Online Information for Visitors about the Accessibility of Museums in New Zealand

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Abstract

Research attests to the reality that people with disabilities are not provided for, or offered the same opportunities as those without disabilities; nor are they seen as a valued market segment of the tourism sector. Accessible tourism is viewed as the opportunity to enable people with disabilities equal opportunity to participate in tourism services and environments, with the same level of independence, equity, and dignity. For museums within the tourism sector, it is important that they consider the importance of accessibility and information provision, because if they do not, people with disabilities miss out on the museum experience as a whole, so they are not capturing or providing for an important market.

The aim of this research was to examine the current provision of online information for visitors about the accessibility of five selected museums in New Zealand: Auckland Museum, Puke Ariki, Te Papa, Canterbury Museum, and Otago Museum. The research had two key objectives. Firstly, it aimed to critically examine the online website content of selected museums in New Zealand to determine the extent to which they communicated information about the accessibility of a museum visit. Secondly, it aimed to benchmark the website content provision of the selected museums against international tourism accessibility standards. This was achieved through the implementation of a content analysis and a case study methodology; the research adopted a qualitative and interpretive approach. The findings of this research revealed conclusions about website navigation, the inclusive approach of website communications, content about accessibility, and access to the museum experience, in the five selected museums. This research concluded that there are multiple gaps between the international accessibility standards of best practice, and the practices of the selected museums in New Zealand. To meet international accessibility best practice, it is important that New Zealand guides or sets recommendations for accessibility standards to which tourism organisations can refer. The contribution this research brings is that it identifies and highlights the online information provision and accessibility problems that museums in New Zealand are not solving for people with disabilities.

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Attestation of Authorship

I, Laura Dannielle Upson, hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person (except where explicitly defined in the acknowledgements), nor material which to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institution of higher learning.

Signed: Laura D Upson

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Chapter 1: Introduction

The aim of this research is to examine the current provision of online information for visitors about the accessibility of museums in New Zealand. Specifically, this dissertation had two key objectives. Firstly, it aimed to critically examine the online website content of selected museums in New Zealand to explore the extent to which they communicated information about the accessibility of the museum visit. Secondly, it aimed to benchmark the website content provision of the selected museums against international tourism accessibility standards. This research will provide an important insight into what gaps are not being filled by the selected museums in New Zealand, surrounding their current provision of online information for visitors about their accessibility. It is important that this is highlighted and discussed because it was found that, amongst the accessibility accredited museums within the United Kingdom, only 81% of them provided basic accessibility information on their websites; importantly, the information provided did not account for people who may have vision, hearing, or sensory impairment (Cock et al., 2018; Vaz, Freitas, & Coelho, 2020).

This chapter provides background context regarding the state of disability in New Zealand, and a description of the social model of disability, which is the theoretical basis of this research. This is followed by discussion of the gaps in the academic literature and the contribution of the research being undertaken. An outline of the dissertation chapters follows.

1.1. The State of Disability in New Zealand

The state of disability in New Zealand is noteworthy. It was reported in 2013, that 1.1 million New Zealanders, or one in four people, live with a type or form of disability; that is, 24% of the total population (Statistics New Zealand, 2014). However, it was estimated in the 2018 census, that the number of people with disabilities had increased to about 1.2 million New Zealanders (Murray, 2019). Moreover, on a global scale, it has been estimated that one billion people worldwide have some sort of disability; this is equivalent to 15% of the world's population (The World Bank, 2021). This global statistic shows a clear increase in those with a disability, in comparison to previous World Health Organisation disability reports from the 1970s, which showed only 10% worldwide. The main reason for this increase is primarily because people are living for much longer, so have an increased chance of developing a

chronic illness associated with a disability (World Health Organisation and the World Bank, 2011). Statistics New Zealand (2014) stated that the 2013 census revealed that for those 65 years and older (370,000 people), 59% revealed that they had a form of disability. Moreover, it was revealed that the largest and most prominent forms of disability and impairment for New Zealand adults were those of a physical nature; 64% of adults noted this type of disability. Despite the significance of the state of disability both in New Zealand and globally, it has been highlighted by scholars that people with disabilities are not provided or offered the same opportunities as those without disabilities, nor are they seen as a valued market segment of the tourism sector (Buhalis et al., 2012; Cockburn-Wootten & McIntosh, 2020; Gillovic & McIntosh, 2015). However, it was shown in the New Zealand national visitor survey in 2017, that 47.2% of all museum visitors were New Zealand citizens or residents, who were more likely to be those 65 years and older (Tocker, 2018). This means that people with disabilities are likely an important market segment for the tourism industry, and crucially to museum visitors.

1.2. The Complexity of Disability

A consideration of the potential access market within the context of tourism requires an understanding of disability, as this will likely shape demand. The way in which disability is understood is complex in nature, and the type of disability model must be considered (Ware & Schuelka, 2019). The complexity of disability also depends on the pre-existing socio-cultural perceptions and beliefs about the construct (Ware & Schuelka, 2019).

Within academic scholarship and disability reporting, the terms disability and impairment are often used interchangeably (Harpur, 2012; Gillovic et al., 2018). The World Health Organisation [WHO] (2011) classified the term "disability" as: "any restriction or lack of ability to perform an activity in the manner of within the range considered normal for a human being" (Employment New Zealand, 2021, para. 3.). The meaning of "impairment" is the "loss or abnormality of psychological, physiological or anatomical structure or function" (Buhalis & Darcy, 2011, p. 24). The World Health Organisation and the World Bank (2011) categorised the term "disability" into three sub-sections. Firstly, an "impairment" is an alteration or change in the functionality of a body part. Secondly, an "activity limitation" is a limitation in which a body part or function cannot be utilised, for example, in a vision or

hearing impairment. Thirdly, "participation restrictions" restrict people from engaging in everyday activities and accessing necessary healthcare services (Centres for Disease Control and Prevention, 2020).

From a medical perspective, the term "disability" encompasses a wide range of health conditions or impairments, which can range from being invisible or visible, short term or chronic, stagnant, slowly degenerative to sporadic, or agonising to painless. It was emphasised by Smart (2011), that it is important to take into consideration that a disability can be acquired or developed throughout any stage of life: it can be hereditary, present from the time of birth, through accident and trauma, or through old age (Kattari et al., 2017). A disability can also be viewed as on-going and chronic "physical, mental, intellectual or sensory impairments" (World Health Organisation, 2013, p. 4).

1.3. Models of Disability

As employed in many studies of accessible tourism, and following the language associated with the disability model already discussed, this section introduces the social model of disability to provide a theoretical foundation for the research.

The key reason the social model of disability underpins the theoretical foundation of this research is because it was strongly asserted by Oliver and Barnes (2010), that although people with disabilities or impairments may have functional constraints, they are not immobilised by their disability or impairment. Rather, it is because of the external barriers they encounter daily, which are cultural, attitudinal, environmental, and informational in nature (Vaz et al., 2020). This notion was also supported by Oliver (1990) who used the social model of disability to challenge the ethos of the medical model, stating that society disables people with disabilities from engaging with the "socially constructed environment" (Gillovic et al., 2018, p. 616). Thus, the medical model of disability is unsuitable as a theoretical foundation for this research, as it implies that any disability or impairment comes before the individual (Gillovic et al., 2018), and perpetuates the idea that there is stigma attached to having a disability (Goffman, 1963). This idea of being abnormal or "less-than," further enables negative and belittling attitudes (Darcy & Buhalis, 2011; Gillovic et al., 2018; Oliver, 1990).

The medical model of disability was first introduced by Parson in 1951 and was based on the personal tragedy theory of disability, which regards disability as something that is a personal tragedy (Oliver, 1996; Zajadacz, 2015), requiring medical intervention and attention. This model views those with a disability as being at fault, because they are not able to completely participate in society because of their physical or psychological disability or impairment (Small & Darcy, 2010). This often incorporates the individual as part of the disability and fails to recognise and acknowledge the person "behind" the disability (Areheart, 2008; Zajadacz, 2015). This has encouraged the use of derogatory terms towards people with disabilities, such as "invalid," "cripple," "spastic," and "handicapped" (Retief & Letšosa, 2018, p. 3.). As a result, people with disabilities are often left feeling ostracised by their own community, and within society, and made to feel as though they are somehow "less than" someone who is able bodied (Johnstone, 2012; Retief & Letšosa, 2018).

The social model of disability was first derived from the *Fundamental principles of disability* in the middle of the 1970s, which first argued that people with disabilities were dis-abled by barriers in their environments, and not by their disability or impairment per se (Oliver, 2013). The model argues that it is not a person's disability or impairment which prevents them from fully participating in tourism, but the vast social, political, and economic barriers that create an inaccessible tourism industry (Barnes et al., 2010; Michopoulou et al., 2015). Additionally, there is also an emphasis on the attitudinal barriers that people with disabilities face from people without disabilities. There is a gap in knowledge and understanding surrounding people with disabilities' ability to function and contribute to a working society and their quality of life, affecting their ability to navigate the physical environment and its structures, which have often been designed only for people without disabilities (Goering, 2015).

Buhalis and Darcy (2010) asserted that the aim of the social model of disability is to shift societies' understanding, attitudes, and perceptions, on what it means to live with a disability, and how the physical and social environment can be improved. It has also been suggested that if disability is a social construct, then it should be a collective social problem with a social solution (Crow, 2010). Currently, society affects inaccessible environments, products, services, and attitudes, because it is predominantly an ableist society (Buhalis & Darcy, 2010; Kattari et al., 2017). Zajadac (2015) and Best (2010) further asserted that within society, there

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are varying degrees of how disabilities are understood and perceived. Thus, the term and concept of "disability" cannot just be observed and analysed from a social perspective. The social model of disability can challenge the perspectives of people who do not have a disability, to see that people with disabilities are equal members of society (Cameron, 2014; Kattari et al., 2017). Conversely, it is important to recognise and acknowledge that this model of disability does not dismiss or ignore the reality of disabilities or impairments. Instead, it stresses the importance of needing to recognise that the disabilities and impairments are not the issue or problem, but it is the lack of accessibility and inclusivity within different environments and society. This reasoning provides a clear indication that a social solution is possible and attainable (Scheer & Groce, 1988; Wolbring, 2012).

1.4. Accessible Environment for Tourism

As the aim of this research was to examine the current provision of online information for visitors about the accessibility of museums in New Zealand, it was important to understand how the notion of accessibility for people with disabilities is viewed and defined from an international, legal, and humanitarian perspective.

1.4.1 Defining Accessibility

From a universal equity and human rights perspective, the World Health Organisation (2013) defined "accessibility" as the provision of health resources and facilities, as well as ensuring goods and services are within a physically obtainable distance, for every person in the wider community and population. This is particularly stressed and emphasised for those who are more at risk and deprecated within society, such as those who are part of ethnic minorities, indigenous peoples, as well as older adults, women, children, and those with disabilities and HIV/AIDS. Similarly, the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD, 2006) viewed and defined accessibility as ensuring that people with disabilities have equal access. The notion of equal access encompasses and includes the physical environment, modes of transport, access to appropriate communication (e.g., using Braille, writing in large print and font, or audible communication) (United Nations, 2006), as well as access to further facilities that are freely available to the public, in both urban and rural settings. The United Nations (2015, p. 3) defined "accessibility" as:

the provision of flexibility to accommodate each user's needs and preferences; when used with reference to persons with disabilities, any place, space, item, or service, whether physical or virtual, that is easily approached, reached, entered, exited, interacted with, understood, or otherwise used by persons of varying disabilities, is determined to be accessible.

As such, environments for tourism must provide physical, communicative, and social accessibility to comply with these international human rights' perspectives. International legal standards for accessibility are therefore discussed in the next sections.

1.4.2 United Nations Convention on the Rights of Persons with Disabilities

Discussing the United Nations Convention on the Right of Persons with Disabilities (2006) provides a solid foundational understanding of the international legal standards of accessibility for all, and the standards of accessibility tourism and museum operators should aim for.

The convention is an international human rights agreement which was accepted and implemented by the United Nations General Assembly in 2006 (United Nations Human Rights, n.d.). The purpose of the convention was to "promote, protect and ensure the full and equal enjoyment of all human rights and fundamental freedoms by all persons with disabilities, and to promote respect for their inherent dignity" (UNCRPD, 2006, para. 1). Additionally, it aimed to move away from the societal label, that views people with disabilities as objects of charity. Instead, it aimed to instil the notion that people with disabilities are also human, who have the same level of rights to freely exercise, who are capable of making informed and justified decisions, and deserve to live as equal members of society (United Nations, 2006). The convention also stated expectations surrounding the level of accessibility people with disabilities should have to fully participate in society (UNCRPD, 2006). This also applies to physical accessibility, transport, information and communication, and the accessibility of information communication technology (UNCRPD, 2006).

1.4.3 United Nations World Tourism Organisation: Recommendations on Accessible Tourism

The United Nations World Tourism Organisation (UNWTO, 2015) published a report with recommendations for accessible tourism. A key consideration of the recommendations related to informational accessibility of tourism as a system. This document served as an important international benchmark for tourism and museum operators, and an international standard of accessibility to aim for.

Notably, the UNWTO (2015) stated that informational and promotional material should include and provide clear suggestions and locations of accessible tourism services and facilities. It suggested that to achieve effective communication of information, tourism services and facilities utilise internationally recognised language, signs, and symbols. It also recommended that, if possible, accessible information should be included alongside general tourism information (UNWTO, 2015). Additionally, the accessibility of information about a tourism service, facility, attraction, or activity, should be presented in such a manner that it can be independently accessible to everyone. It was further recommended by the UNWTO (2015) that information on a webpage or reservations platform should follow the accessibility standards in the Web Content Accessibility Guidelines (WCAG).

Additionally, within the *Recommendations on Accessible Tourism* (UNTWO, 2013), there were explicit recommendations surrounding the clarity and distribution of information and signage. Firstly, the UNWTO (2015) stated that announcements must contain both audio and visual components. However, it is also important to consider the needs and requirements of people who may have sensory impairments. Thus, the announcements should be made with the appropriate level of symbols, sound, and contrast intensities between the visual announcement background and the communication being given. Secondly, the distribution of accessible information should be available through a variety of different platforms, such as websites and mobile applications, and that these should be provided to meet the needs of a range of different disabilities and impairments (UNWTO, 2015). Thus, within the tourism and museum sectors, it is asserted that businesses adopt the appropriate means for people with disabilities to participate in and engage with their products and services (UNWTO, 2015).

1.4.4 New Zealand Legislation

In addition to considering international frameworks and legislation to drive accessibility as a human right, consideration must be given to the specific case study context of this research. Discussion and understanding of the New Zealand legislation surrounding accessibility is important because it is a framework which all tourism and museum operators must operate and work within. It is therefore important to provide an outline and understanding of specific New Zealand legislation, because this can be utilised as a guide for tourism and museum operators in providing accessible spaces and facilities for people with disabilities. The New Zealand legislation and disability strategy discussed next frame the context of this research by overviewing the necessary requirements, obligations, and actions that tourism and museum operators must adhere to whilst conducting their business operations.

The two most significant pieces of legislation in New Zealand advocating against discrimination of people with disabilities, are the Human Rights Act (1993), and the Bill of Rights Act (1990). The purpose of the Human Rights Act of 1993 was to give "people equal opportunities and preventing unfair treatment on the basis of irrelevant personal characteristics" (para 1); this is inclusive of the basis of discrimination against those with disabilities. It is further stipulated in the Human Rights Act (1993), that under the prohibited grounds of discrimination in Section 21, is the act of discriminating against people with visible and invisible disabilities. Moreover, the New Zealand Bill of Rights' (1990) primary purpose was to protect New Zealanders from discrimination in terms of their civil and political rights.

Additionally, the *New Zealand disability strategy 2019-2023* was created and implemented by the New Zealand Office for Disability Issues (2019a), that had a vision of New Zealand as a non-disabling country. This strategy envisioned a society in which people with disabilities were given the same opportunity to fulfil their dreams, goals, and ambitions, and that this would not be solo effort, but as a nation, New Zealand would come together to make this a reality. The strategy has eight fundamental objectives, which aim to highlight the key issues faced by people with disabilities (Office for Disability Issues, 2019c), including education, employment, health and wellbeing, accessibility, leadership, choice and control, rights, and attitudes (Office for Disability Issues, 2019b, para 1).

1.5. Accessible Tourism

"Accessible tourism" was defined by Darcy and Dickson (2009, p. 34) as follows:

> Accessible tourism enables people with access requirements, including mobility, vision, hearing and cognitive dimensions of access, to function independently and with equity and dignity through the delivery of universally designed tourism products, services, and environments. This definition is inclusive of all people including those travelling with children in prams, people with disabilities and seniors.

"Accessible tourism" is also viewed as the means to give people with disabilities the equal opportunity to partake in tourism services and environments, with the same level of independence, equity, and dignity (Darcy, 2006; Michopoulou et al., 2015). This definition of "accessible tourism" is fully inclusive of different types and levels of mobility, vision, and hearing impairments, as well as cognitive (Darcy, 2006). Conversely, it was argued by Gondos and Nárai (2019), that for accessibility to exist within tourism, three key components must exist. Firstly, and importantly for this dissertation, information is essential and required about a destination, and its available goods and services. People with disabilities should be considered and treated as part of an equal tourist segment, but they may require information delivery through different platforms. This is connected to the second component of service. Gondos and Nárai (2019) further stated that the third component, mobility, should be incorporated into all aspects of public spaces and facilities, infrastructure, modes of transport, and tourism attractions.

