

Exploring Digitization and Diversity in Museums: A case study of Rotterdam



(Photo: Museumnacht, Boijmans Archive)

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Master Thesis

June 14, 2023

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Abstract

The thesis deals with exploring the relationship between diversity of audiences and the advent of digital innovation in museums. Museums have the reputation for being elite and exclusive institutions that originate from colonial thought. Diversity and inclusivity debates in museums have been widely discussed and policies focusing on audience development have been introduced. Nevertheless, the museum institution persists to possess a rather unifocal understanding of diversity and inclusivity curbing the true effect of the established policies. The application of policy frameworks regarding diversity lacks practicality of the real world. In this day and age of digital innovation, the museum sector has been slow in engaging itself with the digital realm and recognizing opportunities for future museum practices. The pandemic accelerated the process of digitization revealing its advantages of wider outreach and broadened visibility. With the introduction of social media channels and digital enhancement tools, a possible increase in audience engagement was predicted. In this backdrop of diversity struggles and the recent digital innovation, this thesis attempts to explore the link between digital strategies and the diversity of audiences in museums in Rotterdam, specifically Boijmans Depot and Kunstinstituut Melly. Using the qualitative interviews as the main methodology and pairing it with secondary data analysis and nested surveyal research, the study delves deeper in understanding the motivations and experiences of museum professionals and visitors on diversity of audience in age and ethnicity to explore its relationship with the adopted digital strategy. Results reveal that the understanding of diversity in museum professionals influenced their digital strategy during and after the pandemic. Challenges such accessibility, limited racial representation and inclusivity have not been addressed in the digital strategy which create new exclusions beside the preexisting old exclusions. Digital approaches need to have more focused curatorial practices and a comprehensive in-depth analysis of digital limitations should be prioritized going forward.

Keywords: Rotterdam, museums, racial diversity, young audience, digitization

Acknowledgements

First and foremost, I would like to give my deepest gratitude to my supervisor Dr. Kristina Kolbe. Without her help, this thesis would not have been possible. Her detailed feedback, constant support, literary suggestions and most notably her kind and motivating nature and patience have made this process truly enriching. I consider myself fortunate to have her guidance. I would also like to thank my co-advisor Dr. Laura Braden. Her valuable quantitative insights and wise guidance facilitated my research in its entirety.

Secondly, I'd like to thank my friends that I have met through this master's program. The discussions, group chats, emotional support have been the pillars of my resilience through this process. I would also like to thank my family and my sister who have believed in me through thick and thin and supported me from far away through video calls and food packages. They are the reason I continue to be the best version of myself and be the person I am today. Thank you for everything.

Lastly, I'd like to thank the faculty at ESHCC and all the lecturers that ever taught me. Your contribution to my development has been crucial, I will forever be indebted.

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1. Introduction

In 2021, Beyonce stirred museum societies with her YouTube musical release, *Apeshit*. Situated in the Louvre the video showed the black community occupying the museum space, a satirical commentary of the event (Gunn, 2019). The video received appreciation on social media for its commentary on the lack of representation and diversity in the hallowing museum space. The album was released on YouTube to be consumed by the global world. As it was released in the digital space, the video received praise from a larger audience that had or had not experienced the Louvre (Gunn, 2019). To quote the social media manager of Museum of Modern Art (MOMA),

“As the world’s most-visited museum, the Louvre may represent a big step up, but as some pointed out, “*Apeshit*” will almost certainly broaden its audience —”

Museums play an important yet a contested role in our society. The origin of museums can be traced back to the Cabinet of Curiosities - a collection of objects stolen from the colonies (Cooke, 2014). These objects, as they grew in numbers were displayed as collections to the elite society as a project of civilizing the people in the former colonies (Cooke, 2014). Museums thus originated as collections by the white elite and for the white elite (Chilton & Silberman, 2010). Since the beginning of the 21st century, museums have faced backlash for their lack of inclusive practices globally. In particular, they are critiqued for possessing artifacts that belong to former colonies and are a symbol of colonial exploitation (Cooke, 2014). Chilton & Silberman (2010) argue that throughout modern history, museums have been places of exclusion, sustaining colonial art and practices. Art museums depict racial atrocities perpetrated on the people in the former colonies as pieces of beauty and grandeur. With such pieces on display, a narrative of colonial heroism is accentuated, creating spaces of exclusion for non-western, non-white audiences (Barco, 2020). This inherent colonial nature of museums excludes a diversity of young people of color audiences. In addition, contemporary art exhibitions in museums lack representation of non-western art and artists. This has created a loss of belonging for minoritized audiences which makes it difficult for them to connect with museums.

Many stakeholders in the field have thus pushed for awareness of this exclusion and for an increasing emphasis on diversity and inclusion policies in museums (Bomash, 2021). However, museums continue to struggle with attracting people of color. Studies have shown that European

museums tend to comprise a particularly old and racially white pool of visitors regardless of the high multicultural population of the region (Paredes, 2016).

As seen from the response Beyonce received for “Apeshit”, an open stage of conversations and discussions is put forth through digital media. Through the world release and larger broadcasting audience, digital media could be a catalyst in diversifying museum audiences. As such, there could be a potential relationship among digital visibility and audience development for museums today. Moreover, the pandemic has instigated an accelerated digital response from the museum sector as physical spaces and social interaction came to a halt. The usage of digital space and creation of digital channels for museums is seen to increase the visibility for young audiences. Museums have extensively developed digital media and are jumping onto the digital bandwagon with online events, virtual tours, Instagram exhibitions, etc. (Lisney et al., 2013). The International Council of Monument and Sites (ICOMOS) introduced its first digitization project “Digital transformation in cultural heritage institutions” in 2020 which discussed the revolution of museum practices within today’s broader digital transformations (Liao et al., 2020). Most notably, the museum sector is keen on exploring digital strategies with the wider aim to continue the digital hustle which started during the pandemic. Additionally, the heritage sector is anticipating the social impact of such technologies and is developing the institution for better digital tools and transformation (Liao et al., 2020). A staggering increase in the enactment of digital tools in museums was seen during the pandemic lockdown in 2020: museums explored the potential of digital innovation by introducing online events and virtual tours.

These efforts to recognize the colonial nature of museums combined with a digital movement to make museums accessible could attract diverse audiences in the museum space (Giannini & Bowen, 2019). Digital initiatives are argued to be catalysts of elevated outreach through transcending geographical boundaries and evolved visibility (Giannini & Bowen, 2019). Indeed, as museums are grappling with ethnically diverse and young visitors, digital innovation could prompt a renewed relationship with diversity. I am interested in investigating the relationship between digitization and diversifying museum audience, particularly relation to age and race. Currently with digital culture, digital media is here to stay. Therefore, I ask, how are digital strategies impacting the long-standing battle to diversify museum audiences in terms of age and race? The influence of digitization on the diversity of audiences has not been extensively researched. Hence, the scope of this thesis is to investigate the link between digitization and

diversity and offer information for museum authorities in their digital approaches to supplement efforts that ensure equitable access to young people of color.

I develop this research by exploring the influence of digital strategies on the diversity of museum audiences regarding ethnicity and age. My research question is **how digital strategies being adopted by museums could better cater to making museum spaces racially diverse and inclusive for people?** I conduct this study in contemporary art museums in Rotterdam namely, Boijmans Depot, Kunstinstituut Melly, and Kunsthal. I used a mixed-methods approach using qualitative semi-structured interviews and secondary data analysis of visitor surveys. The mixed methods approach helped me gain a holistic view of the consumption and production side of the museums. I conducted eleven interviews in total: six interviews with museum professionals and five interviews with visitors. Both the participant groups helped me understand the motivations for the implemented digital strategies in relation to age and race, and how visitors experienced digital media and their museum visits. Digital innovation has not been fully explored yet and poses several advantages in engaging audiences. This study attempts to explore a how the digital world can facilitate a racially bigger and younger pool of audiences inside the museum. Therefore, I focus on investigating this relationship between digital strategies and diversity of audiences.

The thesis proceeds as followed. In Chapter 2, I provide the context of Rotterdam and the three sampled museums on which I based my research. This chapter comprises the background information I gained from analyzing the annual reports of the museums and will act as a groundwork for my quantitative survey analysis. In Chapter 3, I give a detailed synopsis of the theoretical concepts that I use as prior research for the study. I review the diversity debate in the context of museums, digitization in the museum sector, and finally the relationship of both in the current multicultural context in the Netherlands. To supplement my study, I then provide a clear and comprehensive account of my methodological choices and limitations in Chapter 4. Finally, in Chapter 5, I present my findings and analysis of the conducted interviews and survey data. I discuss the findings in dialogue with the established theory and concepts. My findings reflect the nascent relationship between digitization and diversity. By doing so, I specifically discuss and analyze the challenges and limitations of the digital world concerning the diversity of age and ethnicity. I derive some recommendations and alterations in the outlook towards the usage of digital media and diversity in audiences in the conclusion.

2. Context

ICOMOS has in the last decade addressed the importance and relevance of museums in the current global situation (ICOM, 2016). Art and Culture in the museum are said to be a unifying force that brings different cultures and ways of life into one space (Nielsen, 2015).

Contemporary art museums are such places of unification, broadening horizons and understandings of the past, present, and future (Nielsen, 2015). Museums in the Netherlands are popular for their unique and traditional collections. Against the backdrop of recent happenings, it has come to light the absence of diversity and inclusion in museum spaces in the Western world (Ang, 2005). Western museums are a product of the dark period of history and continue to possess colonial aspects of that time (Sandell, 2003). The awareness of this dark side of museums carries even more importance in this epoch of moving populations, increasing multiculturalism, geo-political discourses, etc (Ang, 2005). Museums today are facing issues with inclusivity and diversity in all aspects of their functioning (Ang, 2005).

The Netherlands is a hub of museums and gains its popularity through world-known art museums like the Rijksmuseum, Van Gogh Museum, Mauritshuis, etc. The Rijksmuseum is renowned for its variety of collections and traditional art unique to its country. Dutch museums were created as an institution long before globalization and served the fundamental purpose of unification through common identity (Bergvelt, 2010). The museums here possess a national character that contributes to the formation of national identity (Entzinger, 2003). This is important to know to understand the origin of museums and the urgent need for diversity policies for Dutch museums. The wake of multiculturalism finds its roots in the late nineteenth century as an offspring of globalization (Entzinger, 2003). In the case of the Netherlands, museums were a solid symbol of unification and national identity (Entzinger, 2003). Apart from being “Dutch”, the people identified themselves as Dutch through their art and culture, thus their museums (Entzinger, 2003). This sense of homogeneity and unified national identity soon was stirred with the advent of globalization in the mid of the nineteenth century. During this period a large amount of labor exchange from all around the world grew exponentially (Crowe, 2006). The Netherlands witnessed a strong influx of Moroccans, Turkish, and Surinamese into the labor market through the ‘guest worker’ schemes (Crowe, 2006). Due to the lack of overlap between the cultures of immigrants and Dutch culture, the Netherlands found itself struggling with the

issue of diversity and inclusivity in its museums (Lechner, 2012). The presence of ethnic minority cultures in concentrated areas was not reflected in museum audiences and caused a sense of exclusion and loss of acknowledgment among the minority audiences (Slooten, 2018). The multiculturalism debate grew roots in the rampant issue of the underrepresentation of minority cultures giving rise to national debates on diversity and inclusivity (Slooten, 2018).

The Netherlands involves a predominantly Dutch population except for some urban cities like Amsterdam, Rotterdam, Utrecht, etc. Rotterdam is said to be the most diverse city in terms of ethnicity. Rotterdam comprises a large Turkish, Caribbean, Indian, and south American population making it rich in multicultural spaces (Richards & Wilson, 2004). The city has culturally enriching spots like the Museum Park, Witte de With straat, M4H district etc. It has a variety of cultural institutions and museums present all over the city like Kunsthal, Boijmans and Boijmans Depot, Kunstinstituut Melly, Wereld Museum, Photography Museum, Maritime Museum etc. Rotterdam is developing itself and the image of a diverse and inclusive city by creating multicultural spaces and museums is one of the top priorities (Scholten et al., 2019). Recent developments like the name change of the Witte de With Contemporary Museum to Kunstinstituut Melly and South Boijmans are a testament to the new attempts for a diverse and inclusive audience (Scholten et al., 2019). Additionally, new policy models namely, 'integration models' centralizing the issue of diversity and inclusion have been introduced in the museum institutions (Duyvendak & Scholten, 2011). Nevertheless, museums in Rotterdam are still struggling with attracting a diverse audience in terms of ethnicity and age. 27% of the population of Rotterdam is between the age of 18-34. The city council survey of 2018 shows that 51.2% of the city's population is non-white and comes from a migration background (*Rotterdam*, 2023). The museum visitor survey of 2019 shows that 53% of museum visitors are white (*Rotterdam*, 2023). This shows the disparity between the museum audience and the resident demographic population. A new vision for developing the cultural scene of the city is put forth that focuses on local engagement and community-based development (Duyvendak & Scholten, 2011). Museums thus are establishing ways to attract more local, diverse, and young audiences from 2016 (ICOM, 2016).

