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Digital avatar design and social masks: the atavism of totemic-storytelling

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2023
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Mofolo, Katleho. (2023). Digital avatar design and social masks: the atavism of totemic-storytelling [Masters dissertation, University of the Witwatersrand, Johannesburg]. WIReDSpace. https://hdl.handle.net/10539/44777

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DIGITAL AVATAR DESIGN AND SOCIAL MASKS:

THE ATAVISM OF TOTEMIC-STORYTELLING

Keywords:
Avatars | Totems | Storytelling | Lineage | End-user | Brand | Design | UX and UI

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Abstract

Humans, often known as Homo sapiens, have long had a strong desire to create their own identities, both biologically and artistically. The human being is a storyteller who makes sense of the world through a chronological and linear pattern of narrations. Humans, on the other hand, have broadened storytelling through a variety of immersive means more than any other living organism. Some of these interactive approaches are becoming increasingly (1) digital, (2) augmented, and are now rapidly moving toward (3) virtual reality —the metaverse. These universes contradict our understanding of the physical world. Second worlds, alternative worlds, and the parallel universe are all terms used to describe worlds and spaces designed for extended human social interaction. In the 21st century is there enough progressive value and a sense of ethical evolution in the way humans communicate stories and alter social identity relationships to beam virtue into the virtual?

Aim

The importance and significance of Totemism have slipped through the cracks of historical narratives, particularly in narratives about identity, social organisation, and behavioural design. Totemism was abandoned near the end of the nineteenth century, and it faded out of social design systems. Because of the rapid development of digital arts and their users, Totemism was perceived to have primitive concepts. The twentieth century followed a period in which humanity was introduced to electricity and city lights. The fusion of digital, art, and technology during this time period gradually led to the disappearance of the totem in digital (art) narratives. The convergence of technology, digital, and art influenced users to reconsider concepts such as identity, storytelling, systemic organisation, and social-behavioural design. As such, totemic values gradually got out of step with the end-user because the user grew more inclined to the newly popular digital and virtual platforms. While the Post-modernism movement boldly defied the ubiquitous timeworn art dogma, for example, Neo-classicism, Realism and Impressionism, this defiance also included Totemism and its influences. During this rebellion, Post-modernism digitally, consequently and unintentionally transformed and reincarnated the totem to what we now refer to as an *avatar*.

The avatar, true to its name by definition is a reincarnation. The avatar has *re-introduced* itself in various forms on augmented reality (AR), digital[1] and virtual spaces. The word 'avatar' is commonly associated with digital and virtual jargon. However, the word avatar in Hinduism, (a religion with deep Indian heritage) affirms that when earth creatures or humans die, their spirits live on and get rejuvenated in another earthly body form, *as an avatar,* " - a god who appears on earth as a person"[2]. An avatar by classification is a visual representation of disembodiment from a deity form (myth/spirit representation) to an earthly embodiment ('reality'[3]/physical representation) in a human or creature form. Mythological Egyptian and Greek legends often depict avatarial and totemic stories of demi-god embodiments mostly in creature form.

Some of these common visual similes and metaphors display an avatarial and totemic creature known as a *phoenix*, rising from the ashes of its ancestor bird[4]. This mural artwork and visual representation is symbolic of rebirth and reproduction, indicative of the fluidity and the evolutionary nature of biological life; the rapid inevitable advancements in art, cultural nuances and technology. This idea of rebirth and re-introduction is to a certain degree reminiscent of Walter Benjamin's perspectives in his essay called "The Work of Art in the Age of Mechanical Reproduction". Benjamin states that; "*In principle a work of art has always been reproducible. Man-made artifacts could always be imitated by men." Replicas*

[1] See the animated series *Avatar: The Last Airbender* created by Michael Dante Di Martino and Bryan Konietzko; and the film *Avatar* written and produced by James Cameron.

[2] *The Cambridge Advanced Learner's Dictionary*.

[3] This also refers to digital reality immersion and representations as utilised by end-users on augmented and virtual reality.

[4] Originally demonstrated as a Bennu or a Yellow Wagtail, now usually depicted as an eagle, a hawk or falcon. Hieroglyphics will also be used, as an example as my paper makes use of examples associated with semiotics, fables and mostly African mythology.

were made by pupils in practice of their craft, by masters for diffusing their works, and finally, by third parties in the pursuit of gain" (1969, p. 2). Similarly, the digital and virtual avatar in the 21st century rises from the ancient ashes of the avatar's precursor, the totem, echoing a theme of reproduction. As a result, the end-user gets a broadened agency and autonomy to rise and rejuvenate itself as an external representation in other worlds; this is a digital and artistic disembodiment called an avatar.

Further, in my paper, I will show how in African antiquity, Shamans, through Totemism, illustrate a similar avatarial disembodiment, although this was for desires of spiritual realm explorations[5]. There are similarities between a totem and an avatar when the word totem is defined. According to Molefi Kete Asante and Ama Mazama (2009, p. 666) the word totem is defined as follows[6].

> *In Africa, a totem (mitupo in the Shona language of Zimbabwe) is any animal or object that is considered a guardian, protector, or assistant[7] to an ethnic group, clan, or family. An African totem is identified with a kinship or descent lineage. When the apical ancestor of a kinship group is non human, it is called a totem…*

In Africa and most of the American-Indian regions, comparable to avatars, totems were symbolic identities and external alternate representations for human beings (end-users). Samuel Kipkemei Kigen's etymological definition of totem is as follows, "*The word "totem" originates from Ojibwa (Chippewa) which is an Algonquian-speaking language. It is from the word ototeman which means 'his brother-sister kin*.'" (2018, p.14).

Totemism as design also provided the end-user with ethical affordance and moral agency as alluded above by Asante and Mazama. Additionally, totems could also be tactile and acoustic. *Hey Mercedes* (MBUX[8]) and *Siri* to name just a few, are both digital assistants in a form of acoustic Avatarial-Totems. Siri is Apple's virtual customer-service personal assistant and likewise Hey Mercedes provides personalized customer service too, through voice interaction. These are nonhuman guardians, assistants and digital deities. Because of western norms and naming conventions, gender role ideologies in both Hey Mercedes and Siri frequently lead to end-users assuming that Siri for an example, is a gender stereotype and a subservient gender embodiment. Moreover, patriarchal notions arise, Hey Mercedes and Siri to name a few are frequently misidentified or thought to be 'female' which is an incorrect notion. Even though Siri is an otherworldly entity and assistant, often times the voice is female which subliminally condones female servitude. But then again society has been covertly made to think of this as a norm; for example, the default acoustic avatar is often female on these tech and digital platforms although some platforms in the 'settings' provide the user with options to change the voice into a male one. Considering modern

[5] My intent is to avoid discussing religion, although totemism derives from elementary religion building blocks such as *animism* and *naturism*. When discussing totemism, it is critical that I support my views using anthropology as a study that highlights bits of shamanism. On spiritual disembodiment themes, I intend to use gaming examples and case studies to illustrate my point.

[6] I will discuss digital & virtual avatars and totems with narratives from African stories and perspectives. Although avatars and totems are not exclusively African concepts, my paper aims to discuss ideas of totemic and avatarial embodiment and disembodiment with some supportive theories derived outside the African continent i.e. North/South-America, Asia and Australasia

[7] This theme within digital avatars is often seen in first-person shooter video games

[8] Mercedes Benz User Experience

social intersubjective biases on gender, Donna J Haraway was particularly not far off from the truth when she stated that;

> In the "Western" sense, the end of man is at stake. It is no accident that woman disintegrates into women in our time. Perhaps socialist-feminists were not substantially guilty of producing essentialist theory that suppressed women's particularity and contradictory interests. I think we have been, at least through unreflective participation in the logics, languages, and practices of white humanism and through searching for a single ground of domination to secure our revolutionary voice. (2016, p. 27)

While 'voice' as put by Haraway in this instance is not meant to be taken literally. It should be noted that the female voice however keeps on being introduced as subservient more than putting emphasis on its feminine value. Totemism had valuable insights that could curb such instances within its social design systems. I would however like to emphasise to the reader that my essay does not aim to argue about political and social representations of gender masculinity and femininity.

In other digital spaces that are not too opposite from the digital world of Siri and MBUX. In the digital gaming world when an end-user is obliged to digitally assist and embody a lead character within a game. *Kratos*[9] in David Jaffe's game **God of War** for example — Kratos the main character becomes a living deity with physical attributes while occupying a digital embodiment. Kratos possesses acoustic traits too like Siri and MBUX through the game's narration via 'voice' however the end-user assists his movements in the form of navigation and play. Then like Siri and MBUX Kratos also lends himself as an assistant-avatar to help the end-user explore and navigate the videogame's story. His voice is not subservient true to his nature and character (compare with Tomb Raider's Lora Craft). Similarly, Asante and Mazama add that, when speaking of assumed other world deity embodiments within a totemic realm;

> …Many African ethnic groups or clans claim their descent from animals such as antelopes, monkeys, lions, horses, dogs, eagles, or leopards. When a group presents itself to the world, it normally represents itself through a totemic narrative that explains how the particular people emerged from the kindness, fortune, tenderness, wisdom, or courage of a particular non-human animal. (2009, p. 666)

When gamers or end-users, for example, transform into Kratos or a non-human animal, such as SEGA's *Sonic the Hedgehog*. They re-appear in the digital world of gaming as an avatar that subtly mimics ideas of totem representations, but is frequently devoid of ethics because Totemism typically underpins and promotes sacredness of self in its utility.
The end-users' personification as this totemic-avatar "*claims his descent"* and assists to better narrate an avatarial plot "*that explains how the particular character emerged"*. Yes, I argue that digitally Kratos does indeed through interaction and symbiosis with the end-user or gamer assumes totemic qualities, they become one. If Kratos is happy, the end-user is happy too; if Kratos is furious, the end-user imitates that in play and interaction, if Kratos is a killer the end-user automatically justifies the totemic nature and right to killing and vengeance.

[9] A videogame character on a game called *God of War. An end-user cannot follow the narrative unless they embody Kratos in the digital gaming realm.*

The end-user automatically becomes a killer in the digital world. The rejection of acts of murder by the end-user while playing through Kratos, perhaps based on the end-users retaliation and moral stance in real life against murder will shun the continuity of Kratos' narrative, and the game will seize to develop and unravel its story. Contrary to that, by playing the game inadvertently the end-user becomes a reincarnation and reinforcement of such murderous and vengeful values that the character embodies.

The following chapters will show how the totem, as opposed to the avatar, has a more centripetal core design in relation to the end-user. Avatars are linguistically related to totems by definition, but in reality they exhibit somewhat centrifugal behavior. The purpose of this paper is to take readers on a journey through digital avatarism, its metamorphosis, and its subtle coup against totemism. Furthermore, as outlined by Haraway, "*Modern machines are quintessentially microelectronic devices: they are everywhere and they are invisible. Modern machinery is an irreverent upstart god, mocking the Father's ubiquity and spirituality*." (2016, p. 12-13). Exactly what the avatar is proving to do in the 21st century[10].

My essay will explain chronologically how avatarism's lineage can and should be traced back to Totemism, and how both totems and avatars play a role in identity creation, social organisation & interaction, and social behavioural design. Could contemporary avatarial design and avatar embodiment for online interactivity limit the value of end-user ethics, storytelling and identity meaning making? Are augmented, digital and virtual avatars a beginning to the latest industrial revolution and the evolution of post-modernism's social narcissism; or could this be a reintroduction of a newly formed umbilical cord to post-humanist atavistic and rather totemic digital identities and values now called avatars?

[10] I will further discuss this point through Microsoft Teams and Meta's (AKA Facebook) introduction of the metaverse and 3D avatar use in 2022

Chapter 1
Introduction

> Second Life, among others, functions as a kind of parallel universe or fantasy world. Similarly, young kids on Club Penguin, or slightly older children on Gaia, are creating versions of themselves that interact with others online. In virtual worlds, the key act of identity formation is the creation of an "avatar"—a virtual representation of the computer user. (Palfrey and Gasser 2008, p. 28).

This research aims to investigate and analyze the historical developments of identity and storytelling in twenty-first-century digital design systems. In this chapter, I aim to provide the reader with an understanding and comprehension of storytelling as a human rhetorical tool. I will start with the significance of storytelling and how it has evolved over time. This chapter will delve into the crux of human historical narrative methods for artistically conveying messages and designing self-identities. This is to better understand my central research question of atavism evident in today's digital avatar use as a contemporary form of totem storytelling and creating the next iterations of self-identity. I refer to this as 'the next iteration of Totems' —Digital Avatars. In this information age, the end-user has more control than ever before. It is critical to point out that humans have finally arrived at a point in history where the Liberal Arts and STEM (Science, Technology, Engineering, and Mathematics) are merging. As a result, we see both humans and brands growing the desire to consolidate their identity and develop authentic narratives to put the end-user/client first. This may be in business, gaming, film, the military-industrial complex, capitalism and consumerism. Totems have been used as a way of storytelling, social organization, and identity design throughout history. In augmented, digital and virtual spaces, I'm particularly interested in the Totem's next iteration, as alluded to above, the digital avatar. Furthermore, the research aims to make sense of the digital avatar's lineage in the twenty-first century, and its impact on future narrative-self values in virtual and digital mimesis ideologies. However, first, we will be exploring the developments of storytelling.

Because of modern taxonomy, humankind narcissistically and popularly referred to itself in the mid-eighteenth century as the "wise man," also known as Homo sapiens. Binomial nomenclature is a system of naturally defining species and genera of organisms into a holistic classification introduced by Swedish botanist Carl von Linné. Humans, on the other hand, rarely refer to themselves as Homo Narran, even though we have demonstrated a deep need to use rhetoric as our identity bedrock since antiquity. These narratives have been told and demonstrated in various ways throughout history, as the Homo Narran gradually deployed and associated itself with signs, gestures, sounds, and stories. In essence, the human being is the 'narrative man' who thinks. Aside from survival, the primary nature of humans is a desire to be seen, noticed, and heard. We want to tell our stories and imprint our sense of self in the spaces we inhabit. Simply put, "we know what things in the world are because they have names and meaning," writes PJ Fourie in Media Studies (2018,

p. 86) As a result, we live in a highly symbolic universe. Symbols are extensions of storytelling; humans, the Homo Narran create them. The act of telling a story is not a simple and linear process. It is a complex process that is intertwined with a multiplicity of interactive activities that I will refer to as *play*. However, that aspect of play will be clarified later in detail.

Homo Sapiens[11] meets the Homo Narran[12], Homo Faber[13] and Homo Ludens[14]

According to Johan Huizinga in his book Homo Ludens: A Study of the Play Element in Culture, play forms as an essential aspect and activity in culture. Huizinga observes the following in a historical context and chronological sequence of events;

> A HAPPIER age than ours once made bold to call our species by the name of *Homo Sapiens*. In the course of time we have come to realise that we are not so reasonable after all, as the Eighteenth Century with its worship of reason and its naive optimism, thought us; hence modern fashion inclines to designate our species as *Homo Faber:* Man the Maker. But though, *faber* may not be quite so dubious as *sapiens*, as a name specific of the human being, even less appropriate, seeing that many animals too are makers. There is a third function, however, applicable to both human and animal life, and just as important as reasoning and making—namely, playing. It seems to me that next to *Homo Faber*, and perhaps on the same level as *Homo Sapiens*, Homo Ludens, Man the Player, deserves a place in our nomenclature. (1944, p. 5)

Huizinga highlights the importance of the element of play in a human's social interactivities. We become wiser and more knowledgeable because of our life experiences. And this history has always occurred because of human's repetitive patterns of social interactivity and play. As a result, we learn through imitation, recording, attempting, and rhetoric. In caves, ancient human civilisations used rock art, sculpture, pre-historic flint tools, and hand printing to communicate and *play*. Despite the existence of augmented reality, digital, and virtual worlds, humans in a contemporary pop culture still have an atavistic need to do the same. In Hollywood, for example, we frequently see this repetitive and atavistic tradition (see figure 1). Essentially, humans want to attach their identity and engage in meaningful interactions that leave a lasting legacy.

Humans continue to self-extend through totemic narrative means such as text, texture, image, and brands in the form of books, clothing, and videogames. Furthermore, we extend ourselves and tell our stories through academia, wars, architectural monuments and monoliths, performance, and acoustics. The nature of constant human invention or development — whether in literature, performance, fashion, architecture, technology, etc. — appears to be influenced far too frequently by atavistic influences. This has become something of a Homo Narran historical pattern. Atavism is defined as "a tendency to revert to something ancient or ancestral." Biologically it means "recurrence of traits of an ancestor

[11] The Wiseman
[12] The Storyteller
[13] Man the maker
[14] Man the player

in a subsequent generation."[15] Humans have evolved and advanced relatively quickly compared to other organisms, yet we constantly revert to prior experiences, our former historic memories and ancient self-concepts. We could say that humans have the ability to embody both mythology and non-fiction in their daily lives. Our biological evolution and technological advancements are the embodiment of both fact and legend. On the other hand in the advanced digital space, in a journal by Nathan Jurgenson; Jurgenson puts it in a manner of *Atoms meeting Bits* when discussing the augmentation of the physical and the digital. We will unpack this notion further in the essay.

The Phoenix, which I intend to use as a visual metaphor in my paper, exemplifies the human lineage in terms of their experiences, digital explorations, self-transformations, and social inventions. The collected data will highlight the atavism(s) that are constantly observed and used in the Totem's next iteration, which is the digital avatar (or as a digital avatar). I chose the Phoenix as my defining metaphor for this paper. Harold J. Goldes provides a similar example but of digital utility and, of course, atavism in digital advancements by referencing old media, saying the following:

> *"In the design of many interactive applications, the defining metaphor has been print media. In these applications, the operations used to access information indicates their print cognates. "Paging" is a term that describes the user's movement from frame to frame. "Scrolling" describes the movement of the user through the text but with a different source metaphor; text printed on a scroll (a fascinating juxtaposition of old and new media models). The user maneuvers a window "up" and "down" over the text. Some arrangements require left and right scrolling, too."* (1983, p.12)



Figure 1: Left - Cueva de las Manos (Spanish for Cave of Hands) a series of caves in Argentina, circa 9,000 years ago | Right - Michael Jackson Tribute Exhibit at Madame Tussauds in New York City, 2010

The need to be heard:
The sound, transformation and shape of a phoenix: Totemic Mnemonics

Despite all the changes that have taken place in biological science over the last 100 years, most people still believe that the world is, ordered according to a hierarchical Scale of Nature with unicellular organisms at its base and Man at the top. This is not surprising since, from the moment of birth, people in the Western world are ruled by hierarchies, first in the family, then in education, and on through adulthood (Clutton-Brock 1995, p.435).

[15] www.lexico.com

Earlier I made mention of self-extension through acoustics. The word acoustics originates from the Greek term *akoustos*, which means "Heard." A baby's cry, for example, immediately after birth, represents the Homo Narran's first stamp of acoustic rhetoric. The audible weeping of a baby is a sign of life, an initial introduction and induction to independent breathing and life experience. Furthermore, a heartbeat audible with technological tools such as a stethoscope represents a distinct acoustic mnemonic that is indicative of being alive. In some ways, looking for a pulse with one's fingertips is akin to looking for a 'throbbing' mnemonic indicative of life. A human that has used this technique, remembers from experience what the sound or throbbing means because of prior practice. Mnemonics are also known colloquially as memory tricks because they are fundamentally memory aid techniques. Avatars and totems visually help the user to remember but not all avatars and totems are visual. Avatars and Totems can be purely audible. Similarly, in many African rituals, the beating of a particular drum and its distinct sound signifies a reminder and a call for the coming alive of a ceremony. Just like in Christian architecture a church bell would be typically rung; to announce the beginning of a religious ritual. Quintessentially, both these audible 'beats' imply the action of coming alive, verve and existence. These acoustic mnemonic methods are used for their narrative *utility*, they assist and serve as a (1) call to action, (2) feedback and, more importantly, (3) memory retention. Sometimes they serve as 'audio' narrative reminders. *Utility* will be a term that comes out repeatedly in this paper. As a social design value, utility will be one of the bedrocks I will employ as a chosen qualitative metric to measure avatar and totem use. Figure 9 later in the essay distinguishes notable and comparative qualities between avatars and totems. Utility as a value or metric is within the list. Some further discussions will also refer to the aesthetic features of totems and avatars.

Nokia, the electronics and information technology Finnish company popularly known for telecommunications, preceded digital and tech organisations by using audio-mnemonics. The 19th century founded company (1865), introduced their default chime for their slogan *Connecting People* taking an overtly atavistic visual stance. Nokia referenced the early 16th-century artistic movements. They made use of Roman Renaissance art and intellectual styles within their mobile phone tech; Nokia mimicked *The Creation of Adam*[16] by *Michelangelo di Lodovico Buonarroti Simoni* to meet their creative marketing needs. When the end-user switches on their Nokia mobile phone, the user-interface displays two hands; a young hand and an adult hand on opposite sides of the screen appear. The hands reach out and eventually touch one another. Michelangelo's artwork implied the same act; he painted 'God's' hand reaching out to touch 'Adam's' hand. On the Nokia interface, the end-user sonically hears a *4 seconds* long musical sound. This acoustic mnemonic later got a multinational avatarial association with brand Nokia every time end-users heard it. As a result, the user did not need to see the company's logo or devices to know to which brand the sound belonged. For example, a cinema audience could be watching a movie and one of the character's mobile phone rings with that chime, the audience would automatically know the device or prop is a Nokia. The (audio) mnemonic thus always served as a memory trick to remind customers of the brand story.

[16] Sistine Chapel ceiling. 1511. Fresco. Vatican Palace, Rome.



Figure 2: Atavism within visual storytelling – Michelangelo's The Creation of Adam (Left), Nokia's Connecting People (middle), E.T. Movie Poster (Right)

Scan Quick Response code to listen to the Nokia Mnemonic evolution

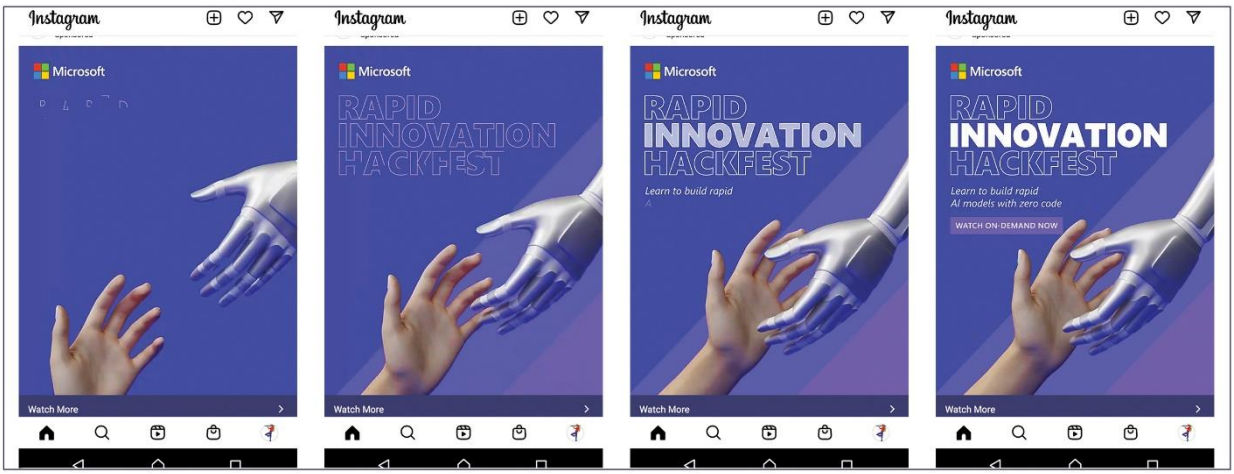


Figure 3: Atavism in 21st century visual storytelling – Microsoft referencing Michelangelo's The Creation of Adam and Nokia (Instagram - 2022)

Miguel Arisa (2008, p. 1287) in *Encyclopeadia of Society and Culture,* although specifically referring to the North and South American populations and cultures such as the Olmec, the Aztec, the Maya, the Zapotec, and the Mixtec. He acknowledges early forms of memory retention techniques, which link to Homo Narran storytelling developments and methods. Arisa explains how some (avatarial and totemic) ideas where identified and notes how;

> *"Writing was cunningly used for political advantage in identifying rulers and deities and driving the propaganda machine of the powerful…, …Some of these writing systems date to as early as 1500 B.C.E. At a very early stage in the Formative Period (as early as 1800 B.C.E.), elaborately carved icons in stone served the purpose of representing concepts… The earliest forms of writing were highly pictorial, and their most important function was to record dates*

and the names of government officials and rulers. The illustration of myths, liturgical instructions, and mnemonic devices cannot be ruled out in the more developed stages."

While Arisa unravels some aspects of the development of narration across the Atlantic Ocean. Asante and Mazama complement Arisa's views of ancient means of narration but catapult us back to West Africa near Burkina Faso in the region of Mali. They report on early totemic practices that are said to be complex, associated with places regarded as sacred by the Dogon. The Dogon are a highly rooted and intelligent indigenous ethnic group of Mali. Some of these African spaces and places are said to have been used for ancestral communication, agricultural sacrifices and worship. These totemic practices are called *Binu*.

"The religious rituals of the Dogon are one public expression of a much more complex underlying cosmological tradition that, according to Griaule and Dieterlen, pervades all aspects of Dogon life. Griaule perceives cosmological symbolism in each of the daily acts of Dogon life; for an example, the method that the Dogon use when weaving a cloth or when plowing a field, the number of threads that hang from a fiber skirt, the number of years between ritual observances, or even the way that sound reverberates as it leaves the mouth of a Dogon person. These symbolic aspects of daily life support and reinforce what Griaule and Dieterlen see as an orally transmitted cosmological tradition founded on a kind of societal system of mnemonics." – Encyclopeadia of African Religion (2009: p. 215).

Many digital and tech brands now tell their stories using various avatarial sounds as narratives. Similarly, as previously stated, totemism in several African cultures used mnemonics to tell stories. In the 21st century, the *Apple Technology Company Inc*. and *Microsoft*'s *Windows* Operating System also have atavistic samples of signature mnemonic identities. Their users distinctively recognise their digital and audible 'avatar-chimes. Macs' ubiquitous and often the end-user's favourite mnemonic sound has a nostalgic essence of an Asian Gong[17] which originates from the 7th century.



[18]

Listen to Mac's famous startup chime (0:41) – Power Macintosh G3

A drum or a gong could serve as a society's totemic medium to help the natives or a people of a particular tribe to gather around and recite cultural rituals. It also helps to memorise these calls sonically. The Online Encyclopedia Britannica defines mnemonic (memory aid) as:

[17] Gong instruments are traditionally used like African drums in various ceremonies or rituals (https://www.vsl.co.at/en/Gong/History)

[18] Notice how the QR codes develop an avatarial look and feel which can be likened to digital 'totemic' tattoos.

> "…any device for aiding the memory. Named [after] Mnemosyne, the goddess of memory in Greek mythology, mnemonics are also called, *memoria technica* (Latin: "memory technique"). The principle is to create in the mind an artificial structure that incorporates unfamiliar ideas or, especially, a series of dissociated ideas that by themselves are difficult to remember. Ideally, the structure is designed so that its parts are mutually suggestive." (2022)

This mutually suggestive design is a key element housed in the idea of mnemonics. Making some ideas in narrative intricacies easier to merge and thus remember. Substantiating some of these complicated mnemonic ideas in the medical space, Kerbs and Van Drie report in a research paper called *The Art of Stethoscope Use: Diagnostic Listening Practices of Medical Physicians and 'Auto-Doctors'*;

> "Clinical examination text books have been used to standardise the acquisition of these audile skills for over a century. If practical experience is the key for learning the skill, textbooks equally contain pertinent information: 'Physical diagnosis is a technical skill and it can only be learned through practice, but written guidance is essential mastery of this discipline. Besides explanations of the range of problems perceivable by sound, the bases of the semiotic system, and the regulated steps of examination, the textbooks often give practical advice to help the student during clinical training. Specifically, they included tips concerning stethoscope technique, as well as metaphors and mnemonic devices for remembering sounds" (2014, p.104)

As complicated as this learning of stethoscope utility might seem, it is clear that even in the medical space the use of mnemonics for memory retention is still vital. This element of perception through sound reverberates above. Additionally, this indicates an early example in my paper about the cyborg-augmented self. We see technology (being the stethoscope) meeting and partly fusing with the flesh (Atoms meeting Bits), thus enhancing human capabilities as we naturally know them. We will discuss and flesh-out that aspect even further in the paper as we continue. Evidently, mnemonic techniques have been applied in numerous platforms, cultures and industries. Whereas narrative text is vital for recording events, the 20th century saw a pop-cultural rise in mnemonic techniques.

These were used in numerous commercial ads to assist the end-user in recalling specific selling points in their products. In the internet space we moved from HTML-based pages and embraced audio-visual. The Mercedes-Benz's "Chicken" Magic Body Control TV commercial shows an example of audio-visual dominating text. The German luxury automotive brand with the 'avatarial' three-pointed star produced an ad that does not feature its vehicles at all, using very minimal text. The advertisement is metaphorical and features a chicken that demonstrates (1) the stability, (2) control, and (3) the AI drive that Mercedes-Benz vehicles offer. After watching the ad, the end-user will inevitably remember the advert through audio (the song). The luxury automobile giants used Diana Ross's 1980s song *Upside Down,* written and produced by Chic members Nile Rodgers and Bernard Edwards. The tune was bought or rented for mnemonic use; to communicate the vehicle's state-of-the-art technology features while helping the end-user to associate the brand with the song covertly.



Figure 4: Mercedes-Benz "Chicken" Ad - Scan to View Ad.
Plain Abstract QR code.



Figure 5: Mercedes-Benz "Chicken" Ad - QR Code modified as an avatarial representation with the logo added
Scan to View Ad. QR Codes may act as avatars.

We are starting to observe visually that Quick Response codes also represent and possess abstract and unique avatarial identities. Their identities extend to their utility attributes - they provide the end-user with specific *search* convenience and information. When taking an ethical user services stance, the marketing industry classifies this as enhanced customer experience (CX). The stethoscope cited earlier, like the drum used as an example becomes a contemporary totemic technology. These technologies can assist as back-up memory aids in the Homo-Narran's contemporary narrative journey by purely using or detecting sound as a means of communication. Historically, many wars have taken place because of the prohibition of another entity's sense of unique mnemonic.
This sound is one's blueprint, one's voice and story, i.e. freedom of speech. It forms and creates ones avatarial and totemic identity. Thus, this demonstrates historically how vital rhetoric is to the Homo Narran's social behavioural design and identity development. Humans have fought based on the misinterpretation of mnemonics. Man is fascinated by voice and sound and enhances the self through it.[19]

In lay foundations, denying humans the freedom to tell stories and self-representation disrupts man's sense of identity and meaning-making for self-extension purposes. It colonises the self from expression and self-understanding. Consequently, this makes digital avatars (and totems) important contemporary storytelling methods for humans. An area that requires scrutiny in the digital age for enhanced identity creation and narration.

[19] An emphatic emphasis as alluded in my report, by mnemonic and the use of narrative, rhetoric or storytelling I am not limiting my usage of those terms to sound only. Gestures, text, image etc. are included. Totems and avatars make use of these storytelling methods for identity creation. Examples of digital gestures as avatars can be signs i.e. gang signs as a GIF avatar. Example, on a Humanitarian and political stance, a gestural avatar with a Hitler Salute may insight public controversy ethically.

Additionally, avatars are one of the critical ingredients in contemporary identity retention. The screening and profiling of users, known as Biometrics, use avatars. Merriam-Webster defines biometry (Biometrics) as "*the measurement and analysis of unique physical or behavioural characteristics (such as fingerprint or voice patterns) especially as a means of verifying personal identity*". Digital Avatarism covertly contributes to the unsolicited surveillance and identity verification of end-users through Biometrics and electronics e.g. devices such as cameras. Ethically this is an attempt to aid modern-day social security. I will clarify this point further when discussing the introduction of the internet and the military-industrial complex. Avatars and Totems are fundamentally an extension of freedom of speech. As Bailenson and Beall, (2006, p. 1) stated, "Historically, even before the advent of computers, people have demonstrated a consistent practice of extending their identities". People are constantly inspired by intrinsic values to articulate and share their evolution through stories, for reasons of legacy and self-actualisation.