The issue of accessibility has also been considered in the scholarly literature on tourism. The term "accessible tourism" has evolved since the late 1980s when, the term "tourism for all" was introduced, as an alternative way to indicate to people with disabilities or limited capabilities. The term "tourism for all" can be defined as tourism activities designed and implemented for people of all ages, stages of life, and abilities. This approach achieves complete social integration and acceptance for those with disabilities, as well as full engagement with the physical environment (Alén et al., 2012). Similarly, Bélanger and Jolin (2011) defined "tourism for all" as reaching and achieving a tourism industry in which people of all abilities can fully participate. It was similarly asserted by the International Organisation of Social Tourism (ITSO) (Bélanger & Jolin, 2011), that it is important for national governments and regional tourism operators to integrate and incorporate the essence of

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tourism for all, into the tourism industry. The adoption of tourism for all should be irrespective of the different disabilities or impairments that different individuals face. The key purpose of establishing tourism for all was to further improve and facilitate full social integration and acceptance of people with disabilities into society, and to enable the complete use, or accessibility, of the surrounding environment (Alén et al., 2012; Tourism for All, n.d.).

Conversely, it was suggested by Biddulph and Scheyvens (2018) that the term "inclusive tourism" should be more widely incorporated when discussing "accessible tourism". "Inclusive tourism" can be defined as tourism "in which marginalized groups are engaged in ethical production or consumption of tourism and the sharing of its benefits" (Darcy et al., 2020, p. 141). It was noted by Scheyvens and Biddulph (2018), that the development of "inclusive tourism" is a complex multi-spatial concept, which must consider inter alia, reducing the barriers faced by those who may not otherwise engage with tourism products or services (Kadi et al., 2019). Additionally, the term "inclusive tourism" can only be considered or applied, if ostracised groups and communities are included in the ethical utilisation, and benefit from the use of a tourism product or service (Scheyvens & Biddulph, 2018). Thus, by examining tourism from a social justice perspective, tourism is a sign of status, wider opportunities, and influence (Gillovic & McIntosh, 2020; Higgins-Desbiolles et al., 2019).

According to the UNWTO (2013), the term "disability" in a tourism context can be illustrated as attached to someone who is unable to participate in and engage with the tourism sectors, due to the settings, layout, or design of the physical environment, and attitudinal barriers. This does not exclude people who are not able to partake in tourism, such as older adults, parents with prams or young children, and those with short-term disabilities, such as having to use crutches. The United Nations (1948, p13) stated in the Universal Declaration of Human Rights, that every person reserves the right to freely leave their own or another country, as well as return to their country of residence. Having the freedom to travel and engage in tourism is deemed a human and social citizenship right (Atelijevic et al., 2012; Darcy & Buhalis, 2011; Kong & Loi, 2017; McIntosh & Gillovic, 2015; Popiel, 2016). Thus, as stated by Popiel (2016), if people with disabilities are not able to participate and engage in tourism attractions and activities, then this can be deemed as a violation and breach of "the principles of equality and non-discrimination (that) are part of the foundations of the rule of law"

(United Nations, n.d., para. 1). From a social inclusion standpoint, excluding people with disabilities from engaging in tourism systems, is denying them meaningful inclusion because of lack of accessibility (Darcy & Dickson, 2009; Gillovic & McIntosh, 2015; Oliver & Barnes, 2010).

Buhalis and Darcy (2010) argued that there are multiple layers in which the concept of accessibility can be defined, depending on the context. In a tourism context, accessibility should be considered in relation to a wide range of potential barriers (Cavinato & Cuckovich, 1992) that exist at macro, meso, and micro levels. At each level, there is a clear distinction between the different levels of accessibility in relation to physical accessibility, information, and access to different products and services (Iwarsson & Stahl, 2003). Concern is often expressed around the fact that many tourism facilities provide only minimal accessibility-friendly infrastructure and amenities, and which are often required by different laws surrounding accessibility, such as building codes and requirements, and standards of accessibility; as a result, these are often poorly implemented (Darcy & Dickson, 2009; Stumbo & Pegg, 2005). It was also raised by the World Health Organisation (2007) to implement a whole-of-life approach. Doing so, would further increase and expand the definition of what "accessible tourism" means, as well as which tourist segments are included. The whole-of-life approach can be defined as the enablement of people who have a range of different access disabilities, which include areas relating to mobility, vision, hearing, and intellect. To provide better accessibility with a higher level and sense of independence, equality, and dignity, this also includes parents with prams and the elderly, and not just people with disabilities (Darcy & Dickson, 2009).

1.5.1 Universal Design

The implementation of universal design creates a sense of social inclusion and equity (Small & Darcy, 2010). It was emphasised by Kołodziejczak (2019) that whilst utilising universal design approaches within tourism is needed, it is also important that universal accessibility and design is applied across and throughout multiple tourism sectors, such as accommodation, transport, infrastructure, and visitor attractions. The key challenge in implementing universal design in the tourism industry is that there needs to be collaboration and agreement between several multi-level stakeholders (Buhalis & Darcy, 2011).

Universal design can be thought of as improving social inclusion by designing for every person and ability. Universal design was defined by The Centre for Universal Design (2003) as "the products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design" (Darcy & Dickson, 2009, p. 34). The key components of universal design are captured in seven principles, to emphasise that universal design is meant to be utilised in all "environments, products, and communications" (Iwarsson & Stahl, 2003, p. 61). The seven principles are as follows.

1) *Equitable Use:* The product is able to be used by and marketed to people who have a wide range of disabilities.
2) *Flexible in Use:* The design can help and assist with a variety of different abilities.
3) *Simple and Intuitive Use:* The design and ergonomics of the product makes it simple to understand, irrespective of the person's understanding, experience, expertise, level of verbal communication, or level of concentration.
4) *Perceptible Information:* The product clearly and effectively communicates the required information to the user, irrespective, if whether the user has a disability or impairment.
5) *Tolerance for Error:* The product has reduced risk of causing harm or an accident.
6) *Low Physical Effort:* The product can be used effectively and with minimal discomfort.
7) *Size and Space for Approach and Use:* The product is appropriately sized, and a reasonable amount of control is given to the user, regardless of the function and mobility of the user (Centre for Excellence in Universal Design, n.d.).

1.5.2 The Importance of Accessibility from a Social and Business Perspective

Within the broader legislation and human rights perspective as discussed above, it is imperative for staff working in the tourism, hospitality, and museum sectors, to understand how to best communicate and support people with disabilities (Bizjak et al., 2011; Darcy & Pegg, 2011; Kong & Loi, 2017; Sy & Chang, 2019). This applies not only from the interpersonal perspective of tourism and museum managers providing adequate staff training in effective communication and support for people with disabilities, but also, adequate information about the level of accessibility available on websites (Domínguez Vila et al., 2018; Handa et al., 2010; Leask & Barron, 2021). From an interpersonal and social perspective, it becomes evident that staff have not had adequate and proper training, due to

the lack of education, awareness, and etiquettes surrounding disabilities, and the nature and implications of disabilities (Garcia-Caro et al., 2012; Richards et al., 2010; Sy & Chang, 2019). For example, staff fail to take into consideration the physical and informational barriers that someone with a vision impairment may have in a museum setting if there are no accessibility accommodations put in place for those with vision impairments (Argyropoulos & Kanari, 2015; Darcy & Pegg, 2012; Handa et al., 2010; Murakami, 1998). This may discourage people with disabilities from engaging in the museum sector, due to discrimination (Garcia-Caro et al., 2012; Sy & Chang, 2019).

1.6. COVID-19 and the Accessibility Agenda

On the 30th of January 2020, the World Health Organisation (2020) declared COVID-19 (novel coronavirus) a "public health emergency of international concern" (para 1). Since then, the world has undergone a reconstruction into a "new normal" of how society operates and interacts, with the international slogan of "stay home, save lives" emerging, along with different international practices, protocols, lockdowns, and shared meanings associated with that slogan (Goggin & Ellis, 2020). Amongst the disability community, this maxim has seemed ironic, as many people with disabilities were home-bound well before the international outbreak of COVID-19 (Goggin & Ellis, 2020). As a result, for people without disabilities, the pandemic heightened awareness of the need for digital technologies for everyday participation, but did not alter the perception of social exclusion, which is still faced daily for people with disabilities (Goggin & Ellis, 2020; Pineda & Corburn, 2020).

Additionally, the emergence of COVID-19 heightened an already existing communication barrier through the introduction of social distancing (Goggin & Ellis, 2020). For people with hearing or visual impairments, or intellectual disabilities, communicating has become a greater information and communication barrier since COVID-19, as social distancing is not a feasible option (Goggin & Ellis, 2020). For example, those who have vision impairments rely heavily on the ability to touch their physical environment for navigation and communication. It is essential they can access facilities in public spaces such as Braille, tactile signage, handles, and rails. The challenges and difficulties of social distancing or self-isolation faced by people with disabilities can be almost impossible to overcome if they rely on external help and support for their daily living (Goggin & Ellis, 2020; Kuper et al., 2020).

This dissertation therefore informs the accessibility debate both globally and nationally, and in the climate of a global pandemic affecting people with disabilities' access to tourism experiences, such as in this case, access to museums in New Zealand.

1.7. Defining the Museum Sector in a Tourism Context

The definition of a museum used as the foundation of this research is from the International Council of Museums (2017). The significance of applying their definition to this research is that it provides an international benchmark. Additionally, it is important to understand how Museums Aotearoa (2020) classes and defines museums in a New Zealand context. Museums Aotearoa (2020) clearly stated in their strategic plan five-year plan (2020-2025), that within their sector development, they aimed to have their associated museums aligned with the International Council of Museums code of ethics, and code of practice (Museums Aotearoa, 2020b)

The International Council of Museums (2017, para.1) defined a museum as

> a non-profit making, permanent institution in the service of society and of its development, and open to the public, which acquires, conserves, researches, communicates and exhibits, for purposes of the study, education and enjoyment, material evidence of people and their environment.

Similarly, Museums Aotearoa (2020a) defined a museum as

> organisation primarily engaged in collecting, caring for, developing, exhibiting, or interpreting the natural and cultural heritage of Aotearoa New Zealand. The term includes marae and exhibition galleries, or centres maintained on an on-going basis by other organisations. (para. 1)

The United Nations Educational, Scientific and Cultural Organisation (UNESCO, 2015) defined a museum as a place for extensive cultural and intercultural communication, education, analysis, and personal development. These factors play a pivotal role in education and learning, social unity, and sustainable advancement (UNESCO, 2015). Furthermore, it was stated by Sandahl (2019) that it is important that the definition of a museum clearly communicates why they operate, their values, and the significance of their work. The significance of museums to the tourism industry has been shown to not only increase the

number of visitors to that destination (Carey et al., 2013), but museums also play an important role in the preservation and authenticity of that country or city's identity (Ooi, 2003). In New Zealand, 47% of tourists visit museums as part of their trip (Museum Aotearoa, 2018), this signals the significance of museum visitation to the tourism sector.

1.8. Significance of this Research

The significance of this research links to a global accessibility agenda that advocates rights and justice for all, and the ability to access and obtain informational communication about tourism facilities. This is guided by the social model of disability, which underpins the theoretical foundation of this research, international standards of accessibility, and New Zealand legislation. The state of disability in New Zealand suggests that it is worthwhile examining the accessibility of tourism experiences in a museum context. The next chapter analyses and examines relevant literature, highlighting the gaps in knowledge around accessibility in a museum context. Thus, it is important to have a critical understanding of what facilitates and enables accessibility in tourism as a system.

If tourism businesses are not providing the required accessible information and facilities, they are failing to meet the needs of an entire market of people with disabilities. Similarly, museum access plays a significant role within education; it is important that museum facilitators are increasingly conscious of the fact that, if their products, artefacts, and exhibitions are not accessible then, people with disabilities will not be able to engage and appreciate the museum content and experience (Cho & Jolley, 2016). The provision of accessible tourism products and services can have a positive flow-on effect, from an operational and financial standpoint to being an effective business practice (Darcy et al., 2010). Thus, this research emphasises the need for all information within the tourism and museum sectors to be accessible, reliable, and from a trustworthy source. If this is not achieved by tourism industry providers, it disenables and disempowers people with disabilities, by failing to provide them with the needed and appropriate information and access.

1.9. Research Aim

Supported by the foregoing discussion, the aim of this research was to critically examine the current provision of online information for visitors in relation to the accessibility of museums in New Zealand. Specifically, this research had two key objectives: to critically examine the online website content provision of selected museums in New Zealand in terms of how they communicate the accessibility of the experiences, and to benchmark the website content against international tourism accessibility standards.

1.10. Overview of Chapters

This dissertation consists of five chapters, as follows.

Chapter Two, Literature Review, critically analyses the relevant literature relating to the research aim. Specifically, the chapter includes a review of the extant literature on the concept of accessible tourism and summarises the international standards as a benchmark for accessible tourism suggested by the UNWTO (2013, 2015, 2016a, 2016b), best practice in accessible tourism (Buhalis et al., 2012), the World Travel and Tourism Council (2021), and Universal Design Principles.

Chapter Three, Methodology, discusses the research paradigm and methodology employed in this research, namely interpretivism using a case study methodology, as well as a content analysis of selected museum websites. The sampling criteria of museums in New Zealand is systematically explained and justified, and the limitations of the methodology are discussed.

Chapter Four, Findings and Discussion, presents the findings and a discussion of them. Firstly, the findings from the analysis of the online website content of selected museums in New Zealand are presented to show how they communicate the accessibility of experiences, as identified from the content analysis. Secondly, the findings are then be benchmarked against international tourism accessibility standards. The wider significance of the findings are discussed in relation to the wider literature.

Chapter Five, Conclusion, summarises the key findings and discussion and considers future research arising from this study.

Chapter 2: Literature Review

2.1 Introduction

The aim of this research was to examine the current provision of online information for visitors about the accessibility of museums in New Zealand. The global accessibility agenda (see Chapter 1) advocates rights and justice for all, and the ability to access and obtain informational communication about tourism facilities. This is guided by the social model of disability, which underpins the theoretical foundation of this research, international standards of accessibility, and New Zealand legislation. This chapter will review the accessibility agenda within the context of what is stated in the academic literature.

2.2 Accessibility in the Museum Sector

It has long been argued in the literature that the tourism industry is for those without disabilities, and those with disabilities have not been adequately considered or catered for (Be. Lab, 2019d; Cockburn-Wootten et al., 2018; Statistics New Zealand, 2014). The tourism industry has been constructed, designed, and marketed as a luxury able-bodied industry (Biddulph & Scheyvens, 2018). It was suggested by Cockburn-Wootten and McIntosh (2020), that the tourism industry has generally disregarded and dismissed people with disabilities as a customer market segment and assumed they do not want to participate in tourism. It is therefore particularly important that the tourism industry begins to incorporate and offer products and services for a wide range of access needs and requirements (Cockburn-Wootton & McIntosh, 2020; Felce, 1997). This need extends to the museum sector as an important tourism activity within destinations. Previous research on accessible tourism has shown that there is a social and business case to be made for making tourism accessible to all. This is largely because the accessible tourism market has a wide visitor stay length range (Cloquet et al., 2018; Leask, 2010). In addition to this, it has been found that the access market is a very loyal and dedicated market (Visit England, n.d.). This is because the access market heavily relies on word-of-mouth recommendations, influencing their likelihood to book repeatedly with a provider who caters for the accessibility market (Visit England, n.d.). Furthermore, it should also be taken into consideration that the access market may put aside more time and money to participate in tourism (Domínguez Vila et al., 2019).

The educational and social value that museums hold is supported by Museums Aotearoa (2018). It was found through a nationwide visitor engagement survey of all listed museums, art galleries, and heritage sites in New Zealand, that many visitors benefited educationally from acquiring new information (65%), some gained new and deeper insights into the different issues the world is facing (49%), and others gained the opportunity for further personal reflection (42%) (Museums Aotearoa, 2018). In terms of the social value of museums, galleries, and heritage sites, Museums Aotearoa (2018) stated that many museum visits provide the visitors with a stronger sense of connection with the community, and with the people they visited with.

It was noted by Mesquita and Carneiro (2016), that it is imperative for museum managers and policy developers to ensure there are appropriate and suitable accessible facilities for all disabilities and impairments, and at all museums. If this is not implemented, people with disabilities may experience a great deal of anxiety around the accessibility of a museum, and the need for further assistance. This may lead to people with disabilities not being able to fully engage with a museum or be excluded from certain aspects of a museum experience (Mesquita & Carneiro, 2016).

It should also be noted that when overseen and managed adequately, museums have the potential to be champions of information provision and provide inclusive experiences for people with disabilities (Mesquita & Carneiro, 2016; Sheng & Lo, 2010). For this to be effectively and successfully implemented, it is important the managers of museums take into consideration the level of participation and orientation of people with disabilities in a museum environment (Falk & Dierking, 2000; Mesquita & Carneiro, 2016). Enabling participation in museums for people with disabilities, provides them the opportunity to expand their cultural and historical knowledge, reduce their isolation, and increase their connections, self-confidence, and engagement with those around them (Kastenholz et al., 2015; Mesquita & Carneiro, 2016; Richards et al., 2010; Small et al., 2012).