The onset of the pandemic led to a new mechanism in the museum sector. Due to the total lockdown, museums adopted online techniques to engage with their audiences. Museums have been slow and passive in the execution of digital innovation (Burini, 2020). The pandemic

compelled the museums to a digital shift and a new way of engagement was discovered (Buruni, 2020). This was led by the fear of loss of audience in the debate of the relevance of the museums (Nielsen, 2015). Museums in Rotterdam introduced digital channels like Instagram, Twitter, and YouTube. Most museums already had a website, and new dimensions of the website were explored (Buruni, 2020). The following annual reports of the Boijmans Depot and Kunstituut Melly explain the transition to the digital strategy of the museums.

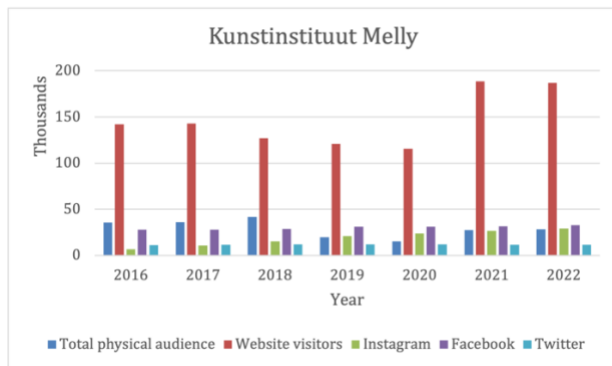


Table 1.1 Kunststituut Melly

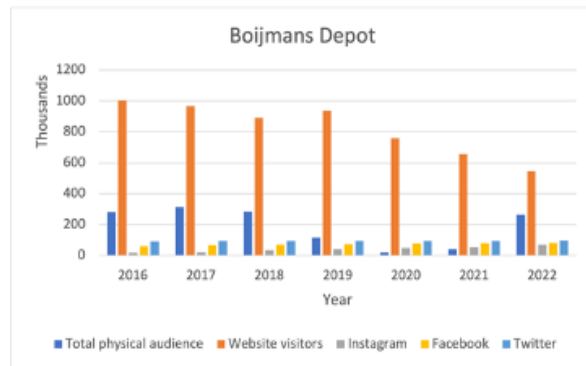


Table 1.2 Boijmans Depot

Table 1.1 shows the yearly distribution of digital strategies and physical visitors mentioned in the annual reports of the Kunsinstituut Melly from 2016 -2022. The table includes the total number of physical visitors and the online followers of every digital channel the museum engages in. Similarly, table 1.2 shows the yearly distribution of digital strategies and physical visitors mentioned in the annual reports of the Boijmans Depot from 2016 -2022. The table includes the total number of physical visitors and the online followers of every digital channel the museum engages in. Analyzing these numbers, image 1.1 and 1.2 presents a bar chart that shows the fluctuations in overall visitors to its digital media channels. The analysis collectively shows the effect of digital channels on the physical audiences in both museums. It presents that,

Both the charts show a similar distribution. The total physical audience showed a decrease in the years 2019 and 2020 which can be explained by the pandemic and the total lockdown on physical activities. During this period, digital media channels like website, Instagram, twitter was the primary base of communication. The analysis shows that there was an increase in online presence and was distributed over several channels. A significant increase in website traffic in 2021, a year after the lockdown was observed. The Facebook followers slightly increase from 2016-2021 whereas the Instagram followers saw an exponential increase. This

shows a shift in the usage of social media channels. Facebook is an older generation channel and Instagram has more young people (Buruni, 2020). Thus, the increased Instagram following can be seen as an increase in young interest at the museum. The total physical audience spiked in the year 2022 when physical was opened up again. The audience numbers of 2022 reflect the effects of digital visibility combined with the public rejuvenating to social interactions after the pandemic. The Instagram followers and website traffic did not drop even after the in-person events were back. Digital channels have grown to be one of the essential communication and outreach channels for museums and reflect the digital transition of the sector.

Recent developmental reports show that museum audience in Rotterdam have become more popular. Data of Rotterdam Festivals show that 36.5 percent of our Rotterdam audience consists of a young target group, largely with a migrant background (*Rotterdam festivals, 2021*). This creates a puzzle of the real equation between the development of audience and digitization. Moreover, the extent of digitization is not fully explored, and the benefits of its adoption can already be seen in museums. Thus, the prediction of increased racial and young diversity in audiences through digital strategies need focused attention. Through this thesis, I aim to come closer in exploring this liaison between diversity and digitization specifically among racial and young audiences in museums in Rotterdam.

3. Theoretical Framework

The theoretical framework explores the existing discussions and theoretical concepts around diversity and digitization in museums. It shows how the ongoing diversity developments, and the advent of the digital world together contributes to the relevance of museums in the Netherlands. The chapter deals with the theoretical concepts in broader sections of diversity struggles in museums and the digital transformation.

The chapter opens with the history of museums and their evolution which makes marks the root of diversity struggles in the museum context and the origin of the elitist nature that surrounds it. Following the discussion section unfolds the socio-cultural debates in museums focusing on the lack of diversity and its meaning with the help theoretical concepts like representation, inclusivity, race-making in the institutional context of museum power. Through these conceptual foundations, A case-specific model of the diversity in Dutch museums unfolds the multicultural and racial minority debate and its active play in the struggles of diversity and inclusion policies of Dutch museums. Thus, possible ways to deal with diversity in audiences is discussed through intercultural audience development strategies underlining the gaps in previous research.

The digital culture section provides an account of the digital transition in museums. The pandemic was a strong marker in the digital transition and explains the realizations of the pandemic-led changes in museums through the account of several digital initiatives. New theoretical shifts like the new museology, online interaction and social media engagement explain the perceived advances of the digital transition regarding the museums' audience.

Finally, the last section brings together the digitization and diversity concepts through understandings of accessibility and social inclusion. As both diversity and digital advancement acknowledges the importance of cultural accessibility and social inclusion, the chapter situates itself in collating relevant sources for the in-depth understanding of the backdrop of the research puzzle.

3.1 Museums and the diversity struggle

Museums are considered the bearers of art, culture, and heritage (Simon, 2009). They are seen as places that bring cultures together and serve society through interaction. But museums are also places of exclusion failing to connect with minority groups (Simon, 2009). It is not surprising, given the history and origin of museums. Museums originated in 16th century Europe with the cabinet of curiosities as spaces for private collectors to display the objects acquired from colonies (Simon, 2009). These spaces were exclusively built only for a section of society to consume and were seldom open for public consumption (Simon, 2009). The first modern public museum was built in 1677 by the University of Oxford and was open for public consumption (Simon, 2009). Later, new museums were built with the similar purpose of showcasing collections and artwork reproducing the colonial state of mind, in a way to legitimize it (Ang, 2005). In the late 20th century, discussions and debates revealed the colonial legitimacy and soft power of public museums (Ang, 2005). They were seen as highly upper-class institutions of art and culture that possessed a soft power over the creation, narration, and preservation of history (Ang, 2005). The idea of museum construction came from colonial thought and narrative. Consequently, they were highly contested for their elitist nature and exclusionary practices (Ang, 2005). The inherent colonial structure of museums prevents the entrance of minority communities that have experienced the residues of colonialism which in turn leads to the reproduction of societal inequalities (Macdonald, 2022).

Nevertheless, museums are also considered spaces of culture and social interaction. They played a primary role in the process of knowledge creation to educate people through objects and historical artifacts (Macdonald, 2022). It has been argued that the aspect of knowledge creation substantiates objectivity in museum narratives. Daniel Sherman (2022) points out this to be the performance of classification and marking of differences in modern museums. He argues that the differencing feature of modern museums is selective or performative (Macdonald, 2022). To explain this further, differences can be in various forms like customs, cultures, ways of life, etc. The selective structure of museums then marks the process of classifying these differences as negotiating factors (Macdonald, 2022). Thus, it can be said that modern museum structures support a single narrative that is selective in nature. Representation, in this case, displays the need for negotiation (Macdonald, 2022). Thus, Sherman (2022) stresses that museums are institutions defining culture with specific objectivity and have always been sites of negotiation of

differences. The lack of representation stems from this character of selectivity and compromising differences (Macdonald, 2022).

3.2 Representation, inclusivity, and the museum institution

Representation continues to be crucial in museum debates today. Representation is defined as the act to stand for, symbolize, or act on behalf of a person, group, or thing (Saha, 2017). In the context of museums, the representation of minority art and artists is a symbol of inclusion for minority groups (Saha, 2017). The larger representation of minority groups is a testament to a diverse and inclusive museum that rightly reflects its audience (Saha, 2017). The current focus of representation lies largely on the management side of the museum (Olivares & Piatak, 2022). Industry Lore' by Timothy Havens demonstrates how 'culture produces industry' which underlines how notions of diversity permeate through the production side (Havens, 2014). The creative professionals that form a part of the organizational team are a testament to the ideas that the organization believes and follows (Havens, 2014). Thereupon, these notions are reproduced over a period and reflected in the content of media they produce which in turn develop historical notions around diversity. Thus, industry lore refers to the power that the organization possesses to inform and construct discourses around a topic (Havens, 2014).

Saha (2017) explains that representation is an internalized concept that demands institutional attention. Negotiating differences asks for discussion at higher levels of the management structure allowing opportunities for minority groups to represent and thus stand for their group (Saha, 2017). 'In the museum context, management studies show that the majority of museum staff is upper-class or white (Olivares & Piatak, 2022). This goes on to represent the museum as an institution of the elite and for the elite. The museum staff does not reflect the demographic population and thus a gap in representation between the museum and its audience is created (Olivares & Piatak, 2022). Along with the staff, museums are dominantly spaces of community participation operating at community as well as individual levels. When the museum participants do not reflect the general population, the institution creates an exclusive image hindering the participation of minority communities (Olivares & Piatak, 2022).

3.3 Cultural Participation and multiculturalism in The Netherlands

Overall museum participation in the Netherlands reveals its upper-class image due to its mass percentage of old and white audiences (*Rotterdam, 2023*). According to the NEMO Report 2022, only 23% of the museum visitors are young adults and 44% of visitors are older (Organisations, 2023). This disparity between ages depicts the prevalent museum structures and their target audience. A 2017 study explains that 40% of young millennials believe that the “museum is not for them” (NEMO, 2022). Similarly, 23% of the young and university-educated ethnic population declared the same, that they do not feel that the “museum is a place for them” (NEMO, 2022). This poses a serious barrier for museum institutions in their attempts to be open and inclusive. Lower participation of diverse audiences regarding ethnicity and age can be related to the insufficiency of cultural representation in museum spaces (Olivares & Piatak, 2022). Coming back to Haven’s theory of the Industry Lore, cultural representation in art institutions and museum spaces can encourage audiences to a foot-in-door of the museum (Havens, 2014). Diverse participation is vital to the sector to promote social inclusion and heightened representation. ICOMOS in their 2016 diversity and inclusion policy declared that “diversity is a widespread goal among museums” (ICOM, 2016). To reach the goal it is imperative for the sector to understand who is and who is not participating (Saha, 2017). Still, museums continue to have a narrow focus with curatorial voices projecting the upper-class narrative. As these voices are in possession of power and have rarely been challenged, the struggle for diversity in museums persists in the Netherlands (Macdonald, 2022).