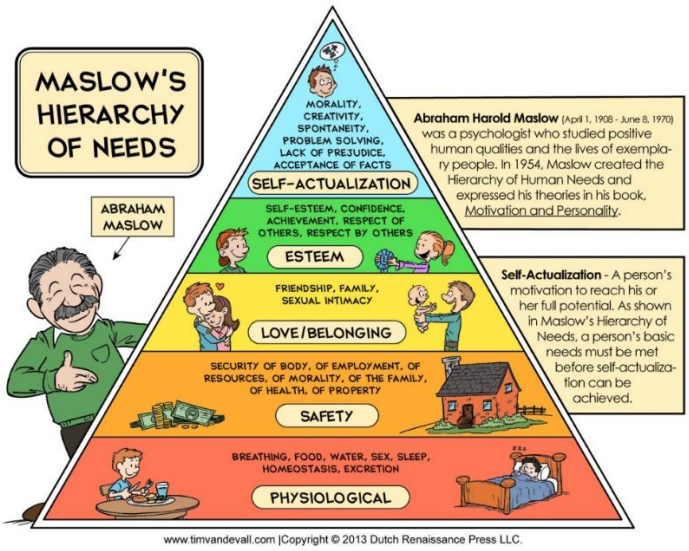
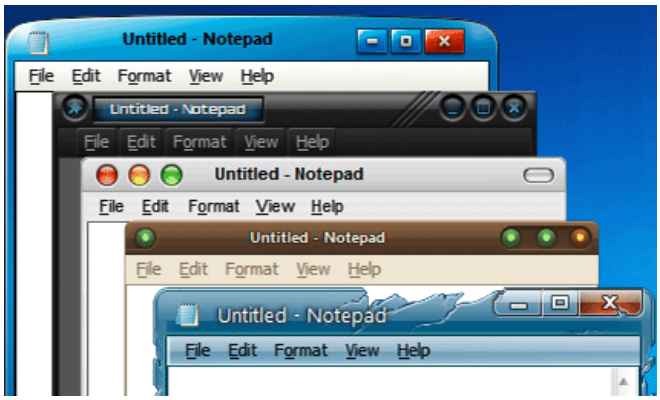


Figure 6: Maslow Hierarchy of Needs, top of the pyramid depicts self-actualisation

A literal example of utility and aesthetic likeness demonstrated in 'avatar and totem' practice is seen in a mask. A mask is a symbol of identity extension. Storytelling occurs automatically when a person puts on a mask. Traditionally before the digital film, the performance and theatrical art spaces used masks as symbols of visual narrative representation when performing for audiences. For example, representations for comedy and tragedy genres were utilised with mask visual iconography. Some masks were literally used to represent a villain or a heroic character. For example, villains would be typically seen as a sad facial mask with a frown (tragedy) and a happy mask with jubilant facial features (comedy). This may be in the form of a mime actor or during festivals, rituals, parties and, in the 21st century, within video game spaces. Could these masks be the original blueprint of digital avatars?

If yes, Totems then precede both masks and digital avatars and that should be a key reference point if we think of the next iteration of avatars. In the digital space, masks extend to what is called *skins*. PCMag defines skins as follows. "*A custom look and feel for a graphical interface (GUI). Operating systems and applications may have a built-in selection*

of skins or accept new ones from third parties. Also called "themes," skins include the background scenes, menu and button styles, colours, fonts, window borders and sometimes different arrangements and locations of the elements." A definition of hardware *skins* from PCMag is that it is "*a covering for hardware. There are vinyl coverings that stick onto cellphones, iPods, the backs of laptops and the sides of tower cases. They depict myriad subjects such as sports, high-tech and fantasy*."



Skins for windows *– Source: PCMag.com (Image courtesy of Stardock Corporation, Inc., www.stardock.com)*

Skins are, however, not limited to background scenes or menus. They may be used on video game characters. Skins' constraints are not restricted to altering only the facial features as most avatars do, especially as profile pictures on websites. They are designed to act like mugshots. Skins however, may be used to alter skin tones, which can represent race for the user. They can also be used to change the clothes of a character, indicative of status even in the gaming world. **Parentzone,** who pride themselves as 'The experts in digital family life', define skins as follows, "*A skin is a graphic or audio download which changes the appearance of characters in video games. They're purely aesthetic - they don't increase the character's abilities or impact the outcome of the game*."

Digital Atavism through Anthropology

Primitive forms of virtual reality: Progression of Masks

When taking the lead from anthropology, a closer observation indicates the evolution of avatarism. The early avatar-human-identity iterations went from (1) naturism to (2) animatism, then to (3) animism. Eventually, these practices leapfrogged to become (4) totemism which inspired art and sculpture to form masks. This led us to the 21st century digital, augmented, and virtual (5) avatarism, arguably inspiring digital skins.

In the next chapter, called *Laying the foundations,* I will give a brief discussion about some of these anthropology terms. Furthermore, these historical isms typify primary iterations of human immersive experiences in storytelling and identity creation. In virtual space VR, goggles are a form of contemporary technological masks. I would argue that VR goggles might be on the verge of taking an aesthetic avatarial stance beyond their utility. The aesthetic stance I am referring to is similar to modern-day eyewear, for example, brands like Ray-Ban and Oakley. Beyond eyewear utility, the brand's spectacle frame design in the

society we are living in adds to avatarial identity creation and meaning-making. For instance, the type of frame one chooses to wear dictates social class, style, possible hobbies, taste or even value. This is what avatars do; they act like a contemporary status value system. This point will be expanded further later in my paper when I mention semiotics.

Figure 7 shows what might be observed as the first representations of digital avatars in the world of NFT 1.0; these are called Cryptopunks. Jacob Kastrenakes in his article describes them as follows

> "CryptoPunks were one of the earliest NFT projects, and they've become increasingly valuable as collector's items. The project, created by Larva Labs in 2017, offered 10,000 small pixel-art portraits of people, zombies, aliens, and apes. Each one was algorithmically generated and features different attributes, like their hairstyle, glasses, or hat. Some traits are rarer than others, and those tend to make for more valuable CryptoPunks." (theverge.com, 2021)



Figure 7: Nine CryptoPunks sold together at Christie's. Image: Christie's / Larva Labs (Source: The Verge)

As alluded to before, I will be conversing about avatars a lot more in my paper but first, I want to discuss the ashes that these avatars arose from like, the proverbial Phoenix. Throughout my discussion, I will anecdotally refer to the *ancestor phoenix* that avatars descended from as *Totemism or Totem(s)*. Historically totemism has played a major role in being a didactic mask for the self and social narratives.

For instance, the Africans of the Yoruba ethnic groups have a vast historical collection of Yoruba masks that were used both aesthetically and functionally. These masks are seen today in selected urban marketplaces. They are usually bought by tourists and mass-produced because of commercial reasons. As a result, they are not necessarily created for ritual or ceremonial use but for commercial end goals. Archaeologically more than being aesthetic, these masks served a social didactic role. Yoruba masks (in Nigeria) served as storytelling tools and had totemic extensions depending on one's culture.
To represent some gods, one needed permission from the elders called the *egungun,* who are also known as a 'cult of ancestors'. The egungun hold great knowledge about the

tradition and rituals for various spiritual guidance-seeking occasions. The egungun are masked figures, as soon as these masks are worn the figures behind the masks cease to be human, figuratively. They automatically become disembodied and represent another realm; this may be perceived as a primitive form of virtual reality disembodiment. This is reminiscent of the same way a gamer in a first shooter game, as an example, assumes another body as an avatar in a digital realm. Moreover, this is the same way avatarial interactivities in the realm of the metaverse (will) behave; except in the instance gatekeepers will not be the egungun but *Microsoft Teams', NVIDIA's Omniverse* and Facebook's *Meta* developers. I will discuss avatars and the metaverse[20] concept towards the conclusion of my paper.

Speaking about symbolism embodied by masks and the egungun Gilbert Tarka Fai (2010, p. 44 -45*)* notes that;

> *The egungun society is a special custodian of the ancestral spirits. Basically, it is an attempt to reassure people about individual immortality and to diminish the fear of death through the dramatic appearance of the ancestral spirits within the world of men. It should be noted that not all ancestors have masks dedicated to them[21]. When a particular ancestor is selected for worship, a mask is carved for him. The Ifa Society, a cult of divination, decides which dead are to have masks dedicated to them. A member of the egungun is secretly appointed to be a mask keeper and dancer.*

Fai indicates how masks, in this regard, functioned as totemic symbols, not as art for art's sake hence "not all ancestors have masks dedicated to them". This helped maintain value through scarcity of the physical item. The masks could not be mass-produced as they were hand-crafted by certain culturally selected artists. The contemporary version of gaining this 'value' that Yoruba masks had is still done through creating scarcity. This is atavistically maintained and demonstrated in today's Non-Fungible Token artworks. Totemic-ancestral masks maintained their value similar to how NFT digital artworks maintain their uniqueness today. Of course, in this instance, they maintain this exclusivity through '*Ethereum* or *Bitcoin*' value, and most importantly, through the *community*.

I will give a basic meaning and explanation of the virtual although chronologically speaking chapters 1 and 2 are broadly more about totemism beginnings and potential virtues that totems may pass down to digital and virtual avatars. More about immersive virtual technologies will be addressed. The reader will notice that community is a very critical element to consider in all three outlined environmental spaces below. The concept of community matters in the actual, the digital and the virtual. One may build and design an identity and brand visually, they may also create stories for their avatar. However, without community these individual identities and stories are futile. I argue that community makes one's avatarial design story and identity relevant. In addition, even states of being such as fame, public occurrences like trends and commerce/e-commerce are possible through the verve of communities. These are some of the elements that represent and make up our

[20] Out of the eight key cited attributes and concepts of the metaverse, Zuckerberg included Avatars as one the central aspects in his 2021 keynote. CEO of NVIDIA Jensen Huang also mentions avatars as one of the key elements towards the omniverse in his 2021 GTC keynote.

[21] Similarly in the 21st century some end-users won't have access to the metaverse due to a lack of tech masks .i.e. VR goggles

three outlined worlds, as we know them with regard to their offering of senses, space, affordance, texture, look and feel[22];

- **Actual world**
    a. End-user, Totem, AR, Taste, Smell, Touch, Print (Fabric), Mineral Resources
        i. Value is created by community
- **Digital world / Augmented Reality**
    a. End-user, Hardware, Software, Avatar, AR, Pixels, Vector, Bitmap, MP3, MP4, JPEG, PDF, GIF,
        i. Value is created by community
        ii. Lacks totem knowledge and insights
- **Virtual world**
    a. End-user, Avatar, Hardware, Software, Animation, AR, Digital Elements, Complete Immersion,
        i. Value is created by community
        ii. Lacks totem knowledge and insights

Digital Identity Extensions and Unity via Community

The egungun, through their roles, covertly encouraged the importance of inclusive community maintenance, what we refer to as Open-Source today, hence the rapid growth of BlockChain[23] systems, and online digital communities. Digital scholars might have subconsciously accepted or denied (to their detriment) that digital's next iterations often reference primitive concepts. These digital and technological breakthroughs do not pop out of thin air.



CryptoPunk #9998, one of a collection of 10,000 NFTs, sold for $532 million?
The highest legitimate sale for a CryptoPunk is $11.7 million (source: www.cnet.com)

I must elaborate on community when discussing the avatar and identity creation. Community is a pivotal human narrative and organisation concept.

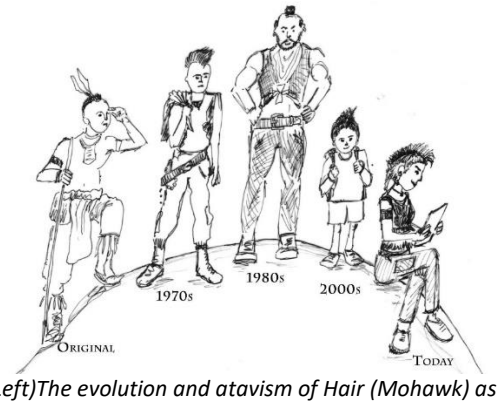
[22] Note: Not limited to the elements listed below but constitutes those

[23] In essence, the blockchain is a shared, programmable, cryptographically secure and therefore trusted ledger which, no single user controls and can be inspected by everyone (The Fourth Industrial Revolution, 2016, p.23).

A community represents unity, a collection of different and unique avatars forming and moving in unison. That is why historically and even today, we globally see physical and avatarial symbolism such as a 'fist' to signify strength in unity. Individual human fingers are stronger when they unite and create a fist (community). A fist symbolises a community, a solid rock. Another physical and avatarial community symbol in humans is seen in hair. Traditionally, hair is a totemic and even an avatarial human narrative extension today. One can form many ideas using hair as a totemic identity symbol and means of identity extension. For example, Shamans' wore their hair in specific ways when participating in community rituals to extend visual representations and narration. Alexander Aleksandrovich Goldenweiser (1910, p. 181) a Russian Anthropologist attests to this fact.

> "In order, apparently, to put oneself more fully under the protection of the totem, the clansman is in the habit of assimilating himself to the totem by dressing in the skin or other part of the totem animal, *arranging his hair* and mutilating his body, so as to resemble the totem, and representing the totem on his body by cicatrices, *tattooing*, or paint." (Italic emphasis mine).

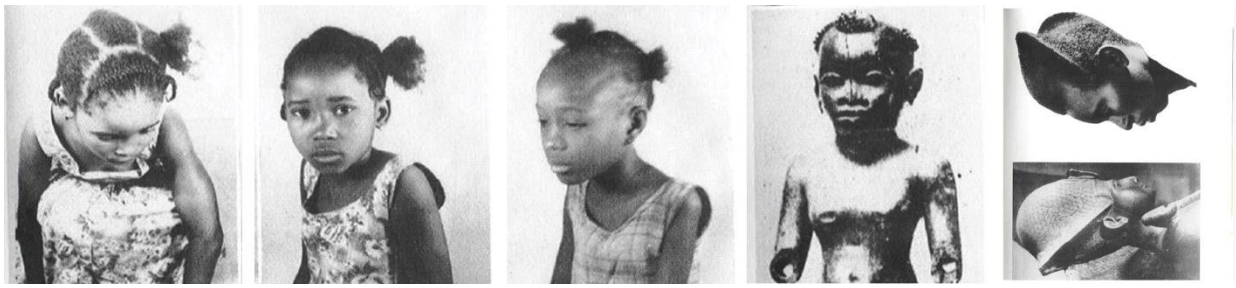
Another example based on hair as a symbolic and totemic representation is the Mohawk hairstyle's atavism that is fashionable currently. The Mohawk people are originally the North American Indian tribe, this hair motif is not a style but a group of North American natives. They are warriors, the Mohawks, shaved both sides of their heads and left a thin strip of hair in the middle before battle. This style stood as a totemic mark for war and warriors.





(Left)The evolution and atavism of Hair (Mohawk) as an identity (Illustration source: rif.org)
(Right) Diesel Mohawk Logo (Totemic Brand Representation)

Hair as a symbol of community may also be seen in the Rastafari culture. As the Rastafari adage goes, '*One dread log is stronger that one strand, each one teach one…*' The Rastafari community signify quality and importance of community in how they wear their hair. In the digital world, a single avatar gathering with other individual avatars as a collective becomes a community, for instance, the non-fungible token collection called *CryptoPunks* as shown earlier has 10 000 unique avatars. They have different hairstyles, (for example, dreadlocks and even Mohawks), some wear sunglasses, some are bald; others wear caps or hoodies etc. All of these paraphernalia are avatarial and totemic extensions of unique visual identities.
In reference to Mohawks as hairstyles see female *CrytoPunk 532* top center (called *Mohawk Dark*, figure 7). A contemporary version of the Mohawk hairstyle in digital avatars.



Atavism and Totem practices - *Images 1-4: "Totemic Coiffures*[24]*. These hair-dos of pre-pubescent Senegalese girls (prior to World War II) correspond to that of the Eighteenth Dynasty Egyptian girl in the statuette [4th image], more than 3,500 years earlier-before Moses. Image 5: Pharaoh Ramses II and a modern Watusi.*
(Source: Dr Cheikh Anta Diop's The African Origin of Civilization: Myth or Reality).



Superman's Hair as a Totemic Identity symbol. Allegiance to Planet Krypton whose narrative and identity symbol is the letter "S".

Most of these booming digital avatar identities and communities can be traced back to Multiple User Dungeons or Multiple User Domains. At this point, we start seeing the totemic-*Phoenix* rising to embrace the concept of *community* on the internet. In the 18th century, the avatarial-*Phoenix* rises from its ashes to embody the concept of community in its *digital infancy*.

[24] The style in which someone's hair is cut and arranged (*Cambridge Advanced Learner's dictionary*).

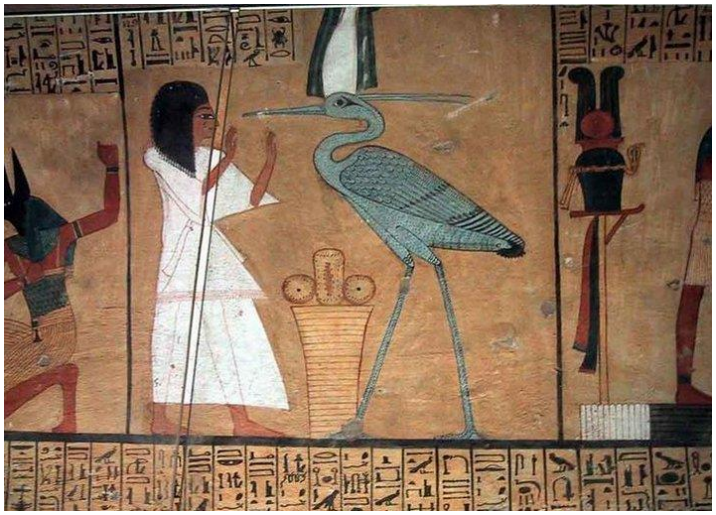


Figure 8: The Ancient Egyptian Bennu bird commonly referred to as a Phoenix in Greek mythology

By *digital infancy* I am referring to the above mentioned MUD development which I will discuss further in a moment. But let me first give context to the Phoenix origins. The Bennu bird is an ancient deity originally associated with Egyptian mythological stories. The Bennu symbolized the sun which is linked with Ra the sun god, the solar diety, who is the embodiment of the radiance and power of the sun. The concept of avatar as deity is reinforced as I have alluded to earlier. "**avatar**… in Hinduism, the incarnation of a deity in human or animal form to counteract some particular evil in the world. (Britannica; 2015).
This incarnation narrative is present in both totem practice and digital avatar practice.
The Phoenix acts both as a totem and an avatar in Egyptian mythology, a god that embodies[25] a Bennu bird described as being very large in size and stature, often likened to an eagle. This embodiment represents the sun's divinity as and in a fiery bird form. The phoenix burning is also a metaphor for regeneration, the continuous sunset and sunrise. Additionally, the Bennu or Phoenix symbolized rebirth and creation. The phoenix is known to live eternally through endless death and rebirth. The key point in this context is that the phoenix always returns better than its previous self. According to the Encyclopedia Britannica;

> "Only one phoenix existed at any time, and it was very long-lived—no ancient authority gave it a life span of less than 500 years. As its end approached, the phoenix fashioned a nest of aromatic boughs and spices, set it on fire, and was consumed in the flames. From the pyre miraculously sprang a new phoenix, which, after embalming *its father's ashes* in an egg of myrrh, flew with the ashes to Heliopolis ("City of the Sun") in Egypt, where it deposited them on the altar in the temple of the Egyptian god of the sun, Re. A variant of the story made the dying phoenix fly to Heliopolis and immolate itself in the altar fire, from which the young phoenix then rose. (Britannica.com 2021; emphasis mine)

In an endless cycle, the phoenix keeps rising from its *father's ashes* coming back newer, brighter, more creative and full of radiance. I will give my anecdotal phoenix a life span of 100 years (not 500 years) to illustrate my points. A hundred years representing sequential and chronological centuries of digital transformation. In this instance, the primitive totem giving birth to the digital avatar. Earlier we made mention of Multiple User Dungeons. MUD

[25] In this instance the end-user embodies either the avatar or the totem

is a 'textual virtual world'[26], and an 18th century development, serving as the foundation of most, if not all, 21st century digital gaming communities. For example, *World of Warcraft,* a multiplayer online role-playing game by *Blizzard Entertainment* released in 2004, over two decades after the first MUD. Keith Stuart author and journalist of The Guardian discussing MUDs reports that;

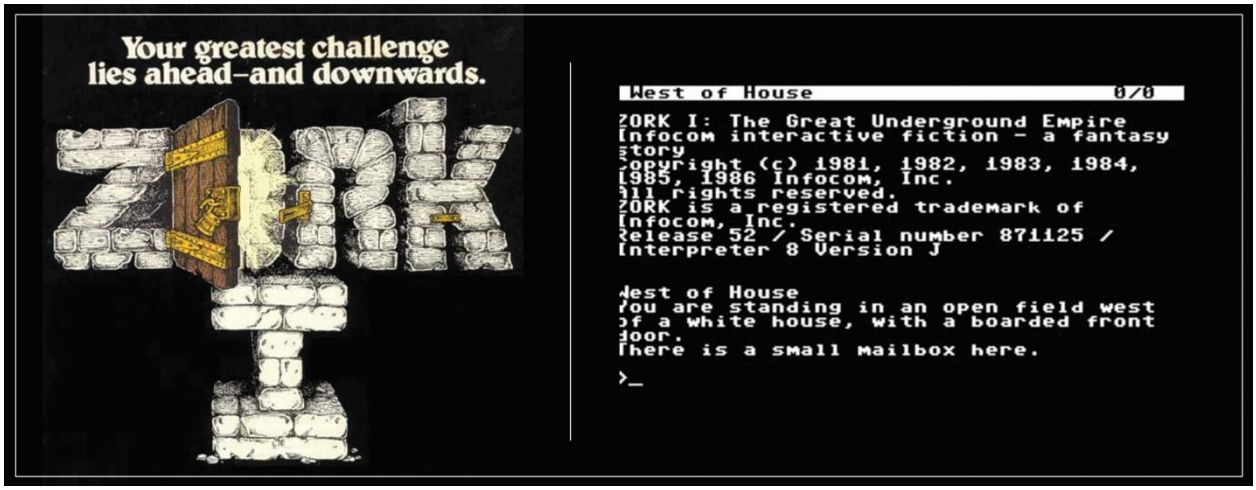
> "There had been other fantasy adventure games before MUD, of course. Will Crowther's Colossal Cave Adventure arrived in 1975, while work on Zork, developed by a bunch of MIT students in the university's dynamic modelling group, began in 1977. These single-player programs were, in turn heavily inspired by the pencil and paper role-playing game Dungeons and Dragons, which had been hugely popular in student circles since its publication in 1974. …Consequently, when the first version of MUD uploaded to the university system in autumn 1978, it allowed multiple users to log into a mainframe and go on fantasy quests *together*." (thegaurdian.com 2014)

This argument confirms the genesis of individual digital users recognizing the importance of community and collaboration online in the late 1900s. To further clarify and elaborate on the Bennu Bird or Phoenix. It is critical to emphasise that this bird was both totemic and narrative. It served as link to society, community and storytelling. The idea of the inextricable link between youth and becoming old, birth and death, and the importance of passing down knowledge and lived experiences.

Christine Paul corroborates Stuart's report concerning how MUDs shaped the digital community as we know it today;

> "One of the most significant aspects of the Web is that it has created a global platform for exchange and communities of interest.
> E-mail and mailing lists early on established possibilities for remote communication, which were followed by 2D 'chat' environments and then virtual worlds and online chat that allowed multiple users to engage in live conversation. Among the early multi-user environments that developed on the Web were the so-called MUDs – Multiple User Dungeons (or Domains) that were modelled after the early text based Dungeons and Dragons computer games such as Zork Zero. In the original game, players navigate through the environment by typing in directional 'N' for North, 'SW' for Southwest; they pick up clues and objects with text commands ('Get candle') and use them to solve the puzzle and win the game. Online MUDs were based on the same principles but allowed thousands of players to navigate through the rooms, interact with each other, and engage in role-playing games. MUDs found their extensions in MOOs (Muds Object-Oriented), which are based on more sophisticated object-oriented programming and can be expanded by their users. MOOs lend themselves to the construction of anything from adventure games to conferencing systems, and many universities built MOOs that focused on a specific topic of research to enable students and faculty to engage in ongoing discussions." (2015, p. 121).

[26] Interview with Professor Richard Bartle, The Guardian at GameCity 2014



Zork: The MUD game and its typography design (left). Zork's text based virtual world user-interface (right).

MUDs laid a solid imaginative and real-time interactive foundation, developed by Roy Trubshaw and Richard Bartle in 1978 at the University of Essex in England. This was the first interactive text-based role-playing game which later inspired many pop-cultural digital multiplayer games, as mentioned above. Community in the digital arts and technological gaming world started seeing significant growth and attention. We start seeing the end-user being put first by developers, just like the commercialised mantra that says 'the customer is always right' in marketing industries. In a conscious capitalist view, specifically from an African perspective, this is called Ubuntu.

Ubuntu reinforces crucial understanding and embodies the spirit of togetherness and oneness. Ubuntu means I am because you are; in this case, I argue that *ethics and morals in human behavior are always proper.* It is a culmination of most ideas brought about by the moral circle, a moral design I will expand on later and more broadly in this paper. South African born, Mark Shuttleworth the founder and CEO of a company called *Canonical* demonstrated the need for community in the digital sphere. His company developed the Linux-based operating system called *Ubuntu* in 2004. The operating system's name is inspired by ideas of cohesion and collaboration (putting the customers/end-users at the center). The company's about section on the website starts with 'the story of ubuntu',

It defines the word Ubuntu as follows:

> ***ubuntu | oŏ'boŏntoō |***
> *Ubuntu is an ancient African word meaning 'humanity to others'. It is often described as reminding us that 'I am what I am because of who we all are'. We bring the spirit of Ubuntu to the world of computers and software. The Ubuntu distribution represents the best of what the world's software community has shared with the world.*

Humanity to others elaborates the reciprocal idea of 'do unto others as you would have them do unto you'. Thus this still reinforces the concept of the customer always being right through moral understanding and pays homage to treating others right/ethically, the notion of putting oneself in another's shoes. Ubuntu is more than just an idea, it is a way of life just like totems behave in relation to the user that possess them.

A firm reminder that totems can be both tactile and intangible. Just as professor Bartle described MUDs as textual virtual worlds, totems went through various iterations before conforming to perceptible schemes such as sculpture. Ubuntu serves to create harmony in our daily living, its core is putting quality values in the essence of community. Former USA president Barack Obama emphasized what it means to have an embodiment of community putting importance on Ubuntu. In his eulogy dedicated to former president and icon Nelson Mandela, he expressed the following;

> "Mandela understood the ties that bind the human spirit. There's a word in South Africa, Ubuntu. A word that captures Mandela's greatest gift. His recognition that we are all bound together in ways that are invisible to the eye. That there is oneness to humanity. That we achieve ourselves by sharing ourselves with others, and caring for those around us." (Youtube.com, 2013).

This quote may seem farfetched from the digital space; however, this is the essence of MUD's, Avatars and the power of collaboration. The idea of individuals being bound together is precisely why communal internet platforms like Facebook function. Ubuntu promotes a morally networked digital society. The totem has laid a foundation to how critical the concept of Ubuntu is. Furthermore, totems have extended means of meaningful and responsible identity creation just like, Avatars behave today. While digital avatars devoid of "Ubuntu" are commonly used. Avatars in the digital space are simply another extension of identity and meaning-making. Serving as a convenient method of user recognition and participation in the digital and virtual community. They are an exceptional next iteration of totems and transcend community in digital behaviour, storytelling and interactivity. The avatarial Homo Narran express themselves in a different set yet still networked system within a digitized society.

This phenomenon is digital citizenship embracing Ubuntu. The centrifugal traits of Avatars may be linked with the commercial appeal and industry demands. Now that we have discussed some of the traits that form part of the basis of totemism and avatarism, we have defined some key terms. Chapter 2 expands on the essential foundations of some of these totemic building blocks.

Chapter 2
Laying the Foundation:
Virtue in the Virtual through totems?

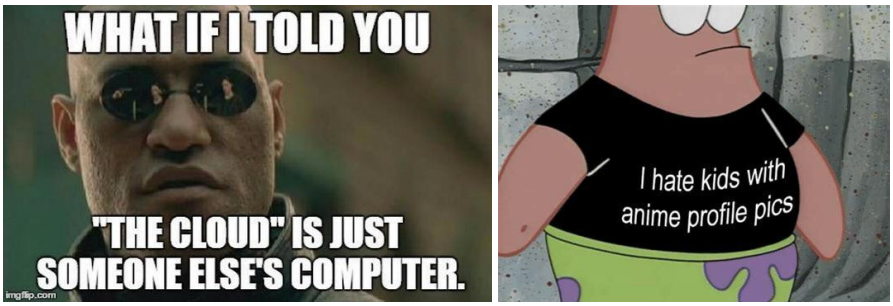
Ethics in the Aesthetics

The iconic stone-carved Zimbabwe Bird is an emblem of Zimbabwe. It has appeared on the national flags and coats of arms of Zimbabwe and previously Rhodesia as well as on banknotes, coins and stamps. The bird is used by the national sports teams and is part of numerous badges and logos of various Zimbabwean institutions and organisations. The original birds, carved from soapstone in a unique and distinctive style once stood proudly on guard atop the walls and monoliths of the ancient city of Great Zimbabwe.

The overall shape of the birds suggests that they represent a bateleur eagle a bird with great significance in Shona culture. The bateleur or chapungu is a good omen, the symbol of a protective spirit and a messenger of the gods. (victoriafalls-guide.net; 2021)

The world has seen a rise in the application and use of digital avatars. There have been many motivations for humans to use avatars as self-representations. Some end-users utilise them as abstract avatars and others even as memes. Memes have grown exceptionally popular and have become visual satire. A meme may be an image, minimal text, a video, a GIF, etc. This pop-cultural word, 'Meme', even made it in the English Oxford dictionary. It is "an element of a culture or system of behaviour passed from one individual to another by imitation or other non-genetic means" (2021). We should note that totems and avatars are generally not harmful. However, the narrative use of some memes as avatars may be offensive to some users. Although satire (as a model of narrative delivery or storytelling style) generally mean s well in comedy, it aims to elicit laughter but it may also lead to unintentional tragedy and tears of sorrow. This means avatarial memes, as an example, as we noted in theatre can potentially be seen as masks.

Masks could be representative of tears of 'comedy' or tears of 'tragedy' to other unsuspecting or brittle end-users. With that said, it means avatars can have the potential to be offensive. A lot of research is expanding in this area. We are seeing the utility of avatars in academia, business and entertainment; but there are still prevalent gaps in their ethical end-user utility. This is usually covert or usually not perceived as a potential cognitive problem, ethically. This behaviour may lead to moral decay in individuals and clans (families).



An example of memes

Avatars and Totems: Foundation for Social Behavior Design

Samuel Kipkemei Kigen from the University of Vienna gives a brief and thorough definition of totemism. He explains that;

> "Totemism" is to be understood as a complex belief system of indigenous people of perceiving a relationship between parts of the community called the clan and natural objects or species of animals, like birds, insects, etc. All these can be called totems and considered by people as their relatives. The relationship between the clan and the totem comes with duties, taboos, and responsibilities. (2018, p. 6).

The key take out from this definition is how critical accountability is concerning the basics of governing oneself. Duties, do's & don'ts and accountability in social behaviour are a must know for self-regulation and governance. These instill a robust foundation for morals and ethics. A lot of resourceful and impactful research has been developed and compiled in various humanities fields. This has assisted to advance how humans think, behave and interact. However, some of these research findings still remain in silos. The internet still faces a lot of ethical systems bankruptcy which may be remedied by observing totemism. There is very limited online guiding principles, a lack of robust safety regulations. The internet somewhat lacks on the aspect of 'law and order' which comes as both an advantage and disadvantage for the user. For example, in South Africa the POPI Act came in full effect post the Covid pandemic (2021), sharing sensitive personal information without the other user's permission may lead to a fine or serving prison time. We should note that because the totem relationship with the user comes with responsibilities and duties as verified above by Kigen, this affirms and promotes user accountability. A point I will be substantiating as we proceed with regard to the avatar potential in digital spaces. Usually a lack of monitoring or basic law in social environments can easily lead to a dystopian society. Social environments as we know now are not limited to physical space. The internet provides many alternative social spaces, sometimes referred to as second life.