A lack of accessibility can inhibit the overall museum experience in a variety of ways for people with disabilities (Mesquita & Carneiro, 2016). For those with visual impairments or low vision, overall accessibility to a museum is critically important. This is not just related to architectural barriers or structural layout and designs of a museum, but also the way in

which information is communicated, provided, and interpreted (Mesquita & Carneiro, 2016). The interpretation of informational communication is essential for people with disabilities, related not only to the physical accessibility of a museum, but also to the information about content and artefacts (Mesquita & Carneiro, 2016). Thus, it was observed by Moscardo and Ballantyne (2009) that is important for museums to incorporate a wide scope of information provision and interpretation boards, to provide effective communication through a variety of different platforms (Mesquita & Carneiro, 2016). Moreover, it is also important that museums facilitate opportunities for people with disabilities to physically engage in accessing information around the museum (Ginley, 2013). The facilitation of accessible information can be best implemented through staff training on effective communication with people with disabilities, providing tangible objects and artefacts, and information delivered in a variety of formats such as in Braille, tactile, audio, large print, and through assistive technology (Argyropoulos et al., 2017; Braden, 2017). Removing barriers to participation has also been considered in the accessible tourism literature.

2.3 Barriers to Accessible Tourism

A review of the literature on accessible tourism reveals informational, cultural, and attitudinal barriers (Buhalis & Darcy, 2010; United Nations, 2017) that hinder and limit accessible tourism.

2.3.1   Physical Barriers

The most common barriers preventing people with disabilities from engaging in tourism, are those that are physical (Bi et al., 2007; Darcy, 1998). Although there has been an increasing demand for accessible tourism, there is still an apparent lack of insight and knowledge surrounding the physical requirements of people with disabilities (Cockburn-Wootten & McIntosh, 2020). Over time, it appears that the tourism industry itself has not adequately considered the concept of accessibility, nor made evident or noticeable any adjustments to their business operations that cater for people with disabilities (Cockburn-Wootten & McIntosh, 2020). This was similarly observed by Darcy et al. (2010) who wrote that it is no longer reasonable to ignore the needs and demands for this market; indeed, ignoring the demand for this market will soon become a question of ethical concern if it is not addressed (Gillovic & McIntosh, 2020).

It was also observed by Agovino et al. (2017) that environmental barriers are a major issue for people with disabilities. The number of physical and environmental barriers that people with disabilities face can hinder them from engaging with tourism experiences and facilities, because of the lack of accessibility (Avis et al., 2005; Eichhorn & Buhalis, 2010; Keroul, 2000). *Environmental barriers* are "architectural structures not equipped with the necessary support services for the different types of disability" (Agovino et al., 2017, p. 59) and are the most common barrier inhibiting people with disabilities from accessing and participating in tourism (Marston & Golledge, 2003; Popiel (2016b). Therefore, it is important that tourism operators take into consideration the complete tourism environment, enabling the interaction and participation of people with disabilities, whilst also providing the support required to fully participate in tourism (Agovino et al., 2017; Michopoulou et al., 2015).

It was also highlighted by Murugkar, Kashyap, and Mullick. (2020), that within the heritage and museum sector, physical barriers are those most prevalent, especially for those with visual impairments, and include a lack of suitable physical and architectural infrastructure, and a gap in knowledge and training of staff supporting people with disabilities. Leask and Barron (2021) highlighted that the key external inhibitors preventing people with disabilities from fully engaging in tourism experiences were the limited spaces available for accessible parking facilities, and the difficulty of gaining access to the required public transport. It was suggested by Wiastuti et al. (2018) and Michopoulou & Buhalis (2013), that there are several different approaches that could be implemented by museums to minimise the number of physical barriers faced by people with disabilities. These include (for example) ensuring that there are sufficiently wide spaces in hallways or on ramps, ensuring there is ample room for those with and without wheelchairs to pass without causing congestion (UNWTO, 2013; Wiastuti et al., 2018). Alongside the provision of physical accessibility facilities such as ramps and elevators, Braille, tactile signage, and audio instructions to indicate the location of control buttons, floor level, and emergency contact instructions are also needed (UNWTO, 2013; Wiastuti, et al., 2018). Thus, it is important that tourism operators and stakeholders actively provide a sense of familiarity in their operating environments to minimise anxiety or uncertainty around not being able to access services for those with disabilities (Cockburn-Wootten & McIntosh, 2020; Richards et al., 2010; Vila et al., 2015).

It is therefore important for tourism and museums operators to consider the implementation and use of universal design (Wiastuti et al., 2018), through the improved implementation of organisational planning and development, architectural design, and improved communication from the management of tourism experiences and facilities (Leask & Barron, 2021).

2.3.2 Attitudinal Barriers

The attitudes and perceptions of people without disabilities are argued to be a major barrier for people with disabilities wanting to access tourism products and services (Daruwalla & Darcy, 2005; Gillovic et al., 2018; Mesquita & Carneiro, 2016).

Stereotypes are a major contributing factor to the stigmatisation of and negative attitudinal barriers experienced by people with disabilities (Daruwalla & Darcy, 2005). Daruwalla and Darcy (2005) illustrated this point by explaining that a person in the service industry may assume that someone in a wheelchair is not able to verbally communicate, so directly communicates with their support person instead. This stigma is felt by people with invisible disabilities also, such as those with epilepsy (McIntosh, 2020). These types of assumptions and negative attitudes results in the use of derogatory language towards people with disabilities, and the avoidance of people with disabilities in society (Gillovic & McIntosh, 2015; Robinson et al., 2007).

Facilitators and enablers of accessible tourism have been increasingly discussed in the literature (Cloquet et al., 2018). These factors clearly distinguish the disablement faced by people with disabilities and range from partaking to engaging in different tourism experiences and systems (Cloquet et al., 2018; Stumbo & Pegg, 2005). Huber et al. (2018) clearly defined how constraints and enablers affect the ability of people with disabilities to participate in tourism. A *constraint* is a factor that inhibits or prevents a person with a disability from participating in tourism, whereas a *facilitator* encourages and further endorses engagement with tourism (Huber et al., 2018).

An *interpersonal facilitator* can be defined as people or groups (family, friends, or volunteers) who play an integral role in enhancing the overall tourism experience and has been found to be key in socially supporting people with disabilities in tourism (Lyu et al.,

2011; Shields et al., 2012). Conversely, the interpersonal component can act as a major inhibitor for accessible tourism, largely due to negative attitudes, and a lack of support and reassurance from family, friends, and outsiders (Daniels et al., 2005; Deville & Kastenholz, 2018; Gilbert & Hudson, 2000; Hinch & Jackson, 2000; Hung & Petrick, 2010; Packer et al., 2007; Yau et al., 2004). Encouraging, supportive, and reassuring interpersonal support networks can be crucially important for overcoming structural barriers. Additionally, it is important for staff to be adequately trained, informed and conscientious, to enable a positive experience for people with disabilities, instead of adopting negative or derogatory attitudes (Deville & Kastenholz, 2018; Packer et al., 2007).

2.3.3   Informational and Communication Barriers

Informational and communicational barriers are significant barriers and inhibitors that people with disabilities face when attempting to engage with tourism facilities (Agovino et al., 2017). It has been found that much of the information surrounding accessible tourism is often fragmented, unreliable, and incomprehensible (Agovino et al., 2017; Buhalis et al., 2012; Darcy & Daruwalla, 1999; Evcil, 2018; Gillovic & McIntosh, 2015; Leask & Barron, 2021; Mesquita & Carneiro, 2016; Patterson, 2017). This lack of easily accessible tourism information can deter people with disabilities from engaging with tourism products and services. Additionally, due to informational barriers, this prevents the social and psychological satisfaction usually gained from engaging in travel, and the personal freedom and desire for connection, relaxation, and escapism from everyday life (Larsen et al., 2007; Schänzel & Smith, 2014; Shaw & Coles, 2004). As such, it constitutes the major focus of this dissertation.

Highlighting the informational barriers faced by people with disabilities, shows how detrimental these barriers can develop if they are not addressed or rectified (Agovino et al., 2017). Due to the extent of informational barriers people with disabilities face, these are often the key reason people are unable to engage in recreational leisure travel, or travel to places to go about their daily lives (Agovino et al., 2017; Fodness & Murray, 1997). The term "informational barrier" can be categorised into two segments: firstly, how information is communicated and received in daily life for people with disabilities (Park & Chowdhury, 2018), and secondly, because of the lack of information, awareness, education, and

knowledge of the different types and categories of disabilities, there is an assumption that all disabilities are physical in nature (Darcy et al., 2016; Leask & Barron, 2021; McKercher et al., 2003; Smith, 1987; Wehbi & El-Lahin, 2007).

Agovino et al. (2017) suggested that for informational barriers to be removed, it is vital that information is presented in formats that are easily accessible and which accommodate a variety of disabilities. This can be achieved, for example, by writing in Braille for those who are vision impaired and providing audible websites and clearly written texts. Additionally, the information communicated must be reliable, specific, and discernible (Fodness & Murrary, 1997). However, the two key barriers that prevent tourism and hospitality organisations from implementing clear accessible information for those with disabilities are related to supply and demand. Managing the balance between the supply and demand of accessible tourism fluctuates for each stakeholder, and depends on the different types of disabilities presented, as well as the facilities available (Ray & Ryder, 2003).

It was further highlighted by Wiastuti et al. (2018), that for museums to implement more effective information provision, they need to consider the type of information required, and the most effective way to deliver that information (Wiastuti et al., 2018). According to the UNWTO, there are five key components required to provide and deliver accessible information (2016, as cited by Wiastuti et al., 2018). Firstly, clear information about the accessibility of the physical environment and infrastructure (Wiastuti et al., 2018) is needed. Secondly, information must be clearly stated on the website, so readers can learn about available accessibility facilities and services (Wiastuti et al., 2018). Thirdly, information about accessibility must be clear, consistent, and up to date on all communication mediums and channels (Wiastuti et al., 2018). Additionally, it is recommended that management and staff receive comprehensive training in how to support people with disabilities in a museum context (Wiastuti et al., 2018). Furthermore, information provision about accessibility must be current and on all information platforms (Wiastuti et al., 2018). By museums implementing effective and current information provision to people with disabilities, a competitive advantage is obtained by demonstrating a high level of quality care to customers, opening new business opportunities, a unique standard of social responsibility, and well as economic, social, and environmental sustainability (Ambrose, 2016; Wiastuti et al., 2018).

As information by means of website communication is central to this research, discussion about the accessibility of websites is further explored next in Section 2.4.

2.4 Accessibility of Information on Museum Websites

It is important for tourism operators and museum facilities to provide accessible and reliable website information, because a lack of accessible information goes a lot further than only using social media as a reliable source of information provision (Cock et al., 2018; McMillen & Alter, 2017; Vaz et al., 2020). Information on social media may be aimed at increasing visitation numbers, reviews, and the improvement and development of the museums' reputation, but does not provide important information to plan a visit (Dilenschneider, 2015; McMillen & Alter, 2017).

Capability Scotland (2002) noted that it is important for tourism facilities and providers such as museums, to provide accessible information on their websites for people with disabilities, because if such people cannot fully access information on the website, the providers are not meeting the access needs of their customers, and potentially losing business (Williams et al., 2006). The key components of accessible websites information provision were proposed by Visit England (n.d.). Firstly, providers need to clearly indicate where customers can locate information about accessibility, not just in one specific tab, but easily accessible throughout the website (Visit England, n.d.). Secondly, the information on the website needs to be accessible through a variety of formats; not all formats are accessible to people with disabilities (Visit England, n.d.). The WCAG has provided explicit guidelines on how information stated on websites can be accessed by people with disabilities (Web Accessibility Initiative [WAI], n.d.a, n.d.b.). For example, implementing hyperlinks in websites highlights important specific information to people with disabilities, as does the use of screen-readers (North Carolina State University, n.d.; WAI, n.d.a.). However, information in a PDF format cannot be easily accessed by some people with disabilities because they are unable to adjust the font size of the document for improved readability (Visit England, n.d). Thirdly, the provider must directly state or indicate which organisation is assisting with the provision of accessible information. This can be achieved by explaining that the information provided is in alignment with online accessibility standards, such as those of the WCAG (Visit Britain,

n.d.; Visit England, n.d.). Fourthly, information on accessibility must be up-to-date, reliable, and accurate (Visit England, n.d.).

Addressing these four requirements of accessible website information provision minimises and reduces the barriers which people with disabilities often face and enables better communication and a sense of inclusion in relation to products and services offered (World Wide Web Consortium [W3C] 2018). Furthermore, implementing better website accessibility and communication can have a positive impact on the organisation itself, such as by increasing search result numbers, decreasing the need for website maintenance in the long-term, and reaching a wider audience and target market (W3C, 2018).

The accessibility of a website can be measured by its useability with assistive technologies (Cloquet et al., 2018; Michopoulou & Buhalis, 2011), as well as its centralisation of accessible information in one specific section of the webpage. This should be clearly labelled and displayed not just on the website's homepage, but also accessible from other sections within the website (Cloquet et al., 2018; Visit England, n.d.). Furthermore, it has been shown that there is a clear relationship between website accessibility, and how it can be effectively used to connect visitors with information (Marty, 2006; Walsh et al., 2020). This was further emphasised by Skov and Ingwersen (2014), who noted that it is critical for museum operators to have a comprehensive understanding of how people interact with their website, to effectively develop an applicable and relevant museum website (Walsh et al., 2020). The interaction with a museum website is most utilised for searching for information before arriving at the museum (such as the physical location of the museum, opening hours, and pricing structures if applicable), as well as searching for content-specific information, and prior or further research into an artefact or exhibit (Goldman & Schaller, 2004; Skov & Ingwersen, 2014).

The importance of providing relevant information about the accessibility of a museum was emphasised by Cloquet et al. (2018), who explained that the accessibility content on a museum's website must incorporate and address the internal and external geography of the physical environment; what tailored products and services are available to people with disabilities; accessible parking facilities, accessible toilets, and amenities; and the accessibility of the museum shop or café. According to Visit England (n.d.), 81% of people

with disabilities consider that it is important for tourism related services to incorporate the following accessibility related information into their website: information about how to get to and from the museum, hotels, attractions, hospitality services, and the physical geography. It is important that tourism operators and museums provide reassurance that there will be information and assistance available on the availability of accessible facilities (Visit England, n.d.).

It is crucial that museums closely examine how accessible their websites are for all users (Smith & Lind, 2010), as the demand for accessible information content is increasing (Kelly et al., 2008; Smith & Lind, 2010). It is also important for providers to consider how they will audit the accessibility of their information provision (Visit England, n.d.), such as through the World Wide Web Consortium (W3C), or using the Web Content Accessibility Guidelines (WCAG) (Wood et al., 2013). These guidelines were designed and implemented using W3C development, which works alongside several global organisations (WAI, n.d.b.). The purpose of the W3C and the WCAG is to provide universally shared website accessibility standards, which aim to fulfil the access content needs of individuals, organisations, and international government officials (WAI, n.d.b.). Using the WCAG, people with disabilities can access the content of websites more easily, particularly people affected with hearing, vision, physical, verbal, intellectual or neurological impairments (WAI, n.d.a.). In the WAI (n.d.a.) guidelines, the term *content* is clearly defined as information on pages or applications of the website, such as the original information displayed within the format or layout of a website's structure, text, pictures/images, or audio-visual material (WAI, n.d.a.). Thus, the use and implementation of web accessibility enables people with disabilities to better access, identify, comprehend, and navigate the world wide web (WAI, n.d.a.).

It has also been found that many people with disabilities face technical barriers when accessing websites' information provision, due to the lack of accessible website design (Hornton & Quesenbery, 2013; Thatcher et al., 2006; Yoon et al., 2016). The use and implementation of a screen reader allows people with visual impairments or blindness, to engage with the website's information using a keyboard and listening apparatus (Yoon et al., 2016). These allow users to access and engage with information provided on the website, using digital text-to-speech technology (Yoon et al., 2016). Moreover, for tourism organisations and museums to provide more accessible information on their websites, it was

advised by Visit England (n.d.) to limit the use of Portable Document Formats (PDF) (Visit England, n.d.). The primary reason to avoid PDFs on accessible websites is because it can be challenging for people with disabilities to adjust the size of the font for reading and printing (Visit England, n.d.). Alternatively, a page is more accessible to a user if the information is presented in an HTML (hypertext markup language) format, or a Microsoft Word document, ideally using a sans serif font such as Arial, using 14 cpi (characters per inch) (Visit England, n.d.). Because of the lack of consistency and predictability on the accessibility of website information provision, it is imperative for people with disabilities that there are universal standards for providing accessible information (UNWTO, 2020).

2.5 International Standards as a Benchmark for Accessible Online Information in Museums

Garvin (1993) stated that benchmarking is implemented through comprehensive processes that aim to recognise a form of best practice. It has been suggested by Kozak and Nield (2004) that, through the implementation of effective benchmarking, there is an opportunity to propose what the benchmark standard would look like in the future. The overall objective of implementing benchmarking is to clearly identify the best practice within a particular industry (Wöber, 2002).

There is very limited research on the lack of benchmarking standards within the tourism sector (Pearce & Beckendorff, 2006). Reichel and Haber (2005) noted that benchmarking in the tourism sector may be difficult, due to the diversity of products and services available. This may make it challenging to clearly gauge which similar tourism attractions and activities businesses can clearly and specifically benchmark themselves against (Pearce & Beckendorff, 2006; Wöber, 2002). It is also important for tourism visitor attractions, such as museums, to take into consideration the time sensitivity and perishability of benchmarking standards (Kozak & Nield, 2004). For example, the Qualmark framework exists to ensure that certain New Zealand visitor attractions, accommodation providers, and other tourism operators are meeting and upholding set benchmark quality standards, these Qualmark businesses are reviewed on a regular basis (Qualmark, 2017).