While publicly funded museums are majorly populated by the high class and rarely attract the rest, public funds for the arts have been under threat (Nielsen, 2015). Challenging the upper-class nature of these institutions, attracting a diverse audience is imperative for the art institutions for a positive image within the community and eventually for funding (Nielsen, 2015). Mandel (2019) calls this intercultural audience development. He defines this as the concept of involving different cultural and social groups in a cultural institution to encourage interaction to drive shared learning and cultural collaboration (Mandel, 2019). This is a policy-driven concept and induces the involvement of diverse perspectives in the cultural scene as a measure of the diverse audiences (Bonet & Négrier, 2018). While Mandel explains this concept, the practicality of the concept shows prevailing social imbalances in participation (Mandel, 2019). The Intercultural Development Monitor study shows that the Netherlands (34%) stands third after Sweden and Denmark with the highest cultural participation (Macdonald, 2022). In

this study, Germany is only 18% despite the high supply of art institutions in the country. Younger generations are less likely to shift from popular to classical music as they age. This shows that a larger proportion of art supply doesn't lead to high participation (Macdonald, 2022). The analysis explains that cultural participation and demand correlate to generation clusters more than age. Among generation clusters, a lack of interest is the most apparent reason for limited young attendance in highbrow art (Macdonald, 2022). The first Intercultural Barometer for Germany gathers that the growing migrant population from different cultures might be the factor for the drop in high culture attendance (*JDC Report*, 2019). The research depicts that an individual with migrant cultural background scores twenty percent less on visits to traditional cultural institutions. Contradicting the study, Mandel reasons this as the difference in understanding 'what is culture'. The migrant population considers the way of living as a culture that includes everyday aspects such as food, music, customs, etc, whereas the Western idea of experiencing a culture that primarily includes 'high art events' is rather narrow and constricted (Mandel, 2019). Consequently, even the young migrant generation that ends up attending museums shows a higher cultural and social capital. This social imbalance is evident in all the Western countries and shows how the cultural sector is largely 'exclusive and self-referential' (Mandel, 2019). While developing the audience development approach, legitimization of the underrepresented culture is one of the significant motivations at the institutional level apart from educational and community purposes (Mandel, 2019).

The Netherlands is seen as a highly diverse country after the migration policies of 1996 which brought an exponentially increasing influx of immigrant workers (Entzinger, 2003). The influx meant a formation of a new audience. Audiences are discursive constructs that showcase how a representation of the majority group cannot be treated as the ultimate representation of the audience (Ang, 2005). In this broader context, incoming cultures feel the necessity of representation to culturally assimilate with the host culture (Entzinger, 2003). The Netherlands in its integration models has stressed the importance of cultural pluralism and pushed forward the belief that cultural assimilation of ethnic minorities will lead to the emancipation of a well-integrated Dutch multicultural society (Duyvendak & Scholten, 2011). However, in reality the structural and systematic conditions prevent minorities from entirely integrating into Dutch society (Entzinger, 2003). Attempts of integration among immigrants normally entail the expectations to leave their culture behind and be a part of the host culture (Entzinger, 2003).

Some of the drawbacks observed in policy frameworks in integration models are the pragmatic approach of “keeping things together” (Duyvendak & Scholten, 2011). Scholten (2011) in his multicultural model research contends that the cultural integration models are informed by strong policy research and are normative-based instead of application-based. Museum audiences attempting a diverse and multicultural audience are exposed to the unidirectionality of the integration models (Scholten et al., 2019).

In a recent study by Sniderman and Hagendoorn, a case study of the Netherlands is drawn to analyze the discontents of the multicultural models. They argue how audience identities in the mentioned models are boxed as collective identities which oversight the differences among minority clusters (Sniderman, 2008). This indifference as argued has unintentionally reproduced social and cultural inequalities rather than bridging them (Sniderman, 2008). Ang furthermore probes the categories as discursive that objectifies the audience as a ‘durable and factual thing’. This means that the diversity of the audience is contingent upon the audience and their accommodating skills along with their tastes and interests (Ang, 2005). Moreover, audience engagement is top priority for museums as most Dutch museums do not receive public funding from the government and must rely on ‘blockbuster’ exhibitions for their income (Awad, 2013). This creates a dependent relationship between audience numbers and museums’ relevance. As Awad shows in her analysis that young and diverse visitor engagement is crucial for museums and their existence for futureproofing (Awad, 2013). As the cultural barometer explained earlier that museum visitor distribution that shows the concentrated old age population in museums is a generational cause than an age assessment (JDC report, 2019). Thus, to future-proof the relevance of museums, engaging racially diverse and young audience is imperative.

3.4 Audience development and Diversity debates

Similarly, as diversity in audience development is necessary, enabling diversity initiatives do not stop at the audience. Statistical studies show that the assimilation of diversity is crucial at every level of the institution (Bomash, 2021). Herman Gray contests that empirical communication studies only focus on rates of diversity in media content (Gray, 2015). He argues that diversity and inclusion in the media are overtly focused on demographics but oversight the structural discourses present of race in the industry. Gray’s race-making argument concentrates on the constructionist frame of representation eliciting the portrayal of race in media’s production and

consumption content- such as television, film, books, and movies (Gray, 2015). Gray sees media content as race-making rather than racial representation which spotlights Stuart Hall's argument of the politics of representation. Hall's notion percolates through internalized structural politics of race and makes sense of race as a 'floating signifier' which is bound to change and be challenged (Hall, n.d.). Thus, Gray confronts the empirical representation of race-making and demands more constructionist and discursive practices of race-making. As Gray speaks of media and its portrayal of race, the digital world is a new off-shoot of media that we cannot overlook. Representation of race in the media revolves around visibility (Gray, 2015). This creates questionable assertions around our understanding of race and its representation. The focus on production confirms the benefit of embedding diverse professionals in the organization as well as creating staff training related to the awareness of diversity and inclusivity in the cultural industry (Gray, 2015).

Relating the industry lore by Havens discussed earlier to Saha's work on the adoption of digital technology in the representation of media, we see how cultural production can steer the production of recurrent contested ideas of race-making. Saha deliberates on the concept of racial capitalism which shows how racism and capitalism as intersectional forces that devalue the racialized (Saha, 2022). It is important to mention that capitalism does not have racist roots, but it has a racial character (Saha, 2022). This reflects to the production industry in media studies and how racism is an offshoot of capitalism and its profitable nature (Saha, 2022). Thus, attracting young and ethnically diverse audiences demands detailed and case-specific market research. Museums are aiming toward diverse audiences through new and revised state policies, but policy frameworks are observed to be lacking a directed and clear-cut approach that is also location specific (Bonet & Négrier, 2018).

Thus, bringing together adjacent struggles around the diversity of young and racial audiences in museums and the limited purviews in policy frameworks, I base my foundation on these gaps in an effort toward diversity in museums. Taking this further, I will use this as the grounds for my analysis of how diversity is shaped and understood in the modern museum world and how they are tackling the question of diversity. Additionally, the current digital context because of the pandemic cannot be neglected when discussing the museum sphere. The pandemic-led digital innovation hit the museum world with sparks of new techniques and alternatives for audience engagement. Digital culture has taken over the cultural sector in ways

like digital art, immersive experiences, virtual tours, social media etc. This broad range of practices has incited a new audience and interest among visitors creating a space of expansion out of the traditional museum idea.

3.5 Digitization and the Museum

Digitization in the museum sector have been developing passively and with a slow pace (Liao et al., 2020). Museums in the beginning of the 21st century were known for their traditional being but were soon challenged due to their static digital interest (Buruni, 2020.n.d.). With the inception of internet and the technological boom in the end of the 20th century, museums started adopting digital tools as ways for newer experiences and engagement (Buruni, 2020). This led to theoretical shifts like ‘The New Museology’ that channeled the digital advent in museum sectors (Buruni, 2020). The adoption of digital tools in some Dutch museums had already begun to engage visitors but was not developed to accommodate the entire audience and was rather seen as supplemental (Giannini & Bowen, 2019). With the rapid growth of digital innovation, the museum was compelled to explore more opportunities that might shape the future of museums. The Rijksmuseum initiated the Rijkstudio, an initiative that engaged audiences by giving them a chance to curate personal collections digitally using photographs of the museum’s collection (Alexandrou, n.d.). Museums generally are represented by their collections as they are their key resource of creating social value. To enhance this value for society and the institution itself, digital tools aid in this relationship by bringing new social interactions that contribute to the community value of their users (Buruni, 2020). The progress towards achieving a refined social and community value is taken forward by networked approaches (Giannini & Bowen, 2019). Museums are exchanging skills to form cluster networks of mutual digital promotions for a wider. Some examples of museum clusters are Bath Museum Networks, Baltic Museum networks which draws in enhanced user experiences and visibility (Buruni, 2020). The community centered approach in the digital sphere includes websites facilitating virtual and physical engagement, social media platforms, virtual tours/online events, online collections to name a few (Giannini & Bowen, 2019).

3.6 Lockdown 2020 and Digital acceleration

UNESCO data report shows that 90% of the world's museums experienced the complete shutdown of activity in 2020 (UNESCO, 2020). The iconic museum of Bags and Purses in Amsterdam was the first one to declare permanent closure due to the pandemic crisis (UNESCO, 2020). This called for an urgent response from the museum sector as it affected the audience engagement and visitor numbers due to the shutdown on physical interactions. The digital transition in museum as result of the total lockdown was explicitly made to draw alternatives to physical exhibitions and events (Buruni, 2020). In such an arduous situation, museums followed the trend of making everything online and digital (Giannini & Bowen, 2019). As museums established a digital space, new avenues of curating events for engaging audience developed (Giannini & Bowen, 2019). The struggle of limited audiences was already a problem for the museums and this dilemma of limited cultural participation was exacerbated by the pandemic (Burke et al., 2020). The digital space initially scored low on audience numbers however, it gradually ascended with a striking response (Giannini & Bowen, 2019). This was made possible by the implementation of digital strategies like virtual tours which were implemented as an alternative to in-person attendance, and thus resulted in the shift from physical to digital exhibitions and events (Burke et al., 2020). Although many museums had already started with this transition by implementing digital tools inside the museum; online exhibitions and events did not form a part of the museum experience (Alexandrou, n.d.).

Museum Association and DEN studies of 2020 also show that digital tools in the museum sector gained sudden popularity during the pandemic and continued with momentum even after the lockdown (DEN, 2020). Several museum institutions followed the trail and began to explore new digital opportunities. The British Museum saw an exponential increase in its website traffic in the month of March 2020 and an increasing demand of virtual tours and educational activities was witnessed (Buruni, 2020). Given this unprecedented reach and demand, the museum renewed its digital collections open for access. The Google Arts and Culture Platform was an initiative by cultural institutions around the world where museums could upload virtual tours and collections on a digital platform during the pandemic (Mihelj et al., 2019). The initiative received a huge number of visitors who varied from different backgrounds and age groups (Mihelj et al., 2019). Anyone and everyone who had internet access could visit and attend the virtual tour. Several participants from all over the world uploaded their museum content on this platform (Mihelj et al., 2019). This created a global space for visitors and museum goers to feel

connected to the museum in the pandemic era. Not only was the museums' online presence a benefit, but a new way of engagement was discovered (Mihelj et al., 2019). Most museums rely on public funds which was in a difficult situation due to large cuts in funding in the last decade. Due to difficult funding situation, museums at every step need to prove and justify their social utility (Buruni, 2020). Audience and engagement statistics are seen as quantifying figures based on which the metrics of social value and public contribution could be measured (Nielsen, 2015). Greater museum participation and attendance signifies the benefit of the museum and its relevance, as public funds depend on how the museum is accessible and has a large attendance (Nielsen, 2015). The educational value functions as a wider social impact. Such approaches uplift the potential of museums in creating safer communities and stronger social impact through enhancing public life (Buruni, 2020). Because of this reason the audience engagement during and after Covid-19 deems such importance in museum relevance and future practices (Mihelj et al., 2019). The immense amount of public response and interest in virtual situations have shown clearly the social and cultural value of museums (Nielsen, 2015).