We have observed Kigen's definition above of totemism together with Asante and Mazama earlier in our "Aim" section. He also points out some aspects that were considered basic, mainly because of where totemism came from and how it developed. Kigen gives us the developmental chronology of how Totemism came to be together with its ebb and flow throughout history. However Kigen also observes how totemism kept transforming in various discourses, how it transformed in discussions and eventually how it came to be noticed ultimately in many fields for research purposes. Kigen reports that,

> In 1791, an Englishman John Long travelled through the Northern America, and in the Ojibwa land he heard the new word "totem." Though the name is originated from the Ojibwa language, the phenomenon labelled as such had later been also found in Australia as well as in other parts of the world. After his return home and publishing a series of articles, the concept of totemism awakened much interest and attracted ethnologists to do research in the new and interesting field. Later, at the end of the 19th and in the first decades of the 20th century, a vivid interest aroused especially among the developing social sciences (anthropology, sociology) and in the psycho-analysis. In that time,

> totemism was a perennially popular theme that made headlines of anthropological and ethnological journals and books and was one of the most discussed issues among anthropologists and ethnologists. Discussion of totemism took place on various academic disciplines, at different times, and addressed different issues. Totemism has baffled many in the understanding of the primitive mind. No doubt that totemism was and is a broad and complex subject. Though being a topic of anthropological research, it also evoked controversial opinions, even disapprovals and, with time, the term had been abandoned by researchers. (2018, p. 7)

This rise and fall makes totemism a murky notion to discuss. Over the years, some researchers considered it a primitive idea despite its broad methods and philosophy. Failing to see what values totems had to give to the user, over time we neglected what we may learn from totemism to build better ideologies around social behaviour. A narrative that paints a picture of a dystopian society is in the movie called *Mad Max* (1979) directed by George Miller. In Mad Max, joy is ultimately reduced to the promise of Valhalla and nothing else but petty 'spoils of war' second to the former. Law and order is non-existent, taking humanity back to primal instincts of 'survival of the fittest'. My discussion on totems in this chapter will indicate why the next iteration of avatarial storytelling and identity extension may assist avoid online dystopian conduct. This avoidance may occur if we link morality lessons embedded in totemism and transfer them into digital avatarism like a baton.

Avatars play a significant role in the end-users' identity creation. In the *Matrix* (1999) by Lana Wachowski and Lilly Wachowski, we see an altered alternate reality where the protagonist Neo, a computer systems hacker, cybercriminal and computer programmer, is introduced into an advanced world of virtual reality. Although Neo embodies his already existing and familiar identity as he knows it. He subsequently realises that he is a realistic avatar in a simulated world. If he dies in the alternate virtual world called the Matrix, he will also perish in the true physical world. A similar narrative take is observed in the movie *Avatar (*2009). Avatar is James Cameron's ubiquitous blockbuster movie. The movie Avatar is vividly literal in its display of avatarial incarnation. It takes a route of Disney-like and ultra-colourfully rendered contrasting displays of avatarial embodiment within VR (although in the movie the second-world avatarhood immersion is representative of an existing 'fictional' world outside planet Earth). Both these movies share the concept related to avatarial embodiments and incarnation in alternate realities, although Avatar the movie, has many African totemic references. Even the greeting used in the movie Avatar is synonymous to the isiZulu greetings which reference the spirit of Ubuntu. The blue humanoid natives of Pandora called the Na'vi greet one another by saying "I see you". The Zulu people of Southern Africa greet each other by saying "Sawubona" which literally translates to "I see you". *Loom International* an organisation founded by Janna Moats uses the greeting Sawubona and the following is what they had to say about this totemic African greeting.

> This Zulu greeting has been on our tongues and in our hearts for much of the past ten years. It literally means "I see you." More than words of politeness, *sawubona* carries the importance of recognizing the worth and dignity of each person. It says, "I see the whole of you - your experiences, your passions, your pain, your strengths and weaknesses, and your future. You are valuable to me." (Loom International, 2022)

This definition is another example of why it was necessary to stress earlier the mnemonic elements of totems Totemism is rich in promoting the ideas netted in the virtuous circle. On the other hand, Avatars with social morality cues are still novice at guiding the end-user. We will deliberate on the moral circle concept.



Avatarial embodiments (A) Neo when plugged and unplugged (B) Jake Sully when plugged and unplugged

In the Matrix, before we see Neo meeting a character named Morpheus (In Greek mythology, Morpheus is a *God of dreams or sleep*), who introduces Neo to the truth about the 'then' real physical world and the virtual world. Before Neo is taken out or rescued from the uninhabitable and dystopian real physical world, he wakes up in an incubator. To his shock, he sees millions of incubators precisely like his own, with human babies and adults. The numerous incubators are attached to towering skyscraper-like cylinders, the cylindrical buildings are so tall that one cannot see their base. Neo realises that he has likely been unconscious since birth and living in a simulation. We then see a Sentinel machine soaring over Neo like a mechanical jellyfish on guard. The machine inspects the nude and bald Neo who sits in a gooey substance inside his opened incubator. The robotic and hovering sentinel, realising that Neo is now awakened from his dream state as alluded by Morpheus, the robotic machine ejects a cord from Neo's head much as one would eject a USB stick from a computer. Neo is then unplugged from the incubator, flushed and discarded into a pool of fluid. Morpheus and his crew hoist Neo out of the fluid. He comes out of what looks like a giant robotic device reminiscent of a slot machine with a crane to yank out prizes (in essence, Neo is being saved by switching his avatarhood embodiment). As Neo wakes up fatigued and smeared all over his body with remnants of the gooey fluid, like a new-born infant, Morpheus looks at his weary eyes and utters the words, "*Welcome to the real world*".

Augmented Reality – *Atoms and Bits*

What exactly is the real world that I would like to discuss concerning totems and avatar incarnations? When discussing the real *physical world* experiences contrasted with *virtual reality* experiences, I will refer to these two end-user environments as the *actual* and the *virtual worlds*. The reason I opt to use 'actual'[27] instead of 'real' or perhaps 'physical' world is that augmented reality already exists. Augmented reality combines the real and the *unreal*. It creates a homogenous relationship with the natural/physical world and to a degree with digital and virtual experiences - augmented reality was created by Ivan Sutherland at the University of Utah in 1968. Virtual and augmented reality are often used

[27] By definition, existing in fact or reality.

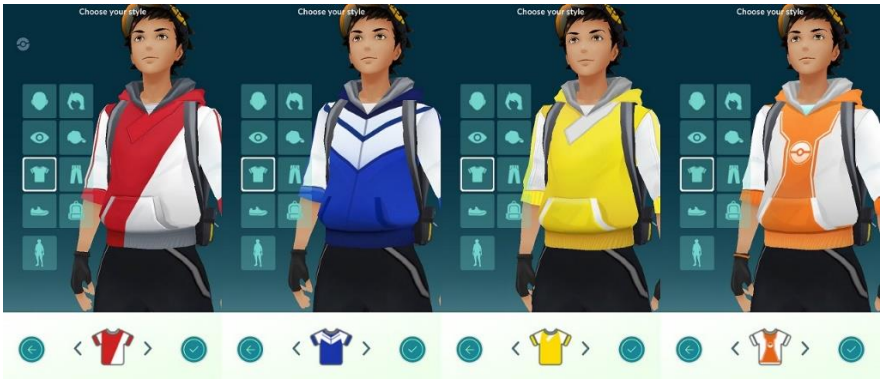
interchangeably in discussions. VR and AR are not the same concepts. While VR gives the user a completely immersive experience, AR enhances the physical world, as we know it. AR has the potential to make actual worlds digitally interactive. For example, this means that the end-user with a mobile device or state-of-the-art technological spectacles can scan everyday objects in the real physical life and find information about them. Nathan Jurgenson in his essay *When Atoms Meet Bits: Social Media, the Mobile Web and Augmented Revolution* (2012) explain the word augmented to be "…a larger conceptual perspective that views our reality as the byproduct of the enmeshing of the on and off" (2012, p. 84).

Augmented reality essentially bridges the space between digital interactivity, as we know it, on interfaces with the *internet-of-things*[28] phenomenon. Imagine wearing your everyday spectacles and you stare at a random object in a physical space. Then information about the object you are looking at pops up on your spectacle lens, like a monitor's screen. Only you, the wearer of the spectacles, can see the information. That is how AR fundamentally works, it augments physical reality. Totems, through shamanic experiences, have been pursuing the augmentation of reality and the pursuit of a second life for centuries. We will discuss that aspect a bit later in this paper. **Pokémon Go** is a famous AR mobile game created by *Niantic*, Inc., a United States of America-based software Development Company in San Francisco. Pokémon Go is a great contemporary example of AR experiences. It fused the technology of Global Positioning System (GPS) with gaming experiences, although the technology behind is more intricate than that. According to Business of Apps (2021), sources from *Niantic, Superdata* report that Pokémon Go end-users were statistically, estimated to have been 232 million in the year 2016, with total revenue of $1.23 billion by 2020.



Augmented Reality Gaming Experience on Pokémon Go

[28] The interconnection via the internet of computing devices embedded in everyday objects, enabling them to send and receive data (Oxford, 2021).



Example of Pokémon Go Avatar Customization (Source: 3rdworldgeeks.com)

Avatar value in Storytelling

The statistics above indicate that by 2016, 232 million end-users were already partially immersed in AR through gaming. Furthermore, it demonstrates that two hundred and thirty-two million users were customising their identities to represent themselves as digital avatars in Pokémon Go. This is an indication of how dominant the avatar space has grown to become. Additionally this also illustrates the power of avatar use. An article that appeared in International Business Times (2017) online headlined "'*Pokemon Go' Avatar Update Allows Trainers To Walk Barefoot, Catch Pokemon Sans Backpack*". The article written by Mike Luces reported the following;

> On Wednesday, the Pokémon GO team announced on their blog the arrival of Gen 2 Pokémon and new features to Niantic Labs' iOS and Android mobile gaming app. They mentioned in the blog post that with the new update, players would have new avatars and more wardrobe options. What they did not mention then was the option to let Trainers roam the augmented reality map without any footwear…
>
> …*Other users who checked out the thread got curious on how this just sends a wrong message to players*. However, others were fine with this option. One Redditor even pointed out how humans managed to walk around the earth without wearing shoes for thousands of years and that some even continue to do so now. *Another issue that "Pokémon GO" players raised has to do with the fact that Trainers can now go hunting for Pokémon without bringing their backpacks with them. The backpack is an essential accessory in the game for it stores all of the PokéBalls, Berries and other items. Hence, some find it odd that this option was added*.
>
> Since the Pokémon GO team advertised the update to bring new avatars to the game, players actually got excited at the thought of it. Unfortunately, ShotgunMavericks01 revealed something that would certainly disappoint fans. According to the Redditor, everything about the avatar and wardrobe remain the same. What players are getting is a new UI for the feature and the addition of new colors for the clothing, as well as the inclusion of the buying/coin option on the top right of the avatar interface. (Luces, 2017) (Emphasis mine).



Scan to see how Avatar customization works

Changing attire, deciding not to have a backpack, and more might seem irrelevant to some apathetic digital end-users, but it caused some disputes among avid gamers. This slight Avatar customisation change influenced the game's core narrative on this gaming platform. Avatarism (and Totemism) is about more than just the look and feel or just plainly enhancing the user interface. Some of the comments from the users/players show that Avatars are also crucial in keeping the story and the storytelling intact and authentic. For example, the fact that a user could choose to keep an accessory such as a bag or optionally leave it out meant reconstructing the gameplay storyline negatively. Although this might not indicate moral decay in gaming, it starts to lay a primer on how easily narrative can be altered and even destroyed through simple avatarial (identity) changes. We will subsequently discuss how this loss of identity and the maintenance of authentic storytelling also happens in the world of totems. By observing authentic identities and stories, digital avatars will hypothetically avoid these pitfalls in the virtual space, especially with the emergence of the metaverse and omniverse. In chapter 3, I will give brief details about the metaverse concept.

Below is a table demonstrating the differences between the two worlds I mentioned earlier, actual and virtual. The table below also considers how totems and avatars behave in the two immersive and interactive environments.

Actual Worlds	**Virtual Worlds**
Totemic experience	***Avatarial experience***
Spiritual - Philosophical	Digital – Augmented R (Data)
Mythological Storytelling (Fables)	Fantasy Storytelling (Video Games)
Ancestry - Ubuntu - Nurture	Algorithm - AI - Pattern
Ecology	Internet of Things
Real	Simulation
Post Modernism	Posthuman (Homo Deus[29])
Old	Youth
Biological / DNA	Cybernetic
Physical Tattoo	Data visualisation (Infographics)
Moral compass	Code

Both totems and avatars are about identity and narratives or storytelling

[29] Taken from Prof. Yuval Noah Harari's (2016) book, *Homo Deus: A brief History of Tomorrow*

Posthumanism:

(1) Posthumanism insists that "human identity" is always in flux, always materially and culturally situated.
(2) Posthumanism challenges traditional, "humanist" conceptions of identity and embodiment, demonstrating how static or fixed theories of what it means to be human…
(Source: TEDx Talks, Michael Shirzadian, 2018)

Making a brief reference to the protagonist Neo again, Neo, much like our anecdotal (totemic) phoenix, had experienced a rebirth in the movie's narrative. His introduction to the virtual world can be likened to reincarnation, a new embodiment or the phoenix 'rising from the ashes'. Neo is selected and rescued by Morpheusas as he (Morpheus) believes that Neo is "The One". The one who will rescue humans from their plight and the machine's malicious intentions of plunder. As Neo experiences his new beginnings like a re-awaked and modernized phoenix, he is notified by Morpheus that he was living in a "neural interactive simulation" all along, called the Matrix, *'a computer generated dream world built to keep humans under control'* (Morpheus, 1999). The actual (physical) world is now a lifeless desert because of artificial intelligence.

At this stage, I must outline the meaning of the name and word "Neo". In the African languages, namely Sesotho, Sepedi and Setswana, the name *Neo* means 'a gift'. On the other hand, the Macmillan (2021) dictionary defines *Neo* as "*modern, or new: used with many nouns and adjectives to make nouns and adjectives describing things that exist in the present in a slightly different form from the way that they existed in the past*". The word 'neo', in African and western terms signifies something new and a special gift. Both definitions attest to the nature of embodying a phoenix spirit. Neo, the protagonist, embodies this reawakening essence with his name and as a virtual Avatar within the Matrix. He is a 'new gift' from another world sent to save humans in a different world. In the movie, Neo's newly found true self resides in Zion. This place (Zion) is an allegorical Elysium for humans who survived death in the actual world.

> **Elysium**, also called **Elysian Fields** or **Elysian Plain** in Greek mythology, originally the paradise to which heroes on whom the gods conferred immortality were sent. It probably was retained from Minoan religion. In Homer's writings, the Elysian Plain was a land of perfect happiness at the end of the Earth, on the banks of the Oceanus. A similar description was given by Hesiod of the Isles of the Blessed. In the earlier authors, only those specially favoured by the gods entered Elysium and were made immortal. By the time of Hesiod, however, Elysium was a place for the blessed dead, and, from Pindar on, entrance was gained by a righteous life. (Britannica, 2007).

Zion (in the movie) or Elysium as I have decided to compare it- is an extension of the second-world experience, seeking paradise in an alternate environment.

Historically, during the Pre-Socratic Philosophy, Egyptians used totemic (see: hieroglyphics) and slogan-like inscriptions to pursue one's brand key. For example, The Temple of Luxor

had various inscriptions with aphorisms. Dr. George G. M. James (1954, p.89) from Columbia University, author and historian, notes the following;

> "Self-knowledge is the basis of true knowledge. The Mysteries required as a first step, the mastery of the passions, which made room for the occupation of unlimited powers. Hence, as a second step, the Neophyte was required to search within himself for the new powers that had taken possession of him. The Egyptians consequently wrote on their temples: "Man, know thyself"."

A reminder that this adage is referenced in the digital film when 'avatarial Neo' in the Matrix visits a character called the Oracle. For Neo to embrace his avatarial self and affirm that he is the one, the Oracle advises that he must *know himself.* Totems advocate for this homogenous self-knowledge both in the physical and in the *spiritual*. Avatars can do this, too, in the physical and the digital. Gradually we will start to unravel the commonalities between avatars and totems.

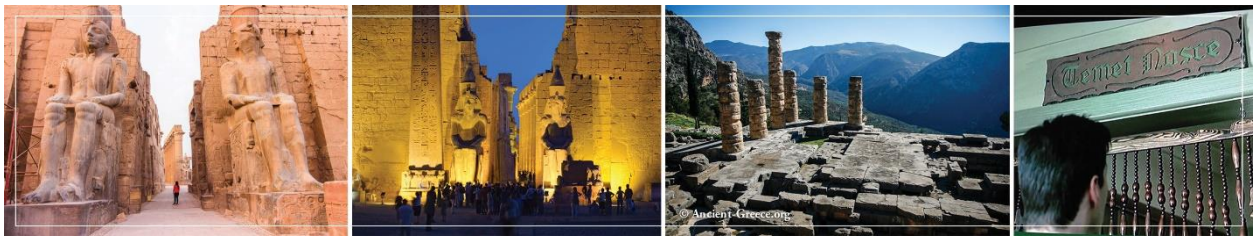


Figure 9a: (Left image 1 and 2) Temple of Luxor, Egypt (Right image 2) Temple of Apollo (Right image 4) Neo reading inscription "Temet Nosce" latin for know thyself.

Narratives from movies like Avatar and The Matrix reiterate totemic ideologies (through parallel worlds), totemic identities (visual representations) and totemic storytelling (reinforcing mnemonic strategies, for example, inscriptions, songs, performances etc.). We will see how the foundation of second life regeneration, avatarial stories and identities are passed on like a baton from totemism. Totemic practice has continuously embraced ideas of alternate identity and second life stories. Today the Zimbabwe flag, as an example, verifies this claim, especially around totems. I will discuss that point in detail when analysing the totemic and symbolic bird of the Great Zimbabwe as seen on the flag.

Digital avatars as the next generation of these historic and foundational totems continue to be an extension of second life. Palfrey and Gasser (2008, p.29) in their book *Born Digital: Understanding the First Generation of Digital Natives* speak at length about second life.

They state that;

> Second Life provides tools that permit users to tailor the appearance of their avatars, allowing them to design everything from clothing to skin color to the shape of the avatar's nose. *Users can create an avatar that looks very much like themselves in terms of both physical appearance and dress*. But they can also experiment with very different identities—for example, a female may choose a male avatar, and people of one race may choose an avatar with another skin tone; a participant may even design an avatar of nonhuman form, whether a real-world animal or a creature of fantasy. (2008, p.29) (Emphasis mine).

When Neo in the Matrix swaps the 'actual' physical world for the virtual, he is participating in a second life interactive space He looks very much like himself with Morpheus, who is now in an expensive-looking suit and tie, which were not even purchased but chosen in a computer simulation. Morpheus' clothes were tailor-made to enhance his avatarial virtual appearance then uploaded on the computer programme. A similar experience was witnessed in Shamanic or clansman totemic-rituals as cited above by Goldenweiser (1910, p. 181), enhancing the self-image, the avatar's self-image. Neo does not have input plugs anymore on his body; but in the actual physical world in Zion, his body is riddled with plug inputs and hardware sockets. At this stage, in the case of the character named Morpheus, even though I consider digital avatars as centrifugal (by centrifugal loosely speaking, they are centre-fleeing[30] in their nature), we can safely assume that digital avatars' centripetal (centre-seeking) potential could be 'monetary cost efficiency'. We are well aware of this possibility in the 21st century technology although there are constraints. For example, in Microsoft Teams, meetings can be held in the comfort of the end-users homes. The end-user may choose a professional and formal-looking avatar online as a means of self-representation for the meeting. However at home, in the actual physical world, the end-user could be wearing pyjamas.

Avatarial interactions: The scent of ethics

The constraint in this world is the loss of value regarding the sense of smell and scent as (avatar) mnemonic. Smell generates many feelings and memories for different individuals, some good and some bad, and some happy or sad. The smell of food for instance can be reminiscent of a place one has travelled to, perhaps because of the food that was served and the cuisine. Scents can be associated with a specific place and time. Through a scent, nostalgia may occur instantaneously, for example, the smell of flowers, the interior smell of a new car or the smell of the one you '*love*'. Smells or scents can be identity representations and extensions of meaning. We probably know the ubiquitous maxim that says "*sweet smell of success*". However, how does an individual smell success? Literally, this is not possible. The same way it not possible for most to imagine elements like fire, water, a rock, the sun or clouds having a life force. The totemic system may be likened to this statement to a certain degree. Totems represent and depict both the tangible and the intangible. They hold individuals accountable and responsible for the totems that represent them.

Katie Liljenquist et al (2010) in a paper called "*The Smell of Virtue: Clean Scents Promote Reciprocity and Charity"* write the following about scent;

> The smell and taste of things remain poised a long time . . . and bear unfaltering, in the tiny and almost impalpable drop of their essence, the vast structure of recollection.
> (Proust, 1913/1928, p. 65)

> As Proust's words so eloquently express, a familiar smell can transport one to an exact time and place in one's past. Indeed, psychologists have found that scents can retrieve images and feelings from the deepest recesses of the mind (Chu & Downes, 2000; Doop, Mohr, Folley, Brewer, & Park, 2006). Smells can also influence judgment (Schnall, Haidt, Clore, & Jordan,

[30] Term taken from Jesse Graham, et al (2016).

> 2008) and regulate behaviour: For example, Holland, Hendriks, and Aarts (2005) found that exposure to citrus cleaning scents enhanced the mental accessibility of cleaning-related constructs and led participants to maintain a cleaner environment while eating. Given the symbolic association between physical and moral purity, we considered a provocative possibility: In addition to regulating physical cleanliness, clean smells might also motivate virtuous behaviour. Indeed, moral transgressions can engender literal feelings of dirtiness (Zhong & Liljenquist, 2006). Just as many symbolic associations, such as coldness and loneliness (Zhong & Leonardelli, 2008) or darkness and depravity (Frank & Gilovich, 1988), are reciprocally related (Lakoff, 1987), morality and cleanliness may also be reciprocally linked. (2010, p. 381)

How does one smell virtue in the virtual? The Free Dictionary by Farlex defines 'the sweet smell of success' as *the euphoric feeling of being successful or victorious*. From what Katie Liljenquist et al state about the link between morality and the smell of cleanliness, I argue that smell, emotions and cognition are related. They assist to form associations and they can be totemic mnemonics. This is what author Bryan Walsh (2021) observed in his article about the smell of virtual reality.

> The startup OVR Technology is incorporating smell into virtual reality and using it in a new programme designed to allow people to experience the effects of climate change. **Why it matters:** VR can already simulate sight, sound and a sense of movement, but adding smell can help stimulate memories and emotional experiences, making virtual reality all the more real. **How it works:** A device called the ION, which contains vials of different scents, is attached to a VR headset.
>
> - When a user interacts with an object in virtual reality connected to one of those scents — say a rose — a tiny electric charge releases the matching fragrance.
> - "Smell is the factor that can create a truly human experience in virtual reality," says OVR CEO Aaron Wisniewski, who trained as a scent expert before co-founding the company.
>
> **What they are saying:** "Smell helps turn virtual reality into an empathy machine," says Wisniewski. **The bottom line:** Technologists have tried to incorporate scents in TV and movies for decades, but the personalized, customisable platform of VR might finally be the right niche for a true Smell-O-Vision. (Axios.com, 2021)

Incorporating what is dubbed the smell of virtual reality could be the next frontier in enhancing virtual identities. Digital Avatars could enhance elements of memory retention through smell in the virtual. Imagine an end-user playing a video game in the virtual with their assumed digital avatar. Saving the game's progress could be alternatively done through remembering the smell of where the end-user was situated the last time they played the game. On the other hand, totems also do not have numerous examples of scent playing a part in memory retention. Smell in the totemic space—despite scents being a human experience, favourable for the totem realm—scents do not seem to provide much utility in storytelling. But arguably, totemic *rituals* or *methods* and *ceremonies* do make use of scents. For example, incense. Incense can have various smells; each may indicate or support a conceived or perceived value, philosophy or notion. See the image below- indicating incense utility, reminiscent of historic storytelling. These are 21st century ceremonies that make use of incense. Of course, concerning 'smoke', visually caused by the

burning of the incense (sticks), the digital and virtual arts can mimic that aspect for interactive visual experiences. And additionally, an avatar of a smoke photograph may be a symbol for incense to a particular end-user or individual. Smell however cannot be copied and captured digitally as yet. Perhaps in an augmented reality it can?



Incense burnt in various ways for different rituals/ceremonies. Types of incense.

In a journal called *Does It Make Sense to Use Scents to Enhance Brand Memory?* Maureen Morrin and S. Ratneshwar (2003) discuss scent and "environmental fragrancing", and how it may improve brand memory. Their research finds that, "*Past. Scientific research generally supports the notion that humans can retain information about scents for long periods of time, perhaps all the way from childhood to late adulthood (Goldman and Seamon 1992; Laird 1935)"* p.10. The ability to retain information through scents shows how humans (and end-users) inextricably find value in the sense of smell. Humans can tell stories through smell, and they can narrate through scents. Morrin and Ratneshwar observe that,

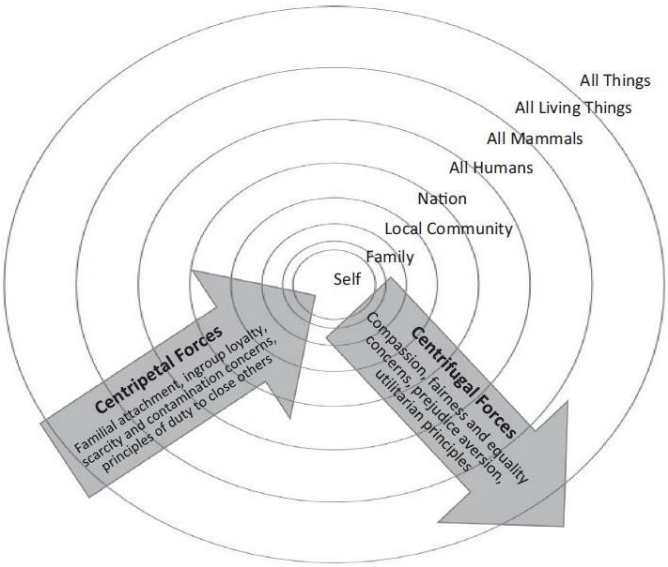
> Despite the paucity of scientific research and theorizing, the practice of environmental fragrancing has grown into a major industry in recent years. Ambient scent is currently found in such diverse locations as retail stores (Helmsley 1997), supermarkets (Bainbridge 1998), restaurants (Petran 1998), office buildings (Marsh 1998), gambling casinos (Chase 1998), and even subway stations (Global Cosmetic Industry 1999). At least one company is currently testing in grocery stores the use of kiosks with touch-screen menus that are connected to scent-emitting devices (Schick 1999). Touching the key for a particular product results in the release of that product's scent into the atmosphere. Another firm is in the process of "scent-

> enabling the Internet" by selling computer hardware devices that attach to personal computers and emit scents according to specific software instructions (Wilder 1999). Such practices in the market- place implicitly suggest that scents in the environment have the capacity to affect many aspects of consumer behavior. (2003, p10)

The scent-enabling on the internet is another example of smell or scent as an avatarial mnemonic. Later we will be making reference to known brands and discussing brands as avatarial and totemic identities (this will also be about self-identity design and embodiments). Avatars in this space of E-commerce will play a massive role in building the population of digital and virtual consumers and entrepreneurs. The scents used in the marketplace (the "scent-enabling the internet")—in e-commerce and the virtual—as noted by Morrin and Ratneshwar, will undoubtedly play a huge role to transforming and designing new human behaviour and interactive consumer experiences. If algorithms and machine learning can perhaps learn an end-user's childhood and adulthood 'scents of endearment' regarding specific sentimental smells they hold in their memory bank. This may be manipulated to influence consumer (end-user) decision-making. Would this be deemed as ethical design or simply intrusive and cunning?

Totems characteristically reinforce the idea of virtue and morals to the end-user. Morals are fundamental for the well-being of a society and community. This idea as a reference point for moral guidance is sometimes called the Moral-circle. In an article about cognition by Jesse Graham et al, Graham discusses the following about morality and the moral circle;

> "Burke, Lecky, and Singer all describe a centrifugal (centrum + fugio = ''center-fleeing") force playing out over time, pushing from the center of the moral circle (family, community) out to the outermost circles (all humanity, other animals). Such a force can be motivated by a number of intuitive and rational factors, including compassion and empathy for increasingly distant social targets, aversion to the prejudice inherent in drawing the line between any two categories (e.g., moral concern for countrymen but not foreigners), concerns of fairness and equality, and utilitarian principles of maximizing welfare regardless of social proximity.
> We suggest that this centrifugal force is in conflict with another powerful force in the moral circle – a centripetal (centrum + petere = ''center-seeking") force pulling inward toward the smaller and more immediate circles of kin and tribe. Even those who advocate for egalitarian forms of effective altruism (e.g., Bloom, 2014) have expressed the conflicting intuition that people normatively should devote more moral concern to close family members than to non kin, or that people should care more for proximate others than for strangers in other parts of the world (Wraight, 2011)." (2016, p. 59).



Centripetal and centrifugal forces in the moral circle, and associated intuitive and deliberative factors.

The moral circle reinforces and reminds the designer to put the user first and to exercise Ubuntu. This assists in regulating and circumventing situations such as catfishing online. In this instance, by additionally using scents. According to the statements above about the moral circle and the two forces that seem to be in conflict. I argue that totemic identities tend to be centripetal because Totems promote observation of the self while promoting self-mastery and self-knowledge. A human has a "complex sense of self" (Palfrey and Gasser, 2008) and this has become more intricate than ever because more people are wired and online.

Multiplicity: Digital Personality Features and Bugs

Bugs:
The Oxford dictionary defines catfishing as follows; "*to pretend to be somebody else on social media in order to trick somebody into having a relationship online*". Catfishing has become a common occurrence in the social media space. This has become a pop-cultural scam that makes use of creating false user identities and profiles online. Self-representations in the digital world through avatars have made identity visibility multi-disciplinary. This potential or value of a multi-disciplinary identity, sometimes in real time, can lead to multiple personalities. A film (true crime documentary) by Felicity Morris called *The Tinder Swindler* on Netflix documents a life of an online conman who created a false 'high class' identity to manipulate unsuspecting women online to give him financial support. This is an example of catfishing (a form of online bugs debatably) evident in the online creation of identities. Gartner, the USA based technological research company, under their 'Information Technology Glossary' gives the following definition of a bug;

A **bug** is an unexpected problem with software or hardware. Typical problems are often the result of external interference with the program's performance that was not anticipated by the developer. Minor bugs can cause small problems like frozen screens or unexplained error messages that do not significantly affect usage. Major bugs may not only affect software and hardware, but could also have unintended effects on connected devices or integrated software and may damage data files.



The Tinder Swindler on Netflix. Release date 2 February 2022

End-users online usually create false identities to scam other users; I refer these conman end-users as embodiments of bugs. The Totemic social organisational system realised this idea of a *complex sense of self*, whether done subliminally or intentionally. Hence, some of the values of Totemic representation beyond the aesthetics were reinforcing (1) reliability of self, through (2) responsibility of self that will then allow reason for (3) accountability to the environment that one occupies. The sense of responsibility and accountability then becomes a guide to sympathy and empathy for others. The identity of digital and virtual avatars and their interactive social multiplicity value must be observed. In effect, totemism allowed for managing multiple-personality disorders, both in family structures and communities. This is one of the issues debated in the 21st century digital culture on avatarial representations, as in indicated by Palfrey and Gasser (2008, p. 22);

> One of the long-standing debates in the literature of identity turns on the question of multiplicity. Some sociological theories suggest that young people have multiple selves; others argue that these multiple forms of representation come together into a more or less unitary self-construct. The common thread among the many competing theories of identity is that people tend to have multiple self-representations - different levels of both personal and social identities - that together form a whole. In focus groups and interviews, most Digital Natives revealed that they had multiple self-representations. Where they disagreed was on what these multiple self-representations meant for identity: Some saw themselves as having one or

more “identities” in the converged online and offline worlds, whereas others perceived themselves as having only one identity that was expressed in both contexts.