The lack of benchmarking standards in relation to what accessible tourism should look like has created a sense of confusion, uncertainty, and frustration amongst people with disabilities

engaging with tourism products and services (Buhalis et al., 2012). It has been further argued that the tourism sector and government agencies have the capacity and authority to implement and promote accessibility standards (Buhalis et al., 2012). Instead, it has been accepted and recognised that accreditation membership, symbols, or labels have been recognised as a de facto benchmarking system (Kozak & Nield, 2004). This was criticised by Buhalis et al., (2012) as symbols for access information or accreditation can be overused or cause interpretation confusion, as icons may not be clearly defined in terms of their meaning (Buhalis et al., 2012). However, if the tourism sector and government agencies were to implement an international standard of accessibility, this would provide and "govern minimum access requirements and framework standards in public and private sectors" (Buhalis et al., 2012, p. 23).

In the museum context, there is a lack of international and universal standards of accessibility, although there are various recommended accessibility guidelines, such as those discussed in Chapter 1, and a code of ethics (International Council of Museums, 2017; Interreg, 2017). The American Association of Museums stated that a "museum code of ethics are explicit that stewardship of collections entails the highest public trust, and carries with it, the presumption of rightful ownership, permanence, care, documentation, accessibility, and responsible disposal" (2000, as cited by Collins et al., 2006, p. 20). The importance of clearly emphasising a museum's accessibility in a code of ethics is asserted by Museums Aotearoa (2013), which states that it is of utmost importance to display "accurate, relevant and accessible interpretative information is available to visitors, taking reasonable account of those with various impairments, in a variety of appropriate formats within and accompanying exhibitions and displays" (p. 8, Section 2.1b). As such, there is an important need to further consider how museums can promote accessibility of information.

Drawing together the existing best practice and international standards for accessible tourism (see Chapter 1), e provides a summary (see Table 1) of accessibility best practice commonalities that have been recommended by the following accessibility advocates: the UNWTO (2013, 2015, 2016a, 2016b), Buhalis et al.'s (2012) "Best practice in accessible tourism: Inclusion, disability, ageing population and tourism," the World Travel and Tourism's (2021) Inclusive and Accessible Travel Guidelines, and the seven principles of universal design. The rationale for choosing those four accessibility advocates is that they

each clearly state what accessible information provision should look like, in an international tourism context.

Table 1 presents the key elements of accessible commonalities that should be ideally found within the online information of museums. The key common feature of best practice recommended by all four accessibility advocates is that museums clearly state the provision of accessibility information on their websites. It is recommended that museums have a range of different accessible information forms and signage at their sites, which should be clearly stated and communicated on the "accessibility" section of their websites.

Table 1

Key Commonalties as a Guide to International Best Practice

Commonalities	UNWTO (2013, 2015, 2016a, 2016b)	Buhalis et al. (2012)	World Travel & Tourism Council (2021)	Universal Design (n.d.)
Staff training and awareness	✓	✓	✓	
Staff attitudes	✓	✓	✓	
Provision of accessible information	✓	✓	✓	✓
International disability icons	✓ (2013, 2015 & 2016a)	✓	✓	
Promotion of accessible facilities	✓	✓		✓
Dignity & comfort for PwD	✓	✓	✓	✓
Inclusion and facilitation of:				
- Accessible parking	✓	✓		
- Accessible building entrances & exits	✓	✓		
- Guide dogs welcome				✓
- Wheelchair accessibility	✓	✓	✓	✓
- Accessible ramps	✓	✓		✓
- Elevators/ lifts	✓	✓		✓
- Accessible toilets	✓	✓		✓
Accessible information and signage through the use of:				
- Braille	✓	✓	✓	✓
- Tactile signage	✓	✓	✓	✓
- All mediums and formats	✓	✓	✓	✓
- Audio-visuals		✓	✓	✓
- Visual contrasts on brochures, maps, leaflets, & website communication		✓	✓	✓
Incorporation or consideration of universal design principles		✓		✓

Note: The data presented in Table 1 are a representation of data available from the relevant publications and reports. Where a tick is not present in the table, this should not be interpreted to indicate that the advocate does not recommend this item. Rather, that item or recommendation may not be explicitly stated in that particular publication or report.

Chapter 3: Methodology

3.1 Introduction

In this chapter, the research paradigm is explained, followed by explanations of the methodology and sampling, which are discussed and justified to achieve the aim of this research. The data analysis process is then illustrated, and the limitations of this research explained.

3.2 Research Paradigm

A *research paradigm* can be defined as a set of shared fundamental or common beliefs that guide the direction of research (Denzin & Lincoln, 2011; Kivunja & Kuyini, 2017). The paradigm principles and theoretical framework are based around the key components of ontology, epistemology, methodology, and methods (Rehman & Alharthi, 2016). It is important to understand the different research approaches that can be taken, because a clear understanding of the researcher's ontological and epistemological principles, allows for a more in-depth understanding of the significance, importance, and relevance of the research (Patton, 2002; Rehman & Alharthi, 2016). This research adopted a qualitative approach using an interpretive framework. An *interpretive study* can be defined as one that looks at other peoples' lived experiences, and their perspectives. Interpretivism is often exploratory by design and adopts the same qualitative methodological approaches to the data collection and analysis stage (Gray, 2013). The justification for using an interpretive framework for this research is because using this framework, the researcher is able to gain further insight and understanding of key issues surrounding the research topic (Ponelis, 2015).

3.3 Research Design

To address the research, aim, and objectives, this study used a case study approach. The purpose of utilising a case study methodology approach was to specifically analyse the online website content provision of selected museums in New Zealand in terms of how they communicated the accessibility of the museum experience. The data analysis process used was a content analysis. This was used to analyse commonalities across the online website

communications and to provide an exploratory benchmarking of the website content against international tourism accessibility standards.

3.3.1 Case Study Methodology

The implementation and use of a case study methodology is often to achieve a specific focus in research (Grey, 2013). A case study can be defined by a specific and particular interest in unique cases (Johansson, 2007; Stake, 1998). The utilisation of a case study methodology allows for a better and deeper understanding of how and why certain events took place. This promotes a more analytical approach, and a critical understanding of what was planned, as well as what actually occurred (Anderson, 1993; Noor, 2008). In comparison to other research methodologies, the case study methodology allows for a much broader exploration of different themes from a more focused context and perspective (Eisenhardt, 1989; Grey, 2013). Using a case study approach for the purpose of examining different organisations, allows the researcher to gauge the ingrained and imminent dynamics that exist in the organisation's activity (Noor, 2008). Hence, in this research, the case study methodology enabled an in-depth analysis of each of the selected museum's websites, in terms of what accessibility aspects were stated, aspects which would enhance the overall museum experience for people with disabilities, the language that had been used, the use of inclusive imagery, and the provision of the physical information.

3.4 Sampling Approach

The sampling approach used for this research was a systematic process. According to the University of Limerick (2018), a *systematic review process* can be defined as "searching, selecting, and managing the best available evidence for research, according to a defined, planned and consistent method" (para. 2.). Applying this approach allows for specific data to be collected and reviewed, for specific research question(s) or objectives to be answered. The systematic approach in the context of this research ensured that this research was conducted in a synthesised and organised manner. To ensure that the research went in a clear and definitive direction, a research aim, and two objectives were clearly established, which were the foundational basis guiding this research.

3.4.1   Sampling Procedure

A total of five New Zealand museums were selected after multiple searches, primarily through the search engines on Google Chrome and Mozilla Firefox. The rationale for using two different search engines was because some search engines may prioritise different organisations. The sample criteria used to identify the museums were that they had to meet the definition of a museum in New Zealand (see Section 1.7), who have a set focus surrounding natural, scientific, and historic artefacts, as well as an active association with an accessibility organisation. This is important because, the selected museums in New Zealand would have an accessibility focus. The importance of affiliation being known and displayed in museums relates to communicating the importance of accessibility and inclusivity for all (see Chapter 1). Hence it became a criterion for sample selection in this research. Furthermore, for accessibility affiliation to be effective, it must meet the international standards of accessibility. In this way, international benchmarking of accessibility standards becomes possible, and relevant to achieving the objectives of this research. Furthermore, placing additional emphasis on accessibility affiliation may encourage more tourist attractions to embrace and gain accreditation recognition and for accessibility to be normalised (see Chapter 2) (Eichhorn et al., 2008; Font, 2002).

The sample for this research resulted in the inclusion of four New Zealand regional museums, as well as the national museum, Te Papa. According to Swarbrook and Page (2002), , the typology of national museums should be considered: man-made non-tourism purpose built, under a public-state ownership classification. This sample was defined according to the following homogenous factors: the purpose of why they exist; the level of commitment they each had to providing accessibility provision; informational distribution for all disabilities and impairments; the association, affiliation, and engagement with independent accessibility organisations; and evidence of accessibility requirements and processes on their websites.

The following discussion introduces the affiliation programmes appropriate to this research; namely Be. Lab and Arts Access Aotearoa.

The social change organisation Be. Lab was founded in 2011 under the previous name "Be. Accessible" (Be. Lab, 2019a). The purpose, vision, and mission of Be. Lab (2019a) is very clear; to help make New Zealand a fully accessible nation. In addition, Be. Lab (2019a) states

that its vision as an organisation is to make New Zealand the most accessible nation in the world, and its mission is to help make New Zealand a "world-leader, in accessible social and economic development" (Be. Lab, 2019a, para. 2). The Be. Lab (2019d) website is a starting platform that provides information and digital resources to assist a range of different businesses to becoming 100% accessible (Be. Lab, 2019d).

The vision and purpose of the organisation Arts Access Aotearoa (*Putanga Toi ki Aotearoa)* is to enable accessibility to the arts for those who may otherwise be excluded from participation. Arts Access Aotearoa's (n.d.a.) scope for the arts is not purely focused on art or stage performance, but also engages with making galleries and museums more accessible environments for people with varying disabilities (Arts Access Aotearoa, n.d.).

These two affiliation programmes became the focus for selecting appropriate sample museums for this research, given the importance of the accessibility agenda and benchmarking against international standards. The museums with an active affiliation with Be. Lab were the Auckland Museum and Te Papa (Be. Lab, 2019b, 2019c). Puke Ariki, Canterbury Museum, and Otago Museum all had an active affiliation with Arts Access Aotearoa (Arts Access Aotearoa, 2019a, 2019b, 2019c).

It is stated by Be. Lab that the Auckland Museum was one of its key affiliated businesses (Be. Lab, 2019b; Lonely Planet, 2017). In order for a business to be deemed a "Be. Lab business," it needs to show that it is committed to expanding and enhancing accessibility, and the staff are "bold and courageous in their efforts" (Be. Lab, 2019b, para. 2) to satisfy the needs of a range of diverse customer personnel. Because of this, these businesses were well respected for their commitment and vision towards continuous learning and improvement towards a more accessible New Zealand (Be. Lab, 2019b). Similarly, Te Papa was also recognised as one of Be. Lab's (2019c) affiliated businesses and is committed to improving and enhancing the level of accessibility for all (Be. Lab, 2019c; Lonely Planet, 2017). Additionally, it was revealed by Be. Lab (2019c) in early 2021, that Te Papa was considered one of the most accessible tourist attractions in the Wellington district (Be. Lab, 2019c). This was primarily due to Te Papa's extensive range of accessible informational and provisional facilities for people with disabilities (Be. Lab, 2019c).

The other selected museums were recognised for their affiliation with and contribution to Arts Access Aotearoa. The Otago Museum has been recognised for its work and contribution alongside the local autistic community, gaining the Art Access Museum Award of 2019 (Arts Access Aotearoa, 2019c). In this exhibition, the museum allowed people without disabilities or autism to have an open and raw conversation about the reality of autism. This exhibition was not designed to put people with autism on a stage, but to connect and engage people, using the Otago Museums' artwork as a catalyst for conversations about autism (Arts Access Aotearoa, 2019c).

Canterbury Museum works closely alongside, and is actively affiliated with Arts Access Aotearoa, sharing the collective aim of further improving the accessibility and inclusion of people with disabilities in a museum environment (Arts Access Aotearoa, 2014). As a result, both Canterbury Museum and Arts Access Aotearoa (2019a) have developed an accessibility policy (Arts Access Aotearoa, 2019a). Furthermore, Canterbury Museum was awarded the "Museums Aotearoa's Service IQ New Zealand Museum Award," at the Arts Access Aotearoa awards in 2018. This award acknowledges and recognises organisations in the galleries, libraries, archives, and museums (GLAM) sector, that have made a considerable effort at "building new audiences by developing initiatives and becoming more accessible to diverse audiences" (Arts Access Aotearoa, 2019b, para 1).

Through the facilitation of Arts Access Aotearoa (n.d.b.), Puke Ariki worked closely alongside the "Arts for All Taranaki Network," comprised of people with disabilities, and community, arts and culture associations, that meet on an annual basis to seek guidance on how to best facilitate and support art for all abilities (Arts Access Aotearoa, n.d.b.). This enables people with hearing and vision impairments to fully engage and participate in art through the facilitation of sensory-art and access to New Zealand sign language interpreters (Arts Access Aotearoa, n.d.b.). Therefore, the New Zealand museums which formed the sample for this research have active affiliations with accessibility advocates, which is important for generating new knowledge about accessible tourism.

3.4.2   The Sample

Defined as New Zealand museums (see Section 1.7), this section provides a brief background to each of the five selected museums sampled in this research.

The Auckland Museum (https://www.aucklandmuseum.com/) is in the Auckland Domain, Parnell, in the North Island of New Zealand (Auckland Museum, n.d.d.). According to its annual report for the year 2019/2020, the museum recorded 444,615 visitors (Auckland Museum, 2020). The effect of the COVID-19 pandemic must be taken into consideration when viewing the visitor numbers, as this significantly reduced the museum's international visitor numbers (Auckland Museum, 2020). The museum has clearly defined its purposes as: valuing its links to Auckland, and the people that reside there; inspiring ideas and the source of those ideas; providing relevant information and looking forward into the future; and being a museum that is innovative, and takes action (Auckland Museum, 2020).

The national museum of New Zealand (Te Papa (https://www.tepapa.govt.nz/) is situated on the Wellington waterfront, also in the North Island of New Zealand (Te Papa, n.d.e.). Te Papa has clearly stated its long-term vision as an organisation as: to "change hearts, minds, and lives" (Te Pūrongo ā Tau, 2020, para 1). In addition, this museum has clearly stated its mission for operating as "to understand the past, enrich the present and meet the challenges of the future" (Te Pūrongo ā Tau, 2020, p. 9). As the national museum of New Zealand, it has also clearly outlined its values as an organisation: "*Hiranga* – Excellence, *Manaakitanga* - Community Responsibility, *Mätauranga* - Knowledge and Learning, *Kaitiakitanga* – Guardianship, and *Whanaungatanga* – Knowledge" (Te Pūrongo ā Tau, 2020, p. 9). In the year ending 2019/2020, Te Papa recorded 1,108,232 visitors into its premises (Te Pūrongo ā Tau, 2020). The effects of the global pandemic reduced annual visitor numbers by 28% (Te Pūrongo ā Tau, 2020).

The Puke Ariki Museum (https://pukeariki.com/) is an integrated and combined service with a district library and information centre and owned by the New Plymouth District Council (New Plymouth District Council, n.d.). These three public services are located within one building in New Plymouth, in the North Island of New Zealand (New Plymouth District Council, n.d.a.). The key aim of Puke Ariki is to "make New Plymouth a lifestyle capital" (para. 1), by emphasising three key areas: *Aroha ki te Tangata* – putting the people first; *Manaaki whenua, tangata, haere whakamua-* caring for their place; and *Awhi mai, awhi atu, tätou katoa-* supporting a prosperous community (New Plymouth District Council, n.d.b.).

The Canterbury Museum (https://canterburymuseum.com/) is located within the central business district of Christchurch, in the South Island of New Zealand (Canterbury Museum, n.d.e.). The Canterbury Museum has stated its mission as: "Our museum celebrating Canterbury, discovering the world. For us and our children after us: *Waitaha-kōawa-rau, ka whakanuia; te-ao-whānui, ka tūhuratia. Mā tātou ko ngā uri e whai ake nei"* (Canterbury Museum, 2019/2020, p. 1). In conjunction with this mission, the Canterbury Museum has a vision to be "a world-class facility with the capabilities that allow us to host major international exhibitions, share our treasures, and celebrate all that makes Canterbury and New Zealand great" (Canterbury Museum, 2016-2020, p. 1). As a museum, its core values are: engaging in a positive manner with all visitors; working collaboratively with every member of staff and their community; being accountable in its operations; and always acting with a sense of Integrity (Canterbury Museum, 2019/2020). Despite the COVID-19 pandemic, the Canterbury Museum recorded 752,400 visitors for the year ending 2019/2020 (Canterbury Museum, 2019/2020).

