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UNIVERSITY OF THE
WITWATERSRAND,
JOHANNESBURG

Re-imagining African Storytelling Conventions within the Cinematic Virtual Reality Medium

by

Nkateko Nicole Langa

(1870979)

Dissertation

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Supervisor:

Tiisetso Dladla

July 2024

DECLARATION

I, Nkateko Nicole Langa, declare that this research is my own, unaided work. It is being submitted towards the Degree of Master of Film and Television by creative project and dissertation at the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree, or examination at any other University.



_____ _____(Signature of candidate)

On this 25th day of July 2024 in Pretoria.

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LIST OF ABBREVIATIONS AND ACRONYMS

VR	Virtual Reality
CVR	Cinematic Virtual Reality
IVR	Immersive Virtual Reality
IVBO	Illusion of Virtual Body Ownership
TWB	Travelling While Black
TUSAMC	The Untold Story of Africa's Middle Class

GLOSSARY

Tsonga A minority ethnic group native to South Africa, Mozambique and Zimbabwe.

XiTsonga An official South African language spoken by the VaTsonga and Shangaan people.

VaTsonga People belonging to the Tsonga ethnic group.

Shangaan A distinct ethnic group greatly influenced by Nguni tribes which emerged from the mixing of the Tsonga people with other tribes in the region due to the expansion of the Zulu Kingdom under Shaka Zulu in the early 19th century. Shangaan are mainly found in southern Mozambique and Limpopo, South Africa.

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ABSTRACT

In an advancing technological world, it is far-reaching to engage with the implications of the codes and conventions (re)produced by creative practitioners because of the indefinite possibilities accessible to them. Over the recent years, Virtual Reality (VR) in a cinematic context has orientated itself as a contemporary film practice enabling user agency through its immersive and interactive properties.

This dissertation through an Afrocentric framework critically explores the representation and consumption of African culture(s) and strengthening existing cultural experiences through the VR medium. It remains rooted in indigenous knowledge systems and knowledge production located as Afrocentric beyond the African continent. This study manifests as a creative output, a VR documentary titled, *AFRICA 360*. Moreover, this research addresses the representation of culturally rooted storytelling through a case study of the Tsonga ethnic group and its portrayal within VR. The study of the Tsonga people in South Africa is essential as they are a minority group that is underrepresented, stereotyped and marginalized. It further explores existing African storytelling conventions and how they can be re-imagined in the future. Insight offered from interviews with African VR experts invites a discourse around African VR cinema and innovative storytelling.

Additionally, the study examines the representation of African women in VR cinema through a techno-feminist perspective seeking to understand the mutual inclusivity of technology, gender and women. The impact of the historical and contemporary portrayals of VaTsonga women is analysed in relation to its culturally representative influence on empowering African VR narratives.

This study uncovers that Cinematic Virtual Reality (CVR) particularly in an African context may be strategically employed for the purpose of although not exhaustive knowledge re-discovery, cultural and heritage preservation, accessing African environments and to deconstruct long standing stereotypes and inaccurate representations to promote gender equality and social inclusion. Cultural representation brings to life aspects of culture that may be fading or misunderstood, allowing them to be experienced by a new generation and preserved for the future. Contemporary representations of culture offer diversified portrayals that resonate with audiences because of their creative adaptations which foster a renewed sense of pride and identity. And lastly, interviews with VR experts reveal how African CVR conventions are presently being re-imagined, drawing from select film texts. Re-imagined practices include: producing local content which caters for global audiences through 'glocalization', developing narratives which claim to be radically compassionate rather than empathetic, and exploring storylines inspired by African mythology and history.

This study advocates for the possibility for the development of an identifiable and distinct African VR cinematic experience. It will assist in the formulation of a progressive cinematic language and grammar for the making of authentic and decolonised African VR story.

Keywords:

Virtual Reality; Cinema; African Storytelling; Tsonga; Afrocentric; Cultural Representation

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CHAPTER 1: INTRODUCTION

1.1 Background

Virtual Reality (VR) as defined by Mandal (2013:304) is a technological advancement that enables individuals to engage with a computer-generated environment, whether it replicates reality or is entirely fictional. Cinematic Virtual Reality, abbreviated as "CVR", is an immersive virtual experience that allows users to explore computer-generated worlds in 360 degrees, often with stereoscopic visuals, and experience spatialized audio tailored to enhance the authenticity of virtual environments. Rossi et al. (2019:1) describes 360 video as systems which are "omnidirectional". There are visual signals displayed on a virtual sphere to show the surrounding scene from all angles. Viewers, positioned at the centre of the sphere virtually, can navigate the scene using three degrees of freedom (3-DOF). Within CVR, the term "cinematic" indicates the capability to capture images of higher resolutions, progressing from 2K to 4K and now 8K, aligning with advancements in digital filmmaking. The use of the cinematic prefix also raises considerations about incorporating dramatic narrative into this evolving medium (Ross & Munt, 2018:2).

Key players in CVR content production are based in regions with strong entertainment industry hubs, such as the United States, Canada, the United Kingdom, and South Korea. Companies like Oculus Studios, Jaunt VR, and Felix & Paul Studios are known for producing high-quality CVR content. CVR content production in Africa is still emerging, but there are some countries on the continent where CVR content is being created. South Africa, Nigeria, Kenya, and Egypt are among the countries where there is a growing interest in producing CVR content. These countries have a developing tech and entertainment industry, which provides opportunities for CVR content creators to explore innovative storytelling in VR.

Notable companies in this sector include BlackRhino VR, Imisi3D, Electric South and VRTEEK.

From the inception of VR cinema, film practitioners have been captivated by its broad storytelling prospects. This immersion has spurred an imperative for the African diaspora to assert its presence within this medium, both geographically and artistically, influencing the narratives crafted. Newell and Pype (2021:15) note the neglect of African stories is a longstanding concern in the portrayal of African cosmologies. The limited representation not only hinders the promotion of African heritage but also perpetuates cultural biases and stereotypes. The scarcity of African narratives in VR is stark, limiting the exposure and appreciation of African cultures globally. Yékú (2017) advises as a preventive measure to be "responsive to the vast domain of cultural productions available in the cultural spaces of the internet, since whether as either traditional or elite, as oral or literate, as indigenous or western in inspiration, popular culture in Africa straddles both and dissolves these distinctions" (Yékú, 2017: 270). He reflects on this issue, noting that the structure of digital media democratizes authorship yet also perpetuates traditional cultural representations, often reinforcing stereotypes and biases.

As Nkosinkulu (2021:59) defines, Afrocentricity is an "approach positioning Africans at the centre of their knowledge production, engaging the world through indigenous knowledge systems". This research particularly focuses on the Tsonga ethnic group as a case study, aiming to avoid broad generalizations to provide a specific African context. This dissertation adopts an Afrocentric perspective, aiming for a progressive representation of African people, cultures, and histories. It emphasizes African agency and viewpoints in interpreting the world, setting the study within an Afrocentric framework. Afrocentricity, as a philosophy,

stresses the importance of African culture and history in understanding contemporary issues and experiences of people of African descent. This inclusive approach encompasses all people of African ancestry, acknowledging their contributions to global history, culture, and society.

In alignment with my Afrocentric research methodology I will be reviewing CVR from an African diasporic perspective in respect to its African storytelling practices. My research references an African American CVR film, *Travelling While Black*. The film transports viewers into the deep-rooted history of limitations on movement for African Americans and the establishment of secure environments within neighbourhoods. By addressing the perception and discussion of race in the United States, this experience emphasizes the critical importance of acknowledging the past and sparking conversations about the ongoing obstacles encountered by black travellers (Meta, 2019). It underscores the power of celebrating African stories and the widespread impact of African people. The acknowledgment of African history is a central mandate of Afrocentricity, vital for any VR work claiming such a disposition.

This study will delve into VR within the African context, seeking innovative and effective ways to reimagine authentic African VR storytelling. This creative process aims to foster innovations in visualizations, conceptual frameworks, and theoretical underpinnings, aspiring to develop a dynamic and progressive Afrocentric cinematic language and grammar in VR.

1.2 Research Aims and Objectives

In our digital era, the significance of research studies like this is clear, given their potential socio-political impact. The rise of innovative technologies in the digital age has led to a surge

in demand for content, particularly in creative digital fields. Africa is leading the way in meeting this demand. This is attributed to its richly diverse stories and stunning landscapes, as well as its deep-rooted cultures and traditions dating back to the dawn of humanity. As noted by Buliva (2018:5), "it is also important that authentic local content is utilized if VR should lead to knowledge rediscovery". VR stands out as a promising medium to capture and preserve African experiences for younger generations to discover knowledge. Buliva (2018) further remarks, "for centuries, Africa's traditional forms of communication, and the preservation and promotion of local history, have relied on oral transmission from one generation to the next" (Buliva, 2018:6). The distinctive benefits of African VR content extend beyond local appreciation to create vast global opportunities, particularly in tourism, arts and culture, and digital technology sectors. It offers an immersive, interactive experience with environments at risk of disappearance due to environmental, governance, pollution, and infrastructural challenges. This study seeks to underscore relevance, social responsibility, and significance by aiming to explore African VR storytelling conventions and determine the cultural impact of African VR stories in shaping narratives.

As we proceed, the study will initiate actionable steps to achieve these objectives. It is important to note that the benefits of this research extend beyond the consumers of African VR content to its creators, urging them to adopt the most fitting and satisfying creative approaches. The study acknowledges the influence of audiences and funding bodies, including government entities, NPOs, and technology companies like *Meta*. This research aims to challenge and reshape the often harmful narratives associated with content strategies. These strategies may not always necessarily advance equitable race and gender representation or break down stereotypes and misinformation. Ultimately, this research intends to serve as

an educational archive and a reflective tool for those engaging with new technology, carrying the responsibility of guiding and enlightening future generations and content creators alike.

This research seeks to explore how CVR can be re-envisioned through a modern lens, focusing on decolonizing the gaze and integrating indigenous knowledge and African visibility. Decolonizing the gaze refers to challenging and dismantling the colonial viewpoints and power dynamics that may be present in traditional media representations. Through African visibility there is an amplification of the voices and perspectives of indigenous communities and African cultures within CVR experiences, to challenge dominant narratives and foster more diverse and inclusive representations. Overall, this research seeks to push boundaries in CVR by promoting a more inclusive, diverse, and culturally sensitive approach that values different perspectives and challenges historical biases.

This research examines the traditional cinematic techniques prevalent in VR filmmaking, aiming to challenge and reshape the current narrative in light of evolving creative technologies. This approach leads to the development of innovative African CVR content that is informed, responsible, and inventive.

The core questions guiding this research are:

a) How is VR cinema presented in an African context?
b) What effect does cultural representation have on viewers of African VR content?
c) How is African VR storytelling currently being presented and how can it be re-imagined?

As we consider VR from an Afrocentric perspective, it becomes essential to understand how definitions and orientations towards this technology might change to reflect context and cultural nuances. African scholars are called upon to actively engage with how these definitions can evolve and adapt as VR technology progresses, ensuring that it remains relevant and resonant with African cultural identity and values.

1.3 Research Scope and Limitations

My research investigates creative conventions and strategies within the realm of VR, focusing on elements like character tropes, world design, language, music, and plot lines through an Afrocentric lens. This study aims to enrich the field by offering a nuanced definition of African VR and presenting a wellspring of creative possibilities for storytelling by revisiting and reimagining existing conventions. I anticipate that this research will leave a lasting, sustainable impression in the field, backed by evidence from similar studies.

I am undertaking a qualitative inquiry to gain a deep understanding of VR cinema centred around African content. My exploration will dissect creative strategies and conventions in African VR through various methods as mentioned above. This research will pay particular attention to the storytelling and cultural conventions of the Tsonga ethnic group which I belong to, focusing on aspects like colour, customs, and music to ensure my documentary as a creative output is deeply rooted in a specific and authentic African context. This approach will be enhanced by case studies of the Tsonga group, continuously enriching the research with their culture, customs, and traditions.

My approach will be methodological and sequential, focusing on cinema and filmmaking within VR while acknowledging its use in other sectors like gaming, tourism and education.

This focused approach will allow for a more concentrated study in the field, although references to these other sectors will be made when relevant.

It is recognized that storytelling conventions from the Tsonga group offer a reflective point for all Africans, connecting geographically and culturally similar communities through shared visual and oral practices. However, the restricted geographic focus of this study means the findings will not be universally applicable across all African contexts due to cultural variances. Therefore, this study should be viewed as a point of reference rather than a comprehensive overview of African VR storytelling conventions. The study's contributions will provide a foundation in an area currently lacking extensive research.

The structure of my dissertation is laid out in chapters, each addressing different aspects of African VR. Chapter 2 situates VR in the African context, identifying unique attributes. Chapter 3 analyses cultural and cinematic conventions within the Tsonga community and their integration into VR narratives. Chapter 4 discusses gender and social inclusion, particularly focusing on VaTsonga women's experiences with technology, feminism, and patriarchy. Chapter 5 conducts a rigorous film analysis of African VR documentaries. Chapter 6 reviews literature on VR in Africa within broader conceptual frameworks such as ethnography, techno-feminism, representation and ethics. Chapter 7 presents interviews with VR experts and explores their insights into innovative filmmaking. The final chapters extensively discuss the research design and methodology within an Afrocentric framework and conclude by summarizing findings, acknowledging the study's limitations, identifying gaps in literature, and suggesting directions for future research.

Overall, this study seeks to invigorate the field of African VR cinema by integrating traditional storytelling practices and pioneering new conventions, all while critically evaluating this culturally rich and evolving landscape.

CHAPTER 2: VIRTUAL REALITY IN THE AFRICAN CONTEXT

2.1 Introduction

This chapter delves into the transformative power of VR situated against the backdrop of an African landscape with reference to existing VR projects in the region. Within this captivating exploration, four sub-chapters emerge as beacons of cultural representation, each unveiling a distinct facet of VR's influence. Knowledge re-discovery in VR is presented as a tool for African communities to reclaim their heritage, reigniting a sense of pride and identity long forgotten. The preservation and promotion of cultural treasures is examined as VR transcends physical boundaries, allowing global audiences to engage with the rich tapestry of African traditions and history in immersive and awe-inspiring ways. It ventures into inaccessible African environments, from remote locations to endangered ecosystems, as VR provides a gateway to exploration and conservation efforts that were once out of reach. Lastly, it portrays the ground-breaking potential of VR to challenge and dismantle the stereotypes that have plagued African narratives for far too long. Authenticity becomes foundational as VR becomes a platform for genuine stories, dismantling misrepresentations and paving the way for more inclusive, diverse, and accurate African VR storytelling practices. Through meticulous analysis and discussion, this chapter illuminates the untapped potential of VR technology, shaping a new era of cultural representation and understanding in the African context.

2.2 Virtual Reality for Knowledge Re-discovery

VR in Sub-Saharan Africa presents transformative potential for reshaping the landscape of education and cultural representation, particularly in African VR cinema. The integration of VR into educational and cultural spheres leads to a re-discovery of knowledge, offering

immersive and engaging experiences that significantly enhance learning and cultural representation.

Virtual Reality and knowledge rediscovery in Sub-Saharan Africa: A review of literature (Buliva, 2018) provides valuable insights into this phenomenon. It articulates that VR, as an educational tool, can address significant challenges in the region, such as "high expenses for students attending brick-and-mortar schools; the long distances learners must travel to access these schools; the lack of learning materials like books and writing instruments; and few educational technology professionals" (Buliva, 2018:1). This assessment underscores the potential of VR in transcending traditional educational barriers, thereby facilitating knowledge re-discovery and lifelong learning.

The academic discourse on African VR cinema emphasizes its role in improving cultural representation. VR's ability to offer rich, multi-modal experiences aligns with the observation that "students learn best when they enjoy a rich multi-modal experience... Virtual Reality offers this experiential learning which often requires mental and physical engagement, appropriate amounts of challenge, and an appropriate pedagogical framework for learning to be effective" (Buliva, 2018:2). In cultural representation, VR provides a platform for African storytellers to depict their narratives authentically, thus fostering a deeper understanding and appreciation of African cultures.

Moreover, Buliva asserts the potential of VR in overcoming infrastructural challenges in education and cultural sectors. He identifies "poor digital infrastructure, insufficient and unreliable supply of electricity, high prices of VR hardware, inadequate bandwidth, and few trained personnel" (Buliva, 2018:2) as significant impediments to the widespread adoption of

VR in Sub-Saharan Africa. However, despite these challenges, VR still emerges as a promising tool for education and cultural representation, providing avenues for knowledge rediscovery and immersive experiences that traditional methods may not offer. In African VR cinema for storytelling and cultural representation can lead to a renaissance of African narratives. The immersive nature of VR enables audiences to experience African stories in a more engaging and impactful manner, potentially leading to a greater appreciation and understanding of African cultures. This is particularly important in a global context where African cultures have often been underrepresented or misrepresented. XiTsonga is a good example of this as one of the least spoken indigenous languages in South Africa (Chauke, 2020). Casting more Tsonga speaking actors in CVR films would provide more diversified portrayals of South African culture and increase Tsonga visibility. Although, the overall numbers of VR users remain relatively low compared to viewers of traditional 2D content. Even if the narrative is not exclusively centred around Tsonga culture, the inclusion of the Tsonga language in everyday storylines is impactful in representing a minority group. This could help non-Tsonga speakers learn the language or native Tsonga speakers refine their vocabulary and pronunciation.

VR's potential in Sub-Saharan Africa, particularly in the realm of education and African VR cinema, is significant. It offers an innovative approach to knowledge rediscovery and cultural representation, overcoming traditional barriers and delivering immersive and engaging experiences. While challenges remain in infrastructure and accessibility, the transformative power of VR in these sectors is undeniable, opening new frontiers for education and cultural expression in the region.

2.3 Virtual Reality in the Preservation and Promotion of Cultural Heritage

CVR emerges as an ingenious medium for the preservation and promotion of cultural heritage, as well as an effective tool in enhancing cultural representation. This review draws upon insights by Lockwood by delving into the multifaceted ways VR can aid in the preservation and promotion of cultural heritage, particularly within the African context.

There is an evident lack of representation in the cultural heritage of the Tsonga ethnic group in VR research studies. Manganye (2011) warns that research is urgently required to determine the most effective methods for preserving vanishing traditional Tsonga music. He advises that further studies should focus on gathering, transcribing, and documenting this indigenous music promptly to address this problem. VR could be an immersive and interactive medium to preserve Tsonga music as a relevant example. On a practical level Tsonga traditional music can be included into the musical scores of CVR films to enhance narratives and the instruments used as backtracks to enhance emotive scenes or events such as celebrations and grief. The sound of the music or instruments could even be spatialized to create the illusion that the sound is coming from a specific location. This can provide directional cues and improve user interaction aiding in navigation, indicating the presence of objects or characters, or enhancing the realism of interactive environments. In CVR, spatializing sound is not always a necessity; rather, its strategic use is key for effectively communicating specific messages.

The accessibility of VR on personal computers has been a game changer, opening doors to a wide user base. Lockwood notes, “the availability of VR on PCs...has made access possible for a large number of users” (Lockwood, 2002:1). This democratization of technology is

pivotal in contexts where traditional methods of cultural preservation and education may be limited or inaccessible.

VR stands out for its capacity to transcend traditional educational barriers. In many African communities, literacy challenges can hinder the dissemination of cultural knowledge. VR's interactive and visually driven nature addresses this gap effectively. Lockwood points out, "VR...offers a new way to visually communicate ideas, skills, and knowledge in a way that overcomes literacy barriers" (Lockwood, 2002:1). This characteristic of VR enables a more inclusive and equitable approach to cultural education and representation.

The interactive nature of VR, where users can both view and manipulate their environment, makes it a powerful tool for cultural education. As Lockwood describes, "VR allows for intuitive real-time interaction supported by an intelligent realistic 3D environment" (Lockwood, 2002:1). This interactivity is not just about viewing cultural artifacts or historical recreations; it is about engaging with them, providing a deeper understanding and appreciation of the culture. VR's effectiveness in overcoming communication barriers is particularly notable. Lockwood observes that VR is "both context rich and concept rich as well as visual in experience" (Lockwood, 2002:4). In regions with significant functional illiteracy, some parts of Africa such as Nakaseke, Uganda where "60% of the community are functionally illiterate" (Lockwood, 2002:5), VR becomes a fundamental tool for education and training. However, it is also crucial for external factors such as the accessibility of VR headsets and reliable internet connectivity to be taken into account.

Moreover, VR offers an exceptional way to capture and promote African heritage and culture. Through immersive experiences, VR may vividly portray historical events,

traditional practices, and cultural narratives. This not only helps in preserving these elements for future generations, but also in presenting them on a global stage, thereby enhancing cultural representation and appreciation. Lockwood emphasizes the potential of VR in capturing "African history, its rich heritage, and lost cultures" (Lockwood, 2002:6). The integration of VR into educational and cultural sectors, as highlighted by *UNESCO's* collaboration with the *Naledi3D Factory*, demonstrates the growing recognition of its potential. Such initiatives pave the way for a more inclusive and effective approach to cultural preservation and education, harnessing the power of technology to bridge gaps and bring diverse cultures to the forefront of global awareness.

CVR not only serves as a medium for entertainment but, more importantly, as a powerful tool for cultural preservation and representation. Its ability to overcome literacy barriers, provide interactive and context-rich experiences, and visually recreate cultural heritage makes it an invaluable asset in the global effort to celebrate and maintain the rich diversity of African cultures.

2.4 Virtual Reality as a Tool for Accessing African Landscapes

VR has remodelled accessibility to African spaces in enhancing cultural representation in the realm of African cinema. This innovative technology creates an immersive experience that can transport viewers to various African environments, providing a unique and engaging way to experience and understand diverse cultures and landscapes.

Tourism and Virtual Reality (VR) in Developing Nations asserts, "VR can serve as a persuasive marketing tool for tourism stakeholders, especially in developing nations like Nigeria" (Chike & Jude, 2020:1). This approach could be instrumental in CVR, where VR's ability to simulate realistic environments enables filmmakers to recreate authentic African

settings. By doing so, VR cinema can offer audiences worldwide a more nuanced and accurate portrayal of African cultures and environments, which are often underrepresented or misrepresented in mainstream media.

Anthony and Bellinger's (2007:148) study reveals that while previous research has focused on Tsonga communities using different plants and the economic significance of specific species in rural South Africa, there has not been a study comparing the use and significance of both wild plants and animals, or in relation to different landscape areas in the former Gazankulu homeland. A focused study addressing this theoretical and empirical research gap would be useful in informing CVR narratives on the Tsonga ethnic group. Identifying prevalent landscapes as indicated in the study is critical for this because we cannot access, explore or represent what we are unaware of. This research can be used to inform future CVR films and narratives adding value to a prevalent research gap that solves a real-life problem.

Moreover, the immersive nature of VR cinema allows for a deeper connection with the content, fostering empathy and understanding among viewers. For instance, the study suggests that VR's application in Nigeria's tourism sector comes with both gains and losses, such as "tourism planning and promotion, preservative and conservative values, security challenges, and the tainted image of Nigeria favouring the use of VR" (Chike & Jude, 2020:1). In a similar vein, VR cinema can bypass these challenges by providing a safe, controlled environment for exploring African spaces, free from the concerns of physical travel.

Furthermore, VR cinema can democratize access to African environments. Typically, travel to various African destinations can be limited by factors like cost, distance, and accessibility.

However, with VR people from all over the world can virtually visit these places without leaving their homes, thereby promoting global awareness and appreciation of African cultures. This accessibility can be particularly beneficial for educational purposes, allowing students and researchers to explore African heritage sites, natural landscapes, and cultural events in a virtual space.

Additionally, VR cinema can contribute to the preservation of African environments and cultural sites. VR can "limit the number of physical visitors to a destination, conserving the integrity of the ecosystem" (Chike & Jude, 2020:8). By capturing these environments in VR, filmmakers can create a permanent, sustainable record that can be experienced by future generations, ensuring that these precious sites are not lost to time or environmental degradation.

CVR offers a promising avenue for enhancing cultural representation and accessibility to African spaces. In its provision of immersive, realistic experiences of diverse African environments and cultures, VR cinema has the potential to educate, inspire, and connect audiences worldwide, fostering a greater appreciation and understanding of the rich heritage and beauty of the African continent. The application of VR in the tourism sector as Chike and Jude (2020) interrogate underscores the vast potential of this technology in reorienting how we experience and interact with different cultures and environments.

2.5 Deconstructing Harmful Stereotypes in African VR Narratives

The premise of this research study is the Tsonga ethnic group as a central case study. It is known to many that people identifying as Tsonga have been subjected to stereotypes, name calling and ill treatment. Madlome (2022:4) asserts that numerous stereotypes linked to

VaTsonga have gone unrecognized as a potential danger to their feelings of acceptance and self-worth. Some of these labels (various Tsonga clan names) were employed by other black individuals as a means of exclusion. The impact of VR on cultural representation, particularly in African VR cinema, of VaTsonga is thus a subject of significant interest and relevance. Progressive and inclusive CVR films about VaTsonga combating these stereotypes would offer an alternative perspective about how the world views VaTsonga. The study *Drumming in Immersive Virtual Reality: The Body Shapes the Way We Play* offers insightful observations on how VR can deconstruct harmful stereotypes and enhance cultural representation.

The study demonstrates that when participants engaged in a drumming task in Immersive Virtual Reality (IVR), their body movement patterns varied significantly based on the appearance of their virtual body. "Caucasian participants, when represented by a casually dressed dark-skinned avatar, exhibited higher variation and frequency of movement while drumming on an African drum, compared to their representation by plainly shaded white hands or a light-skinned formally dressed avatar" (Bergstrom, Kilteni & Slater, 2013:7). This finding is pivotal as it illustrates that the perception of one's virtual body can substantially influence their behaviour, aligning with the context of the activity. Such results inform the capacity of VR to foster a deeper understanding and appreciation of different cultures by allowing individuals to virtually embody and experience aspects of these cultures. Other external factors related to our lived experiences, biases and psychological state may also inform behavioural changes when embodying the other.

The study carefully addresses potential confounding factors. It rules out the possibility that participants were merely conforming to expected behaviours or that the results were a mere

artifact of the experimental setup. For instance, the path analysis showed no dependency between the illusion of body ownership and the condition (casual dark-skinned versus formal light-skinned), suggesting that these behavioural changes were not influenced by participants' preconceptions or biases. Moreover, the study highlights the broader implications of virtual body representation in cognition and behaviour. The use of VR in this context offers a platform to systematically explore how different forms of body representation can influence an individual's actions and attitudes. This approach is not only transformative for the realm of entertainment and arts, but also has significant implications for psychological empathy training, educational applications, and rehabilitation. In embodying avatars with different characteristics, individuals can gain insights into experiences and perspectives that are distinct from their own, thus promoting a more inclusive and empathetic understanding of diverse cultural backgrounds.

In the context of African VR cinema, this technology presents a unique opportunity to challenge and deconstruct stereotypes. By allowing viewers to immerse themselves in narratives and perspectives that are often marginalized or misrepresented, VR can foster a more nuanced and authentic understanding of African cultures and experiences. This technological advancement in storytelling not only enhances cultural representation but also serves as a powerful tool in combating the pervasive influence of harmful stereotypes, contributing to a more inclusive and diverse Afrocentric cinematic landscape.

2.6 Conclusion

This discussion has delved into the profound implications of VR for cultural representation in Africa. Through the exploration of four sub-chapters, this research has shed light on the power of VR technology in various aspects of African culture. VR has emerged as a potent

tool for knowledge re-discovery, allowing African communities to reclaim their heritage and foster a renewed sense of pride and identity. Additionally, VR has demonstrated its potential in the preservation and promotion of African cultural heritage, transcending physical boundaries and providing immersive experiences that connect global audiences with the richness of African traditions and history. The chapter has also highlighted the ground-breaking role of VR in accessing otherwise inaccessible African environments, enabling exploration and conservation efforts in remote locations and endangered ecosystems. Furthermore, VR has proven to be a powerful platform for deconstructing African stereotypes, offering an avenue for authentic narratives and countering misrepresentations prevalent in mainstream media. This chapter has underscored the significance of these sub-chapters in shaping a more inclusive and accurate African VR landscape.

Leveraging VR technology, African cultures can be authentically represented and understood, fostering cultural exchange and appreciation. Overall, this research contributes to the academic discourse on VR's transformative potential in cultural representation, serving as a testament to the immense possibilities that lie ahead in the realm of VR in the African context.

CHAPTER 3: AFRICAN VIRTUAL REALITY STORYTELLING CONVENTIONS – A CASE STUDY ON THE TSONGA ETHNIC GROUP

3.1 Introduction

This chapter embarks on an exploration of the profound significance of African VR storytelling conventions. Each sub-chapter sheds light on key principles – colour, sound, movement and light – integral to the art of storytelling in the VR format, and their specific relevance is explored within the context of Tsonga cultural traditions. The first delves into the importance of light, in the form of fire, a symbolic element, as it plays a crucial role in upholding cultural taboos for VaTsonga women. It is followed by an examination of the intricate relationship between the bright colours VaTsonga are popularly known for, and cultural symbolism in unravelling the impact of hues on narrative. Thereafter is an exploration of the enchanting and alluring power of sound illustrating how traditional instruments and music elevate immersion in African VR story. Lastly, the significance of traditional dance and movement in capturing the essence of Tsonga celebrations is uncovered. The role of the xibelane (traditional Tsonga skirt) in conveying emotions and cultural expressions within the VR narrative is analysed. In dissecting these sub-chapters, this chapter aims to illuminate the key principles and cultural nuances that contribute to effective storytelling in the VR format, with the Tsonga ethnic group serving as a compelling case study.

3.2 Respecting Taboo's and Adhering to Cultural Practices

African storytelling, particularly in VR, provides a unique opportunity to preserve and celebrate cultural heritage. In the context of VaTsonga and their oral traditions, respecting taboos and adhering to cultural practices play a crucial role. One specifically being the element of fire. Fire, in the Tsonga tradition, is not just a physical entity but a symbol laden

with cultural and spiritual significance. This is evident in the taboos related to fire as outlined in Malungana's (1999) work on Tsonga oral tradition.

One such taboo is the prohibition for a recently confined woman (Ntswedyana) from cooking on fire, a practice believed to cause swelling of the stomach (U kukumuka khwiri) and potential harm to the child (N'wana a nga tshwa) (Malungana, 1999:42). This taboo extends beyond mere superstition; it embodies a deep understanding of postpartum care and child safety, integrating these concerns within the cultural fabric. Another taboo forbids fetching fire from a hearth in other villages (Ku oka ndzilo emitini), as it is believed to invite witches unknowingly (U nga rhamba valoyi) and risk burning the veld or houses (U nga hisa nhova/tiyindla) (Malungana, 1999:42). This taboo highlights the importance of community boundaries and the respect for the sanctity of one's home and space. It is not just about the physical fire; it is about what the fire represents – safety, community, and spiritual purity.