Multiplicity may cause harm to one's perception of their own identity. Clearly debates ensue based on which identity is real or false; this also has the potential to confuse even the same creator and vessel of these online personalities. Multiple personality disorder or Dissociative identity disorder is a reality and a severe condition. Multiple personality disorder is defined as a condition characterised by the presence of two or more personality states. Meghan Casserly (2011) is a writer at Forbes.com and studied digital journalism at The University of The Arts in Philadelphia. In her articles, she raises the issues around social media’s multiplicity of identities;

…what this means is that while social media has afforded us many things - FarmVille, unflappable knowledge of everyone’s birthdays, countless memes - it is also given the uncanny ability for a single person to become many different people. All at the same time.

The idea of a person siloing different aspects of her personality, never mind personal and professional personas, into different web-presences seems strange or narcissistic and even sinister - a lot like *Harry Potter’s* Lord Voldemort, who breaks his soul into seven far-flung pieces in an attempt at immortality…

…bottom line: as a marketing tool, in order to reach the most valued niche audiences possible, fragmenting your interests into separate social media accounts seems worthwhile. Why water down your message with unfocused or unwanted content? However, on a very human level, like Potter’s nemesis who learned the hard way that splitting his soul would render each piece more fragile than the sum of its parts, online personality jugglers should beware the potential social toll of spreading themselves just a little too thin. (Forbes.com, 2011).

The precaution placed on spreading oneself too thin is because unless a human understands their sense of 'self' (the central and internal self), they may find it challenging to fully comprehend the external self (which is community). Indeed, whatever pursuits and interests one might have for the outer world or the external self, little understanding of the individual self will lead to a limited and naïve understanding of alternative-selves created. In totemism, these alternative selves extend to other entities such as relations beyond the one’s self and close family. Homogeneity is reinforced after self-mastery, allowing the understanding of nature, animals, the cosmos, etc. I will explain the benefits of this when we discuss Biomimicry and Biomimetics in relation to brands and totems. Totems strengthen the idea of *charity begins at home;* I cannot claim to love and understand the external if I do not love and understand the internal. Such is the nature of centripetal forces, knowing that the human body and mind are also an extension of many forces and things within its environment. I will expand more on biomimicry in Chapter 3.

Slightly touching base on the human body as an extension of media, biology and computer science. Eugene Thacker a professor of Media Studies at The New School in New York City, in his book Biomedia observes that,

… bioscientific fields such as biotechnology have, for some time, focused precisely on this question of the body-as-media: how can selected properties and processes in the biological

> body be geared toward novel, mostly medical, ends? Specialized research fields in regenerative medicine, genetic diagnostics, and genomics all have this general goal of a nonorganismic technical utilization of the body's biology. Most utilities are for bioscience research and medical application, **and others are used in computer science research (DNA computing), drug development (rational drug design), or the materials industries (biomimicry)**. (2004, p.10) *Emphasis Mine*.

Features:
The utilisation of the body and the idea of this emerging embodiment, "body-as-media" as Thacker puts it, is not a bug in this instance but a feature. By feature I mean "an attribute or characteristic of an object that can be used to develop a classifier" or rather "A functionality used to differ products in product line"[31]. The natural human body becomes enhanced and thus has more features (cyborg); it becomes both flesh and digital product compared to an average biological body. This aspect may create a multiplicity of personalities too, the physical self and the augmented self (virtual-self example being the Matrix film and types of embodiments).

I will continue on the area of the moral circle, as this is an expanded notion. I will be doing a disservice to totemism if I do not expand on its ethical connection it has with the moral circle and how it avoids maladies such as dissociative identity disorder. For that reason, this section will be longer than every other chapter. The intention is to give a thorough walk through that defines totemic personalities, the totem and morals, and totemic and avatarial identity correlations. We should be privy about the subjectivity of morality and its intricacies. It is a discourse that has proved to be extremely challenging to measure or quantify. Hence, I am also avoiding making too many religious connotations although; it is not possible to avoid religious practice when tackling morality issues. Humans are devoted to various spiritual practices and beliefs; so it would be shortsighted of me to use one religion as the basis of all spiritual cults. Despite that foresight and forewarning about avoiding religious concepts, there will be however minor mentions of religion, purely for anecdotal reasons and for defining key terms.

Avatarial self-maladies: The multiplicity of social representation

Still on these potential maladies of multiple personalities and altered states as indicated by Casserly within social media environments, Charles T. Tart adds a more aggressive and in-depth explanation about this multiplicity of personalities, specifically in the world of simulation. By now, examples taken out from *the Matrix* and *PokemonGo* should ideally give us the same footing on what I mean about second life, AR and VR. A (computer) simulation is;

> …the use of a computer to represent the dynamic responses of one system by the behaviour of another system modeled after it. A simulation uses a mathematical description, or model, of a real system in the form of a computer program. This model is composed of equations that duplicate the functional relationships within the real system. When the programme runs, the resulting mathematical dynamics form an analog of the behaviour of the real system, with the

[31] Both definitions taken from: IGI Global Publishing Company Online.

> results presented in the form of data. A simulation can also take the form of a computer-graphics image that represents dynamic processes in an animated sequence.
>
> Computer simulations are used to study the dynamic behaviour of objects or systems in response to conditions that cannot be easily or safely applied in real life. Simulations are especially useful in enabling observers to measure and predict how the functioning of an entire system may be affected by altering individual components within that system. (Erik Gregersen, Britannica, 2021)

Tart 'is a Professor of Psychology at the Davis campus of the University of California and a Senior Research Associate at the Institute of Noetic Sciences in Sausalito, California. (1990, p. 222).' He raises interesting observed studies on MPD, and of course, in this context, I invite the reader to apply these theories to avatar representations online. We will go back to totems and virtue in the virtual in a moment, but it is integral that I discuss the gist of the notion of; self, personality, and identity and how they eventually culminate into narratives. Tart begins by sharing a comparative definition of personality and alter personality by Richard P. Kluft (1988, p.51), a Clinical Professor of Psychiatry at Temple University School of Medicine.

> I have tended to define a personality, alter, or disaggregate *self-state* in a manner that stresses what such an entity does and how it behaves and functions… A disaggregate self-state (i.e., personality) is the mental address of a relatively stable and enduring particular pattern of selective mobilisation of mental contents and functions, which may be behaviourally enacted with noteworthy *role-taking and role-playing dimensions, and sensitive to intrapsychic, interpersonal, and environmental stimuli*. It is organised in and associated with a relatively stable… *pattern of neuropsychological activation*, and has crucial psychodynamic contents.
>
> It functions both, as a recipient, processor, and storage center for perceptions, experiences, and the processing of such in connection with past events and thoughts, and/or present and anticipated ones as well. It has a sense of its own identity and ideation, and a capacity for initiating thought processes and actions. (Emphasis mine)

Neuro-technology considers these reported cognitive contents when creating immersive avatarial extensions. These advancements in digital technology, art and psychology make avatarial embodiments exceed notions of probabilities. What seemed impossible is now possible. The possibilities of realising the potential in cyborg and symbiotic systems between the end-user and the machine are becoming limitless. For example, Brain-Computer Interfaces (BCI). We will discuss BCI and digital avatars in chapter 5. What is interesting is that despite Kluft not talking about digital gameplay and video games, the operative words that come to the fore are (a) **role-taking** [this is the part of assuming a type of avatar, the design and embodiment] and (b) **role-playing** [this is the notion of play]. Digital Avatar embodiments and identities about role-taking and role-playing. For the avatar to relate a story or narrative, role-taking and role-playing must occur, taking into account that the avatar's skin or appearance is already an agent of storytelling. A means of meaning-making. This could be on social media, gaming or e-commerce.

In a paper called *What is the Avatar*, Rune Klevjer substantiates this aspect of the importance of role-playing in avatars, “The dominant definition of the concept of the avatar

in computer game discourses originates in the tradition of role-playing games…"(2006, p. 12). This is the inextricable link between avatar/totemic role-playing and its effects on altered states of personality. When role-playing begins, we cannot ignore the extension of self that occurs, i.e. Embodiment(s), the end-user whether avatar or totem begins to multiply themselves. They assume a body and characteristic of what they 'imagine' themselves to be. For example, in an avatarial setting one could choose to be an existing animated character or video game character; in totemism one could choose to embody their family totem i.e. a falcon, an elephant, water etc. For an end-user to manage to role-play, extending outside the self mentally or spiritually and imaginatively means assuming another identity. The multiplicity of identity role-taking may be overwhelming when we consider the role-playing aspect. This is the avatarial space that might be of concern in association with Dissociative Identity Disorder. How does one dissociate from their identity? We mentioned bugs and features earlier. This aspect is also a potential bug in the avatarial space. "*A **bug** is an unexpected problem with software or hardware*". Let us think of the hardware as an end-user's physical body, and the software as the end-user's mind or brain. When a bug infiltrates the end-user, 'De-personalization' can easily begin to occur subliminally, especially when play is immersive and interactive. For instance, what if the end-user's digital or virtual role-playing self becomes more fun and fulfilling more than their physical self, their real life. Today we notice digital natives with numerous, thousands or even millions of followers, fans or friends on social media, for example Facebook, Instagram and Twitter. However, some of them in real life do not have friends and thus the 'wired' life becomes more fulfilling and less lonely. Dissociation with one's environment begins.

DID YOU KNOW?

Dissociation is a phenomenon that refers to a disconnection between your thoughts, feelings, and environment. When you space out for a short period, you lose awareness of your surroundings and may not realise what has happened in that timespan. When you "snap out of it," you become fully aware of what is happening around you again. However, dissociation can become much more than this. People can disconnect for extended periods and use it to cope with stress due to past or current experiences. When this happens, people can develop dissociative disorders, and currently, three of them are recognised:

- Dissociative identity disorder
- Dissociative amnesia
- Depersonalization/Derealisation disorder

Dissociative identity disorder is a condition where an individual has splits or compartments in their memories and personality. This can lead to different identities, also known as "alters," whereas the "host" is considered the person's primary identity. Typically, there will be two or more of these alters. Sometimes, they can even be a completely different gender, like different food or activities, and speak differently from the host. This is why the disorder used to be called multiple personality disorder. It was changed because dissociative identity disorder better describes fragments of different personalities and memories.

(Source: www.mind-diagnostics.org)

Tart begins to introduce and compare his definition of altered personality states with that of Kluft's. The definitions are close, although they differ. I use these elaborate definitions intentionally and deliberately to suggest how these contents appear in totems and avatars. This will substantiate what I mean when I speak of avatars having a potential to make an end-user lose the sense of self. A space that can be debugged when consciously applied and designed. Tart expresses the following;

> Kluft's definition is interesting because it defines a single, presumably unitary personality, the so-called ordinary state of events, and an alter personality. Each of us tends to think of ourselves as having a personality (or several of them) and to regard the idea of an altered state of consciousness as something different, something that "happens to" a personality. Actually the concepts of altered state, personality and alter personality are almost identical in most usages. Consider the way I defined a (discrete) state of consciousness in my systems approach to understanding states (Tart, 1975, p.58):
>
> > We can define a d-SoC [discrete state of consciousness] for a given individual as a unique configuration or system of psychological structures or subsytems. The structures vary in the way they process information, or cope, or affect experiences within varying environments.
> >
> > The structures operative within a d-SoC make up a system where the operation of the parts, the psychological structures, interact with each other and stabilize each other's functioning by means of feedback control, so that the system, the d-SoC, maintains its overall pattern of functioning in spite of changes in the environment. Thus, the individual parts of the system may vary, but the overall, general configuration of the system remains recognisably the same.

The altered-being narrative has often been at the center of storytelling and plot. It is also worth mentioning that Humans (Homo Narran's) often demonstrate an interest in stories that interrogate themes of "*the other*". For example, movies about aliens visiting planet Earth, UFOs, Space travel, Zombie Apocalypse (In video-games *Capcom*'s Resident Evil). And even interplanetary Neuro-Technology films, for example, the Movie *Transformers*. Former historical stories of transfiguration and disembodiment rituals through totemic means were ridiculed as savage practices but these rituals seem to be re-surfacing. Additionally we should note that humans and end-users often show these signs of a 'discrete state of consciousness' when becoming 'the other', however sometimes these 'selves' are not in harmony with each other unfortunately. Today, in a form of avatars this multiplicity of personality dis-harmony seems to be normalized. The prevalent and ignored bug in this instance is this loss of the core self through peer pressure within social media.

This happened either because of voyeurism[32] or perhaps simply because of a misunderstanding of "the other" (see figure 10). Tart's emphasis on these subsystems reminds me emphatically of how totemism operates. Totemism creates ecological subsystems, assigns totemic responsibility, and promotes guidance for d-SoC to novice digital end-users concerning their environment(s). Thus, this renders a state of a unitary persona with various totemic subsystems and metaphorical extensions, i.e. one's totem may be the river, a lion, a falcon, etc. This is an example of totemic personality multiplicity with a twist of accountability, leadership and responsibility to enhance the self in aid of the user, *"…But the overall, general configuration of the system* [personality] *remains recognizably the same".* Currently avatars may improve in that aspect of leadership and guidance.

To add, just because one's totem is a falcon (for example) it does not mean that in public social interaction(s) the individual will make a falcon's shrieking sound to communicate. That would be an absurd and inappropriate behaviour. If the user or human shrieks or hoots

[32] In this context, from the term voyeur, a prying observer who is usually seeking the sordid or the scandalous

like an owl because that is their totem, then this would be deemed as a mental personality disorder. The same may be said about avatars, if an end-user takes a form of a robot as their digital avatar e.g. The Star Wars droid called **R2-D2**, should they start speaking in a voice that mimics a robot talking and stammering in code, we would consider this childish or a disorder (a bug) if it persists. This code switch would be problematic.



Star Wars droid: R2-D2

Tart continues;

> While I emphasised the stability of the pattern and the processes that stabilise it more than Kluft, and he emphasises potential neurophysiological correlates of the pattern more than I, in both approaches we have:
>
> (a) A pattern/stem of psychological/neurophysiological structures that
> (b) Persists over a time period, ranging from moments to years
> (c) Such a pattern/system has a uniqueness, an "identity," a mental address that distinguishes it from other patterns/system.
> (d) Such a pattern/system says, "I," either in the form of "I am this personality" or "I am in this state of consciousness." In terms of my systems approach, we would say that the energy and activity of the Sense of Identity subsystem is usually co-opted in an automatic way by the pattern/system that is dominant at a given time. When you have identified, voluntarily or involuntarily, with an ongoing pattern of mental activity, it is you for the time being. It does not matter whether we call this pattern a personality or an altered state of consciousness.
> (e) Such a pattern/system takes in information from both the external and the internal (body, feelings, etc.) environments , processes it in terms of the unique characteristics of the particular pattern/system, stores this processed information, makes decisions, and acts on them.

(f) The unique pattern of these activities associated with a state of consciousness or with a personality is what makes us distinguish it from other states.
(g) Such a pattern/system frequently tries to stabilise itself, preserve itself, and maintain its identity. (Tart, 1975, p.58)

Totemism is responsible for user identity governance. Like the pattern and subsystem approach that Tart proposes, totemism, to a degree, is a regulator of these states of consciousness. A totem can assist a user to preserve self, maintain a holistic identity while automatically adjusting to patterns of various cognitive adaptations.



Scene from science action film, Transformers (Source: thewrap.com)

The Digital Native and the Moral circle

In the world of brands, totemism still echoes this sentiment; it remains constant wherever one utilises it. One's totem promotes morality and accountable behavioural interactivity. This is where Avatars in the digital space suffer, often passing for lacking accountability through usage/utility. For instance, end-users (primarily digital natives) sometimes assume that their digital avatar (just like theatrical masks) is nothing more than just a guise, that the digital self is not an extension of the true self. Assumptions such as just because one is in the actual physical world, actions on the digital do not have repercussions and this is not true. Some users just see digital spaces as a "*no hard feelings*" platform, what happens in 'Digital Vegas' stays in 'digital Vegas'. This could not be any further than the truth, it is a false and incorrect social behavior narrative. We see this in trolling and cyber bullying. Extremes of avatarial moral decay of course would extend to identity theft on the web or social media. If some people think online presence is just for play, they must rethink that stance. Suicide rates in the twenty-first century keep rising. As eloquently put by Harari;

> For the first time in history, more people die today from eating too much than from eating too little; more people die from old age than from infectious diseases; and more people commit suicide than are killed by soldiers, terrorists and criminals combined. (2017, p2)

Humans today are more likely to feel bullied or scammed online than in real life. If online experiences provide more meaning than real life physical experiences, one's values can

simply be based on online social activity rather than real life experiences. Meaning about self can bear more significance online than in real life. For avatarial experiences as an example, an end-user can be obese in real life, but digitally, constantly upload exercise/gym content on YouTube and have a million followers. This may contribute in staying comfortable with obesity because the end-user's personal real value is derived online, rendering validation in real life futile. Contributing in a book called *Anxiety Disorders: The New Achievement,* Olalekan Popoola (National Primary Healthcare Development Agency, Nigeria) et al[33] cite a suicide definition that puts emphasis on the self and behaviour. They write that; "suicide is defined as a death caused by one engaging in injurious behaviours toward self to die as a result of the behaviour" (2021, p.5). Cyberbullying contributes in some undesirable behaviours that make some end-users bring harm to the self.

Alluding to how mortality rates and its causes have changed over the years it is clear that peer pressure has also shifted to online culture. In a digital world the perception of fame has tipped the scale in pop-culture, television is no longer the only way to get noticed. The internet provides the possibility of fame too. An end-user's video may trend globally and make the individual an instant hit or even an influencer or celebrity. As such many online end-users (especially on social media) tend to be 'desperate' for validation often in a form of 'likes' and 'followers'. Few likes and followers may lead some end-users to be depressed. This is another aspect that needs debugging in the avatarial interactive space. It would be absurd to write off online interactive behaviour as not being one of the causes of anxiety and even suicide in today's world especially among digital natives.

Harari continues;

> During the second half of the twentieth century, this Law of the Jungle has finally been broken, if not rescinded. In most areas, wars became rarer than ever. Whereas in ancient agricultural societies human violence caused about 15 per cent of all deaths, during the twentieth century violence caused only 5 per cent of deaths, and in the early twenty-first century it is responsible for about 1 per cent of global mortality. In 2012 about 56 million people died throughout the world; 620,000 of them died due to human violence (war killed 120,000 people, and crime killed another 500,000). In contrast, 800,000 committed suicide, and 1.5 million died of diabetes. Sugar is now more dangerous than gunpowder. In Peru, Haiti, the Philippines and Ghana – developing countries suffering from poverty and political instability – fewer than five people in 100,000 commit suicide each year. In rich and peaceful countries such as Switzerland, France, Japan and New Zealand, more than ten people per 100,000 take their own lives annually.
>
> In 1985 South Korea was a relatively poor country, bound by strict traditions and ruled by an authoritarian regime. Today South Korea is a leading economic power, its citizens are among the best educated in the world, and it enjoys a stable and comparatively liberal democratic regime. Yet whereas in 1985 about nine South Koreans per 100,000 killed themselves, today the annual rate of suicide is 36 per 100,000 (2017, p. 17 - 38)

Although Harari does not speak of suicide concerning internet use and social media engagement. The crux is the growing number of suicide-related incidents as the world is more developed (and wired). Some of these mortality rates are overtly and covertly related to online social media behaviour and peer pressure. Morality in a globally connected society

[33] Chapter 1: Social Media and Suicide

with many end-user avatarial role-taking and role-playing requires a certain degree of advocacy and regulation. Every digital avatar must acknowledge another avatar's presence, state of consciousness and interconnectedness. These collective avatar identities create the value of interactivity and community online just like in the actual physical world.

DID YOU KNOW?

Students who experienced bullying or cyberbullying are nearly 2 times more likely to attempt suicide (Hinduja & Patchin, 2018)

Suicide ideation and attempts among adolescents have nearly doubled since 2008 (Plemmons et al., 2018), making suicide the 2nd leading cause of death for individuals 10-34 years of age (CDC, 2019)

Approximately 1 in 20 adolescents experience a suicide in a single year (Andriessen, Dudley, Draper, & Mitchell, 2018).

(Source: meganmeierfoundation.org)

DID YOU KNOW?

Key facts

More than 700 000 people die due to suicide every year.

For every suicide committed, there are many more people who attempt suicide. A prior suicide attempt is the single most important risk factor for suicide in the general population.

Suicide is the fourth leading cause of death among 15-19 year-olds.

77% of global suicides occur in low- and middle-income countries.

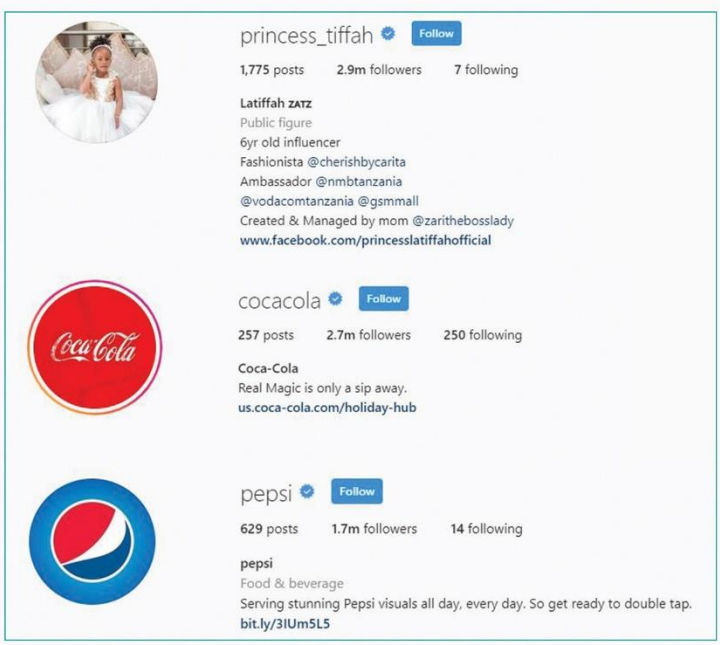
Ingestion of pesticide, hanging and firearms are among the most common methods of suicide globally.

(Source: who.int)

As a result, we are also seeing brands increasingly echo themes such as quality customer care and customer service. We have already discussed this in relation to Ubuntu. As brands in the world of e-commerce evolve to having visual representations that extend to avatar design, they also yearn to be perceived as moral and ethical. Customer care starts with the self too. One cannot claim to master customer service or putting the user first if they lack quality self-care. Therefore, totemism supports the adage; charity begins at home in addition to knowing thyself. This is relevant both in personal lives and in commerce. That is why reputable brands have values, a mission and goals.

On the other hand, the digital avatar does mean well when it takes a centrifugal approach in how it behaves. Of course, I also consider that the end-user is responsible for the avatarial behaviour. Both the avatar and the end-user assume one identity and personality. I maintain that even though the digital avatar means well, digital avatarial end-users tend to be motivated by pleasing or appeasing the "others" (other end-users) before critically interrogating, shaping and designing the self. This is influenced by behaviour mimicked in

the actual physical world, then transferred into the digital and virtual space. There are various reasons for this pressure. Brands, too, are susceptible to this 'peer' pressure in the digital space - most brands seek followers and public relevance. They desire to be remarkable.



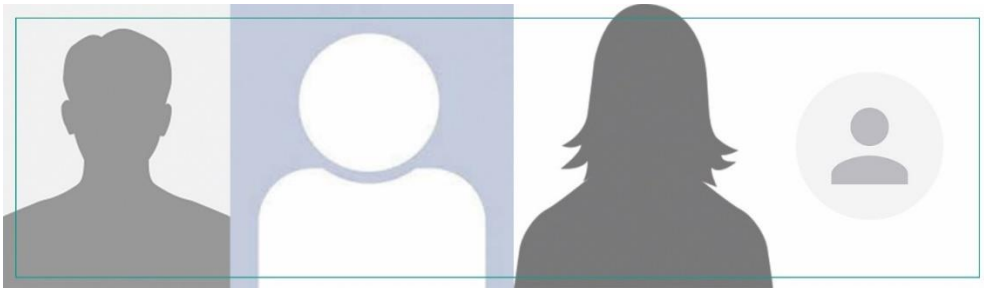
6 year old Digital Native Tiffah Dangote (Avatar profile: Princess Tiffah) with more followers than famous brands

End-users, Digital Natives and most recently brands are prone to giving into (digital) social 'peer' pressure For example, this is because of the desire to get noticed and for fame and the need to gather more followers on multiple apps and social media. Palfrey and Gasser (2008, p. 1) define "Digital Natives" as humans or end-users that were born after 1980 when digital and social technologies were introduced online. "They all have access to networked digital technologies. In addition, they all have the skills to use those technologies. (Except for the baby—but she'll learn soon enough.)" The increasing number of applications has also covertly increased this avatarial digital interaction.

Most apps prompt the end-user to sign-up and create a profile if they are new to that specific platform. Before an end-user can fully use the app they just downloaded they must create a username. Then they will be prompted to create a unique password and undeniably a digital avatar. It is not compulsory to create a digital avatar in most apps; however, the apps come pre-installed with generic avatars. This also keeps the end-user visually anonymous. According to Business of Apps, "*The iOS App Store launched in 2008 with 500 apps. Today, 1.85 million different apps are available for users to download. Android users have even more from which to choose, with 2.56 million available through the Google Play Store*. (2021)" The development and design of 500 apps to 1.85 million apps in a period of thirteen years is a staggering progress. This goes in line with an estimated number of global smartphone end-users said to rise to about *3.5billion over the course of 2020*[34]. Most of

[34] https://www.statista.com/statistics/330695/number-of-smartphone-users-worldwide/

these smartphones will just be tools and storage houses for avatars and even alternate worlds and alternative living.



Generic Digital Avatars as profile pictures (Anonymous visual identity)

A digital and virtual society with a population of a hypothetical 3.5billion end-user requires a standard moral anchor (Currently, the actual physical world is estimated to have a population of 7.8 billion since 2020). It requires totemic guidance for its avatars. The moral circle may be used as a basic guideline by digital natives and end-users seeking to promote and stamp ethics online. Continuing on the moral circle Graham et al (2016, p.58 – 59) further point out that;

> The earliest articulations of the moral circle concept all indicate a developmental trajectory of expansion, whether that development is thought to occur over evolutionary, historical, or ontogenetic timescales. Moral circles can be thought of increasingly large concentric circles, with the self in the center, surrounded by immediate family, extended family, friends, local community, nation, world area, all humans, all mammals, all animals, all living things on Earth, all living things in the universe, and finally all things including inanimate matter.

Essentially this is what Ubuntu stands for. These ideas of thinking of the moral circle as increasing concentric circles is articulate because it explains moral development and maturity in stages. However, credit should go to the foundations set by both animism and totemism. Animism, and subsequently totemism were attempts to create stages of inner growth by referencing ones' environment. They promoted mutual respect and reciprocity between "*the self, immediate family, extended family, friends, local community, nation, world area, all humans, all mammals, all animals, all living things on Earth, all living things in the universe, and finally all things including inanimate matter*". Avatars should reciprocate this idea in the digital and virtual space too, but this has to be discussed, introduced, and taught to the end-user. The moral circle signifies inner growth; of course, unsurprisingly, this symbolism is reminiscent of the universe and its laws of design. The human body is biologically part of this design. This is another example of contemporary stories and identity design using biomimicry, the irrefutable referencing of nature in most digital technology designs, atavism in the digital and virtual space. In the book called Biomedia, Eugen Thacker observes that,

> The principle of the metaorganism is therefore the elevation of the biological through technologies of knowledge production. Through this principle, contemporary biotech in general, and bioMEMS[35] specifically, have two main effects on the notion of the biomolecular body. One effect is that contemporary biotech research begins from a technical position in

[35] Micro-electro mechanical systems

> which the body (the "natural" body, in which the biological is implicit) is thoroughly valued as a source of knowledge. Despite its in-depth engagement with computer technologies, biotechnology remains a practice invested in the body as nature, and as biological materiality. (2004, p. 84-85)

Thacker outlines how important nature remains to technology developments, referencing the human body. I argue that this is reminiscent of totemic methods. The Fibonacci sequence and the Golden Ratio also known as (1) *nature's secret code* or (2) *nature's universal rule* attest to this mimicry (and atavism). In Africa since antiquity, these atavistic and totemic methods where referred to as indigenous knowledge systems (see the Dogon people). Nature has often been the human's main reference point, and therefore, digital avatar design should encourage the observation these systems to add value in designs for virtual worlds.

Parameters of comparison	Animism	Animatism
Definition	It is considered to be the belief where spirits or spiritual power is present in every object	It is considered to be the belief where a universal power is present among everything.
Presence	Presence of spirit in each object of nature	Presence of a universal supernatural power among all
Individuality	It has individuality	It is universal
Supernatural	It may or may not be supernatural	It is believed to be supernatural power
Personality	It possesses personality depending on the object	It lacks personality of its own

Comparison between Animism and Animatism – Source: askanydifference.com (2021)

DID YOU KNOW?

The Fibonacci sequence is one of the most famous formulas in mathematics. Each number in the sequence is the sum of the two numbers that precede it. Therefore, the sequence goes: 0, 1, 1, 2, 3, 5, 8, 13, 21, 34, and so on. It has been called "nature's secret code," and "nature's universal rule." Just take a look at the pattern it creates and you can instantly recognise how this sequence works in nature like an underlying universal grid. A perfect example of this is the nautilus shell, whose chambers adhere to the Fibonacci sequence's logarithmic spiral almost perfectly. This famous pattern shows up everywhere in nature including flowers, pinecones, hurricanes, and even huge spiral galaxies in space. However, the Fibonacci sequence does not just stop at nature. In graphic design, we refer to it as the Golden Ratio. It can be applied to everything from logo design, print design and website design.

The Golden Ratio is a design concept based on using the Fibonacci sequence to create visually appealing proportions in art, architecture, and graphic design. The proportion, size and placement of one element compared to another creates a sense of harmony that attracts our subconscious mind.

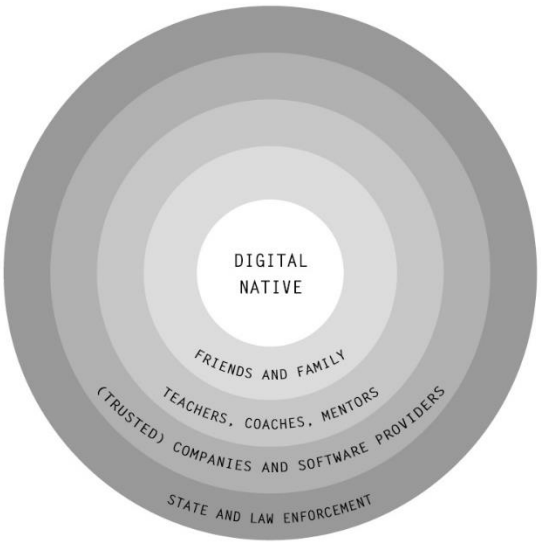
(Source: clevelanddesign.com)



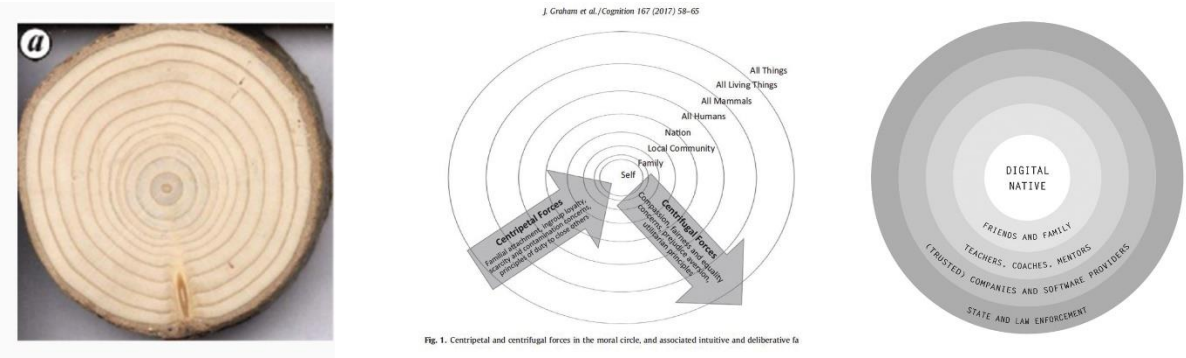
Concentric circles and The Fibonacci sequence (The Golden Ratio)

Nevertheless, Palfrey and Gasser (2008, p. 10-11) imagine the concept of the concentric differently. However, they do not refer to it as a moral circle. Interestingly, they use a similar model to explain the self in a digital context.