The Otago Museum (https://otagomuseum.nz/) is in Dunedin's city centre, in the South Island of New Zealand (Otago Museum, n.d.d.). This museum has stated its mission "to inspire and enrich our communities, and enhance understanding of the world through our collection, our people, and the stories we share" (Otago Museum, 2019/2020, p. 9). In conjunction, it has articulated its vision to "*kia whakaoho* - awaken wonder, curiosity, and understanding in our world" (Otago Museum-annual report, 2019/2020, p. 9). The values by which it operates are: *Manaakitaka* – to be a guardian of its *taoka, tākata,* and *whakapapa*[1]; *Kaitiakitaka* - to guard its *taoka, tākata,* and *whakapapa* for upcoming and future generations; *Tohukataka* - to flourish and promote further knowledge through future research, education, and partnership; *Whanaukataka* – to work and create different partnerships; and *Rakatirataka* - to ensure the validity, ethical reasoning, and leadership is evident in its work (Otago Museum, 2019/2020). Due to COVID-19, the visitor numbers for

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[1] "*Taoka* – refers to the tangible and intangible treasures of the Museum; *tākata* refers to the people of Otago Museum – its staff, visitors, partners, stakeholders, and communities; *whakapapa* refers to the Museum's relationships and history" (Otago Museum, 2019/2020, p. 8)

Otago Museum dropped significantly, and were down by 21%, with just 272,000 visitors in the year ending 2019/2020 (Otago Museum, 2019/2020).

3.5 Content Analysis

To meet the aim and objectives of this research, a content analysis was used to identify commonalities and gaps in terms of accessibility facilities and informational provisions of the five selected museums. Conducting a content analysis for this research enabled the analysis of website navigation, information provided, inclusive imagery, language provision of information, and information surrounding the overall museum experience. These were deemed important aspects in the evaluation of each museum's accessibility (see Chapter 2).

A *content analysis* is a data analysis method used to make similar and credible inferences from similar sources to their original contexts (Krippendorff, 2004). It was asserted by Downe-Wambolt (1992), that the aim of conducting a content analysis is to provide a connection and interpretation of results to the original environment from which they were produced. The rationale for implementing a content analysis was because this form of research methodology provides a "systematic and objective means to make valid inferences from verbal, visual, or written data in order to describe and quantify specific phenomena" (Downe-Wambolt, 1992, p. 314). Using a content analysis helps provide an objective explanation of the topic being researched (Berelson, 1952). A content analysis can be effectively implemented for multiple reasons, such as the revealing of different themes, recurring patterns, and content delivery (Downe-Wambolt, 1992; Lune & Berg, 2017). It also takes into consideration the significance, meanings, objectives, and environment in which the research was conducted (Downe-Wambolt, 1992).

This research followed Bengtsson's (2016) qualitative content analysis, namely, decontextualisation, recontextualisation, categorisation, and compilation (Bengtsson, 2016). This process allowed for the examination of common content included in the websites' content surrounding the accessibility aspects and the museum experience, notably, the website navigation, the inclusive approach, provision of information, and the inclusive museum experience.

Step 1. Decontextualisation

The decontextualisation process begins by the researcher becoming familiar with and having a thorough understanding of the text or data as a whole (Bengtsson, 2016). This beginning process of the content analysis is important because it allows the researcher to fully grasp and comprehend what is happening with the text or data, before breaking the data down into smaller meaning units (Bengtsson, 2016). A *meaning unit* can be described as the smallest unit that holds a portion of the required understandings and perspectives that the researcher needs. A meaning unit is also the collection of essential sentences and paragraphs that contain interrelated aspects or meaning that answer the objectives of the aim of the research (Bengtsson, 2016; Catanzaro, 1988). Each of the established meaning units should then be clearly coded, in relation to the context of the research; this process can be defined as the *open coding process* (Bengtsson, 2016). It is important that the coding process clearly outlines and defines the characteristics, categories, patterns, and similarities of each classification or group (Bengtsson, 2016; Catanzaro, 1988; Downe-Wambolt, 1992).

To clearly define and determine the coding process of the content analysis (Bengtsson, 2016), a comparison of the accessibility content under each museum's "access" tab was executed. This was achieved with a frequency count of the commonly stated accessibility facilities, across each of the five museum websites. Key words were selected for the frequency count across all five selected museums: "accessibility," "information," "visual," "physical," "impairment," "assistance," "ramps," "elevators," "entrance," "toilet," "Braille," "tactile," "contact," "guide dogs," "carers," and "quiet hours." The selection of the stated key words enabled clear identification and the outlining of not only the common content, but also the characteristics and similarities of common accessibility facilities across the five selected museums in New Zealand (Bengtsson, 2016; Catanzaro, 1988; Downe-Wambolt, 1992).

Furthermore, once the frequency count of the common accessibility facilities had been counted and recorded, this allowed for the identification of the key categories for the collation of data in It was observed that only the Puke Ariki website clearly stated that it was in alignment and in compliance with the W3C accessibility guidelines.

The promotion of accessible information has been identified as an important international benchmark of best practice in accessibility (Buhalis et al., 2012; Universal Design, n.d.;

UNWTO, 2013, 2015, 2016a, 2016b; WTTC, 2021). From analysis of the websites, it is evident that there are shortcomings in the navigational aspects of accessing information for visitors with disabilities. This is an important aspect, as many people with disabilities will consult a museum's website for accessibility information prior to arrival (Burnett, 1996; Evcil, 2018). If there are gaps or barriers in accessing information about access to the physical museum and its ease of access, then those with disabilities may miss out on the museum experience as a whole (Eardley et al., 2016). Throughout the international standards of best practice in accessibility (Buhalis et al., 2012; UNWTO, 2013, 2015, 2016a, 2016b; WTTC, 2021; Universal Design, n.d.), it has been recommended that tourism and museum operators provide the necessary information for people with disabilities to access and engage with museums' content in a format that is easy to find (Mesquita & Carneiro, 2021).

In accordance with the UNWTO (2015) guidelines, the readability of tourism organisations websites is not limited to functional design and useability. Whilst they are both important aspects to consider, it is also of paramount importance that tourism organisations provide adequate, reliable, and up-to date information about their accessibility aspects (Eusébio et al., 2021).Various studies have found that the ease of navigation to information on accessibility, and the readability format in which it is presented, can have a significant impact on conversion rates – i.e., how many customers choose to make a further enquiry or booking (UNWTO, 2015). It was also noted by the UNWTO (2018) that for tourism organisations to provide and promote accessible information on their websites, they needed to adhere to the international standards and guidelines provided in the WCAG. Specifically, the UNWTO (2013, 2018) recommended that tourism organisations organise their website information according to the four key principles stated by the WCAG: perceivable, operable, understandable, and robust.

Of the five museums, only Puke Ariki actively promoted and followed the W3C and WCAG international standard guidelines; this was clearly stated at the bottom of the "accessibility" section of its website (Puke Ariki, n.d.a.). The appropriate use of links has been strongly encouraged by the W3C (WAI, n.d.c.) which stated that the use of links on websites makes important information clearer and more evident, allowing for easier navigation of a webpage. Due to the complexity of different people with disabilities' needs and access requirements, it is important that tourism and museum operators take into consideration the different ways in

which people with disabilities may interact with their websites whilst searching for information on accessibility (Eusébio, Carneiro, Teixeira, & Lemos, 2021). Moreover, when providing additional information, it is also important that tourism and museum operators consider the format in which it is provided (Eusébio et al., 2021). in Chapter 4. The categorisation of the common accessibility facilities is broken down into two categories: accessible facilities and information provision.

Step 2. Recontextualisation

Once the decontextualisation process has been completed, it is important that after the researcher identifies the meaning units, to then ensure that all elements of the research have been included parallel to the aim of the research (Bengtsson, 2016; Burnard, 1991).

The second step of the content analysis was achieved by analysing the frequency count of the commonly stated accessibility facilities in the selected museums. The data from each museum were examined from a homogeneous, unbiased, and neutral perspective, whilst also being analysed as a whole. This step was constantly evaluated, to ensure that all aspects of this research were consistent with the aim of this research (see Bengtsson, 2016), which was to examine the current provision of information about the accessibility of New Zealand museums.

Step 3. Categorisation

The categorisation step identifies the key categories and themes to be utilised within the content analysis (Bengtsson, 2016). Krippendorff (2004) and Patton (2002) noted that once the themes and categories have been identified, they should be both internally and externally homogeneous, and there should not be a blurred understanding of what data are placed into each category or theme (Bengtsson, 2016).

The categorisation process was broken down into two categories as stated in Step 1: "Accessibility Facilities." This category included the accessible parking available, accessible entrances and exits, international disability icons displayed, accessible toilets, guides dogs welcome, elevators and ramps, wheelchair accessible, and wheelchair hire. The accessibility facilities stated were derived from the key words chosen in Step 1. The second category was "Information Provision." This category, this included: "Contact Us" information or prompts,

maps of the museum, accessible tours available, promotion of accessible information in Braille, tactile signage, audio-visual subtitles, visual contrasts (in brochures, maps, leaflets, and website communication), and all mediums and formats, which include New Zealand sign language hearing loops. The information provision facilities stated were derived from the key words chosen in Step 1.

Step 4. Compilation

The last step in the content analysis methodology is evaluating and analysing the data from a neutral point of view and examining their objectivity (Bengtsson, 2016). Each resulting theme and category were considered systematically, identifying key words or phrases and meaning in relation to the wider literature (Bengtsson, 2016). For example, within the first category "Website Navigation Aspects" some of the key words and phrases which are significant to the wider literature, are the "appropriate use of links", this phrase holds significance to the W3C and WCAG (WAI, n.d.c.), North Carolina State University. (n.d.) and Visit England (n.d.). The findings of the content analysis are presented in Chapter 4 under the resulting themes that emerged from the data analysis. It should be noted that, due to the museum copyright issues, visual supporting data was not able to be presented in this dissertation.

3.6 Limitations

This research has several limitations. Firstly, the study analysed only accessibility information provided on the museums' websites; many accessible tourism facilities are also found or acquired through word of mouth (Visit England, n.d.). Secondly, museums, especially smaller museums, may not have the resources to provide a website or sufficient information about accessible facilities. The lack of resourcing may also extend to the ability to have the website communications audited by an accessibility auditor/ advisor or affiliation programme. Thirdly, website content can change and, hence, the data analysed here may not be the same as updated website content available. This was managed during the data collection period by capturing each website's content via the snipping tool to ensure consistency in the data analysis process. The rationale for not examining the social media content of the five selected museums was because social media does not often provide detailed information about a museum visit and access (Visit England, n.d.). Furthermore, it

is important to consider that findings from the current research cannot be generalised to all museums in New Zealand, which relates to a limitation of utilising a case study approach. However, this research does provide important context in terms of the current state of accessibility information provision in museums in New Zealand that are deemed actively affiliated with accessibility advocates. Further research, however, is needed to build on the findings of this dissertation.

Chapter 4: Findings and Discussion

4.1 Introduction

This chapter presents the findings of the website content analysis explained in Chapter 3. The discussion then provides a critical analysis of the findings, in relation to how these relate to the wider literature and address the research objectives.

4.2 Content Analysis of the Websites of Selected Museums in New Zealand

A content analysis was conducted on the data on each of the websites of the five selected sample museums (see Chapter 3). The sub-sections that follow, are broken down into four key themes. The first theme, website navigation aspects, examines how accessible the website was to access and how easy the information about accessibility was to access. The second theme, inclusive approaches, discusses the use of inclusive imagery displayed on the websites and the language used to denote accessibility. The third theme, provision of information, examines the information provision surrounding access to the physical museum, the readability of the information provided, the information relating to contact information, provision of quiet hours, and accommodation for carers / caregivers. The fourth theme, provision of inclusive museum experience, analyses the provision of accessibility aspects that can enhance the overall museum experience for people with disabilities, such as the availability of guided tours, audio-visual information, and the overall engagement potential with the museums' exhibits.

4.2.1 Website Navigation Aspects

This section analyses how accessible each museum website was to access, as well as the accessibility of the information presented. A key part of this section is the examination of the navigational process required to access each of the museum's information on accessibility.

4.2.2 Accessing the Websites

The navigation of the information provided on an organisation's website is an important point for discussion (Sambhanthan & Good, 2012). A common aspect of the website content analysis of the five museums was that none of the museums displayed information about its

accessibility provisions on its website home page; navigation was required to source this information. It was found that the Auckland Museum, Te Papa, and Puke Ariki websites required multiple clicks to move from the home page of the website to information about the accessibility aspects of each of these museums. Moreover, once the accessibility information had been located on the Auckland Museum, Te Papa, and Puke Ariki websites, most of the accessibility information was found to be located at the bottom, or near the end of the relevant page, making it potentially challenging for a user to locate this information. However, this was not applicable to the Canterbury and Otago Museums, as both of their websites had a clearly visible link to the information about accessibility aspects on their website front page, which is recommended by scholars, such as Luccio and Beltrame (2018).

The selected museums had similar processes for accessing the required information. Both Auckland Museum and Te Papa required the user to click on a "visit" drop down tab at the top of the home page, then on a tab called "plan your visit." Once this tab was clicked, for both Auckland Museum and Te Papa, the "accessibility" link showed at the bottom of the page, which was not initially made clear or obvious to the user, in terms of where to find information on accessibility information and facilities. Once the accessibility information had been accessed, it was found that both Auckland Museum and Te Papa had a considerable amount of information on accessibility facilities, and information provisions available at the selected museum (see Table 2). Although neither of the museums had any pictures to visually support the information, underneath each accessibility or information sub-section, there was a hyperlink directing the user to additional booking information, and relevant contact personnel.

Information on the accessibility of Puke Ariki was laid out differently to that of the other selected museums. It was first required by the user to click on the "menu" icon on the top right-hand side of the home page. Following this, once the menu icon had been clicked, there was a "visit us" link which had to be clicked - this was written in a very small and hard to read font. From there, the "accessibility" information link was located at the top right-hand corner of the page, again, in a very small font, and due to the poor colour contrast, the writing was difficult to read. Once the accessibility information had been accessed, the layout of the information was found to be presented in a few short sentences, with a picture above the information of the accessibility facilities and information provisions at Puke Ariki.

On the Canterbury Museum website, the user first had to hover the mouse over the "visit" dropdown bar. From there, the user could click on the "accessibility" link which was located underneath the "visit" dropdown bar. This took the user to information on accessibility facilities and information provisions. The layout of this information was presented in a very simple format, clearly breaking down the accessibility information into three clear sections of transport, general access, and stairs. The Otago Museum website was laid out in a similar format to that of the Canterbury Museum. It was first required to click on the "visit" menu tab at the top of the webpage, and from here, the user could then click on the "access" tab located just underneath the menu tab at the top of the page. The information on the accessibility facilities, and information provision on the Otago Museum website was very brief, with little information provided.

Given previous research findings (see Chapter 2), the findings of the content analysis in this research that show potential navigational barriers for users with disabilities are perhaps not particularly extraordinary. It was highlighted by Sambhanthan and Good (2012) that the ease of navigation and useability (Nielson, 2001) of accessibility information provision, plays a vital role in tourism and hospitality organisations providing accessibility for people with disabilities. The navigation of accessibility information on websites should be straightforward, consistent, reliable, and predictable (Luccio & Beltrame, 2018). The location should be easily, and clearly labelled, and easily found throughout the website (Cloquet et al., 2018; Visit England, n.d.). The importance of this was also supported by Sambhanthan and Good (2012), who stated that the location and ease of navigation surrounding the information of accessibility aspects, requires important consideration and planning so people with disabilities could plan their visit, and to reduce the number of potential barriers (Teixeria Eusébio, & Silveiro, 2019). Furthermore, a website is only deemed accessible, if it can support the use of assistive technologies (Cloquet et al., 2018; Michopoulou & Buhalis, 2011; Pühretmair & Nussbaum, 2011; UNWTO, 2016a). It was observed that only the Puke Ariki website clearly stated that it was in alignment and in compliance with the W3C accessibility guidelines.

The promotion of accessible information has been identified as an important international benchmark of best practice in accessibility (Buhalis et al., 2012; Universal Design, n.d.; UNWTO, 2013, 2015, 2016a, 2016b; WTTC, 2021). From analysis of the websites, it is

evident that there are shortcomings in the navigational aspects of accessing information for visitors with disabilities. This is an important aspect, as many people with disabilities will consult a museum's website for accessibility information prior to arrival (Burnett, 1996; Evcil, 2018). If there are gaps or barriers in accessing information about access to the physical museum and its ease of access, then those with disabilities may miss out on the museum experience as a whole (Eardley et al., 2016). Throughout the international standards of best practice in accessibility (Buhalis et al., 2012; UNWTO, 2013, 2015, 2016a, 2016b; WTTC, 2021; Universal Design, n.d.), it has been recommended that tourism and museum operators provide the necessary information for people with disabilities to access and engage with museums' content in a format that is easy to find (Mesquita & Carneiro, 2021).

In accordance with the UNWTO (2015) guidelines, the readability of tourism organisations websites is not limited to functional design and useability. Whilst they are both important aspects to consider, it is also of paramount importance that tourism organisations provide adequate, reliable, and up-to date information about their accessibility aspects (Eusébio et al., 2021).Various studies have found that the ease of navigation to information on accessibility, and the readability format in which it is presented, can have a significant impact on conversion rates – i.e., how many customers choose to make a further enquiry or booking (UNWTO, 2015). It was also noted by the UNWTO (2018) that for tourism organisations to provide and promote accessible information on their websites, they needed to adhere to the international standards and guidelines provided in the WCAG. Specifically, the UNWTO (2013, 2018) recommended that tourism organisations organise their website information according to the four key principles stated by the WCAG: perceivable, operable, understandable, and robust.