3.7 Social media and Interaction in the digital world

Publicly funded cultural institutions have become aware of their limited social reach and have been criticized for not being inclusive and diverse enough (Nielsen, 2015). In this broad context, the digital advent has seen possibilities of increasing the audience numbers through heightened visibility and broadcasting (Lisney et al., 2013). A study in the UK shows an increase of 42% to 52% among adults visiting museums or galleries (Buruni, 2020). The use of communication technology can be seen to benefit broadcasting which attracts a wide range of audiences (Lisney et al., 2013). Taking the example of the Getty Museum challenge where audiences re-created artworks at home and shared them on social media, the digital network allows the audience to be co-contributors in the museum collection (Lisney et al., 2013). Another similar example is of the Boijmans Depot where the audience members were asked to create an Instagram post which was then made into an Instagram exhibition. Such initiatives evoked a sense of togetherness and co-creation deepening the community value of museums (Vujić, 2021). A community-centric approach started to develop during the pandemic and was primarily made possible through the digital initiatives mentioned above (Vujić, 2021). Studies examining the pandemic have highlighted that the museums witnessed an increase in international audiences as the

transportation and financial barrier was removed (Mihelj et al., 2019). As people could attend the museum initiatives on their own without commutation, or entrance fee; many audiences showed up (Mihelj et al., 2019). The Cultuurmarketing 2020 report deduces that 25% of millennials had never been to a museum due to the niche and exclusive nature of Dutch museums (Redactie, 2020). This resulted in the museums being less appealing and less accessible to younger generations (18-24 years). With digital tools of social media in place, the younger generation found the museums more accessible and relatable which creates a possibility of turning them from potential visitors to visitors (Redactie, 2020). On the other hand, the museums are facing a lower engagement rate among their regular audience which was 55 years or older due to no access to and education about technology and media (Giannini & Bowen, 2019). This has created a feeling of loss and detachment among the older generations. The Netherlands has the highest density of museums than any other European nation and thus, has a broader reach through their museums and engagement with an international audience (Duyvendak & Scholten, 2011). Although with a greater international proportion, Dutch museums are contested for their older white audiences (Duyvendak & Scholten, 2011).

The spread of social media is increasing day by day. Its influence, usage, reach and relevance in the digital and the real world is palpable. Agostino analyses the success of social media in two categories: scalable and highly accessible (Agostino et al., 2020). Social media possess the power to reach audiences in massive numbers in the shortest time which explains its scalability and at the same time is the most accessible and easy to access medium of communication (Agostino et al., 2020). These characteristics makes the use of social media channels widely consumed. Easy access and communications have led to a smooth exchange of information between the organization and its target audience (Agostino et al., 2020). Online visibility through social media accounts assumes a clear and true image in the eyes of the new and young audiences. A connection of trust in the digital media is given through social media content through brand development (Jacobson, 2020).

Given that, the promotional content has changed on social media and is catered to the upliftment of the brand created (Jacobson, 2020). The language plays an important role and is influenced in brand creation where an image of the museum is portrayed through its use of language (Jacobson, 2020). The traditional media of museums was more formal, and the social media content language tends to be more 'informal and simple.' (Romolini et al., 2020). They

propose that this is the effect of the vast and open nature of digital media (Romolini et al., 2020). Applying Bourdieu's capitals in this context explains the use of elite and sophisticated language to exclude the lower classes (Grenfell, 2009). Thus, the contrast the conventional structures of museum communication which is seen to be very didactic and elitist was challenged by the adoption of social media and its accessible content (Romolini et al., 2020). The digital presence of museums on social media fits in with the idea of the new museology (Giannini & Bowen, 2019). New museology demands for accountability and responsibility towards its audiences (Franco, 2021). This concept promotes the meaning-making and understanding of its audience (Franco, 2021). Here, social media is seen innovative technique to connect with the audiences for an exchange of understanding of their interests and inclinations. As the online world dealt with audiences in a more inclusive way, where no economic or age barriers was present, these captured interests of an audience that was highly diverse in nature. A specific case of Rijksmuseum shows that by having a website and virtual tour, the visitors felt empowered and actively engaged with the collection (Alexandrou, n.d.). Other factors such as easy access, comfort, and no commute have also contributed to the variety and diversity of museum visitors (Alexandrou, n.d.). Audience perception has changed towards online displays and events as the artworks presented no more institutional authority but were perceived more as personal consumption. Virtual museums provide an open way of interpretation and meaning making of museum culture thus keeping an open mind to different tastes and preferences (Alexandrou, n.d.).

3.8 Digitization, accessibility, and diversity debates

The Dutch Museum report (2019) raises interesting questions which deal with diversity like 'For whom are we making exhibitions and what are the ways to engage with visitors?' Such questions introduce discourses of diversity and digital spaces in the museum world. Discourses pointing out the diversity struggles, and exclusive nature of the museums have led to the development of policy focus on increasing the diversity of audiences. The Dutch cultural policy centralizing multicultural models of integration has led to an offshoot to a sister policy of social inclusion (Duyvendak & Scholten, 2011). Social inclusion talks of the problems of low education, unemployment, and related issues in deprived communities and neighborhoods that have been stigmatized due to their lower social status (Richards & Wilson, 2004). The cultural policy of

social inclusion handles this issue by demanding increased participation from socially deprived neighborhoods (Richards & Wilson, 2004). However, a sense of clarity and understanding of the reasons behind the diminishing participation lacks in its practicality.

Audience development explains the importance of audience's preferences and needs in participation (Kawashima, 2006). Diving deep into audience development, I refer to Kawashima's four different types of audience development approaches: Extended marketing, Taste cultivation, Audience education, and outreach (Kawashima, 2006). In my framework, I will focus on extended marketing, and outreach which is also known as cultural inclusion. Extended marketing refers to the extension of tools to proactively engage potential audiences. The audiences who are interested however do not end up forming a part of the audience due to several reasons (Kawashima, 2006). Extended marketing deals with bringing these audiences in and converting them from non-visitors into visitors. This usually includes the introduction of incentives or disposing of any tangible or intangible barriers that might hinder the attendance of potential audiences. Taste cultivation and audience education involve elevating the pool of interest of the existing audience (Johnson, n.d.). For example, having an art exhibition before a music festival gives an opportunity for the existing viewers to experience a new way of art consumption. Outreach concerns in reaching out to audiences that aren't aware of the initiatives or have limited access. Outreach often supports social policy of diversity and inclusion where it engages with deprived communities with the lack of access to cultural activities (Johnson, n.d.).

As social inclusion is multidimensional, audience development in the cultural industry argues for the limited participation of socially excluded neighborhoods in art and culture (Kawashima, 2006). When speaking of non-audiences, the limited access to art and culture underlines the way that underprivileged neighborhoods are socially excluded from cultural areas and hence demand social policy as a step towards inclusion. Sandell (2003) relates this to the context of museums and identifies four dimensions of social inclusion - economic, political, social, and cultural. He discusses the cultural dimension of social exclusion where he argues that individuals are subject to cultural exclusion apart from social, economic, and political exclusions (Sandell, 2003). Taking this further in the museum world, he identifies strategies of social inclusion for museums: The inclusive museum, the museum as an agent of social regeneration, and the museum as a vehicle of broad social change. He stresses the removal of barriers that cause interrupts the participation of a certain social group (Kawashima, 2006). Along with

geographical, economic, and social barriers, he also advocates the removal of psychological and intellectual barriers for example language use, that impedes some people from entering the museum (Lisney et al., 2013). We understand from Sandell that audience development and social inclusion attempts go together and include similar thought processes of change in the museum context. For instance, with digital strategies of museums and museums of social regeneration, outreach, and extended marketing modes of audience development approaches are used (Kawashima, 2006). Digital strategies have potential to incorporate a wider audience through outreach fostering awareness of museum initiatives (Romolini et al., 2020). However, as Sandell explains that for social regeneration, an extended form of outreach that fosters not only awareness, but empowerment is deemed to be necessary. The social media platforms are yet to be explored as empowerment platforms especially in the museum context. Another challenge that the digital world while looking at diversity stumbles upon is, accessibility.

The meanings of accessibility are multifaceted and suggest that it is the universal value of possessing an equal entitlement to receive, in this case, culture. The Dutch cultural policies in the early 21st century referred culture to the access to state schools, public museums, and libraries, to civilize lower-educated people as a way of upward social mobility (Bonet & Négrier, 2018). Thus, establishment of museums are based on the threshold of access (Lisney et al., 2013). Museums particularly, apart from their high-brow nature in the early nineteenth century, opened their doors to a wider audience by removing the financial barrier (Lisney et al., 2013). The topic of equal access to public museums led to contrary debates defending the quality and worth of museums came up. Deterioration of the quality of museum exhibitions and decreased interest in museums were posed as the side effects of free access to museums (Lisney et al., 2013). Survey analysis in the UK conducted in that period show an underwhelming increase in visitors' demographics which eventually suggest that there are more factors than just financial barriers to ensuring the diversity and social inclusion of audiences (Kawashima, 2006). Another significant gap was evident in the surveys that Sandell (2003) points out is the difference between 'visit' and 'visitor'. The museums were unclear about the difference between repeated visits and visitors. The effect of no-entry charge would affect the repeated visits rather than the visitors to the museums (Sandell, 2003). Having said that, I affirm that the financial barrier needs a complementing factor that increases the awareness among non-visitors which will aid their participation leading to audience development. Connecting this analysis to the digital world

where no barrier in terms of finances and commutation, my research question attempts to explore the complementing factors lacking in audience development.

To sum up, the above-used concepts of audience development, diversity, social inclusion and access are interconnected and intertwined. In the context of museums, a persistent critique of the over-representation of the dominant culture is observed (Awad, 2013). Museum visitors tend to be concentrated on the elite and high-brow population. The post-modern era saw a paradigm shift in Dutch cultural policy and the definition of culture was expanded which incorporated diverse and ethnic art which was referred to as 'exotic' before (Grenfell, 2009). The exotic kind of culture was often appropriated or acclimatized by the dominant culture. One of the assumptions this study relies on is that culture should and can be completely accessible to everyone. But rather, this study aims to concretize the ways to diversify cultural audiences in an accessible way. Following this realm of thought, the study delves into the production side of the museum through in-depth interviews with museum management. One of the assumptions this study relies on is that culture should and can be completely accessible to everyone. This study aims to concretize the ways to diversify cultural audiences with the help of digital transition and explore this relationship between digitization and diversity in audiences.

4. Methods and Data

4.1 Methodology

The research question guiding this research was “**how digital strategies being adopted by museums could better cater to making museum spaces racially diverse and inclusive for young people?**”. I am interested in understanding how museums view the diversity of audiences and perceive digitization in the museum context. Furthermore, I am interested in investigating the relationship between digital innovation and its impact on the diversity of their audiences. I conducted this study in three contemporary art museums of Rotterdam, which are Boijmans Depot, Kunstinstituut Melly, and Kunsthal. The lockdown was a major pinpoint to the museum sector regarding digital and online activities. Many museums undertook a variety of digital initiatives that opened an array of possibilities for new audiences to experience the institution. The annual reports of the museum institutions available online reflected a new digital component of analysis and legitimized the online presence as impactful for the cultural sector. Therefore, I was interested in investigating this new relationship between digitization and the diversity of audience.

To answer this question, I have used a mixed-methodology approach to capture a holistic view of the production as well as the consumption side of the research question. Here, the production side entails the museum management, and the consumption side is the museum visitors. For the qualitative component, I used semi-structured interviews. These interviews consisted of a mix sample with interviewees from the consumption as well as the production side. The qualitative data collected for this study is the main and primary source of analysis. For the quantitative component, I conducted short surveys of the museum visitors paired with the secondary data analysis of the annual reports of the museum cases. I explain the sampling choices, data-collection process, and the reasons for my methodological choices in the following sections.

As stressed on before, the qualitative interviews are main data sources used for this research as I attempt to understand in depth through personal experiences, the unexplored relationship between digital strategies and audience diversity. I chose the qualitative method of semi-structured interviewing for the same reason- to get an in-depth understanding of the range of themes present in this topic. These included the opinions and motivations behind the digital transformation of the museum sector and the deliberate efforts in relation to the diversity of the

audience. I focused my research on digital strategies and their impact which unfolded my attempt to understand how (or whether) the advent of digital strategies has an influence on racially diverse and young museum visitors. I was particularly interested in racialized audiences and young visitors, given the demographic account of Rotterdam put forth in the context chapter. I justify my sample further in the sampling sub-section. Thus, semi-structured interviews allowed me to explore the liaison through a constructionist approach. This ontological approach is suitable for the research as it stems from the idea that the social world is an active construct. The adoption of this inductive method aided my exploration of the reproduction of meanings and experiences of museum visitors and professionals (Braun & Clarke, 2006). Thus, the process of interviewing elicited rich and detailed responses from the interviewees concerning their inclinations and experiences to my research question. As Bryman explains, the qualitative approach brings an inductive lens to the research question and allows me to assess the ‘how and why’ questions of the research problem.