> Imagine a series of concentric circles, with the Digital Native at the center. In many cases, the Digital Natives themselves are the ones who are well positioned to solve the problems that arise from their digital lives. Of course, it is not always realistic to put Digital Natives in charge, but it is important to start there all the same. One circle out, the family and close friends of a Digital Native can have an impact, whether through guidance (in the case of Internet safety, for instance) or through collaborative development of social norms (in the case of intellectual property). The third circle includes teachers and mentors, who often can have a big impact on how Digital Natives navigate these environments. Fourth, we look to the technology companies that build software and offer services, which can also make a big difference in how these issues play out—and *which must act accountably* if that difference is going to be for the good. Fifth, we turn to the *law* and to *law enforcement*, often powerful instruments but usually blunt ones—and properly seen as a last resort. (Emphasis mine).



Concentric circles with the Digital Native at the centre (Source: Born Digital)



(Far left) Cross section of a tree, concentric circles signify its age (Middle) Moral circle – cognition (Right) Digital native – problem solving

These proposed solutions anecdotally also use biomimicry to explain their model. The 'primitive or savage' Shaman, misguidedly referred to, in the actual world (see figure 9), transforms from the state of reality to alternative worlds at will. The Shaman can do this through regalia, medicinal plants, plant allies, or psychedelics. On the other hand, the virtual shaman, in this instance Morpheus (see figure 10), transforms himself through technology and computer applications. Dr. David Luke is an associate professor of psychology at the University of Greenwich. He spent time studying and experimenting on shamanistic experiences. He is also a lecturer on the MSc Consciousness, Spirituality and Transpersonal Psychology. Dr. Luke states that, "*Shamans are people who go into an altered state of consciousness at will in the name of their community to communicate with the spirits of nature and to transcend time and space and bring back useful information for their community*." (TedxGreenwichUniversity, 2020). Shamans echo and embody the unity, connection and homogeneity of humans, animals, spirits and nature.



Figure 10: Second Life embodiment and trance ritual dance
Left: A shaman or medicine man from the Lower Congo colour process print by N.H. Hardy
(Sources: www.wellcomecollection.org and www.gaia.com)



Figure 11: The Construct Scene: *Morpheus introducing Neo (characters are virtual avatars)*

There are many places in the actual world (real physical world) geographically that share a similar narrative of reincarnation, totemic visual representations for moral stability and continuous re-birth. For example, Zimbabwe's historic narrative is similar to the phoenix tale. Zimbabwe's (formerly known as Rhodesia) identity narrative is nested in the country's symbolic and mighty national bird. The Victoria Falls Guide (2021) states that;

> The Zimbabwe Bird is believed to be an ancestral link to the heavens and is sometimes called Shiri ya Mwari, the Bird of God. The stone eagle became the country's emblem and symbol of freedom because it linked the Shona to their ancient ancestors. Legend has it that peace will never return to Zimbabwe until all the plundered Zimbabwe Birds are returned to their homeland.

The Zimbabwean emblem is a symbolic, ethical and moral based bird and a national totem. To a certain extent, this mythological narrative of the return of the plundered Zimbabwe birds reverberate the phoenix legend and its importance of restoring life. The identified totem serves as a reminder to the natives; it is a reminder about their lineage and historical place in the world as a nation. The bird is an extension of a visual moral compass by virtue of design. It is a visual mnemonic design for the citizens deliberately and intentionally. The symbolic bird carries the country's story for future generations to know and remember. This visual memory retention helps pass the story and maintain its narrative consistently throughout time and space. Beyond its visual aesthetic appeal, it carries its totemic values homogeneously in the (1) actual space and the (2) digital space.

Transcendence from this digital space might make some visual narrations or regulated laws about utility (in this instance, national flags) lose their value in virtual iterations[36]. In a moment I make mention of hoisting the national flag using that ritual as an example; for the reason that in the virtual space and the metaverse, end-users and brands may own digital property, e.g. universities, companies, parliament, etc.



The flag of Great Zimbabwe with its iconic, totemic and majestic '*phoenix*'

However, on the other hand, the virtual space and its development may also enhance these visual stories and their values for generations to come. To explore this further, we need to understand; exactly how the virtual world behaves and what exactly is this virtual world.

In a book called *The Facebook Effect*, David Kirkpatrick (2010, p.66-67) indicates 20th century formations of the idea of community online. These are some initial explorations of taking community collaboration in the virtual space. At this stage, I cannot historically claim too much totem atavism but rather technological development, some of them link with the military-industrial complex in the 1960s. Kirkpatrick at length mentions that;

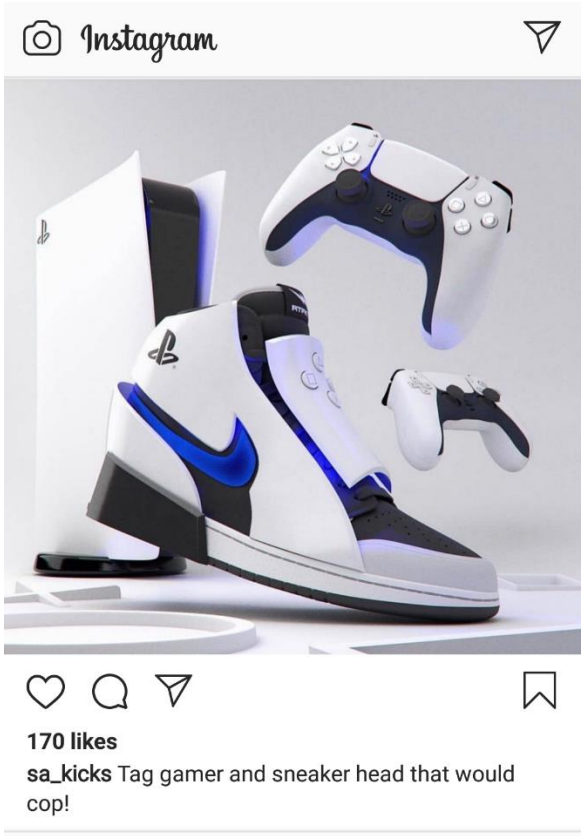
> "The concepts of social networking are not new, and many of the components of the early Facebook were originally pioneered by others. Zuckerberg has been accused several times of stealing ideas to create Facebook. However, in fact his service is heir to ideas that have been evolving for forty years.
>
> Something like Facebook was envisioned by engineers who laid the groundwork for the Internet. In a 1968 essay by J. C. R. Licklider and Robert W. Taylor titled "The Computer as Communication Device," the authors asked, "What will on-line interactive communities be like? In most fields, they will consist of geographically separated members, sometimes grouped in small clusters and sometimes working individually.
> They will be communities not of common location, but of common interest." The article crept further toward the concept of social networking when it said, "You will not send a letter or telegram; you will simply identify the people whose files should be linked to yours." As a key employee in the Advance Research Projects Agency of the Department of Defense, Taylor helped conceive and fund what became the ARPAnet, which in turn led to the internet.
>
> A decade or so later, a few pioneers were beginning to spend time in such inline communities. The first service on the Internet that captured substantial members of nontechnical users—

[36] This loss of value is not just based on Zimbabwe as a country, Zimbabwe is meant to be an example. The reader is encouraged to refer to other countries too and imagine how global changes to various national symbolic representations could look like in the virtual worlds.

> long before the invention of the World Wide Web—was the Usenet. Begun in 1979, it enabled people to post messages to groups dedicated to specific topics. It functions to this day. In 1985, Steward Brand, Larry Brilliant, and a couple of others launched an electronic bulletin board called The Whole Earth 'Lectronic Link, or Well, in San Francisco. In 1987, Howard Rheingold, a big user of the Well, published an essay in which he coined the term *virtual community* to describe this new experience.

Kirkpatrick additionally notes a definition for the virtual community as written by Howard Rheingold. "*A virtual community is a group of people who may or may not meet one another face to face," Rheingold wrote, "and who exchange words and ideas through the mediation of computer bulletin boards and networks."* (2010, p.67).

Although this is not atavism, it shows lineage records; and how tracing lineage can assist future developments even in the digital and tech space. In the virtual world, if we put community aside for a moment, countries might lose their sense of authentic and totemic identity with mere animation enhancements. I use flags as an example because I will be explaining totems on national flags, but just using Zimbabwe as an example. The placement and arrangement of national flags bear ritual and historic importance. In a virtual space, a nation's flag does not have to be static because the virtual world is immersive in multiple dynamic aspects, for instance, a T-shirt in the virtual world is not limited to static print designs. Your T-shirt design in the virtual environment can be a video or a GIF. Your sneakers can read basic code and tighten their laces (see IoT).



Instagram post by SA KICKS: PlayStation 5 and Nike sneaker concept design collaboration – Augmentation example. Possibilities in the virtual world are limitless. – Mobile Screenshot 01 07 2020

Back to flags, I use the following as an example; raising the national flag for various countries holds great significance, so how will the virtual world hoist national flags on end-users and brand properties, and who will regulate that? Will the same rules listed in the National Gazette[37] for instance apply in the virtual world experience? Alternatively, are the 'totemic' laws of flag rituals and ceremonies in the actual physical world obsolete in the Virtual?

DID YOU KNOW?

Hoisting of the National Flag

6. Except, on ceremonial occasions, where the National Flag should be hoisted unfurled, it should at the specified hour be hoisted, rolled-up to break at the truck and at sunset, or at the appointed time, it should be lowered slowly.

(Source: www.gov.za)

Could a country have an impostor country in the virtual world? Other examples of moral decay online are the rise of false or fake identities, scams and phishing. It is no wonder that lucrative social media platforms such as Twitter started to introduce a *check mark*.
This Twitter verification system commonly called 'Blue check mark' was introduced in 2009, its function is to provide the platform's end-users with the ability to distinguish genuine account holders from impersonators. For instance, this works for massive organisations and celebrities. This brings us to the question and problem of avatarial identity ethics. The ethical decay less mentioned in this immersive space is how online identities also contribute to dissociative identity disorder (DID) or multiple personality disorder as indicated earlier. I use the terms digital and virtual interchangeably and on purpose despite VR providing a more immersive experience compared to basic digital immersion.

Loosely put although debatable, digital avatars occupy virtual worlds while totems occupy actual worlds. *Virtue in the virtual* could be remedied and further enhanced through totemic models with the use of digital avatars. Anthropology amongst other fields such as Behavioural Economics, Behavioural Science and Sociology, have contributed to studying the end-user and our decision-making. A common thread is that our environments and spaces contribute to our thoughts, decisions and behaviour. One's avatar and online behaviour are influenced by the environment they occupy offline.

Totem practice is a system that promotes self-knowledge, *biodiversity* and homogeneity. Avatars can do the same and even more.

On self-knowledge and the totem:

Being anchored to one's totem is a foundation that gives meaning, purpose and value to a human's self-identity. A bold and prominent identity could be designed for self, one's own natural DNA-totem, or a digital avatar or brand. A strong identity stands out, and its stories gain credibility through credible, interactive, relevant, exciting and consistent narratives. For example, I argue that this is key because in the present and more importantly, in the

[37] This is specifically in reference to the South African Gazette.

future avatars will robustly shape and influence the end-users' core identity and personality. This is because it is inevitable that the online population growth will come in the form of an avatarial society and avatarial interactions.

On homogeneity and the totem:

This includes the space or environment that the user occupies. Totems encourage responsibility and they are not merely for physical identification. They are utilised to lay a foundation of mutual credence, respect and social cohesion between all living entities on earth, animate and inanimate. Historically this meant the cosmos and dream states (altered states). The following is an extract from *Totem and Taboo* by Sigmund Freud. This is what Freud writes about when discussing totems concerning transmigration and oneness with dream states;

> Another psychological theory of the origin of totemism has been advanced by a Dutchman, G. A. Wilken [1884, 997]. It connects totemism with the belief in the transmigration of souls. 'The animal in which the souls of the dead are thought by preference to be incarnate becomes a kinsman, an ancestor, and as such is revered.' It seems more likely, however, that the belief in transmigration was derived from totemism than vice versa. Yet, another theory of totemism is held by some eminent American ethnologists, Franz Boas, C. Hill-Tout, and others. It is based upon observations on North American Indian totemic clans and maintains that the totem was originally the guardian spirit of an ancestor, who acquired it in a dream and transmitted it to his descendants. We have already heard the difficulties that stand in the way of the view that totems are inherited from single individuals [cf. p. 129]; but apart from this, the Australian evidence lends no support to the theory that totems are derived from guardian spirits. (2004, p. 138).

The table below is a collection of synonyms and relative words associated with avatars and totems in the English language. In this chapter, we trace and discuss the steps of the newly evolved and digitised phoenix. From what the phoenix was as totem, to what it is now in its wired prime as an avatar. The legend of the totemic phoenix in this context begins in the late 19th century for this context. As a contemporary example, the golden thread lies in this reiterated fact that Zimbabwe reveres a bird as their symbol and totem in the 21st century. The Zimbabwean flag, banknotes and stamps have an eagle boldly depicted.

They carry the Zimbabwean story and identity using a similar narrative metaphor compared to the Egyptian Bennu bird (phoenix). *"Zimbabwe birds represent sacred or totemic animals of the Shona – the bateleur eagle (Shona: chapungu), which was held to be a messenger from Mwari (God) and the ancestors, or the fish eagle (hungwe) which it has been suggested was the original totem of the Shona.* (zim.gov.zw; 2021). In the digital world, the Zimbabwe totem bird would commonly be called an avatar if displayed and seen as a profile picture, for an example, on Whatsapp. I will refer to the rebirth of this digital avatarial phoenix next. However, my goal is to historically bridge the gap between Totemic identity narratives and the contemporary digital avatarial identity.

Our totemic phoenix gradually perishes after its prime in its historical dominance on spaces such as print. Moreover, it will evolve from its ashes into an updated digital avatarial self. It is reported that, "*When the ruins of Great Zimbabwe were excavated by treasure-hunters in*

the late nineteenth century, eight carvings of soapstone birds were unearthed. One bird was sent to Cecil Rhodes at his Groote Schuur home in Cape Town and, somewhat controversially, still remains there. This is the only bird not currently in Zimbabwe." (victoriafalls-guide.net; 2021). This shows that historically and even in the 21st Century totemism has played and still plays a pivotal role in preserving story value and identity.

On Semiotics and the Totemic Storytelling

Totemism in its intent and essence makes use of semiotics. These semiotics systems put value in a society's various points of interaction. Sean Hall elaborately and fittingly describes and defines semiotics in this way;

> Semiotics is mentioned regularly in newspaper articles, in magazines, and on radio and television. However, what is semiotics, and why is it important? Semiotics is defined as the theory of signs. The word "semiotics" comes from the Greek word *semeiotikos*, which means an interpreter of signs. Signing is vital to human existence because it underlies all forms of communication.
>
> Signs are amazingly diverse. They include gestures, facial expressions, speech disorders, slogans, graffiti, road signs, commercials, medical symptoms, marketing, music, body language, drawings, paintings, photography, poetry, design, architecture, film, landscape gardening, Morse code, clothes, food, heraldry, rituals, and primitive symbols - and these are just some of the many things that fall within the subject of semiotics (2012, p.5).

All these forms of visual communication are the diversity inherent within the sign systems. Hence, I cite totems as an anchor for visual codes concerning self-identity and interpreting narratives. Avatars are just but another extension of semiotic language. If we successfully fuse totems and avatars, we essentially make the digital avatar a potential 'moral digital and virtual interpreter of signs for user identity and communication'. The diversity of signs mentioned above as listed by Hall, for example, gestures, poetry, design, rituals, Etc. It accurately supports how totemic language is systematically a sample of early and historical semiotic language. Zondi Ngowani (2018), a teacher and instructor, substantiates some of these elements of 'sign' such as speech orders, slogans and design. We will shortly read about how Ngowani links such elements of signs highlighted by Hall with his definition of the Totem. The links are debatably inextricable.



Figure 12: Phoenix evolution and narrative (i) The soapstone bird of Great Zimbabwe - totemic animal - the Bateleur Eagle (ii) The Bateleur Eagle (iii) The 'Red Phoenix' aka Golden Pheasant - China (iv) Harry Potter And The Chamber of Secrets (2002), phoenix tears scene (v) Angry Birds's Red, avatar rendition and animated character

Avatar	Totem

abstract	emblem
embodier	ensign
embodiment	hallmark
epitome	impresa
externalisation	logo
genius	symbol
icon	trademark
image	attribute
incarnation	icon
incorporation	pictograph
instantiation	logogram
manifestation	logograph
objectification	badge
personification	coat of arms
personifier	crest
actualization	insignia
concretization	monogram
exemplification	colophon
personalization	stamp
substatiation	token
essence	
quintessence	
soul	
archetype	
exemplar	
model	
paradigm	
pattern	
reincarnation	

We touched base on the historical chronology of animism, animatism and naturism. These 'isms' laid a foundation for totemism and eventually for digital avatarism. In an article called *Ancient animistic beliefs live on in our intimacy with tech*, Stephen T Asma (2020) elaborates on atavism in technology and the end-user today. Asma from Columbia College Chicago is a professor of philosophy and author of various books about cognition and evolution. Asma in his article reports that,

> "The proliferation of devices is certainly amplifying our tendency for anthropomorphism, and many influential thinkers claim that this is a new and dangerous phenomenon, that we are entering into a dehumanising 'artificial intimacy' with gadgets, algorithms and interfaces.
> I respectfully disagree. What is happening now is not new, and it is more interesting than garden-variety alienation. We are returning to the oldest form of human cognition – the most ancient pre-scientific way of seeing the world: *animism.*
>
> The word 'animism' was first employed by the English anthropologist Edward Burnett Tylor (1832-1917) to describe the early 'primitive' stage of human religion – a stage that was eventually supplanted by what was later called Axial Age monotheism, which in turn would be

> supplanted, Tylor hoped, by what we would call Deism. Anthropologists today debate the usefulness of the term animism since folk religions are so diverse, but two essential features mark all animism: one, belief that there are 'agents' or even persons in natural objects and artifacts (and even geographic places); and two, belief that nature has purposes (teleology) woven throughout it. Animism commits to the view that there are many kinds of persons in the world, only some of whom are humans. (aeon.com, 2020)

These points made by Asma about tech culture and animism support what Graham et al (2016, p.58 – 59) has already pointed out earlier when revealing the moral circle. Although Asma is discussing ancient beliefs, tech and animism in the 21st century, and Graham et al are speaking of the moral circle concept and its model of developmental trajectory of expansion (in relation to the self-identity). Both are clearly convinced that natural objects and artifacts, both animate and inanimate, possess some life force and spirit. The notions of transcendence and disembodiment are demonstrated narratives that can be found in both tech culture (digital and virtual avatarial worlds) and historic totemic realms. Even though I mention two opposing fields of study within the Humanities and Science, namely Anthropology and Technology, there is a link between the two ideas. I argue that more in-depth and possibly quantitative research, as well as the fusion of avatars and totems, could positively impact social 'behaviour,' particularly online.

Totem behavioural design aiding avatar utility in society

Avatars are a relatively new inclusion in the many kinds of personality embodiments available in the world. Totems will go a step further in assisting the development of digital avatars in improving their design ideas that change behaviour and what the human spirit means online. This is where we see the historic primary efforts of totems attempting to introduce what is now known as behavioural design. Centripetal values and influences in animism and totems continue to pervade time, society, and space. Behavioural design is centripetal and totemic, which avatars require in the virtual and digital worlds. Let's look at how T. Dalton Combs and Ramsay A. Brown define behavioral design; they have been studying how to change human behavior for the past decade. "*Behavioural Design is a framework for intentionally and systematically changing human behavior through persuasive modifications of the physical and digital environment*. (2008, p.15)"

Borrowing from this definition, I further add that totems intentionally and systematically attempt to alter human behaviour through persuasive physical, mental and spiritual modifications. Emotionally they could even alter how humans emote to specific social, behavioural constructs. Now I argue that avatars do this intentional and systematic changing of human behaviour through persuasive modifications, but with an extension of the digital and the virtual environment. We have noticed this in the case of emoticons. An emoticon can be used in a written narrative context i.e. language as text and even as avatars (as a profile pic and a means of typing to communicate a message). Emoticons as written language or avatars have an ever-growing visual index (see the diagram below) that may be used to communicate and emote various feelings and viewpoints. Digital natives can communicate solely using these contemporary pictograms called emoji(s).



Selected Whatsapp Emoticons / Emoji collection

Lisa Nakamura observes the following about text as visuals.

> Instant Messenger is primarily a textual form in which most of the space and interactivity associated with it consists of typed words, but it also possesses important visual aspects, like emoticons, blinkies, avatars, and buddy icons. These images are often animations rather than scanned photographs, often extremely small, and usually depict set pieces rather than "live" or continuously changing images, and are certainly subsumed to the textual (2000, p.40)

This subsuming to the textual is what I make reference o when I write of emoticons being used in a written narrative context. Additionally and equally so, totemism still carries utility values which promote biodiversity and homogeneity of nature and humans. Both animism and totemism share traits of Ubuntu, self-identity and storytelling. Even though Brown and Combs do not mention avatars and totems, as the authors are more 'brand', Product and App focused, they do, however discuss incentives linked with community-based value, identity and narratives. They highlight a method that promotes this link calling it *Soft Incentives*.

> **Soft Incentives** describes how your App may use the future promise of emotional or community-based value to encourage a single, challenging, one-off behaviour today. Soft Incentives largely rely on our *desire for personal accomplishment, congruence with our narratives of identity*, or the approval of our friends (*Also explored in more detail in Chapter 3's section on Rewards of the Self and Rewards of the Tribe*.) – (2018, p.23) (Emphasis by italics mine).

Totems too have the ability to provide incentives to the user, such as self-esteem, gratitude, praise, and reinforcement of one's own power or even beauty. For example, if one's totem is a lion, that totem reminds the totem bearer of the values they share with the lion's raw and innate dominance in moments of self-doubt. My interest in totemic rhetoric, ethics, utility, and values leads me to ask whether digital and virtual avatars provide such benefits to the end user in our contemporary and highly digitized world. Beyond incentives, the golden thread in this regard is the totemic narrative and identity values connected to society's feedback and approval.

The next expansion of *behavioural design* definition is interestingly related to what totems possess i.e. totemic design characteristics. Combs and Brown expand on the definition by including the following behavioural design traits: Framework (a), Intention (b), System (c), Change (d), Persuasion (e), and Environment (f). Finally, because of distinct and undeniable shared features, I am compelled to share all of these lengthy 'foundational' characteristics as explained by the authors with my reader.

> It is a Framework.
> Behavioural Design is a framework: a set of ideas that describe and predict how and why people behave the way they do. It is also a set of practices for changing those behaviours. When you and your team observe how people use your Product or App, Behavioural Design can offer explanations and models that explain WHY people are behaving that way. It can also predict what they might do next, or how they might respond to certain types of interventions you make.
>
> It is intentional.
> Behavioural Design is about designing how people behave. Like any other type of Design framework, it is a set of tools that you and your team use deliberately to achieve specific behavioural results. To this end, it is a useful design and thinking tool when you have specific behavioural outcomes you are interested in helping people achieve.
>
> It is systematic.
> The ideas and methods that make up Behavioural Design were not randomly chosen, they are rooted in observations and experiments from psychology, neuroscience, and behavioural economics. There are empirically backed explanations of why people do what they do, and why interventions you and your team will make will lead to certain predictable behaviour changes.
>
> It is about change.
> Behavioural Design is, at its core, about behaviour change. It contains ideas and tools for changing small behaviours and large behaviours. Behaviours that you want people to start doing and stop doing. Behaviours that might only happen once or behaviours that happen often. For each vector of behaviour change, Behavioural Design offers tools you can use for helping people achieve that kind of change.
>
> It is about persuasion.
> Behavioural Design uses insights about how the brain operates as strategies for persuading people to change their behaviours. It is **not** about coercion. It is **not** about forcing people to change. Rather, when used properly, Behavioural Design gives your Product a toolbox of design patterns that are paths of least resistance. Techniques you can use to increase the chance that someone changes their behaviour without forcing them to, or violating their autonomy or dignity.
>
> It is about the “environment.”
> Behavioral Design changes how people behave by changing their environment. When we say the word “environment” here, we use it as behavioural scientists use it: to mean the immediate reality in which someone is performing a behaviour. In the example of someone using your smartphone app, the environment is your app’s user interface. Behavioural Design proposes tools for strategically modifying how these environments look and feel; how they

cue our behaviours, and how they respond to our behaviour. We do **not** have direct control over people's brains. (2018, p.16)

Now, I take this opportunity to marry Combs and Browns ideologies with 'totemic design' to indicate these stark links with behavioural design. I replace the terms Behavioural Design with totemic design and apply the quoted explanations as they are, verbatim.

- Totemic Design is a framework: a set of ideas that describe and predict how and why people behave the way they do. It is also a set of practices for changing those behaviours.
- Totemic Design is about designing how people behave.
- The ideas and methods that make up Totemic Design are rooted in observations and experiments.
- Totemic Design is, at its core, about behaviour change.
- Totemic Design uses insights about how the human operates as strategies for influencing people to change their behaviours. It is **not** about coercion. It is **not** about forcing people to change.
- Totemic Design changes how people behave by changing their environment.

These behavioural and totemic design characteristics share the value of a social organisation. This social organisation design pattern may be applied globally in nations, communities, organisations, or brands. In addition, only some of these are limited to actual-physical interactive environments. They also include digital and virtual interactive environments. They apply to almost all areas of people's activity. The following is extrapolated from Emile Durkheim's (1995, p.85) findings on totems and their role in society.

"*The word "totem" appeared in the ethnographic literature only at the end of the eighteenth century…, the Americanists had long since noticed that totemism was linked with a definite social organisation, one based on the division of society into clans*." This division into clans is what today we might refer to as an organogram or an organisational chart. "*An organisational chart is a diagram that visually conveys a company's internal structure by detailing the roles, responsibilities, and relationships between individuals within an entity. Organisational charts are alternatively referred to as "org charts" or "organisation charts*."[38] Totemic division of society into clans was not based on constructing a separation of these clans for reasons of power dynamics, gender inequality, and classism or race biases. With this in mind, totems seek to put the user first by establishing systems of behavioural conduct, behavioural roles, behavioural responsibility and behavioural relationships between humans within a society (nature, animals and plants). These totemic systems adhere to everyday living to promote quality framework-design-constructs for self-identity, nation (community) and brand narratives.

Totems and Avatars as organograms

[38] www.investopedia.com

Still speaking on the totem's foundations and how they historically and systematically guide the user; furthermore discussing the diversity of totem representation, Durkheim expands more broadly on how totemic systems function in following incarnations;

Totems as name and emblem:

> The totem is, primarily, a name and, as we will see, an emblem (1995, p. 108). …The Churinga, the Nurtunja, and the Waninga owe their religious nature solely to the fact that they bear the totemic emblem. What is sacred is the emblem. It retains this sacredness whatever the object on which it is represented. It is sometimes painted on rocks - these paintings being called ***churinga ilkinia,*** sacred designs. (1995, p. 125).

Totems as animal, plant and man:

> Each member of the clan is invested with a sacredness that is not significantly less than the sacredness we just recognised in the animal. The reason for this personal sacredness is that the man believes he is both a man in the usual sense of the word and an animal or plant of the totemic species (1995, p. 133).

Totems as cosmology systems:

> We have already distinguished three categories of things that it recognises as sacred in varying degrees; the totemic emblem, the plant or animal whose appearance that emblem imitates, and the members of the clan. However, this list is not yet complete. … If totemism is to be open to consideration as a religion comparable to others, it too must offer a conception of the universe. It meets this criterion. (1995, p. 141).



Coat of Arms / Great Seal: Atavism of The Totemic (Phoenix) identity, design and narrative still lives on among us. (a) Namibia (b) South Africa (c) South Sudan (d) United States of America (e) Great Zimbabwe

Citing from Durkheim's account, totems are still covertly observed and used worldwide. Durkheim's highlight of representations of totemism are still seen in the 21st century - see the Coat of Arms emblems above which represent contemporary national totemic and avatarial identities. This shows how behavioral design methods through totems and avatars still covertly permeate our lives today in contemporary society.

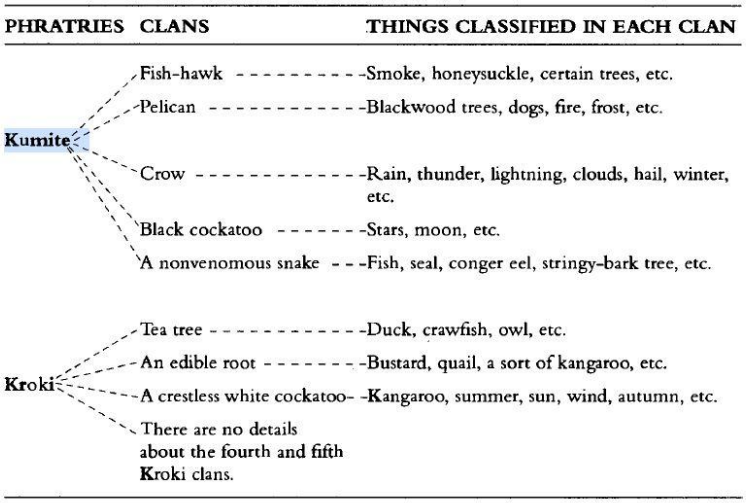
In many African countries, natives share similar customs, traditions and similar resonances of consonants in linguistics. For instance, in totemic praise poetry and primary language the Khoi-San, Hottentot, Xhosa and Zulu nations of Southern Africa share similar clicking words and sounds in their respective languages. In addition, and broadly speaking, African nations practice related rituals through totems. In addition, broadly speaking African nations practice related rituals through totems. The *Learning Factory* in Zimbabwe, an educational technology and instructional design platform introduces us to Ngowani, whom I mentioned earlier indirectly substantiating Hall's statements about signs. Some of Ngowani's

explanations resonate with that of Durkheim's views. Ngowani is a teacher and instructor at Learning Factory through the *Educational Documentary Services;* he describes a totem as follows;

> Totems are a form of identity. They identify a family; therefore, it distinguishes a family within a community. It links a family to the entire clan of the same totem. They also define a clan.
> For a group of people to be referred to as a clan there must be an underlying principle and normally that underlying principle is the totem. Totems normally in Zimbabwe can be classified into two broader groups, we have totems that have something to do with animals or that are linked to animals. Moreover, we have totems that are linked to body parts, for example, people of The Hungwe; the fish-eagle. They respect the fish-eagle because they are linked to the fish-eagle. We also have the Shumba or the lion [etc.]. (Youtube, 2018)

Durkheim also backs up Ngowani's definition and explanation, he makes use of a data collection chart constructed from information gathered by D. S. Stewart. Durkheim (2005, p. 142) reports the following;

> I have reproduced a certain number of these classification systems elsewhere; here I will repeat only some of those examples. One of the best known is the system that has been studied in the Mount Gambier tribe. This tribe has two phratries, one called Kumite and the other Kroki, each divided into five clans. Now, "Everything in nature belongs to one or the other of those ten clans." Fison and Howitt say that all those things are "included" in one.



