Participatory Memory Making: Creating Postcolonial Dialogic Engagements with Namibian Youth

Asnath Paula Kambunga  
Dept. of Digital Design and Information Studies, Aarhus University, Aarhus, Denmark  
akambunga@cc.au.dk

Heike Winschiers-Theophilus  
Dept. of Computer Science Namibia University of Science and Technology, Windhoek, Namibia  
hwinschiers@nust.na

Rachel Charlotte Smith  
Dept. of Digital Design and Information Studies, Aarhus University, Aarhus, Denmark  
rsmith@cc.au.dk

ABSTRACT
As technologies become pervasive, so does participation in memory making. But in contested environments and discourses, certain voices are rarely included in public memory. In this paper, we explore how everyday postcolonial memories of Namibian youth engaged the wider public into a dialogue revisiting narrative of the past in order to explore alternative futures. Voices of the youth were amplified through an experimental participatory public exhibition leveraging interactive technologies. The exhibition resulted from collaborative memory making with marginalised voices, highlighting the role of youth as agents for change in postcolonial Namibia. Experiences from the exhibition showed how meaningful dialogues and interactions between museum audiences, interactive installations and the youth, created new perspectives on postcolonialism, and how exploring everyday memories and materials from the past may contribute to creating inclusive futures. We conclude that new forms of dialogic engagements are created through ‘blurred boundaries’ between people, their collective memories and technologies.

Author Keywords
Memory making; Namibia; Postcolonial; Interactive installation; Museum exhibitions; Youth.

CSS Concepts
•Human-centered computing–Interaction design–Empirical studies in interaction design

INTRODUCTION
Digital mediated participation in memory work has increased the focus on museum experiences and on rethinking the role of heritage institutions in society [12,20]. Many museums are transforming their focus from being houses of historic artefacts, towards places where communities and visitors are actively engaged in co-curating, dialogic exchange [20,43]. However, despite the growing interest in participation and inclusion in museums in the last decades, we argue that often marginalised voices and contested historical practices as part of people’s everyday life are still under-represented and rarely used to generate alternative narratives and understandings among people and communities.

Museums continue to play a significant role in preserving memories. However, with the increasing use of digital technology inside and outside museums, memory making is not merely the work of museums, but part of everyday practices [12,20]. Silberman and Purser [41] argue that the future role of museum curators may be limited to enabling digital reproduction of historical environments by contemporary communities. Today, the use of digital media contributes to memory making; from sharing photos, commenting, and sharing experiences online, enabling people to actively participate and create memories outside memory institutions [20]. For museums, this means becoming media spaces where audiences engage in experimental knowledge exchanges [41], hereby integrating museum experiences and everyday digital practices.

Interactive installations in museums have been applied mainly to existing collections to make them more engaging to the audience [9], for the visitors to contribute to the exhibitions instantly [2], or to increase children’s creativity and explore new education avenues [53], and augment the current exhibitions and spaces in the museum [57]. These forms of engagements require us to reconsider the position of audiences inside exhibitions, and to turn our attention to participatory engagements, and how new forms of cultural heritage can be co-created based on the audience’s everyday experiences [27,45,47]. Visitors are no longer considered as passive consumers of curated representations and artefacts but become actors and agents in an asynchronous dialogic creation of future memories [47].

In this paper, we describe a participatory design process of co-creating an interactive exhibition about everyday experiences of postcolonial Namibia with a group of young people. We engaged the youth in a dialogue about Namibia’s colonial past and the effect of postcolonialism on their present identities. The exhibition was showcased at the Independence Memorial Museum in Windhoek and set a platform to explore and experiment with the youths’ everyday memories of postcolonialism and trigger the
memories of museum audiences. The physical space and exhibition design were created to present the youth’s position on current debates of postcolonialism and their roles in creating future memories, while engaging audiences in dialogues through the interactive installations.

**Design at the margins**

Designers are often criticised for designing for ‘the other’ and suppressing different or marginalised epistemologies [56]. In efforts to challenge the inequalities and oppressive structures inherent in much design practice, and empower marginalised communities, decolonial researchers focus on disrupting the systems of domination that are continuously colonising and dehumanising [3,10,40,54]. In Smith et al. [50] however, we found that not even participatory design offer fully decolonized approaches, and that in order to design for ‘a world where many worlds fit’ [14]. We need to develop more contextualised, transdisciplinary and transcultural approaches, in order for decolonisation to be achieved in practice. Notably, decolonial scholars from the global south are addressing these inequalities within HCI research, highlighting how collaborators from the global south are not given equal opportunities and often perceived as less qualified from their first world counterparts – a move which saw the rise of local HCI chapters such as AfriCHI [8], ArabHCI [1]. In their paper on postcolonial computing, Irani and colleagues [25] points to the challenges within HCI4D projects. They propose postcolonial computing as a means to understand that designs are culturally located and thus require deep analysis of the local conditions, histories, and consideration of epistemologies and power relations. They argue for hybridity and embracing heterogeneity in intercultural engagements instead of negating these issues. Similarly Winschiers, et al. [55] suggests a need for designers to ‘be participated’, when engaged in intercultural design projects [56]; a practice in which designers become participants in consideration of existing cultural power structures and leadership practices in the communities [55].