In enhancing African storytelling through VR, particularly Tsonga narratives, these taboos surrounding fire provide a rich tapestry of symbolism and meaning. Fire, as a form of light, is a vital element in VR storytelling. It can be used to create immersive environments that reflect the cultural importance of fire in Tsonga and other African cultures. By adhering to these taboos, VR can offer a respectful and authentic representation of African traditions, ensuring that the stories told are not just visually captivating but also culturally meaningful. Furthermore, integrating these cultural practices in VR storytelling serves an educational purpose. It introduces global audiences to African traditions, providing insights into the complex and rich tapestries of African societies. For the African audience, especially the younger generation, it is a way of connecting with their heritage in a medium that is equally contemporary and engaging.

The enhancement of African storytelling in VR, using the element of fire as a central theme, offers a powerful medium for cultural expression. Through respecting taboos and adhering to cultural practices, such as those from the Tsonga tradition, VR storytelling can become a bridge between the old and the new, preserving African heritage in the digital age. This approach not only enriches the storytelling experience, but also ensures cultural preservation and education, making it an essential consideration in the development of VR content focused on African narratives.

3.3 Colour Theory and its Cultural Significance

Colour theory, a vital element in visual storytelling, takes on a unique significance when applied to the vibrant and floral traditional attire of the Tsonga culture, especially in the realm of CVR. *Translating the Traditional Designs for Shangaan Embroidery* provides a rich context for understanding how colour theory is deeply embedded in Tsonga culture. The Shangaan are primarily the result of the mixing of the Tsonga people with other tribes in the region due to the expansion of the Zulu Kingdom under Shaka Zulu in the early 19th century. This mixing occurred predominantly in what is now Mozambique and parts of South Africa. The term “Shangaan” is derived from Soshangane, who was a notable leader during this period. Due to their deep historical and cultural connection similarities are maintained in Tsonga and Shangaan cultural practices such as clothing, language, dance forms, and many other cultural expressions.

In some VR works, colour is more than a visual component, it is a storytelling principle which prompts users to look in a particular direction in a VR experience. VaTsonga, popularly known for their brightly coloured traditional attire, offers a compelling case study. Taljaard highlights the importance of colour in Shangaan embroidery, a key aspect of Tsonga and Shangaan attire. For instance, the first category of mincéka (singular - nceka), traditional

Shangaan attire, consists of squares of brightly-coloured fabric with dashing patterns (Taljaard, 1994:32), underscoring the role of colour in cultural expression. The use of vibrant colours and patterns reflects not just an aesthetic choice but a cultural narrative, embodying the spirit and identity of the Shangaan people.

This cultural significance of colour in Shangaan attire can be powerfully translated into VR cinema, especially in African stories. In VR environments, colour can be used to evoke emotions, signify cultural identity, and guide narrative flow. The rich colour palette of Shangaan attire can create immersive and emotionally resonant experiences in VR, allowing users to engage deeply with African stories. The discussion of the embroidery project initiated by Irma van Rooyen illustrates how traditional Shangaan designs and colours have been adapted to modern contexts, suggesting a similar potential for VR storytelling.



Figure: 3.3.1 Traditional Tsonga Ncheka (Taljaard, 1994:32)



Figure: 3.3.2 Traditional Tsonga Ncheka (Taljaard, 1994:32)

Moreover, the use of colour in VR storytelling is not just about visual appeal; it is a tool for cultural preservation and education. Incorporating the vibrant hues and patterns characteristic of Shangaan culture, VR experiences can educate a global audience about African heritage

and traditions. There is an emphasis on the importance of preserving traditional skills amidst modernization (Taljaard, 1994:32), a principle that can be extended to VR cinema as a means of cultural preservation.

The Shangaan culture, with its emphasis on bright, floral attire offers a compelling template for the use of colour in VR storytelling. Colour in Shangaan attire moves beyond an aesthetic choice; it is a reflection of cultural identity and narrative. Harnessing the power of colour in VR cinema, storytellers can create immersive experiences that not only entertain but also educate and preserve the rich cultural heritage of Africans. This approach reinforces the potential of VR as a medium for cultural storytelling, where colour becomes a bridge connecting traditional art forms with contemporary digital narratives.

3.4 Embracing Traditional Instruments and Sound

The integration of African traditional instruments and sounds, particularly from the Shangaan and Tsonga ethnic groups, into VR experiences presents an intriguing opportunity to enrich storytelling and immerse users in a culturally authentic environment. This concept resonates profoundly with the principle of sound as a cornerstone in VR storytelling, guiding users through an exploratory journey of African ethnic diversity and heritage.

Shangaan and Tsonga music, with its broad range of indigenous instruments like chordophones, aerophones, membranophones, and idiophones, offers a rich tapestry of sounds that can be intricately woven into VR narratives (Johnston, 1985:283). The xizambi (notched friction bow), xitende (braced gourd-bow), xipendana (thick-handled bow), and

mangala (hollow cane-bow), each with their unique sound profiles, could be employed to create immersive soundscapes in VR experiences (Johnston, 1985:283). The use of these instruments in social and ceremonial contexts, such as the social beer-drink or the khomba initiation rites, underscores their potential to convey cultural stories and rituals within a VR setting.

The aerophones, such as the mhalamhala (kudu antelope horn) and xiringo (three-hole transverse flute) (Johnston, 1985:283), offer distinct sounds that can be integrated into VR to simulate the natural and social environment of the Tsonga people. These instruments not only provide musicality but also carry symbolic meanings and social functions that can enhance the narrative depth of VR experiences.

Membranophones like the ncomane (herbalist's drum) and ngoma (large drum used in social gatherings)((Johnston, 1985:284) can be utilized to create rhythmic backdrops, grounding users in the communal and celebratory aspects of Tsonga culture. The idiophones, including the mohambi (xylophone) and marhonge (leg-rattles) (Johnston, 1985:284), add layers of complexity to the sound environment, potentially guiding VR users through different scenarios and emotional states.

The use of these instruments in VR can go beyond mere auditory experience; it can be a medium to impart cultural knowledge and storytelling. The specific sounds and their associated cultural contexts can guide users through a narrative, making them active participants in the experience. For instance, the sound of the xizambi could indicate a gathering or a council meeting, while the rhythmic beats of the ngoma might signal a celebration or dance.

Furthermore, the inclusion of these traditional sounds in VR can be a significant step towards preserving and promoting African cultural heritage. It offers an interactive platform to experience and understand the rich musical traditions of the Tsonga and other African ethnic groups. This approach not only enriches the VR experience but also serves an educational purpose, fostering a deeper appreciation of the diversity and complexity of African cultures.

Embracing African traditional instruments and music, particularly from the Shangaan and Tsonga culture, into VR experiences presents a unique opportunity to enhance storytelling through sound. This approach immerses users in a foreign sonic environment but also educates and connects them to the rich cultural heritage of Africans. Integrating these traditional sounds into VR narratives, we can create more vibrant, and culturally authentic African VR experiences.

3.5 Celebratory Customs: Movement and Dance

The importance of movement in the form of dance as a VR storytelling convention to advance African narratives, particularly through the use of the xibelane, a Tsonga traditional skirt, is a multifaceted topic that bridges cultural heritage, technological innovation, and artistic expression.

Dance, as a dynamic form of storytelling, has always been central to African cultures, serving as a repository and transmitter of collective memory, social norms, and spiritual beliefs. In the context of VR, dance takes on a new dimension, offering immersive and interactive experiences that can profoundly influence the audience's understanding and appreciation of African narratives. The xibelane, with its distinctive appearance and movement, plays a crucial role in this regard. Mukwevho and Khosa assert that the xibelane is not just a garment but a symbol of cultural identity and emancipation, particularly among the Tsonga people of South Africa. It represents an "emancipated social identity" (Mukwevho & Khosa, 2018:59) that communicates one's standing in the community and belonging to one's culture.



Figure: 3.5.1
Xibelane, Tsonga Traditional Skirt.



Figure: 3.5.2
Unwrapped Xibelane, Tsonga Traditional Skirt

Integrating such culturally rich elements into VR experiences brings authenticity and depth to the storytelling. The xibelane's unique design, characterized by its vibrant colours and layered, flowing structure, enhances the visual appeal of dance movements, making them more captivating in a virtual environment. This aspect of visual allure is crucial in VR, where the engagement of the senses directly impacts the user's experience.

Furthermore, the use of traditional dance forms like those performed with the xibelane in VR storytelling not only entertains but also educates. It serves as a conduit for cultural transmission, especially important in an era where globalization threatens the survival of many indigenous practices. Through VR, users from around the world can experience the rich tapestry of African cultures in a way that is both respectful and engaging. This is particularly significant for the African diaspora and younger generations, who might be physically removed from their ancestral cultures.

The academic significance of using dance in VR for African narratives lies in its potential to challenge prevailing stereotypes and misconceptions about African cultures. It provides a platform for African voices to tell their stories authentically and creatively. The incorporation of elements like the xibelane skirt in VR experiences can foster a greater appreciation for the complexity and diversity of African cultures. It also opens up new avenues for Afrocentric research in fields such as ethnography, cultural studies, and digital humanities.

In conclusion, the use of dance, exemplified by the xibelane, as a VR storytelling principle is vital in advancing African narratives. It not only keeps VR experiences entertaining but also plays a crucial role in cultural preservation and education. This innovative intersection of technology and tradition presents a unique opportunity to celebrate and disseminate African

heritage in the global digital landscape. The above discussion argues, traditional attire like the xibelane is more than just clothing; it is a powerful symbol of identity, history, and cultural pride that can resonate deeply within Afrocentric VR storytelling frameworks.

3.6 Conclusion

This chapter has explored the significance of African VR storytelling conventions within the Tsonga ethnic group. The discussion has shed light on the fundamental principles and cultural nuances that contribute to effective storytelling in the VR format. The importance of light as a symbolic element was demonstrated in its role in upholding cultural taboos and respecting the values of the Tsonga ethnic group. The intricate relationship between colour and cultural symbolism, emphasized the impact of hues on narrative immersion and cultural representation. The transformative power of sound, revealed how traditional instruments and music enhance the storytelling experience, evoking emotions and connecting audiences with the Tsonga cultural heritage. Lastly, the significance of movement and dance in capturing the essence of Tsonga celebrations, highlighted their role in conveying cultural expressions and fostering a sense of unity. Through the analysis of colour, sound, light and movement as VR design principles, this chapter has provided valuable insights into the key principles of storytelling in the VR format, specifically within the context of the Tsonga ethnic group. The findings from this research contribute to the growing body of knowledge on VR storytelling conventions, offering a deeper understanding of the cultural intricacies and creative possibilities that can be harnessed in Afrocentric VR storytelling.

CHAPTER 4: TECHNO-FEMINISM AND VATSONGA WOMEN

4.1 Introduction

Techno-feminism is a theoretical framework that seeks to explore the intersection of technology, feminism and gender. It is based on the idea that technology is not neutral and has the potential to perpetuate gender inequality. Altogether, adopting techno-feminism in VR means being mindful of the gendered implications of technology and using VR to promote gender equality, inclusivity, and diversity. Murove (2018) investigates an Afrocentric globalised world through indigenous knowledge systems. They argue that "in a multicultural and globalised world, the indigenisation of knowledge production has to be pursued in a way that demonstrates an element of inclusivity" (Murove, 2018:1). This section demonstrates how gender and social inclusion can be adopted in narratives that portray VaTsonga women.

This chapter delves into the profound significance of cultural representation in VR in relation to the theoretical framework of techno-feminism. It aims to examine the experiences and narratives of VaTsonga women, focusing on their history, representation in media, and the societal and traditional roles they play in Tsonga culture. Furthermore, it seeks to shed light on the existing gender inequalities within the Tsonga culture and how VR can be utilized as a powerful tool to ameliorate the representation of VaTsonga women in new media.

It provides the historical context of VaTsonga women's involvement in leadership roles and positions of power within their communities. By exploring their contributions and achievements illustrating the resilience and agency of VaTsonga women throughout history. It proceeds to critically examine the portrayal of VaTsonga women in contemporary media, with a specific focus on the iconic figure, Sho Madjozi. It further analyses the ways in which

popular culture can either reinforce or challenge stereotypes, and how VR can provide a platform for more authentic and diverse representations of VaTsonga women. The fourth sub-chapter explores the unique contributions and cultural significance of women in Tsonga society. Through examining their roles in rituals, ceremonies, and community-building, this sub-chapter aims to highlight the invaluable contributions of VaTsonga women to their cultural heritage. The chapter concludes with a critical examination of the existing gender disparities within the Tsonga culture, addressing issues such as access to education, economic opportunities, and decision-making power. It addresses the need for gender equality and the potential of Afrocentric VR as a transformative tool to challenge and overcome these inequalities.

This chapter demonstrates how VaTsonga women's history, media representation, cultural roles, and gender inequalities contribute to the larger discourse on cultural representation in VR. In exploring these themes through the lens of techno-feminism, this chapter advocates for a more inclusive and diverse VR landscape that empowers VaTsonga women and promotes gender equality.

4.2 The History of VaTsonga Women in Leadership and Power

Techno-feminism in African VR storytelling represents a nuanced intersection of technology, feminism, and African narratives, fostering inclusivity and challenging traditional power dynamics. This review explores its impact, particularly in relation to the history of VaTsonga women in leadership, focusing on the story of Hosi N'wamitwa II, a paramount leader among the VaTsonga people.

Hosi N'wamitwa II's journey to leadership was marked by significant challenges rooted in gender-based discrimination. As a woman, she faced opposition from within her own royal family, which argued against her succession solely on the basis of her gender (Masenya, 2016:3). Her story reflects a broader patriarchal mindset within African societies, as evidenced by the Northern Sotho or Sepedi proverb, which suggests that female leadership could lead to disastrous outcomes. "*Tša etwa ke ye tshadi pele, di wela ka leope*, literally translated as once they are led by a female one, that is, a cow, they will fall into a donga" (Masenya, 2016:1). Such entrenched gender biases have historically marginalized women, relegating them to subordinate roles and perpetuating the notion that they are incapable of effective leadership.

However, Hosi N'wamitwa II's story is also one of triumph over these patriarchal constraints. Her eventual assumption of power, following a legal battle that respected the principles of human rights and democracy, marked a historic moment for the VaTsonga nation as she became its first female ruler (Masenya, 2016:3). This victory is significant not only for the VaTsonga community but also for the broader African context, where women's leadership in political spheres has often been limited due to patriarchal ideologies.

The significance of techno-feminism in this context lies in its ability to reshape narratives and challenge existing power structures through innovative storytelling methods. Through the integration of VR technology, African storytellers can create immersive experiences that vividly bring to life the stories of influential women like Hosi N'wamitwa II. This not only educates audiences about important historical figures, but also serves as an inspirational tool for current and future generations of African women.

In the broader scope of African history, female leadership has been evident, albeit not always recognized or celebrated. "The Asante Queen Mothers of Ghana, the Zulu Queen Mother Mkabayi kaJama, and the Modjadji - the Lovedu Rain Queen" (Masenya, 2016:7), are examples of powerful women whose leadership played crucial roles in their respective societies. These historical precedents highlight the potential for women to lead effectively, countering the prevailing patriarchal narrative.

Techno-feminism in African VR storytelling thus serves as a critical medium for revaluating and redefining female leadership within African societies. It allows for a reclamation of history from the perspectives of those who have been historically marginalized. This reclamation is not merely about retelling stories; it is about restructuring the narrative frameworks that define power, leadership, and gender roles.

In conclusion, the exploration of techno-feminism in African VR storytelling, particularly in relation to VaTsonga women's history, is a potent tool for promoting inclusivity and challenging long-standing gender biases. The story of Hosi N'wamitwa II, against the backdrop of traditional African proverbs and societal norms, underscores the necessity of redefining leadership narratives and embracing the potential of technology to empower and inspire.

4.3 The Representation of VaTsonga Women in Contemporary Media: Sho Madjozi

Techno-feminism, a synergy of technology and feminist theory, fosters inclusivity and representation in various domains, including VR and media. In the African context, this concept is vividly embodied in the works and public persona of Sho Madjozi, a South African artist known for her profound cultural expression, particularly of the VaTsonga women.

Eventhough et al. (2020:89) asserts “observations and interviews revealed that this is one of the major challenges facing the Vatsonga. It was noted that they lack this representation and visibility in terms of pressure groups to represent and safeguard their own ethnolinguistic interests”. Madjozi’s artistry and public image are not just a showcase of talent but also a vibrant platform for cultural representation, significantly resonating with techno-feminism’s ideals of employing technology for empowerment and visibility.

“Cultural products reflect society and its values and also influence society. As artists are products of their societies, it is only to be expected that they would in their creations embody the values, both negative and positive, of their societies” (Asiedu & Ampofo, 2012:9). In *TechnoCapitalism Meets TechnoFeminism: Women and Technology in a Wireless World*, the intertwining of technology and feminism is explored, emphasizing how technology can be a vehicle for feminist expression and liberation. This notion is evident in African VR storytelling, where technology becomes a medium for cultural narratives, challenging stereotypes and broadening the representation spectrum. It can be said that as an artist she is, “an exacerbation of the modes of representation that still cannot come to terms with the political expectations of the collective autodetermination” (Baizabal, 2023:112). Madjozi, through her music and public image, contributes to this narrative, offering a fresh, dynamic representation of African culture and women, specifically VaTsonga women, a politically and socially marginalized group. Her unique blend of traditional Tsonga elements with modern musical styles exemplifies this blend of cultural heritage and contemporary expression.

Madjozi’s work is a testament to the power of embracing one’s heritage in a globalized world. Her decision to rap in XiTsonga was not initially seen as significant, however it led to substantial cultural impact, transcending local boundaries and garnering international

attention (Hadithi Africa, 2019). “The amount of pressure and pertinent attention that are engineered by this group [SABC] to ensure a fair representation of Xitsonga are very minimal, if not non-existent” (Eventhough et al., 2020:89). This aligns with techno-feminist perspectives on using technology and media to amplify marginalized voices, ensuring their stories and identities are heard and appreciated worldwide.

Moreover, Madjozi’s fashion sense, particularly her use of the xibelane dance and tinguvu skirt, is a visual representation of her cultural pride and an act of resistance against the erosion of heritage. The “contemporary concept of female beauty is defined as a human right, as a practice of social equality among all women of what it seems to be an emancipatory lifestyle: a way of being, looking and acting that makes one socially and culturally intelligible as a woman” (Dimulescu, 2015:508). This resonates with the techno-feminist view of using technology (in this case, the global media platform) to preserve and promote cultural practices (Hadithi Africa, 2019). Her influence on the younger generation in South Africa, encouraging them to embrace their heritage, is a practical example of how media figures can utilize their platform for cultural preservation and empowerment.

Furthermore, Madjozi’s emphasis on the concept of “blackness”(Hadithi Africa, 2019) and her identity speaks to the heart of techno-feminism, which advocates for the acknowledgment and celebration of diverse identities. The “technofeminist perspective takes a step beyond the discourse of the digital gap to point out the connections between gender and other forms of inequality apparent upon exploration of the broader political and economic bases of the networks that underlie and develop technical systems” (Puente, 2008:438-439). By refusing to conform to a singular notion of beauty or cultural expression, Madjozi embodies the

techno-feminist ideal of resisting homogenization and advocating for diverse, inclusive representations (Hadithi Africa, 2019).

Sho Madjozi's representation of VaTsonga women in contemporary media through her music and public image is a vibrant example of techno-feminism in practice that would do well in VR. Her work not only entertains but also educates and empowers, using technology and media as platforms to celebrate African culture and promote inclusivity. Her influence extends beyond entertainment, contributing significantly to the discourse on cultural representation and the role of technology in amplifying marginalized voices.

4.4 The Extraordinary Role of Women in Tsonga Culture

Techno-feminism, as a fusion of technological empowerment and feminism, is particularly significant in the context of African VR storytelling and its role in empowering women. This concept finds a resonant echo in the extraordinary role of women in Tsonga culture, as depicted in *Significance of Women in Vatsonga Culture: An Africana womanist perspective*, and in the principles of cyberfeminism and techno-feminism as discussed in *TechnoCapitalism Meets TechnoFeminism*.

In Tsonga culture, women play crucial roles in enhancing and preserving the Tsonga culture, transcending gender imbalances. They are integral in conflict resolution, counselling, and leadership, often leading and advising on traditional matters, which historically includes women as chieftains and influential figures (Chauke O.R, Madlome & Chauke W, 2021:1804). This cultural backdrop sets a profound stage for the potential impact of VR storytelling, which can serve as a powerful medium for these narratives and roles to be showcased and celebrated.

Cyberfeminism, emerging in the 1990s, posits that digital technologies, including VR, blur traditional gender boundaries, allowing users to assume alternative identities, thus challenging traditional sex differences (Wajcman, 2006:12). This aspect of cyberfeminism can be leveraged in African VR storytelling to transcend traditional gender norms, offering a transformative space where women's roles in societies like the Tsonga can be reimagined and redefined.

Techno-feminism, which integrates gender theory with technology studies, views technology and society as "mutually constitutive" (Wajcman, 2006:15). This perspective is crucial in understanding how VR storytelling in the African context can be both a product and a facilitator of gender relations. By incorporating the roles and perspectives of Tsonga women, this storytelling medium can challenge existing stereotypes and reinforce the cultural significance of women's roles.

The historical conception of technology as a domain of male dominance, with a focus on industrial machinery and exclusion of technologies associated with women (Wajcman, 2006:8), underlines the revolutionary potential of VR in African storytelling. In presenting women's narratives in the forefront, this technology challenges the traditional bias and highlights the often-overlooked technological contributions of women.

The intersection of these technological and cultural realms offers a unique opportunity. VR storytelling in African contexts, particularly within the framework of Tsonga culture, provides a space where traditional roles can be both represented and reimagined. This fusion of technology and storytelling not only preserves cultural heritage but also repositions it within a contemporary, gender-progressive framework. It is a vivid example of how the

digital age can sever the link between technology and male privilege (Wajcman, 2006:7), as many contemporary feminists have surmised, creating a new landscape where gender dynamics are redefined and empowered.

The fusion of techno-feminism and African VR storytelling, especially within the Tsonga cultural context, represents a powerful tool for empowering women. It enables the preservation and celebration of traditional roles while also providing a platform for challenging and reshaping these roles in a contemporary, egalitarian context. This synergy between technology, culture, and feminism opens up new horizons for redefining gender roles and empowering women in the digital age.

4.5 Gender Inequalities in the Tsonga Culture

Techno-feminism offers intriguing possibilities for addressing gender inequalities within African VR storytelling. This approach becomes particularly compelling when considering the Tsonga cultural context, where traditional norms often define women's roles and identities in restrictive ways.

The concept of *ntumbuluko* within Tsonga culture, as discussed by Chitlango and Balcomb, (2004) is the "law given to humans because of the impurities of women so that it may regulate man's relationship with the woman, protecting the man from the deadly infections of the woman's impurity"（Chitlango & Balcomb, 2004:185). It reveals a dichotomy between oppressive and potentially liberating uses of cultural norms（Chitlango & Balcomb, 2004:182). *Ntumbuluko*, signifying the cultural and social norms, customs, traditions, and institutions of Tsonga society, deeply influences the status and identity of women. While some aspects of *ntumbuluko*, such as widowhood rituals and menstruation-related taboos

(Chitlango & Balcomb, 2004:185), significantly oppress women, there are also elements within this cultural construct that provide avenues for empowerment and redefining women's roles.

In contrast, Wajcman argues for a broader, global shift in gender dynamics due to advancements in digital technologies. This shift is characterized by a move away from patriarchal norms and a reconfiguration of traditional power structures (Wajcman, 2006:10). Techno-feminism, in this context, posits technology as both a consequence and a source of gender relations, deeply intertwined with cultural processes defining valuable "knowledge and expertise" (Wajcman, 2006:15).

VR storytelling, particularly within the Tsonga culture, can thus harness the potential of techno-feminism to challenge and reshape existing gender inequalities. As VR offers an immersive and transformative experience, it can be used to tell stories that challenge traditional gender roles and promote more equitable views of women. This storytelling method could effectively counter the oppressive aspects of *ntumbuluko* by offering alternative narratives that highlight women's strengths and capabilities.

Moreover, the techno-feminist perspective underscores the importance of women's active involvement in technological domains, not just as consumers but as creators and shapers of technology. It can be noted that "technology is codified with gendered signifiers, which mould its design and use" (Puente, 2008:439). The engagement of more women in the creation of VR content, could lead to these narratives becoming a powerful tool for social change, fostering a re-examination of deeply ingrained cultural norms and potentially leading to a modernization of the concept of *ntumbuluko* itself.

However, it is essential to recognize the complexity of this endeavour. The transition to techno-feminism within African VR storytelling is not merely about introducing new technologies, but requires a nuanced understanding of the cultural and social contexts in which these technologies will be used. “To support and sustain intersectional technofeminist technology design, labour conditions and distribution should be further centralized and embedded into the design process” (Shivers-McNair et al., 2019:52). It involves a critical examination of existing power dynamics and a concerted effort to ensure that technological advancements do not merely replicate existing inequalities, but actively contribute to their dismantlement.

Techno-feminism offers a promising framework for combating gender inequality in African VR storytelling, particularly within the Tsonga culture. By leveraging the transformative potential of technology and acknowledging the cultural intricacies of gender relations, VR storytelling can become a powerful medium for promoting gender equity and empowering women in a traditionally patriarchal society.

4.6 Conclusion

This chapter delved into the profound significance of cultural representation in the realm of VR and its intersection with the concept of techno-feminism. It has shed light on the multifaceted aspects of VaTsonga women’s experiences and narratives. The resilience and agency of VaTsonga women throughout history has emphasized their contributions and achievements in positions of leadership. A critical analysis has portrayed VaTsonga women in popular culture, showcasing the potential of VR to challenge stereotypes and provide more dynamic and modern representations. The unique cultural significance and contributions of VaTsonga women in rituals, ceremonies, and community-building has also been explored.

Existing gender disparities were acknowledged and there was an advocacy for gender equality, highlighting the transformative potential of VR in overcoming these inequalities. Collectively, these sub-chapters have contributed to the larger discourse on cultural representation in VR, promoting inclusivity, diversity, and empowerment for VaTsonga women. This chapter serves as a valuable contribution to the field of techno-feminism and reinforces the importance of utilizing technology as a catalyst for social change and gender equality to promote Afrocentricity.

CHAPTER 5: AFRICAN VR DOCUMENTRIES: A FILM ANALYSIS

5.1 Introduction

This chapter critically examines the significance of four carefully selected VR documentaries in the realm of African VR storytelling. The films under scrutiny are, namely, *My Africa, Travelling While Black, The Untold Story of Africa's Middle Class, and Waves of Grace*. Through a thematic context analysis against theoretical and conceptual frameworks extracted from relevant literature, this chapter aims to evaluate the affordances and limitations of these films as a storytelling medium.

The first film, *My Africa*, explores wildlife and conservation efforts in Kenya, providing viewers with an immersive experience of the African savannah. This film is analysed in terms of its ability to transport audiences into the natural environment, allowing them to develop a deeper understanding and empathy for the wildlife and conservation challenges faced in Africa. The second film, *Travelling While Black*, delves into the experiences of African American travellers during the era of segregation in the United States. Through VR, viewers are transported to historical locations and witness the impact of racial discrimination first-hand. This film is evaluated in terms of its ability to create an empathetic connection between viewers and the struggles faced by African Americans during that period.

The Untold Story of Africa's Middle Class explores the lives and aspirations of the burgeoning middle class. It provides a glimpse into the daily lives of individuals from Dar es Salaam, Tanzania. The film is analysed for its ability to challenge stereotypes and showcase the diversity and complexity of the African middle class experience. Lastly, *Waves of Grace* focuses on the Ebola crisis in Liberia, following the story of a survivor and her journey

towards healing and rebuilding her community. This film is evaluated in terms of its ability to convey the emotional impact of the crisis and the resilience of the affected communities.

Through a critical evaluation of these four films, this chapter aims to shed light on the affordances and limitations of VR as a storytelling medium in the context of African documentaries. Through an analysis of their thematic context and storytelling techniques, this chapter contributes to the understanding of the potential and challenges of Afrocentric VR storytelling.

5.2 My Africa

In the analysis of the VR film *My Africa*, it is essential to explore how African centred VR stories, especially those focusing on animal and environmental conservation, utilize both the affordances and limitations of this medium. Ikeke and Ukutsemuya (2024:1) argue that there is an inherent "need to pay attention to environmental solutions based on indigenous ecological ideals and values. African solutions to her environmental problems should be Afrocentric, sourced from an Afroecosolidarity perspective". *My Africa* exemplifies this by immersing viewers in a simulated environment that aims to foster a deeper understanding and emotional connection with the conservation of African wildlife and environments.

VR is an evolving field with significant potential in various domains, including environmental conservation. The immersive nature of VR provides a unique platform for storytelling and education, particularly in fields where direct experience is limited or impractical. In the context of *My Africa*, this immersive experience is not just a technical achievement but also an emotional and educational tool. It takes the viewer into the heart of

the African wilderness, offering an up-close perspective of wildlife and the natural environment, a feat unachievable through traditional filmmaking.



Figure: 5.2.1
Elephants cooling off in water.
(My Africa 2018)



Figure: 5.2.2
A Samburu community member herding cattle.
(My Africa, 2018)

The effectiveness of VR in promoting empathy and pro-environmental behaviour is supported by anecdotal evidence from philanthropic fundraisers. Non-profit organizations using VR reported an increase in donations, suggesting that VR's immersive experiences can influence audience behaviour towards environmental causes (Nelson, Anggraini & Schlüter, 2020:1). This impact is crucial in the context of *My Africa*, which aims to not only educate but also inspire action towards conservation.

The film's success in engaging its audience can be attributed to its use of 360° film technology, which offers a panoramic view of its setting. This format allows viewers to look around in every direction, creating a more engaging and immersive experience than traditional unidirectional films. Such immersion can significantly enhance the "emotional impact" (Nelson, Anggraini & Schlüter, 2020:3) of the film because they are more in tune with their surroundings.

Valence framing structures information in either a "positive or a negative light…positive message valence describes action that leads to a favourable outcome and negative message valence indicates the consequences of inaction which lead to adverse conditions" (Nelson, Anggraini & Schlüter, 2020:4). Moreover, the use of positive versus negative valence in the narration of *My Africa* plays a critical role in shaping the audience's emotional response and, by extension, their behaviour. Positive valence focuses on the benefits of conservation efforts, while negative valence highlights the consequences of inaction. This strategic use of emotional framing can be a powerful tool in environmental storytelling.