Finally, the reason for choosing a quantitative survey and secondary data analysis was to delve deeper into the consumption side of the museum. I aimed to gauge the influence of digital transformation on audience numbers and their diversity in terms of race and age. Firstly, in the secondary data analysis, I analyzed the published annual reports of the museums from the years 2016 - 2022 to comprehend the transition of digitization in those museums. The use of secondary data has many advantages. Bryman (2012) defines it as the process of data analysis where the researcher was not involved in its collection. This data might have been likely to be collected for a different purpose than the current secondary research (Bryman, 2012). The main advantage of using secondary data is that of no financial and temporal costs. This makes it perfectly suitable for a master’s project that only allows a limited amount of time and finances for data collection. The use of secondary data analysis has allowed me to get access to the data back in time which otherwise would have been difficult to get given the timeframe of the master thesis (Babbie, 2010). The annual reports contained a detailed account of the yearly progressions of the museums like the exhibitions, funding, media impact, and audience numbers. I was interested in the digital media and audience number data which briefed me on the growth of digital media and audience figures. I analyzed these figures statistically to investigate the correlation between them. The primary focus of my data analysis was the progression of digital presence in terms of social media channels and its effect on audience numbers and media communication. The

analysis of these reports that are showcased in the context chapter, provided me with elaborate material on the digital evolution and help me to outline the aims and strategies of each museum which reflect further in conjunction with the analysis. The survey was conducted on visitors of the two museums. It contained demographic questions of age, ethnicity, residence and digital usage and preferences in the context of museums. Survey research allowed me to quantify the preferences of museum visitors to assess the significance of the relationship later concretely between digital strategies and the diversity of audiences.

To that extent, I based this research on the assumption that the selected museums have a developed digital strategy for their respective institutions and bear an ideology of diversity and inclusion in their policy framework. I am especially interested in how these digital strategies shape and reflect the type of audience they attract. The significance of the qualitative methodology which emphasizes the iterative and constructive role shapes the main findings and results of this research question. The secondary data analysis of the annual reports helps me to outline the aims and strategies of each museum and; the surveys facilitate in measuring the outcome of these strategies on its target audience.

4.2 Sampling Strategy

The selection of museums was based on location. I targeted three contemporary art museums from Rotterdam which are Boijmans Depot, Kunstinstituut Melly, and Kunsthall. I select these three museums precisely due to their easy and accessible nature. Being a resident of Rotterdam, visiting and establishing contacts with these museums is feasible for this thesis as I myself have been regular visitor of the museums. Moreover, looking at the demographics of Rotterdam, the city habitats the most immigrant and ethnic population in the whole country (Scholten et al., 2019). This makes an interesting case to measure the diversity of participation in museums in the city of Rotterdam. Unlike tourist destinations where diversity is seen among the tourist population, I was interested in a city where local cultures are navigating toward museums. This creates an interesting case study on Rotterdam which possesses a very diverse population in terms of ethnicity and age (Scholten et al., 2019). The selected museums have initiated targeted online initiatives during the pandemic like live streams, Instagram exhibitions, virtual tours, etc that have attracted diverse audiences throughout the pandemic (Tissen, 2021). The Boijmaans

depot continues to attract an international audience and has made efforts to enhance local diversity in its visitors which are present in its annual reports (Tissen, 2021).

When looking into digital strategies, I specifically investigated the museum's internal and external digital tools. Internal digital tools included the tools used to enhance the museum experience inside the museum such as audio tours, immersive art, visual media, scan codes, etc. External digital devices are involved in promotional digital tools like website pages, Instagram, Facebook, virtual events, live streams, etc. This distinction was important to understand the experiences of visitors and their passive usage of digital media.

When speaking of diversity for this study, I focused on the diversity of age and ethnicity in audiences. I was interested in these categories as the annual reports suggested a rise in digital strategies and young audiences in the museum. With the exponential growth of digitization in the cultural world, I was curious to see its impact on the age of the audience, especially when a higher-aged population concentrates in museums (Bennett, 2004). For the surveys, age was categorized into four categories, 18-24; 25-34; 35-44; 45-54; 55 and above. These categories were then re-coded and added into two groups: young (18-24 + 25-34) and old (35-44 + 45-54). These categories were similarly used with the data of the annual reports as well. Ethnicity included racialized and non-racialized visitors. Racial visitors were those who described themselves as either Asian, Indian, Black/African, Hispanic, or middle eastern. Non-racial visitors were those who described themselves as white/Caucasian. As Rotterdam has a large population of Middle Eastern, Asian, and Black communities, these categories measured how ethnicity played a role in visiting the museum (Scholten et al., 2019). Thus, with digital strategies and diversity categories, I conducted secondary data analysis and surveys to examine the demographics of the museum visitors of the three museums in question. I explain the sampling techniques of qualitative and quantitative data collection in the following sections.

4.3 Qualitative Operationalization

All the interviews were conducted in person and lasted for 50-60mins. My purpose was to understand how museums formed digital strategies and how the visitors experience these strategies. I wanted to grasp the motivations behind the introduction of digital tools and at the same time explore its effect on the consumption side. Thus, I interviewed 11 people, of which 5 were from the museum management and 6 were museum visitors. For interviewing the museum

management, I selected professionals working with digital strategies, social media, and art curation. The sampling strategy for this process was the snowball sampling technique (Babbie, 2010). I gained access to professionals through the help of their network and was introduced to the next interviewee through the previous one. This selection was crucial for the research as the professionals and their responses were dependent on their job function. Out of the five museum professionals, three were from Kunstituut Melly and the other two were from Boijmans Depot. Two of the professionals from each museum were digital and social media managers and the remaining one was a curator.

Interviews with the media managers entailed questions about their understanding of diversity, digital transformation, challenges in the digital world, and their motivations for audience development. The interviews focused on eliciting rich and detailed responses on the motivations and the impacts of the digital world on their audiences. Working in the museum sector in media and communication, the interviewee sample of professionals was very conducive to the research. Going forward to the consumption side, the visitor interviewees were sampled through a random sampling technique. I got access to the visitors through my survey and through colleagues that I worked with during 'Museumnacht' in Rotterdam. The diverse sample of museum visitors which included a mix of young and ethnically diverse interviewees improved the validity of my study as I gained diverse perspectives on how digital tools in museums are experienced among different types of audiences. All of the 6 interviewees were residents of Rotterdam. Three of them were students, two of which came from ethnically non-white backgrounds. The other three were part-time professionals and museum lovers. Interview questions for museum visitors dealt with the digital experience in museum, sense of inclusion, belongingness, and representation. Experiences involved questions of digital experience inside and outside the museums. Targeted questions on their perception and usage of social media platforms provided information on the preferences and comforts relating to digital media in visitors.

After the interviewing process, I transcribed the interviews and familiarized myself with the data. Then, I used *Atlast.ti*, an application that helps collate and code transcribed data into desired codes and in-vivo codes for the method of coding. The qualitative component of the study deals with people's experiences and underlying motivations for their visits to museums and hence demands an examination of people's feelings, behavior, and experiences. To do this, I

used the method of thematic analysis. Babbie argues that thematic analysis allows a flexible approach to qualitative analysis (Babbie, 2010). I used the ‘bottom-up’ or inductive approach for the analysis as I was interested in exploring how the interviewees approach digitization and diversity debates and how they dealt with these issues in practice. In the first round of coding, open codes were developed based on their experiences and understanding of the museum space. Concepts of accessibility, inequality, diversity, inclusion, comfort, motivations, etc. were addressed in the interviews. I narrowed down these experiences and motivations to deduce the relationship between digitization and diversity in museum spaces. Taking cues from the theory of audience development and diversity in museums, I identified key themes of how diversity is being catered to through digital platforms in the following institutions. With prior theoretical knowledge, these open codes were grouped into axial codes representing their corresponding themes and patterns. Furthermore, the codes were grouped into over-arching categories of understanding diversity, digital accessibility, new and old exclusions, challenges in the real world, and finally mitigating challenges and potential next steps. A constant process of going back and forth to understand and categorize the codes directed to the formation of these umbrella themes of accessibility, inequality, challenges, and transformation.

4.4 Quantitative Operationalization

The annual reports from the years 2016-2022 of each museum contained detailed accounts of digital strategies of the sampled years. The sampled years were peculiarly interesting as they marked the influential years in digital innovation which are 2015 and 2020 (Liao et al., 2020). The year 2015 was crucial in the museum context through the lens of diversity as the ICOMOS put forth their first diversity mission in that year (ICOM, 2016). The year 2020 is marked as the year of digital transformation due to the pandemic (Burke et al., 2020). These annual reports were analyzed through variables of digital tools and diversity mentioned above to create a dataset. This dataset included the visitor numbers over the years digital media viewers and followers of the corresponding years. The dataset was run through a co-relation matrix to determine co-relations between digital usage and audience development over a period of 6 years. I did this with statistical software, SPSS Statistics.

Additionally, as this is a mixed-methodology approach, I also conducted visitor surveys for the three museums. The criteria of survey respondents were that they have visited at least one

of the museums in question. The sampling strategy was a random and convenience sample. Surveys were distributed physically to the visitors on their way to exiting the museum. A total of 35 survey responses were attained. This technique assisted in getting filled responses due to its in-person nature but on the other hand was time-consuming. Survey questions focused on demographics, frequency of visits of the respondent and their usage of digital channels for acquiring museum information. Demographic questions consisted of the age, ethnicity, and residence of the visitors. Additionally, the questions about their usage of the museum's social media pages. This threw light on how the visitors gained information about the museum and their preference for digital promotion. Questions of internal digital tools measured the comfort and preferences of museum visitors regarding internal digital experience. After the data collection, I created a data set for the surveys. After entering the responses, variables were recoded and created into dummy variables to run a co-relation matrix. I did the statistical analysis in SPSS statistics, a data analytical software. The output results were then combined and analyzed collectively with the data from the annual reports and the interviews.

4.5 Issues and Limitations

A few limitations need to be considered with this choice of methodology. Firstly, in terms of museum samples, I intended to study three museums, Kunstinstituut Melly, Boijmans Depot, and Kunsthal. However, due to a late and negative response from Kunsthal, I was not permitted to conduct surveys and interviews at the museum. Therefore, due to this negative progression, I based my study on only two museums, Kunstinstituut Melly and Boijmans.

The sample size of the survey resources is very limited considering the population. The small sample size and non-responses in surveys made it nested research. Thus, the survey findings are bound to the sample set and not generalizable to the population. As quantitative research needs a large representative sample This relates to the lack of representativeness in the sample and made it difficult in finding significant correlations and generalizable results that can be transferred to the population. The survey responses measure the current affiliation of the visitors to digital tools inside and outside the museum. The narrow sample size simply reflects a part of the population and is not generalizable to the whole population. This issue of the lack of available data has limited the scope of my quantitative analysis. mode and questions where the respondent have not understood the question or does not fit in one of the mentioned categories

are considered. The survey error considers the possible and manual errors during the creation of the survey. The data collection of the surveys was done on the weekends and captured a specific kind of visitor. Due to limited time and resources only, a certain amount was dedicated to getting responses which is apparent in the small sample size. The secondary data analysis of the annual reports posed some challenges as the language of the reports is Dutch. I am not a Dutch speaker, and some cultural and symbolic descriptions might have been lost in translation for a complete and thorough analysis.

The qualitative data sampling was carried out by purposive and snowball sampling techniques. This strategy comes with the limitations of access to the right people, organizations, and professionals. Thus, the access to interviewees was through network events, email requests, and on a voluntary basis. Museums management interviewees were hard to access due to their close-knit circle and busy schedules. The dependent nature of this method posed issues in the sample due to the unavailability of desired interviewees. The interviews used for the research have a small sample set of 11 interviews, which is a relatively small number. Due to constraints of time and longitudinal factors to measure the in-depth motivations and experiences, only eleven interviews were possible. While conducting the interviews, I was reflexive of my cultural bias in the choice of interview questions and the interpretation of the responses. Moreover, I am aware of my positionality as a researcher and its effect on the interview responses.

5. Finding and Analysis

This chapter gives a detailed account of the interview and annual report analysis which helps in answering the research question with the data collected. The first section, *Understanding Diversity and its reflection on digital strategies* displays that the interviewees had already possessed an understanding of diversity and viewed it as a breakdown of several dimensions like diversity in management, artist, and collection. It was spotted that diversity initiatives put forward were based on these dimensions and were treated collectively to harness racially diverse and young audience. The further discussion reveals the role of the pandemic in the museums' rapid digital innovation and its benefits in audience development. Advancing with the digital advantages, I identify the unexplored link between digitization and diversity of audiences which unfolded itself during the pandemic. Furthermore, I show how the present understanding of diversity shaped these digital strategies during and post pandemic.