PHRATRIES	CLANS	THINGS CLASSIFIED IN EACH CLAN
Kumite	Fish-hawk	Smoke, honeysuckle, certain trees, etc.
	Pelican	Blackwood trees, dogs, fire, frost, etc.
	Crow	Rain, thunder, lightning, clouds, hail, winter, etc.
	Black cockatoo	Stars, moon, etc.
	A nonvenomous snake	Fish, seal, conger eel, stringy-bark tree, etc.
Kroki	Tea tree	Duck, crawfish, owl, etc.
	An edible root	Bustard, quail, a sort of kangaroo, etc.
	A crestless white cockatoo	Kangaroo, summer, sun, wind, autumn, etc.
	There are no details about the fourth and fifth Kroki clans.	

The above chart shows how the bird as a totem has been used historically. This includes plants and inanimate forces. Ngowani continues on totems, now taking into account aspects of totemic identities in the marriage too. One may wonder what digital avatars have to do with marriages. During the Covid-19 pandemic, virtual marriages/weddings were legalised in some states in 2020. Avatars and videos of course played a part to fascilitate these ceremonies, an example may be seen in how meetings are now held in platforms such as **MicrosoftTeams**.

DID YOU KNOW?

New York, Colorado and Ohio were the first states to lead the charge in the changing landscape of weddings and more states have followed suit! Not only are some states recognising virtual ceremonies, but they are also allowing residents to apply for marriage licenses online, something that typically must be done in-person.

California
Thanks to an executive order issued by California Governor Gavin Newsom on April 30, 2020, California residents are now able to obtain marriage licenses virtual, rather than in-person. "NEW: CA will now allow adults to obtain marriage licenses via video-conferencing for the next 60 days," Newsom tweeted.

(Source: brides.com)

Totems could conserve marriage values and family relations too. There is a possibility of NFT's and avatars or NFT's as avatars to promote a similar value system to make lasting and formidable relations online.

Ngowani states the following;

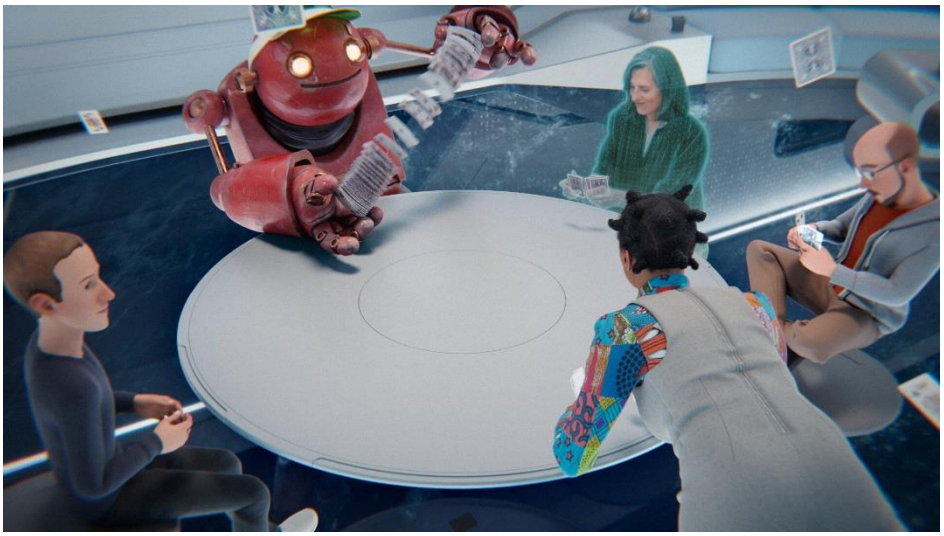
> The people linked to these totems have respect for these particular animals that they have linked. In so doing they assist in conservation of nature, it is a natural way of conserving our nature.

Ngowani notes the conservation of nature. This aspect illustrates the totemic value of embracing the importance of biodiversity as mentioned earlier. When we look into virtual avatarial embodiment, it is worth noting that there is evidence of acknowledging biodiversity in the digital and virtual world. Although, it is mainly embraced aesthetically, it usually lacks intrinsic value. An end-user in the virtual and digital space may represent themselves as extinct animals. This might present educational values for a society's historical narrative and future preservation and conservation of values where applicable. Hypothetically, in the virtual environment an end-user may choose to commemorate and embody their extinct totem, perhaps a Dodo. In the digital and virtual worlds, an end-user may reincarnate as extinct plants or animals.

The concept of the museum as we know it in the actual physical space changes behavioural design in the virtual. Augmented Reality may alter the space and advance ways of commemorating, conserving and preserving concerning ideas of memorabilia and even museum artifact interaction, immersion and experience. The digital space may capture more attention for the user, but the virtual environment provides full immersive experiences. An end-user may become an embodiment of a Tyrannosaurus Rex-avatar instead of just interacting with it. This is where we see avatars advancing totems sensationally and phenomenally. Moreover, an end-user may alternatively choose to embody a robot. Anatomy now becomes relooked, and every aspect of the human body becomes inclusive within the framework of creating new narratives.



(Left and Middle) Stop Motion Animation Created by Isabell Mills and Shanii Novak, in the digital space Dodos have a quiff as a hairstyle, they have a name and are very much alive. The character Bill may be an end-user's avatar. (Right) Scene from Jurassic World film, dinosaurs are not extinct in the world of multimedia.



Meta's (aka Facebook) rendition and vision of virtual embodiments – Mark Zuckerberg's Keynote (2021)

Visual identity customisation might seem irrelevant when discussing about avatars. However, totems highlighted the importance of treating everything connecting to self (i.e. the body, limbs, organs Etc.) and the cosmos as pivotal and valuable to existence and living. The body as a holistic entity is a notion and metaphor of a community of all body parts forming oneness.

For example Ngowani continues;

> We also have totems that are linked to body parts, for example, gumbo [leg]. All these totems make up the Zimbabwean community. We may have diversity of these totems but they build up a common Zimbabwean culture. Each totem has its variation [male and female associations]. Naturally, this then gives us a distinction between these two categories. [These Totems] they are important in traditional ceremonies. You cannot conduct traditional ceremonies without going through the system of totems. I will give you an example of the burial ceremony, for an individual to be buried there is need for the people who are linked to his or her totem to preside over the burial ceremony of that particular individual. … You cannot consult the spirits of a particular area without going through the totems of the people who are predominantly within that particular area. Therefore, their totem is of paramount importance.

It is pivotal to extract from this explanation and note that historically the systematic diversity of totems never intended to create division. Instead, it promoted the value of a holistic totemic identity made up of unique totem components. These unique components - in the contemporary digital space - are avatars. Individual totemic identities converge to create a collective identity - a community integrating and networking in unison - that indorses reciprocity of values and respect for other individual identities in a shared space. This is the recurring theme about totems, the validation and elevation of the spirit of Ubuntu.

An example of a need for a fortified avatarial utility and value is seen on 'online social movements'. For example, the **Black Lives Matter** movement founded by Patrisse Khan-Cullors, Alicia Garza, and Opal Tometi in 2013. On social media, the world saw digital avatars, both from individual online users and brands coming together and putting up black profile pictures as avatars. This was symbolic of standing up against police brutality and racism. Avatars globally represented one cause, an online version of the spirit of Ubuntu. "The term *online social movements* refers to the adoption and use by social movements and community activists of new information and communication technologies (ICTs), such as the Internet and the World Wide Web" (Noriko Hara & Bi-Yun Huang, 2011 p.2).

Ngowani elaborates at length on other aspects of totem foundations, utility and value;

> The second aspect of the importance of totems is that they give an identity. A family identity, a clan identity or a community identity; it can be derived from the totems of the people who are in that community. For a family to have a clearly defined identity and geneology there is a need for it to have or to be associated with a particular totem. For example, we can even talk about the geographical locations of people in Zimbabwe. If we were talking about the Gombo people, we would find that these people are more concentrated in parts of midlands. This then defines the geographical location of a people...

Geographically NFTs as avatars are still predominantly a western concentrated phenomena. Constraints may be the limited understanding of Blockchain before we even begin with the artistic creation of NFTs in an African context. Because of Blockchain and less of excessive data in some third world regions, access constraints affect excess utility and relevant storytelling means.

> … Third aspect is for marriage purposes. It is a taboo for people of the same totem to marry each other. Therefore, totems are also used for purposes of marriage. They are also used in aspects to do with traditional heirship. Inheritance in the traditional customs are linked to totems, we are talking about a son inheriting the chieftainship of his father. Another interesting aspect is on issues to do with land allocation, as well as … settlement. We realise that in a traditional setup, rural Zimbabwean setup, land allocation is defined by the people's totem. People are allocated land in a particular area because they are of the same totem. Totems can be used for praising.

Durkheim affirms the above statement brought forward by Ngowani by stating that, "Since in this case the mother must be of a different totem from her husband, given the rule of exogamy, and yet lives at her husband's place of origin, the members of a single totem are of necessity dispersed among different places, depending on marriages. (2005, p.104)" Ngowani further notes that;

> Moreover, the last aspect that is also important is that of conservation. Totems are key for the conservation of nature. This is the reason why some of these totems are linked to our natural resources. They are linked to some of the animals that we have. You would realise that people who are linked to particular animals they do not kill such animals. That in itself will also conserve nature, and ensure that there is perpetuity to our natural environment.

Ngowani again lays a robust and solid basis on totemic influences on accountability and responsibility for preserving nature. Furthermore, this is also in terms of the user's environment and ideas of cooperation with animate and inanimate spirits. Let us take for example the "Save the Rhino" campaign or movement. This is everyone's totemic responsibility to stop the possible extinction of the Rhinoceros. This means that the extension of meaning-making concerning identity means that Rhino poaching and killing that animal is hurting the clans associated with the Rhino. Homo Narrans of the Rhino totem are responsible for making their voices heard in the name of defending the Rhinoceros. I urge the reader to consider conservation in light of friendships and family structures. For example, Facebook has helped to reunite families and lost friends in the physical world.



Brand – Logo – Totem – Avatar

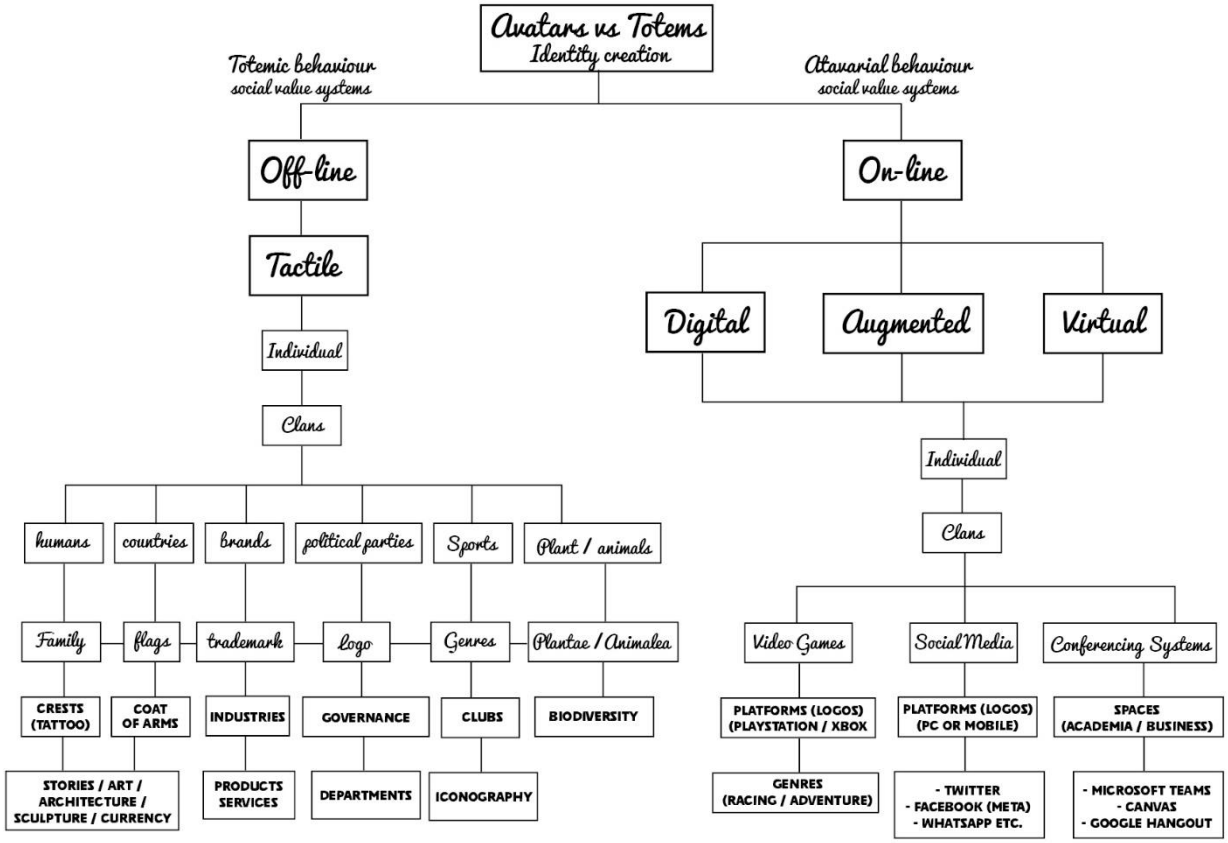
On the other hand, Molefi Kete Asante (2009: p. 667) elaborates on the totem in the following manner;

> Although the term totem originates in the language of the Ojibwa ethnic group of Native Americans, because there is a similar response to the environment and descent narratives among Africans and other people, the word totem has been applied to the same cultural practice in other cultures. The Ojibwa use the word odoodem, “his totem,” to refer to a belief associated with the apical ancestors. It is from this usage that we get the meaning that the totem is usually an animal that represents spiritually a group of connected and related people.

I argue and reiterate that in the 21st century totems are now applied as avatars in pop-cultural practice. This is also getting popularized in music videos (See: Eminem and Snoop Dogg with NFT avatarial embodiments, official music video *From The D 2 The LBC,* screenshot below). This extends to other contemporary cults such as online campaigns and movements that promote human rights, freedom of speech equality, Etc. All of these movements are represented by wired identities that we call avatars.



Eminem and Snoop Dogg's NFT Avatarial representations (Purchased from the Bored Ape Yacht Club)



Schematic representation: Avatarial and Totemic social identity systems then and now (offline and online).

Mr. Ivan Munhamu Murambiwa (2020) was the director of the National Archives of Zimbabwe. He explains at length about *Mitupo* (as referred to earlier, the Shona word in Zimbabwe for *Totem*) and family clan totems in selected cultures. His elaboration and definitions of how totems exist and are utilised corroborates Asante and Ngowani's definitions. Murambiwa in an interview with Antonella Bargione an artist, explains totems to be;

> Mitupo is a collection of identity symbols, these identity symbols could be in a form of animals or other natural objects that a group of people rally their identity around and offer respect, for an example you do not eat your Mitupo, [and] you do praises to that which is your Mitupo. Moreover, you build your own family lineage identities around that selected Mitupo. Moreover, you even take that Mitupo with you into the next world, into the spiritual world you still have your Mitupo as a spirit. (Learning Factory, 2018)

Durkheim points out the same sentiment and law that Murambiwa talks about regarding one's totem. He substantiates this fact in this regard;

> …in certain Queensland tribes, each marriage class is subject to dietary restrictions peculiar to it. The individuals who comprise it must abstain from the flesh of certain animals that the other classes may freely eat. (2005, p.108).

Murambiwa likewise includes identity and symbols as the make-up of totems. He explains further about how the Mitupo,

> …confers pride and identity when you are an individual. It [the Mitupo] documents history…, …praise poetry around Mitupo, it is mentioning issues around the good things, your major accomplishments, your origins I think you all find them infused in that praise poetry. (Consciousness Rising, 2020)

I have indicated how totems and avatars can be interpreted in various forms (Refer to the above schematic representation). An example on praise poetry mentioned by Murambiwa validates the mnemonic elements evident in totems (and avatars). It is often easier to recall memory through song or entertainment. In his discussion, Murambiwa adds totemic animals observed in the Shona tradition;

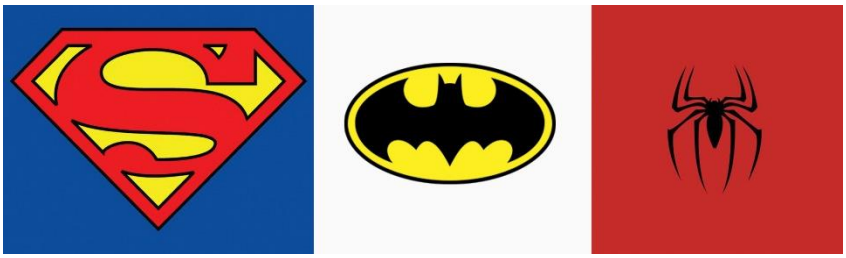
> You have got your elephant, Nzou, Nzou Samanyanga, ("that was Oliver Mtukudzi"[39]), then you have got your Shumba. Then you have got Moyo, which is also a very popular one, which is the heart. Moreover, in many instances it is associated with the heart of a cow. You have got the Hungwe, the bird, associated with the Zimbabwean bird. You have got the crocodile …wild pigs, leopard. … When you look at the basic structure of Mitupo there is actually a biological link that establishes amongst a community of people. In addition, a social link. When I look at the biological, the Mitupo system the way I understand it … in Zimbabwe …it establishes patrilineal descent. Descent according to the father's line, the male line. We share the same genes in the distant past, so you are part of my family. (Consciousness Rising, 2020)



*René Lacoste French tennis player was founder of clothing brand name **Lacoste**. Logo, Totem and/or Avatar? Nickname given by fans: "the Crocodile". In totemic terms, this is his contemporary praise poetry.*

[39] Murambiwa and Bargione mention Mtukudzi as belonging to the Nzou Samanyanga when talking about the elephant totem. He was a famous Zimbabwean musician, a businessman, philanthropist and human rights activist. He was also a UNICEF Goodwill Ambassador for Southern Africa Region.

Murambiwa gives caution on the behaviour of totems in contemporary social behaviour. I associate this with the visual and narrative symbols, such as masks, discussed earlier. A mask may be a metaphor for disguise. It may be used to mislead by means of embodying and assuming a pseudo-identity. Superhero movies and Spy movies are examples of narratives that create protagonist-and-antagonist 'totems' and 'avatars' as hidden or false identities. For example, Superman disguises himself as Clark Kent; Peter Parker wears a Spiderman costume to prevent people from seeing his real identity, while Bruce Wayne embodies the identity of Batman. All three heroes have avatars that represent their heroic embodiments. These can be associated with avatarial behaviour.



Digital Natives know who these 'avatars' represent without a need for writing or spelling them out

While this may be fun and something one can easily play around with in the digital and virtual world of avatar identities. In the world of totems, changing one's totemic identity can lead to problems in the family identity lineage. This may cause a loss of identity over generations. Murambiwa emphatically emphasizes this as follows;

> Then socially …you get people who adopt mitupo. Unfortunately, with time it tends to be obliterated, I mean that memory. Therefore, if we are staying in an area ruled by the *Hungwe* people, and someone from another region they decide that maybe they are no longer comfortable… under the *Museyamwa* people and they are *Museyamwa*. They move to the *Hungwe* people area. They can misrepresent themselves if they find that there are advantages in being Hungwe. In addition, in order to make sure that they are not traceable back to where they came from. Therefore, you find people get to understand the praise poetry around the Maputo. …then with time that misrepresentation is forgotten because even their children may not even know, they will never know, they are born into this new identity. However, if we were to follow the biological linkage they are actually not of that gene but with time, they become part of that gene. Then you also have other strangers maybe they came as potters from another country, they integrate into this society and they become accepted as children of that society. That becomes their mitupo. (Consciousness rising, 2020)

Although this potential loss of identity is distinctly about totems. It corroborates what Casserly (writer from Forbes) alluded to earlier when she warned about 'online personality jugglers, and telling them to be aware of the potential social toll of spreading themselves just a little too thin'. Murambiwa proceeds to add that;

> Mitupo largely is genetic traces. You cannot inter-marry within the same mitupo because that amounts to a form of incest, interbreeding. However, we also know that within your mitupo they may be actual biological strangers. It then comes to the issue of adoption because one of the *Moyo*'s [a totem name] we have is the *Moyo-Sinyoro*. The original Moyo Sinyoros, there

> are two schools of thought; one says it is a Portuguese trader. When he settled in the country, he opted for the Moyo totem in order to integrate because Moyo was the major *Moyondizvo*. However, to distinguish himself from the Moyondizvo who were the main rulers in the greater parts of the country that time. He then gave himself what we call … the distinguishing mark within the Moyo. To say I am Moyo-Sinyoro which is Moyo *senhor*[40] from the Portuguese (Portuguese trader in the 16th century). (Consciousness Rising, 2020) - (emphasis mine).

We gradually observe a pattern of verified truths by definition and an explanation of totem practices. Bearing in mind that this chapter builds on the historical chronology of totems and laying its foundations for the reader. The mnemonic totem element was reinforced repeatedly when Murambiwa mentioned praise poetry.

Avatars and Totems: Under one syntax and code

I chose to include this bit and build up on it because today avatars in the multimedia space share the same or similar traits witnessed in totems. Digital avatars find themselves in an enhanced form of autonomy concerning end-user identity design and representation.

I declare that I do not claim or argue that avatars and totems are exclusively distinct. There are very similar codes and traits they share. However, to introduce the idea of the link of "the self" adhered to totem ideology and practice and the urging of digital user protection with regard to web and social wellbeing, I maintain that if the end-user has a full understanding of "the self" concept (i.e. I am totem before avatar), web interactivity and identity design will breed better value in notions of knowledge of self in the vast and fast-growing digital world of avatars. The unpacking of both totem and avatar into two distinct groups helps to demonstrate my points to illustrate the intrinsic and the extrinsic values available in the two.

Totemic-avatars in film as forms of identity and representation.



Figure 13: Avatarial and Totemic storytelling - Selected Houses from the series Game of Thrones

[40] a Portuguese term of address for a man

Totemic-avatars as national flags and identity representation for a community/society/country



Figure 14: Avatarial and Totemic storytelling – Examples of selected overt Totemic National Flags

Totemic-avatars as academic institution identity representations



Figure 15: Avatarial and Totemic storytelling – Selected University avatars

Totemic-avatars as sports teams' identity representation and storytelling

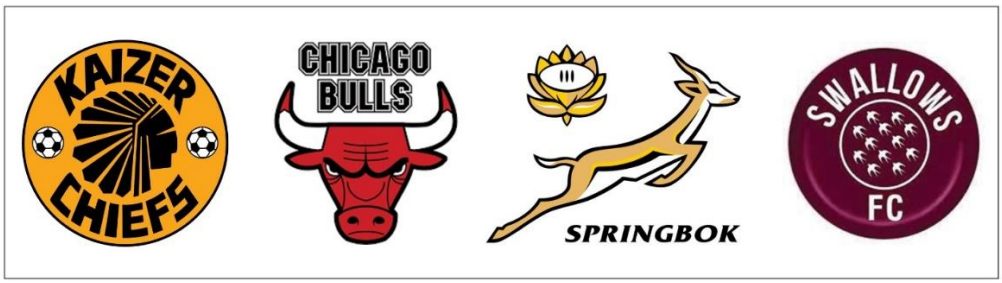


Figure 16: Totemic-avatars within the sports industry

The more things change the more they stay the same *(Plus ça change, plus c'est la même chose)* a saying popularised by Jean-Baptiste Alphonse Karr. To a certain extent, this is essentially what I partially mean about *atavism* in the digital avatar. The end-user in the virtual and digital space is gradually shapeshifting through the fusion of avatars and technology with several consequences[41] worth exploring. Moreover, most of these shifts are a direct reflection of totemic practice.

[41] Biological embodiment, digital self, cybernetic representations (cyborgs)

Avatars ‘R Us: Avatarhood in our society

I have explored totemic end-user identity designs as newly morphed representations of what we now call digital avatars. Consequently, digital avatars may create aesthetic hollow-shell identities and covert avatar-sentinels. By this, I mean online avatar identities that lack moral and ethical grounding. It is easy to conceive and perceive digital avatars as mere profile pictures or mugshots. Nevertheless, I debate that digital and virtual avatars are an expression of feelings and the state of mind or state of consciousness. They convey interests and affiliations to particular activities, movements, groups, hobbies, or trends. Avatars also have the potential to immortalise and diversify the end-users' identity and abilities, especially in the virtual environment. As a result, most end-user online avatar identities have amazingly creative and aesthetic visual qualities. Yet, they lack value in storytelling—hence I term them hollow shells—while other end-user identities—few- if I may add—complement narrative and storytelling value positively in their versatile online representations. This lack of value-added narrative might harm the Gen-Z digital natives and be even more dangerous for Gen-X. This is because digital natives navigate the wired web world more efficiently than people (users) born between the 1960s and 1980s.



Bored Ape Yacht Club (BAYC) by Yuga Labs

Another example of these digital avatars that form a community is Bored Ape Yacht Club. 'BAYC is a collections of ten thousand Bored Ape Non-Fungible Tokens—unique digital collectibles living on the Ethereum blockchain.' (boredapeyachtclub.com, 2021). This could be debatably seen as the next 'generation' or avatar rival of *Cryptopunks* that I referred to earlier in the paper, which are also kept on the Ethereum blockchain. The most critical link between these particular ape-avatar representations with totems is the shift towards animal referencing. While *Cryptopunks* referenced human beings, we now see a shift to animals. In this instance apes. Of course, this is not new because in the film industry, it has become ubiquitous to see animation powerhouses creating worlds of talking animals. These animals could be fish, bears, birds, lions, etc. In animation movies, these animals embody human beings on a digital platform. The animals assume various characters and carry human stories about romance, office politics, sports, war, teenage-hood, etc. I am not claiming that this collection of ape NFTs is of an atavistic method, but we start seeing fragments of fable

storytelling relived on the digital platform as avatars. I have reserved a brief chapter that discusses and infuses fables as totemic and avatarial storytelling. This is yet another extension of identity meaning-making through animals. Moreover, an example of extended avatarism and storytelling concepts of embodiment(s) through animal traits.

Still speaking of ape totems and avatars, Lesotho has rich historical examples. Eugène Casalis was an advisor and a friend of King Moshoeshoe I of the Basotho people of Lesotho. A French Protestant missionary who arrived in the land of the Basotho in 1833, recorded valuable information about the people of Lesotho in the early 19th century during his stay in Southern Africa. Some of the information he shares in his book *The Basutos* is nationality and governance. Even though Casalis does not mention the word 'totem', he gives an account of totemism. I cite Casalis because he mentions the monkey/ape totem. Even in the land of the Basotho people, there is evidence of the BAYC-like community or clan (except they are not called BAYC, they do not have metal skins, and did not wear party hats and did not occupy the blockchain system) called the Batšoeneng. Casalis echoes these totem communities—*that I assert are synonymous to digital and virtual avatars in the 21st century* — but shows how the community aspect was essential to nationhood more than just the artistic appeal.

> Whilst communities united under one government generally, bear the name of the chief who rules over them, or of the countries they inhabit, each tribe derives its name from some animal or vegetable. All the Bechuanas are subdivided into *Bakuenas*, men of the crocodile; *Batlapis*, those of the fish; *Bachuenengs*, those of the monkey; Banares, those of the buffalo; Batlous, those of the elephant; Bataungs, those of the lion; Banukus, those of the porcupine; Bamoraras, those of the wild vine, etc. etc. The Bakuenas call the crocodile their father; they celebrate it in their festivals, they swear by it, and make an incision resembling the mouth of this animal in the ears of their cattle, by which they distinguish them from others. The head of the family, which ranks first in the tribe, receives the title *Great Man of the Crocodile*. No one dares eat the flesh or clothe himself with the skin of the animal, the name of which he bears. If this animal is hurtful, as the lion for instance, it cannot be killed without great apologies being made to it, and its pardon being asked. Purification is necessary after the commission of such sacrilege. (2007, p. 211)

These relations and divisions of tribes carry unique tales and aesthetic appeal. They also encourage seeing beauty in differences and having empathy for one another. When end-users are in a state of digital and virtual avatar embodiment, are they adept at being self-conscious or often just incapable of empathy. In other words, is avatarial embodiment and representations online prone to acts of sacrilege towards other users? Are digital and virtual avatars rooted in innate value for the other, and is courtesy in a digital and virtual environment a social norm or not? In other words, are there sufficient moral means of teaching this aspect and regulating ethical behaviour? In the digital and virtual environment, most end-users assume an escapist and hobbyist interactive embodiment; this often results in the latter rather than the former. As a result, avatarial end-users often lack empathy in their online interactions. Thus creating a digital and virtual avatar identity is limited to visual feature design, the aesthetic value. The design for avatarial moral attributes is not involved or included. After designing the avatar by the end-user, the next step that follows is play and subsequently the development or unravelling of a set narrative (often in game worlds). As I previously stated with Huizinga's support, I prefer to use the term "play" to refer to

both actual physical world experiences and living experiences in digital and virtual worlds. I reiterate that avatars carry a lot of common traits with totems, which is the gist that will enhance moral regulations online, especially in an African context of social *play*.

Much like Huizinga mentioned previously about Homo Ludens (Man the Player), Rune Klevjer (2006, p.18) gives an articulate report about what *play* means and this is the context I want to use as my reference of *play's* interpretation and duality;

> With games as well as for simulations, their significance in relation to their contexts is premised on the fact that they possess a basic autonomy. This autonomy, according to Johan Huizinga (1955[1950]), is no less than the historical and aesthetic essence of *all* kinds of competitive play; all artificially staged contests. The key quality of play is irreducible, Huizinga argues; its meaning cannot be attributed to any purpose outside play. Play is meaningful in itself. Autonomy and non-instrumentality is at the heart of the 'play function' in culture, a principle that can be traced in all human activity through history. The essence of play, states Huizinga, with reference to the religious and ritualistic practices of pre-modern cultures, is the encapsulation of imagination and conflict within a *magic circle*. The magic circle signifies a separate realm of internally defined meaning, a 'world' of objective and shared truths within which the participants make serious intellectual effort and emotional investment. This is the familiar paradox of games – they mean nothing (because a game is just a game), yet seen from the inside of the magic circle they mean everything. (2006, p.18)

Huizinga (1992, p.5) further solidifies the importance of play when he expresses, "*we find no reason to abandon the notion of play as a distinct and highly important factor in the world's life and doings*." When one assumes their totem/avatar the magic circle notion is at play and in action. The deeds associated with the chosen totem/avatar bear significant meaning outside the magic circle. It affirms ones' character. Therefore, play should not be limited to a concept confined to children's deeds; adulthood is not excluded in this notion of play interactivity and the *magic circle*. For end-users that participate in a 'serious' investment of emotions and intellect during playtime, I argue that regulated morality and ethical protection is essential for every user before play can commence. To substantiate for this possibility in avatars I still maintain that totemic knowledge can help improve behavioral avatarial design and play. Nevertheless, because this paper intends to take a different pedagogical direction, I will not go in-depth in assessing and proposing new ways of avatarial engagement; however I will highlight the current interactive methods and steps utilised. Even though Maria do Céu Ribeiro (*Analog and Digital Games as a Pedagogical Tool in the Teacher Training Context* 2019, p.2) focuses on play in relation to children and learning, my context of *play* is also clarified further through her interpretation of 'play'; (in my instance this is inclusive of adult/grown-up play)

> Through play activities, the child develops psychologically, culturally, socially, mentally, and physically; that is, play provides an integral development of the human being. (2019, p.2)

The digital and virtual space typically offers a two or three-step process for avatar (identity) design as a prerequisite to the play world. This may be on (a) social media platforms, (b) gameplay environments (or videogames) and (c) e-commerce app environments. Usually self-evaluation, moral codes and ethical traits are disregarded in connection to identity characteristics design, hence avatars' centrifugal and narcissistic nature. I argue that totemic

embodiment, on the other hand, is centripetal in its identity design and embodiment because totems extend to giving affordance with regard to designing and stating one's *moral agency*. In other words, moral characteristics, sometimes referred to as a self-concept design, are evident and available in totemic identity creation before play can be initiated.