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information on accessibility (Eusébio, Carneiro, Teixeira, & Lemos, 2021). Moreover, when providing additional information, it is also important that tourism and museum operators consider the format in which it is provided (Eusébio et al., 2021).

4.3 Inclusive Approaches

The key purpose of this section is to discuss the findings on the use of inclusive imagery on each of the selected museum's websites. This section also includes discussion about the inaccessibility of PDFs for people with disabilities, and the use of inclusive and person first language (see Chapter 1).

4.3.1 Inclusive Imagery

A noticeable gap evident from the content analysis was the lack of inclusive images of people with disabilities used on the museums' websites. However, Te Papa used several photographs to demonstrate inclusivity towards people with disabilities (Te Papa, n.d.g.). The photograph used to highlight the accessibility section of its website showed (from right to left), a young woman with a vision impairment, an elderly woman, a woman in her mid to late 60s with a walking aid, and a middle-aged man with a vision impairment, using a cane (Te Papa, n.d.g.). From the analysis of inclusive imagery on the selected museum websites, it was found that neither Auckland Museum, Canterbury Museum, nor Otago Museum, displayed any inclusive imagery on their websites. This lack has been commented on in the literature, as people with disabilities are seldom visually represented in tourism media and advertising (Cloquet et al., 2018; Edelheim, 2007).

From the content analysis, it can be seen in ***Error! Reference source not found.*** that only Puke Ariki and Canterbury Museum either directly stated, or visually demonstrated with pictures, that they had ramps in their museums (Canterbury Museum, n.d.e.; Puke Ariki, n.d.a.). Although this was not directly stated or demonstrated with pictures on their websites, both Auckland Museum and Te Papa indicated that ramps were available and shown on the maps of the museums on their websites (Auckland Museum, n.d.a.; Te Papa, n.d.f.). It should be noted that Otago Museum did not indicate that ramps were available at the museum, either through directly stating this information, with pictures, or on a map of the museum (Otago Museum, n.d.a.). This may be due to the smaller size of Otago Museum; perhaps it does not require the installation of ramps.

The use of inclusive imagery was strongly supported by the WTTC (2021), which asserted that the use of inclusive imagery demonstrates diversity and inclusiveness within the tourism industry. It was also observed by the UNWTO (2015), that when images are displayed, it is considered best practice to include a written description of what is shown in each image. Similarly, the text description should describe what is in the picture, to make the image accessible to those with vision impairments, or low vision. This was similarly supported by the UNWTO (2016a), which stated that when pictures are displayed on a webpage, the quality of the picture should be compatible with different screen readers, allowing users to gain a verbal understanding of what the picture conveys. It should also be noted, that when images are used, they should be displayed and placed in a strategic manner, to minimise disruption and confusion (UNWTO, 2016a).

The lack of inclusive imagery was raised by Cloquet et al. (2018), who suggested that tourism organisations should actively include on their websites, photographs, and other forms of media, of people with disabilities, and not just in the "accessibility" section (Visit England, n.d.a.). The lack of inclusive imagery on tourism websites can be viewed as a disabling and inhibiting factor (Cloquet et al., 2018; Shaw & Veitch, 2011). Therefore, it can be argued that incorporating and representing people with disabilities in tourism, those with disabilities may feel a stronger sense of acceptance, empowerment, and recognition (Benjamin et al., 2021; Cloquet et al., 2018; Edelheim, 2007). Moreover, it has also been suggested that museums' websites should have photographs highlighting the accessibility of the main entrances and exits, as well as other key accessibility aspects of the museums, to allow people with disabilities to feel confident about using the accessibility features in person (Evcil, 2018). It was also raised by Cloquet et al. (2018), that the use of inclusive imagery and testimonials should be displayed throughout a museum website, and not just in the "accessibility" section. This would increase the confidence of people with disabilities, both within themselves, as well their visit to a museum (Visit England, n.d.). This was reinforced by Benjamin et al. (2021), who stated that it is critical to include people with disabilities in tourism related promotional material, because this creates a sense of empowerment, and allows people with disabilities to engage with tourism products and services.

If tourism organisations and museums implement accessible and readable information on their websites, they facilitate maximum inclusion for people with disabilities needing to

access information (Özgen, 2013). It is important that website accessibility is considered for all disabilities and impairments, as some people with disabilities may require the information displayed on the webpage to be compatible with assistive technologies, screen-readers, or voice recognition software (Buhalis & Michopoulou, 2011; Eusébio et al., 2020). For the vision or hearing impaired, it is important that there is a written or audio description of what is displayed, especially around images, but not in font sizing that is too small to interpret, or in specific colours that are low in saturation and contrast against each other, such as do red and orange (Özgen, 2013). Furthermore, when making website information accessible for those with cognitive impairments, it is recommended that information is displayed in a direct and easily manageable format (Özgen, 2013; Shi, 2007). It has been found that the most common issues for website accessibility and readability are that there is no description given for images, the design has a complex layout, or there is no option to resize the text, so it is readable (Özgen, 2013). Consistent with the international standards of best practice, Darcy et al. (2012) emphasised the importance of accessibility information being made prominent, and clearly stated on different information channels, such as on websites. Clearly displaying and correctly formatting accessibility related information, reduces anxiety that people with disabilities may experience before a visit, thereby minimising potential barriers (Darcy et al., 2012; Eusébio et al., 2020).

As discussed in Chapter 2, Visit Britain (n.d.) and Muñoz-de-Dios et al. (2020) stated that the use of PDFs is inappropriate for people with disabilities, who may find it challenging to adjust the size of the font, for the document to be readable. This is a barrier that can make it difficult for people with disabilities to pre-plan their trip (Teixeira et al., 2020). Furthermore, it was emphasised by Hennig et al. (2017), that the layout and appearance of information should be displayed in accordance with its relevance. In addition, it should be noted that if too much information is provided on a map, it can be difficult for people with disabilities to separate the different components of information apart (Ferguson & Hegarty, 1994; Hennig et al., 2017). Clearly, in line with international recommended best practice, the five museums have gaps to fill in the provision of inclusive imagery for accessibility.

4.3.2 Language Used

The communications about accessibility aspects in the selected museums' websites was varied in terms of the language used on the "accessibility" section of each website. In relation to clear statements about accessibility facilities for people with disabilities, it was found that all five museums used the terms "access" or "accessibility" (Auckland museum [n=4], Te Papa [n=11], Puke Ariki [n=4], Canterbury Museum [n=7], and Otago Museum [n=4]) more frequently than the word "disability," which was evident on the websites of Auckland Museum (n=2), Te Papa (n=2), Puke Ariki (n=1), and Canterbury Museum (n=1), but not on that of Otago Museum.

It is noteworthy that the museum websites used language of "accessibility" rather than "disability". This indicates that the selected museums were shifting their focus to making their physical and environmental facilities, information, and communication provisions, more accessible and inclusive for all people, instead of effectively ostracising people with disabilities by focusing on the impairment. This notion was commented on by Benjamin et al. (2021), who stated that the incorporation of inclusive and people-first language is important, because it directly indicates that people with disabilities deserve equal opportunities and facilities as those who do not have a disability, and drives social inclusion (Haller et al., 2006). Previously, there has been little effort from the tourism industry to change the dialogue and attitudes towards people with disabilities (Eichhorn & Buhalis, 2011; Gillovic et al., 2018; Iwarsson & Stahl, 2003). Additionally, many of the selected museums emphasised the range of accessibility features available, suggesting they were not solely focused on facilities for people with disabilities. It is important for tourism businesses and stakeholders to consider taking a more socially responsible approach, so that they can have a better understanding on how they can become a more social inclusive organisation (Muñoz-de-Dios et al., 2020).

4.4 Provision of Information

This section discusses findings about the information provided on the websites to help people physically access the museum, an analysis of how accessible the information was, the use of quiet hours, and the accommodations provided for carers and caregivers to facilitate access.

Table 2 presents a comparative analysis of the information provision about accessibility aspects each museum had on its website, marked with a tick against the corresponding museum column. It should be noted that if an information provision does not have a tick, this does not necessarily mean the museum did not have the facility, but rather, that it was not displayed on its website. From the findings presented in Table 2, all of the selected museums actively displayed additional contact information, in order for people with disabilities to gain further information surrounding their accessibility aspects and museum experiences. All museums displayed maps of their layout. This is important for people with disabilities because, it enables them to pre-plan their museum visit, and gauge the location of where the necessary accessibility aspects and facilities are. In contrast to this, it is evident that there are clear gaps in following best practice international guidelines for information provision in museums in New Zealand. It is evident that most museums do not promote accessibility information, assisted guided tours, the use of NZSL, or audio-visual subtitles, evidencing poor alignment with the W3C guidelines that stipulate the physical provision of braille and tactile information to support physical access to the museums (Buhalis et al., 2012; Universal Design, n.d.; UNWTO, 2013, 2015, 2016a, 2016b).

Table 2

International Standards Commonalities for Best Practice in Information Provision

Information provision	Auckland Museum	Te Papa	Puke Ariki	Canterbury Museum	Otago Museum	References
Contact us	✓	✓	✓	✓	✓	Buhalis, et al. (2012); UNWTO (2013, 2015, 2016a, & 2016b);
Maps	✓	✓	✓	✓	✓	Buhalis, et al. (2012); Universal Design (n.d.); UNWTO (2013, 2015, 2016a, 2016b); WTTC (2021)
Promotion of accessible information		✓	✓			Buhalis, et al. (2012); UNWTO 2013, 2015, 2016b)
Assisted guided tours available	✓	✓				Buhalis, et al. (2012); UNWTO (2013, 2015, 2016a); Universal Design (n.d.)
W3C website accessibility			✓			2015, 2016a, 2016b); WTTC (2021); Universal Design (n.d.); Buhalis, et al. (2012); UNWTO (2013)
New Zealand sign language (NZSL) available		✓				Buhalis, et al. (2012); UNWTO (2013, 2015, 2016a); Universal Design (n.d.); WTTC (2021)
Audio-visual subtitles		✓				Buhalis, et al. (2012); UNWTO (2013, 2015, 2016a); Universal Design (n.d.); WTTC (2021)

4.4.1 Information Stated on the Websites

A key gap identified in this research, was the lack of accessible information available on the selected museums' websites, and much of the accessibility related information provided, was neither explained, nor stated in depth.

It was interesting to note that none of the five selected museum websites stated or displayed its affiliation with an accessibility advocate (in this case, Be.Lab or Arts Access Aotearoa). This is significant because the key rationale for selecting these five museums was because they were all affiliated with and recognised by either Be. Lab or Arts Access Aotearoa, hence signifying their accessibility commitment. It was also found that none of the museums' websites stated which level or tier of accreditation had been achieved, if appropriate. Conversely, neither Be. Lab or Arts Access Aotearoa websites stated what an organisation must achieve, or what standards of accessibility an organisation must obtain and uphold to acquire their accreditation. Similarly, neither Auckland Museum, Te Papa, Canterbury Museum, nor Otago Museum stated on its website that it had previously been awarded a Qualmark tourism business award. This suggests that not showcasing these accessibility affiliations and Qualmark awards indicates that these were potentially not a key priority or focal point for these museums in the communications of their espoused values.

If these museums were to display their accessibility affiliations, this would demonstrate and signal an attitude of value and validity towards the access market. The emphasis and importance of accreditation and affiliation in the tourism sector has been largely under-researched, in terms of how much of an impact and influence it has on customers' decision-making processes and business preferences (Bergin-Seers & Mair, 2009; Marchoo et al., 2014; Sasidharan et al., 2002). Additionally, it is interesting to note that tourism is strongly under-regulated (Jarvis et al., 2010). The provision of tourism accreditation keeps an organisation accountable to an external party, ensuring it upkeeps and upholds certain standards expected by the tourism accreditor (Font et al., 2013; Marchoo et al., 2014).

4.4.2 Findings from Website Communications of Accessibility Facilities

It is important for tourism and museum operators to consider how they are communicating access facilities on their websites. It was found that Auckland Museum, Te Papa, and

Canterbury Museum all had links throughout their "accessibility" sections of their website, which clearly stated how users could gain further information on their accessibility aspects (Auckland Museum, n.d.a.; Canterbury Museum, n.d.a; Te Papa, n.d.b.). It was found that Puke Ariki implemented only links, to highlight the location of the museum's map, which was under the pictures entitled "elevator lifts" and "accessible toilets" (Puke Ariki, n.d.a.). Auckland Museum, Te Papa, and Canterbury Museum, all had web links that clearly showed how a user could access further information on accessibility aspects. Although this was not demonstrated on the Puke Ariki museum's website, it did have clear pictures that corresponded with the accessibility facility being highlighted (Puke Ariki, n.d.a.).

Presented below, Table 3 presents a comparative analysis of what each museum communicated about its accessibility facilities on their website. Following that, Table 4 also shows which of the accessibility aspects the five selected museums are providing, in accordance with the International Standards Commonalities of Best Practice (Buhalis et al., 2012; UNWTO 2013, 2015, 2016a, & 2016b; Universal Design, n.d., WTTC, 2021).

 Shown below on Table 3, are the accessibility facilities each museum had stated on its website are marked with a tick against the corresponding museum column. It should be noted however, that if an information provision does not have a tick, this does not necessarily mean the museum did not have the facility, but rather, that it was not displayed on its website. The findings in this table show that all the selected museums stated on their websites that they provided wheelchair access. Additionally, most of the selected museums, for example, Otago Museum, stated that it provided mobility parking, wheelchair hire, accessible entrances and exits, and elevators. Furthermore, common gaps in the provision of accessibility aspects were identified across the museums, such as the lack of promoting braille, tactile signage, written or pictorial evidence that ramps were provided, and the lack of international accessibility icons displayed (as discussed above). Furthermore, neither Canterbury nor Otago Museum stated that they provided accessible toilets, nor that they welcomed guide dogs on site. By providing full access to guide dogs would be in alignment with what is promoted as international best practice, in terms of accessibility facilities. The provision of information on accessibility provides reassurance and a sense of security for people with disabilities, who want to know exactly what accessibility aspects will be available for them upon arrival to the

museum. As such, analysis of the museum websites revealed important gaps in the provision of accessibility information to help facilitate a visit.

Table 3

Comparative Table of Accessibility Aspects and Accessibility Experiences, as Shown in the Content of the Museums' Websites

Accessibility Aspects	Auckland Museum	Te Papa	Puke Ariki	Canterbury Museum	Otago Museum
Mobility parking available	✓	✓	✓	✓	
Accessible toilets	✓	✓	✓		
Guide dogs welcome	✓	✓	✓		
Wheelchair access	✓	✓	✓	✓	✓
Wheelchair hire	✓	✓	✓	✓	✓
Elevators	✓	✓	✓	✓	
Ramps			✓	✓	
Earmuffs for hire		✓	✓		
The use of PDFs		✓		✓	
Inclusive imagery		✓			
Accessibility Experiences					
- Quiet/ sensory hour	✓				
- Sensory facilities		✓			
- Assisted guided tours available	✓	✓	✓	✓	✓
- Inclusive of carers	✓				
- New Zealand Sign Language (NZSL) available	✓	✓			
- Audio/ visual subtitles	✓	✓			

The use of sign language within museums is consistent with what is stated *in international best practice in information provision* (see table 2) (Buhalis, et al., 2012; UNWTO, 2013, 2015, 2016a; Universal Design, n.d.; WTTC, 2021). However, from the results shown on Table 3, only Te Papa is actively engaging and utilising New Zealand Sign Language (NZSL).   At the top and forefront of Te Papa's "plan your visit" page, a key article communicates and visually demonstrates further accessibility, and inclusivity towards people with disabilities. Importantly, the first image is of the Te Papa website, and clearly shows that those with hearing impairments can engage with the museum's content, through the NZSL videos available on the website under the title "Explore Te Papa in New Zealand Sign Language" (Te Papa, n.d.g.). The ability to engage with the Te Papa content, is communicated and demonstrated in this article using different videos in New Zealand Sign Language explaining what to expect at Te Papa. New Zealand Sign Language mobile guides are also provided: "What is at Te Papa?" "Tour of Te Papa," and "How to use NZSL for art words?" (www.tepapa.govt.nz/visit/plan-your-visit) (Te Papa, n.d.g.). Moreover, it was also stated on the Auckland Museum website that, within the forthcoming future, they are planning on implementing NZSL videos to further support the *"Tāmaki Herenga Waka: Stories of Auckland*" audio guide and exhibition (Auckland Museum, n.d.c.). Whereas it was found that Puke Ariki, Canterbury Museum, or Otago Museum did not state on their website's that they provide NZSL. Despite Te Papa being the only museum to actively engaging and utilising NZSL, and Auckland Museum indicating that they will do within the forthcoming future, to support their artefacts and exhibitions, this is an indication that the two main museums in New Zealand are starting to facilitate information provision for those who have hearing impairments.

