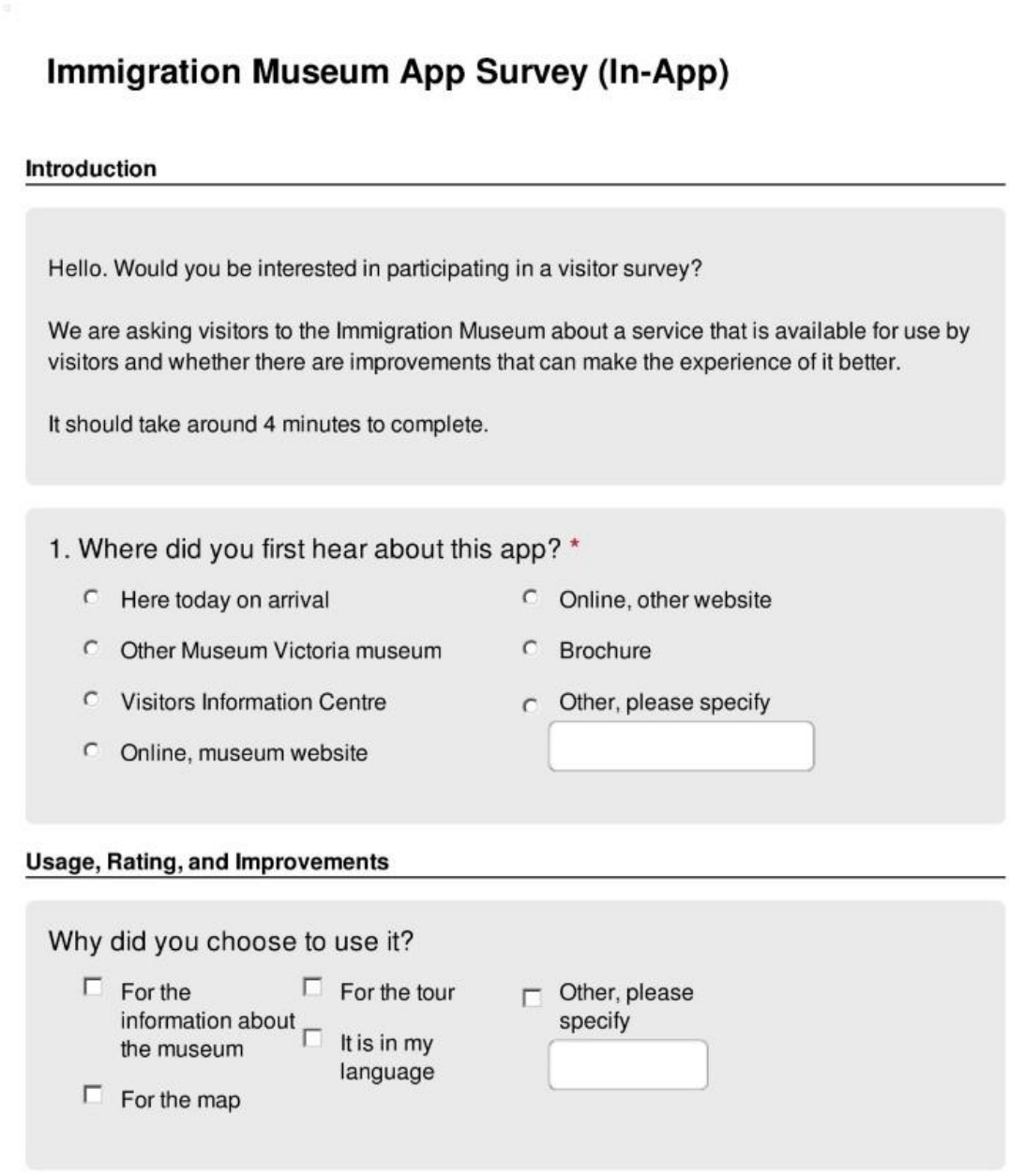


message element)

e. Close -> Load query
f. Read through message column, delete duplicates
g. Insert column with ID number, starting from 1 to n