The following is a diagrammatic rendition of typical prerequisite steps in creating an avatar versus totem embodiment and representation.

Typical **avatar** identity design steps before play:
In social media - *Examples: Facebook | Twitter | Linkedin | Instagram*

End-user Sign-up step (Terms & Conditions)	Create profile: Examples - name, age, email, phone number, etc.	Choose, upload or design avatar profile picture	= Proceed to *Play: Gameworld (magic circle)*

Typical **avatar** identity design steps before play:
In videogames – *Examples: First-Person Shooter | Action-Adventure Games | Soccer Sim | Sim Racing*

End-user: Create profile	Avatar Options	Design of Skins Example; clothes, complexion, etc.	= Proceed to *Play: Gameworld (magic circle)*

Alternatively:

Game Intro / About game	Gaming Options: Arcade / Quick Play / Story mode (Avatar is automatically chosen)	= Proceed to *Play: Gameworld narrative (magic circle)*

Typical **avatar** identity design steps before play:
In e-commerce services (apps) – *Examples: Amazon | Neflorist | Netflix*

User Sign-up And Terms and conditions	Create Profile	Design or upload avatar	= Proceed to *Play: Gameworld e.g. buying, orders, reviews (comments), etc. (magic circle)*

Typical totem identity design steps before play:
In actual physical human activity – *Examples: Home | Politics | Labour | Law | Health | Education*

User / Human: Birth Name and Surname	Totem name and lineage	Totem design Example: Emblem, praise songs, attire	Moral values, roles and responsibilities	= Proceed to *Play: Gameworld (magic circle)*

The following is Klevjer's (2006, p.10) expression of traits of an avatar;

> …an avatar is interesting and playable not just because of what it makes us able to do or perform, but because of what happens *to* us in the world that the avatar lets us inhabit. The avatar is the embodied manifestation of the player' engagement with the Gameworld; it is the player incarnated. There are different kinds of avatars, and different forms of avatar-based play.

The different forms of avatar or totem-based play are highlighted in the above diagram. In my description of avatarial and totemic utility, I am focusing on the (a) end-users engagement(s) as both avatar and totem; (b) the end-users' incarnation in various environments — as seen above in the diagrams — as an avatar and end-user and (c) different forms of avatarial and totemic based play (which ultimately determines narratives).

Power of Purpose

The self-evaluation, totemic and avatarial design affordance that I am referring to extend to contemporary methods such as the commonly used *five-factor model of personality* and the *Myers-Briggs Type Indicator* (MBTI). These models are often used in organisations for learners or staff members, including new or potential employees. In totemism, similar personality analysis is pursued; this is done in order to give the human associated with a particular totem that they embody a purpose. Without purpose, avatarial gameplay and engagement become futile thus, avatar visual design and embodiment become more valuable than play experience and interactivity. It is like an excellent UI (user interface) design with poor UX (user experience) design. For example, the 'five-factor model of personality' used in psychology aligns with the sayings 'beauty is only skin deep'. The model goes into assessing and describing a person's personality more than just how they physically look. The traits that are considered in this model are the following; (1) agreeableness, (2) conscientiousness, (3) extroversion (4) neuroticism and (5) openness to experience.

End-User Avatar	End-user Totem
Assumed Motto	***Assumed Motto***
First Impressions count	Do not judge a book by its cover

The currently held model/outlook or spirit of avatars and totems

Avatar	Totem
Assumed Personality Types	***Assumed Personality Types***
Extroversion	Agreeableness
Openness to Experience	Conscientiousness
Trait mostly shared in common	
neuroticism	

The currently held personalities of avatars and totems – centripetal vs centrifugal



Five-factor model example of personality types (ignored aspects of the end-user behaviour in the avatar space)



Totemic personality types / identity and narrative representations through masks (these renditions could also be used as digital avatars)

The mask below is a selected example from the masks seen above. These masks are not only for fashion-ends. These masks are symbolic and totemic. The totemic characteristic of the masks extends to representations of deities. Linguistically and by definition, this is where

the totem and avatar are synonymous. I have already defined the totem and avatar, and now I briefly define both terms. Defining both terms emphasises and reminds us of the notion of the totem as a phoenix that reincarnates to become a digital avatar in the 21st century.



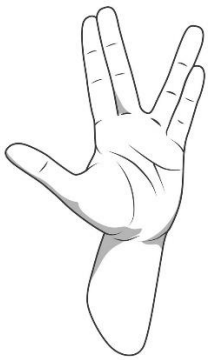
"Punu masks represent the idealised beauty of Punu women, and should only be carved by Punu men. They are portrayed with their traditional high-domed hairstyle, diamond-shaped scarification marks on their forehead and they often have eyes that display oriental characteristics. The elaborate Punu hairstyles suggest that the wearer is wealthy, as her hair has not been flattened by the need to carry goods.

Sometimes Punu masks are painted white with kaolin clay to represent the spirits of dead ancestors during funerals." (artyfactory.com, 2022).

Avatar	**Totem**
Definition	***Definition***
- *Hinduism* **:** the human or animal form of a Hindu god on earth - an incarnation in human form - an embodiment (as of a concept or philosophy) often in a person - *computers***:** a small picture that represents a computer user in a game, on the Internet, etc.	- an object (such as an animal or plant) serving as the emblem of a family or clan and often as a reminder of its ancestry - a usually carved or painted representation of such an object - one that serves as an emblem or revered symbol
Examples of use: 1. She has come to be regarded as an *avatar* of charity and concern for the poor. 2. She chose a penguin as her personal *avatar* in the chat room.	Examples of use: 1. Private jets are a *totem* of success among extremely wealthy people. 2. the bald eagle, that universally recognized *totem* of our country

Source: merriam-webster.com

Digital displays numerous examples of atavism in utility and sometimes even in language or jargon. Social media avatars and videogame avatars are often based on purely *extraversion* and qualities of partial openness to experience. They tend to neglect the remaining three factors concerning end-user personalities. As such, these neglected personality types as avatar embodiments may be prone to overcompensating by giving in to peer pressure or to bullying online. I use the term 'empathy' because Ubuntu, which I attribute to totemic embodiment, possesses the spirit of being empathetic. Just like the *Sawubona* Zulu greeting; and the "I see you" Na'vi greeting in the movie Avatar, and even the popular Vulcan salutation (live long and prosper).



Vulcan Salute from the movie Star Trek

End-users that occupy the digital and virtual environment will undoubtedly prefer to have a unique identity design. This unique identity is followed by a unique personality that informs one's story and storytelling. One of the features I highlight on figure 9b below is narcissism as an avatarial trait — alternatively self-loving trait. This is in comparison to the Ubuntu-bearing-totem. Although I still maintain that avatars evolved from totems, the highlighting of moral regression is still key despite both avatar ad totem deriving from the same root and lineage. Totem intrinsic embodiments are not narcissistic. The Digital Native as an embodiment of the digital or virtual avatar could be socially perceived as being a rebel, a misfit, or perhaps the twenty-first century hipster or contemporary futurist. Digital natives are an example of a phoenix who rises from its ashes to change not only its self-concept, but to also redesign social identity dogma and behavioural interactivity, as we know it.
In the 21st century, the identities we embody have a limited time to make an impression, ultimately, the values behind these identities will dictate the significance of the story being told.

Avatar	Totem
Centrifugal	Centripetal
Autotelic	Didactic
Digital	Psychological / Cognition
Virtual	Spiritual
Cybernetic Self	Biological Self
Mechanical	Natural
Particular code	Universal code
Narcissism	Ubuntu
Explicit Space	Implicit space
Extrinsic value	Intrinsic value
Prone to Futility	Prone to Utility
Nickname	Birth name

Figure 9b: The above table is an overview demonstrating my observed comparative values and traits of an avatar and a totem.

The HU is another example of totemism relived in contemporary music as mnemonic identity tales and sonic avatarial ways. This is the rising of the totemic phoenix in the musical scene. The HU is an East Asian band originally from the country called Mongolia.

They mix traditional Mongolian music with western rock and throat singing. This throat singing is synonymous to some acoustic performances and rituals practiced by Shamans during incarnation, what we earlier referred to as totem praise songs, an example of this may be ululating.

The band is a prominent popular culture music group that evokes totemic practices in the 21st century. The HU covertly uses totem methods as part of their cultural performances. This is seen in their regalia, their identity representation and narrative expressions. All these elements are symbolic of their native land and customs. The HU or HU is said to be a Mongolian word, the root word translates to 'human being'. "They call their style "Hunnu Rock" … inspired by the Hunnu, an ancient Mongolian empire, known as The Huns in western culture." (Youtube, 2018). The HU produced a war cry like song reminiscent of old Mongolian poetry, also links with totemic praise songs discussed earlier. The name of the song is *Wolf Totem.* The song uses chants that seem subconsciously reminiscent of animism and simultaneously celebrate totemism. It references and reveres animals' might and uses personifications of animals, nature and body parts. This takes us back to Murambiwa and Ngowani's explanations about what totems do in the human's interactive society. This is an additional explanation from the band's social media group about "Hu" as a root word for an intellectual human being. For example, Hu – root word, Hun – a person, Huu – child (can be a boy or girl) and Humuun – human (Facebook, 2018).

DID YOU KNOW?

In Latin etymology, Humanus from humus "earth, ground, soil".
(Source: TEDx Talks, Francesca Ferrando, 2013)

Wolf Totem lyrics translate as follows;

If **lions** come, we'll fight until the end
If **tigers** come, we'll fight and battle
If **elephants** come, we'll fight in rage
If **humans** come, we'll fight and obliterate
We, If lions come, we'll fight until the end
If tigers come, we'll fight and battle
If elephants come, we'll fight in rage
If humans come, we'll fight and obliterate
If you come as **snakes**, we'll become **Garuda birds** and fly over you
If you come as tigers, we'll face you as Lions with **blue mane**
HU HU HU HU HU HU HU HU
If you come with evil intentions, we'll give you a fight!
Ten of us will strike you as thunder
Hundred of us will shatter your hearts
Thousand of us will destroy and obliterate
Ten thousand of us will hand you the wrath of heaven!
If you come as **flood**, we'll fight until the death

If you come **swarming**, we'll scatter you around
If you come flying, we'll shoot you down with our archeries
If you come charging, we'll slice you with our swords
HU HU HU HU HU HU HU HU
Let's cut through them as speed of flying **falcons**
Let's burn within as the hearts of **wolves**!
Let's stampede with our **horses**
Let's defeat them with the wisdom of our Great Khaan, Chinggis!
HU HU HU HU HU HU HU HU (The HU, 2018) (Emphasis Mine).

This tradition of using animals to explain human qualities and traits is historically totemic and even extends to brands. Chapter 3 will examine this aspect of human incarnation and storytelling identities as animals. Africans still revere their praise songs and chant them in various ceremonies. These praise songs also play a part in formal introductions to heads of families. This could be witnessed in weddings or marriage ceremonies. For instance, ululating is also frequently heard as a celebratory sound. Of course, the ululating tones and pitches differ; some signify grief while others signify joy. They are also extension auditory mnemonic devices. In the South African Sesotho and Zulu cultures (not limited to the two), praise songs are chanted during *Lobola*[42] negotiations.



The HU's identity and totemic / brand logo. These logos are seen on social media pages and used as avatars too.

Scan to listen to Wolf Totem by The HU

[42] (in southern Africa) an African custom by which a bridegroom's family makes a payment in cattle or cash to the bride's family shortly before the marriage (collinsdictionary.com)

The above logo is like an ornamental piece that is reminiscent of the Dreamcatcher often used as a centrepiece to eliminate bad dreams and keep good ones. The Native Americans often used dreamcatchers. The dreamcatcher's design utility is not fixated on decoration but extends to protecting the user from harm. Such are examples of totems turned into tactile emblems; they always serve as a reminder that a human is also one with their spirit. Identity in the totemic realm is not constrained to physical looks only. Purpose bears vital significance for the human spirit, identity and story.

I reference Harari (2016, p. 106) to sum up this chapter about foundations of totems and avatars. He discusses the notions and accounts of animistic practices expressively.
He substantiates how behaviour has developed historically, showing the lineage of animal representations for humans through time. These held a significant meaning about storytelling, showing how symbolic identity always is intertwined with narratives. With the growing usage of avatars in digital and virtual spaces, identity creation and design will unfold at an unprecedented and faster pace. The virtual and digital spaces population will rise way faster than its physical counterpart. Race and gender identity narratives will begin to shift and expand perspectives about current discourses such as skin colour. However this leaves little room for story development or narrative contemplation because this creates the urge for immediate play with little consideration for moral ethics and repercussions of interactive *live* play.

> Animist religions had previously depicted the universe as a grand Chinese opera with limitless cast of colourful actors. Elephants and oak trees, crocodiles and rivers, mountains and frogs, ghost and fairies, angels and demons – each had a role in the cosmic opera. Theist religions rewrote the script, turning the universe into a bleak Ibsen drama with just two main characters: man and God. The angels and demons somehow survived the transition, becoming the messengers and servants of the great gods. Yet the rest of the animist cast – all the animals, plants and other natural phenomena – were transformed into silent décor.
>
> True, some animals were considered sacred to this or that god, and many gods had animal features: the Egyptian god Anubis sported the head of a jackal, and even Jesus Christ was frequently depicted as a lamb. Yet ancient Egyptians could easily tell the difference between Anubis and an ordinary jackal sneaking into the village to hunt chickens, and no Christian butcher ever mistook the lamb under his knife for Jesus.

Based on the above statement from Harari, I want to make it clear that not in any way am I proposing that animism or totemism in their pure essence are absolute substitutes for the digital and virtual embodiment. I only advocate for the dynamism and purpose totems bring to social-behavioural-design and self-concept. Thus, this is the potential that digital avatars have because they are essentially totems and are only transformed by lineage. Totemism does not make for dull storytelling and design in the abstract and unpredictable life of the world of play. Totemism enhances meaning, gives purpose to extensions of meaning-making, and it gives depth to identity design and potential narratives.

I have utilised examples of *linguistics* as a tool to assist the reader recognise the camaraderie shared between *digital jargon*[43] and totemic language. I have also

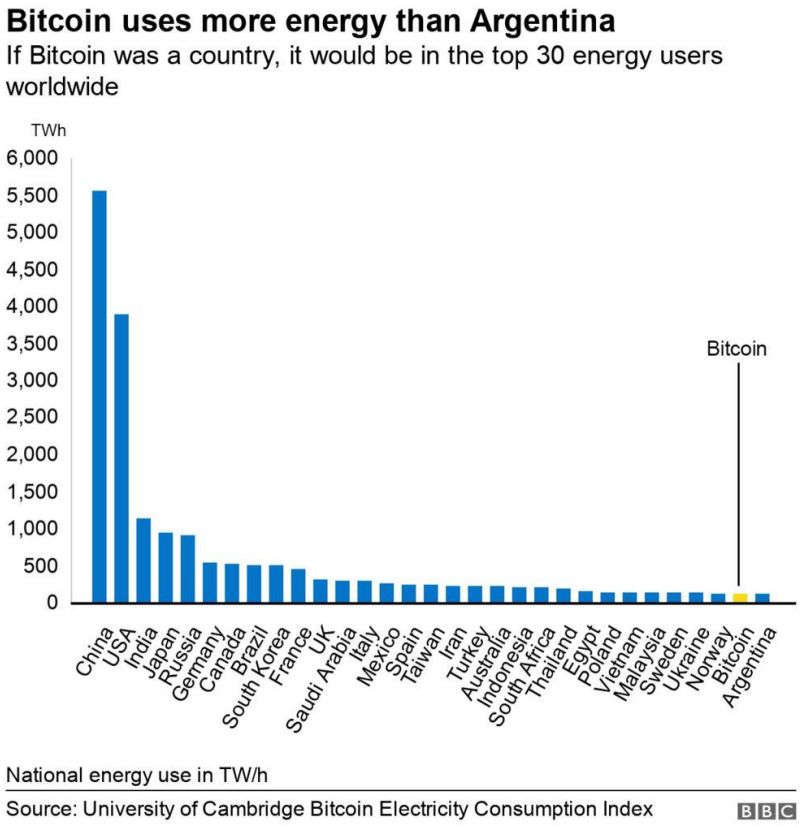
[43] The naming conventions in the digital space tend to utilise borrowed terms from nature or mythological stories such as fables. There is also an influence of biomimicry and polysemy in the naming custom of software or technology e.g. Firefox represented visually by a fox wrapping itself around an orb.

demonstrated and explained what I mean by atavism, storytelling, and *symbolic visual language* shared between totems and avatars. By now, the reader should be able to note why the juxtaposition of avatars and totems was necessary; (this may enable morally motivated and regulated virtual and digital avatar embodiment, especially for digital natives). To better demonstrate their overt similarities, their distinct covert traits, their evolution of identity design models, and storytelling utility.

Chapter 3
Shapeshifting - Fables as:
Currency | Stories | Totems | Digital Avatars

Embodiment and Disincarnation

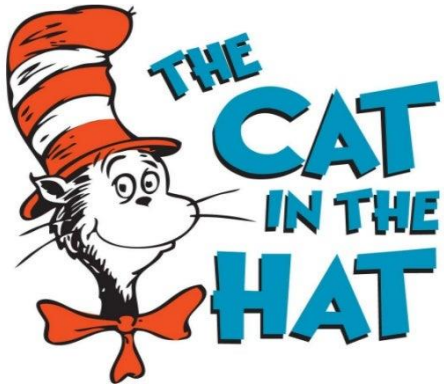
Historically, humans seem to have been fascinated by the 'simplicity' of animal life and their unwavering compliance with nature. Animals are an example and extension of the untainted embodiments that roam our physical environments. The damage and pollution in the physical environment have often been through human negligence, not animals. Despite the emergence of virtual worlds and immersive concepts like the metaverse, disruptive and efficient systems such as Blockchain. The primary concerns are the consequences of the carbon footprint on planet earth concerning technological systems maintenance and management universally. We will see further how Blockchain relates to avatars and how important avatars are in the immersive metaverse ideation.



Cambridge University analysis: Bitcoin uses more electricity annually than the whole of Argentina (source: bbc.com)

Problems such as poverty, war and homelessness affect human more than animals. A African proverb says 'even a bird knows that it must build a nest before it lays an egg'. This is

another example of indigenous knowledge systems evident in animals too. Animals instinctively comply with the rules of nature, so one does not encounter animal homelessness as an example. Issue of homelessness are a rampant narrative among humans. Moreover, if there is an example of homeless animals, this results from humans domesticating animals and after that, neglecting them. The idea of shapeshifting has now become a norm in human story-telling, and shapeshifting and embodying animals is now a pop-cultural phenomenon. Ubiquitously seen in digital worlds and the real world. Not only do we domesticate animals for companionship, but we also domesticate them to study them subconsciously. In spaces such as film and storybooks, animals help us reincarnate, assume and form an avatarial co-existence. Dr. Seuss' *The cat in the hat* is another example of identity extension and avatarial embodiment. When an end-user hypothetically wears a red and white striped hat and a bright red bow tie; to anyone familiar with the character, the end-user in an *avatarial* manner automatically will be assumed an embodiment of the famous rhyming cat, *The Cat in the Hat*.



Famous character called The Cat in the Hat by Dr. Seuss

According to Harari;

> With regard to other animals, humans have long since become gods. We do not like to reflect on this too deeply, because we have not been particularly just or merciful gods. If you watch the National Geographic channel, go to a Disney or read a book of fairy tales, you might easily get the impression that planet Earth is populated mainly by lions, wolves and tigers who are an equal match for us humans. Simba the lion king holds sway over the forest animals; Little Red Riding Hood tries to evade the Big Bad Wolf; and little Mowgli bravely confronts Shere Khan the tiger. However, in reality, they are no longer there. Our televisions, books, fantasies and nightmares are still full of them, but the Simbas, Shere Khans and Big Bad Wolves of our planet are disappearing. Mainly humans and their domesticated animals populate the world. (2016, p. 83)

As mentioned earlier, humans pollute, and they do in a variety of ways. To their detriment, unfortunately. Earlier, I mentioned a characteristic of narcissism in digital and virtual avatars, which still holds for most personality types in the real world. When humans tell stories, the narrative assumes and concludes that human identity — beyond personality and moral content — is more significant than 'the other' or more splendid than alien identities.

If a human is not portrayed in the visual narrative, the alternative is often victory over *'the other*'. Any form of being will often come in Humanoid identity form.
An example is the utility of cyborgs and neuroscience technology in science-fiction films. Transformers, RoboCop, and Terminator, Etc. Basically, human storytelling is often biased. Harari depicts this identity bias and the constant narrative loop in human storytelling. Consequently, this bias negatively affects others within play. The rules are set to favour humans or humanoid identity. In as much as the rules in the digital and virtual avatar embodiments favour identity facades. Rules are set up to encourage selfhood only concerning the appearance or visual identity and not personality (the narratives do not encourage simply seeing value in difference). Additionally, my thesis aims to show totem and avatar differences for value creation, not to destroy either totem or avatar.

Harari continues to say;

> How many wolves live today in Germany, the land of the Grimm brothers, Little Red Riding Hood and the Big Bad Wolf? Less than a hundred. (In addition, even these are mostly Polish wolves that they stole over the border in recent years.) In contrast, Germany is home to 5 million domesticated dogs. Altogether about 200 000 wild wolves still roam the earth, but there are more than 400 million domesticated dogs.
> The world contains 40 000 lions compared to 600 million house cats; 900 000 African buffalo versus 1.5 billion domesticated cows; 50 million penguins and 20 billion chickens. Since 1970, despite growing ecological awareness, wildlife populations have halved (not that they were prospering in 1970). In 1980, there were 2 billion wild birds in Europe. In 2009, only 1.6 billion were left. In the same year, Europeans raised 1.9 billion chickens for meat and eggs. At present, more than 90 per cent of the large animals of the world (i.e. those weighing more than a few kilograms) are either humans or domesticated animals. (2016, p. 83-84)

Humans dictate many facets of human activity and usually unfairly so. As a result, we tend to harm and destroy anything that seems to be outside understanding or any being that fails to mirror our physical selves. More confusingly, we tend to frequently reject or destroy subtle differences even if the physiology and biological attributes match, e.g. Racism. However, there tends to be an element of envy rather than narcissism. Humans yearn to transform their identities so profoundly that we start appreciating *the beauty **and** the beast* in us, or rather *the beauty **in** the beast*. By domesticating animals, humans yearn to shapeshift into animals or *the other,* i.e. costume parties (Halloween). I use shapeshifting as an 'end-user, avatar and totem' trope for human transformation as I discuss embodiments and narratives.

Stages of shapeshifting

Humans shapeshift in multiple ways. We shapeshift through brands, careers, fashion, academia, sports[44] , etc. Kelli D. Zaytoun is a professor and the director of graduate studies

[44] Athletes tend to have avatarial incarnations (through nicknames or alter egos some names even denoting cyborg performance in their naming conventions e.g. Soccer superstar Cristiano Ronaldo aka CR7 which translates to brand as a soccer boot). In the movie The Terminator 2: Judgement Day an enhanced shapeshifting android antagonist is called T-1000. The next iteration of the original Terminator. And totemic embodiments (through animal representations e.g. In Basket Ball Koby Bryant was also known as the Black Mamba which translates to his strategy and philosophy on and off the field, the Mamba Mentality)

at the Wright State University, she looks into the subject of shapeshifting and *play.* She refers to it not as play but as “inner work” and "public acts" (originally coined by Gloria Anzaldua). I use the word shapeshifting in a similar way Anzaldua is quoted defining shapeshifting and the stages of it. Zaytoun (2015, p.74) defines, reports and quotes on the notion and process of shapeshifting as follows;

> In "now let us shift," Anzaldüa describes the seven nonlinear stages of the subject's journey back and forth between "inner work" and "public acts" (540), offering a detailed look at a subject's struggle for a rich experience of selfhood while simultaneously becoming more radically interconnected. The stages begin with "el arrebato" (546), or an abrupt upheaval in one's former ways of knowing, a physical or emotional crisis that forces the consideration of change. Stage two, "nepantla" or "the zone between changes," represents a state of transition, where one internally negotiates old ways with new ways of thinking introduced by the context in which the subject is situated because "yesterday's mode of consciousness pinches like an outgrown shoe" (548-49). Stage three, "Coatlicue" (550), or stagnation, represents a resistance to change until stage four, a call out of stasis, into stage five, "Coyolxauhqui" (554, 558), where the subject begins remaking itself. Stage six, "the blow up ... a clash of realities" (563), is a process of confrontation and conflict with others that ultimately facilitates deeper, radical connection. In the seventh and final stage of conocimiento, Anzaldua suggests that subjects act from the position of what she calls "the knower," which has several functions. La naguala's function, she says, "arouses the awareness that beneath individual separateness lies a deeper interrelatedness" (569).

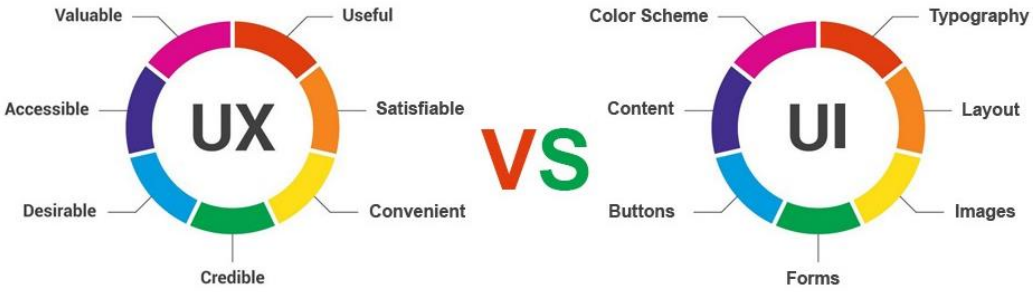
Imaginably these are the steps that our phoenix takes on its way to rebirth (shapeshifting), from a totem to a digital and virtual avatar. Likewise, these steps are somewhat what humans go through when they identify with *the other*, in this instance, the animal-self (sometimes-even plants and other inanimate objects).

A. Shapeshifting phases simplified:

1. An abrupt upheaval in one's former ways of knowing
2. The zone between changes (state of transition)
3. Stagnation, represents a resistance to change
4. A call out of stasis
5. Where the subject begins remaking itself
6. The blow up ... a clash of realities
7. The knower

Avatar my UI, Totem my UX

Below is an example of avatar and totem traits as shapeshifters in terms of User interface design (UI) and User Experience design (UX). This example shows how deception of identity or facades may be misleading using brand services. However, this also depicts how avatars and totems are two opposite sides of the same coin. They display the value in their reciprocal differences. A digitized approach to the philosophy of the Yin and yang.



(Left) Totemic identity's focal point during end-user embodiment, centripetal stance – personality and moral design (Right) Digital Avatarial embodiment focus, centrifugal – visual and physical structure design

Totemism had identification systems, systems of self-concept and systems of self-reliance to avoid social ills. Could there be a possibility of narrative problems such as homelessness and identity loss in an immersive world? The thinking man, the human being, is not in compliance with the natural system, yet we always exhibit the need to be one with biodiversity. Therefore identity loss is possible even in a virtual world, i.e. The Matrix. It is said that a human being is genetically similar to primates. According to the American Museum of Natural History, "Human DNA is, on average, 96% identical to the DNA of our most distant primate relatives, and nearly 99% identical to our closest relatives, chimpanzees and bonobos". The fascination with animal kingdoms displayed by the Homo sapiens might be covertly, subliminally-instinctive, and biologically inextricable. Earlier I mentioned biomimicry. Biomimetics is defined as:

> The study of the formation, structure, or function of biologically produced substances and materials (such as enzymes or silk) and biological mechanisms and processes (such as protein synthesis or photosynthesis) especially for the purpose of synthesizing similar products by artificial mechanisms which mimic natural ones. (Marguet, M 2013, p. 512-529)

This mimicking of natural ones is what humans are fascinated with; it inspires our being and narrative. Amongst definitions we used for avatar, we also defined an avatar as 'an embodiment (as of a concept or philosophy) often in a person'. Sometimes this embodiment of a concept and philosophy happens through technological advancements. I argue that most technological inventions and advancements in the twenty-first century are extensions of physical avatarial embodiments, and identity representations. End-user avatar embodiments can be incarnated in the physical environments too. For example, vehicles, planes and cyborgs. Biomimicry is "*the imitation of natural biological designs or processes in engineering or invention*". This is a constant and an inherent basic human instinct or motivation.

Some of the human-technological problems have been solved through the observation of nature. Most of the technological achievements that man has achieved are inspired by nature inclusive of animals. The nature and anatomy of birds inspire the aeroplane invention by The Wright Brothers. It is recorded that the Wright brothers were inspired by the German aviator Otto 'Flying man' Lilienthal. This does not mean that biomimicry is always direct and somewhat literal, for example, not all airborne technology is solved

through mimicking flying animals, and not all land technology problems are solved through mimicking land animals. Most trains would expectantly be thought to have been inspired by a worm or a snake. On the contrary, it is not always the case, and I will use Japan as an example.

Japan's Shinkansen (bullet train) whose design was led by Eiji Nakatsu (an engineer and birdwatcher) was inspired by a bird. The Kingfisher's aero-dynamism and beak inspired the redesign of the train's system. And in so doing, the train could move quicker in closed air i.e. tunnels and open air, additionally this meant the train used less electricity than its previous models. According to the Japan Railway and Transport review, it is also reported that the carbon footprint of the train is 16% that of cars making the same trips. It is reported that the previous bullet train models and systems in Japan had problems of producing loud sound levels. In an article by Henry Tobias Jones (2018) chief communications officer, author and journalist; Jones reports about Nakatsu's Kingfisher train. His headline reads as follows:

“The incredible story of how nature helped to solve the prestigious Japanese Bullet Train’s sonic boom headache”, and adds that;

> Reaching speeds of over 320km per hour, every time the Shinkansen train carriages entered a tunnel they would essentially become a shotgun round. And just like a rifle, every time the train would blast out of a tunnel, it did so with an explosive bang. The phenomenon, which is called ‘Tunnel Boom’, is created by the train forcing air along the enclosed tunnel, and building up the air pressure in waves until it reaches the end of the tunnel when it is released in the form of a sonic boom (similar to the noise once made by Concorde jets). Disgruntled, local residents reported hearing bangs up to 400m away from the railway. Consequently, Japan enforced an acceptable limit of 70 decibels to prevent further noise-pollution levels. The problem for the Bullet Train’s engineers was how to reduce the noise, without compromising on the speed? It wasn’t until 1994 that an engineer, called Eiji Nakatsu stumbled across the solution thanks to his unusual hobby: bird-watching. Following a chance encounter with a fellow avian enthusiast, Nakatsu realised that there might already be a solution to the train’s problem in the natural world. Taking inspiration from the kingfisher, which dives nose first into water to catch fish and barely makes a splash, Nakatsu gave his train a 50-foot steel ‘beak’ which solved the noise-pollution problem, but also unexpectedly made the Shinkansen train between 10–15 percent more efficient. (medium.com, 2018)



Japan’s bullet train inspired by the Kingfisher

Moreover, how does this link with avatars and totems, specifically digital avatars? Identity, storytelling and utility as value metrics make this technology relevant. This is partly because nature came to its aid when problems were encountered. Nature's code has the potential to do the same for avatars in terms of problem-solving. Hence I emphasized referencing totems as they are one with nature. Japan's bullet train is a mechanical reproduction that takes an avatarial and technological embodiment, furthermore, it uses totemic design frameworks, i.e. referencing from nature and preserving the natural environment (How? In this instance, noise reduction) while reinforcing the homogeneity of society and nature within identity. In the same article Beth Rattner[45] says "*the idea is that we can emulate how living organisms function in order to create materials, products, and systems that support a healthy planet*."
Through linguistics, that is partly why we come up with terms like mother-nature to acknowledge nature as our nurturer as a motherly embodiment subliminally. We subconsciously acknowledge the majesty of historical systems that subscribed to the natural balance of all living things, case in point totemism. By now, we should have clear groundwork and a shared understanding of a totem. I will discuss avatarial embodiments in reference to animals, identity and, more importantly, *storytelling*.