In the Namibian case in focus, young people are often left out of decision making and discussions about their postcolonial past. They are told they are ‘too young’ to understand the politics. However, the Namibian context is distinct in the way that memories relating to the colonial past are still vividly present [37, 6, 7], as the country only gained independence from neighbouring South Africa in 1990. Engagement of younger generations in postcolonial discussions is still based on the dominant narrative of Namibia’s past, and in the absence of young people’s own experiences or alternative accounts of the past, this has caused frustrations and mass discussions on social media. Hence, this practice of excluding the youth is potentially pushing the younger generation to the margins and denying them the rights to share their postcolonial memories and create alternative futures. Such future makings, we argue, should be understood ‘as collaborative explorations of situated possibilities, formations and actions at the intersection of design and everyday life’ [29].

**COLLECTIVE MEMORY IN THE DIGITAL AGE**

According to Halbwachs and Coser [23], the common standards of collective memory within a society and cultures is known through uniting people in time and space. The use of digital technologies, especially social media are shaping how people share memories, remember and forget, inherently fostering a participatory collective memory [18]. In digital space, as an extension to the physical, people with common interests share images, experiences, and others join to create communities of collectively remembering [19,44]. Giaccardi [19] and Simon [44] argue that digital heritage has changed how memories are created, valued and transmitted in a society where people are increasingly unified by these forms of engagements, consequently contributing to bottom-up approaches of heritage making. With digital media, heritage is actively co-created and it is based on everyday practices and experiences. Specifically, social media contributes to a change in viewpoint from sharing written heritage narratives to framing and media platforms for mutual reflection and discussion [27]. Thus, it is important to ask ourselves what people value when designing interactive systems [19].

**Interactive installations in museums**

Interactive technologies inside museums have been widely explored to increase participation and create new forms of engagement [24]. This field is also well researched and documented within the CSCW and HCI community, [11,15,16,47]. Russo [38] argues that interactive installations have the potential of engaging visitors in the formation and creation of cultural experience. Some interactive installations are designed with a special focus on specific age groups, as a way to attract or as a means to engage target groups who previously did not relate to particular exhibitions. For example, Taylor et al., [53] designed an interactive installation for children in the Victoria and Albert Museum to encourage creativity and enhance spontaneous learning in a playful manner. At the Danish Moesgaard Museum, Dindler et al. [13] involved children in exploring future exhibitions in the museum, by focusing on the children’s digital everyday practices and online engagements. Experiences from District Six Museum in South Africa shows how Ladeira and Marsden [33] focused on creating an interactive personal storytelling platform where visitors could engage with the storyteller agents by asking questions and vice versa.

While interactive installations have been noted as key elements in attracting visitors; Diaz et al. [11] argue that there is a need to engage people in a more personal and meaningful way, by relating to the values and expectations of visitors and institutions, which echoes Giaccardi’s [19] call to design systems that relate to what people value and consider important to leave for the generations to come. What people value could be anything about themselves and their identities. Heritage is a living practice and people create new meanings through interactions within their communities and peers [19]. Thus, engaging different members of society in the design process of interactive exhibitions is empowering and enables people to feel part of a world which is normally designed for.
Participation in designing interactive installations
Using participatory approaches in designing interactive installations enables different stakeholders to be actively engaged and their input to be considered in the design process. For instance, Fuks et al. [17] carefully selected a group of participants they engaged from the initial stage of the project to create ideas to transform existing exhibitions in the Planetarium and Science Museum. In another example, Ciolfi et al. [9], carried out co-design sessions with designers, heritage professionals, scientists and developers with an aim to create a ‘Do It Yourself’ toolkit for cultural heritage professionals to be able to configure tangible installations in heritage sites. Ali et al. [2], presented how they used handcrafted markers created by the visitors during the exhibition, which they claim enhanced the experiences of the visitors when linked to audio content - compared to use QR code markers. In their project, they recruited the participants once the exhibition was already set up, but the participants were not involved in the initial design of the exhibition.

Smith [45], has demonstrated how a design anthropological approach can play a role in designing interactive systems focused on the everyday experiences of teenagers. Her work with emergent digital cultures of Danish youth, interaction designers and museum professionals, opened up new approaches to co-designing interactive exhibitions, based on everyday experiences. Here engagement was created both in the participatory process leading up to the exhibition, as well as the exhibition itself. Here audiences were engaged in exploring aspects of ‘digital nativeness’ through active engagement with the installations, each other and the youth who were also present in the exhibition space [47]. Such forms of dialogic curation and engagement, the authors argue, differ from many participatory approaches to audience engagement due to the double focus on the process and exhibition, the rich dialogues formed inside the exhibitions and their relation to people’s everyday practices.