The next section, *challenges, and new and old exclusions* identifies the difficulties encountered in the digital world and its compatibility with the real world. As the physical world is brimming of inequalities based on socio-economic and racial issues, I explore how the digital world tackles these pre-existent inequalities and its limits in terms of accessibility. While examining the issues and advantages, I discover the new exclusions created by the digital world and explore the blind spots regarding the intersectionality between age and ethnicity and the reproduced limits of digital accessibility.

Finally, I attempt to analyze the potential next steps to mitigate these challenges. In doing so, I propose an in-depth investigation of the digital world in the context of museums. A rethinking of the traditional model of the museums needs to be addressed in the digital realm by targeted curatorial choices and policy frameworks that identify the institutional exclusions.

This chapter is situated in the ongoing debate of diversity struggles in museums and contributes to identifying the role of digital initiatives in audience development of racially diverse and young audiences. The sections provide an overview of the motivations of the consumption side and the experiences of visitors regarding the introduced initiatives.

5.1 Understanding Diversity

Through the interviews with the museum management, I got a grasp of how museum professionals perceived diversity. The museum professionals mentioned diversity as the one of the most important developments and challenges in the sector. In doing so, it was observed that the management already had a comprehensive thinking of diversity in the museum institution. All the management interviewees showed the realization of the lack of diversity in museum spaces. They pinpointed the discussions and initiatives carried out to harness diversity in audiences that were in place before the onset of the pandemic as well. Diversity and inclusive policies in these institutions took shape in 2016 after the ICOMOS act (ICOM, 2016). The annual reports confirm that since then, explicit efforts to enhance diversity in audience, staff, artists, and collection spawned through hiring quotas and international networking. The lack of diversity in staff and program was recognized as the obstacle for attracting a diverse and new audience. As Scholten (2019) in his study explains that the target audience in museums continues to majorly white and old, efforts of diversity were deliberated predominantly on ethnicity and age. When speaking of ethnically diverse and young audiences, interviewees understanding of diversity reflected in relation to diversity of management and programming. They referred to the diversity and inclusion policies at the institutional level as an incentive to foster diversity in management.

Moreover, an understanding of the multifactorial nature of diversity was apparent in the interviews. When discussing diverse perspectives, interviewees mentioned the need for a structural modification to besiege the dominant and monocultural perspective that is continuing in the museum world. All of them possessed a clear understanding of diversity as a holistic product that needs to be infused in every level of the institution. This was also evident in the vision statements of the annual reports of both, Boijmans Depot and Kunstinstituut Melly. Museum visions overlapped in the meaning-making of diversity which was found to be categorized into 3 main categories: diversity in management, diversity in artists, diversity in collection. The mentioned categories were seen as an ascending path towards a holistically diverse audience in museum spaces.

Diversity in management

When speaking of diversity in management, interviewees mentioned the introduction of diversity and inclusion advisors in the workplace which aided in acknowledging the different backgrounds of colleagues and their cultures. Thus, a reflection of understanding diverse perspectives was put in practice which evolved the mindset of higher institutional workers, namely decision-makers. New projects and exhibitions benefitted from the inclusion of diverse staff members as they provided active support for diverse perspectives. Recruitment of racialized and young staff was adopted to venture a new connection to the museum and thus, to attract new and young audiences.

“Yeah hiring non-native Dutch people, colored people, disabled people like it's all about representation because if you don't have this representation, then you will not get that audience as well because the audience only feels and this is something we all have to experience.” ---- Art Curator, Kunstinstituut Melly (Interview 2)

Museum management sees the diversity in staff as representation of the audience. As discussed in the theory, representation is the need for negotiation which in this context is between the audiences and the staff; the face of the museum (Macdonald, 2022). The concept of Industry Lore is at play here which explains how the workers of the cultural industry reflect the content and values of the industry (Havens, 2014). Professionals are the creators of the organizational mindset and beliefs that the institution stands for in society. Thus, the more the society reflects institutional beliefs which are created by the professionals, higher are the chances for a larger diversity in audience. The inclusion of racially diverse and young staff will represent and stand for the beliefs of the young and ethnically diverse. This progression will create a sense of representation, a factor in the inclusion of a diverse audience.

Diversity in artists

As we saw above, the diversity of staff and museum visions are interlinked with one another. Similarly, the inclusion of artists from ethnically diverse backgrounds and ages conjoins the two. A diverse recruitment of staff was interlinked to a broader network of audience and artists. A black, male social media manager reported that he brings a very new and racially black network of artists as his social circle is different from the close-knit Dutch circle. Thus, being recruited in these workspaces eventually results in the diverse network of artists, and thus contributes to

network of the museum. Ethnically diverse and young staff will percolate the interests and taste of the background they come from. This again, draws a connection with the diverse audiences through artist representation. One of the professionals working with collaborations at the Boijmans effectively confirmed saying,

“We are trying to give new people a stage. I think that’s the main thing that's going on like connecting people to the museum. With collaborations, we try to be as diverse as possible. So if we have like a black artist, and then other time we try to give a platform to a Mexican artist, for instance... so to say, we are conscious of the balance.” ---

Collaborations Manager, Boijmans Depot (Interview 5)

Having a diverse workforce directs a larger scope of diversity in the content and program of the museum as well. Having local as well as international artists means giving a platform to a different perspective and developing a new collection of artists for the future. Talking to the museum management and their ideas of diversity, a diverse network of artists was a starring mention. Most of the interviewees made a strong connection with the diversity of artists and interesting collaborations. Two of them explicitly made a relation between the choice of artists and the target audience. He says,

“A diverse line-up of artists is a way to engage a more diverse audience. I mean, a Brazilian artist will draw in more Brazilian audiences”. --- Social Media Manager, Boijmans Depot (Interview 4)

This prompts the way of thought directed towards harnessing diversity in the museum programs. The content engaging a young and diverse audience is also seen as a path to attract them. Consequently, bringing the three dimensions together, hiring young and racially diverse staff emanates a diverse program with younger and ethnically diverse artists or collectives that eventually attract the corresponding diversity in audiences.

Visitor perspective

Going forward, a similar observation of diverse collections was made with the visitor interviewees. An ethnically diverse collection and artists prompt a sense of belonging with racial audiences. Visitor interviewees indicated a strong feeling of ‘out of place’ at a traditional

museum with western collections and artists. With a young and person of color artist on display, young and racial visitors feel represented which evoked a sense of belongingness in the museum.

“When, for example, they have the biography of the artists,.. oh this guy was born in Peru. So... I feel like belonging in that part, you know, because even if I was born in a place which I love and that's my home. As an immigrant, I see that piece and the struggles. I feel more free, inspired and I feel confident. I feel like this is my place. And that's what museums are for right? --- Student, 22, Hispanic (Interview 6)

It is apparent that representation and inclusivity have a strong connection when it comes to engaging minority cultures. Engaging diverse visitors calls for an opening of horizons in a variety of aspects starting from policy and management. With long history of contested management practices reproducing exclusion, inclusivity of young and racialized visitors needs to be prioritized in museum spaces. Collections and artists play a larger role in making the museum inclusive for everyone. Diversity in artists and art that represents the minority audience allows the museum to be accessible into different taste and interests. As Saha (2017) in her article explores the symbiotic relationship between museum collections and their politics of representation, she argues that the more diverse collection a museum represents signifies a better and more progressive narrative in the cultural policy framework. However, a key element with diverse collections is diverse perspectives.

Diversity dimensions boil down to revealing diverse perspectives in the public eye. Museum management acknowledges the lack of diversity in perspectives in museums and how that affects the inclusivity and representation of museums' audiences. One of the professionals while explaining the importance of including diverse perspectives in the current context mentioned that the museum is like a pond and referred to the ripple effect. This relates to the politics of care by Gross (2021) where he enlightens how the westernized narrative is catered to and intended to be preserved alongside delaying the advent of a new and representative perspective (Gross, 2021). The analogy of the pond clarifies that every artwork is jaded of perspectives, and it is in the power of the museums to uplift the right narrative. The diversity of perspective is one of the many ways interviewees understand diversity in the museum world. The

empowerment of showcasing diverse perspectives in the museum sector will provide an all-encompassing view at a deeper level.

This explains how the management understands that diversity is an indivisible part of the relevance of museums today. Understanding diversity through different perspectives is recurrent in most interviews with the management as well with visitors. As we saw that the three categories in tandem form the understanding of diversity among the museum management, the visitor experience also mirrors the gaps in diversity on the receiving end. Staff, collection, and artists collectively enhance the quality of diversity and inclusion in the museum spaces. This understanding of diversity was present long before the pandemic and the institutions had not yet addressed a link between diversity and digitization. The arrival of the pandemic changed the way museum institutions approached diversity of audiences.

5.2 Approaching the digital transit

Digitization has been a slow process in the cultural sector, especially with museums (Buruni, 2020). A strong spike in digital transformation was seen during the pandemic in museums. Interviewees shared that the process of digitization during the pandemic was a result of an urgent response to the lockdown in 2020. Thus, the pandemic accelerated this process of digital involvement in the core aspects of the museum. Having said that, the digital initiatives during the pandemic allowed wider accessibility of the online events at the museum, through which a new audience spawned. The categories of diversity regarding staff, artists and collection referred above collectively shaped the digital strategies as well. Through new initiatives like Instagram exhibitions, virtual tours, and live streams a revelation of an increased engagement in audiences was observed. These initiatives were promoted openly on social media channels which grew popular in a relatively short span of time. In the annual reports of the museums in question, an astonishing increase in the usage of website and Instagram channels was seen. Digital initiatives as a response to the pandemic aided the sustenance of cultural institutions and bridged a path to an audience that was only considered as potential. Consequently, the museums in question continued the digital productions even after the lockdown was lifted. A highly diverse audience internationally and locally was able to access the online initiatives of the museums thus, a potential link between digital presence and audience engagement was established during the pandemic. As annual reports suggest that after the lockdown a generous amount of young people

were seen visiting the museums, a new analytical chapter measuring the digital viewers and online presence of the museum was introduced in the annual reports. This shift was a key factor in recognizing the impact and link of digital strategies on audience development. The aftermath of the pandemic called for the continuation of these channels to explore the extent of visibility. The focus was now to eventually translate the online viewers into physical audiences.

Thus, we see how digital transformation gained momentum during the lockdown and extended in the post-pandemic scenario. The diverse response from the digital initiatives during the lockdown influenced the culmination of a targeted digital strategy centralizing diversity of audiences in ethnicity and age. The 3 categories of diversities, staff, artists, and collections that formed the understanding of the diversity of audiences also emulated the foundation of upcoming digital initiatives. The recruitment of young and diverse professionals, introduction of ethnically diverse and young artists, new collections, opened perspectives extended in the digital world and formed the primary strategy to attract diverse audiences.

Initiatives targeting diverse local communities and young visitors were seen as a focus in Rotterdam. An extensive website that centered on young engagement was a remarkable change. This was posed to be a key promotional element for clear communication given the wider reach of the website. Kunstintituut Melly updated a new website that communicated the ongoing events and archival information, all in one place, unlike before. This was a renewed development because of the enormous response and curiosity about the process of “Namechange” from the colonial root of Witte de With Institution of Contemporary Art to Kunstintituut Melly. The Name change was an important pinpoint in steps towards inclusivity. When announced on social media about the name change, the online community had positive reactions on the development. The google comments and personal comments on the Namechange consisted of audiences expressing support and appreciation on this progressive step.

“How do we want to position ourselves? How do we write things online? That was really after the name change. It just kind of sent a message out that what is this is what we stand for. And this is what we believe and what we are, inclusive.” --- Art Curator,

Kunstintituut Melly (Interview 2)

This reaction was intensified through the digital channels like Instagram and twitter. More international and local audience was familiarized with the change. The identity formation

through social media led to a larger and diverse audience in engaging with the change locally as well as internationally. The visual media released on the website showcasing the process of name change sent out a global message of the museum's belief and institutional vision. Similarly, the Depot engaged Instagram influencers for promoting the aesthetic building and new digital innovations in the depot. Through new younger collaborations, the media managers expressed an easier way to drive in the followers of the influencers through Instagram that come from different backgrounds, ages, and ethnicities. For instance,

“We did a collaboration with two younger people. Because of Corona, lots of younger people are really sad and depression rates are going up and mental health issues are crazy, and we want to do something for the younger audience. So, we used the platform of Instagram to compose and digital exhibition... So I think that that really compiles the interactive-ness that we want to create actually for the audience.” --- Social Media Manager, Boijmans (Interview 4)

Here, we can see that through digital means a new audience was developing. Relating this to Kawashima's audience development approaches, the digital world aids in the process of outreach, and audience education (Kawashima, 2006). The outreach approach is at work for creating a potential audience into a regular audience and simultaneously using it to educate the public about mental health during a crisis. Moreover, we can see how Instagram channels allowed the younger generation to be a part of the museum initiatives through interacting with the audience and co-creating an exhibition. It is important to identify the advantages that digital channels are providing regarding innovation. New ideas and creative ways of engaging audiences with a wider reach has aided the process of making the museum inclusive. The professionals spoke of how Instagram followers were increasing day by day creating a new digital audience. The wider accessibility through social media was seen as a gain of interest from younger audiences. As the theory suggests that Instagram was popular among the younger population and Facebook for the older population, the adoption of these channels made it easier to communicate with both generations.