However, the impact of VR on conservation efforts is not without limitations. Studies indicate that while VR can increase the frequency of donations towards conservation efforts, the specific effects of positive versus negative framing, as well as the level of visual immersion, are less clear. There are no significant differences found between these variables in terms of the "average amount given" (Nelson, Anggraini & Schlüter, 2020:11). This suggests that while VR can be a powerful tool for increasing engagement and initial interest in conservation issues, its ability to significantly alter deeper perceptions or long-term behaviours may be limited. Furthermore, emotional responses elicited by VR experiences in conservation storytelling show that positive treatments generally make viewers feel "less sad" (Nelson, Anggraini & Schlüter, 2020:14), indicating an emotional impact that could potentially translate into pro-environmental behaviours. However, these emotional responses are complex and may vary significantly among individuals.

My Africa demonstrates the powerful potential of VR in environmental storytelling, particularly in African contexts where conservation is crucial. While VR's ability to immerse and emotionally engage audiences is clear, its effectiveness in promoting long-term

behavioural change remains an area for further exploration. This case study underscores the importance of continuing to develop and understand VR's role in environmental education and activism.

5.3 Travelling while Black

In light of my research framework, Afrocentricity, the inclusion of an African American VR film upholds the integrity and objective of my research study, and most importantly, one of the requisites the notion of Afrocentricity demands. An inclusivity of people with African ancestry, regardless of where they live or what their nationality is. It is a way of acknowledging and celebrating the contributions of African people to global history, culture, and society, as reinforced at the beginning of my paper. It would be an injustice to neither acknowledge nor practice this in my own research in my workings to investigate and hold accountable Afrocentricity against the works of others. The VR film, *Travelling While Black* serves as an evocative case study for analysing the affordances and limitations of African VR stories about African history. This film, set against the backdrop of a historically segregated America, encapsulates both the struggle and resilience of African-Americans in their quest for equal rights, particularly in the context of travel.

The concept of "occurrences of racism" highlighted in Dillette, Benjamin, and Carpenter's (2018) study provides a relevant context for *Travelling While Black*. As demonstrated in the study, travellers faced numerous instances of racial profiling and discrimination, including issues with major hospitality and tourism companies like *Spirit Airlines* and *Airbnb* (Dillette et al., 2018:8), underscoring a systemic problem within the industry. This aligns closely with the film's narrative, which showcases the historical challenges faced by African-Americans

during travel, emphasizing the continuation of these struggles in different forms to the present day.

The theme of "awareness of being black while traveling" resonates deeply with the film's narrative. The study illustrates how Black travellers are often forced into the role of educators about the history of being Black in America, a task that can be both exhausting and frustrating (Dillette et al., 2018:9). *Travelling While Black* brings this to the forefront, portraying the heightened consciousness African-Americans must maintain while travelling. It underscores the unique travel experiences of African-Americans, influenced by historical and ongoing racism.

Interestingly, the film also mirrors the theme of "meaningful experiences travelling while black" identified in the study. Despite the negative experiences, many Black travellers reported "transformative experiences that were empowering and educational" (Dillette et al., 2018:11). This is reflected in *Travelling While Black*, where the narrative transcends mere documentation of discrimination and delves into the realm of celebration of Black culture, resilience, and community bonding that has historically been a significant part of the African-American travel experience.

Travelling While Black is exemplary in its correspondence between the past and the present. The intricacy in the weaving of storylines, offering of diverse perspectives and positions and the vulnerability of the characters are handled with care and sensitivity. The experiences of African Americans who lived through the time is a valuable gift the film grants users while seated, walking and travelling in the very same spaces they once did. It is an intimate

invitation to a significant time in history that educates while maintaining a unique and ingenious visual aesthetic inspired by memorabilia and theatre.



Figure: 5.3.1
Patron seated at Ben's Chilli Bowl.
(Travelling While Black, 2019)



Figure: 5.3.2
African American boy on a moving train.
(Travelling While Black, 2019)

The film exemplifies the affordance of VR in bringing forth a deeply immersive and emotional understanding of the African-American travel experience. It allows viewers to virtually step into the shoes of an African-American traveller, offering a perspective that might otherwise be inaccessible. However, the limitation lies in the potential oversimplification of complex historical and socio-political issues. While the film succeeds in evoking empathy and awareness, it may not fully capture the breadth of experiences and perspectives within the African-American community regarding travel.

Travelling While Black effectively utilizes the medium of VR to narrate an essential chapter of African-American history, emphasizing both the struggles and the resilience inherent in the Black travel experience. It serves as a poignant reminder of the past while illuminating ongoing challenges, thus contributing meaningfully to the discourse on race, travel, and the African-American experience.

5.4 The Untold Story of Africa's Middle Class

The representation, lack of representation or misrepresentation of marginalized African people occurs more often than not. *The Untold Story of Africa's Middle Class* was created to draw attention to a group of people who are neglected and rarely portrayed in Western media. There is often a concentration on issues of turmoil and uproar like war, corruption and famine in Africa and the opulent and successful African superstars bred in Africa ignoring the middle class. Moreover, Afrocentric perspectives often prioritize "race" over class when it comes to determining one's core self-identification (Hellsten, 2016:102). This research paper problematizes this through its selection of this case study. This will make this study more insightful, offering an overlooked perspective. There is a sense of mystery around middle class African citizens whose number is rapidly on the rise. It is fascinating to see how they navigate life in between in the vibrant and buzzing city of Dar es Salaam, Tanzania.

The Untold Story of Africa's Middle Class provides an intriguing case study for analysing the affordances and limitations of African VR stories in representing African societies. This analysis draws on insights from Hesmondhalgh's (2017) work on media production and class representations.

The media's representation of class, particularly the working class, is fraught with challenges. The media often contributes to the marginalization of working-class people by failing to "represent their complexity, diversity, and the richness of their lives" (Hesmondhalgh, 2017:1). This under-representation or mis-representation takes various forms, from the problematic tropes in reality television's "makeover"[1] and "poverty porn" genres to the broader media landscape's tendency to express "comical disgust" (Hesmondhalgh, 2017:1) for the working class.



Figure: 5.4.1
Busy Dar es Salaam, Tanzania
(The Untold Story of Africa's Middle Class, 2016)



Figure: 5.4.2
Secluded Dar es Salaam, Tanzania
(The Untold Story of Africa's Middle Class, 2016)

The Untold Story of Africa's Middle Class diverges from these representational norms, offering a more nuanced and in-depth portrayal of its subject matter. The film's use of VR technology immerses viewers in the lived experiences of Africa's middle class, challenging the simplistic and often negative stereotypes perpetuated by mainstream media. This approach aligns with Hesmondhalgh's call for a more "respectful and engaged representation of diverse experiences" (Hesmondhalgh, 2017:6).

However, the production of such content faces systemic challenges. Hesmondhalgh (2017) points out that commercial imperatives often drive media producers to opt for content that generates quick profits, leading to "sensationalist or inadequate representations of working-class lives" (Hesmondhalgh, 2017:8). In the context of African stories, this commercial pressure can result in narratives that are more appealing to global audiences but less authentic to the African experience.

Furthermore, the class backgrounds of media producers significantly influence the content they produce. As Hesmondhalgh (2017) observes, the media industry is predominantly composed of individuals from middle- and upper-class backgrounds, creating a class

asymmetry that affects representation (Hesmondhalgh, 2017:3). This disparity is evident in the under-representation of working-class origins in creative occupations and the prevalence of unpaid internships and precarious working conditions, which further discourage working-class participation in media production (Hesmondhalgh, 2017:4)

The application of Pierre Bourdieu's concept of habitus and Erik Olin Wright's sociology of class offers a framework for understanding how media producers' class backgrounds influence their representations (Hesmondhalgh, 2017:2). Bourdieu's habitus concept suggests that the dispositions ingrained in individuals during their upbringing shape their perceptions and representations. This theoretical perspective can elucidate why middle-class media producers might struggle to authentically represent working-class experiences.

The Untold Story of Africa's Middle Class demonstrates the potential of VR cinema to offer more nuanced and immersive representations of African societies. However, systemic issues in media production, influenced by commercial imperatives and the class backgrounds of producers, pose significant challenges to achieving authentic and diverse representations. Addressing these challenges requires a concerted effort to diversify the media landscape and encourage more inclusive and representative Afrocentric storytelling practices.

5.5 Waves of Grace

In the realm of VR documentaries, *Waves of Grace* emerges as a poignant case study, showcasing the affordances and limitations of African VR stories about triumph and overcoming. This analysis delves into the documentary's representation of the Ebola outbreak in Liberia, based on the first-hand account of Decontee Davis, a nurse and former Ebola

patient. The VR experience immerses viewers in the heart of the crisis, allowing for an unprecedented engagement with the story.



Figure: 5.5.1
Medical workers in hazmat suits
(Waves of Grace, 2015)



Figure: 5.5.2
Ebola patient burial
(Waves of Grace, 2015)

Waves of Grace stands as a testament to the potential of VR in storytelling, particularly in the context of African narratives. The VR documentary format offers a unique avenue for exploring stories and scenarios that are often inaccessible or dangerous. The film incorporates evocative re-enactments of medical workers wearing hazmat suits to avoid Ebola transmission while administering medication to patients as well as burials. This approach enables the portrayal of realities that are otherwise challenging to capture, offering audiences an immersive and deeply affective experience.

However, the reliance on re-enactments in VR documentaries like *Waves of Grace* raises questions about the "truthfulness" of the narrative. Unlike traditional documentaries that rely on direct, indexical references to reality, VR documentaries often reconstruct scenarios based on extensive research and real-life data (Sørensen, 2019:12). This method aligns with the practices seen in drama documentaries and docudramas, where dramatized and reconstructed scenarios are used to convey a story that remains rooted in factual accuracy.

The case of *Waves of Grace* highlights both the strengths and limitations of this approach. On one hand, the VR format allows for a deeper, more empathetic understanding of the Ebola crisis, going beyond mere facts and figures to convey the human experience of the epidemic. The VR environment, by placing the viewer amidst the situation in Liberia, fosters a unique connection with the subject matter, making the distant crisis more tangible and immediate.

On the other hand, the narrative's reliance on re-enactments can be seen as a limitation. While it brings forth a story that might be challenging to tell through conventional means, it also introduces a layer of interpretation and abstraction. The documentary's representation of reality is not just a direct capture of events but a carefully constructed narrative, potentially leading to questions about the authenticity and accuracy of the portrayal.

Waves of Grace exemplifies the powerful capabilities of VR as a medium for telling African stories of triumph and overcoming. It demonstrates how VR can create immersive experiences that engage audiences in unique and profound ways. However, it also underscores the need for careful consideration of how these narratives are constructed and the implications of using re-enactments as virtual reconstructions to represent real-life events. The documentary thus serves as a pivotal example in understanding the evolving landscape of storytelling in the digital age, particularly in the context of African narratives.

5.6 Conclusion

This chapter has explored the significance of four selected films in the realm of African VR storytelling. Against the VR documentaries this chapter has successfully examined the affordances and limitations of VR as a medium for conveying powerful narratives. Through the critical evaluation of these films, this chapter has contributed to a deeper understanding of the affordances and limitations of VR as a storytelling medium in the context of African

documentaries. By analysing the thematic context and storytelling techniques, this chapter has shed light on the potential and challenges of African VR storytelling. It is evident that VR has the power to transport viewers, foster empathy, challenge stereotypes, and convey emotional narratives. However, it is also important to consider the potential threats it may pose. Overall, this chapter emphasizes the significance of African VR documentaries in amplifying underrepresented voices, promoting cultural understanding, and pushing the boundaries of Afrocentric storytelling.

CHAPTER 6: LITERATURE REVIEW

6.1 Introduction

The commitment to centre cultural representation as an agency of power within VR "promises methodological rigour with the extra benefit of allowing to study the context-dependent behaviour of individuals in their natural environment" (de Borst, de Gelder & Kätsyri, 2018:421). This literature review will equally employ theoretical frameworks to underpin and contextualize film texts to explore African VR storytelling and the impact of cultural representation in shaping narratives.

This literature review will provide an analysis of four different types of literature and four cinematic texts which demonstrate narrative strategies and structures applied in African cinematic VR films. The theoretical framework central to my study attempts to encourage diversification and privileges African storytelling conventions guided by Ceuterick and Ingraham's exploration of immersive storytelling and affective ethnography in virtual reality; Green's conceptualization of cultural heritage, archives and citizenship, particularly reflections on using virtual reality for presenting knowledge diversity in the public sphere; Wajcman's Techno Capitalism Meets TechnoFeminism; and Floridi's investigation of the ethical aspects of virtual reality and computer simulations as representational media. Mutually the interrelated theoretical concerns foreground, and emerge from, VR as a creative practice which attempts to explore and visualize cinematic African VR storytelling. The literature review will further examine four cinematic texts privileging practices of African conventions with black subjectivity. These virtual reality films achieve this through the "preservation and promotion of African culture" (Lockwood, 2002:3) and by "visually facilitating the transfer of context specific knowledge and thereby overcoming traditional verbal and written barriers to communication" (Lockwood, 2002:4). A revolutionary period

in history for Africa he argues as "for the first time, we have access to a communication tool that is both context rich and concept rich, as well as visual in experience" (Lockwood, 2002:4). The selected cinematic texts are exemplary in demonstrating Lockwood's argument within the documentary genre divergently, however as the film analysis conducted earlier in this paper has proven maintain shared conventions.

I have chosen to exclusively centre the documentary genre through film texts because of the realism it promises in relation to the realism VR affords. Non-fiction, as Ceuterick and Ingraham, define it, is a "method of documenting the inevitably incomplete experience of exposure to others, however, is its ability to simulate—not just represent—the manifesting simultaneity of difference and sameness that happens during the embodied presence of an encounter with another" (Ceuterick & Ingraham, 2021:10).

The Untold Story of Africa's Middle Class (2018), published by *Seeker VR*, is a critique of the media's fixation on presenting traumatic narratives such as war and famine in Africa, romanticizing poverty and ignoring the middle class. The VR film explores what life is like for middle-class Africans in Tanzania through the story of Stella. The film explores the authentic representation of Tanzanians using VR cinema. The film promises to "faithfully depict existing structures, persons, states of affairs, processes, or events" (Floridi, 2017:369). Through the documentation of Stella's life, the documentary explores issues around race, class and inequality which shapes an oppositional cinematic space that centres black subjectivity. The realistic representation, categorized by class and region in this particular instance "are subject to certain standards of accuracy. These are standards that define the degree of freedom that exists in the depiction of a phenomenon and that specify what kinds of features must be included in a representation for it to be accurate, what level of detail is

required, and what kinds of idealizations are permitted" (Floridi, 2017:369). Illustrated in the film, Afrocentricity is vital for challenging stereotypes, empowering individuals, preserving culture, demanding recognition, promoting understanding and driving social change. It plays a crucial role in reshaping narratives, fostering cultural pride and advocating for a more inclusive and equitable world.

Travelling While Black (2019), by African American director Roger Ross Williams, is an Emmy award-winning, documentary VR film. The significance of this film, despite its American origin, lies in my research's Afrocentric methodological approach, which includes the experiences of all Africans within the diaspora. Furthermore, its narrative is deeply rooted in the history of African American experiences, adding to its appeal as a compelling case study. This immersive VR documentary experience narrates the risks faced by Blacks on the road in mid-20th Century America, and the safe spaces they were permitted to occupy. One of them being the popular, *Ben's Chilli Bowl*. The documentary explores how the "immersive power of VR storytelling can enact ethnographic encounters premised less on the impulse to extract meaning from other people and their ways of life than on the sensory and affective force of being with others in an unfolding experience of both similitude and difference" (Ceuterick & Ingraham, 2021:9). The African diaspora consists of people of African descent living in various parts of the world, including the Americas, Europe, and other regions. Acknowledging and including these individuals in the Afrocentric framework recognizes their shared experiences, struggles and contributions to African culture, history, and identity. Including individuals living outside of Africa, Afrocentricity fosters a sense of solidarity and unity among people of African descent worldwide. It recognizes the shared history, struggles and aspirations that connect individuals across geographical boundaries. This inclusivity can strengthen collective efforts for social, cultural and political empowerment.

My Africa (2018), narrated by academy award-winning actress Lupita Nyong'o, presents a community co-existing with endangered wildlife set in the rangelands of Kenya. It is an authentic and intimate look into the mundane activities of the Samburu people encapsulated by scenic landscapes and alluring imagery, textures and hues. The documentary as a cultural heritage preservation practice successfully considers imaginative ways of representing knowledge in relation to space as a medium of storytelling. The film as a case study responds to if new media technologies may be "mobilized to reorganize the frames of knowledge" (Green, 2008:308). The preservation of wildlife in VR as seen in the film promotes Afrocentricity by fostering appreciation for African ecosystems, highlighting cultural significance, raising awareness about conservation challenges, empowering local communities and promoting sustainable tourism. In connecting people to Africa's natural heritage, VR contributes to a more comprehensive understanding of Afrocentric perspectives and the importance of preserving African wildlife and ecosystems.

Waves of Grace (2015) narrates the story of Ebola epidemic survivor, Decontee Davis from Liberia. The film is a prayer to God, thanking him for the recovery of her community and a plea for strength to keep going after their great loss. It is also a poetic reflection of her reality. It is a story of grief, pain, restoration, and hope. She is a leader in her community helping to re-knit the bonds, educate and heal. In contrast to Wajcman's study on the theory of techno-feminism it is of interest to critique the film's strengths and weaknesses in its representation of a strong African female lead. At first glance the film appears to be pro techno-feminist in its portrayal of Davis, the impact she is making as a leader and her admirable spiritual relationship with God through faith and prayer. Wajcman's study looks beyond the surface and interrogates the use of a complex and emergent technology, VR in an inspirational narrative such as Davis' and the complexities that it may bid for the underrepresented women

of Liberia and their relationship with technology. “Instead of treating technology as neutral or value free, it argued that social relations are materialised in tools and techniques” (Wajcman, 2006:10). VR as a technology-based medium is assessed against this in the literature review.

6.2 Ethnographic Encounters in African VR Narratives

I will be exploring Ceuterick and Ingraham’s (2021) arguments on affective ethnography in relation to CVR. I will locate these arguments through a critical analysis of, *Travelling While Black* (2019) (hereafter referred to as *TWB*) to begin exploring what constitutes a subjectivity of African visibility, and how this subjectivity unfolds through the affective labour of navigating both the existing and re-imagined. “Ethnography involves the practice of spending time observing and participating in a particular environment” (Frömming et al., 2017:118). This literature review will examine the successes and limitations of *TWB* in enacting ethnographic encounters addressing immersion, affective response, challenges in representation and viewer disembodiment in relation to exploring Ceuterick and Ingraham’s (2021) arguments.

I am interested in exploring, through *TWB* what Clifford Geertz labels the “thin description of ethnography”. He describes it as “the surface of the life of others and the stories they want to tell us, without merging their bodies and stories with ours or deigning to decipher the meaning of it all by describing racial discrimination” (Ceuterick & Ingraham, 2021:10). *TWB* exemplifies this notion, through the multiple voices and perspectives it offers while maintaining an equitable distance between vulnerable African characters and the user in the VR experience - without allowance to become fanatical and obsessive in their explication of often composite racial and ethnic African experiences. *TWB* offers a compelling case study in immersive storytelling and affective ethnography. By situating the viewer within the context

of African American experiences, the documentary utilizes VR as a means to enact ethnographic encounters. This approach enhances cultural representation and contributes to the production of more nuanced African VR stories. However, the effectiveness of this method in achieving its intended impact is multifaceted, revealing both successes and limitations.

The immersive nature of VR allows for a sensory experience that places viewers in a paradoxical threshold between proximity and distance. This positioning is crucial in fostering non-appropriative relationships with the subject matter. VR's storytelling power lies in "enact[ing] ethnographic encounters premised less on the impulse to extract meaning from other people and their ways of life than on the sensory and affective force of being with others in an unfolding experience of both similitude and difference" (Ceuterick & Ingraham, 2021:10). For example, the film places viewers inside *Ben's Chili Bowl*, a historic African American eatery in Washington D.C. This setting, vividly presented in VR, allows viewers to feel as if they are part of the conversations happening around them, effectively embodying Ceuterick and Ingraham's concept of "being with others in an unfolding experience" (Ceuterick & Ingraham, 2021:10). *TWB* successfully leverages this aspect of VR, offering viewers an intimate yet respectful glimpse into the lives and histories of African Americans.

The documentary also demonstrates the potential of VR in evoking effective responses from viewers. It engages with the privileges of VR as a medium, acknowledging its ability to create access to experiences otherwise unattainable for many viewers (Ceuterick & Ingraham, 2021:9). The documentary's scenes recounting personal experiences of racism by patrons of *Ben's Chili Bowl*, utilize VR's ability to evoke emotional responses. Lighting, colour and shadows create a visually darker atmosphere, in the film to visually emphasize the challenges

and adversity faced by black individuals and communities in the film. It does this, particularly by "superimposing the physical parameters of the fictional space—its walls, doors, ceiling, etc.—over the parts of bodies coming and going from these more historical frames, the film visually establishes a continuity between the racism of the past and that of the present" (Ceuterick & Ingraham, 2021:12). This convention challenges the negative associations of darkness and blackness in celebrating the beauty, resilience and strength of Afrocentric perspectives and experiences.

Additionally, the parallel between the past and present evokes a sense of empathy and understanding for the struggles and realities faced in the context of racism. However, it is important to consider, cultural representation encompasses a wide range of artistic expressions and approaches. While a darkened mise-en-scène and proper distance may be creative choices to enhance a film about racism, it is not the sole determinant. This is particularly pertinent in the context of African VR stories, as it enables a broader audience to engage with and understand the complexities of African American experiences and histories in crafting narratives.

However, there are inherent limitations in this approach. *TWB* must navigate this delicate balance, ensuring that its portrayal is empathetic and authentic without veering into oversimplification or stereotyping. Ceuterick and Ingraham (2021:9) argue that the "representational vividness of evocative ethnography, while powerful, does not inoculate it from risks such as exoticizing or othering its subjects". This particularly relates to the film's portrayal of the African American experience. The film focuses too heavily on the traumatic aspects of these experiences without providing a balanced view of the richness and diversity of African American life and culture. *TWB* is at risk of reinforcing stereotypes or creating a

narrow, one-dimensional portrayal. The film acknowledges attempts to address this in its inclusion of diverse speakers and perspectives however there is a shared and common narrative categorically giving the film a singular voice and constructed narrative.

Additionally, the disembodied nature of the viewer in VR experiences poses challenges to the full realization of empathetic engagement. This is often described as "taking over all senses completely immersing the user, taking over all perceptions and disembodying" (Rasmus, 2022:44). As Ceuterick and Ingraham (2021) explain, the viewer's disembodiment in VR documentaries like *TWB* limits their ability to act within the fictional world, placing emphasis on the constant "back-and-forth relationship between on-screen and off-screen" (Ceuterick & Ingraham, 2021:13). In the VR experience, where viewers are observers in the diner this explicitly reflects the disembodiment concerns. This could lead to a passive engagement, where viewers are observers rather than active participants in the narrative underscoring the need for careful narrative construction in VR documentaries.

TWB exemplifies both the potential and the challenges of using VR as a medium for affective ethnography and immersive storytelling. It successfully creates a space for viewers to engage with African American experiences in a way that is both intimate and respectful. However, the documentary must carefully navigate the complexities of representation and viewer engagement to ensure that its storytelling remains authentic and impactful. The use of VR in this context underscores the need for continued exploration and innovation in how we use technology to tell stories that are culturally representative and deeply resonant.

6.3 African CVR as a Tool for Cultural Heritage Preservation and Knowledge Diversity

Green (2007) focuses on the application of VR in representing cultural heritage and diverse forms of knowledge, particularly through a prototype VR archive inspired by Palikur's indigenous stories from Brazil. The project aims to preserve and present cultural narratives in ways that traditional archiving methods cannot, by capturing the spatial and experiential aspects of indigenous knowledge. Green (2007) discusses the challenges and implications of such an approach, including issues around intellectual property, technology accessibility, and the representation of non-linear and spatially organized knowledge systems. This exploration of VR in cultural heritage preservation aligns well with assessing the VR film, *My Africa's* impact on cultural heritage and knowledge diversity. Cinema has often been a location for where cultures "find imaginative narrative ways to address, reflect upon, question, and explore some of the most important moral-ethical and cultural-political issues of our times" (Daniel, 2018:9). *My Africa's* illustration of the diverse wildlife and communities of Northern Kenya, stands as a testament to the technological innovation of VR. Green's article provides a theoretical framework for understanding how VR can be employed to reflect diverse knowledge systems and cultural practices.

My Africa, like Green's Palikur project, leverages VR's immersive capabilities to provide a nuanced understanding of a cultural and natural environment. However, while Green's project grapples with the challenges of representing non-linear, place-based knowledge systems, *My Africa* may adhere more closely to traditional narrative structures, potentially aligning more with Western storytelling techniques.

A key lesson from Green's work is the importance of considering how different knowledge systems and epistemologies can be authentically represented in digital archives and VR

experiences. “Virtual Environment-based archives offer the possibility of introducing multiple variables in the experience of an environment” (Green, 2007:316). *My Africa* presents an opportunity to reflect on these considerations. It raises questions about how African wildlife conservation and community life are portrayed through VR. Does it provide a platform for local voices and perspectives? How does it balance the narrative between wildlife conservation and the socio-cultural dynamics of the communities involved? The protagonist in *My Africa*, Decontee and her environmental activities and conservation efforts within her community is underpinned by the theoretical framework of eco-feminism which “aims to produce a philosophy and form of practice that is based on the central insight that the domination of nature and the domination of women are inherently connected” (Sikka, 2017:9). Moreover, Green’s emphasis on participatory approaches demonstrated by women in developing VR content is crucial and linked to feminism theories. It underscores the need for *My Africa* to engage deeply with local communities, ensuring that their knowledge, stories, and perspectives are not just subjects of the narrative but active contributors to its creation. This approach fosters a more inclusive, diverse, and authentic representation of cultural heritage and makes for the telling of better Afrocentric VR stories.

Green emphasizes the importance of presenting cultural knowledge in ways that respect different epistemologies. “These issues are important because they affect the ways in which people are accorded respect as citizens in everyday life, in towns and cities around the world” (Green, 2007:310). *My Africa* achieves this by authentically portraying the daily life and environmental interactions of the Samburu people. The film allows viewers to experience the community’s practices, such as elephant rescue and wildlife, thereby preserving these cultural elements in digital form. Green observes that new media technologies can reorganize the frames of knowledge, presenting them in a more inclusive and diverse manner. Examples of

this could be incorporating multi-lingual functionalities and guides for those with visual and audio impairments. This enables an environment for knowledge diversification and cultural heritage to thrive.

Green discusses the challenge of representing knowledge in relation to space, particularly in how standard archival methods may not align with the knowledge practices of different cultures. “Cultural heritage preservation work that relies heavily on the capacity of the map to archive knowledge in relation to place may in fact serve to undermine the epistemologies of the knowledge traditions they aim to conserve” (Green, 2007:313). *My Africa* responds to this challenge by immersing the viewer in the spatial context of Northern Kenya, thus allowing the audience to experience the intertwined nature of the community’s cultural practices and their environment. This virtual representation transcends traditional methods of knowledge archiving, offering a more holistic and immersive understanding of the Samburu people’s way of life.

My Africa also appreciates the importance of space in shaping African cultural heritage. It acknowledges the unique geographical landscapes, environments and ecosystems that have influenced African cultures and traditions. Green argues that African VR “readily mediates many indigenous groups' knowledge traditions since it organises information in spatial terms, reflecting the extent to which memory is tied to place in societies that live off the land” (Green, 2007:311). She further goes on to label them, as “spatial epistemologies – based as they are on the memory of knowledge in relation to place – have acquired recognition as valid knowledge systems” (Green, 2007:311). In examining the spatial dimensions of African heritage, *My Africa* through memory promotes the preservation of physical spaces, such as sacred sites, cultural landmarks and natural habitats. The film serves as a tangible

representation of cultural identity and a site for cultural practices, rituals and community engagement in the way we recount our cultural heritage.

Green's study offers valuable perspectives on the use of VR for cultural heritage preservation, emphasizing the need for a nuanced adherence to various epistemologies, presenting knowledge in relation to space and adopting a participatory approach that respects and reflects diverse knowledge systems. When applied to *My Africa*, these insights can guide a critical assessment of how VR can be used to preserve and present African wildlife and cultural heritage in a way that honours local knowledge and narratives, contributing to knowledge diversification and cultural heritage preservation.

6.4 Ethical Considerations for Underrepresented African Communities in VR

The Untold Story of Africa's Middle Class, focusing on the middle class in Tanzania, presents a unique opportunity to examine its portrayal of Tanzanian culture and society through the lens of Floridi's theory on misrepresentation, biased representations, and indecent representations. This review is particularly relevant in the broader context of Afrocentric VR storytelling, which is an emerging and powerful medium for cultural representation.

Floridi's concept of misrepresentation is defined as a failure in a simulation to accurately "depict features of the real world" (Floridi, 2008:369). In the context of the documentary, this is critical when considering the representation of the Tanzanian middle class. Misrepresentation can occur in various forms, such as through an oversimplified portrayal of economic conditions, mischaracterization of cultural practices, or inaccuracies in depicting the everyday experiences of Tanzanians. The risk here is twofold: not only does it potentially

disseminate false information to a global audience, but it also risks reinforcing existing stereotypes or misconceptions about African societies.

In African VR storytelling, the medium's immersive nature means that these misrepresentations can have a more profound impact on the viewer's perception of reality. Unlike traditional documentaries, VR has the ability to transport viewers into a seemingly real environment, making the accuracy of representation even more crucial. *The Untold Story of Africa's Middle Class* to a large degree accurately portrays Tanzanian life and absolves the risks of creating a distorted view of an entire society, which viewers may accept as truth due to the immersive nature of VR.

Biased representations, as Floridi defines, are those that "unfairly disadvantage certain individuals or groups or that unjustifiably promote certain values or interests over others" (Floridi, 2008:370). This is particularly significant in the portrayal of the Tanzanian middle class as an underrepresented group. The documentary intentionally focuses on certain aspects of the middle class such as Stella's rag to riches story while ignoring others, thus creating a narrative that may not represent the diverse experiences and challenges faced by this group. "Media and technologies are central sites of power in any culture, and changes in media and technologies inevitably create power struggles and a reordering of social power structures" (Horsfield, 2003:170-171). For instance, the documentary predominantly showcases her success story of education and job security as a lecturer aspiring to pursue a doctorate qualification without acknowledging structural challenges such as inequality, lack of infrastructure, or political issues, presenting a biased view of the Tanzanian middle class.

In African VR storytelling, this balance is essential to provide a more nuanced and comprehensive understanding of societies. For culturally sensitive VR content, which community based stories always are, it is important to note that "on images of suffering, the content of media representation assumes a greater significance and the attitude of witness is seen as demanding something more than a sense of responsibility" (Nash, 2018:4). The medium's potential to influence perceptions makes it imperative that the stories told are balanced and reflect the complex realities of African societies.