Everyday experiences as a design focus
Smith and Iversen [47] point out that the advancement of using digital technology in museums requires us to establish effective methods for engaging different stakeholders in curatorial processes, as well as to reconsider the role of audiences within exhibitions. Hence, we need to turn our attention to dialogic engagements, where new forms of cultural heritage can be co-created, facilitated by new forms of interactions [47]. Existing literature on engaging community members into processes of creating interactive installations most often focuses on existing exhibitions, and less on everyday practices [47]. Experiences from the Digital Natives project presents a nuanced example of how a focus on everyday experiences has a potential in creating new forms of engagements with young people and museum audiences [45,46]. In another example, Fisher, et al. [16] worked with migrant teenagers to design an interactive programme ‘InfoMe’ which demonstrated how migrant youth from Africa and Asia help people in their everyday lives using Information and Communication Technologies (ICTs). They argue that using the teens’ work such as skits, stories and drawings are some of the elements which can be used to stimulate the design work.

In participatory projects, connections between people’s everyday lives and heritage emerge through the interactions and dialogue [27]. These forms of engagements allow audiences to interpret, creating new meaning while contributing to co-creating heritage in the process [20,47]. Stichel et al. [52], emphasise how engaging indigenous community members and outsiders in meaningful dialogues is preeminent in creating reflective digital self-representations in addressing stereotypes by outsiders and self-worth of the marginalised. Their mediated inter-media conversation platform allows the on-line visitors to continuously reshape the narratives about the marginalised [53]. Such dialogic design processes require different stakeholders to be able and willing to listen to each other, change their minds and collaborate towards a common vision [35]. Thus, new meanings emerge through dialogues and by focusing on everyday experiences as a way of co-creating new memories.

Memories of colonialism in Namibia
Namibia is one of the youngest nations in Africa to get independence from the foreign colonial forces. It’s independence from neighbouring South Africa in 1990, came after long and bitter battles, which many living Namibians recount today [42]. The famous South African apartheid regimes paved the way for racial discrimination, as Namibians were segregated and divided based on their ethnicity [39]. Before South Africa took over the administration of Namibia, Namibia was colonised by Germany for 31 years [32]. Though this was the shortest colonial history of the then Germany South West Africa, memories of this colonial era are still vividly present in contemporary Namibia [7,30,32,42]. These memories relate to ongoing genocide reparation claims by the Herero and Nama community and repatriation of colonial artefacts and human remains [32]. In Namibia, significant events of the colonial times are still commemorated to date: to honour those that sacrificed and fought in war, and to educate the younger generation about their historic past [6,30,42]. Cultural memories [5] are present in museums, as statues and sacred places [7,30]. Communicative or collective memories [5], or collective coined by [23] are continuously shared by individuals who lived during the colonial times.

Our project addressed personal and collective memories of colonialism, how they are shifting overtime and what has been shared with the youth that were not present during the colonial era. With the exhibition, the youth were agents in creating their own future memories. Through the participatory process, they analysed personal and existing colonial memories, and the bias in the representations of those memories, and created their own collective memories. The current problem in Namibia is that the past is only told
by people who took part in the liberation struggle, or by international scholars [30–32].

EXPERIMENTAL INTERACTIVE EXHIBITION WITH NAMIBIAN YOUTH

The Postcolonial Narratives of the Born-Free interactive exhibition was part of an interdisciplinary research project on participatory memory making. The project focused on exploring everyday memories of postcolonialism among the Namibian youth and creating future memories. The exhibition involved creative collaboration between a group of 10 youth, 2 researchers and 5 Interaction Design students from Namibia University of Science and Technology, for a period of six months. All the youth involved in the project were Namibian, aged between 20-29 and identified as ‘born-frees’ - a term used to describe people born after independence in 1990.

The main researchers in the project were one Namibian born-free, and a senior researcher, mother of two born-frees. The dual positioning gave the young researcher an opportunity to actively reflect on and participate in the process. The purpose of the interactive exhibition was threefold. Firstly, it emphasised the continuous exploration of everyday memories with the youth and the exhibition audience. Secondly, it highlighted and amplified youth voices in the current debates of postcolonialism and sparked a wider discourse with the audience. And thirdly, it emphasised the youths as agents in creating memories for the future. In this paper, we focus on the dialogic possibilities created by the process, technology, existing memories and the voices of the youth in the exhibition. The exhibition presented multiple voices in co-existence on issues relating to postcolonialism’s past, present and future in an immersive interactive manner leveraging emerging technologies, such as augmented reality and soundscapes.

Research design

Deconstructing postcolonialism with born-frees

In the first month of the project we conducted ethnographic interviews and meetings with youth, enquiring into their everyday experiences of postcolonialism. This process also served as the recruitment tool for the youth collaborators. Some of the youth were selected based on their engagements in social media on issues relating to postcolonialism.