4. Read through and understand the comments and extract keywords from each comment
5. From these keywords as well as understanding the concept of each comment, determine types of comments (Pre-visit, Post-visit, Tags, etc.)
6. Within the types of comments, identify the categories (positive, negative, etc.) according to the keywords
   a. Determine the goal of the exhibit and understand what is positive and negative
7. Within the categories, use the keywords to sort each comment into a theme
8. Can also count the amount of times a keyword is used to determine the amount of time a sentiment is mentioned
9. Analyse your data

Appendix I: In App Survey for Immigration Museum



Immigration Museum App Survey (In-App)

Introduction

Hello. Would you be interested in participating in a visitor survey?

We are asking visitors to the Immigration Museum about a service that is available for use by visitors and whether there are improvements that can make the experience of it better.

It should take around 4 minutes to complete.

1. Where did you first hear about this app? *

- ○ Here today on arrival
- ○ Other Museum Victoria museum
- ○ Visitors Information Centre
- ○ Online, museum website
- ○ Online, other website
- ○ Brochure
- ○ Other, please specify

Usage, Rating, and Improvements

Why did you choose to use it?

- ☐ For the information about the museum
- ☐ For the map
- ☐ For the tour
- ☐ It is in my language
- ☐ Other, please specify

VALIDATION Min = 0 Max = 100

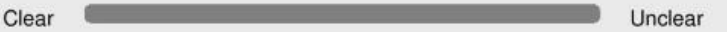
2. Thinking of your use of the app, where do you think the multilingual app sits on this scale? *

VALIDATION Min = 0 Max = 100

3. Thinking about understanding how to use the app, where do you think the multilingual app sits on this scale? *

VALIDATION Min = 0 Max = 100

4. Thinking about any instructions, where do you think the multilingual app sits on this scale? *



VALIDATION Min = 0 Max = 100

5. Thinking of the information in the app, where do you think the multilingual app sits on this scale? *

VALIDATION Min = 0 Max = 100

6. Thinking again of the information in the app, where do you think the multilingual app sits on this scale? *

Useful — Not useful

VALIDATION Min = 0 Max = 100

7. And in regard to your expectations of the app, where do you think the multilingual app sits on this scale? *

Exceeded expectations — Did not meet expectations

Visitor Feedback

8. What could be improved with the app?

9. And thinking of future development, are there other features you would want an app like this to include? *

Demographics

10. Gender *

- Female
- Male

And finally, some questions about you.

11. What is your age?

- 18-24
- 25-34
- 35-44
- 45-54
- 55-64
- 65+
- Decline to answer

12. When was your last visit to the museum? *

- never been before
- within the last 12 months
- 1 - 2 years ago
- 2 - 3 years ago
- more than 3 years ago
- cannot recall

13. Who did you come to the museum with today?

- ☐ alone
- ☐ parent
- ☐ grandparent
- ☐ spouse or partner
- ☐ adult child
- ☐ another adult relative
- ☐ adult friend or friends
- ☐ organised group, club or tour
- ☐ own children, under 18 years
- ☐ grandchildren
- ☐ other related children
- ☐ other unrelated children
- ☐ other
- ☐ cannot say

14. Do you live in Australia? *

IF YES, What is your home postcode?

IF NO, Which country do you live in?

15. Any further comments?

That completes the survey. Thank you for taking the time. The information you have provided will be used for research purposes and is strictly confidential as required by the Museum Victoria's Privacy Policy.

Please enjoy the rest of your day!

Appendix J: SPSS Text Analytics Experience

SPSS Text Analytics Experience

SPSS offers a text analytics software that can be used to analyse large data sets of written words and sentences. The software mines for patterns within each sentence, identifying concepts, types, and themes. The WPI team was analysing Facebook comments on the *Jurassic World: The Exhibition Facebook* event page. To aid our team with the analysis, we began researching and learning how to use SPSS Text Analytics.