Indecent representations, which include content that is "culturally insensitive or offensive" (Floridi, 2008:370), can be especially problematic in VR documentaries. In the case of *The Untold Story of Africa's Middle Class* this would involve content that is disrespectful or offensive to Tanzanian culture or standards of decency. Such representations can alienate the subject community and potentially perpetuate harmful stereotypes or biases. Fortunately, the film is not guilty of this. In the realm of African VR storytelling, the significance of cultural sensitivity cannot be overstated. VR documentaries have the power to shape perceptions and understandings of cultures and societies. Therefore, it is crucial for creators to be aware of and respect local norms, practices, and sensibilities. This means engaging with the community being represented, understanding their perspectives, and ensuring that their culture is depicted in a respectful and dignified manner.

The Untold Story of Africa's Middle Class thus stands at a critical juncture in African VR storytelling. It has the potential to offer an immersive and enlightening experience that broadens understanding and appreciation of Tanzanian culture and the African continent more broadly. However, this potential comes with significant responsibilities. To avoid misrepresentation, the documentary must strive for accuracy and depth in its portrayal of

Tanzanian life. This involves thorough research, consultation with local experts and community members, and a commitment to depicting the multifaceted realities of the middle class in Tanzania. Avoiding biased representations requires a balanced approach that does not oversimplify complex social, economic, and cultural dynamics. It involves presenting multiple perspectives and acknowledging the diversity within the middle class. Lastly, avoiding indecent representations demands a high degree of cultural sensitivity and respect for the subjects of the documentary.

In conclusion, while *The Untold Story of Africa's Middle Class* has the opportunity to be a ground-breaking film in African VR storytelling, it also faces the challenge of navigating the intricate landscape of cultural representation. By adhering to the principles outlined in Floridi's theory, the documentary can not only avoid misrepresentation, biased narratives, and indecent content but can also set a precedent for future endeavours in Afrocentric VR storytelling. This is crucial in an era where technology increasingly shapes our understanding of the world, and where stories from Africa are gaining a more prominent platform on the global stage.

6.5 The Application of Techno-Feminism to an African VR Film

Waves of Grace poignantly illustrates the complexities of African women's experiences, aligning with techno-feminist principles as conceptualized by Wajcman. Her study examines how the film both aligns with and diverges from techno-feminist theories, particularly in its representation of African women, its focus on trauma-centred narratives, its portrayal of empowerment, and its depiction of women's leadership and social inclusion in African communities.

The film stands out for its nuanced portrayal of African women. In a medium like VR, which is often dominated by Western narratives, *Waves of Grace* offers a fresh perspective by centering its story around an African female protagonist. It also gives an alternate perspective to how we understand VR as a technology as "gender is constitutive for what is recognised as technology, and gendered identities and discourses are produced simultaneously" (Wajcman, 2006:15). This approach is in line with Wajcman's techno-feminist perspective, which emphasizes the "mutual shaping of gender and technology" (Wajcman, 2006:8). In traditional narratives, African women are frequently depicted in passive or stereotypical roles. However, by foregrounding Decontee Davis, a female protagonist's experience and perspective, *Waves of Grace* challenges these stereotypes, offering a more authentic and diverse portrayal of African women.

The film not only narrates her experiences but does so through her lens, granting her agency and voice. This representation has a transformative impact on African storytelling by breaking the monolith of traditional narratives, enabling a more inclusive and diverse range of stories that reflect the complexities of African women's lives. In African VR storytelling, this nuanced portrayal is crucial. Kumar (2021:12) asserts that the "use of the technology, as a digital resource, allows the spread of advanced processes of innovativeness and creativity, approving a natural expressivity and moving a sustained development of a reasonable female front of liberation". He assures that the narratives of African women are not only heard but are central to the story. This is significant in a context where women's voices and experiences are often marginalized. The film's approach contributes to a richer and more diverse tapestry of stories that reflect the true heterogeneity of the continent. This is vital for the evolution of African storytelling, as it broadens the scope of narratives and ensures that a wider array of experiences and perspectives are included.

Waves of Grace's focus on a trauma-centred narrative, the remnants of the Ebola epidemic, particularly those involving an African woman, resonates deeply with techno-feminist ideals. According to Wajcman, technology is not neutral but is socially shaped, often excluding women's perspectives and experiences (Wajcman, 2006:10). *Waves of Grace* counters this trend by foregrounding in VR a story of a woman who has endured and survived traumatic events. By doing so, the film acknowledges and validates her experiences, moving away from the traditional portrayal of African women as silent sufferers to active narrators of their stories.

This aspect of storytelling is crucial in African VR narratives as it provides a platform for discussing and processing historical and ongoing traumas. It represents a step towards healing and understanding, which is particularly important in regions where women's sufferings often remain unspoken and unrecognized. It serves as a form of inclusive storytelling. A storytelling that "aims to promote empowerment to women and change the patriarchal thought should think of freedom in a way that everyone should participate to build the concept of women" (Rossetti & Frade, 2018:155). The impact on African storytelling is profound, as it opens up new avenues for discussing and addressing difficult topics. It provides a space for healing and reflection through the power of narrative, which is particularly potent in the immersive VR format.

Moreover, the narration of trauma-centred stories through VR creates an empathetic connection with the audience, which is often more impactful than traditional storytelling methods. It allows viewers to step into the shoes of the protagonist, experiencing Davis' world and challenges in a more intimate and immersive way. Overall, this can lead to a

deeper understanding and appreciation of the complexities of women's experiences in African societies, fostering empathy and awareness among audiences.

The film's portrayal of the empowerment of African women reflects Wajcman's emphasis on the potential of "digital technologies as liberating tools for women" (Wajcman, 2006:8). This is especially because VR lies outside the regular established power structures of film and TV. Rather than depicting women solely as victims of their circumstances, *Waves of Grace* portrays them as resilient individuals with agency. This shift from victimhood to empowerment is crucial in changing the narrative around African women. The film showcases their strength, resilience, and ability to overcome adversity, offering stories that can inspire and empower viewers. In the context of Afrocentric VR storytelling, this portrayal is transformative. It challenges the often one-dimensional representation of African women as passive victims, instead highlighting their strengths and capacities. This not only provides more accurate and respectful portrayals but also serves as a source of inspiration for viewers, particularly women and girls who see reflections of their own potential and resilience in these stories.

Furthermore, the empowerment of African women in the narrative aligns with the broader goal of techno-feminism to use technology as a means of social transformation. By using VR to tell stories of empowerment, the film leverages the immersive power of technology to reshape perceptions and encourage a re-evaluation of women's roles in society. "Radical imaginaries can transform futures by acting as spaces for introspection…a place for feminist claims to be made and defended" (Jos, 2021:4). This is particularly impactful in the African context, where challenging existing gender norms and stereotypes is essential for social progress and gender equality.

Lastly, *Waves of Grace* touches on the themes of leadership and the social inclusion of women in African communities. This aspect aligns with techno-feminist perspectives that view technology as a potential tool for social change. The process of "technical change is integral to the renegotiation of gender power relations" (Wajcman, 2006:18). *Waves of Grace* implicitly advocates for the greater inclusion of women in leadership and decision-making roles within African societies. Davis is seen as a community leader, rebuilding her community. This aspect of storytelling is transformative in African VR narratives. It presents an alternative vision of African communities with more female leadership and inspires viewers to reconsider and challenge existing gender dynamics. The impact on African storytelling is significant, as it portrays women in roles of leadership and influence. It encourages a re-evaluation of societal norms and gender roles, promoting a more inclusive and equitable vision of African societies. This aspect of storytelling is crucial for the African context, as it challenges traditional gender roles and encourages the inclusion of women in all aspects of society.

In conclusion, *Waves of Grace* embodies several techno-feminist principles in its representation and empowerment of African women, its focus on trauma-centred narratives, and its advocacy for greater leadership and social inclusion of women in African communities. These elements are vital in African VR storytelling, as they provide a multidimensional view of African women, highlighting their complexities, strengths, and potential. The film challenges existing power structures and encourages a more inclusive and equitable vision of an Afrocentric society. Through its portrayal of African women, *Waves of Grace* contributes significantly to the evolution of African storytelling, emphasizing that the stories of African women are not only told but are also central to the narrative landscape.

6.6 Conclusion

The intricate relationship between cultural representation and African VR storytelling emerges as a vivid and multifaceted landscape. The four sub-chapters—each focusing on a distinct aspect of this burgeoning field through a rigorous review of literature—collectively underscore the transformative potential of VR as a medium for conveying African narratives and preserving cultural heritage.

Ceutrick and Ingraham's (2021) study is explored through the lens of the VR film *TWB* which vividly demonstrated how VR can serve as a powerful tool for ethnographic storytelling. This immersive medium enables audiences to step into the shoes of others, fostering empathy and understanding. *TWB* transcends traditional filmic boundaries, offering a poignant, first-person perspective of the African-American experience. This sub-chapter reveals how VR's sensory immersion can bridge cultural divides, making distant or unfamiliar experiences more tangible and relatable.

In Green's study as exemplified by *My Africa* the focus shifts to how VR can be a custodian of cultural memory and diversity. This film showcases the rich tapestry of African wildlife and community life, offering a counter-narrative to the often one-dimensional portrayal of Africa in mainstream media. The immersive nature of VR not only preserves these cultural narratives but also democratizes access to them, allowing for a more nuanced understanding of Africa's diverse cultures and histories.

Floridi centred on the VR experience *The Untold Story of Africa's Middle Class*, delves into the ethical implications of storytelling in VR. The review highlighted the need for a responsible and respectful approach to narrative construction, especially when dealing with

underrepresented communities. This sub-chapter underscores the importance of authenticity in representation, advocating for narratives that are not only engaging but also truthful and sensitive to the complexities of African societies.

Finally, Wajcman is examined alongside *Waves of Grace* addressing the intersection of technology and gender in African VR narratives. It is illustrated how VR storytelling can be a medium for empowering female voices and perspectives, often marginalized in traditional media. *Waves of Grace* serves as a testament to the potential of VR as a platform for feminist narratives, challenging gender stereotypes and promoting inclusivity in digital storytelling.

Collectively, these sub-chapters paint a comprehensive picture of the current state and potential of African VR storytelling. They foreground the medium's ability to offer immersive, empathetic, and diverse cultural representations, while also acknowledging the ethical and gender considerations that must be navigated. This synthesis of perspectives and insights underscores the significance of VR as not just a technological advancement but as a revolutionary tool for storytelling, capable of reshaping narratives and fostering a deeper understanding of the rich and diverse tapestry of African cultures and experiences.

CHAPTER 7: AFRICAN VR RE-IMAGINED - REFLECTIONS ON CONVERSATIONS WITH AFRICAN VR INNOVATORS

7.1 Introduction

One of the principal data collection phases of my research was to conduct interviews with African VR industry leaders pioneering in their field. I selected a handful of innovators working with African VR content to share with me their expertise on how we can begin to formulate a unique Afrocentric cinematic language and grammar in the way we talk about and engage with VR. Through virtual audio interviews, to be employed as voice-over narration in my VR documentary, *AFRICA 360*, selected candidates shared their experiences and insights into what the future of VR in Africa looks like to them.

My interviewees include Victor-Mark Onyegbu, the Head of the Grants Portfolio at *Africa No Filter*. The non-profit organization strives to develop the community of narrative change-makers by conducting research, providing grants and advocating for their cause. Their efforts involve supporting storytellers, investing in media platforms, and leading disruptive campaigns. Antoinette Engel, a producer at *Electric South,* a non-profit company which supports a number of artists around the continent who want to explore virtual and augmented reality alongside their personal artistic practice; and Judith Okonkwo, founder of *Imisi 3D* a creative laboratory situated in Lagos that is dedicated to constructing the African ecosystem for extended reality technologies and fostering connections among XR communities throughout the continent.

In light of the responses and stories shared by my interviewee's frameworks around glocalization, VR as a radical compassion machine and African mythology in VR in their pre-eminence of creativity, innovation and re-imagination of conventions in African VR cinema will be critically reviewed. The objective, knowledge generation and a shared

understanding of the direction we should be moving toward in the production of Afrocentric CVR films.

7.2 Glocal – Local Content for Global Audiences

Onyegbu draws attention to and cements the significance of the term "glocal" in the course of my interview with him as the kind of African stories that should be produced in the VR format. He describes it as "content that is created out of local stories but for global audiences. 'Glocal' is a fusion of global and local… This is the content that is unique, sustainable, profitable and has the staying power to engage your audience" (Onyegbu, 2023). I will assess this concept alongside Porto's (2014) study on *Visual strategies of glocalisation in digital storytelling* in relation to its application in the VR film *Moving Between* (2022). This is seen through three functions explored by Porto namely: localizing, globalizing and evaluating. This is critical for VR African storytelling, "given the advancement in technology and the global economy, individual cultures and customs stand to lose their importance and sense of identity" (Jupit et al., 2012:1). The assessment will foreground theoretically and practically how African VR stories can be re-imagined through orienting their narratives around the notion of glocalisation.

***Moving Between*, Nigeria (Afegbua, 2022)**

In *Moving Between*, the localizing function is effectively applied to create a rich, immersive experience that deeply connects the audience with a specific cultural and historical context. The film is a VR documentary that offers a virtual heritage experience of the Kofar-Mata dye pit, a significant cultural and historical site in Kano, Nigeria. By showcasing it in a three-dimensional VR model, Afegbua enables viewers to experience the site in a manner that feels authentic and engaging.

The localizing function in *Moving Between* is not just about presenting a physical location; it is about immersing the audience in the cultural and historical significance of the Kofar-Mata dye pits. The film is "remarkable to bring this historical practice back to life using the virtual reality storytelling format" (Onyegbu, 2023). This approach allows for a deeper understanding and appreciation of the site's role in Nigerian history and culture. In the film, a deaf dancer guides the audience through the historic dye pits using sign language instructions and dance, enhancing the localizing aspect by integrating unique cultural elements and storytelling techniques. *Moving Between* is an intimate exploration of its cultural and historical significance. As Porto suggests, the use of such imagery in digital narratives "enhance[s] and intensify[ies] the local specific aspects of the story" (Porto, 2014:21), thereby grounding the film in a distinct cultural milieu.

By utilizing VR , Afegbua brings the audience closer to the unique traditions and history of Kano, ensuring that the local narrative is not only seen but experienced. This approach echoes Porto's assertion that in digital storytelling, "images perform a localising function throughout the stories analysed" (Porto, 2014:21), particularly significant in films like *Moving Between*, where the visual medium is central to the storytelling.

The glocalising function is intricately woven into the narrative, connecting local Nigerian experiences with universal themes. This function, as Porto articulates, occurs when:

> *"local and global elements are in a constant interplay. They embody the slogan "think globally, act locally", since they are created at a completely local basis, but are thought to transcend those limits and reach a global audience. Also, they narrate culturally specific events, but intend to deal with more general, universal worries and fears. Finally, they are traditionally conceived as storytelling, but technologically implemented and distributed".*

(Porto, 2014:15)

The film achieves this by immersing viewers in the Kofar-Mata dye pits of Nigeria, a locale deeply embedded in local tradition, yet presented in a way that appeals to a global audience. "Glocalisation embraces a multiperspective worldview that focuses on the positive contributions and the beneficial attributes of participating cultures, without imposition on and threat to cultural values and beliefs" (Patel & Lynch, 2013:224). This transcendence of cultural boundaries exemplifies the glocalising function, demonstrating how personal, localized experiences can gain universal relevance and meaning. Through *Moving Between*, Afegbua not only showcases a unique Nigerian heritage but also invites global viewers to relate to and appreciate this culturally specific experience.

In *Moving Between*, the evaluative function, as detailed in Porto's study, plays a crucial role. This function involves images contributing to "turning local personal experiences into globally relevant matters" (Porto, 2014:21). The film showcases the Kofar-Mata dye pits in Nigeria, not just as a local heritage site but as a symbol of enduring cultural practices and resilience. This representation elevates the narrative from a mere local story to a commentary on broader human experiences, such as perseverance and cultural preservation. The evaluative function in *Moving Between* thus lies in how the VR experience transcends its local boundaries to offer insights on global themes, making it a profound example of storytelling that resonates on a universal level.

In summary, within the VR film, *Moving Between*, the localizing function is vividly manifested through the immersive portrayal of the Kofar-Mata dye pits in Nigeria, providing a deep connection to the specific cultural and historical context of the location. This localizing aspect is enhanced by the use of a deaf dancer as a guide, introducing unique

cultural storytelling elements. The glocalising function emerges as the film intertwines this local narrative with universal themes, making the story of Kofar-Mata dye pits relatable to a global audience. The evaluative function is evident in how the film uses these images to transform personal experiences into globally relevant matters, intensifying meanings and establishing correlations that resonate beyond the local context. This comprehensive application of localizing, glocalising, and evaluating functions in *Moving Between* exemplifies the power of VR in transforming personal, local narratives into universal, globally significant stories.

7.3 An Empathy or Radical Compassion Machine for African Stories?

In my interview Okonkwo shared her admiration of a particular VR film which bravely and expertly tackled the controversial harrowing story spearheaded by the #BringBackOurGirls campaign that left the world unhinged and afeared. The militant group Boko Haram abducted 276 girls from Chibok, Borno State, Nigeria in April 2014. This created a global frenzy as many scrambled to save their children, rallied campaigns and activism groups emerged in response to the horror. The stories of many of the girls were befittingly told. However, a perspective that had not been shared was one of the parents who restlessly waited for the return of their children. "Some of these parents had died of grief" (Okonkwo, 2023). From this the concept of the VR film, *Daughters of Chibok* (2019) was born.

I will examine *Daughters of Chibok* as an empathy machine against Barbot and Kaufman's (2020) study on the User Experience (UX) dimensions of Immersive Virtual Reality (IVR) on empathy, the potential of immersive technology to affect changes in human rights attitude and Bollmer's (2017) critique of VR's empathetic properties and proposition of an alternative framing - radical compassion. This is relevant because of the myriad of distressing African

stories that could emerge in the VR format and the major claims of VR as an empathy inducing storytelling format. This examination will inform how these kinds of African stories could be re-imagined creatively and responsibly.

***Daughters of Chibok*, Nigeria (Benson, 2019)**

The VR film *Daughters of Chibok* employs User Experience (UX) dimensions to evoke empathy, notably through the illusion of Agency and the illusion of Virtual Body Ownership (IVBO). "These dimensions are significant contributors to empathy change, with effect sizes of 0.72 and 0.52 for Agency and IVBO respectively" (Barbot & Kaufman, 2020:8). This approach is consistent with theoretical expectations and research in this field, underscoring the importance of these UX factors in empathy induction.

In *Daughters of Chibok*, these dimensions are creatively utilized to immerse the viewer in the story's context, enhancing the empathetic connection with the characters and their experiences. "Empathy is an ability that encompasses diverse psychological processes related to sharing and understanding the internal (mainly affective) mental states of other (not only human) beings" (Rueda & Lara, 2020:5). The trauma which abducted Rikatu's family endured is seen through the perspective of her mother, Yana. The film also explores Chibok town and the impact of the kidnap on affected families and the community as a whole. There is an intimate look into the socio-economic context of the characters as Yana is a peasant farmer planting, harvesting and selling seven bags of groundnuts in a year all while waiting for her daughters return. By creating a sense of Agency, the film allows viewers to feel as though they are part of the story, actively participating rather than passively observing. This deepens the emotional impact and creates a more personal connection to the narrative. Similarly, IVBO in *Daughters of Chibok* enables viewers to experience the story from the

perspective of its characters, fostering a deeper understanding and emotional resonance. This technique effectively bridges the gap between the viewer and the characters, making the film's themes and messages more impactful.

These innovative uses of VR technology in *Daughters of Chibok* not only enhance the storytelling experience but also represent a significant advancement in Afrocentric VR storytelling. By leveraging these UX dimensions to evoke empathy, the film sets a new standard for immersive and emotionally engaging narratives, demonstrating the potential of VR as a powerful medium for storytelling in African contexts.

Daughters of Chibok effectively evokes changes in human rights attitudes by utilizing immersive technology, a concept increasingly recognized for its potential to foster empathy and understanding. This approach is premised on the idea that our inability to empathize with others, especially those who are culturally, temporally, or geographically distant, can be overcome by "stepping into their shoes" (Bujić et al., 2020:1408). Immersive journalism, as demonstrated in the VR documentary *Clouds Over Sidra*, enables viewers to immerse themselves in the experiences of others, such as Syrian refugees in the Za'atari camp (Bujić et al., 2020:1408), thereby facilitating perspective-taking and empathy. Perspective-taking differing from empathy is understood as the "active effort to put oneself in another person's shoes, thinking about the causes of the other person's affective states, or just trying to imagine how one can adopt the other person's beliefs and states" (Rueda & Lara, 2020:5).

In a similar vein, *Daughters of Chibok* uses VR to immerse its audience in the experiences of those affected by the Chibok girls' abduction in Nigeria. The film employs techniques similar to those found in *The Sea Prayer* (Bujić et al., 2020:1413), another VR film that skilfully

blends journalistic and artistic content to convey the narrative of a Syrian refugee crisis. By drawing the viewer into the world of its subjects, the film transcends traditional media formats in its ability to foster a deep, emotional connection with the characters and their plight.

This enhanced empathy and understanding, made possible through immersive VR experiences, may lead to a more profound awareness and concern for human rights issues such as abduction and kidnapping. By experiencing the story of the Chibok girls through VR, viewers are not only informed about the events, but are also emotionally engaged in a way that reading or watching a traditional film might not achieve. This emotional engagement is crucial for changing attitudes towards human rights, as it bridges the gap between distant, abstract issues and personal, visceral understanding.

> *"I remember this one gentleman who tried out the experience. After he removed the headsets he was in tears and he said that he never believed the story of the kidnapping. He honestly thought it was just government propaganda but he was so moved… He was just like what can I do to help? How can I?... He was just ready to get up and go right there. And for him, it was just this whole experience of being transported there, of hearing from authoritative voices from a mother, saying this is my story and this is what has happened".*
>
> *(Okonkwo, 2023)*

Thus, *Daughters of Chibok*, through its immersive storytelling and emotional engagement, likely plays a significant role in altering viewers' attitudes towards human rights, making the issues more tangible and compelling, and potentially inspiring action and advocacy. This is especially important in the narration of African VR stories and more broadly the African context where there is often a lack of resources to aid in human right advocacy when human

rights injustices such as the kidnapping of the Chibok girls occur - where 112* of the girls are still missing to date.

Daughters of Chibok can be argued to evoke radical compassion rather than empathy, as conceptualized by theorists such as Ahmed and Emmanuel Levinas. Radical compassion, as defined in Bollmer's work, is an anesthetic ethics that does not focus on the direct transmission of sensation and experience. Instead, it brackets these aspects from "ethical and political arguments, positioning knowledge of another as something that is infinitely deferred into the future, a form of 'knowledge' never fully obtained" (Bollmer, 2017:3). This concept contrasts with empathy, which is often perceived as a form of relation that acknowledges another's experience within the limits of one's consciousness. However, empathy originally described how "one relates to and absorbs objects into their own experience, and how artworks produce affective relations within one's own body" (Bollmer, 2017:12).

In the context of *Daughters of Chibok*, a film that portrays the real-life tragedy of the abduction of schoolgirls in Chibok, Nigeria, by Boko Haram, the use of VR technology could be seen as an attempt to create an empathetic connection with the viewer. However, following Bollmer's argument, this empathy may fall short of truly understanding the experience of others. It might lead to the aesthetic absorption of their experience into the viewer's own, rather than fostering a genuine ethical relationship.

Radical compassion, on the other hand, refuses to reduce the other to oneself in the name of connection or association. It acknowledges the limits of fully grasping another's experience and maintains their otherness. This stance is particularly relevant in the context of a film like *Daughters of Chibok*, which depicts a deeply complex and traumatic event. The film can

evoke a sense of radical compassion by presenting the viewer with a reality that is difficult to fully comprehend or assimilate into one's own experience, thus maintaining the otherness of the subjects portrayed and challenging the viewer to acknowledge the limits of their understanding (Bollmer, 2017:10).

In summary, it can be argued that *Daughters of Chibok* evokes radical compassion more than empathy. It does so by presenting a reality that is not fully assimilable into the viewer's own experience, thereby maintaining the otherness of the subjects and challenging the viewer to recognize the limits of their understanding, as opposed to simply absorbing the experience aesthetically. Framing African VR stories as radically compassionate rather than empathetic contributes to our understanding of how to use and engage in a discourse about the effect of its viewership and impact. To grapple with African VR's potential uses and limitations a rigorous evaluation of understanding what exactly its functions entail is necessary.

7.4 African Mythology in VR

African mythology in VR is a captivating and enriching experience. Integrating African mythological elements into CVR such as ancient stories, legendary creatures and divine beings blurs the boundaries between the real and the fantastical. In my last interview with Engel she notes, *The Other Dakar* (2017), as one of her favourite African VR films which creatively and adeptly represents the intricacies and complexities of the vibrant city of Dakar paying homage to Senegalese mythology as it connects with the urban landscape through the lens of a young girl. The film is populated with mythical creatures, spirits and otherworldly beings allowing interaction with these entities to learn their stories and even form relationships with them. This adds an element of mystery, enchantment and discovery.

The ideas explored are cemented by Flower's (2003:37) argument that Afrocentricity is "the belief in the centrality of Africans in postmodern history. It is our history, our mythology…During our reconstruction, we must not lose sight of our total Afrocentricity. It cannot develop further until we rid ourselves of all fantasies except those that grow out of our own history". I will analyse African mythology in *The Other Dakar* in the Senegalese context through answering three critical questions: a) How does *The Other Dakar* represent the mythological landscape in Senegal? b) How does *The Other Dakar* portray new Senegalese mythology? and c) What is the relationship between philosophy, mythology and African cosmology in *The Other Dakar*? These research questions will be framed by Danelon and Zielinski's practice-led study, a VR experience representing the mythological landscape of the ancient city of Memphis in Egypt; Murphy's definition of old and new African mythology; and Udefi's argument on the overlooked inherent relationship between philosophy, mythology and African cosmology. This analysis will aid in understanding VR experiences rooted in African mythology storytelling emerging from folklores, oral history and fables which forms an integral part of African history and culture. Cultural representation in African VR narratives through new African mythology demonstrated in, *The Other Dakar* pivots the re-imagination of African VR storytelling.

***The Other Dakar*, Senegal (Kane, 2017)**

The Other Dakar, presents a unique and immersive view of the mythological landscape of Senegal particularly in the city of Dakar. This presentation is grounded in both academic research and creative interpretation, as evidenced in the work of Danelon and Zielinski (2023).

Danelon and Zielinski (2023) highlight the challenges and opportunities in reconstructing mythological landscapes through VR. They note the difficulty in creating precise maps based on textual sources alone, and how these sources offer only "a flexible arrangement of spatial relations between structures" (Danelon & Zielinski, 2023:97) . This approach mirrors the film's representation of Senegal's mythological landscape, where historical accuracy intertwines with artistic license, creating an abstract yet meaningful representation. Moreover, Danelon and Zielinski emphasize the role of digital models in VR as tools for knowledge, not just entertainment. These models, made of "simple geometric solids, provide schematic representations of key landmarks" (Danelon & Zielinski, 2023:102). This technique aligns with how *The Other Dakar* uses immersive virtual environments to give viewers a sense of the principal city landmarks of Dakar's mythological landscape.

The use of VR in these contexts, as Danelon and Zielinski assert, goes beyond mere visualization. It allows for a more "accurate and realistic perception of human and natural spaces within a simulated historical environment" (Danelon & Zielinski, 2023:110). This capability of VR to offer new perspectives and raise novel research questions is evident in *The Other Dakar*, where viewers engage with Dakar's mythological landscape in an interactive and experiential way following mystical beings in flamboyant and colourful costumes around the city.

Furthermore, the dynamic nature of VR, as seen in the film, is highlighted by the idea of a "timeline slider" (Danelon & Zielinski, 2023:111) in the VR application. This feature allows users to explore different historical periods and understand how landscapes and cities have evolved over time. Such a feature in *The Other Dakar* could enhance the understanding of how the mythological landscape of Dakar has changed, providing a deeper historical context.

The Other Dakar leverages VR's potential to blend historical data with creative expression, presenting Senegal's mythological landscape in a way that is both informative and engaging. The film harnesses VR's ability to offer new perspectives of Senegalese mythology, making it a powerful tool in the exploration of cultural and historical landscapes.

> *"All of it brings in the magical realism element into like a hybrid non-fiction form. And really that is something that we understand as a convention from African cinema, but that is utilized in 360. It also leaves you with a lot of questions. The story is not obvious".*
>
> *(Engel, 2023)*

A new Senegalese mythology is portrayed in *The Other Dakar* that diverges significantly from traditional African mythologies. According to Murphy, there has been a shift from the old African mythology, characterized by "crude and uncomplimentary stereotypes, to a new, more insidious form of mythology. This new mythology is tougher to combat because it appears objective, supported by evidence, and is constantly reinforced through media, including books and films" (Murphy, 1973:i). *The Other Dakar* reflects this transition by moving away from the older stereotypes and myths associated with Africa, as Murphy describes. For instance, the traditional image of African tribes constantly at war has evolved into a more nuanced understanding of tribal relationships, acknowledging the complexity and diversity within African nations (Murphy, 1973:4). This change in perception is evident in the film's portrayal of Senegalese culture, where tribal identities are depicted not as sources of incessant conflict but as part of a rich, multifaceted social fabric.

Moreover, Murphy highlights the issue of external perspectives and interventions in Africa, noting that Westerners often believe their approach to aid is the most effective for addressing

Africa's challenges. This mirrors a theme in *The Other Dakar*, where the portrayal of Senegalese society and mythology is not filtered through a Western lens but is presented from an inherently African perspective. The film underscores the importance of African voices and solutions in shaping their own narratives and future, aligning with Murphy's assertion that Africa's progress depends on a blend of home-based thought and foreign aid, led by Africans themselves (Murphy, 1973:10). *The Other Dakar* reflects a new Senegalese mythology that aligns with Murphy's observations on the evolution of new African mythologies. It moves away from outdated stereotypes and embraces a more nuanced, authentic representation of African cultures and identities, emphasizing the importance of African agency in defining their own stories and futures.

The film interweaves African cosmology with a rich tapestry of philosophy and mythology, the relationship between these elements is profound and intricate. This relationship is akin to the historical interplay of philosophy, mythology, and cosmology as noted by various thinkers. Philosophy, often viewed as a "rational and critical inquiry" (Udefi, 2012:58), begins with wonder and involves deep contemplation about the world, humanity, and existence. Mythology and cosmology, on the other hand, traditionally encompass the stories, narratives, and beliefs of a culture, addressing fundamental questions about the universe, life, and existence. These elements are not isolated but deeply intertwined.