We used design anthropology and situated participatory design approaches to engage the youth in the project [22,49,55]. Based on the initial ethnographic work, we engaged the youth in weekly workshops, involving them in the research design and exploring postcolonial memories. In the first workshop, we collaboratively set a common goal and a vision, on what we want to achieve at the end of 6 months, using techniques adopted from local researchers [21]. A common goal was set and used as a slogan ‘agents to bridge today for tomorrow’, acknowledging and appreciating the role of the current leaders in the past, and creating awareness among youth and the general public at large on issues relating to postcolonialism. The youth suggested having a public exhibition as a platform to fully realise the goal and vision. The youth then spent 2 months deconstructing everyday postcolonialism in an attempt to make sense out of current issues related to the colonial past, such as the land distribution, educational system, socio-economic injustices and the influences of colonial languages to local languages.

Prototyping with interaction design students

Five interaction design students were invited to join the project as part of their course work. At that point the youth were fully engaged in the project and in charge, which inherently shifted the dynamics and power relations in a PD project; where the facilitators are mostly in charge of the design process [36]. However, the role of the researchers was to ensure that the teams worked together, and that inputs from the youth and students were discussed and integrated in the exhibition design, relying on working with the emergence and dialogue between the team members [48]. While the students focused on the technology the youth was concerned with the messages and the researchers ensured the content was adhering to legal regulations.

Project timeline summary

We carried out the project over a period of 6 months, starting in May 2019 with born-free interviews and then weekly deconstructing colonisation workshop sessions, including visiting the museum. In July the interaction students joined weekly design sessions. The entire October was dedicated to the physical set-up with the exhibition taking place from 21-30 October 2019. During the exhibition, we used a dialogic engagement approach with the audience, which were documented and followed by a debriefing session and post reflection assessment.

The venue of the exhibition

The exhibition was hosted in the national Independence Memorial Museum in Windhoek Namibia. The museum is a national landmark, and highly renowned as it houses the political history of Namibia, covering both the German colonial era and the liberation struggle from South Africa. The venue was fitting for the exhibition because the exhibition was political and addressed the issues of colonialism past, present and future. Before the exhibition, together with the youth, we studied the existing permanent exhibition in the museum mostly focusing on omissions and missing narratives. This provided us the opportunity to direct our exhibition. The youth remarked that the current displays lack descriptions which gives the impression that visitors should know the historic background of Namibia; and that the artworks are misrepresenting what they know about the history.

Exploring and prototyping memories

In the first session with the students and youth, the students were briefed about the plan to co-create an interactive exhibition focusing on postcolonial narratives of born-frees. At that point, neither the researchers, the youth or the students had a clear idea of how the exhibition would materialise. We knew we would work with the materials
generated in prior sessions spanning across the domains mentioned above.

In the second workshop, three groups were formed to work on the exhibition concepts, purpose of the installations, the intended user experiences, and possible technologies to be used. Each group consisted of about three or four youths and one or two design students. After lengthy group discussions on what forms of interactions could be created given the available content from the exploration of postcolonial memories sessions with the youth, each group prototyped a scenario and presented to the others. The group members were informed to not limit their imaginations but to assume they had unlimited resources.

Group one focused on allowing people to take a trip into the past explaining choices that were made having affected the present. Motivating the youth to make decisions and join the born-frees in becoming agents and deciding their own futures. The youth ponders that freedom fighter’s mindset is somehow stuck in the past and always asserts why they should have access to opportunities just because they fought for freedom rather than allowing the youth to focus on the future. The group suggested that they use augmented reality to present the choices made by the visitors.

![Figure 1. Group 1: Decisions for the future. © AP Kambunga](image1)

Group two suggested having an AI agent, representing influential people from the colonial era (such as the founding president) as a way of learning from the past. The visitor could ask the AI agent about the history. The intention here was to gain a better understanding of colonial times through inquiry with people from the past ‘brought to life’. These ideas are in a way relating to the youth acknowledgement of their fragmented memories of the past and the need to learn more about it. Another motivation relates the need for different perspectives or narratives about the history of Namibia, because the current political history is biased. It is mostly told by few individuals to promote a specific agenda. They also suggested that visitors should be able to actively build the future they imagine, by doing some actions in the present that will affect the futures they desire. This was prototyped through objects that could be moved in the present space and consequences would be projected in the future space.

![Figure 2. Group 2: Inquiry and activity-based prototype. © AP Kambunga](image2)

The third group focused on creating a soundscape, to play oral narratives of the born-frees, recorded during the exploration stage. The visitors would walk into the room, and listen to multiple voices playing at the same time. This represents the current noise or chaos in Namibia, whereby people are speaking at the same time, and only those with high profiles and power in the community are heard. As the visitor moves to the centre, they will start hearing clear voices that are normally silent in the community. The youth argued that, not even social media which is democratic really offers opportunities for their voices to be heard.