Although there are a few gaps in both accessibility aspects and accessibility experiences, in which the five selected museums are currently not meeting, there are a number of accessibility aspects and accessibility experiences that are being fulfilled. The results from Table 3 show that, all five of the selected museum's websites state that they have wheelchair access, wheelchair hire, and assisted guided tours available. It is noteworthy that, Otago Museum only has the three previously stated accessibility aspects and experiences, no other column has been ticked. This may be since Otago Museum is a smaller regional museum, in comparison to the national museum, Te Papa, and the other larger regional museums which were analysed. It can be seen from Table 3 that Auckland Museum, Te Papa, Puke Ariki, and

Canterbury Museum have incorporated many of the accessibility aspects. Whereas, only Auckland Museum and Te Papa included many of the stated accessibility experiences, these include the availability of assisted guided tours, the provision and availability of NZSL, as well as audio/ visual subtitles. From these results, majority of the selected museums analysed, do have an accessibility agenda to accommodate the accessibility market in New Zealand.

Table 4

International Standards Commonalities for Best Practice in Accessibility Aspects

Accessibility Aspects	Auckland Museum	Te Papa	Puke Ariki	Canterbury Museum	Otago Museum	References
Mobility parking available	✓	✓	✓	✓		Buhalis et al. (2012); UNWTO (2013, 2015)
Accessible toilets	✓	✓	✓	✓		Buhalis et al. (2012); Universal Design (n.d.); UNWTO (2013, 2015, 2016b)
Guide dogs welcome	✓	✓	✓			Buhalis et al. (2012); UNWTO (2013, 2015, 2016b)
Wheelchair access	✓	✓	✓	✓	✓	Buhalis et al. (2012)
Wheelchair hire	✓	✓		✓	✓	Buhalis et al. (2012); Universal Design (n.d.); UNWTO (2015, 2016b)
Accessible entrances and exits	✓	✓	✓	✓		Buhalis et al. (2012); UNWTO (2013, 2015)
Elevators	✓	✓	✓	✓		Buhalis et al. (2012); UNWTO 2013, 2015, 2016b)
Ramps			✓	✓		Buhalis et al. (2012); Universal Design (n.d.); UNWTO (2013, 2015, 2016b)
International accessibility icons	✓	✓	✓	✓		Buhalis et al. (2012); UNWTO (2013, 2015, 2016a); WTTC (2021)

In contrast, it is shown in Table 4, that only Puke Ariki and Canterbury Museums state directly on their websites that they provide ramps. Within the "accessibility" section of the Puke Ariki website, it is visually demonstrated that the museum is accessible by ramp, through a picture of a woman pushing a gentleman in a wheelchair up a ramp towards the museum entrance; following this, there is a brief description on where this ramp is located, as well as where the internal ramp is located inside Puke Ariki. By doing so, this is in alignment with the significance of inclusive imagery (see section 4.3). In contrast, Canterbury Museum do not display any images of the ramp available, but rather, there is a brief description provided of where the ramp is located, which is stated within the "accessibility" section of the website, parallel to the information given on the availability of wheelchair access and hire. Whereas Auckland Museum and Te Papa indicate that ramps are available, but this is only indicated on the maps of the museums, it is not explicitly stated directly on their websites.

It was found that Canterbury Museum and Otago Museum did not explicitly state that they provide accessible toilets on their website. Although, it was found that on the Canterbury Museum map, it indicated that there are accessible toilets available on levels 1, 3, and 4 of the Canterbury Museum. In contrast to this, it was not stated anywhere on the Otago Museum website that there are accessible toilets available. Under the New Zealand building code (Building performance, 2014), clause G1.3.4, commercial buildings "require that personal hygiene facilities for people with disabilities are accessible" (para. 1). Moreover, it was not stated on the Canterbury or Otago Museums' "access" sections of their websites that, guide dogs were welcome or accepted, but it is a legal requirement to allow all registered and appropriately identified New Zealand Blind Foundation guide dogs into all public spaces and buildings (Blind Low Vision Guide Dogs New Zealand, 2017; Bohdanowicz-Godfrey, Zientara, & Bąk, 2019). This is also clearly stated in the Human Rights Act (1993) and the Dog Control Act (1996) (Blind Low Vision Guide Dogs New Zealand, 2017).

From the content analysis of the five selected websites, it was found that only Puke Ariki clearly displayed some of the international accessibility icons within their "accessibility" section of their website (Puke Ariki, n.d.a.). Whereas the use and implementation of international accessibility icons where only utilised on the maps of the Auckland Museum (n.d.a.), Te Papa (n.d.f.), and the Canterbury Museum (n.d.e.). An international accessibility

icon is defined by Darcy et al. (2012) as, a symbol or icon which provides vital information in a clear and easy to understand format. For example, access symbols demonstrating wheelchair access, accessible parking, and toilets (Darcy et al., 2012). The importance of tourism businesses displaying international accessibility icons is that they can be understood and interpreted from different types of disabilities or impairments, such as intellectual or hearing, as well as a range of different cultures, and languages, (Darcy et al., 2012).

4.4.3 Accessing the Museums

Each of the five museums in this research provided maps, but information about how to access the museums on the museums' websites varied. Auckland Museum (n.d.e.), Puke Ariki (n.d.c.), Te Papa (n.d.j.), and Otago Museum (n.d.d.) all stated the information about how to access the museum, under the "plan your visit" section of their websites. However, Canterbury Museum (n.d.a.) incorporated information about access the museum in the "accessibility" section of its website. The extent of detail provided on how to access the museum varied amongst the museums. Auckland Museum (n.d.e.) provided a comprehensive and extensive amount of information about accessing the museum. This included information about the most direct route to the museum from the city centre, by both public transport and by car; following this, there was also in-depth information on the bus route, a map of the bus route formatted as picture (but not as a PDF), and information about accessible carparks (Auckland Museum, n.d.e.). Access information commonly given by Te Papa, Puke Ariki, and Otago Museum, was the provision of Google maps highlighting their locations from a street view perspective (Te Papa, n.d.j.). Following this, underneath the Google map, Te Papa and Puke Ariki provided written instructions to inform users about how to access the main entrances of the museums (Te Papa, n.d.j.). As mentioned, the access information provided by Canterbury Museum (n.d.a.), was incorporated in the "accessibility" section of its website. It was also highlighted on its website, that visitors could access the museum via public transport, stairs, and wheelchair-friendly ramps that lead to the entrance of the museum. Although the Canterbury Museum website provided a Google map highlighting its location from a street view perspective, this was not directly formatted on the "accessibility" section of its website. Unlike Auckland Museum, Te Papa, Puke Ariki, and Otago Museum, the Canterbury Museum's Google map was accessible through a highlighted link on the "accessibility" page (Te Papa, n.d.b.).

Additionally, from the analysis of the selected museum websites, it was also found that the map of Te Papa was presented only in a PDF format. The Canterbury Museum (n.d.e.) online map was displayed on its website in the "location" section, but the text on the map was not very clear or readable; hence, the maps were displayed more clearly on PDFs, for users to gauge the physical and architectural layout of both museums. On the Auckland Museum website, maps were displayed in the "getting around" section, located halfway down the "plan your visit" section of the website (Auckland Museum, n.d.e.). The map of the Puke Ariki Museum was in the "accessibility" section of the website, and there were links underneath for the "elevator lifts" and "accessible toilets." A key commonality identified amongst the four identified museum maps was that each of the maps had applied key symbols (such as for accessible toilets, lifts, stairs, and baby changing facilities), to visually demonstrate and identify where different accessibility aspects and information provision was located. However, all the selected museums had maps on their websites, which is in alignment with the international best practice of accessibility, but only the Auckland Museum, Puke Ariki, and the Otago Museum maps were accessible for people with disabilities

The Auckland Museum virtual accessibility tour had a strong emphasis on providing an interactive and visual map of the museum, highlighting the most direct routes and locations of entrances, exits, elevators, information kiosk, mobility carparks, drop-off points, and accessible toilets (Auckland Museum, n.d.b.). Using a colour coding system, the virtual accessibility tour was broken down into four key aspects (Auckland Museum, n.d.b.). Firstly, a blue line showed a specific pathway for people with physical disabilities or impairments and require the use of a wheelchair. Secondly, a green line showed a specific pathway for people with a mobility impairment, and it was clearly indicated that parts of this pathway contained stairs. Thirdly, within the virtual accessibility tour, Auckland Museum used clearly distinguishable white circles to assist users in the navigation process. Additionally purple circles provided a clear indication of where the key information kiosks were located throughout the museum (Auckland Museum, n.d.b.).

If additional information is required by a user about the accessibility aspects of the museum, or the information provision around accessibility, it was found that each of the five selected museums provided the option for users to directly contact the museum for additional

information. The content analysis showed that all the selected museums had either a specific "contact us" page, or a telephone number and email address at the bottom of website, both of which were accessible from all pages of the websites. The following museums had a specific "contact us" page: Te Papa (n.d.d.), Puke Ariki (n.d.b.), Canterbury Museum (n.d.b.), and Otago Museum (n.d.b.). However, a contact number was provided at the bottom of the Auckland Museum website, and a link provided directing users to another page. This allows users to make department specific enquiries, such as "general enquiries," "ticketing and events," or "communications and marketing" (Auckland Museum, n.d.d.). The common content, which was provided by all five selected museums, included contact telephone numbers in a hyperlinked format, and names, contact numbers, and email addresses of personnel, as well as the subject nature of the enquiry.

4.4.4 Quiet Hours

Of the museums in this research, none had explicitly stated a "quiet hour" for those with sensory disabilities. At the bottom of the "accessibility" page on the Auckland Museum website, it was found that they offered quieter operating times on weekdays from 3pm-5pm during the school term (Auckland Museum, n.d.a.). For exhibitions that were ticketed, Auckland Museum provided the option to pre-purchase tickets online, to reduce and minimise any anxiety that crowds and highly stimulating environments may cause (Auckland Museum, n.d.a.). It is also important to note that on the Auckland Museum website, there is the provision of a 'sensory friendly map' (Auckland Museum, n.d.h.). The purpose of this map is to highlight which areas, of each floor, of the museum may be regarded as a 'low sensory area' (highlighted in blue)- which has less harsh lighting, and less foot traffic. Whereas a 'high sensory area' (highlighted in pink)- these areas have higher levels of stimulating noise, more harsh lighting, and high volumes of foot traffic (Auckland Museum, n.d.h.). Although this map provides important information for people who may have sensory impairments, or for the elderly; it was difficult to access and find this information on their website, as well as this map was provided in a PDF format, which is considered an inaccessible format for people with disabilities according to Visit England (n.d.).

Similarto Auckland Museum, on the Canterbury Museums' website, it stated at the bottom of the "accessibility" page that the museum is generally a quiet place, except for during peak

times (which were not specified), the school holidays, and the 'Discovery' zone of the museum (Canterbury Museum, n.d.a.). Comparatively, on the Te Papa museums' website, under one of the sub-sections of the "exhibitions" page- "Accessibility information for Te Taiao", it states that within this area of the museum, there are quiet spaces, as well as sensory and tactile activities to engage with (Te Papa, n.d.c.). From conducting this research, it was found that neither Puke Ariki or Otago Museum explicitly stated if they provided 'quiet spaces/ areas', nor did they state what time(s) of the day is generally quieter. Although there is no provision of an explicit 'quiet hour', from the results of the two major museums in New Zealand- Auckland Museum and Te Papa, as well as Canterbury Museum, they are informing those who may have sensory disabilities/ impairments when the most suitable time of the day and what part of the museum is not as overwhelming or stimulating; this may be an indication that there is a shift in how museums in New Zealand view and cater for people with sensory disabilities or impairments.

The importance of museums providing a 'quiet hour', or 'quiet space' has been emphasised in the literature for people with disabilities, especially for those who have sensory impairments or who are on the Autism spectrum (Langa, Monaco, Subramaniam, Jaeger, Shanahan, & Ziebarth, 2013; Leekam, Nieto, Libby, Wing, & Gould, 2007). Additionally, the provision of quiet hour information on museums websites is crucial (Ásványi, Fehér, & Jászberényi, 2021; Hoskin, Singh, Oddy, Schneider, Trepanier, Trudel, & Girourard, 2020). Museums actively stating that they have quiet hour or providing a sensory map on their website, can significantly reduce the level of anxiety and sense of uncertainty for those who are on the Autism spectrum (Woodruff, 2019). This is further supported by Langa et al. (2013) who states that the provision of a quiet hour in a museum environment can minimise the intensity of what may be a very highly stimulating environment (Langa et al., 2013). Moreover it is important that museums provide information on their websites' which highlight, which areas of the museum have high levels of foot traffic and which areas tend to be noisy environments (Ásványi et al., 2021; Lussenhop, Mesiti, Cohn, Orsmond, Goss, Reich, Lindgren Streiche, 2016). In conjunction to this, it is also important that museums state when and where people with sensory impairments, or those who are on the Autism spectrum, would be able to locate low sensory and quiet spaces (Ásványi et al., 2021); by doing so, this can greatly improve their overall museum experience (Hoskin et al., 2020).

4.4.5 Carers

Consistent with the nature of museums' operations, the five selected museums were free of charge upon entry; Auckland Museum was free for residents of Auckland, subject to their proof of address residency, but non-residents were strongly encouraged to donate upon entry (Auckland Museum, n.d.a.). Despite free entry, the data analysis found that there was a lack of emphasis on the inclusivity of carers, for people with disabilities; four of the five selected museums did not mention carers on their websites, and only Te Papa mentioned that carers were able to join the "private accessible tour" free of charge (Te Papa, n.d.h.). The UNWTO (2015) stated that tourism organisations should allow people with disabilities to access their services and facilities with the accompaniment of their carer, at no additional charge.

The significance of museums facilitating and providing access to people with disabilities and their carers, is highlighted throughout the literature (McGuigan, Legget, & Horsburgh, 2015; Rhoades, 2009). Encouraging the involvement and participation of carers can increase people with disabilities self-worth, confidence, individuality, self-expression, and deepening the level of bond between them (Ganga & Wilson, 2020; Johnson, Culverwall, Hulbert, Robertson, & Camic, 2017; Kinsley et al., 2016; Lamar, 2015; McGee, 2008; Rhoades, 2009). The shared museum experience can also provide the opportunity for the carer to develop a deeper relationship and connection with the person with disability (Kinsey, Lang, Orr, Anderson, & Parker, 2021; Lamar & Luke, 2016). Furthermore, it is important for museums to encourage and engage with people with disabilities and their carers because it further emphasises the accessibility of museums, and facilitation of the museum experience by associating a higher level of trust in museums, viewing them as a welcoming, creative, and stimulating environment (Ganga & Wilson, 2020).

4.5 Provision of Inclusive Museum Experiences

In addition to physical accessibility to the museum, access to the experience via museum interpretation and exhibits is also important. The key points discussed in this section relate to findings about the ways in which the selected museums were providing an inclusive museum experience for people with disabilities. The discussion highlights the incorporation and implementation of guided tours, the use of subtitles and audio-visual guides to support

information about artefacts and exhibits, as well as the overall potential for engagement with the exhibits.

It was found that Auckland Museum had introduced a virtual accessibility tour to enable people with disabilities to pre-plan their trip to the museum (Auckland Museum, n.d.j.). Through this virtual accessibility tour, people with disabilities are able to pre-plan their visits. They can mentally and visually gauge the location of where the accessible entrances and exits are; the layout of each floor; where the group tours commence; where specific artefacts and exhibits are located; and the location of the accessible toilets (Auckland Museum, n.d.j.).

The use of virtual accessibility tours within a museum context can help facilitate accessibility to those who have intellectual disabilities or impairments, such as autism spectrum disorders (ASD) or Attention Deficit Hyperactive Disorder (ADHD) (Garzotto, Matarazzo, Messina, Gelsomini, & Riva, 2018). If museums facilitate virtual accessibility tours for those who have intellectual disabilities, this enables them to pre-plan their trip to the museum, so they can anticipate and gauge what type of environment they will potentially experience (Ozdemir, 2021; tom Dieck, Jung, & Michopoulou, 2019). With the correct implementation of virtual accessible tours within the museum setting, this technology can mimic a realistic museum experience, in a reliable and controlled environment. This plays a key role in making what may be an inaccessible environment accessible, which overall can help reduce the number of access barriers in a museum environment (Guttentag, 2010; Ozdemir, 2021; Plimmer, Pottinger, & Goodall, 2006). Thus, by tourism organisations and museums facilitating virtual accessibility tours, this is a key tool that can be utilised in actively promoting standards of accessibility inclusion (Chung, Lee, Kim, & Koo, 2017; Germak, Di Salvo, & Abbat, 2021).

4.5.1 Guided Tours

Each of the five selected museums stated on their websites that they offered guided tours (Auckland Museum, n.d.i.; Canterbury Museum, n.d.d.; Otago Museum, n.d.e.; Puke Ariki, n.d.e.; Te Papa, n.d.h.). However, Te Papa was the only museum to specifically state that it offered guided tours for people with disabilities (Te Papa, n.d.h.). These 90-minute guided tours were subject to availability and had to be booked at least 14 days in advance (Te Papa, n.d.h.). There was no entrance fee for Te Papa, but for a private accessibility tour, there was

a charge of NZ$30 per adult, NZ$15 per child from 5-15 years old, and no extra charge for accompanying carers (Te Papa, n.d.h.). Auckland Museum, Puke Ariki, Canterbury Museum, and Otago Museum stated on their websites that they offered guided tours but did not state whether they could cater for people with varying disabilities. The guided tours offered by the museums were focused on showcasing specialised exhibits, or catering for school groups (Auckland Museum, n.d.b.; Canterbury Museum, n.d.c.).