In *The Other Dakar*, as in historical contexts, mythology serves as the narrative backbone, offering a story that embodies cultural beliefs and perspectives. This story is not just full of fanciful tales but carries within them seeds of philosophical inquiry. They provoke questions about existence, the nature of reality, and human purpose, much like the ancient Greek myths did for philosophers like Thales and Plato.

Cosmology in African traditions, as showcased in the film, goes beyond a mere scientific explanation of the universe. It is deeply embedded in the Senegalese culture's worldview, providing a framework within which both philosophy and mythology operate. It offers a structured understanding of the universe's origin, structure, and the interconnection of all its elements.

The Other Dakar is a modern representation of this traditional interplay. Just as ancient cosmologists like the Ionians and philosophers like Plato used myths to explain and explore philosophical concepts, the film employs African cosmology and mythology to craft a philosophical narrative about Dakar through various mythical beings. This narrative challenges viewers to reflect on the African worldview and its profound insights into life and existence.

The film serves as a contemporary expression of this age-old synthesis, where philosophy emerges from and is informed by the rich soil of mythology and cosmology. It is a dance of ideas and beliefs, where each element enriches the others, offering a holistic understanding of the African cosmological system and its philosophical implications on Afrocentricity.

7.5 Conclusion

Our advancement toward an Afrocentric cinematic language and grammar will lead the way to the conventions we privilege and subsequently inform the content produced. "The hope of course is that, it is Africans telling African stories and Africans are able to consume that" (Okonkwo, 2023). The exemplary works acknowledged within this paper when examined against theoretical and conceptual frameworks indicate we are well on our way there. Additionally, there were works that were able to critically confront and reframe complex

theories and ideologies. “When I used to describe virtual reality to people, I would say that this is a technology where you are only limited by your imagination” (Okonkwo, 2023). An increment in the catalogue of African VR films will see a rise in experimentation, diversification, craftsmanship and mastery of the medium and how it holds up on a global stage. Through my interviews with VR experts, an archive has been contrived as a site of referral and reflection to stimulate creativity and inspire innovations in futuristic cultural representation for Afrocentric VR storytelling.

CHAPTER 8: METHODOLOGY

I embarked on a qualitative systematic method of inquiry that sought an in-depth understanding of African VR storytelling and its implications on cultural representation. My research focused on the "why" rather than the "what" in my investigation of existing African VR storytelling conventions and how they could be re-imagined for a progressive cinematic landscape. I prioritized African culture as a meaning-making agent in the artistic practice of VR filmmaking. This orients with my Afrocentric methodological approach, which I will elaborate on further. I extended on Anderson's (2012:5) idea that the "Afrocentric idea examines and critiques the necessity for cultures to be viewed with agency and with subject responsibilities and capabilities". African culture is used as an overarching framework due to its particular significance and prominence in African storytelling beyond the VR format.

My research study consisted of mainly three activities:

a) Drafting a comprehensive background literature review engaging with theoretical and conceptual frameworks to contextualize African VR cinema using case studies of African VR films.
b) Conducting interviews with VR experts.
c) Producing a creative output, a VR documentary titled *AFRICA 360*.

I conducted an Afrocentric methodological mode of research throughout my study. An Afrocentric research study refers to a scholarly investigation that adopts an Afrocentric perspective as its theoretical framework and methodological approach. The Afrocentric method suggests "cultural and social immersion as opposed to scientific distance as the best approach to understand African phenomena" (Mkabela, 2005:179). My Afrocentric research study sought to centre African perspectives, experiences, knowledge systems and cultural

practices in the study of African history, culture and society. It aimed to challenge Eurocentric biases and narratives that have historically marginalized and misrepresented African people and their contributions.

I achieved this by doing the following:

a) I actively and consistently drew literature authored by African scholars for the underpinning of theoretical frameworks.
b) I exclusively conducted interviews with African VR experts.
c) I solely analysed African narrative-based VR films.
d) I engaged individuals from the Tsonga ethnic group in the drafting and translation process of the voice-over featured in *AFRICA 360*.

Reviere argues that a principal advantage of the Afrocentric approach is that it "compels the researcher to challenge the use of the traditional Eurocentric research criteria of objectivity, reliability, and validity in the inquiry process" (Reviere, 2001:710). I drew on African scholars, traditions and epistemologies as guiding principles to prioritize the voices, agency and perspectives of African people, including those in the diaspora living outside of the African continent. My Afrocentric research study encompassed a wide range of closely related disciplines such as cultural studies, history, film and technology.

Afrocentrism may be further defined as "an approach that positions African people as the centre of their knowledge production. It allows the African subject to engage the world based on their indigenous knowledge systems" (Nkosinkulu, 2021:59). My research involved especially in the Tsonga ethnic group: community engagement, collaboration, participatory approaches and recognizing the importance of involving diverse African communities in the

research process. The aim of my Afrocentric research study includes: promoting cultural affirmation, identity formation, social justice, empowerment and developing an idiosyncratic cinematic language and grammar for the African VR community at large. The Afrocentric methodology is "intended to be used to investigate pertinent research questions legitimately and effectively (i.e., truthfully and inclusively), especially those that possess embedded assumptions about race and culture" (Reviere, 2006 :261). My research has and will continue to contribute to a more comprehensive and accurate understanding of African cultures, histories and contemporary realities as the emerging technology develops.

My pedagogical approach informed the topics I chose to research, sub-chapters, how I analysed the dialogue offered by my interviewees, the conclusions I drew, interpretations and expressions. I embarked on my investigation through a desktop research study. I began by finding and reading literature about VR in the African context. Identifying distinguishing characteristics that uniquely framed African VR in a manner that differentiated it from other VR works.

From VR in the African context, I shifted my attention to establishing, however not exhaustively African storytelling conventions to be acknowledged when producing VR narratives about the Tsonga ethnic group. It was critical to focus the study on a distinct group of African people as my investigation of VR in the African context revealed the depth and contrast of African storytelling dependent on culture and ethnicity. "It is essential that the direction and orientation used in the application of research methods is grounded in African people's symbols, motifs, rituals, signs, and languages" (Pellerin, 2012:155). My selection of the Tsonga ethnic group was informed by my identification as a Tsonga individual, accessibility to people well versed in Tsonga culture, language and practices as well as my

familiarity of the Limpopo region where the production of my VR documentary, *AFRICA 360* took place. This aligns with the Afrocentric research methodology which requests that "the researcher must have some familiarity with history, language, philosophy, and myths of the people under study" (Mkabela, 2005:180). Once again, foregrounding the Tsonga ethnic group I acknowledged the specific history and cultural practices assigned to women, evaluating Wajcman's techno-feminist theory against VaTsonga women in African VR storytelling. I argued for the empowerment and progressive representation of VaTsonga women in VR cinema in consideration of the past and present positionality of VaTsonga women and their role in their communities. Determining how to address these issues in African CVR after learning more about the history and sensitivity during the research process allowed me to consider how African CVR can actively and intentionally steer away from non-progressive storytelling conventions. African female-centred stories bring attention to the intersectionality of gender, race, and other identities, which is crucial for Afrocentric research.

There is a connection between African feminism and the Afrocentric paradigm, "it should be understood to emphasize the need for balance between the roles of men and women's experiences rather than just mandatory coupling. Thus, appreciating and understanding this connection is at the root of any theory dealing with African women within the Afrocentric paradigm" (Ntseane, 2011:314). Simply put, gender imbalances should be acknowledged in respectively defining African feminism and the Afrocentric paradigm as they are not interdependent terms. It is often the case that they are assumed to be. In investigating the unique experiences and challenges faced by African women, my Afrocentric research sheds light on the complex interplay of various social identities and power dynamics. This intersectional lens helps uncover nuanced insights and informs the design and

implementation of VR technologies that are sensitive to the diverse needs and perspectives of African women. Moreover, African female-centred stories enriched my Afrocentric research about VR in Africa by providing inclusive representation, cultural context, intersectional analysis, insights into empowerment and agency. Through centring African women's experiences and narratives, my Afrocentric research generates more nuanced and relevant findings that contribute to the development of inclusive and culturally sensitive VR technologies in Africa.

I proceeded to conduct a comprehensive film analysis underpinned by the following literature:

Table 8.1. – VR Films and Literature

VR Film	Literature
My Africa (2018)	*Virtual reality as a tool for environmental conservation and fundraising* by Nelson, K. M., Anggraini, E., & Schlüter, A. (2020).
Travelling While Black (2019)	*Tweeting the black travel experience: Social media counternarrative stories as innovative insight on #TravelingWhileBlack* by Dillette, A. K., Benjamin, S., & Carpenter, C. (2019).
The Untold Story of Africa's Middle Class (2018)	*The media's failure to represent the working class: Explanations from media production and beyond* by Hesmondhalgh, D. (2017).
Waves of Grace (2015)	*Reality check–the potential and problems of Virtual Reality documentary* by Sørensen, I. (2019)

My desktop research came to an end with a literature review when I engaged with theoretical and conceptual frameworks from scholars and theorists. This included:

a) Ceuterick and Ingraham's exploration of immersive storytelling and affective ethnography in virtual reality;
b) Green's conceptualization of cultural heritage, archives and citizenship, particularly reflections on using virtual reality for presenting knowledge diversity in the public sphere;

c) Wajcman's TechnoCapitalism Meets TechnoFeminism;

d) And Floridi's investigation of ethical aspects of virtual reality and computer simulations as representational media.

I used a purposive sampling method referred to as homogenous sampling. This sampling method "focuses on candidates who share similar traits or specific characteristics… The idea is to focus on this precise similarity and how it relates to the topic being researched" (Etikan et al., 2016:3). I then developed a criterion to use to select my interviewees:

a) Their professional experience in the African VR sector.

b) Their contribution and the impact of their work on the African VR sector.

c) Ensuring African women were represented in the participant sample.

I selected a sample size guided by this instruction as an Afrocentric research practice:

"The researcher must determine a population and sample size that represents the africana phenomenon being explored, and does not reduce the agency of those participating in the study. Population and sampling involves pinpointing a targeted group to study. This is important because this phase dictates the conclusions that can be drawn about the africana phenomenon".

(Pellerin, 2012:156)

The selected interviewees were also determined by availability and consent to participate in my research study.

Table 8.2. – Selected VR Experts for Interviews

Interviewee	Affiliated Organization	Job Title and Experience	Contribution
Victor Mark Onyegbu *(Male) Nigeria*	Africa No Filter	Grants Lead (Rockefeller Philanthropy Advisors), *2+ years. (Former management role(s) at the*	Providing operational and strategic support for grants to assist XR creators.

		British Council in Lagos for 5+ years*)*	
Judith Okonkwo *(Female) Nigeria*	Imisi3D	Founder and CEO, *7+ years*	Building a VR/AR community in Africa and creating educational VR/AR solutions.
Antoinette Engel *(Female) South Africa*	Electric South	Producer, *2+ years*	Supporting the *New Dimensions Lab,* an XR training program.

I reflected on my interviews with each VR expert in a dedicated chapter, drawing from significant assertions they made in their interviews and their most notable VR films framed by respective theoretical frameworks relevant to each topic. This was a valuable contribution to my research study offering a diversified perspective from the discoveries I made from my desktop research. I went a step further to explore how African VR storytelling conventions were re-imagined in the films they flagged. My findings from this process offered informative inputs on how African VR stories are re-imagined against theoretical frameworks which validate their process and impact. My interest in this offering is particularly rooted in a desire to explore sites of inventiveness and potential gaps.

My research study continued as I developed a script for my CVR documentary, *AFRICA 360*. I illustrated storyboards from the script. I received guidance from Tsonga family members based in the Limpopo region for the interpretation and translation of the voice-over poetry heard in the beginning of the film recited by a young Tsonga girl. Lastly, I worked through the creative practice intuitively. The section below offers a preliminary treatment of the film before its creation. The relationship between the Afrocentric framework introduced earlier in this paper is presented through the approach I undertook in the making of the documentary VR film as a creative output. The VR documentary, *AFRICA 360*, is an edutainment film about African VR in VR. "Edutainment is an up-and-coming field that combines education with entertainment aspects; thus enhancing the learning environment, making it much more

engaging and fun-filled" (De Paolis et al., 2009:80). This was a measured and conscious creative consideration adopted for the following reasons:

a) Educational Value - A film about African VR in VR serves as an educational tool. VR technology allows for interactive and immersive storytelling, which may enhance the learning experience. "Using modern 3D interface technologies such as Virtual Reality (VR) and Augmented Reality (AR), developers can simulate physical phenomena which might be difficult to realize to provide an experience-based learning environment" (Irawati et al., 2008:21). The film educates viewers about VR in Africa. It exhibits the potential of VR technology to address social challenges and provides solutions in African contexts.

b) Inspiring Innovation - The format of the content inspires further innovation and creativity. "The consumption of art seems therefore subject to considerable evolution, and this requires a new analysis of the moment in which the individual and the work of art interact through the mediation of technological applications" (Addis, 2005:1). Users witness the possibilities and potential of VR technology in African settings, which can encourage the development of new ideas and initiatives. The film serves as a catalyst for collaboration and investment in African VR projects, promoting technological advancement and socio-economic growth.

c) Cultural Exchange and Collaboration - *AFRICA 360*, may facilitate cultural exchange and collaboration between African and international VR communities. It celebrates the unique perspectives, creativity and talent of African VR practitioners, fostering connections and partnerships with global VR networks. The VR documentary is "a means of communicating a large amount of visual information and a tool for constructing collaborative worlds where there is a

combination of different media and methods for an integrated learning approach" (De Paolis et al., 2009:80). This collaboration may lead to knowledge exchange, skills development, and the sharing of best practices, benefiting both African and international VR communities.

Moreover, the production of a film about African VR in VR leverages the capabilities of VR technology. The documentary earnestly and impressively displays African VR initiatives and their contribution to the growth and recognition of African leaders in the VR field. It is all successfully accomplished through telling a story about a medium using that very same medium to demonstrate just how exceptionally multidimensional it truly is.

I opted for the *AFRICA 360* documentary as an Immersive Virtual Reality (IVR) experience to optimize the immersive storytelling properties this type of VR provides. The definition and features of this type of VR compared to other categories of VR is illustrated in the table below:

Table 8.3. – VR Classifications

(Mi et al., 2016:2)

Classification	Definition	Feature
Immersive VR	User can experience the virtual reality space by wearing special equipments such as HMD, Data Glove and, at this time, using the special equipment the person is wearing, user can operate the subjects directly. CAVE type is an immersion type in which virtual space is formed in a structure of dome or hexahedron and can be controlled using a controller device.	*Provides the most sense of immersion and for this end, use must wear a special equipment or a goggle. *Shuts the visual and audio sense from the real world and replaces those with manipulated sense in the programmed world. *The prices of equipments used were high in the past, but now are distributed even as personal devices.
Semi-Immersive VR	Provides sense of immersion to user by projecting virtual reality onto a large scale screen.	*Multiple of users can experience virtual reality at the same time. *Installation is convenient because hardware structure is simple compared to CAVE.
Desktop VR	This is a non-immersion type as it is a kind of desktop virtual reality. Interaction between the user and virtual reality occurs in the form of the image on the screen.	*As a non-immersion type, virtual reality is felt only in the form of visual cubic effect on the screen. *Even though sense of immersion is less than Immersive VR, its operation is possible even on the simple hardware structure such as a PC.

Below I have detailed a comprehensive treatment of *AFRICA 360* before its creation. The final output has significantly changed through the conceptualizing, scripting, filming and editing production processes. The essence of the story, however remains aligned with what was originally set out to be achieved.

Preliminary Treatment: *AFRICA 360*

Concept:

To "re-imagine" is to reinterpret (an event, work of art etc.) imaginatively - in a way that shows creativity or inventiveness. The context in which the re-imagination takes place is in Africa, also known as the "mother of mankind". The *AFRICA 360* VR documentary seeks to interrogate and question the conventions that influence and dictate VR filmmaking on the African continent. In doing so, this exploration does not seek to suggest a singular approach to the African VR cinema practice and the conventions proposed to be re-imagined are in no way "fixed" or static but remain fluid, interchangeable and subject to change.

The creative practice seeks to perform an investigative study, make suggestions and raise questions around some of the theoretical frameworks in this study. It achieves this through documenting the past, present and future of African VR filmmaking. It also analyses popular cinematic VR films that have received notable recognition from local and international institutions. The documentary further assesses the socio-economic and cultural parameters that influence African VR cinema. The poetic expository documentary includes exclusive interviews with experienced and reputable African VR filmmakers, researchers and founders of extended reality initiatives and organisations. Emerging African VR filmmakers and enthusiasts will gain insight from industry professionals about VR in VR.

AFRICA 360 is a 10 minute cinematic VR documentary seen through a third-person limited point of view. The user is a spectator of the events throughout the experience and is led through voice-overs guiding the narrative. The user is dropped into each location in the script. The viewer's point of view is purely observational with no physical or verbal interaction. The visual treatment of the documentary follows the artistic approach of the expository mode in that it sets up a specific point of view or argument about a subject and features the "voice of God" style voice-over of intimate and personal experiences from VR practitioners to engage and educate users. The documentary features a protagonist from the Tsonga ethnic group who will express herself in her native language. The selection of a distinct African culture allows a meticulous concentration on a subject and its themes to practice Afrocentricity and centre the film in a clearly defined African milieu.

The film borrows from, *Travelling While Black's* (2019), "oral, nearly testimonial form of storytelling, and its localized visual scenography [which] serve to expose and challenge racialization and structural inequalities without conflating the viewer and the viewed" (Ceuterick & Ingraham, 2021:13). *AFRICA 360,* authentically encapsulates the rich and diverse essence of what it means to be a creator in the VR filmmaking space. Through tone, texture and mood users will enjoy a representation of Africa effectively, as VR permits removing this "fourth wall altogether by simulating reality rather than representing it" (Ceuterick & Ingraham, 2021:11). The film also relies on diegetic sound to advance the narrative and inform the cinematic space while using this realm to allow the relationships between the subjects to unfold. The structure of the film is organised effectively around the African VR filmmakers and the conventions they were, currently are and will possibly be regulated by.

AFRICA 360 as a VR documentary is an opportunity to educate, empower and uplift. It aspires to capture a collection of real-life events, experiences and recount factual historical evidence and happenings coupled with gripping interviews and insight from creators, academics and researchers in the field. The creation of the documentary will disrupt and formulate a new representation of African VR filmmakers. My subjectivity as a filmmaker permits me to authentically represent the marginalized African VR community and to celebrate their journey as they navigate through society reclaiming their power through innovative and immersive storytelling.

Synopsis:

AFRICA 360, is a contemporary VR documentary probing VR practitioners on the African continent guided by a native Tsonga presenter. It seeks to unearth the past, foreground the current and reimagine future storytelling conventions within the cinematic medium to demonstrate the potential of the advancing technology. It does so as a narrative device to advance CVR as a response to the rapid change in technology, industries, and societal patterns and processes in the 21st century due to increasing interconnectivity and smart automation in Africa. The documentary illustrates three periods of African VR cinema. The first era focuses on the introduction of VR on the African continent, which will explore the introduction and response of the medium by African filmmakers. Furthermore, it discusses the preliminary conventions that came into effect and the narrative strategies that formed, what may be considered the foundation and fundamentals of African VR cinema. The primary theme of this chapter is inception and origin, considering the socio-economic factors that informed the adoption of VR in Africa to visually relay these notions.

The second era of the documentary portrays the present-day and unmasks the current realities of African VR filmmakers grappling with being embraced by a rapidly advancing developing society following the emergence of the Fourth Industrial Revolution. Furthermore, the narrative examines the implementation of newer African storytelling conventions, in contrast to the earlier ones as a measure of progress. This chapter also seeks to unmask themes of modernity with present-day socio-economic opportunities and limitations to demonstrate the trajectory of African VR cinema and the conditions under which the conventions of the medium are fulfilled. The narrative expands the above primary theme by inviting African VR representatives from *Africa No Filter, Imisi3D* and *Electric South*. They discuss how VR cinema as a storytelling medium has crafted a community of radical evolutionists and pioneers - with the goal of diversifying saturated Eurocentric spaces through disruption, refusal practices and taking up space using pro-Africanist storytelling conventions.

The final chapter of the film is a celebration of the progression of African VR cinema and postulation of what the future of African VR cinema may be from the perspective of inventive VR filmmakers. Considering the evolution of technology, this part of the narrative offers a generational perspective of African VR cinema which validates the African identity and subsequently re-imagines existing storytelling conventions. It also juxtaposes the ideas of aspiring and emerging African VR filmmakers to those of veterans who anticipate what they would like to see coming out of Africa. This is relayed through voice-over interviews, whereby filmmakers from various parts of Africa envision what the future of VR in Africa looks like to them. Thereby, bringing the film to a nuanced ending by representing the themes of reflection, re-imagination and preservation of African VR cinematic conventions.

This chapter outlined the data collection procedure and the subsequent data collected from relevant literature and interviews with VR experts. This research sought to understand

African VR storytelling and cultural representation. The methodology employed was presented and underpinned by the Afrocentric theoretical framework. The research design, detailing research activities from the literature review, interviews, and development of the documentary film *AFRICA 360*, reveals the rigour and complexity of this study.

The results from the various datasets (literature and interviews) were analysed and discussed in respective chapters in which meaningful conclusions were drawn. The interviews with the VR experts focused on exemplary VR films they consider having successfully re-imagined African VR storytelling. The identification of these films, completely different from those selected for a film analysis, offered new insights on what we may distinguish as re-imagined VR works in the African context from others. Critically evaluating these films alongside theoretical and conceptual frameworks aided in locating and contextualizing why these films were indeed rightfully categorized as re-imagined.

From my research study it is deduced that African VR storytelling conventions are informed by filmmaking practices which are fully reliant on the cultural representation of the community portrayed. There is great complexity and intricacy in crafting narrative(s) about a historically marginalized and typically misrepresented group of people who are equally diverse outside of their categorization of being African. Developing an exhaustive list of African conventions to be adhered to would be inaccurate and futile. Establishing a unique and distinctive case study, seen through this research with the Tsonga ethnic group, to firstly understand the history, traditions and social dynamics; and secondly using that knowledge to integrate the same cultural dimensions into the properties VR technology enables is a requisite that requires great patience, sensitivity and an equal understanding of VR as a storytelling technology and the African community you wish to represent.

CONCLUSION

CVR in an African context represents a new frontier in narrative and visual storytelling, blending traditional storytelling with cutting-edge technology. It is a medium where cultural expression, artistic innovation, and technological advancement converge to create immersive and interactive experiences. As African filmmakers and artists embrace VR, they navigate a landscape filled with both opportunities and challenges unique to Africans' diverse socio-economic and cultural fabric.

The research revealed that CVR in Africa is at a nascent but rapidly evolving stage.
Key findings include:

9.1.1 How is VR cinema presented in an African context?

In African VR cinema, technology is more than a tool; it is a canvas for cultural expression. Filmmakers are using VR to transport viewers into the heart of African stories, allowing them to experience everything from bustling cityscapes to remote landscapes. These experiences are deeply rooted in Africans rich storytelling traditions, reimagined for a global audience in a 360-degree format. The immersive nature of VR creates a sense of perspective-taking and radical compassion, providing a powerful medium for storytelling that transcends traditional film.

This research has revealed that VR is a transformative tool that empowers African communities to rediscover their heritage, preserve their culture, and challenge stereotypes. By providing immersive experiences and access to remote locations, VR has the potential to connect global audiences with the richness of African traditions and history. Through its innovative applications, VR is not only fostering a renewed sense of pride and identity but also facilitating exploration and conservation efforts in otherwise inaccessible African

environments. As we continue to explore the possibilities of VR, it is evident that this technology has the power to shape a more inclusive and accurate narrative of Africans for the world to experience.

9.1.2 Limitations and gaps in understanding how VR cinema is presented in an African context:

This study, while comprehensive, acknowledges several limitations in its scope and methodology. Firstly, the variability in technological access and digital literacy beyond the continent means that the findings may not fully represent all African countries or communities. The diversity of languages, cultures, and socio-economic conditions affecting Africans also poses a challenge to generalizing the results.

Moreover, there is a practical knowledge gap in the literature regarding the specific storytelling techniques, audience reception, and social models of African VR cinema. While this research provides a foundational understanding, it does not capture the full breadth of the evolving African VR landscape. The rapid pace of technological change and the emergence of new creative collectives and initiatives also mean that the field is constantly evolving, necessitating ongoing research and documentation.

9.1.3 Recommendations for future research on how VR cinema is presented in an African context:

Given the identified limitations and gaps, future research should take several directions. There is a need for more comprehensive studies that include a wider range of countries and communities across the African diaspora to provide a more nuanced understanding of how VR is being adopted and adapted. Research should also focus on the economic aspects of VR

cinema, including production costs, funding opportunities, and revenue models, to understand the sustainability of African VR initiatives.

Furthermore, in-depth audience studies are crucial to gauge the reception, interpretation, and impact of VR content. Understanding the user's experience (UX), particularly in relation to cultural representation and narrative engagement, can provide valuable insights for creators and educators alike. As VR technology evolves, continuous examination of the technical and creative advancements in VR cinema will also be essential.

9.2.1 What effect does cultural representation have on creators and viewers of African VR content?

This research study has uncovered that cultural representation in African VR content has far-reaching effects on both the creators and the audience. For creators, it is an opportunity to showcase Africans' cultural diversity, share stories that resonate with their experiences, and challenge the often one-dimensional narratives seen in international media. VR's immersive nature allows for a deeper exploration of cultural themes, from everyday life and historical events to myths and traditional beliefs.

For audiences, particularly those from the same cultural backgrounds as the content, it offers a sense of pride and validation to see their stories and heritage represented in a modern and dynamic medium. It can also be a powerful tool for education, conservation efforts and radical compassion, allowing people from different backgrounds to "step into" and experience other cultures first-hand. This can lead to greater understanding and respect for Africa's diverse cultures and histories.

However, this representation is not without its challenges. Issues such as authenticity, stereotyping, and the risk of cultural appropriation are ever-present. Ensuring that VR content is respectful and accurate requires a careful and considered approach, often involving collaboration with communities and cultural experts. It also requires a sensitivity to the nuances of different cultures, recognizing that each has its own distinct stories, symbols, and meanings.

9.2.2 Limitations and gaps in literature on cultural representation in CVR:

The study's focus on the Tsonga ethnic group, while providing in-depth insights, also represents a limitation as it does not encompass the entire spectrum of African cultures. VaTsonga's rich history and traditions are but one example of Africa's cultural diversity. Future studies could benefit from exploring a variety of cultural groups to provide a more comprehensive understanding of cultural representation in VR.

Additionally, there is a lack of extensive empirical data on how cultural representation in VR affects audiences' perceptions and attitudes. While the immersive and interactive nature of VR suggests a powerful impact on viewers, more research is needed to understand these effects fully. This includes studying different demographic groups amongst Africans and in the diaspora to see how cultural representation in VR resonates with diverse audiences.

9.2.3 Recommendations for future research on cultural representation in CVR:

To address these gaps, future research should aim to include a broader range of cultural narratives. This could involve collaborative projects that bring together filmmakers, cultural historians, and communities to create VR experiences that are culturally rich and diverse.

Comparative studies examining the representation of different cultures of Africans, and how these are received by various audiences, would also be valuable.

Additionally, there is a need for more audience research focusing on cultural representation in VR. This includes qualitative studies exploring audience perceptions and experiences, as well as quantitative research measuring the impact of cultural representation on viewers' knowledge, attitudes, and perspectives. Understanding the emotional and cognitive effects of immersive cultural experiences can guide creators in producing content that is not only engaging, but also culturally sensitive and impactful.

9.3.1 How is African VR storytelling currently being presented and how can it be re-imagined?

The re-imagination of storytelling in African VR is a testament to Africa's dynamic and innovative spirit. Filmmakers and creators are not just adopting VR as a new medium; they are actively reshaping it to suit their artistic vision and the stories they want to tell. This involves experimenting with narrative structures, incorporating interactive elements, and exploring new ways of engaging the audience.

One of the most significant aspects of this re-imagination is the shift from passive to active storytelling. In traditional cinema, the audience is typically a spectator, but in VR, they can become a participant. This creates a more engaging and immersive experience, allowing viewers to have a deeper emotional connection with the story. African VR creators are leveraging this to make stories that are not just watched but experienced.

Another aspect is the use of VR for cultural preservation and education. By creating immersive experiences of cultural events, traditions, and historical narratives, VR has the potential to serve as a powerful tool for education and cultural preservation. It can bring to life aspects of culture that may be fading or misunderstood, allowing them to be experienced by a new generation and preserved for the future.

According to interviews with VR experts, African storytelling conventions in CVR are currently undergoing a transformation. These findings are based on a dialogue on specific film references supported by prominent theorists and thinkers. This evolution involves creating local content that appeals to an international audience through a novel concept known as “glocalization”, crafting narratives that aim to be radically compassionate rather than empathetic which by definition is often misconstrued and negligently used, and delving into storylines that draw inspiration from African mythology, philosophy, history and cosmology.

9.3.2 Limitations and gaps in understanding the re-imagination of African VR:

While the study provides valuable insights into how African VR storytelling is being re-imagined, it is based on a limited set of interviews and film analyses. The rapidly evolving nature of VR technology and the creative experimentation it fosters means that the landscape is continually changing. Additionally, there is a lack of comprehensive studies on the long-term impacts and effectiveness of these new storytelling techniques, particularly in terms of their educational and cultural preservation potential.

9.3.3 Recommendations for future research on re-imagined African VR storytelling:

To further understand and support the re-imagination of storytelling in African VR, future research should aim to include a wider array of voices and perspectives. This could involve longitudinal studies tracking the development of specific VR projects or broader surveys of the evolving landscape of African VR storytelling. Examining the pedagogical applications of VR in storytelling and its effectiveness in cultural preservation would also provide valuable insights.

Additionally, there is a need for more collaborative research involving storytellers, technologists, educators, and cultural experts. Such interdisciplinary approaches can provide a more holistic understanding of the opportunities and challenges of African VR storytelling. Exploring the impact of these stories on various audiences, including their emotional, cognitive, and behavioural effects, can also guide future content creation and policy-making related to VR and digital media.

9.4 Conclusion

African CVR represents a significant and evolving domain of cultural expression and innovation for Africans. It offers new possibilities for Afrocentric storytelling, cultural preservation and re-imagination. However, the integration and impact of African VR cinema are influenced by a range of technological and cultural factors. By addressing the identified gaps and limitations, future research can support the continued growth and development of African VR cinema. This includes exploring culturally specific models of storytelling, understanding the effects of cultural representation, and staying up to date with narrative techniques and strategies emerging in African VR storytelling. As technology advances and more diversified voices are heard, African VR cinema has the potential to not only transform

the landscape of African storytelling, but also contribute significantly to the global narrative of VR as a medium for cultural expression and innovation.