![Figure 3. Group 3: Soundscape. © AP Kambunga](image3)

These prototypes served as inspirations which were to be restructured and merged in later design stages. In the following weeks, we conducted more workshops in which the designs were shaped and refined.

**Dialogic curation with the Born-Frees**

We employed the concept of dialogic curation on working with diverse teams and creating dialogic sites of engagement [27,46]. The progression of each concept shifted over time, but the roles of the youth remained the same throughout as knowledge creators and co-designers. They owned the process by always suggesting what should be done, and they learnt to understand the advantages of collaborating with the technical students. In the process, both teams learned to work together, and negotiated the terms. Solutions were created through dialogues with the team members and focusing on the vision created at the beginning of the project [35].
Setting up the exhibition
The allocated museum space for our exhibition displayed permanent huge wall drawings of the past German colonial era, the liberation struggle and the independent Namibia. We integrated our exhibition spatially accordingly, with the past section below the German colonial era artworks offering additional heritage, such as indigenous knowledge from precolonial times. The present section ran across the liberation struggle considering the felt influences of South African today. And the future installations were placed in the independent Namibia section.

In setting up the exhibition, we did not get professional help, but relied on the entire team of born frees and students. We brought artefacts and materials from our homes to ensure cultural appropriateness, local visitors “feel at home” and technical equipment was hidden. The entire process of adopting a dialogic approach to designing the exhibition played a tremendous role in creating eight distinct interactive installations with an enforced path through the exhibition creating a storyline. Each installation presented a different message and form of engagement: the visitor first entered into the soundscape representing the current confusion with too many voices; then was ‘forced to go and learn from the past’ meaning pre-colonial time (Indigenous knowledge) and then trying to make sense of the colonial times. Only upon reflecting on the past, they can understand the present where they find themselves now in a position to make choices affecting the future. The interactive installations alone did not make the exhibition meaningful, but the set-up of the physical space which presented the idea of people given paths from current to past to present to future between the present, past or future sections contributed to the formations of dialogues on post colonialism. In the following we will explain the installations, their relations to the youth memories and the discussions that emerged during the engagement with the audience.

Confusion Soundscape Installation
The soundscape installation played oral narratives of the youth on different issues relating to how colonialism has affected domains such as education, languages, economics, division, and indigenous knowledge, in the present. These domains were problematised through dialogues during the workshops we had since the start of the project. The soundscape installation also served the purpose of drawing the museum visitors in the exhibition hall as the voices of the youth kept on playing, compelling the visitors to immediately mute some of the voices on an iPad and eventually listen to single voices only. The noise was a representation of chaos and confusion in the present, imitating scenarios where some voices are louder than others and only dominant voices are listened to. In this case, the audience was the actor in silencing selected voices and choosing which voices to listen to. The audience could also start the discussions with the born-frees who were available in the exhibition hall and easily noticeable as they were all wearing matching shirts. The space was set up with multiple speakers that were not visible to the audience, and a maze with one dead-end to symbolise how the chaos within society does not cater for a progressive movement.

Telephone Booth
The telephone booth was the first installation the visitors encountered when they walked back in the present from the past section. This installation was created to showcase some of the reminders of colonialism in the present, embedded into the everyday practices. For instance, how some private entities have normalised the usage of Afrikaans (former colonial language) as their business language instead of English (official language). At the phone booth, the visitors could dial specific numbers and listen to pre-recorded conversations the youth acted out, imitating what they experienced once making phone calls to certain government and private institutions. The conversations were translated into English to accommodate those who do not speak the languages used in the recording. Some members of the audience shared their experiences on postcards and discussed with the available youth. Most of the audience indicated that they could relate to the incidences acted out by the youth. They mentioned how they find it awkward when they have to explain that they do not understand a certain language.

Present: Confusion and Making choices
There were three interactive installations in the present space: Confusion Soundscape, Telephone Booth and Social Justice Room). The physical space was also designed to provoke discussions on postcolonialism.
Namibia is a multicultural country. Hence, it makes sense for public service to be offered in the official language.

In the present section, we constructed a bridge ‘Road to the future’ which had two sides and required decision making. The visitor could either choose the easy or the hard route. The easy route is messy, no one really cares about the other and everyone is doing what they think is good for them. This route is fuelled by corruption and greedy nationals. The youth posted notes on how the government is stealing their future, how nepotism is destroying the nation and so on… The hard route questions the visitor’s morals, values, and ethics. This route requires people to do the right things, care about one another, become educated and responsible citizens. The content of this construct was mostly created during the exhibition set up. The youth spend time discussing what should be included or not. They wanted this section to be provocative as much as possible and for the audience to discuss the future they see for Namibia.