Diversity in staff influenced digital strategies the most. Young, recruited workers brought in the diverse perspective and digital knowledge to enhance audiences through various mediums

of social media, websites etc. The connection that the digital media builds with its viewer by giving a sneak peek of the content of museum prevents the efforts of deciphering the museum. In this day and age of stimulation, the younger audiences seem to have a necessity of constant association with the particular organization. Rightly put by one of the digital media professionals,

“I think the power of digital media, especially with new audiences that are younger and the new generation. They almost have a need to be linked to or feel connected to a brand or an institution like us online. All those things only happen when they feel a connection online. And I think that's what our digital strategy did within the pandemic.--Digital Media Manager, Kunstinstituut Melly (Interview 1)

As we saw in the theory, social media in the current context symbolizes trust building between the visitor and the museum (Romolini et al., 2020). To engage and connect the visitor, the online presence is rather ubiquitous. Individual trust eventually links to identity and representation of the individual. Thus, the creation of trust through online medium goes hand in hand with representation. When a person will feel represented on social media, the viewer will build trust in the institution to be a potential visitor of the museum. Conscious marketing strategies targeting specialized content were developed to adapt to audience interest in the museum. Museums have begun promotional activities on more than one media channel to cater to all target groups. For example, Facebook and digital newsletters capture older audiences whereas Instagram and Twitter reach younger audiences. Additionally, there is a change in media content on the website which is more modern and artistic in design to engage young audiences. The interviewees specifically mentioned that a change in language and communication has been a conscious choice. As opposed to the traditional elite language structure that museums possess, a simpler and clear language is now a preference to invoke a connection with a broader class of audiences.

To sum up, the museums in the pandemic branched out into the digital realm out of necessity. As they invested efforts in digital media, a realization that digital initiatives might actually reach and engage more audiences was noticed. The annual reports show the increased online audience with respect to increasing digital presence. Through these progressions, the link between digitization and the diversity of audiences came into light as a potential relationship

through factors like smoother outreach and broader accessibility. New audiences are being explored locally as well as internationally through digital media channels. This brings us to the next step where the question of compatibility between the real world and the online world arises. The issues of open access, privacy, and data security, the digital sphere demands the assessment of the advantages of the online world and their potential when brought into the real world.

5.3 Digital Challenges meet the real world

As the production side became aware of the positive effect of digital presence on audiences, museums producers aimed to explore this effect with regards to ethnicity and age. Due to a large social media presence, the visibility of museum initiatives has increased and prospectively can reach a global audience. The digital world offered opportunities to cater to different types of audiences through various social media channels. This shows the way social media introduces itself as a way of connection and communication over a larger range of audiences. This can be referred to as extended marketing and outreach efforts in Kawashima's approaches (Kawashima, 2006). Social media channels are the extension tools that actively engage audiences possessing interest but do not end up being museum visitors. A cultivation of taste and interest by expanded outreach through social media channels results in elevating the pool of interest of the existing audience simultaneously including the new audience. Through the annual report analysis, we see that people who use social media channels in high numbers are generally young people from 18-34 years of age, nevertheless the older generation is also keeping up through Facebook and digital newsletters. Thus, visibility on social media pages for a museum relates to broadening its audience in age. As discussed above, professionals have observed that the use of social media in everyday contexts has led to a different kind of communication system that flourishes online connection. They explain that the elite prose and jargons made it difficult for the younger and non-upper-class group to understand and decipher the information. This led to the feeling of detachment, and disengagement in younger and non-elite audiences. In terms of racialized audiences, on top of the language barrier, the lack of representation caused the disengagement. Taking these barriers into account, Kawashima also acknowledges the tangible and intangible barriers that these approaches oversight.

Using social media platforms to raise awareness about the museum makes the museum accessible to a wide and diverse online audience, however the real world poses different challenges. The real world is burdened with social inequalities. The persistent historical baggage of exclusivity that surrounds museums reveals itself in the physical world. It was clearly observed through the survey data and visitor interviews that even with increased visibility, an unexplored deadlock exists in bringing this audience to the door. The term accessibility in this research shaped itself around attendance. Interviewees of museum management spoke about the accessibility of attendance in the digital world as a lower threshold for the audience to indulge into cultural events. By this they meant the notion that the museum was out of reach or 'elite' so to say, was challenged as anyone and everyone could now access the online events. The museum visitors related this threshold mainly to the financial barrier of the museum. Most of them, being students expressed their financial incapability to attend an event with an entrance fee. This posed a plausible entrance to the museum initiative and to get to know of the museum. Exclusions like financial barriers, internal museum experience, infrastructural limitations and so forth prevented the visitor to experience the museums physically.

“Yeah, and not only other people that can afford but also like people living here like lower income class. For example. Yeah, we're less privileged. Yeah, what about that? And even if you have a public collection, which it is, you know, it's from the city. I remember as a student, it's 10 euros 50 cents or something. Yeah. I think it is already very very expensive.” Visitor, 24, White (Interview 10)

Financial barriers, elite culture, and exclusive spaces remain in place despite an extended outreach via digital platforms. Museums have been contested to create a hidden exclusion through unaffordable ticket prices that prevent the entrance of lower economic strata of society. The social value of art and culture signifies that it is supposed to be by and for everyone and this notion of financial privilege contradicts the museum's goals. Through digital strategies, this exclusion is not seen to be dealt with. Young visitors with an interest in museums mentioned this financial barrier to be intact and an obstacle in experiencing museums. Furthermore, underlying societal inequalities like economic and cultural accessibilities have not been addressed in the digital world and continue to persist as resolute obstructions in the attempt to diverse audiences. Accessibility to social media is not catered to enough by these institutions. When speaking of

diversity, accessibility to social media and digital technology is a frequent hurdle. Digital innovation inherently creates exclusion as majority of the lower-class population does not possess gadgets that allow them the digital experience. A big assumption when catering to a diverse population is that they have access to digital media, whereas hindrances like the internet, smartphones, and finances restrict the scope of digitization. Debates around issues of privacy and accessibility in digital media have also been contested. The play of algorithms on social media engenders a new kind of exclusion on top of the existing ones. In this context, it is important to address that social media itself has a distinctive form of gatekeeping through algorithms. However, the preface of social media in the digital context affects equally interested audiences, because of which only specific young audiences end up being exposed to the museum and its content. These algorithms are usually based on location, interest, and taste.

Another challenge in executing digital platforms smoothly is digital education. Management referred to the lack of knowledge or limited resources in terms of time and infrastructure to provide digital education to the team. Due to limited digital skills, the workforce is falling behind and inadvertently excludes a group of the workforce. Bringing the discussion to the physical world of the cultural sector, experiences matter. An interviewee clearly asserted that art has been a form of expression that is supposed to be experienced in person. Thus, the digital world as anticipated lacks this physical connection between the art and its audience. Most of the management interviewees communicated a dearth of experience in the digital world. They pointed it out explicitly through the interviews when talked about the challenges in online and digital events. For instance,

“It's not fun it there especially within the culture section, huh! We do this work because we love the interaction between people and art. Making videos presenting them and then just sending them out and then doing nothing and you don't even know if people like it. You don't have that physical response. I can't see if people are watching this video only that 600 people clicked the video”. --- Educational officer, Kunstinstituut Melly (Interview 3)

Thus, when curating a digital initiative, audience engagement takes a toll due to insufficient interaction with the art. A disadvantage in understanding the audience in the digital world creates

a false notion of how the event is perceived by the audience. Other interviewees also mentioned the conundrum of discerning the numbers posed by the digital accounts on a video or during a live stream. It poses only a fraction of engagement and disregards the experience of the viewer in its entirety. This brings up the visitor perspective where most of the visitors preferred a physical visit to an online one. Visitors also affirmed the paucity of attachment during a digital event.

5.4 New and old exclusions

When addressing diversity, accessibility to social media is not equal. Underdeveloped neighborhoods are deprived of technological advancements and are naturally excluded from such cultural experiences. When speaking of racial diversity; accessibility to social media and digital technology is a frequent hurdle. As we spoke of accessibility in the former section, accessibility, and diversity are related factors in museum attendance. Questions of accessibility regarding the digital world begin with access to the internet and a smartphone. Consequently, we can see that these factors also play a role in the physical world. For example, old museum visitors mentioned overstimulation as a hindering factor in digital promotions on social media. For instance,

“I do remember with the Kunsthal. For example, they have like this timeline websites where you see like everything. I don't like that. it's not clearly visible. There's so much Content and there's so much and I get so easily over stimulated. Yeah, that's the right word where I'm like, you know, I don't need all the right dazzling. I just need to know where I need to go and what is being showed there.” --- Visitor, 42, White (Interview 8)

In the attempt of catering to the young audiences for diversity purposes, the older population is being sidelined. This push and pull of gaining and losing audiences engender new exclusions in the digital world. A remarkable observation was that the interviews when talking about diversity of age and ethnicity regarding the three categories lacked a converse relationship. This means that they understood the diversity of age and ethnicity as separate forces and lacked nuances and an intersectional view of it. For instance, when speaking of diversity in ages the interviewees spoke of young people as artists or young racial artists. An apparent blind spot towards old ethnic artists is present. Consequently, while talking about diverse audiences, the interviewees catered to a young and ethnic population and totally overlooked on old ethnic population.

Making the digital world accessible to everyone is only an idea that is yet to be in practice. With already prevalent inequalities in society, digital advancement is yet another element that includes inequality. The digital world seems to try for all communities to engage with one another through open cultural access, however, hardly suffices to overcome the inequalities of the real world. The museum management hardly thinks of the deprived communities without digital access and only widens the social class gap due to unequal opportunities to experience the cultural realm. Museum visitors, especially ethnically diverse visitors clearly mentioned a lack of sense of belonging in the museum space due to lack of representation, a rampant societal issue. Two museum visitors who are residents of the city assert the need for community building and neighborhood participation in cultural activities to enhance diversity in the audience. They said, “We want a museum that represents us to make us come back.” Student,²⁶ Hispanic (Interview 9). Additionally, others point out that representation in digital accounts is also necessary to translate the online audience to a physical visit. Thus, representation, inclusivity, digital access, and community participation indulge in a newly created exclusion in the digital sphere.

Thus, I argue that digital accessibility is not completely open to diverse audiences and possesses its own exclusions. The impact of digital initiatives can be experienced in singularity in the digital world only as the current societal inequalities remain intact and have minimal impact on the physical diversity of audiences. These issues are underlined in the real world. Even though the digital space is inviting to ethnically diverse audiences and visitors, the internal museum experience remains exclusive in nature. Racial visitors continue to feel underrepresented and ‘out of place’ inside the museum which reproduces social inequalities of the real world.

5.5 Where to go from here?

Throughout the analysis, it has been observed that the digital world possesses several advantages in the museum context. Digitization can bring several positive alterations to the museum sector which can be used to harness ethnically diverse and young audiences. Museum management has an entrenched understanding of diversity and looks at it through an amalgamation of numerous factors linked to one another. Similarly, the digital world addresses themes that relate to audience development through outreach and marketing. The boon of the digital world must be

savored at its fullest to achieve the expected results in diversity by engaging local and diverse communities from the city. This will spread awareness of the initiatives and drive in a young, old, and racially diverse audience in all its senses. Moreover, to keep connected with the international audience, a digital presence must be prioritized.

However, the bringing the effects of digital outreach in the real world poses challenges and limits. The digital world acts independently from the real world. In the real world, museums are grappling with diversity struggles in the audience. Through the analysis, it is apparent that the challenges in the digital world persist in the real world as well. Societal inequalities when merged in the digital world create new inequalities such as algorithms, lack of digital education, data, privacy issues, etc. Thus, the impact of digital strategies in the real world has an ambivalent and exploring relationship. New and old exclusion needs to be researched further to understand the depth of struggles in both the digital and the real world. With increasing online presence, there is a fear of overstimulation and competition which can shift the focus of museums from their core of social values. Addressing and discussing ways to mitigate the accelerating changes might aid in getting a comprehensive grasp of the current scenario. Museums will also benefit from sharing personal experiences in the digital world and establishing collaborations with each other for the betterment of the sector.