The software is built with a dictionary of over 10,000 keywords and phrases, and includes several pre-made text-analysis packages, including customer satisfaction. Concept patterns, such as '<Negative + dinosaurs>' can be identified and counted within the data. The concept pattern searches all the text that contains negative remarks and dinosaurs. Other concept pattern examples are '<Positive + worth>' and '<Satisfied + time>.' Additionally, the software gives the user the ability to write their own concepts and search for any desirable pattern. The user can look at all negatively-marked comments and see why each comment was marked negative. This can be applied to all concepts. Once the user is satisfied with the analysis, the results can be graphed. Figure 1 displays the different negative thoughts and opinions of users, showing how each type (disappointing, negative budget, bad) interacts with each other.

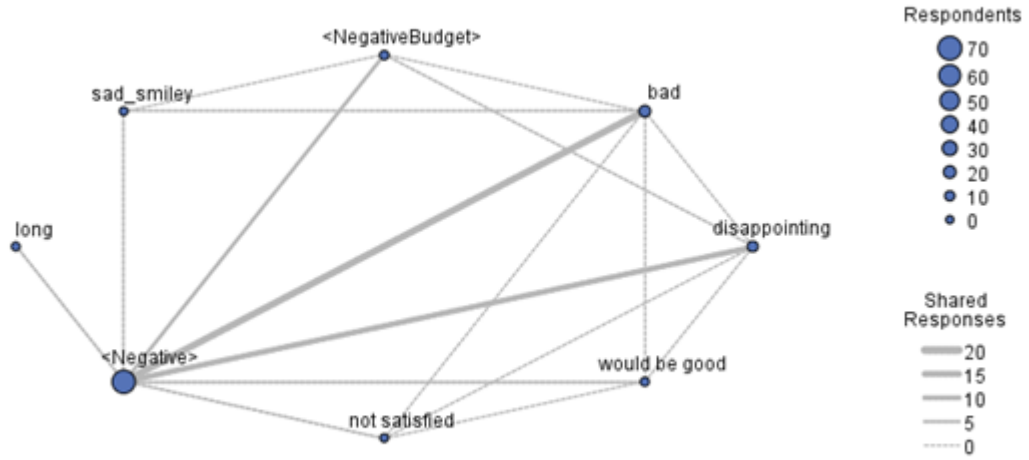


Figure 1. SPSS Web Graph.

However, after a significant amount of research, practice, and understanding of the tool, we decided to perform the Content Analysis manually. This decision was based on several limitations our team faced using SPSS Text Analytics:

1. Trial Version of SPSS
    - SPSS Text Analytics is an expensive tool, one which Museum Victoria does not have the licensing rights to use. The price ranges from USD$3,000 to USD$16,000, depending on an organisation's current licensing scheme. Therefore, our team downloaded a trial version of the software. In accordance with the trial version policy, any work completed using SPSS Text Analytics could not be exported for further analysis. The team only had access to display the information as a very simple bar chart or a web graph as shown in Figure 1.

2. SPSS does not 'understand' information
    - SPSS Text Analytics will only go as far as looking at keywords (excited, disappointing, fun) within text, grouping different keywords into categories (positive, negative), and identifying concepts by using these categories (<negative + budget>). Because SPSS does not understand the comment entirely, there is room for error, especially on Facebook where comments are either past, present or future tense, misspelled, or written in a very sophisticated manner. It is our opinion that the sample size (104 valid comments) is far too small to justify the relatively large margin of error.

3. Sophistication of SPSS
    - The last, and possibly most significant limitation, is that no members of our team have ever used any SPSS software before, and no members of the CAP department have ever used SPSS Text Analytics. Therefore, our team set out to learn SPSS on our own, and due to the limited amount of time available, we could not fully understand the functionality of SPSS Text Analytics.

The CAP department may consider training an individual to learn and fully understand SPSS Text Analytics. Through this training, the individual will be able to reduce the margin of error and effectively mine the text for desired data only.