Figure 6. Bridge with easy route on the right and hard route on the left. © AP Kambunga

Making Sense of the Past
This installation focused on the cultures and the relationship between different tribes in Namibia. The audience engaged with the installation by moving around magnetic markers on the Namibia map. If a marker is placed on the right spot on the map and scanned, a video played on a mobile phone, showing cultural practices of different tribes. Some markers placed on traditional pottery which played different videos of elders explaining hunting strategies, making traditional medicine and analysing animals’ carcases. Some audience members expressed how the setting made them feel at home, and some recounted their experiences sitting around the fire with their families.

Figure 7. Family sitting around fire. © AP Kambunga

Social Justice Room
At the border line of the present and the future section, there was an installation depicting the socio-economic inequality, designed to provoke discussions on living standards and the margins between the rich and poor [4]. One wall depicts a ‘shack’ of the informal settlements in Namibia and the other a fancy house in upper class suburbs in Windhoek. Both walls had augmented reality markers. Once scanned with a mobile phone, videos played showing the living standards of people in different locations, and locals take on their conditions. Three jars were placed in the installation, asking the audience what they would choose to invest in: housing, mental health and fights against alcohol and drug abuse. The youth chose those topics as pressing issues in the videos showing in the AR. Some audience members wrote in the visitors’ book - how the exhibition is a good campaign, but also criticised the installation for focusing only on the negative aspects of what is happening in Namibia.

Past: Learning from the past
The past section was designed to provide a platform to learn from the past, and to create a reflective site to learn about Namibia. During the design process, the born-frees indicated that it is correct they have limited knowledge about Namibia’s past, but it is important to acknowledge that working with past materials creates thoroughness in understanding the present, and creating the future. Three installations were placed in this section, both addressing the points from prior discussions with the youth on the importance of indigenous knowledge, fragmented memories of the past, and the wish to have been part of the liberation struggle. These installations presented alternative historical narratives distinct from the ones presented in the museum.

Augmented reality Indigenous Knowledge (IK) fireplace
This installation was created for audiences to experience and learn from the rich, oral based knowledge of elders. The audience sat on traditional logs, around burning fire (simulated by a projection) representing the same setting in Namibia's traditional homes where storytelling takes place. The audience interacted with the installation by scanning markers placed on traditional pottery which played different videos of elders explaining hunting strategies, making traditional medicine and analysing animals’ carcases. Some audience members expressed how the setting made them feel at home, and some recounted their experiences sitting around the fire with their families.
anything about colonialism because they were not there. Their wishes were integrated in the exhibition by enabling them and the audience to take pictures with iconic freedom fighters or with a war themed background. The audience could share their pictures on a twitter account created specifically for the exhibition @thebornfrees. This installation added fun to the overall exhibition, and allowed audiences to take pictures as souvenirs. Having the twitter account where people can share their pictures sparked a wider discussion outside the museum and it was also a way of attracting more people to visit the exhibition. @isdoraluteni [26] tweeted ‘This is a really cool exhibition. A fresh breath of air for exhibitions by Namibians in Namibia’. Such appreciation shows that the new forms of interaction are important in engaging the audience in meaningful dialogue. Overall, the ‘past’ installations presented a different opportunity to engage in dialogues about the past which helped the youth and audiences to develop new perspectives on their role in creating alternative narrations of the past.

Figure 8. Visitor writing on the wall (backdrop of historical Namibian liberation struggle). © AP Kambunga

Future section: Designing alternative futures

Deciding on the future section was challenging for the whole team, having no specific vision. We then had multiple sessions to design an interactive space which would engage the audience into collaborative future making. Thus, one digital game with provocative questions, another prompting reflections on the exhibition and a wall was conceptualised. This space served as an experimental probe into our future work using a participatory approach. The provoking question game was inspired by the fact that all discussions relating to the future ended in questions. The game addressed pressing issues in creating better futures, such as decolonising the minds of the people, national governance, education systems, and responsible citizenship. Depending on positive or negative responses the next question was displayed. Furthermore, an analogue writing space was created on the tent wall by providing whiteboard markers and posting prompting questions. This platform presented a lasting and responsible citizenship. Depending on positive or negative responses the next question was displayed. These targets were achieved through the interaction created with the technology and with the youth that were present during the exhibition. To get the impressions from the youth on what type of discussions emerged through the discussions, we had one debriefing session, individual sessions where the researcher asked the youth how the exhibition was after each day and written feedback by the youth on their key takeaway from the exhibition and to find out if the exhibition contributed to reaching the vision set at the beginning of the project. Another form of getting feedback was through the Twitter account, the wall writings and recorded feedback from the audience.

Reflected on the exhibition by explaining how the exhibition in a way made them think of their roles in creating the Namibia they desire.