AFRICA 360 VR DOCUMENTARY

Duration: 07:34

Platform: YouTube

Link: https://youtu.be/D4n5NCrdTX4

APPENDICES

1. Interview Questions
2. Interview Transcripts
3. AFRICA 360 Treatment
4. AFRICA 360 Script
5. AFRICA 360 Storyboards

VICTOR-MARK ONYEGBU – AFRICA NO FILTER

African VR Research-20230609_133209-Meeting Recording

Date: 09 June 2023

Duration 38 minutes 47 seconds

Platform: Microsoft Teams

Link: African VR Research-20230609_133209-Meeting Recording.mp4

Interviewer: Nkateko Nicole Langa (referred to as 'N')

Interviewee: Victor-Mark Onyegbu (referred to as 'V')

Transcript:

0:12
N: Yeah, I think it's recording now. So I am just going to briefly introduce myself and then we can get into the interview questions. So my name is Nicole Langa and I am currently a Master's student at the University of the Witwatersrand around here in Johannesburg, South Africa.

0:33
N: I am enrolled in a film and television degree that specializes in virtual reality and I have decided to take upon research that specifically is centred around the production of African VR content in Africa and how we can create content that has a unique cinematic language and grammar that is quite different and locates itself as Afrocentric.

1:03
N: As opposed to the Eurocentric content that a lot of us may have seen. So that is just the essence of what my research is about and I am interviewing a specific group of people who are knowledgeable about VR in business or practitioners that can bring more insight into the research that I am undertaking if you have any questions?

1:34
V: That's fine, yeah, I think it's quite straight. I think it's quite straightforward. My only challenge would be that I've got about 60 minutes. I know you had said 90 minutes for the interview, but we'll see how much we can achieve in the next one hour or so.

N: Yeah, no problem.

V: But besides that, I think what you're trying to achieve is quite straightforward as you've explained.

2:00
N: Ok. Yeah, I think we can push because there are only 21 questions. So I think we can get through them quite quickly. So my first question to you would be, could you please introduce yourself and what you do?

V: My name is Victor Mark Onyegbu. I am the Head of Grants at Africa No Filter, the head of the Grants portfolio at Africa No Filter. Africa No Filter is a narrative change organization.

2:28
V: A non-profit organization set up to shift stereotypical and harmful narratives within Africa and also about Africa. And so we go about this through a number of ways, which we call pillars and pillars of our work include giving grants to storytellers, doing research, doing advocacy and also building the community of storytellers the equal, the storytelling ecosystem.

2:57
V: In Africa. So I oversee all our interventions around grants making, grant strategy and grant operations and I do that specifically for the media and art and culture sectors. And so everything about our presence in these two sectors, either doing programs or supporting storytellers is my day-to-day business.

3:24
N: Ok. That sounds quite interesting. And how did you begin your career in VR or at Africa No Filter? And how engaged are you with specifically VR content?

V: I think I have been engaged more on the administrative side of things. And so we see VR first and foremost as storytellers.

3:51
V: And I've been pretty much engaged with storytelling and storytellers, managing intervention activities and projects around the storytelling ecosystem. So I wouldn't see myself as a creator. I'm not a creator, but we manage, we manage the system within which creators find themselves and so on. I think it started in a couple of years ago at the British Council.

4:22
V: Sorry, just a second. A couple. It started a couple of years ago when I was at the British Council. I managed an intervention program that had to do with telling the story of the British Council's presence in Nigeria over 75 years using virtual reality.

4:52
V: And so I walked around getting the storytellers, the contents, the historical perspective and all the narratives they wanted to project. And then the creation was then created by a storyteller, right, a VR creator. And then right here at Africa No Filter, I've also been at the forefront of managing partnerships with Meta to see how storytellers in Africa, especially those who are interested in extended reality can..

5:22
V: Get support a 360 degree support, so support in terms of funding but also support in terms of mentorship and then just generating knowledge about the sector and creating more visibility about the possibilities of extended reality in Africa. And so I would say all in all in between the last four years, 4-5 years and now I've been having.

5:48
V: Quite frequent interactions with the storytelling ecosystem, as it has to do with virtual reality and extended reality.

N: And would you say that your experience with the British Council is your most memorable moment while working at Africa No Filter or?

V: No, no, no. My the most memorable for me within the VR space. Right within the VR space.

6:15
V: Because I've got lots of projects that we do at Africa No filter, but within what we had done in VR, I would say the most remarkable is our partnership with Meta, because the partnership with Meta was to provide a 360 in degrees intervention within the XR ecosystem in Africa and that involved providing grants.

6:44
V: Financial support to creators to create content, Afrocentric content. Also giving grants to researchers to do some research about the possibilities and applicability of extended reality across different parts of the society, whether it's in the healthcare system or in the education system.

7:08
V: Or in the transportation sector. And so on and so forth, just to do a scoping of the society and see where and where you know extended reality can potentially be applied to create solutions to daily problems. We also did fund journalists to produce think pieces and articles exploring how extended reality has fared within the academia and also within the society.

7:37
V: And the amount of research, a little bit of a, a little bit of a literature review, the amount of knowledge that has been provided and produced and developed around the applicability of extended reality, you know on the continent. And then lastly, we also funded an organization in conjunction with Meta, of course we funded an organization to do a scoping, a mapping of the VR ecosystem or the XR ecosystem in Africa.

8:06
V: You know, who are the players in the industry, what opportunities exist, Who are the stakeholders, what is the direction of travel? What has been done so far, what could still be done in the future? So I would say was the most memorable for me because we weren't just approaching extended reality from one perspective, but we approached extended reality from all, the all the corners, all the possible corners, right. So that's why we call it a 360 degrees intervention.

8:35
V: In extended reality.

N: Ok and as a Nigerian born and bred, I'm assuming, how do you think? Also based on your experience as a viewer and as a consumer of VR content, how do you think that your black community has been represented within the projects that you guys have coming out with?

9:08
N: In terms of how the characters look, their behaviours, the language, how do you feel the representation of African people in our content is?

V: Well, I would say that generally speaking representation of Africa in the VR space has been, has not been as impressive.

9:34
V: As we would want it to be, it's been quite Eurocentric, displaying Western characters, displaying Western characters, displaying Western content, right? And so this, this has not been, it's not been as impressive as we as we, we, we, we thought or we would wish it to be, especially in the entertainment space.

10:07
V: Right. The people who are doing virtual reality and extended reality in areas of providing entertainment services to the general public have consciously, unconsciously defaulted to regurgitating Western content rather than creating Afrocentric content from the scratch.

10:34
V: Right. So because it's a new story form, it's a new mode of storytelling that is beginning to emerge on the continents, most of the things that we are seeing right now, things that we just imported, right from Western entertainment spaces, right. And so it's just recently we're beginning to see that consciousness build within African creators.

11:03
V: To begin to create something that is Afrocentric and that was one of the reasons we embarked on our project at Africa No Filter to fund creators to create Afrocentric content, just the way they would consume content from Europe or the Western part of the world. So it hasn't been what, its emerging, it's not where we want it to be yet. It's not at the level we want it to be yet.
11:30
V: But I can say that it's emerging and that consciousness and sensitization is now beginning to spread, you know amongst the creators in the entertainment space and all of that. I think it's, it's emerging.

N: And what are some of the practical steps that you think can be taken to improve the representation aside from the from the.

11:59
N: From the existing initiatives that Africa No Filter is already embarking on, maybe on a more personal level or a more business perspective, do you think there's anything else that you as organizations can do or that practitioners can do to like take it into their own hands because it is going to be a very a very slow process but.

12:27
N: As long as it is in the making and in the doing then I think the steps are already being taken. But is there anything else outside of that that you feel can be done to improve or make the process a little bit more faster?

13:05
N: Hello. Are you still there? Hello.

13:41
N: Hello. Can you hear me? Hello. Can you hear me?

14:16
N: Hello, Can you hear me, Victor?

V: Hello, Nicole. I'm so sorry. I think my connection went so bad and I had to just change to a different supply.

N: Ok, no problem. I'm just going to repeat the question that I was asking while your connection cut off.

V: Ok.

N: Do you think that outside the initiatives that Africa No Filter is already providing to help?

14:45
N: With the progressive representation of African people in African VR that there's anything or anyone else can do within their own personal capacity to improve the representation of African people in VR cinema.

V: I don't think it's so much of what people can do in their personal capacities. I think it's more about what organizations can do, and this is one of the things that we've been doing at Africa No Filter to advocate.

15:15
V: For the sector, right and advocate for the kind of things that we want to be reflected in the content that comes out of the XR ecosystem in Africa. The kind of things we want to see creators reflect in their work is what we are advocating for. And one of the things that we're doing is to speak to organizations to partner with festivals or create.

15:40
V: Festivals that provide support to festivals. It takes quite a lot for festivals to happen, but festivals does one very important thing. It provides a platform for you to showcase content. It's a platform that syndicates content, brings content from all over the place, and then provides a platform for that content to become visible right? Because there's a huge concentration of attention, a huge concentration of expertise and all within a festival.

16:09
V: And so there are very few kinds of festivals in and on the continent that provides opportunity to showcase VR content. And so we've been advocating for stakeholders, funding institutions and institutions that are practitioners within the space to lend more supportive festivals. Because festivals can be quite expensive to produce, they can be quite difficult to organize.
16:36
V: You've got to think about the community engagement, audience engagement, the content and all the logistics that goes into it. So it's quite huge. And the few people who have tried to

put up festivals, one sometimes short of the funding to do that and short of the expertise to do that and short of the partnerships to make that happen. And so we're trying to do our best in advocating for the interest of.

17:03
V: The sector and the best way we think or one of the most effective ways we think is for us to have more and more festivals, more and more platforms where content can then be showcased. And this is really what we're doing with talking to partners like Meta, you know, and other partners within the tech ecosystem to see the need to provide support to these platforms and by the time these platforms.

17:33
V: Become as frequent and as diverse as you have, the film festivals, the regular film festivals, which you know we have all over the continent, we're able to have a replication of that kind of efforts within the XR ecosystem. Then you would see automatically it will trigger, it will motivate creators to create more content because they know that they've got an outlet.

18:03
V: They've got a platform where that content can be consumed. They've got the platform where that content can be showcased. And so the fact that we're not creating outlets, marketing outlets, visibility outlets for content, it provides a disincentive for creators to do any work because the feeling is that it's not going to travel, it's not going to go out there, Nobody's going to see it.

18:29
N: And so on. So there's a whole lot of benefit we can get from sort of supporting festivals and that's really what we're doing, trying to talk to individuals and organizations to see reasons to do that.

N: Within these platforms where African VR content has been accessible, such as these film festivals that you are mentioning. Do you have any favourite VR film?

18:58
N: That has a specific focus on African subject matter. And why is this particular piece your favourite?

V: Well, one of the ones that comes to mind is the Bodaboda. Now I know it's, it has a different name. I'm trying to think of the name. I can't remember the actual name, but the setting the plot was around.

19:24
V: The adventures of a motorbike rider in Kenya, in Nairobi, right. So they call them the Bodaboda riders and the whole setting was such that it captured the experiences, the daily experiences of a motorbike operator from the perspective of the motorbike operator, right from the passengers he picks on the roads to all the exchanges he has with his customers and all of that. So he just provides.

19:54
V: You know this perspective into the life of a, motorbike operator in Kenya, but then using the VR format to tell the story. And I thought that was really, really great. We've also got one that was set in Northern Nigeria, about a culture that seemed to have died in Northern Nigeria. It was prevalent in the 19th century, in the 20th century, but towards the 21st century.

20:24
V: It became outdated, so to say, or wasn't sustained, right? And so lots of the newer generations seem to have forgotten that this was part of the cultural and the historical context of their environment a couple of years ago. And so a VR film was centred around what that culture, what that practice meant in terms of the economy of the place of Northern Nigeria.

20:53
V: And the cultural identity of Northern Nigeria in the 18th and 19th century. So I thought that was very, very remarkable to bring this historical practice back to life using the virtual reality storytelling format. It was really remarkable. So I think those are two that really stand out for me, I can remember now.

21:17
N: And what conventions do you think that both of these films that you've mentioned did correctly to ensure that Africans were represented authentically and in a progressive manner? Yeah.

V: So I think the fact that the cast we're all Africans, first of all, the one in Kenya that I talked about the motorbike rider.

21:46
V: You know, had the setting. The plots were set in an African country, in an African city in Nairobi. And you know, we saw lots and lots of different parts of the city of Nairobi in that film. The conversations centred African voices, the experiences of an average motorbike rider in Nairobi being.

22:13
V: Put in a format that can then be assessed by people and audiences across the world, I think that was a very good example of centring African experience, putting African voices front and centre. And so it was an African setting and an African experience from start to finish. And the same thing with the what's it called? the film set in Northern Nigeria, right. I think it spoke to.

22:44
V: Things like cultural preservation, historical context provided by Africans and so African voices being heard about a great cultural practice that pretty much defined Northern Nigeria about 200 to 300 years ago. It was the mainstay of the economy and this is a knowledge that.

23:10
V: Most people in this generation across the world may never come across right without it being documented in this fashion. So I think it was very good to have documented, it was

very good to have a platform that then projected, you know, an African practice that could pretty much be a solution to current economic challenges in any part of the world, right. So there were lots of insights from that documentary video.

23:40
V: And that documentary film, you know, had lots of strong messages around cultural preservation and economic progress, economic strength of a part of Africa. So I think it projected an Africa that is progressive. It projected an Africa that is in tune with its culture and history. Lots of what we see in the history of Africa is, Africa's story being told by Westerners.

24:10
V: The story of Africa seen through the perspectives of the colonialists, right. But then we see an African filmmaker and taking up the challenge to tell the story in their own way. So I think it was a very good experience in terms of rejecting Africa in the lights that we want Africa to be projected in. These were two good examples.

N: Okay and…

24:39
N: The people producing that kind of VR African content, what do you think are some of the major restrictions and obstacles that they faced with and how do you think they can be targeted. I know you've mentioned the initiatives that the organizations are undertaking and the festivals and things like that, but..

25:07
N: In terms of the opportunities that exist for African VR cinema, what are the gaps that exist in the African VR market and what are maybe some unconventional ways that we can fill these gaps?

V: I think one of the challenges that I know that they faced was that of equipment in the course of the production.

25:37
V: From start to finish, they had instances where they had to hire equipment to do their shoots and it was very difficult to come by because like I said, most of the equipment within the film sector are not adapted to doing virtual reality productions. So finding the studios, finding the cameras.

26:06
V: And just the facilities required for virtual reality production or an extended reality production was quite difficult Then something that was also a little bit difficult for them was getting the expertise to edit. And so some of them had to work with producers that were not, I mean Africans, right. So they had to work with producers that were not Africans and technical directors that were not Africans.

26:36
V: But, but most of them got African technical directors, but the few that exist on the continent had their plates filled. They had their hands full of lots of lots of requests for their

expertise because they are very few of them. And so I think because the sector is just emerging, finding talent and finding facilities and infrastructure to support the desire to create more content.

27:05
V: You know, can be quite difficult And in terms of plugging that gap, I think what organizations and institutions that are interested should begin to think about is then how do you fill the knowledge gap. So first of all, like I could see from all these experiences that there was a knowledge gap and then apart from a knowledge gap, there was also a gap in terms of institutions that provide training.

27:35
V: Around these, right. So lots of institutions are just beginning to understand and beginning to develop curricula programs around this because it's quite new. It's just an emerging story form on the African continent. So we're likely to see you know more and more institutions offering short courses and professional courses and technical courses that then creates.

28:04
V: Expertise around these things, but right now that is a gap. I think for organizations paying attention to the knowledge gap is real and I saw it play out in these projects that we did. And I think creators also need to be encouraged. Creators need to be encouraged to begin to explore their XR talents.

28:33
V: Right now, lots of creators are yet to see the profit side of it. The commercial side of it. It's still not making sense to many creators, right? So lots of creators who are doing out of passion, but they've not seen it as a business that is sustainable and viable, just the way a contemporary filmmaker would want to do a film and make money out of it, right? So we don't have that yet in the sector. So I think creators need to be.

29:02
V: Encouraged and there needs to be more investment in the ecosystem because it's when there is investment in the ecosystem that all the value chains begin to become optimal and visible, right. And once the value chain is optimal and visible, creators can see that value and there's commercial value and viability in going down that trajectory and they would want to do that investors.

29:31
V: And make filmmakers. Producers will want to take the risk of spending money to do films because they know that the value chain has now become developed in such a way that they can look forward to their returns on investment.

N: And what does the future of African VR cinema look like to you?

30:01
V: I think it looks, it looks promising. It looks quite promising if you ask me. I think with the intervention of organizations like I just give an instance of Africa No Filter, which is an

organization that is so focused on storytellers working in partnership with Meta, I think we'll need to see more of these kinds of partnerships.

30:28
V: That would then crystallize the potentials in the sector. But I think the sector is quite a profitable one if we do what needs to be done and the future prospects for the sector is positive and promising. Like I said, it's it has come to stay, it has come to stay and there's no two ways about it. It's something that is emerging on the continent.

30:56
V: And we are only beginning to scratch the surface, but we hope to see more and more investments in that space for us to realize the true potentials of XR in Africa. But already we can see that with a little intervention and investments we can see creators going out of their way, you know, creating games and creating, you know, films and all manner of content that has to do with virtual reality and.

31:26
V: It's a potential sector that can, you know, run into billions of dollars in revenue for the continents if we do the right thing. So the potential is there and what we should then be talking about is what needs to be done to maximize the potential and to sort of unravel the potential of the of the sector in Africa.

31:51
N: And what advice would you give to aspiring VR filmmakers, practitioners and creators who are eager to go out there and create and to supply the content that is progressive and authentic? And what kind of stories would you personally like to see them telling?

V: I think the advice I'll give to them is first of all to equip themselves with the necessary skills.

32:19
V: It's very important to equip themselves in necessary skills. The skills can be a bit difficult to find in Africa, but they are there. Connect themselves with mentorship opportunities, especially with more experienced creators, connect themselves to networks and these networks can be found in festivals and within platforms where digital innovation is at the centre stage.

32:46
V: Right. So they should attend festivals. They should connect to more experienced people. They should. They should gather as much skills as they can gather, especially those that are very accessible and open on YouTube. They're accessible, knowledge. Sorry excuse me, there's accessible knowledge within YouTube and free.

33:14
V: Other free platforms where one can access, but basically they should do what it takes to equip themselves. That's one. And then second in terms of creating the kind of content I would love to see them create. I would love to see content that are created out of local stories,

but for global audiences, right? So we tend to use the word “Glocal”. Local is the fusion of global and local and.

33:43
V: I think these are the contents that are unique and contents that are sustainable, contents that are profitable and contents that have the staying power to engage your audience, right. So there's lots of unique and brilliant stories around African culture, around African experiences, around our history, and we have a very unique history, right. Africa has got a very unique history.

34:12
V: Amongst all the continents of the world, I doubt if there is one as diverse and as rich in history, including our colonial history, as much as you have within African countries. And so I think that is something that is one content pool that we should not take for granted. And I think that those who have been very successful in filmmaking, the trend in filmmaking these days, you know, is films that are centred on African.

34:41
V: Settings and African culture, whether you're looking at the streaming platforms like Netflix and Showmax and the rest, the blockbuster movies are right now usually around local stories produced for global audiences. And when I say global audiences, they are produced to the standard that is required to compete at a global stage. They're produced with the equipment, the expertise and the marketing.

35:07
V: That is required for, you know, at the global stage to be competitive. But then the storylines have got to be storylines that depict an emerging continent, a continent that has progress and not a continent, you know, riddled with disease, corruption and all the stereotypes that you know. That's not the only story about Africa. There's also progress stories about, you know, opportunities on the African continent which can then be transformed into very brilliant.

35:35
V: Compelling storylines for content on VR. So I think they should look inwards and that's what I would love to see our VR content reflect going forward.

N: Ok. Thank you for that insightful knowledge that you have imparted and thank you so much for your time. That was my last question to you. And yeah, if you have any more questions.

36:05
N: About the research that I'm conducting, please feel free to reach out to me. But otherwise that is it for our session today.

V: Thank you again, brilliant. I didn't know it would take…I think it took just about 45 minutes or less, if you take away the time or yeah, my connection and so on. So that was great. Thank you so much, Nicole. I wish you all the best and feel free to always get in touch as well.

36:34
V: If you think there is anything that you need in terms of insights and knowledge and also feel free to acknowledge you know me as representing the voice of Africa No Filter in this research we always want to see our opinions and what we stand for to go out there to the general public so that we can keep creating more and more awareness.

37:00
V: About what we do. Because ultimately the mission of shifting narratives about Africa is not a mission for one organization or it's one group of people. I think it should be a movement. It should be a campaign, a consciousness that everybody who is African who believes in it, you know, can play a role in, right? Because it's down to what you and I do. The rest of the world, we engage with us on the basis of what they perceive.

37:28
V: You know, both from a collective and a systemic perspective and also from the individual perspectives. And so in our personal spaces, how do we conduct our affairs as Africans? It's very important to building the image of the continent at the global stage. So thank you so much. Feel free to acknowledge us and feel free to always call back if you need anything in terms of support in your research.

N: Thank you so much, Victor. Just a note on that. I will definitely.

37:58
N: Be adding this transcript of this interview as part of the appendix of my research. And then there is a form, a consent form, that I did attach, but I will resend it so that you can sign and that will grant me permission to add this interview to my research and to also reference you as a source of knowledge that has contributed to my research as well.

V: That's fine, that's fine. I'll be waiting for the form.

38:26
V: Thank you so much, Nicole, and all the best.

N: Ok, enjoy the rest of your day. Thank you. Bye.

V: Thank you. Bye.

ANTOINETTE ENGEL – ELECTRIC SOUTH

VR Research Meeting Electric South-20230613_140901-Meeting Recording

Date: 13 June 2023

Duration 1 hour, 2 minutes, 25 seconds

Platform: Microsoft Teams

Link: VR Research Meeting Electric South-20230613_140901-Meeting Recording.mp4

Interviewer: Nkateko Nicole Langa (referred to as 'N')

Interviewee: Antoinette Engel (referred to as 'A')

Transcript:

0:10
N: Yeah, the recording has started. So I'm just going to start off with a few introduction questions, if that's okay with you.

A: Yeah, that's fine.

N: So I'm just going to ask you to just briefly repeat the question as you go into the response. So the first one is introduce yourself and what you do.

0:36
A: Alright, so by way of introduction, my name is Antoinette Engel and I'm a producer at Electric South. Electric South is a non-profit company, um, that's based in Cape Town, South Africa, and we support a number of artists around the continent who want to explore virtual and augmented reality alongside their personal artistic practice. And the way that we do that has been through labs.

1:03
A: Production, funding, mentorship, and then exhibition. Although exhibition is not necessarily the core of what we do. And that's me.

N: And how did you begin your career in VR or with extended reality?

A: Sure. So I applied for a job at Electric South in 2020.

1:33
A: As a distribution coordinator. And that was literally just before the pandemic started. And I had come from a documentary background working in film, TV mostly doing documentary programming for, you know, either on independent projects or for the SABC and.

1:59
A: And then had done, had just finished producing 11, 24 minute films for the Female Filmmaker Project, which is run by the Nash.. which is a you know, which is a training program for first time female writer directors that the National Film and Video Foundation is funding. And I'd come back to Cape Town.

2:23
A: And I'd applied, um, and I thought it would be a great way to better understand the distribution. Like, you know, everything around distribution, because it's one part of like a film's life cycle that I hadn't yet. Um worked on specifically. Um. And so I joined in the week that the pandemic began and we had to basically pivot, um as everyone did, because all of the regular.

2:52
A: Ways in which immersive interactive projects get seen, which is always, you know, at a festival or at an activation in a museum or at a physical space, you know, and you have to get into a headset in order to experience the work and the way that it's designed. All of that had to change. So a lot of festivals were cancelling. But what my colleague and I, my colleague at the time, what she and I.

3:22
A: Came up with was basically hosting the first ever free online 360 Film Festival and so it would be for Africans and the content would be majority by Africans. So we were looking at work from Africa and also in the global South.

3:44
A: And it was called Electric Africa, and it's on the Electric South website. There's a tab that you can go to see all of the work that we programmed. As well as you know, we also had, I think, 4 kind of panel discussions, online panel discussions. And it was really great. It was really, it was really great to be able to figure out a solution to still build audiences for, you know, interactive work.

4:14
A: So that's how I began at Electric South. And then I was only on a nine month contract and then that ended and I went off and did other things in the industry and then they called me at the end of 2021 to say, hey, you know, we've got some pretty big projects coming up and we'd like to invite you back but this time as producer and I said yes and then last year...

4:43
A: And we were very, very busy. What we saw in response to kind of most, most of us coming out of the pandemic and out of those lockdown isolation periods was and also with Metas co-opting the Metaverse, um. What we saw is there was a lot of energy and resources in this space because everybody was talking about it and everybody wanted to kind of put money towards, um.

5:12
A: Immersive work and kind of support what was happening and so last year we delivered some pretty big projects. One of them was, a one of them was a project called, Future Africa: Telling Stories Building worlds and it was funded by Meta.

5:37
A: Meta had put quite a big grant towards immersive funding. The funding immersive work on the continent. I'll find you the details for that, so I'll send that to you. But Meta had put

money towards immersive projects on the continent, and this was led by Africa No Filter, and Africa No Filter is a narrative change organization.

6:06
A: Based out of Johannesburg but working all over the continent and they partnered with us. So we basically I would say we incubated and we supported through close mentorship and guidance and a lot of one-on-one contact time with six XR creatives. So the project was.

6:31
A: One, to find six independent XR productions from creators on the continent. Two was to create the African XR report, which is something I'll also share with you, which basically was led by Imisi3D based out of Lagos and that would basically map the ecosystem, the XR ecosystem on the continent.

6:54
A: And then the third was something that we weren't involved in, but basically was a series of, they called it Metathon. So it was like XR hackathons that happened in I think almost 22 countries on the continent where, you know, I'm not sure how the selection process worked, but there were a series of hackathons and then.

7:19
A: I think the best teams to come from those hackathons within incubated in like a boot camp. And finally um, I think a small cohort from there would then travel to one of the major festivals in Europe to or markets like XR markets to go and pitch the ideas and meet other industry professionals and so on. So it was a pretty big fund and not only coming to…

7:48
A: The partners that I've mentioned, but also to lots of others, that's one of the projects that we did last year. We worked with the British Council to deliver the Design Futures Lab, which saw in year one because we've just done year 2, 18 artists, so 18 artists, but working in teams of two, so nine creative teams.

8:14
A: Working at the intersection of sustainable fashion and design practices and XR, creating prototypes and then we also at the heart of what we do as Electric South is The New Dimensions Lab, which is in going into its sixth year this year. It is a lab that we put an open call out to artists from across the continent.

8:41
A: They have to apply with a non-fiction project idea, and we make a selection bring everyone to Cape Town together with experts in the field, and they get to basically incubate and stress test and talk through the idea while they're at the lab. There are lots of master classes. There's lots of demystification sessions. There's lots of like, watching work and understanding what's possible with the medium.

9:09
A: And then they pitch at the end of the lab and then afterwards and get lots of feedback. And afterwards they have another opportunity to revise their project documents sent to us. And

then we make a selection of three to four works that we fund. And those funds are then for the artists to produce the work. And then.

9:33
A: We helped to distribute the work and we've been lucky in that we've had really incredible work come from those labs, The New Dimensions Lab, and travel to all kinds of different places, both locally, continentally, as well as at some of the bigger festivals like Tribeca and Venice and Sundance and IDFA to name a few so.

10:00
A: We did all of that last year and I'm sure some other things that I'm not remembering. We also did a showcase in Lagos for the Meta projects for the Future Africa projects and then also at Fakugesi.

N: Thank you, Antoinette for sharing that. I actually had an interview last week with Victor from Africa No Filter, he's the lead of grants…

10:29
N: There

A: Yes he is. Yeah, Victor is great. I'm glad you spoke to him.

V: Yeah. Out of all those incredible experiences that you've mentioned, what would you say was your most memorable while working for Electric South?

10:49
A: Well, I, I definitely want to say, you know, the most memorable, definitely the Future Africa projects. So there were six projects happening and so two from South Africa, one from Kenya, one from Nigeria, one from Cameroon and one from… where is the other one? Mauritius.

11:14
A: And I feel like, you know, even though we were in Cape Town supporting these teams and these individuals remotely, it was certainly a huge firstly, a huge undertaking and a huge show of like what we can do when we reach out to our networks and we work together, because I think the strength of.

11:39
A: The strength of our partnerships with various different you know individuals and companies within the XR ecosystem is really what helped to bring those projects to completion. So the way that the model worked was that Meta put money towards these projects, Africa No Filter dispersed and managed the grant funding and Electric South really managed the projects in terms of.

12:06
A: Making sure that the concepts were strong, working through script and concept development, you know, looking over budgets and teams and then like regular check-ins during production and during post production and completion and the testing phase. And you know, what we found was that you know.

12:33
A: In as much as they are very, very active nodes, you know, individuals, groups working in various different countries, we're not at capacity yet. So there's still a lot of, we still need a lot of investment and we still need a lot of support.

12:56
A: You know, so what we found in Kenya with the with the grantee in Kenya was that she had partnered with Black Rhino and they could only help her with a certain part of her delivery. And that's fine because they were like we can, we can help during production, but with pre-production we're not able to. And so unfortunately she wasn't able to find the right support.

13:25
In Kenya. And so we had to at a late stage reach out to a company in Joburg and have them come on board her project, which they were very happy to do and they did it in the right spirit. You know that they're not trying to take over the project, that they're trying to support her vision that they have the capacity and the team and the expertise. And so we were lacking that we were able to make those connections on certain projects which really helped and.

13:53
A: Helped to bring them to completion and whereas in let's say Nigeria, the grantee there he had his team Imisi3D supported to a certain extent because one of their senior editors, 360 editors was on the project.

14:12
A: So it's it was different with different grantees also because some of them for some of them this was like maybe the first or second time that they were working. You know in 360 per se, excuse me, not all the projects were 360. There was, one project that was an interactive 6 stof experience which was also like a huge undertaking and there were lots of lessons learned for that team as well.

14:40
A: And it was by no means easy. So definitely the most memorable, the one that was the most rewarding because we had gone through so much to get these projects done, was definitely the six Future Africa projects and we had like a really great reception in Lagos. Meta held a small invite only private event.

15:04
A: For their network, for their industry and for other grantees who had benefited from their fund based in Lagos, as well as like key media. And there was this really fabulous reception for this work.

15:20
A: And the kind of exhibition that we could only hope for. So like they for. And it was just one day, so just for one day they transformed this huge space and each creator got their own their own kind of like space. So they made it look quite, quite a lot like a gallery. So when you move into like a certain almost like cordoned off area in a gallery.