Through the survey and the interview data, I propose a rethinking of the traditional museums and their role in the light of digital media and diversity. Digital tools inside and outside the museum can be a great path to embracing the new model of inclusive and diverse museum spaces. Making the museum representative of its local population will incite an in-depth understanding and framework of diversity in audiences. Curatorial practices should also branch out to digital practices. More focused digital strategies that accounts for multiple perspectives should be prioritized in order sufficiently understand the loopholes and blind spots of the current practices.

6. Conclusion

The research question guiding this study was how digital strategies being adopted by museums are catering to making museum spaces racially diverse and inclusive for people. To answer this question, I analyzed the qualitative and the quantitative data that I collected with workers and audiences of three Rotterdam-based museums. I found that the relationship between digitization and the diversity of audiences seems to be ambivalent, bearing clear potential spillovers, but also challenges and drawbacks.

Indeed, my study revealed that there is a clear influence of digital strategies on a range of factors. The correlation between digitization and diversity is a spurious correlation with multiple factors like the name change, management changes, exhibition content, and other unseen factors that collectively influence the digital aspect of the institution. Thus, digitization and diversifying museum audience are multifarious. The pandemic accelerated the digital transition in museums and paved a new path of outreach and audience development. The year 2020 showed a significant year for digital innovation in museums due to the pandemic. The annual report overview highlights an overall increase in the engagement of young audiences 'post-pandemic. It depicts a connection between digital initiatives and diversity in ethnic and young audiences. Museum management understood diversity before the digital transition. Efforts to raise ethnic and young audiences in museum spaces were already a part of the policy framework. The pandemic brought about an accelerated force to digital transformation and played a role in attracting audiences in the post-pandemic period through social media. This demonstrated a positive effect on diversity initiatives, complementing the early museum's endeavors for diverse audiences.

Furthermore, I showed how the museum management having a prior understanding of diversity referred to diverse audiences as a by-product of diversity in content, artists, and staff. This supported their digital initiatives that focused on driving in ethnically diverse and young artists along with new and diverse hiring quotas to welcome all audiences. A shift of focus from an international to a local lineup of artists was prominent to encourage a local representation and inclusive audience. Digital channels made it easier to reach local and international audiences through wider promotions and extended marketing. Digitization is opening new domains of audience development strategies that help enhance a diverse audience at the museums. Outreach and extended marketing strategies as developmental approaches can be seen cultivating a new

audience. This aids the shift from a ‘potential visitor’ into a regular visitor through the mentioned strategies in online platforms. Accessibility in the digital world has lowered the promotional threshold. Creating social media channels for museums has made it easier to reach a broader audience and has increased visibility locally as well as internationally. Increased online visibility through social media has particularly informed the population of the museums and their initiatives. Supplementing this, a change in media content regarding language and design was observed on the websites and social media. A new form of communication is taking shape among the institution and the visitor through these digital channels where the boundaries of access are softening. Digital tools like a website and Instagram showcase increased visibility to a broader audience, particularly in terms of age.

However, my analysis also showed how digital accessibility posed challenges in the real world. As my data indicated, societal inequalities prevailed to overpower the digital space where young and ethnic audiences did not translate to regular visitors. The lack of representation inside the museum is a prominent cause of visitors and their lack of connection with the museum. Moreover, new exclusions such as limited digital access were a hindrance. Debates on open digital access are being discussed currently and must be researched further. In terms of internal digital tools, there is a sense of loss and newness among the older population which creates a new form of exclusion in the museum sector. Lack of digital education and knowledge hampered their experience at the museums causing a loss of interest among them. Having said that, a total neglect of the old and racialized population is seen. The intersectionality between age and ethnicity is not nuanced in diversity debates and needs more attention. Thus, the digital transition underpinned old exclusions but also engendered some new ones.

Museums have been grappling with diversity for a long time. The advent of the digital shift has altered the cultural sector and this study investigates the complex relationship between digitization and diversity in museums. Mitigating these challenges and limitations of digitization and its impact on the diversity of audiences in ethnicity and age, some recommendations for enhancing the amalgamation can be put forward. Firstly, a strong investigation into the institutional functioning should be made to point out the underlying inequalities in the inherently exclusive structure of the museum as an institution. Diversity in museum spaces needs detailed and nuanced research on its current and potential audiences. Diversity is multifaceted and thus demands to be implemented in every unit of the institution. The relationship between digitization and diversity

can be strengthened through Digital channels and can be pillars of promotion and outreach but the museum as an institution needs a structural change for the digital aspect to benefit in audience development.

Some limitations should be considered while interpreting the findings of this research. The research presents nested quantitative analysis with 35 number of survey responses. The random sampling technique of the survey combined with limited responses provides only a surfaced analysis lacking depth in responses. The annual reports of museums used for this research were in Dutch, thus some key elements of the research might be lost in translation. This research is based on only three museums in Rotterdam and future research can delve into a larger sample set to derive strategies on a broader level. The nature of this study centralizes on the qualitative interviews which explored the motivations and experiences of museum professionals and visitors. The interviews followed a snowball and purposive sampling strategy which means that the sample may be skewed in representing the museum visitors and their experiences. Since I only interviewed six museum professionals and five visitors, this research is not representative and cannot be generalized.

Future research could focus on expanding the qualitative as well as quantitative sample sets to ensure a holistic and generalizable account of the research question. A large quantitative sample set will assure the reliability of the results. An in-depth case study of each museum in Rotterdam will allow the exploration of the present idiosyncrasies of the selected museum making this study nuanced and case specific. This research looks at diversity through a selective lens of age and ethnicity which in further research can be broadened by inculcating various domains of diversity like disability, language, location, etc. which may be more vulnerable to exclusion. The strength of this study lies in its under researched relationship between digitization and diversity which is a timely and recent subject. As mentioned earlier, the relationship between digitization and diversity is rather multifaceted, it will be beneficial to examine the facets in-depth to inform policymaking. Social inclusion and diverse audiences are a pressing topic in the context of museums, and this research contributes to assessing the debut of digitization and its relevance with diversity in the museum industry.

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7. Appendices

Appendix A

Units of Analysis

1) Interviewees

Museum professionals

Interview number	Age	Museum	Job position
1	42	Kunstintituut Melly	Digital media manager
2	35	Kunstintituut Melly	Art Curator
3	33	Kunstintituut Melly	Educational officer
4	26	Boijmans Depot	Social media Manager
5	27	Boijmans Depot	Collaboration manager

Museum Visitors

Interviewee number	Age	Ethnicity	Residence	Profession
6	22	Hispanic	Rotterdam	Student
7	35	African	Rotterdam	Freelancer
8	42	White	Rotterdam	Student
9	26	Hispanic	Rotterdam	Student
10	24	White	Rotterdam	Part-time worker

2) Interview Guide

Semi-structured Interview (open ended questions)

Background Information

- 1) Can you tell me about yourself and your job function?
- 2) How do you associate with this role and this museum?

Visits

- 1) How often do you visit the museum? Why and why not?
- 2) What do you like the most about the museum? What do you dislike?
- 3) How did you get to know about the museum?
- 4) What entails a museum visit for you?
- 5) What kind of exhibitions do you normally visit or are interested in?
- 6) Who do you often visit the museum with?

Digital tools

- 7) Have you navigated the museum's online pages?
- 8) Do you like the museum's website/instagram page? What are your thoughts on that?
- 9) What are your thoughts on the online/ virtual tours by the museum?
- 10) Do you prefer that? Why/ why not?
- 11) Have you used digital tools inside the museum?
- 12) How was your experience with that? Elaborate
- 13) Does it matter for you if the museum provides digital tools or not?

Accessibility

- 14) What makes you visit the museum?
- 15) How do you feel in the museum space?
- 16) How has the digital advancement of museums reflect your interest? Does it generate curiosity or attract you or the opposite?
- 17) Can you tell me about your opinion of the diversity in museums? Do you feel welcomed?

Diversity

- 18) Do you feel a sense of belonging at the museum?
- 19) Do you think the museum is diverse in its audience? How?
- 20) If yes, how does that make you feel? If not, how does that make you feel?
- 21) How do digital strategies affect you personally in terms of visiting a museum?

Suggestions

- 22) How do you think the museum can improve?
- 23) What do you think of digital strategies used by museums?
- 24) Any other comments you want to share

Appendix B

1) Annual reports

a) Kunstinstituut Melly

2016: https://www.fkawdw.nl/files/WDW_jaarverslag%202016.pdf

2017: https://www.fkawdw.nl/files/WDW_jaarverslag%202017_LR_spreads.pdf

2018: https://www.fkawdw.nl/files/YEAR_REPORT_2018.pdf

2019: <https://www.fkawdw.nl/files/YEAR%20REPORT%202019.pdf>

2020: <https://www.kunstinstituutmelly.nl/YEAR%20REPORT%202020.pdf>

2021: https://www.kunstinstituutmelly.nl/JAARVERSLAG_2021_SPREADS.pdf

2022: <https://www.kunstinstituutmelly.nl/YEAR%20REPORT%202022.pdf>

b) Boijmans Depot

2016:

<https://storage.boijmans.nl/uploads/2018/05/08/odpfvAPYZr3sThFsJslIIBKUvnC2f1I9Uep0bW8e.pdf>

2017:

<https://storage.boijmans.nl/uploads/2018/05/04/HEUEjtcz5OJ0tMIXSMWdvs91sqQvcGj0F2jSCeFJ.pdf>

2018:

<https://storage.boijmans.nl/uploads/2019/04/26/CJfdzqOX3SaXUbr1Ee4D4WuiCizXR1fQhtsBP0fM.pdf>

2019:

<https://storage.boijmans.nl/uploads/2020/05/05/YhwBRdPI0W6Cy7HGWgbzhd0PxrJu2LvXOH4DWq4Y.pdf>

2020:

<https://storage.boijmans.nl/uploads/2021/06/21/gwEoX0gulcV0R3bEqmQU84eXkpkIU3iuQuOQy7Oa.pdf>

2021:

<https://storage.boijmans.nl/uploads/2022/05/31/1MG8lZVQYxpNefhlcKdBulpP6lEwgj9mCsX0XP0B.pdf>

2022:

<https://storage.boijmans.nl/uploads/2023/05/25/NacZZb4eg7EgvzIMbzrDqDrqLpDpUrCdYOuyXQtv.pdf>

2) Survey Guide

Digitisation and diversity in museums SURVEY

Hello,

Hope you had a nice visit!

I, Nidhi Joshi am conducting a small survey for my research on museum audiences. I would like to get to know your experience with digital tools used by the museums for their audiences. Please fill in the survey below for the research! It will only take 5 mins :)

Age

- 0 -17
- 18 - 24
- 25 - 34
- 35 - 44
- 45 - 54
- 55 or above

What do you identify as:

- Woman
- Man
- Transgender
- Non-binary/ non-conforming
- Prefer not to say

What race or ethnicity best describes you?

- White/Caucasian
- Asian
- Indian
- Black or African
- Hispanic
- Other (*specify*) _____

What is your current place of residence

Rotterdam

Other (*specify*) _____

What is your current occupation

Student

Unemployed

Self-employed
Full time professional
Part-time professional

What is your highest degree of education

- Some college
- Bachelors Degree
- Graduate Degree
- Higher education

Museum Visit

How often do you visit museums in Rotterdam? (only choose 1)

Very often
Often
Sometimes
Rarely
Never

Which social media pages of the museum have you navigated?

Website
Instagram
Facebook
LinkedIn
Tiktok
Other _____

How do you get to know of museum initiatives?

- Brochures/flyers
- Museum website
- Instagram
- LinkedIn
- Facebook
- Friends/colleagues

Have you attended an online event/ virtual tour at the museum?

Yes
No

**On a scale of 1-5, rate the following digital tools based on your comfort
(1 is least favourite, 5 is most favourite)**

Audio tours
Scanning codes for information

Visual media
Immersive experience
Digital art

Explain in brief your experience with digital tools at the museum. Do you like it? Why/why not?

If you are interested to be an interviewee for the project, please provide your email id

(free coffee incl.)

In case of other comments or questions: nidhee.1110@gmail.com

Thank you!