DIALOGIC ENGAGEMENTS WITH THE POSTCOLONIAL

With the exhibition, we aimed to create a dialogue with the audience by problematising the current issues, reflect on the past and contribute to creating participatory futures. These targets were achieved through the interaction created with the technology and with the youth that were present during the exhibition. To get the impressions from the youth on what type of discussions emerged through the discussions, we had one debriefing session, individual sessions where the researcher asked the youth how the exhibition was after each day and written feedback by the youth on their key takeaway from the exhibition and to find out if the exhibition contributed to reaching the vision set at the beginning of the project. Another form of getting feedback was through the Twitter account, the wall writings and recorded feedback from the audience.

Blurring boundaries between (multiple co-created versions of) present, past and future

In the exhibition, the audience could walk through different temporal spaces of present, past and future, and engage with the interactive technologies and the youth that were present at the exhibition. The spatial setting of the installations shaped the movement of the audience and contributed to comprehending the message in reflecting on the past, present and future in a directed manner. The youth have expressed how the audience’s curiosity rose the moment they entered the exhibition and immediately questioned the motives of the exhibition. What drew the audience’s attention was the ability to actually move into the past section because in normal circumstances, people do not reflect or consider the past in finding solutions for the future, but rather focus on the present issues on creating solutions for the future. In this case, we wanted to present the role of the past in the quest to understand the present and designing the future. Otto [37] laid out the importance of history in design. He argues that planning and designing for change requires thoughtful conceptualisation of a history that enables the desired future. He further argues that that element of historicity provides a catalyst for change and evokes the personalities of the entity that can function to achieve the desired future [37]. Soro, et al [51], also argues that working with the past materials in design opens up new avenues for multiple voices to co-exist ‘the past is rather subjective, fluid, and constantly renegotiated’. In this case, working with past materials enabled the youth to present their alternative narratives of the Namibian past.

Enabling the audience to swiftly move through between the past, present and future gave an urgency for decision making. The youth have previously identified the problem with how older people in Namibia (who were present during the colonial times) mindsets are stuck in the past, and blames the youth for not being informed about the past. So, by dividing the space allowed the audience to decide either to stay in the
past, or contribute to the noise in the present without making positive decisions that could impact the future. Such opportunities were different from authoritative representations of the historical past surrounding visitors on the large wall paintings (see fig. 8).

Interestingly, the future was ‘empty’ until very late when setting up the exhibition - and was filled ad hoc with invitations for reflections. This relates to how futures are co-created through practice, dialogues or engagement with diverse groups of people [48]. The youth were mostly occupied with the present because they are well familiar with the present issues and we spent time analysing the current situations in the workshops. The past represented the most ambiguity, as the youth had no first hand experiences of these events, which they had only encountered second hand through cultural memories or collective memories [5].

The continuous emergence and creation of memories facilitated by the interactive installations
It became evident that the born-frees narratives played an important role in activating the audiences’ memories. The youth visitors indicated that they could relate to most of the issues addressed by the born-frees, especially in the present section. But they think that addressing those issues is probably irrelevant because there is no hope in changing the current situation. Some claim that the current systems do not foster inclusivity and decisions made are not favouring all. We presume that this is a result of lack of participatory approaches in decision making. We argue that if the government takes on the role of engaging citizens in future decisions, these young people will be empowered and hopeful for the future.

The elder people who visited the exhibition showed appreciation for the born-frees to acknowledge indigenous knowledge and use technology as a way of preserving and educating the young people. Some sat on the traditional logs and shared their oral stories and experiences growing up relying on indigenous knowledge to solve problems. They also took on the role of educating the youth mostly on the past issues. In a way, this relates to the dialogues we had during the design process with the born-frees in terms of appreciating the elders and their wisdom. We have also analysed that some audiences had fragmented memories of the past, just like the born-frees, but with some exceptions. In making sense of the past section, few audiences got the puzzle right, while others had to first ask about the Herero and Nama for instance. This is a clear example that only some history is emphasised and others are suppressed.

The younger school children who came to see the exhibition in groups were mostly interested in the different technologies, and taking pictures at the photo booth. Some of the kids came with their families, and some came after seeing the exhibition on national TV news. While trying to engage the kids at the indigenous knowledge installation, one boy expressed that he is not really interested in indigenous knowledge, nor sitting on logs because they are uncomfortable, and he would rather play his virtual game ‘Fortnite’ instead of listening to old people. There were a large number of tourists who visited the exhibition. This could be because that the museum is a tourist attraction, and there is also a restaurant on the top floor, presenting beautiful views of the city. Most of the tourists were happy to learn about the everyday realities of the youth, which is not exhibited in any other museum in Namibia. The tourists have indicated that some of the problems are not unique to Namibia and it remains a challenge for politicians to take the youth seriously in many parts of the world.