15:47
A: And you know, there were headsets, there was a projection of each of their pieces, a 2D projection, and there was lots of engagement with audience. And so that was really, really great. And then we got to take the same projects to Fakugesi and do the same, you know, and we just had so many people come and watch the work and engage with the creators because the creators were able to be in Lagos and in Johannesburg.

16:17
A: Um, so that was like the most memorable for sure. You know, we were also working with very limited time and sometimes budget that just didn't quite match what was needed. So the budgets were probably, I mean probably the most one could hope for on the continent, right? So, So Meta had given about 30,000 between 30 000 and 35,000 US to each project.

16:45
A: And some projects actually needed a little bit more funding simply because, you know, the needs of the project were such that the 30,000 didn't actually make the budget right, because I think we underestimate the time that it takes and the cost and the intensity of the workflows. So that was the most memorable for sure.

17:16
N: Thank you, Antoinette. And my next question is, how do you think the black community has been represented in cinematic virtual reality? And by representation, I mean in terms of how black characters are being depicted on screen, the behaviour, the way that they look, the things that.

17:42
N: They do. You know, the way that they dress. How do you think black communities have been represented in VR African content?

A: Thank you for that question. Well, I certainly think that in terms of representation, because the artists and the authors of the work have been black Africans for the most part.

18:09
A: And certainly the work that we have, certainly the work that we have funded over the years and you can have a look at our slates like for all of the work that we have funded, the authors have been, the authors have been from, you know, the authors represent the people who we see in their work. So the way in which black people have been represented.

18:36
A: I believe is an honest and true reflection of who they are. They are not, you know, the ways in which you know black people have been and can be represented in some non-fiction work, you know. And I think this is aligned with what you know, Africa No Filter.

19:00
A: Is also all about, is that, you know, Africa is not just about starving children or you know, poor communities who have who, basically have only got development funding to rely on right. Like we are authors, we are creators, we are producers of culture. You know, it's not always that we are, you know that we are not in a position of.

19:30
A: Um, authorship or power? Um, within our communities and within the world at large. I would say so, like if you look at the kind of work that's being produced, because we've always been committed to, um, a diversity of voices, and we've always been committed to funding artists in such a way that we're not trying to dictate to them what they do.

19:58
A: You know, when we fund a creator, they maintain a creative control, they maintain a copyright of the work, and we are there to support their vision. And of course, we know a little bit more in terms of, you know, what it takes.

20:17
A: In terms of the technology and maybe the budget and the you know we kind of, we have some experience of past projects and what it takes. So we can we can guide on those you know, on those particular aspects of production. But when it comes to the story it's really you know it's really that.

20:44
A: We were interested in the story because it was coming from a place of, I would say, authenticity, You know, And it, you know. Yeah. And it was. And it was telling us the kind of story about Africa and Africans that we haven't seen before. Because it's not all you know, it's not what the West, you know, or the global North has often believed about Africa.

21:13
A: You know, which is I feel very outdated now because I think more and more people are understanding, you know, the depth of talent and like creativity that exists here. So in terms of, yeah, in terms of XR, I mean the kinds of projects we've supported. And I think that you should definitely watch our work because then you would know for yourself.

21:40
A: You know, we've supported work by a Senegalese creator called Selly Raby Kane and I can, I can share, you know, her profile with you and that's like this really incredible kind of experimental 360 piece.

22:08
A: And she's like, she's a fashion designer first and she created this incredible kind of world in which you get to, you know you get to spend a day in, Dakar journeying with a young person. And it's, but it's totally experimental and it feels like a dreamlike state that you're in and you're meeting.

22:34
A: These different kinds of figures, and I can't really explain it very well, but yeah, all of the work that we've supported has, you know, has really centred the artist and their idea and that's often.

22:56
A: You know, not the kind of work that's expected to come from Africa, I would say. But now because we've been doing this since 2015, I mean that's seven or eight years. I think

people understand that the kind of work that we produce, you know, is the kind of independent, really nuanced, complex and interesting.

23:24
A: You know, narratives to come from Africa. I hope that helps.

N: Yes, it indeed does, Antoinette. I'll definitely check out the reference that you gave me of the Senegalese artist who is female.

23:45
N: Bringing me to my next question about the positionality of women when it comes to VR, there's a specific type of feminism called techno-eminism, which speaks to the relationship between women and technology. And based off of your experience, how do you think the relationship between women and VR has been both behind and in front of the camera?

24:15
A: Well, I mean, I want to say that I, I, I, I caution to speak on behalf of anyone else and I, I don't want to make like grand statements that are going to, that are going to be understood or read in such a way like this is what it's like for everyone. Because I don't know what it's like for everyone, you know, for us, we always.

24:41
A: We always at Electric South want to make sure that we have an equal representation of men and women on our labs and likewise when we make grants, we want to do the same. So you'll see that over the span of the work that we've produced, which I think at this point has been about 13 different projects since 2000 and 2017 maybe.

25:07
A: There's a real equity between men and women in terms of who we've supported. So I will ask, I will ask one of my colleagues to send you like a full list of all, all of our work, you know, Yeah, I mean, just in terms of the experience, you know, making work.

25:34
A: We really pushed for, so last year we really pushed for the same with the Africa No Filter project, so that it was 3 three women, three men who were funded. In the end it was actually two women and four men. And unfortunately that was because one of the projects by one of the women was not ready for production and she didn't have the capacity to.

26:02
A: Get ready for production within the time frame because she actually had other projects on the go. So we had to let that project go. I mean I think it's equally hard for both for, I mean I think it's equally hard for anybody at this stage to be making work in XR. It takes, it takes a lot of funding. It takes a lot of.

26:27
A: You know finding the right mix of people on your project. I will say that for the most part in terms of what I'm seeing in, in terms of the teams that have interfaced like the actual

companies who have supported projects that we've funded, a lot of those teams are majority male.

26:51
A: So like for example, you know, and then the women will be in more producer roles or they'll be in more kind of administrative roles. You very rarely will find like a software developer who's female, even in the kind of forums that I'm on WhatsApp, majority, always male.

27:13
A: So it's like all of the people who are working in the real time 3D software program, like all the all the kind of Unity developers or the Unreal Engine developers or the app developers, like for the most part are men. I think that needs to change. There are some women who are trying to make inroads, who are trying to push their own projects.

27:38
A: Who are really leading on the creative development of projects and even some women in gaming. But remember we don't really, we're not really in gaming. So I can't speak to, I can't speak to gaming as confidently, but I mean what I will say is what I've seen is that for the most part, you know, we're not really seeing women on the back end of these projects.

28:05
A: Certainly as creative directors, certainly as authors of work, I will say one of the women that we founded last year, her name is Nirma Madhoo. She's really brilliant and she might be a really good person to interview before your before your deadline. And her project last year was the most.

28:31
A: Complicated in terms of the technology she was using. So she was actually using volumetric capture, which is like 3D video capture to create experimental fashion piece meets, you know, kind of stargazing. She did a, she did a LIDAR scan.

28:58
A: Of the Southern African Large Telescope which is in Sutherland, South Africa. So she did this incredible scan of the entire building and the surrounds and of some of what you could see through the telescope and then she merged that with Fashion Performance.

29:23
A: And she's a PhD candidate at MIT in Melbourne, Australia, so the Melbourne Institute of Technology. And she's been working with fashion and VR for many years now. And she actually, you know, was trying to get some in-kind funding or in-kind funding but in-kind support through one of like through at a kind of studio space where she could do this volumetric capture.

29:53
A: And she was really struggling to get support just in terms of the studio space, which obviously together with that includes all of the rigging and the lighting and the green screen,

because you have to shoot volumetric capture against a green screen with a few sensors and a whole special, you know, computer set up just for the reality capture.

30:18
A: And so, you know, she really, she really struggled, but in the end was able to find some resonance and some support from her, I think her department at MIT. But you know, she just continues to do the work and she is probably the most technical creator that I know in the space who is female.

30:46
A: All of the other kind of females we've supported have not been as technical. And I do believe, yeah, there's, there's a real, there's a real need that, that should be filled there. Yeah. I hope that, I hope that's helpful.

N: Thank you, Antoinette. It is very helpful.

31:11
N: Moving on to my next question about the, the many brilliant African VR films that you've mentioned. Out of all of those, would you say you have a favourite that has a focus on African subject matter and what do you think made that particular piece stand out? What conventions have you like identified that make you believe that this is?

31:38
N: One of the best African VR films or experiences that you've engaged with?

A: This is a tough one. This is a real tough one. I mean, I will say that even though I watched it a long time ago now Selly's piece called, The Other Dakar is really brilliant, you know, I think.

32:13
A: I think it, what it does well is that it like brings in the magical realism element into like a hybrid non-fiction form. And that is really, that is, that is something that we understand as a convention from African cinema, but that is utilized in 360 and because 360 is such a.

32:38
A: You know, it's, it's so, it's so, it can be so rich because you can look everywhere in any way. And everywhere you look it's like there's something to see and Selly really created like an immersive experience because everywhere you look in this world, you can like feast your eyes on what you see, right in terms of the production design, in terms of the costuming. So I really enjoyed that piece.

33:08
A: And yeah, and it's also, it also leaves you with a lot of questions. It's not, the story isn't obvious. And so that's I think, that's one of my favourites. And yeah, and I mean another, another really great piece. And maybe I'm biased because Dylan Valley is my partner, my life partner, my husband. But he was also a grantee of last year's.

33:38

A: A and F Grants. And he also, he was a sort of grantee of Electric South before I was with them. In 2018 he made a, he made a 360 documentary called No Place But Here, and it's on a housing occupation in Cape Town called, Cissie Gool House. It's at an unused hospital which was up the road from where we used to live.

34:04
A: And had stood empty for years and years and years. And you know, because of the rampant gentrification in Woodstock, people were without homes and didn't want to get moved out to like, you know the outskirts of the Cape Flats where there's like no way to get anywhere that isn't an hour way. And with real, no real, like links to your community or to your regular, you know, your regular.

34:34
A: Forms of work and so on. And so people took over the hospital and basically turned it into an occupation and like, a really well run, um, you know, well organized. Um, uh, yeah, um occupation, I would say, you know, so he used 360 to tell the story of the occupation, how it came to be, you know, the leadership.

35:04
A: Um and also what the city was not doing and wanted to do with the land, right. Wasn't doing for the community and wanted to do with the land, which is still a big question mark for everyone. Um. And I think you know what the medium brings to documentary especially is an understanding of space like physical space and so for.

35:28
A: For work like Dylan's, you know it makes sense to use 360 because you feel like you are sitting inside someone's home, which maybe used to be, I don't know, the doctor's office or maybe used to be the X-ray room, you know, and so what you get, which you don't get with other, with like regular documentaries like the intimacy.

35:57
A: And the immediacy of a space can be conveyed through 360 way better than it could through, through documentary and yeah, and I.

36:13
A: You know the difficulty is like the work. So this is something for you in terms of the conventions the difficulty is, is the work that we've funded for the most part up until now has been 360 video and that's because that was the technology available and that was really the technology available and that was the medium in which a lot of artists chose to do work.

36:41
A: Now that the technology is more advanced and we've got you know, things like photogrammetry and LIDAR scanning and volumetric capture and you know artists are like seeing more interactive 6 stof work where you're in like a virtual space and where you can interact with that virtual space. So let's say I'm in a virtual space and I touch a flower and it blooms like.

37:09

A: You know, that's, that's what I mean when it's interactive, when you can impact the environment that you're in. And it's an entirely different kind of, I don't say language because we understand film has a particular language. You know, we understand film language, we understand.

37:31
A: Um, you know we understand. We understand film in a particular way because we've seen so much of it. But whereas interactive 6 stof pieces and you know it's still, it's still only some people who can see it because not everybody has access. But that will change. That will certainly change. Um. So we are at a juncture as Electric South where only last year for the first time we.

37:59
A: Were able to fund 2 interactive like more 6 stof pieces, right? Because the appetite from artists has grown. They, they, they're more ambitious in terms of they want to be doing more interactive stuff. We had a little bit more access to budgets to be able to give them more than what we've given in the past. But those projects are still to be realized and those projects are still.

38:27
A: Those projects are still coming to completion because they were started last year and they are kind of towards the end. So you know what we will see in terms of how Africans are depicted in interactive 6 stof pieces is yet to be answered I believe because.

38:54
A: You know, we haven't seen enough of that kind of work. But if we talk about 360 then certainly there's enough work to say across the board, you know, we're seeing the kind of, you know, the kind of representation that I feel like we can all say this is incredible, like it's amazing to be able to see.

39:24
A: A documentary in 360 that, that allows you know for African voices you know that allows for like very experimental very interesting you know slices of life. You know that allows for like, like fiction work because we have supported fiction work not many but that supports really like kind of.

39:53
A: Fresh fiction pieces like short forms, right. So yeah, I mean, I think in terms of the six stof work, I think that's still something, you know, in terms of what it, you know, what the conventions are that people are using, what stories they're telling. I mean we, I don't know yet. I haven't seen enough.

40:22
A: And The thing is it's, you know, I'm not trying to, I'm not trying to position Electric South as like the only fund in the space. But I don't know who else is finding in Africa kind of independent XR work that does have.

40:40

A: Like that really you can say is independent like that that really, isn't, doesn't have some sort of agenda like we really pride ourselves on the fact that the New Dimensions Lab has like a very strong measure of independence even though we're funded by.

41:01
A: A funder. You know, we have made sure that there's a measure of editorial independence that we maintain, that when we say we maintain, we can allow the artists to maintain. That doesn't fall into the trap of oh we're being funded by, let's say, the Ford Foundation, and they want to make sure to see x, y and z. So now we have to make sure that the work we fund does the same. That's not been the case at all. So we've been very lucky.

41:29
A: And we really pride ourselves on that, but just in terms of so, so going back one step, so the interactive work, the kind of the kind of work that you would liken to let's say a short form, the work that's like a standalone creative piece.

41:53
A: Um, that is something that we fund, but I don't know who else in the ecosystem, the XR ecosystem is funding work like that. Usually other, other actors in the space are either doing hackathons or they're doing research, or they're doing, um, they're not really. Or they're doing training, which is, which is all necessary, but not, not many others are doing like.

42:21
A: Funding for independent projects, independent creative projects. I'll leave it at that.

N: Yeah. Thank you, Antoinette. I'm actually very familiar with Dylan Valley. He was my lecturer in first and second year at Wits, so I'll definitely also look into his work. Another lecturer, there actually referred me to him.

A: Yeah, Tiisetso. Yes, hey? Yeah

42:51
N: I think it was Jurgen. Jurgen said I should…

A: Oh it was Jurgen! Yes, I'm sorry I know. Yeah okay cool. So I think, I don't know if you have plans to talk to anyone else, but I can if you want. Maybe Dylan might be a good interviewee if there's time like for the both of you and also I mean maybe there's one or two other artists who we've funded.

43:19
A: Who I could think of to put you in touch with. I do believe like it'll be great for you to see like the, the work that we've produced. I think that would be really, really helpful because I think then you can get a sense and, and I'm not too sure how we do that but I'll think a little bit about what's possible you know.

N: Thank you so much, Antoinette. I'll definitely send you an email after this and then we'll keep in touch.

43:48

N: Just a few more questions and then we should be done with this interview. So you mentioned a lot of constraints that African VR makers go through. You mentioned funding, you mentioned access to resources, facilities.

44:10
N: Access to knowledge, the expertise and all these things. So what would you say for you are the biggest obstacles that African VR practitioners face and how do you think that these can be combatted?

A: Well, I feel like, I feel like funding is certainly, you know, funding is certainly the one, the one obstacle that we can't get around.

44:43
A: Without, like through our own best efforts, so like we can get around most other things through our own best efforts. You know, if we don't have access to knowledge, we can reach out to the network. We can reach out to people who might know somebody who could help us. The one thing I will say about this space is it's very collegial. It's very supportive. People are always sharing resources. People are always.

45:07
A: Saying, hey, have you tried this or, you know, very willing to help and also to share hacks, you know and like best practices and you know it's a real, it's a real shared effort. You know, when you're trying to, when you're trying to figure stuff out in this space because everybody's trying to figure stuff out, a lot of people are using.

45:35
A: Different kinds of software for the first time or different applications for the first time. And so there's a big community around, you know, sharing, sharing tips and advice and resources and best practices.

45:53
A: So I do believe funding, it kind of comes back to funding because like we can get around the other stuff, you know, through the network, through the ecosystem which is really alive and really thriving. And you know there's a big kind, it's called We Are VR Jozi and you should check them out, they should be on.

46:19
A: Like social media, they are on Instagram. I don't know if they're on Facebook, but so there is a big community around that. But yeah, I think like funding is the one that without the actual money in the bank, you just can't get to the next step, right? Like you can't. You can't either build your business or take your project to the next level.

46:47
A: Because you do need, you do need the money in order to do that, right? To either pay for the subscription to the software that you need or to pay for the hardware, the computer sometimes, you know, yeah. So I would say funding is still the biggest obstacle, I think, yeah.

47:17
A: I'd say funding.

N: What would you say the future of VR in Africa looks like to you?

A: What does the future of VR in Africa look like to me? What does it look like to me? Well?

47:43
A: I guess, I think, you know, it could be really exciting what that future looks like. I know that there are people, there's like a lot of talent, there's a lot of great ideas, there's a lot of potential for like, interesting.

48:03
A: Really provocative and evocative work to be made when I say VR, I'm talking about the kind of work that we produce and not interested in, which is like kind of supporting independent voices in XR working, you know in interactive media making. And so that's, you know, it could be, it could be like really interesting if we had.

48:35
A: If we continue to have access to funding and field building, but without that, it's going to mean that we, you know, we don't get to play in the space and it means that we will not basically be authoring, you know, what interactive media looks like on the continent.

49:03
A: Like if we don't have enough Africans making interactive work, immersive work, then you know then. Then we won't know what it looks like. We won't know what African realities look like in XR. And that's, that's a concern because everyone is experiencing smaller budgets.

49:33
A: You know, like where do we find the funds is the question to be able to continue to make work to support the creation of independent XR work. I mean, yeah, I think and what I think is also exciting is, is that because there is, because like the internet kind of.

50:02
A: You know, virtual spaces can also be accessed by anyone, anywhere, you know, you can reach audiences from all over the world, you know, and you. I mean, I will say a lot of, a lot of, there are a lot of free resources online for people to be making and basically putting up work and sharing work for free. That is not going to cost them too much to make.

50:32
A: But at the same time, like how do you, how do you survive, like how do you actually pay the bills, et cetera and do, because it can take a lot of time and do really incredible kind of virtual, virtual, you know virtual environments and interactive spaces.

51:01
A: And still and still be taken care of and still be able to take care of all of your needs, right.

So yeah, so I think, I think, it's I think, it's I think the desire is there and I think it would be great to see more work produced whether that happens or not is, is, is really in question.

51:30
A: And I think it takes organizations like Electric South, like Black Rhino, like Imisi3D and it, and it hopefully will become also something that other institutions also want to support, you know, so that maybe through the universities a real pipeline of independent projects can be realized, you know, so that we see.

52:00
A: Like a bigger pool of creators other than just through non-profits or, you know, through your cultural kind of creative industries spaces like Tshimologong and Digital Lab Africa, so that you know it just becomes more accessible, you know, to a wider group of.
52:28

A: Individuals who want to create this kind of work.

N: Thank you. Antoinette. I just have one last question for you.

A: Yes.

N: Which is what advice would you have for aspiring VR filmmakers in Africa who are looking to create authentic African stories that are interactive and that are immersive?

52:59
A: Well, first, watch a lot of work. Watch as much work as you can get hold of. So I think my, my advice to you know, young Africans who are wanting to make interactive, immersive work that reflects their realities, that reflects their voices, that reflects their vision.

53:23
A: Is to first watch a lot of work so that you can understand what's possible in the medium. Because not every creative project is suited to virtual reality, right? So not every film can just easily become a virtual experience or a virtual film or 360 film. You have to make sure that the technology is not a gimmick and it's not a.

53:54
A: That, that it's integrated into the experience. That you wouldn't be able to experience the same narrative or the same environment, you know, if you didn't use virtual, augmented reality, I guess maybe virtual reality in this instance. So that's why it's important to watch what and how people have used.

54:20
A: Interactive, interactivity and also just like virtual, virtual spaces and VR to make work. And then find a team, find a creative team. There's so much you know. There are so many free available resources online to begin to experiment in.

54:46
A: Game engines because often interactive work is produced inside a game engine, either Unity or Unreal Engine. And there are lots of people who are a few steps ahead who have

already been experimenting in this space. So definitely get connected with like creative communities who are ready sharing tips and advice and hacks and.

55:16
A: Workarounds and one way to do that is that you can also definitely check out We Are VR Jozi if you're in Johannesburg or in Cape Town or in South Africa for that matter. And there's also the Africa XR Report that came out through the Future, Future Africa project program that was led by Imisi3D. There's this incredible.

55:45
A: Directory of companies, non-profits who are working across the continent in XR. So there's literally a like a telephone directory, like there's a directory of companies that you can go to that you can access their contact information. And it's always a conversation, it's always a phone call, it's always a e-mail to say, hey, this is what I'm interested in. This is where I'm based. I'm looking for x, I'm looking for y and see what happens.

56:13
A: So leverage the fact that everyone is trying something out for the first time, no doubt. Also because the technology is moving so fast. You know, even if you think you've been in, in the game for a while, you know there's still new things that are coming up all the time that you need to learn or get your head around. And hardware and software both are moving at a real a real pace I would say.

56:41
A: In terms of the innovation and then, you know, just experiment. Like I think the right attitude is one that allows for experimentation, discovery. So don't think it's not for you until you've tried it and you've seen what's possible and also you've just tried it because if you don't try it, you won't know, I think.

57:05
A: A lot of people get stopped from even delving into creating in this space because it's so far removed from what they know. But you know, it's still such a young and emerging sector, you know, and when I say emerging, I mean it's emergent, maybe it's, it's constantly evolving. So it's constantly, you know, transmitting from this to that to that. So it's like you can hop in at any time.

57:36
A: Ohh, and the other thing is definitely check out VR Chat. Sorry, maybe you use some of this, maybe you don't. But VR Chat is also great because it's, you do need a headset but it's basically, I feel like it's basically what online chat rooms were before, before the internet really dropped like so way back in the day when people were meeting online in chat rooms.

58:02
A: And there was this incredible idea that you could meet people from, you don't know, even where from, like a library, computer or a you know, just because you had this internet connection you would never normally have, like VR Chat. You, you put on a headset, you choose an avatar and you literally can world hop. So you walk from virtual world to virtual world. Well you don't really walk, you can walk through a virtual world.

58:29
A: And then you use a portal and you hop through the portal and you, you join another world and you meet new people and you have new conversations and you can join friends and people do world hops as they hop from world to world. And you know, creators are making virtual spaces that are incredible, that are anything you could think of. You know some people are doing talks in VR chat and hosting.

58:58
A: Exhibitions and live music concerts, you know so like there is a whole other like world in, in, in a virtual you know. There's the Metaverse, which are, you know virtual worlds virtual spaces and places that people meet that you can, that you can join that you can check out that you should.

59:26
A: So that you can understand what already exists and probably what will become more ubiquitous and so that you can also see whether you want to create in these spaces. And like why not, you know why not create for these spaces for these platforms? Because you know it's on us.

59:53
A: Whether or not Africa is reflected in the Metaverse, you know, and that African can look like you know whatever you want it to look like and other people are doing all sorts of things. So this is the opportunity to, to take up space in these virtual environments.

1:00:20
A: Because if we don't, then somebody else might or will. Thank you. That's all I have to say. But I do believe there's tons of people now that I'm talking to you, there are tons of people that you should talk to. People who are like super talented and who are very, very busy in this space in world building specifically.

1:00:48
A: Who are African? Who are. Well, who are South African but not African? I'd say. But yeah, but I think that there's so many more people that I can think of for you to talk to actually.

N: Thank you so much Antoinette.

A: Pleasure

N: For sparing your time to talk to me today. I do hope that we'll keep in touch and.

1:01:14
N: I think there are a lot of people that I've identified through your interview and through others and I definitely want to take that on possibly in a PhD where I do have more time to be more thorough.

A: Ohh. Yes, of course. Sorry. Yeah, yeah, yeah, yeah. No, I totally get that.

N: Yeah.

A: I totally get that.

N: VR research is definitely something that I am interested in and I am passionate about.

1:01:43
N: Aside, you know, as a practitioner myself, but I think this is only the beginning. And yeah, I hope that we keep in touch and I'll definitely, uh, send you an e-mail after this.

A: Ok. Great. Well, thank you for your time, Nicole. It was really good to talk to you and thanks for the questions. And I hope there's some, some parts of my answers that you could use. So, yeah, it was great. Thank you. I appreciate it.

N: Thanks. Enjoy the rest of your day. Bye.

A: Bye too. Bye.

JUDITH OKONKWO – IMISI 3D

VR Research Meeting with Imisi 3D-20230626_110208-Meeting Recording

Date: 26 June 2023

Duration: 59 minutes 26 seconds

Platform: Microsoft Teams

Link: VR Research Meeting with Imisi 3D-20230626_110208-Meeting Recording.mp4

Interviewer: Nkateko Nicole Langa (referred to as 'N')

Interviewee: Judith Okonkwo (referred to as 'J')

Imisi3D Assistant: Tamilore Daniels (referred to as 'T')

Transcript:

0:03
J: The audio recording is just for transcribing and all. Is that right?

N: And it's also going to be used as a voiceover in the documentary that I'm creating.

J: Ok, so you need me to be somewhere quiet so you can get audio. Just a second, just a sec.

0:43
N: Hi, Tamilore. I hope I'm pronouncing your name correctly. Can you hear me?

T: Hi, Nkateko. Good morning. Good day. I can hear you, but your audio is a bit low. Can you hear me clearly?

N: Yes, I can.

T: Judith is also on the call with us. Hi, Judith.

1:16
N: Yes, we have spoken. She's just finding a quiet place.

T: Ohh okay then.

J: Okay. Is this better?

N: Yes, I can hear you clearly.

J: Okay. Fantastic. Ohh dear. Sorry, just, just one second.

2:39
J: Nkateko? Hello?

N: Yes, I'm still here.

J: Yes. Yeah, I apologize. So the call was, something is being delivered to me and the delivery person is on their way. So it might be like 15 minutes. You know, at some point I might need to pause and just go let them in. I hope that's okay.

N: That's fine. No problem.

3:05
J: Okay. Alight, well, I'm ready to go then.

N: Okay. So …

T: Okay then. I'll let you and Judith get to it.

J: Thanks Tamilore.

T: Alright then. Bye.

N: I'm just going to start off by briefly introducing myself, and then I'll get into.

3:26
N: The first question, my name is Nkateko Nicole Langa and I am currently a Master's student at the University of the Witwatersrand in Johannesburg in South Africa and I'm currently completing my Master's thesis around.

3:42
N: Virtual Reality Cinema in Africa. My research is titled Re-imagining African Storytelling Conventions within the Cinematic Virtual Reality Medium and the aim of my research is really to try and formulate a unique cinematic language and grammar in the production of African VR content that is progressive in its representation and depiction of African people and that perpetuates authentic narratives.

4:13
N: About Africa. If you have any questions, please feel free to ask.

J: Ok

N: Yes.

J: So how far in are you with your research and your work?

N: I hope to submit in about a week.

J: Oh wow!

N: So I am on my last draft.

J: Yeah.

4:36

N: Just proofreading and finalizing everything. And so I'll just have to add this interview as well. And then, yeah.

J: Congratulations in advance.

N: Thank you. It's been, it's been quite a journey. Yeah.

J: I can imagine. I can imagine. Ok. Well, it sounds all very exciting. I'm, I'm looking forward to speaking with you about this and to hearing your thoughts as well.

N: Alright.

5:06
N: So for the purposes of the voiceover, I'd just like to ask you to repeat the question before you respond so that it makes sense. You know, when I cut everything together.

J: Ok.

N: The first question is, may you kindly introduce yourself and what you do.

J: Okay. So I'd like to go ahead and introduce myself and tell you what I do. My name is Judith Okonkwo. I am the founder of Imisi3D.

5:35
J: We describe ourselves as an XR creation lab that's headquartered in Lagos, Nigeria. Our remit as doing whatever we can to develop the XR, that's the extended reality ecosystem across the African continent. That's the sort of brief version. I can dive a bit deeper if that's helpful. That's what you would like?

N: No, that's perfect as concise and yeah, short as possible is good.

6:04
N: And how did you begin your career in VR?

J: So I have to give you kind of like a little bit of background to that.

N: Hey, that's. Yeah, that…

J:. Yes, so, so. So how did I begin my career in VR? I always start with the fact that in 2013 I was in London. I was… My background is in Business Psychology, by the way, so.

6:32
J: I was sort of like working in that space, but I had also started doing a PhD studying Leadership in Africa, which is another huge interest of mine. And it struck me then, as it must everybody, that it would probably make a lot more sense to be doing that on the African continent as opposed to from a base in Europe. So I started to, to visit the continent more different cities.

6:59
J: But then ended up in Lagos, obviously. That's my heritage and everything. So in many ways it was the softest landing and got involved with the tech ecosystem then. So that was sort of my, my first foray into the tech world fully. I, I don't know if you've heard of a start-up called, Andela, but I ended up meeting the co-founder just before starting, before he started Andela and I was.

7:29
J: Yeah, completely sold by what they wanted to do with Andela. And I was like, I will help however I can. And so I did that. I spent a year helping them get set up in Lagos and in Nairobi. And if you don't know, Andela and Andela was a start-up that at that time when it was just starting out, it built itself as a fellowship. And the promise that made to young people was that.

7:56
J: Even if you've never written a line of code before in your life we'll make you a world class developer in six months. And obviously the premise was that you know, you obviously had the, the potential and all of that and they were able to then be an accelerator for that. They described themselves as a talent accelerator. Needless to say despite the odds Andela was really successful, the young people that joined up with the phenomenal and I think.

8:26
J: In a lot of ways, Andela was a key catalyst in changing the perception of African, certainly Nigerians in the technology space globally. Anyway, the year I spent with them was from 2014 to 2015 and as you might know, 2015 was sort of like that year when, you know, consumer VR was really gathering up steam. The Samsung Gear VR was released, you know all of that and.

8:55
J: And for me, it was something that I, I wanted to get my hands on. I've always been really passionate about technology and the future and all of that. So I did. And once I got my hands on a Gear VR device, I just kept thinking about the incredible young people that I've just been working with. And for me, combining that talent and this technology would result in magic, you know?

9:20
J: From a very, it's sort of like from the first day I was one of those people who was like, yes, I can see a feature for us all with spatial computing. I can see how this will be something that's pervasive for humanity, and if that's going to be the case, then African voices have to be part of that. We don't want to go the way we have with the AI story, but even more importantly, the things this technology can do for us, like the solutions that can be created.