Guided tours can cater to the needs of people who with learning and intellectual disabilities (UNWTO, 2016b), who otherwise may not be able to fully engage with the artefacts, exhibitions, and written content (Vaz et al., 2020). Guided tours can also cater to the needs of people with vision impairments (Vaz et al., 2020). The importance of guided tours in museums has been emphasised by the German Federation of the Blind and Partially Sighted (2013) who state that, the guided tour should be descriptive in nature, incorporating the key visual, structural, and textile aspects of the artefacts and exhibitions. This is critical especially when the artefact or exhibition cannot be touched, in order for those with vision impairments to gauge and understand what is being presented (German Federation of the Blind and Partially Sighted, 2013).

4.5.2 Audio-Visual Material

It was found that, as part of the museum experience, only Te Papa (Te Papa, n.d.i.) and Auckland Museum offered audio guides (Auckland Museum, n.d.c.). The findings showed that Te Papa offered 'the specialist surrealist art audio guide'. Available at the time of purchase, this allowed users to listen to the background and stories of 18 different artefacts and pieces, taking the user on an immersive journey. This audio guide was available for purchase either through the museum's website or at the information desk (Te Papa, n.d.i.). In addition, the Auckland Museum also offers multiple audio-guides which explore the 'stories of Auckland'. This is also available in both English and simplified Chinese, and "Queerseum' which highlights the significance of some of the exhibitions to the LBGTQIA+ community (Auckland Museum, n.d.c.). To support their audio-guides, both Auckland Museum and Te Papa are accompanied by complete transcripts, which directly and accurately correlates with what is being said on the audio-guide (Auckland Museum, n.d.c; Te Papa, n.d.i.). In addition to this, Te Papa also provides a visual guide to some of their exhibitions, by providing the

required information in NZSL, with the option to support this content with either English or Māori subtitles (Te Papa, n.d.g.).

Providing audio guides and information in alternative formats is in alignment with international best practice (Darcy et al., 2012; UNWTO, 2013, 2015, 2016a; Universal Design, n.d.). By Auckland Museum and Te Papa providing a complete transcript to support their audio-guides, this is in alignment with what is recommended by the UNWTO (2013, 2015, 2016a). The UNWTO (2013, 2015, 2016a) recommends that all audio and audio-visual information provided, is accompanied with either the use of a transcript, subtitles, or the appropriate use of sign language; providing these allows users to understand and engage with the information given, irrespective of what volume the content is played at (UNWTO, 2013, 2015, 2016a). The implementation of audio and audio-visual material ensures that those with a vision or hearing impairment are not excluded from engaging with the content (UNWTO, 2013, 2015, 2016a).

The importance and significance in which audio-guides hold for people with disabilities in the museum context has been significantly undervalued (Hutchison & Eardley, 2020). It was found in 2018 that, only 5% of all museums in the United Kingdom mentioned that they provided live audio-guided tours, and only 3% of the museum websites stated that they had pre-recorded audio-guides available (Cock et al., 2018; Hutchison & Eardley, 2020). By museums failing to provide audio-guides/descriptions for people with vision impairments, this can have a major impact on their overall museum visit and experience (Eardley, Fryer, Hutchinson, Cock, Ride, & Neves, 2017). The identified impacts of museums not having audio-guides/descriptions available either, on their website or at the physical premises can impact people with vision impairments level of confidence, the level and quality of information surrounding the museum resources, the location and availability of transport, as well as the staff knowledge and attentiveness (Eardley et al., 2017). This has been further stressed by Sheng and Lo (2010), and Mesquita and Carneiro (2016) who assert that, the provision of information using audio-guides, is crucial to the overall accessibility and interpretation of the artefacts and exhibitions for people with vision impairments. Furthermore, it is also recommended that the use of artistic techniques is described in detail, as well as the colour, and the tone (Hutchison & Eardley, 2020; Remael et al., 2015; Royal National Institute of the Blind [RNIB], 2010). Thus, the importance of audio guides help

facilitate accessibility for people with vision impairments by, providing needed context and relief when museums may not have braille or tactile writing available or, if the person with the vision impairment is not able to comprehensively engage with braille or tactile writing (Cachia 2013; Candlin 2006; Chick, 2018; Ginley, 2013; Mesquita & Carneiro, 2016; Richards, Pritchard, & Morgan, 2010; Vaz et al, 2020).

4.5.3 Engagement with the Exhibits

The analysis found that only Puke Ariki had clear and easily accessible communication and information about options for people who could not physically access the museum, thereby providing a museum experience for those affected. These options included a "Housebound Readers Service," which provided the opportunity for people who were housebound because of an illness or disability, to have books or audiobooks delivered to their home by volunteers from Puke Ariki (Puke Ariki, n.d.a.). The museum also offered a "Museum in a Suitcase," a service primarily aimed at groups in rest homes or aged-care facilities. Volunteers from Puke Ariki were able to bring selected artefacts into rest homes or aged-care facilities, providing opportunities for a hands-on and educational experience (Puke Ariki, n.d.a.). Lastly, BookLink, provided by the Blind Low Vision Foundation New Zealand, is a digital platform of museum material, for those with access or vision impairments,

By Puke Ariki and Te Papa enabling engagement with some of their museum exhibits, this is in alignment with what has been recommended by the wider literature (Argyropoulos & Kanari, 2015; Mesquita & Carneiro, 2016; Vaz, Freitas., & Coelho, 2021). It has been discussed that, giving people with disabilities the opportunity to authentically engage with museums' artefacts and exhibits is crucial to the overall museum experience (Argyropoulos & Kanari, 2015; Mesquita & Carneiro, 2016; Vaz, Freitas., & Coelho, 2021; Vom Lehn, 2010). It has been observed by Vaz, Freitas, and Coelho (2021), that many museums allow only very select access to physically engage with exhibits and artefacts, and these are often pre-selected by museum staff, and are only a small representative sample of the entire collection available, in comparison to what is available to view for people who do not have a disability.

Engagement with museum exhibits is important for people with disabilities' perspectives on the past (Argyropoulos & Kanari 2015; (Vaz, Freitas., & Coelho, 2021).

A way to gauge the accessibility of the museum experience may be through the testimonials of previous visitors. These were provided in links at the bottom of the Auckland Museum, Canterbury Museum, and Otago Museum websites, as access to their Trip Advisor pages, supported with the Trip Advisor logo (Auckland Museum, n.d.; Canterbury Museum, n.d.d.; Otago Museum, n.d.). Through a search of key words, users can find comments, feedback, and testimonials from previous visitors' experiences regarding accessibility aspects, information provision, and other museum experiences of people with disabilities. Although, it should be noted that none of the five selected museums allowed for, nor directly stated previous visitors' testimonials directly on their websites. Tourism organisations have been encouraged to promote previous visitors' testimonials about accessibility aspects, as word-of-mouth testimonials from people with disabilities regarding accessibility in tourism organisations are highly valued (Visit England, n.d.a.). This is primarily because people with disabilities cannot rely solely on the information provided on tourism organisations' websites, as the information may be outdated, or cannot be verified in terms of reliability and accuracy (Evcil, 2018).

Chapter 5: Conclusion

This chapter summarises the findings of this research, highlighting the significance of the research, and the crucial gaps in international best practice. This chapter also discusses recommendations for museums in New Zealand to improve information provision about accessibility. To conclude, the implications of this research, and possibilities of future research on this topic are discussed.

5.1.1. Physical Accessibility of the Websites

An important aspect of this research investigated the navigational accessibility of the museums' websites. It was found that, there were inconsistencies surrounding the navigational process required to access each of the museum's information on accessibility. The analysis showed that much of the accessibility related information provided was at times potentially difficult to navigate, as the information surrounding accessibility was not located directly on the front page of the websites. It is important that information surrounding accessibility is easy to navigate and locate because, if museums fail to do so then this can further contribute the number of barriers that they may face (see chapter 2).

5.1.2 Inclusive Approaches

The use of inclusive imagery on the five selected museums' websites was varied. The research found that Te Papa was the only museum to incorporate the use of inclusive imagery on their website. Whilst other museums did not incorporate inclusive imagery of people with disabilities on their websites, this does not mean that as a museum they are not welcoming or inclusive of people with disabilities, but rather, they may not want to 'trophy case' people with disabilities through pictures of them.

The use of inclusive language on the five selected museums' websites was encouraging. It was evident that the museums were actively using the term "accessibility" as opposed to "disability", this signals that the museum sector in New Zealand is shifting their focus on making their physical and environmental facilities, information, and communication provisions, more accessible and inclusive for all people, instead of effectively ostracising people with disabilities by focusing on the impairment.

5.1.3 Provision of Information

Interestingly, none of the five selected museums visually demonstrated or stated that they were affiliated with either Be. Lab (2019b, 2019c) or Arts Access Aotearoa (2019a, 2019b, 2019c). This finding is surprising and may indicate that promoting their commitment and dedication to accessibility may not be a priority for them as organisations. In addition, the question should be raised of why the selected museums are not maximising their affiliations with Be. Lab or Arts Access Aotearoa on their websites? If these museums were to display their accessibility affiliations, this would demonstrate and signal a level of commitment to the access market (Bergin-Seers & Mair, 2009). While the five selected museums have an affiliation with either Be. Lab or Arts Access Aotearoa, there is not a clear sense of the nature of such affiliation. If there is no clear indication as to what these accessibility organisations are assessing, then how are they being held accountable for what is being promoted as international best practice in accessibility? Moreover, if these accessibility organisations are effective, then why do the affiliated five selected museums have several gaps in their accessibility aspects and information provisions?

The recommendations of international standards for best practice for both information provision and accessibility aspects were analysed, to gauge what the five selected museums were doing well, and if there were any gaps (see Darcy et al., 2012; Universal Design, n.d.; UNWTO, 2013, 2015, 2016a, 2016b; WTTC, 2021). This research showed that many of the selected museums do cater for a wide range of disabilities and impairments and are in alignment with what is being recommended by international best practice. From Table 2 it was highlighted that, all the selected museums actively displayed additional contact information, for people with disabilities to gain further information surrounding their accessibility aspects and museum experiences. They also displayed maps of their museum layout, which enables people with disabilities to pre-plan their museum visit and gauge the location of the necessary accessibility aspects and facilities. Although, there are gaps in the international standards for best practice in information provision, which a few of the selected museums are not fulfilling, such as the alignment of W3C accessibility guidelines, the incorporation of NZSL, and audio-visual subtitles.

Moreover, the results from Table 4 showed that the majority of the five selected museums are in alignment with what is being promoted as international best practice in accessibility

aspects. This research showed that all museums, expect for Otago Museum, are facilitating and providing mobility parking, accessible entrances and exits, elevators, and are displaying international accessibility icons. The potential rationale behind Otago Museum not providing as many accessibility aspects, in comparison to the other museums is that it is a small regional museum. It may not have the funding available to provide extensive accessibility aspects, in comparison to the national museum, Te Papa or the much larger regional museum, Auckland Museum.

From the research that has been conducted, the selected museums are catering for a wide range of disabilities, in terms of information provision and accessibility aspects. It has been commonly identified throughout this research that, there has often been a lack of facilitation in information provision, accessibility aspects, and accessibility experiences for those who have hearing and vision impairments. This has been highlighted through the inconsistent provision of NZSL, audio-visual subtitles, and use of braille, to support the information of the artefacts and exhibitions.

5.1.4 Provision of Inclusive Museum Experiences

Analysis of the provision of information for inclusive museum experiences highlighted the importance of guided tours, the use of subtitles and audio-visual guides to support the information given on the artefacts and exhibitions, as well as the importance of people with disabilities having the opportunity to engage with the exhibits.

The use of guided tours and audio-visual tours are important to the museum experience provided for people with disabilities. The analysis of the findings revealed that, all the selected museums stated that they provide guided tours on their website, but only Auckland Museum and Te Papa offer audio-guides in conjunction with a limited number of their artefacts and exhibitions. The provision of both guided tours and audio-guides is significant to people with disabilities because this ensures that people who have vision impairments are not being excluded from engaging with the museum content and are not being excluded from the museum experience because of their vision impairment. The fact that the two major museums in New Zealand- Auckland Museum and Te Papa, are providing in-depth audio-guides offers hope that, they do have an agenda to ensure that all people with disabilities are able to engage with the museum content.

5.1 Recommendations

Moving forward, it is recommended that museums in New Zealand better incorporate the W3C and WCAG guidelines, as well as better implement the seven principles of universal design. By doing so, this may help to improve the overall accessibility of their websites for people with disabilities. This will also help them gauge and understand if their websites are meeting specific accessibility and compatibility guidelines, in accordance with the four W3C standards: Perceivable, Operable, Understandable, and Robust. By further implementing the W3C and WCAG guidelines, as well as the principles of universal design, this gives museums in New Zealand clear universal benchmarks and standards, in which their websites should be accessible and operable in accordance too.

Furthermore, there were multiple shortcomings to meet the international accessibility standards of best practice in the selected museums in New Zealand. As such, one recommendation arising from this research is the need for the New Zealand tourism industry to establish a guide or set recommendations for accessibility standards that New Zealand tourism organisations, Museums Aotearoa, and the wider museum sector can refer to (Buhalis et al., 2012). This is different to what is practised and promoted internationally (see chapter 1).

5.2 Future Research

There are a few different areas of future research which could be undertaken by scholars to extend the findings of this research. There is an opportunity to analyse social media and other online review platforms, examining the different museum experiences of people with disabilities, and their lived experiences, for other visitors with disabilities to be able to consider and review prospective visits with a critical perspective. The comparative difference to people with disabilities analysing the museum experience from only the websites is that the information has been written from a neutral perspective. The information provided on the website does not provide a personal insight on the overall lived museum experience from those who have a disability or impairment.

There is also a need for research on accessibility in the wider arts and heritage sector, primarily investigating how this sector can more effectively engage stakeholders such as arts

and heritage consumers, accessibility advocates, and people with disabilities. Such research could consider the utilisation of interviews about a design for all, with people with disabilities as advocates from lived experiences, who can highlight the challenges and barriers of this topic.

In addition, there is also an opportunity for future research to investigate the value and significance in accessibility standards, and accessibility affiliations, from a comparative perspective on what is being done in New Zealand, versus internationally. Such research could analyse the significance and impact in which these accessibility affiliations hold for the wider accessibility market.

5.3 Closing Statement

To conclude, it is evident that more work is needed surrounding online information provision on the accessibility aspects of museums in New Zealand. It is also evident that more attention needs to be given to aligning with international best practice, as for the most part, the five museums in this study are not currently meeting these. The main contribution that this research makes is that it identifies and highlights the online information provision and accessibility aspects that museums in New Zealand are not adequately addressing for people with disabilities. With limitations, this research focused on the website communication of the five selected museums, but it is important to ensure that museums maintain their agenda to provide an accessible experience, although the access to critical provision of information is a vital first step.

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was observed that only the Puke Ariki website clearly stated that it was in alignment and in compliance with the W3C accessibility guidelines.

The promotion of accessible information has been identified as an important international benchmark of best practice in accessibility (Buhalis et al., 2012; Universal Design,

n.d.; UNWTO, 2013, 2015, 2016a, 2016b; WTTC, 2021). From analysis of the websites, it is evident that there are shortcomings in the navigational aspects of accessing information for visitors with disabilities. This is an important aspect, as many people with disabilities will consult a museum's website for accessibility information prior to arrival (Burnett, 1996; Evcil, 2018). If there are gaps or barriers in accessing information about access to the physical museum and its ease of access, then those with disabilities may miss out on the museum experience as a whole (Eardley et al., 2016). Throughout the international standards of best practice in accessibility (Buhalis et al., 2012; UNWTO, 2013, 2015, 2016a, 2016b; WTTC, 2021; Universal Design, n.d.), it has been recommended that tourism and museum operators provide the necessary information for people with disabilities to access and engage with museums' content in a format that is easy to find (Mesquita & Carneiro, 2021).

In accordance with the UNWTO (2015) guidelines, the readability of tourism organisations websites is not limited to functional design and useability. Whilst they are both important aspects to consider, it is also of paramount importance that tourism organisations provide adequate, reliable, and up-to date information about their accessibility aspects (Eusébio et al., 2021).Various studies have found that the ease of navigation to information on accessibility, and the readability format in which it is presented, can have a significant impact on conversion rates – i.e., how many customers choose to make a further enquiry or booking (UNWTO, 2015). It was also noted by the UNWTO (2018) that for tourism organisations to provide and promote accessible information on their websites, they needed to adhere to the international standards and guidelines provided in the WCAG. Specifically, the UNWTO (2013, 2018) recommended that tourism organisations organise their website information according to the four key principles stated by the WCAG: perceivable, operable, understandable, and robust.

Of the five museums, only Puke Ariki actively promoted and followed the W3C and WCAG international standard guidelines; this was clearly stated at the bottom of the "accessibility" section of its website (Puke Ariki, n.d.a.). The appropriate use of links has been strongly encouraged by the W3C (WAI, n.d.c.) which stated that the use of links on websites makes important information clearer and more evident,

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allowing for easier navigation of a webpage. Due to the complexity of different people with disabilities' needs and access requirements, it is important that tourism and museum operators take into consideration the different ways in which people with disabilities may interact with their websites whilst searching for information on accessibility (Eusébio, Carneiro, Teixeira, & Lemos, 2021). Moreover, when providing additional information, it is also important that tourism and museum operators consider the format in which it is provided (Eusébio et al., 2021).Lonely Planet. (2017). *Accessible Travel Online Resources.* http://media.lonelyplanet.com/shop/media/accessible-travel-online-resources-2017-2.pdf

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