The exhibition did not only provoke memories, but also sparked new discussions relating to if the born-frees are ready for working together with the elder generation in creating inclusive futures. This is because given the fact that the older people are still using their involvement in the liberation struggle to leverage for opportunities, it requires a change of mindsets and the youth to have good judgement on current issues. The elder visitors mostly questioned why the youth only pointed to the negative aspects instead of mentioning the good going on in Namibia. These dialogues happened specifically on the road to the future section. However, most of the older people also commended the youth in initiating a process like this and engaging the public at large. The conversations formed during the exhibition were important to the youth in rediscovering their cultures. Learning about the past in the exhibition also helped to fill the gaps as the youth only showed fragmented memories of the past. But through dialogues, both the youth and audience created new meanings emphasising why it is crucial to understand the past in creating inclusive futures.

The Twitter account enabled us to engage audiences on postcolonialism, both inside and outside the exhibition space. Giaccardi, [20] emphasises how digital heritage is actively created through engagements on social media. One guest, from the heritage sector expressed how the exhibition was the best co-curated she had ever seen [34]. The pictures taken at the photo booth were shared on the twitter account (if the visitors give consent) as a way of drawing traffic to the account and to engage more people.

Born-frees as agents in complex and political debates
The exhibition was one way of presenting to the public that youth are indeed agents of change by engaging in complex and political debates on postcolonialism and for causing positive change for the future. At first the youth expressed how they did not have a voice in postcolonial discourses because they are indirectly being silenced, as they are ‘too young’. For that reason, they created the common goal of being agents of change. Through engaging with different stakeholders during the design process and exhibition, their roles shifted from being without a voice to agents of change that can engage the public in creating past alternative narratives and future making. They took ownership of the exhibition and engaged the audience at the launch of the exhibition, inside the exhibition and on social media. After
the exhibition we assessed if the youth have reached their
goals, using concepts adopted from local researchers [21]. By
using a scale from 1-7 (1 being the lowest and 7 highest) to
evaluate if the exhibition contributed to their goals, most of
them indicated that the exhibition indeed played a major role
in realising this goal.

The insights into participatory memory making with the
Namibia youth contributes beyond the Digital Natives project
by understanding the role of digital technologies and youth in
creating meaningful dialogues in politically contested
contexts. We demonstrated how marginal voices can be
engaged in complex and culturally sensitive issues by
focusing on everyday practices to initiate discussions within
and outside the museum. In addition, our work contributes to
exploring and co-creating alternative memories of past,
present, future – through decolonised design practices
[50,54]. Since this work is part of the European Union’s
Horizon 2020 project on Participatory Memory Practices, our
future work seeks to engage the youth voices beyond their
communities and to broader European, transnational or
potentially global settings.

CONCLUSIONS
In this paper we argue that neither technology alone nor the
youth could sufficiently provoke the discussions on everyday
experiences of postcolonialism in the museum setting. But it
is through the special convergences between technology,
youth, existing collective memories and the spatial co-setting.
It became evident at the beginning of the project that to reach
the common goal set out by the youth there was a need to
engage the museum audience in a different way. The youth
have also acknowledged this after visiting the independence
memorial museum to discover what is missing and how new
forms of engagement can be created. In this case, digital
technologies challenged the passive involvement of museum
visitors and the notion of having only museum curators
telling the story. Here we sum up how we realised the goals
of the exhibition:

(1) Emphasis on everyday memories and exhibition audience
The youth memories in the exhibition acted as triggers in the
exhibition, provoking the audience to share their personal
experiences and memories with other audiences. The
dialogues in the exhibition led to deeper analysis on the
current issues, and their effect on the future. The space
allowed the audience to build on, discuss with the youth and
create new meanings on the current issues. For instance, at
the bridge, lengthy discussion ended in discussing ‘early
childhood development’ and creating a ‘social contract’ to
better serve the people. Some of these topics never came up
during the engagement with the youth alone.

(2) Amplifying youth voices in current debates of colonialism
The exhibition was a good way to prove that the youth are
fully aware about the colonial past, present and future. And
not just ‘ungrateful, uninformed born-frees’ as they are
labelled by freedom fighters. In the exhibition, they
expressed how the past matters, but with a different twist
through showcasing their own representations of the past.
The participatory approaches used enabled the youth to
discover their own identities and cultures, and for once to
design alternative futures where different stakeholders can be
part of. The dialogic engagement with the museum audience
gave us an overview of what different people think of the
issues relating to postcolonialism. For instance, the youth
reacting that they are familiar with the problems and they do
not foresee change in the near future - requires serious
attention and at least their involvement in futures making.
Involving ordinary people who traditionally lack power is
empowering [28]. Also, the national TV and independent
newspaper reported on the exhibition thereby amplifying the
voices of the youth directly.

(3) Role of youth as agent in creating memories for the future
From the first group engagement, the youth created a
common goal to be ‘agents to bridge today for tomorrow’.
Thus, the exhibition contributed to reaching this goal because
the youth were able to engage the audience in the present
postcolonial discussions and how they can affect the future.
More materials and feedback were collected which we will
process for future work. In sum, this work opens up new
perspectives on engaging marginalized voices and
epistemologies in the design of interactive exhibitions,
addressing personal and collective memories of both past and
future value in contested context.

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