9:45
J: Nobody else will build them for us and so we must for ourselves. So, so it was that it was that kind of like how do I get this incredible young African talent involved in all of that. That just kind of like spurred me on. But it was a very basic stuff like remember I'm pulling from my Business Psychology background so it was a lot of like self-learning and all of that. I went into Amazon and, and ordered a VR ready computer. I had a friend who.

10:13
J: Who run sort of like the largest innovation hub, you know, in Lagos at that time. And now they're like all over the continent. And we know when I was telling him what I wanted to do, he's like, you know what you why don't you come set up in a, a co-working floor. They had a,

a building on, on the 6th floor there was a co-working space and he's like come set up here because the kind of people you want to attract, you know, they come here a lot. So I brought my computer into a corner there.

10:43
J: My VR headset, some books and I always tell people that I had also gone to Costco and bought a carton of Kit Kat. So I had this orange bowl on the table full of chocolate, and people would come and ask for some, and you know, they'd come for chocolate, but they'd stay for virtual reality because I'd make sure they'd have a go at that.

N: Thank you for that, Judith. And throughout.

11:12
N: The entire journey what would you say is the most memorable moment working in VR? Specifically African content.

J: Okay, so the most memorable moment working in VR. There, there are a couple but I, I do want to talk about ohh.

11:39
J: I'm so sorry. Can we pause? I think the person is now at the door.

N: Sure, no problem.

J: Alright, I'll be back in a few minutes.

N: Okay.

13:23
J: Alright. I'm so sorry. I'm back. So if I remember the question right, you were asking me about sort of like a moment that stands out so far in my VR journey.

N: Yes, that is correct.

J: Ok. So, so, so there are a few.

13:48
J: But I do want to talk about the productions that we've been involved with. So the, the 360 productions and we started the lab in 2016 and I know one of the things that people always used to say to us is you know just, just create, just put something out there, whatever it is and, and we didn't have great equipment I mean back then.

14:16
J: You know, the camera we started out with was the little Samsung 360 camera. I don't know if you remember it was, you know, the ball with like, you know, the fisheye lenses and all of that. So really basic in terms of sort of like the quality and everything really at the consumer play level almost and all. And I'm one of those people who's extremely particular about, you know, showcasing African excellence as much as possible.

14:45
J: I'm also someone who really, who really, really advocates for like us having equal access to resources and opportunity and all of that on the continent. And so for me, the thought

about putting something out that was created with a camera like that when the rest of the world was, you know, what they were using semi-professional, professional cameras, just kind of like rankled a little bit, you know what I mean?

15:15
J: And then and then eventually, you know, kind of like, around the end of 2018, we finally got a camera. We, we got the Insta 360 Pro, which was, which was great and almost kind of like right away we started, we started doing work. So we worked with a Nigerian artist called Jumoke Sanwo. She was doing a project called Lagos at Large.

15:38
J: Which is really sort of like exploring the city of Lagos through different lenses and different senses as well, because it was also a soundscape. And in early 2019, we also worked with the filmmaker Joel Kachi Benson, who was going up to Chibok, so the city in North-astern Nigeria that was infamous for the kidnapping of the schoolgirls in 2014.

16:05
J: And you know, and he'd come to me and he'd said, well he's going to make a regular documentary. Do I think, you know, 360 is possible as well? And I said absolutely. And so we, we worked on these two, these two projects, right, Daughters of Chibok and Lagos at Large. And you know, I'm guessing you've seen Daughters of Chibok, but as you know, many people know.

16:31
J: It then went on to win the, the Best VR Story at the Venice Film Festival later that year in 2019. And both of these productions, so both Daughters of Chibok and Lagos at Large, got listed in Forbes Magazine's list of the top 50 XR experiences in the world for 2019. And for me, that really stands out because I, I you know.

16:58
J: Like all of the work that I do and everything that I promote is about telling people that, you know, actually, you know, Africa, the is not here to, you know, be second best or anything like that, that we're ready to compete with the rest of the world. We're ready to do business with the rest of the world. We just have to make sure that there's you know, equitable access and all of that. And for me this was just.

17:25
J: A real celebration of that and you know, there's, you know that level of it, but then of course there's also like the stunning storytelling that you know, you experience with these two 360 documentaries and, and the contrast as well, isn't it? Because of course there was you know, the Daughters of Chibok, that, which focused on this harrowing experience and sort of like the people living through the aftermath of that and.

17:53
J: You know, it's, you know, juxtaposed on the other side by Lagos at Large where you're really celebrating sort of like Lagos every day, if you will, you know, And all it's hustle and bustle. So yeah, so that stood out for me. I think that it got people saying, what? Because, you know, I'd go around the world and they'd be like, ohh, people are doing VR on the continent.

They're doing VR content, really. I haven't seen anything. I haven't heard anything. I can't find any data, you know? And then all of a sudden it was like, wait a second.

18:23
J: Who are these people? Where did they come from? When did they start doing this, you know, and all of that? So yeah, that's, that was a pretty standout moment.

N: Thanks. Judith. I'll definitely check out Lagos at Large. Where is it available on YouTube or?

J: Not on YouTube. Do you engage with like the folks at Electric South at all?

18:52
N: Yes, I spoke to Antoinette last week I think. Yeah if you know her.

J: Okay. Yeah I do know Antoinette. Yes of course. So Lagos at Large was a co-production between us and Electric South. So if you, where, where are you, are you in Johannesburg or Cape Town?

N: Johannesburg.

19:14
J: Ah, okay okay. So that might be trickier, because I was going to say if you were in Cape Town, you could just go visit some kind of like check it out. But right now, let me have a think about where it might be catalogued because it's not available on YouTube by default. So I'll have to just have a quick check and see. Maybe it's in MIT's icloud. I'll check if that's okay and come back to you.

19:42
N: Okay, thank you. No problem.

J: You're welcome.

N: My next question is about representation. And I think when speaking about Africa and how they depicted on screen, it's equally important to raise the theoretical framework of representation, especially like emerging mediums such as VR.

20:06
N: So my question is how do you think that your black community in Nigeria has been represented in VR through the, the projects that you've seen coming across? And by representation, I mean how, how the characters are depicted on screen, the languages they speak, musical choices, the behaviour, the world of the story - things that nature?

20:33
J: So fantastic question about representation and sort of like how you know how communities are being depicted, you know and how, and sort of like the different kind of like cultural artifacts that are used to elevate that in these experiences. If I reference sort of like the two experiences that I've spoken about so far. So Daughters of Chibok and, and Lagos at Large, let, let me start from Daughters of Chibok, so Chibok.

21:02
J: Is in the North-East of Nigeria and, and that's sort of like region, I mean because of things

like the kidnappings and all of that is an area that you know if you read sort of like global briefs about places in Nigeria, it would be one of those places where they say you shouldn't travel to under any circumstance, you know that sort of thing. Chibok is certainly a place that I hadn't been to and I remember, I remember looking at sort of like the first few rushes when they brought the first footage back.

21:31
You know for us to review and I will Oh but by the way before I say this, have, have you watched Daughters of Chibok?

N: No I haven't.

J: Ah, Ok. So I shouldn't, I maybe shouldn't spoil it then. Ok. So let me sort of like pivot. But what I will say about it is that with, with Daughters of Chibok there was this very strong intention in you know in the beginning like.

21:59
J: What are we doing with this? You know, whose story do we want to tell? Why are we telling it and all of that? And like working with Kachi, what we came up with was that, you know, this would be a platform for the parents that were left behind. So context, this was five years after the kidnapping and we were, you know, planning to release it on the 5th anniversary of, of the kidnapping and you know.

22:26
J: When the kidnapping happened, the #BringBackOurGirls trended around the world and all of that. And there was, you know, quite a lot of fury around that and all of that. And over the years, I mean eventually it was discovered that, you know, some of the, you know, the girls were still alive. A number of them have actually come back and been rescued, but they're fair enough, but they're still missing. And as the story kind of, like centred on the girls, as rightly it should, a story that was not told.

22:55
J: Was the story of the parents right, their families and all of that and how they had coped with it? And, you know, what Kachi had found is, like, quite literally, some of these parents had died of grief. You know what I mean? It's, it was, it is, you know, really, really harrowing. And so for us it was a question of, well, okay. So how do we give voice to these people? How do we?

23:22
J: Provide a platform so the people in Chibok can tell their own story. And to achieve that, the, the central figure in the experience now became, was the mother of a girl. And the mother's name is Yana, the mother of a girl who's still missing and she's, you know, become something of a community leader in Chibok and all of that and really just kind of like in her own voice and in her own words.

23:51
J: Took us through Chibok and let us know what was happening and let us know what life was like there. And I think if anything, like that's one of the ways in which I'm sort of like a

big fan of letting representation happen. So, and I think for us, we're lucky, right? Because these are like documentaries anyway, like 360 narrative documentaries. So they're not contrived and we can say, hey, this is the actual situation.

24:18
J: These are the real people and we're letting them tell their story which is which is what happened in this case so, so there so, so there was that as you know with like immersive experiences of course, sound you know and all of that is very, very important. We, we had a, a really sort of like famous super talented Nigerian composer, Cobhams Asuquo, do the sound for.

24:48
J: Daughters of Chibok and you know, it was just really sort of like the layering like to elevate like the storytelling that was happening. I is, is how I would best describe it. But then also using different audio elements as well, right? Because there it's a little bit of kind of like singing and music and things like that. There it contains some of the TV footage as well. So you're hearing kind of like all of that.

25:17
J: Audio from around the world reflecting on this story as well. But all of it is centered and brought back to the people who are there, the people who are actually from Chibok and then, and then telling their own story. And so I think if anything, with that experience, you definitely feel like, like you've been there. You know what I mean? It's.

25:45
J: It, it, it had this real then this real power to move people and I'll give you an example of sort of like feedback on that. So when it was ready, you know on the 5th anniversary, you know obviously this was made for, for the families in Chibok, but also for the Nigerian people. And so we had public viewings or public premiere of it in public spaces around Lagos, so.

26:14
J: There's a, a famous bridge in Lagos called the, Falomo Bridge and on the pillars of the bridge an artist, Polly Alakija, had had done murals for the girl. And so that was one of the locations where we like had this pop up stand where people could view the experience as well as in a few other parks. And I remember this one gentleman who.

26:40
J: Who tried on, who tried out the experience you know and, and after you know he removed the headsets and he was in tears and he said that all this while. I remember this is five years later all this while he never believed the story of the kidnapping. He honestly thought it was just government propaganda, but he was so he was so moved. You know he, he was just like.

27:07
J: What can I do to help? How can I? You know what I mean? He, he was just ready to get up and go right there. And, and for him, it was just this whole experience of being transported there, of hearing from authoritative voices from a mother, you know, saying this is my story

and this is what has happened. So I think in that, like that representation where we're allowing ourselves to tell our stories.

27:32
J: That authenticity really kind of like shines through right for experiences and I think that's so important. In Lagos at Large. Again you know that representation happening and, and we and we have it in different interesting ways and actually I should say this about both of them that we have like Nigerian languages being spoken in you know in in some way and sometimes sort of like.

28:03
J: An overlay or a narration happening in English as well, but that's ability to sort of like bring that to the screen. I think the challenge that though with language or you know, using different languages is depending on the audience you're targeting, you might then start to think, ok, so what's the way to, you know, make sure a wider audience can like understand and appreciate this?

28:28
J: And is that a double or is it subtitles? And subtitles don't work well at all. And you know, immersive experiences, in my opinion, you know, things like that. But back to Lagos at Large. So this sort of like it was almost like 3 vignettes, you know, the experience and all of that three or four vignettes of like different sort of like snippets of Lagos life.

28:56
J: That were tied together by this beautiful, beautiful poem by a Nigerian Austrian poet called, Njideka Iroh. And that was one element tying like the whole, you know, experience together. So that, you know, the narration of that poem all through the soundtrack as well was really.

29:24
J: Really thoughtfully done by this super talented composer called, Osarumen Osamuy and he you know he kind of like worked with the team to create sound that like exemplified Lagos. I, I don't know if you've been to Lagos? You know people often talk about how, how, how rushed it is, how noisy it is, how so many things but it's really somewhere where.

29:53
J: There's a lot happening. And I often tell people when you come to Lagos, you'll either love it or hate it because it doesn't allow you to be lukewarm at all. But if you're the kind of person that you like to be at the heart of things, then, you know, you want the music and the drive and the this and the that and the art and the culture. Then, you know, in Nigeria, I would say Lagos is probably the place to be. And so it was like looking, you know, composing something that would kind of like reflect that and.

30:20
J: Kind of like have that groove and that vibe that that is Lagos, right. So that was a really important aspect of it as well as sort of like the, the, the people that you would engage with

like in the different stories and how you would engage with them, right. So you know the, the poets who was a character in this, you know and, and watching her kind of like engage in different spaces. You spent some time on like this, you know iconic.

30:49
J: Lagos bus called the, Molue which is now being phased out of most of Lagos but for many, many years was like this instant symbol of Lagos that people would recognize you know and different things and, and the beach of course, because of course we were we are the coast you know for, for the country. So yeah in many different ways it was just making sure that all of the, that we celebrated like all of these.

31:20
J: Artifacts and spaces that and, and when I say celebrated it, it was like, you know, just give them room or give them space to shine and be themselves. So that if you put on the headset and you've been here, you'd be like ohh, that's you know and it's as familiar to you as, as when you went to visit.

31:41
J: And if you hadn't, you would be like ohh and and, and then it would be something where you go away knowing that if you ever do come to Lagos, then you have a real sense of what it's like.

N: Thank you, Judith. My next question is about a theory called techno-eminism I'm not sure if you've heard.

32:13
N: Sorry, I'm not sure if you've heard of it, but techno-eminism is a type of feminism that speaks about the relationship between women and technology. And in the context of VR, how do you think that the relationship between African women specifically and technology has been both behind and in front of the camera?

32:42
J: Okay. So the relationship, the relationship between African women and technology would be behind and in front of the camera. I think to, to, to start to answer this question, I will, I will kind of like dial back.

33:08
J: To back when I, I said I was you know I first came and I was working with Andela and all of that and one of the things that I used to you know do at Andela was kind of like select the selection for people who came into the program. And I remember once we you know I mean we were always really passionate about you know increasing the number of women in the program and all of that you know really, really keen. And I remember once I was interviewing a young lady and.

33:39
J: One of the things that, you know by default we, we, we, we, we knew would be beneficial would be to say to people, well, apart from your interest in technology and all of that and you know the usual stuff you would tell us about in your CV, like what else do you like to do? What, hobbies do you have? That sort of thing. She said that she liked to drum, you know.

34:04
J: And, and I thought that was fantastic and I said, ohh like, would you drum a little bit for me? And she was right here right now? I'm like, if you would, if you don't mind, you know. And then she kind of like, you know, tapped out a beat on the table and I, you know, it was really, really great. And I said so. So where you drum now, what do you do? And she's like, well, she doesn't drum anymore. I mean, she likes to do it, but she doesn't do it and.

34:31
J: And I, I, I was, you know. Ok like I my heart really sunk and I was like why? And she was like drumming is for boys. And that just completely threw me. And I'm like, ohh, no, why? You know. You know what I mean. And, and I and I bring that up just to kind of like say think about the sort of like social cultural kind of like limitations or anchors that you know, girls and women have had.

34:57
J: I mean this was someone who was great anyway because she was, even though she thought bad about drumming here she was trying to chase a, a dream in tech. But there were many, many young women who were trying to chase those dreams in tech and were, were getting some grief about it from like family, from community and all of that. And we, I mean obviously I got to engage with the fabulous ones who kind of like push through regardless.

35:25
J: But, you know, I would always think about the many who, who, who didn't even have the opportunity to push through right and like break out of that restriction or whatever you want to call it. So I would say kind of like from then to now, there's certainly been more of a shift in terms of more women embracing and more people trying to make it possible for, for women to get into the space.

35:53
J: And I also, I'm a big champion of, of like the affordances, right, that like careers in tech, of women. I think much like we're seeing in places like Nigeria where if you're in the field you can work remotely. You can be in your home and like earn and like you know all sorts of things like, like this, this freedom right and this you know like financial liberty that I think is so, so critical. So there's that when it comes to XR specifically though.

36:23
J: I would say that it's been a, a little bit trickier. And I say a little bit trickier because if we think back to sort of like 2016, like earlier on, even when we were starting the lab, one question that the young people who came through would often ask is, well, I mean they'd be wowed by the tech, right? They'd be like, Oh my God, this is so amazing. I can sit in a chair and travel around the world, that sort of thing. But then the next question would be, but then how do I make money from this, right, because.

36:52
J: That was a very real and present need for like young people. We got to like, you know, think about what we do that will help us kind of like survive and thrive in our communities.

And that wasn't a question that you could answer like reasonably in 2016, like, you know, you know, in a place like Lagos or, you know many other places because you know, that sort of like real demand for, you know, consistent kind of like work in the space didn't quite exist and so.

37:22
J: You, you came into with like intrigued by the technology you came into with maybe as a dreamer, you know who was anticipating what could be done or as an experimenter, as an innovator, that sort of thing. But you didn't fully come into it commercially. I mean the people that were making commercial plays in the space were probably doing things like 360 tours, right, as opposed to core XR work.

37:49
J: And even with, you know, the 360 contents, you know, cinematic content, for example, you know it was being created, but you know it wasn't necessarily going to, to make you money. I mean, if, if you did a great job, you would obviously get the awards and everything and then that would lead to many other things which would lead to money, but in and of itself not necessarily so. So there was that element of it where.

38:18
J: I think it was definitely. It has definitely been more difficult for women, especially women who are in parts of the country, for example, where you won't have ready access to the resources, you won't have ready access to devices you know or to spaces with the internet and like electricity and all of that. That will help you get involved is one thing I would say, but you know.

38:45
J: Despite all of that, I mean often when I'm talking about XR today, I, I give examples of like three phenomenal women that I've engaged with, you know, in the last few years who are kind of like the, despite the odds, women. And I think that these are the people that are highlighted more and more who regardless, you know, have said we want to do this, we'll take every opportunity to learn.

39:10
J: We'll keep, you know, you know, aggressively pursuing self-learning and, and get to the stage where we can build something for ourselves and make a career out of it. But if I'm being honest, I think a lot more needs to be done to create spaces for, for girls and women to do this.

N: And what do you think about the, the representation of African women on screen?

39:46
J: So do you mean like globally or from an African perspective?

N: From an African perspective,

J: So us representing ourselves on screen?

N: Yeah, like the, the characters that women will play in, in these VR, in these VR films or these VR experiences, do you think that women are being represented in a progressive way?

40:14
N: A non-stereotypical way like things of that nature.

J: I mean so, so with the VR experiences that that we have made right, which have been documentaries, they've been, you know they've been they, they've been put forward as themselves, right. So they haven't sort of like been given an alternative framing if you will and, and they've been allowed to sort of like express themselves as they would.

40:44
J: I and I'm just trying to think about, I mean most of the work that you know like so far I've engaged with on the continent especially work involved in women has been of the kind of like 360 narrative documentary genre. And, and for all of those it would be in instances where women are present. It would then be the women you know as themselves or you know as, as they would want to be portrayed.

41:16
J: I'm just trying to think about a piece that might not necessarily fall into that category and, and none comes to mind immediately. Yeah,

N: Okay. The next question is more of a corporate business.

41:43
N: Perspective of African VR and it is what hindrances or restrictions or obstacles do you think that African VR practitioners and filmmakers are faced with and how do you think these can be combated? So you mentioned things like lack of resources like of access to facilities and things like that.

J: Absolutely. So I, I would say the challenges for.

42:10
J: Sort of like African VR creators and filmmakers, number one challenge is funding. I think like the money that comes to the continent for XR is, is, is negligible, if I'm being honest. When we compare it to the, the kind of funding you see in other parts of the world and even sort of like matching, you know, funding for like projects and that kind of thing, yeah, it, it really is negligible.

42:42
J: And, and alongside that, I mean, you know it more, more recently of course, we've been seeing kind of like international opportunities also opening up to Africans, but that wasn't always the case. So typically you would see some kind of Geo blocking in terms of like who can apply for this program or who can do that. That is changing now, which is fantastic. So there's the opportunity to go out and do things, but.

43:09
J: You know, for what's coming into the continent, it's definitely, definitely still a challenge. The other challenge I would want to mention is talent. So we, I mean when you think about all of the skills that can go into creating like immersive experiences, particularly like you know, cinematic like experiences and all of that the you know, if you want to learn.

43:37
J: The, the places to learn, I mean most, most practitioners you speak to on the continent will speak about the university of YouTube, you know and I think that's a distinct disadvantage for. I mean no. Well first of all, distinct disadvantage that the, you know, institutions that can provide sort of like formal instruction in this do not yet exist on the continent and that a lot of self-learning has to happen and all of that. And that's kind of like self-learning and you know.

44:05
J: Entrepreneurial hustle to do means that you are working with what you can afford to work with as opposed to typically the opportunity to work with you know, the top of the line or that sort of thing. So that kind of like brings me to that next challenge, which is sort of like the resources, the hardware and all of that access to that, which is a problem. I mean if you just think about sort of like my initial.

44:32
J: Comments about sort of like the standard experience and this whole thing about do we make, you know, do we make something with the Samsung 360 where the quality we know is not going to be good or do we make sure we get a, a good enough camera that you know, we can make something that we can put out into the world. And you know, you see how fast the technology is like you know, changing and all of that and the fact that they're all of these devices coming out and all of these tools.

45:01
J: How many of them will be fine on the African continent, you know. So yeah, I, I would say kind of like those are, are the top, the top challenges I would point out.

N: Thank you, Judith. At Wits, which is a university in Johannesburg, the one I attend, they are actually.

45:25
N: Programs that are specifically designed that focus on VR whether it's from an IT perspective and the computer science faculty or also in the arts/digital arts programs that we do have. So yeah, you should really check those out or encourage those who are seeking to formalize education in XR and I'm sure there are many other universities as well.

J: Yeah so, so what. So what I do know is that and I don't know if.

45:54
J: In Wits it's changed, but I do know that there will be modules on things related to XR, but I've never seen an actual XR degree. Is there one at Wits now?

N: Well, so so for me, right?

46:10
N: If you are in a in a arts program for example, and if you decide your, your honours or you know any sort of postgraduate qualification, only then do you get the opportunity to, to specialize. I did my honours degree specifically in in VR so I'm not sure if it's available like from immediate entry like from bachelors level, but I know they do have programs specifically designed at postgraduate level.

46:40
J: Okay. So what was the degree that you did in VR?

N: It was a, Bachelor in Film and Television and in my 4th year I did a, a thesis on, on VR. So you get to, to sort of select your, your specialized module in postgraduate if you decide to pursue a postgraduate.
47:06
J: Yeah, yeah, I see. I understand. I think and I and I hear what you're saying completely. And I think I know a few other universities in, you know, in South Africa for example, offering opportunities like that. And at the University of Johannesburg for example, they now have a Metaverse research unit and all of that. But you know, what I'm trying to refer to is like you can go to a university and the program, the bachelors you're signing up for.

47:34
J: Is like virtual reality, extended reality, do you know what I mean? Which is a little bit different from what you're saying because then in that sort of program, like, you would then be taken through like every element of these technologies. Do you see what I mean? And let me give you sort of like, huh?

N: Yes, Yes, I do.

J: Yeah. Yeah, so. So, so for me, the fact that like, there's no, you know, that has been available kind of like in schools, like in other parts of the world for for a while now, But there's nowhere actually.

48:04
J: On the continent you can actually go and say I'm studying all through like you know XR, it's not possible you will do elements of it and there are many universities and many fantastic, fantastic you know lecturers and other faculty members making this happen in South Africa and you know in Kenya you know in lots of places. But a program dedicated to it not yet and, and we need that. So, so if I think specifically now about like 360 filmmaking for example.

48:33
J: You know what I mean? Like where will you go? And you know you are going through all of the different kinds of cameras you, you know you can use and you, you have them there to like learn with and you go through kind of like all of the different ways of stitching and cleaning and all of that. Never mind the whole array of post-production you know possibilities and 3D audio and you know all. Do you know what I mean?

N: Yes, yes I do. I remember in my honours year.

49:03
N: We, we, we, I mean Wits. We did a collaboration with Film University of Babelsberg, which is in Germany and students there at bachelor's level were enrolled in a program called Creative Technology and they were able to study like a three-year degree that began with teaching in, in XR. So it was pretty.

49:32
N: It was pretty cool to like engage with, with people who have been doing it like for much

longer. Then obviously they did have postgraduate degrees on that. But yeah, I think in, in other parts of the world they probably have, have more of what you're referring to.

J: Yeah.

N: So my next question is about the future of VR cinema.

50:02
N: And what that looks like to you in Africa?

J: The future of VR cinema and what that looks like for me in Africa. So the way I think about questions about the future, I would always say it depends. And what I mean by that is it depends on kind of like, you know, a number of choices that will be made like, you know, today, tomorrow, that sort of thing.

50:32
J: And these choices are about things like access to XR, you know devices on the continent, whether there'll be like a locally manufactured device at some point that's widely available and all of that. What I what I will say that I have seen is that you know because of the kind of like really compelling storytelling power of.

51:00
J: Kind of like immersive cinema and 360 and all of that that we're seeing more and more people leverage it for different purposes. And this leveraging is, I mean never mind sort of like the traditional, you know, storytelling from a film perspective that you might see during the circuit and film festivals and things like that. But we also have organizations and brands thinking about how they can tell their story for specific audiences, you know and craft like a compelling immersive narrative around that.

51:30
J: And what that is doing is, well, first of all, making it so that more people have to build the, you know, build up, the acquire the skill sets to create. And then second of all that, more and more, more devices are being brought in, even if it's just for the purpose of serving that particular organizational agenda. So I would say, yeah, like if things continue the way they are now.

52:02
J: We're, we're at the point where I don't think anybody is going to say what is this virtual reality thing, is it going to be a thing anymore. And I say we're at that point, of course, because everybody was waiting for Apple to get into the game. As you know, the final signal that you know it's game on, that has happened, you know, this month. So now everybody's just thinking about what does it look like and how will it play out and what will the killer use cases be?

52:29
J: But the one thing that you know, nobody ever kind of like disputed is that all it's this, you know, it can be used as this empathy machine. It can be used for all of this storytelling. That's really great. So I think that we'll see a lot more people like utilizing it for that purpose and that will be more widespread. The only sort of like question will be who will be the dominant storytellers on the continent. I think that's the number one thing for me and.

52:57
J: The hope of course is that, you know, it's Africans telling African stories and Africans are able to consume that. But then also quite aware that there is the risk that people who want to push narratives and we've seen all sorts of things with fake news and propaganda and all of that, then imagine if people are like immersed in that, that there can be people that would want to.

53:23
J: Use that for whatever purpose and if they have resources behind them can do that to yeah unfortunate advantage probably at scale so, so that, that there will be that tension but I hope, I hope we win out. You know I hope that there's enough put into the African XR ecosystem now so that we're, we're more in control of that narrative and the content and all of that.

53:51
J: And I know so many people with incredible stories that they want to tell or telling, you know, in this immersive format, I can only imagine that there'll be so many more. And, and their stories are not just for our continent, but for the world.

N: You mentioned that you'd like to see Africans be dominant players in the industry as the technology develops and it, it gets bigger.

54:19
N: And what kind of stories would you like to see them telling?

J: Ohh, my goodness, where do I start from? So I'll just even think about some of the, the kind of like the, the creators that I've come across and some of the things that they're working on. I mean they're, they're people that are working on sort of like indigenous, sort of, you know, indigenous knowledge related to astronomy and stories about that, you know, there's.

54:47
J: There's also, it's I, I, I, I, I don't even think I can save one kind of category. And I think for me that's what's really exciting. Because you know, when I used to describe virtual reality to people, I would say that this is a technology where you're only limited by your imagination, right? And then I would never say, like, this is what you can do with it because I'm always waiting to be shocked. I'm always waiting to be surprised. And even from sort of like the most everyday story that people will tell where it's.

55:17
J: It's every day to them, but it's like, ohh my goodness, it's a whole new world to anybody who's like in it and like watching it and hasn't been there before, right? Like that's compelling through to people exploring indigenous astronomer, you know, knowledge related to astronomy through to people who were capturing stuff like sites, you know, in places where most of us will never get to maybe capturing a silverback and things like that, like in the wild so.

55:47
J: Yeah, it's, it's, it's, it's everything and, and nothing I can even imagine, never mind the mythical, never mind the, the. They're just so, so, so, so many stories. And let me be frank, I

want to see them all. I want them all to be created and made. I know people who are looking at sort of like different African like customs and traditions like, you know, age grades for men and thinking about how that can be captured.

56:16
J: And for me, you know, this is the so, so, so, you know, they've always said that, you know, oral histories are things on the, you know, is, is the thing on the African continent. Like we're storytellers and we pass on those stories and all of that. And for me, what this technology does is that it makes those stories live. You know what I mean? Like live forever, live in ways that people can actually go in and inhabit them. And so, yeah.

56:46
J: As many stories as possible, as wide-ranging as possible, I don't think I would possibly restrict.

N: And what advice would you have for aspiring VR film makers who are seeking to, to tell these stories? What advice would you give them in order to become successful VR creators on the African continent?

57:11
J: Cool. If you want to do it, please. Yeah, do it. Have a plan, depending on where you are, you know, If you are wondering how to get started in VR, Electric South, who are based down in Cape Town, run an annual lab called the New Dimensions Lab. It's a fantastic, fantastic experience for artists to get them, you know, started in terms of immersive media creation. So look out for it, apply for it, you know, and all of that.

57:40
J: Look out for communities, right. So there are many XR communities that are popping up on the continent. We run AR/VR Africa. Join up. There's a Discord server. There's the We Are VR Jozi community. There's the Metaverse crew. Get involved, you know, because I think the, you know, the communities are the bedrock of like the entire tech ecosystem here on the continent. In those communities you'll find people to support. You'll, you'll find people to answer your questions, you'll find people to work with you. So.

58:09
J: Definitely do that. If you're in a place like Lagos, come to our lab. Our lab is open access. Anybody can walk in, You can try stuff out. You can use equipment. You can do all of that. So look out for resources that might be near you that can support you and, and what you need to do. And, you know, reach out if we can help.

N: Alright. Thank you, Judith. That was the last question that I had for you. Thank you.

58:39
N: So much for your time. And this was a very informative discussion. I thoroughly enjoyed it. And yeah, I hope that we can keep in contact after this. I'm going to send you a consent form that I'd like you to.

J: Okay

N: And yeah, thank you once again for your time.

J: My pleasure. It was lovely speaking with you.

N: Same to you. Enjoy the rest of your day. Thank you.

59:08
J: Alright. Bye now.

N: Bye.

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