The Human being exhibits numerous examples of yearning to be one with animals, to communicate with them and to better understand self-concept and self-design through relations with animals. This is another aspect of subtly embracing the beast in us, the burning of the totem and the rise of the avatar is a typical narrative plot. Christopher Booker[46] (2004) refers to this type of storytelling plot as "Rebellion against 'The One' - *From Job to Nineteen Eighty-Four"*[47]*.* This is a common plot we have grown accustomed to in popular storytelling media such as film. For an example, *Erik Killmonger and Black Panther (T'Challa)*[48] and *George Orwel's* pig characters in *Animal Farm*. In **Black Panther** Killmonger represents the vengeful next iteration of Black Panther, the potential rebirth of an aspiring phoenix. Killmonger despises Black Panther, in the movie he believes that he is next in line for the throne, rebellion against 'The One'. Furthermore this movie makes reference to a lot of animals in a positive manner likening them to totemic heroes (Thus T'Challa's totem is a panther which he embodies as his alter ego). In *Animal Farm* the story is told through animals and each of them have human characteristics. The rebellion begins when the animals in the farm decide that they do not want to be ruled and controlled by the cruel farmer, Mr Jones (see Animal Farm 1954 film). All the animals gather to overthrow the farm owner for ambitions of self-rule and self-governance, this is the next iteration of farm control and management. I liken augmented, digital and virtual avatarism to a subliminal 'rebellion', subliminal because history tends to be ignored and eventually repeats itself. This is the centrifugal nature of "new-power" in the 21st century digital interactive storytelling.

Haraway's stance verifies Booker's statement about the Rebellion against The One, as I alluded to earlier in my discussion when addressing atavism. Haraway writes; '*Modern machinery is an irreverent upstart god, mocking the Father's ubiquity and spirituality*." This

[45] Executive Director of The Biomimicry Institute since 2012
[46] The Seven Basic Plots
[47] The Seven Basic Plots: Why we tell stories. P. 495
[48] Killmonger being the antagonist and Black Panther the protagonist in Marvel's 2018 film Black Panther

irreverence that Haraway mentions is what this essay is meaning to outline about the character and ambitions of the digital avatar. Youth or a new generation historically often rebels against the old norms. The digital and virtual avatar could be likened to the animal farm characters who mock the father (see figure 19), in this case the father being the totem. Digital and virtual avatars embody a 21st century identity and narrative renaissance in need of personality armor for better social organisation in online play. Booker explains this idea as follows; *The essence of this plot* [Rebellion against 'The One'] *is that it shows us a solitary hero…* In my instance this solitary hero is the digital and virtual avatar, Booker explains further,

> *…a solitary hero who finds himself being drawn into a state of resentful, mystified opposition to some immense, power, which exercises total sway over the world in which he lives. Initially he increasingly feels he is right and that the mysterious power must in some fundamental way be at fault. But suddenly he is confronted by that power in all its awesome omnipotence. The rebellious hero is crushed. He is forced to recognise that his view had been based only on a very limited, subjective perception of reality. He ends accepting the power's rightful claim to rule over the world and himself.* (2004, p. 495 – 496)

Arguably this corroborates the seven steps or stages of shape-shifting. With this notion in mind now one of the questions we're subtly journeying towards is that; will the avatar in the advent of the inevitable Post-Humanism era accept (and collaborate) with the totem's *rightful claim to rule over the world* as it always did and still does. For example, Totemism's compliance with nature, comply with nature's code (this "awesome omnipotence"). We should also note that humans have explored historically many forms of self-representation since before totemism and the dot-com boom in the 1990s, but today avatars are proving to be amongst the most popular forms of contemporary end-user narration. This method and phenomenon of self-representation will be entrenched even more in the coming years. My views and observations are not meant to oppose digital avatarism. They aim to enhance their interactive social utility and social organisation for better behavioral design and ethical storytelling.



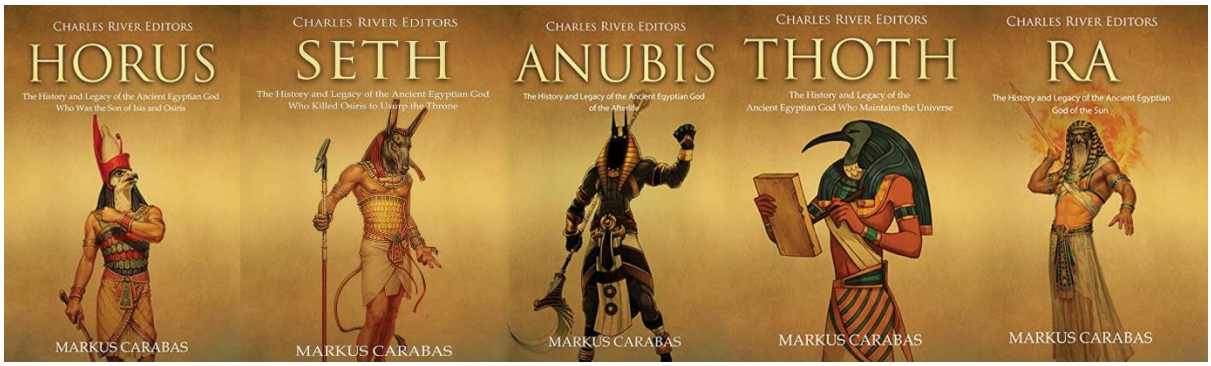
A hare or rabbit as a symbolic narrative of anti-animal cruelty campaigns

Fables and animal storytelling in currency, film and mythology

So, in mythology, how did the phoenix interact with other animals? They sometimes interacted as deities throughout selected books, and some of the deities were incarnations of mythological gods, kings and queens. Ra and Horus, for example, are known to be the Egyptian gods of the sun and sky, respectively. Ra and Horus were revered embodiments

historically and took a form of a falcon. The historic phoenix narrative thread was reinforced. This indicates that when the Egyptian people of that period saw these visuals of Ra and Horus, totemic ethical values were subliminally applied. Below is an extract from Richard H. Wilkinson about Ra, the sun god, also called Re;

> The sun god Re was arguably Egypt's most important deity. Though possibly not as old as the falcon god Horus, Re was an ancient deity who coalesced with many other solar and cosmic gods through time while retaining his own position. At an early date he seems to have merged with the falcon god becoming Re-Horakhty as the morning sun, and with Atum as the evening sun. (2003: p.205)



Contemporary literature referencing Horus (far left) and Ra (far right) the Egyptian Mythological deity Source: Amazon.com

Because these images were created for more than just aesthetic visual appeal, societies in those environments, space and time revered them for what they represented. Societal values where entrenched in what the symbolism of those times represented. As the 21st century phoenix arose from the ashes the shapeshifting into a cyborg took flight. The boom of the internet in the avatarial space saw avatars just plainly being created in mass for anyone or 'anything' devoid of intrinsic purpose, value and meaningful storytelling ends. Moreover, speaking on the importance of purpose I would like to reiterate Fai speaking of the egungun methods as "*an attempt to reassure people about individual immortality and to diminish the fear of death through the dramatic appearance".* I contend that the digital and virtual avatar usage is also potentially a rejuvenated attempt to reassure humans of their immortality. It is an endeavor towards the end of humans cowering to the idea of mortality. Arguably, these themes meant that people don't actually die but rather spiritually transcend through physical death and they shapeshift sacredly.

Mimetic Storytelling

Immersion is not unique to virtual environments and experiences, I maintain that fables where the upstart gods of mental immersive experiences, the early signs of mimesis. This was the next phase of mimetic storytelling efforts that intertwine the human, the plant and the animal (early beginnings of biomimicry). According to the Encyclopedia Britannica mimesis is defined as follows;

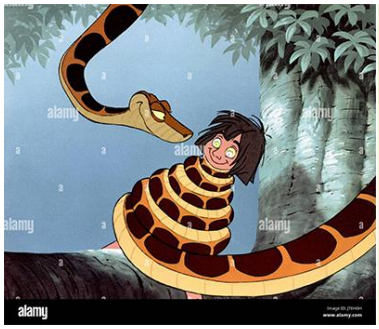
> **mimesis**, basic theoretical principle in the creation of art. The word is Greek and means "imitation" (though in the sense of "re-presentation" rather than of "copying"). Plato and Aristotle spoke of mimesis as the re-presentation of nature. According to Plato, all artistic

> creation is a form of imitation: that which really exists (in the "world of ideas") is a type created by God; the concrete things man perceives in his existence are shadowy representations of this ideal type.

I choose to make the operative word in defining mimesis "re-presentation". It is often said that when you meet a person for the first time, you initially meet their representative because they want to make a solid and good first impression. Meaning the true self (with flaws) is concealed to make a perfect first impression. Humans more often than not, re-present themselves through animals, plant species and even inanimate objects. Today end-users predominantly make their re-presentations through avatars. Rather than merely copying animal features visually we attempt to copy their natural instincts and their personalities. When someone utters the words "you're a snake". The words are usually not accepted with gratitude because historically a snake has a biblical reference of being untrustworthy. All this narrative is assumed to be "true" because of the snake's symbolic representation in historical narratives e.g. Adam, Eve and the talking snake. But in essence and in truth, there is no factual basis that supports untrustworthiness as being an undisputable trait of a snake in the real world. Immersive experiences through mythology could also be a means of catharsis. Humans fear some animals so much that this cathartic process could just be another attempt to understand not only the animals we identify with but to also understand the self.

DID YOU KNOW?

Catharsis, the purification or purgation of the emotions (especially pity and fear) primarily through art. In criticism, catharsis is a metaphor used by Aristotle in the Poetics to describe the effects of true tragedy on the spectator. The use is derived from the medical term katharsis (Greek: "purgation" or "purification"). Aristotle states that the purpose of tragedy is to arouse "terror and pity" and thereby effect the catharsis of these emotions. His exact meaning has been the subject of critical debate over the centuries. The German dramatist and literary critic Gotthold Lessing (1729–81) held that catharsis converts excess emotions into virtuous dispositions. Other critics see tragedy as a moral lesson in which the fear and pity excited by the tragic hero's fate serve to warn the spectator not to similarly tempt providence. The interpretation generally accepted is that through experiencing fear vicariously in a controlled situation, the spectator's own anxieties are directed outward, and, through sympathetic identification with the tragic protagonist, his insight and outlook are enlarged. Tragedy then has a healthful and humanizing effect on the spectator or reader. (Source: britannica.com)






Aesop the storyteller, is well known for his totemic 'animal shape-shifting' themed stories. He was believed to live in Greece, as Richard A. Lobban Jr noted, although this geography is debatable. "Aesop's tales are consistent in using animal characters. A number of the animals in the tales are not found in Greece but are common in parts of Africa." Aesop could have come from Africa. (Lobban Jr. 2002, p. 29). Lobban Jr. further explains about the types of stories Aesop told to promote moral values;

> Some of Aesop's tales were clearly Egyptian. Yet scholars such as Robert Temple have long considered other stories of Aesop to belong to the "Libyan tales" genre. "Libyan tales" are African moral fables built around talking animals. (It should be noted that "Libya" was the term generally used for non-Egyptian parts of Africa at the time and does not mean Libya in the precise sense of the modern nation of that name.) One of Aesop's tales is about an Ethiopian (Nubian) slave and another is about an Ethiopian slave girl. These specific stories may be considered either actual examples of "Libyan tales" or at least parallel to them. The Nile is mentioned in Aesop's "The Murderer" and also in "A Eunuch and the Sacrificer," a tale that reverberates with slavery along the Nile. Moreover, this circumstantial evidence is strengthened by the fact that Aesop's *moralistic* tales find abundant parallels in Nubian folklore. Modern Nubian kummaji offer a *rich folklore based on animals*, and a very common theme in African folklore in general is the prominence of trickster characters whose cunning exploits resemble many episodes in Aesop's fables. (Italic emphasis mine).

These regions mean Aesop could have been a traveler and he shared or recorded his stories travelling across the Mediterranean, some texts also report of Aesop being captured and enslaved in Greek regions. But back to the matter at hand. The storytelling incarnation and various alternative embodiments through animal characters was a means to understanding and enhancing the self morally. Still on avatarial and totemic shapeshifting through fables, I delve into another world famous fable. The explanation below is taken from the Encyclopedia Britannica giving an elaborate description of the folktale called *Anansi The Spider*;



Anansi The Spider (source: YouTube.com)

Ananse, also known as **Anansi**, **Aunt Nancy**, **Anancy**, **Hapanzi**, **Nanzi**, name given to an Akan character who has become famous throughout Africa, the countries in the Caribbean region, and beyond because of his insight, intelligence, and wisdom. He is one of the most-important figures in the pantheon of cultural icons among West Africans.

Along with his wife, Aso, *Ananse can change form and may be depicted as a human, although his normal form is a spider*. According to the Asante people, who are part of the larger Akan culture in western Africa, Ananse can be a trickster—that is, *a personality who teaches moral, ethical, political, or social values* based on his ability to lead a person to the truth through example, puzzles, and the least-expected turns and twists of fate.

The folklore surrounding Ananse appears to be quite extensive in the African communities throughout the Americas, where he is often associated with the spider or the rabbit. For example, the Anansesem or Ananse-Tori stories about Ananse's exploits are at the *core of many of the moral tales* told to children in Suriname, much like the old Brer Rabbit tales were in the African American community up until the 20th century. Many of those stories have disappeared and are no longer remembered in the black communities of the Americas, but their relevance and value are undiminished in the Ghanaian context. (2022) (Italic emphasis mine).

The Homo Narran reveres animals and will continue to do so despite the human being's irresponsible actions to depopulate animals. Currently known and notorious examples of this behavior are rhino poaching and elephant poaching.

Chapter 4
Ashes to Ashes: New Beginnings and Augmentation

> As a counter part to the tough physical labour of mineral extraction and manufacture, virtual sweat shops are another emergent phenomenon in the Global South. In these sweat shops, labourers perform basic routine work to build up credits and increase the virtual value of game characters and avatars. The Massively Multiplayer Online Game (MMOG) *World of Warcraft* is most well known for the emergence of 'gold-farmers' who gain in-game currency sold globally for real money. Benefiting from global economic inequality, affluent users in the West who wish to save time can buy these ready-made characters to get a head-start in their gaming and move up to higher levels. Nobody aspires to these very real and embodied instances of contemporary posthumanity, and these processes often remain invisible in dominant academic and corporate narratives of shiny and sleek human augmentation. (Braidotti and Hlavajova, 2018, p. 464).

From Totemic Berserkers[49] to Avatarial Trolls?

Some pseudo identity creations and designs online frequently instigate provocative interactions and commentary, such as trolling.[50] Trolling is a common occurrence in the online or wired community. Trolls are defined as mythological despicable creatures often seen as dwarves or clumsy giants residing in dark caves or forests. Some end-users disguised as various avatars seek to wreak havoc online in the same way that mythological trolls do as seen in film. When disembodied from the 'real' world, these *digital trolls* seek attention by provoking and stirring up trouble for other users in online communities. Although these wired trolls do not literally dwell in *dark caves*, they often inhabit aspects of the digital world that extend to the *dark web*. This could be due to the gradual demise of value in what we seek to express in our stories. As a result meaningful plots linked with self enhancement based on ethical values tend to be lost and undermined, a principle that was ubiquitously encapsulated by totems. In this instance in the wired space, catharsis through tragedy ceases to work. Tragedy in most online narratives in the 21st century does not seem to seek audience purification, it seems to seek malice or emotional gore. An example of cathartic narratives with ethical values as noted previously is *Anansi the spider*.

Semiotics: Pictograms – Hieroglyphics – Code – Emoticons as Avatars

[49] A Berserker's utility: Military skills (battlefield) and space invaders

[50] A form of avatarial sentinels. Utility: Internet battle in a form of bullying users



Troll Dolls are a type of plastic doll with furry up-combed hair that depicts a troll. They are also known as Dam dolls after their creator, Danish woodcutter Thomas Dam.



Trolls as depicted in the movie Lord of the Rings (Source: YouTube.com)



The Viking berserkers would fight until their last breath was taken (source: bavipower.com)

On the other hand, totems could also be used for barbaric motivations. The Berserkers, for instance, in medieval Scandinavian mythology made use of depictions of wild animals. Berserkers were a form of Norse warriors known to worship Odin, a Norse deity. They are notoriously known to be unruly and highly violent. They would assume the visual characteristics of wild and fierce-looking beasts. They often used this to rally or summon strength and confidence to win wars or battles. These trolls and berserkers may no longer exist. However, their atavism is still visible in the digital worlds of games and social media interactivity, as evidenced by unruly online end-user behaviour.

Let there be algorithms: Rise of the machines

I invite the reader to imagine our totemic phoenix burning in its flames yet again, withering to ashes and rising again to become an avatarial phoenix. This symbolises the end-user being renewed and reborn from the norms of "actual" interactions to "virtual" immersion. Now we will look into the avatarial phoenix as an enhanced and updated version of the self. In the twenty-first century, our avatarial phoenix emerges to intertwine with technology, art, and industry as they all merge. Additionally the digital avatar now conforms to the world of algorithms, which can predict the end-users behavior and its next premeditated actions. With the internet, art, AI, and technology combined, human society's identity and behavior are becoming more intricately unified. Although complex by design systematically, this provides numerous conveniences for the end-user. I previously mentioned the importance of knowing 'thyself' in a world rife with apps and social media. Knowing thyself is a crucial identity reinforcement for highly moral and accountable living. To the contrary, and to a degree, Harari humorously retorts,

> An application called Deadline goes a step further, informing you how many years of life you have left, given your current habits. Some people use these apps without thinking too deeply about it, but for others this is already an ideology, if not a religion. The Quantified Self movement argues that the self is nothing but mathematical patterns. These patterns are so complex that the human mind has no chance of understanding them. So if you wish to obey the old adage and know thyself, you should not waste your time on philosophy, meditation or psychoanalysis, but rather you should systematically collect biometric data and allow algorithms to analyse them for you and tell you who you and what you should do. The movement's motto is 'Self-knowledge through numbers'. (2017, p. 385 – 386)

Algorithms are shifting the ideology of self-analysis, self-awareness and self-knowledge. The fast emergence of algorithms is a new form of shamanism, a new beginning in predicting future acts. While historically, the weak could only resort to praying to their trusted deities, fleeing or hiding in the face of encountering trolls, ogres or berserkers. Today weaknesses

from trolls can be circumvented by applying algorithms. Harari additionally gives a thorough discussion and definition of algorithms as follows;

> …the twenty-first century will be dominated by algorithms. "Algorithm" is arguably the single most important concept in our world. If we want to understand our life and our future, we should make every effort to understand what an algorithm is, and how algorithms are connected with emotions. An algorithm is a methodical set of steps that can be used to make calculations, resolve problems and reach decisions. An algorithm isn't a particular calculation, but the method followed when making the calculation. For example, if you want to calculate the average between two numbers, you can use a simple algorithm. The algorithm says: 'First step: add the two numbers together. Second step: divide the sum by two.' When you enter the numbers 4 and 8, you get 6. When you enter 117 and 231, you get 174. A more complex example is a cooking recipe. An algorithm for preparing vegetable soup may tell us:
>
> 1. Heat half a cup of oil in a pot.
> 2. Finely chop four onions.
> 3. Fry the onion until golden.
> 4. Cut three potatoes into chunks and add to the pot.
> 5. Slice a cabbage into strips and add to the pot.
>
> And so forth. You can follow the same algorithm dozens of times, each time using slightly different vegetables, and therefore getting a slightly different soup. But the algorithm remains the same. A recipe by itself cannot make soup. You need a person to read the recipe and follow the prescribed set of steps. But you can build a machine that embodies this algorithm and follows it automatically. Then you just need to provide the machine with water, electricity and vegetables – and it will prepare the soup by itself. (2017, p. 97-98)

Using algorithms to win world wars in the future is a viable strategy. We have seen how algorithms have already shown their power and ability to sway votes. In the USA, during Donald Trump's period of pursuing the presidency against Hillary Clinton (in 2016), algorithms played a massive role in many hacking conspiracies. In the world of algorithms, power will be measured not by might but by the most carefully considered and constructed algorithm. In a more modern approach and context, brands can now predict or know what their customer or end-user will do next. Brands can now anticipate their customer's next move and know how they think. Speaking of anticipating one's next move, in 1997 chess grandmaster Garry Kasparov lost to artificial intelligence (AI) in a game of chess. He lost to an IBM computer called Deep Blue. This was dubbed a plot of *man versus machine*, and computer science won. This was the early start of witnessing the power of algorithms.

IBM Deep Blue beat G. Kasparove in 1997

The digital revolution has accelerated the process of totem resuscitation and totem augmentation. Most brands had begun to create their logos — a sort of branding visual avatar — to re-present elements of nature or cosmic forces and traits. Most logos represent animals, molecules, the universe, and various inanimate objects. They can take the form of literal visual translations or abstract avatarial pictorials. The image below shows animal-referenced artworks/brands as company logos that are very avatarial in appearance.



Figure 17: Avatarial and Totemic storytelling – Selected Company Logos (as Avatars)
(Left) Lamborghini (Top center) Mercedes-Benz (Bottom center) Puma clothing brand (Ferrari)

The digital avatar should learn and understand ethical models of totems, and run the 21st century lap with updated moral codes. This exchange of skills will potentially enhance the avatar's ethical means of constructing meaningful identities and solid narratives. We should note that one of the totem's values is to put the end-user first. In essence making sure the end-user has a moral compass. In marketing terms this is referred to as *branding*.

Fluid utility of Avatars and Totems for self and brand identity

An avatars contemporary utility extends to this proposed and argued point. This means that an avatar does act like one's personal brand — although avatars today are known to be inconsistent, their digital nature especially in social media spaces is that of a shapeshifter. For an individual end-user this may be called one's *brand key*. I argue that your avatar forms part of your brand key, your brand essence. It assists to give an end-user a particular symbol or design in order to allow social self-advertising. Andy Stalman is a branding expert and Co-

Founder and CEO of TOTEM Branding. He is also a Visiting Professor at the IE University based in Segovia and Madrid in Spain. Stalman has recently published a book called *Totem: Transforming Clients into Believers*. This is what Stalman (2021) expresses about Totems;

> For thousands of years a TOTEM has been an icon that unites and inspires people. Ancient clans and moderns tribes are connected through TOTEMS. Curiously, our ancestors from more than 116 centuries ago suffered from climate change, but they were also the first to discover and value TOTEMS. Not as mere natural or decorative elements, but as creations and constructions that strengthened and united the group. The TOTEM had a prominent place and everything revolved around TOTEM.
>
> Thousands of years later, to this day, the new TOTEMS are no longer as they were then, but they do maintain the most outstanding aspects of their **symbolism, meaning and essence**: for many they have a **protective** and adoration **value**. Modern TOTEMS are in **cities**, in the countryside, on the streets, on TV, on social networks, they are everywhere and **have a new name. Brands**. Given the notable absence of leaders and referents, TOTEMS have found an unexpected space in the existential vacuum of **post-modern society**. Even the new social construction has fallen on them, and not accidentally. Postmodern tribes no longer just follow brands but **join them**. The brands are the TOTEMS around which we gather to **celebrate**, to **share**, to enjoy, to recommend, to experiment, to learn, etc.
>
> Many companies today are worth more for their brands than for the other tangible assets that were always taken into account. And this trend is going to be accentuated more and more. **A TOTEM is consistent**. It connects with people, it makes them part of its **history**. The **digital transformation** in the business environment demands creating a new organizational culture where people believe in the reason for the **existence** of TOTEM because it **transcends the merely monetary**, makes **people's lives better**. And so he makes money; and not the other way around.
>
> We are entering **a new era** in which brands are more **aware** than ever, they are loaded with contributions from **believers** who embrace **significant change** and who are committed to **living on purpose**, **raising awareness**, making money. And ultimately, save the world. (andystalman.com, 2020)

Stalman justifies this atavism present within digital transformations, Furthermore he verifies my stance about totems acting as a brand key for the end-user. Although he predominantly speaks on organisations, it is noteworthy to acknowledge that we're evidently seeing the rebirth of totemism. Particularly the totem as an avatarial born again phoenix in our time. This aspect also reminds us of how earlier on I referenced Combs and Brown when they spoke of behavioral design traits[51] although heavily making reference to design within brands, products and Apps.

[51] Framework (a), Intention (b), System (c), Change (d), Persuasion (e), and Environment (f).

Still on emphasing the need to recognize totems, Stalman reflects on the concerns that lead to the creation and publication of this book on Totems as brands. Stalman states that he continues to…

> … examine and share the irreversible process of change and evolution for brands in the Digital Age. And how to assume and assimilate the transformation at all levels of the professional life of the citizen of the 21st century. From a practical point of view, more and more companies and people a are aware of the effects, challenges and opportunities of the digital age in their day to day. And the path to totemization is irreversible. But building a relevant and meaningful TOTEM is not an easy task. You can no longer speculate that lightening creates a figure in a tree or that the wind carves the stone or that fire creates a new element. Today TOTEMS are born from the vision of a leader, a group of people, from the work of designers, architects, engineers, artists, entrepreneurs and philosophers. Creating and building a TOTEM with a sense of connection, pride and belonging is at the center of everything that the outstanding companies of the digital age are doing.
>
> The fascinating thing about TOTEM is that it is practically read, pronounced and understood the same in almost all the world. It is an icon that transcended fashions, wars, cataclysms and all social, economic and cultural transformations. It summarises and represents what Branding is: making the intangible tangible; the purpose, the values, the trust, the essence, the belief, the feeling, the doing, the vision, the mission; and all with a method.
>
> Modern TOTEMS are more than present in our lives, we gather around them to celebrate, to transform, to lead, to share, to co-create, to do, to feel, to believe and to create. In future, the true wealth of a nation will not be underground; it will not be oil, gas, gold or lithium. True wealth is found in the creative minds of people and its ability to create and innovate. In creating environments open to innovation, new ideas, permeable to change, *investing in the potential of their young people without forgetting the rich experience of their elders*. (andystalman.com, 2020) (Italicized emphasis mine).

Stalman defines many traits possessed by the totem similarly to how we addressed the totem and avatar in my previous discussion. He proves how this atavistic utility of totems keeps permeating our contemporary cultural spaces and more. Some of the important observations are the collaborative methods that Totems inspire. Just like the discussion about Nokia's slogan *connecting people*, Stalman realises how people, careers, industries and nations can grow more from this totemic transformation and clan-like collaborations.

Skills transfer in E-commerce: Totems teaching Avatars

Stalman outlines another central point that I want to emphasise throughout this paper, the investment in young potential — digital avatars (Digital Natives) — without neglecting the wealth of experience that elders — in this instance totems — hold. This may be seen as an example of the passing down of the torch. Youth learning from the old, which figuratively means, digital avatars learning from totems. The next iteration of a phoenix must inevitably be better than the predecessor; it must hone the knowledge of the past and apply it to excel both in the present and the future. Undeniably, I totally concur with Stalman's stance, the

totem is an end-user's North Star in the avatar age. It is a guiding principle that cultivates one's brand key — the self-concept — and assists anyone who is in tune with totemic understanding to amass a meaningful identity design. This is an identity design capable of containing both stimulating and authentic narratives. Tattoos are a visual example of totemic identity or brand design, as mentioned by Stalman. Tattoos are used all over the world as a form of expression as well as totemic or avatarial branding extensions for self-concepts.



(Left) Maori Totem Sculpture and Facial Tattoo (Middle) Mike Tyson with Maori-like Tattoo (Right) Maori Tattoo Detail

DID YOU KNOW?

The Maori are indigenous people that originated in New Zealand. They have a form of body art, known as moko but more commonly referred to as Maori tattooing. The art form was brought to the Maori from Polynesia and is considered highly sacred. Since the Maori people consider the head to be the most sacred part of the body, the most popular kind of Maori tattoo was the facial tattoo, which was composed of curved shapes and spiral like patterns. Often this tattoo covered the whole face and was a symbol of rank, social status, power and prestige. For Maori, tattooing was (and for some, still is) a rite of passage, which meant it was highly revered and ritualised. The tattooing would begin usually during adolescence. The great thing about Maori tattoos is that to this day, no two tattoos are alike. Maori tattoos are one of a kind. They are always highly intricate and detailed and display the craftsmanship and artistry of not only the artist but of the Maori culture. The Maori tattoo artist is called the tohunga ta moko which means moko specialist. These tattooists are highly respected, and considered tapu which means inviolable or holy. Tohunga ta moko were mostly men, but there are a few women who took up the practice. (Source: Zane Swanston, 2017, zealandtattoo.co.nz)

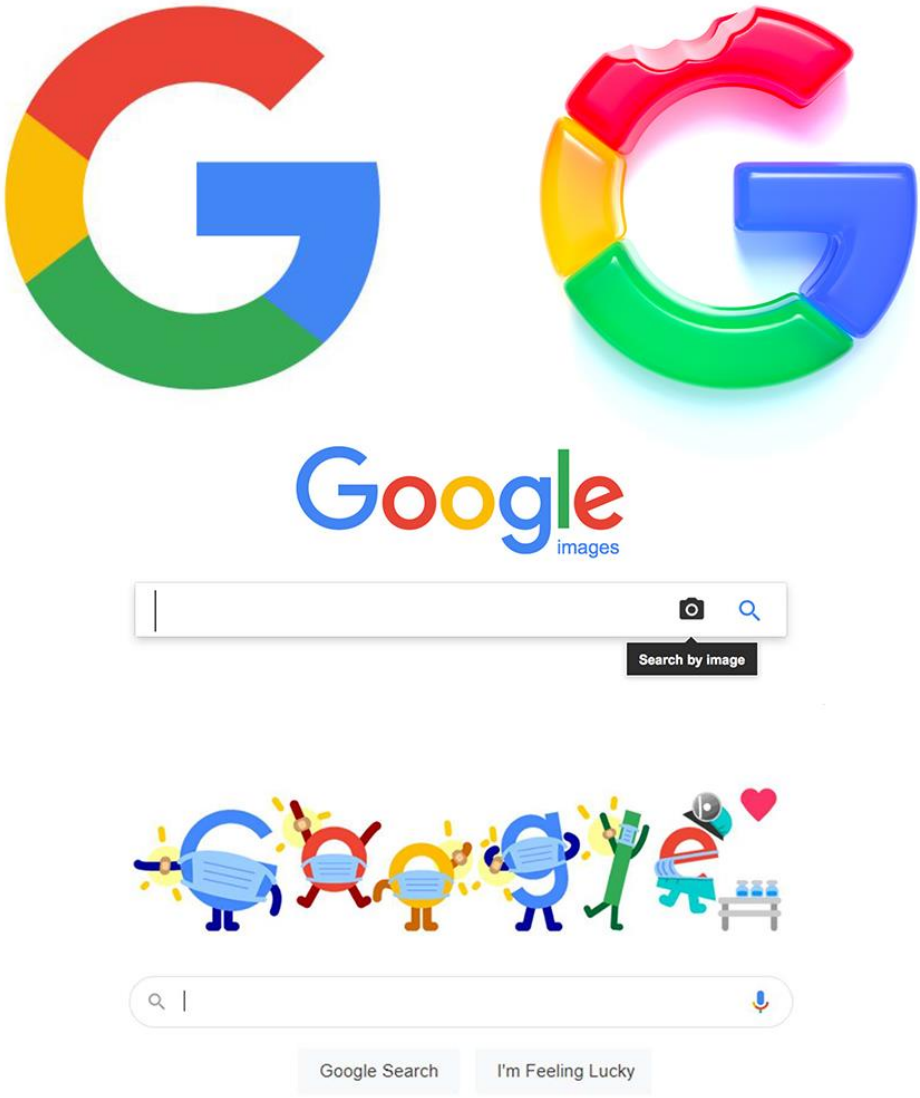
The comparative table (figure 9) above about actual and physical worlds includes post-modernism as a movement that typically resides in actual worlds. I argue that digital avatars are the beginning of crossing over to *post-human* ideologies.

According to Stalman's perspective on post-modern society, we have adopted the use of totems. Totems automatically represent whoever uses them; I argue that in our modern context, these totems are avatars.

> Individuals, in many cases, are defined by the brands they choose and many others **do not conceive of their world without the presence of their TOTEMS**. Brands shape our relationship

> with the world and for brands, this implies a great opportunity, but at the same time a greater **responsibility**. Believers mobilise when brands compromise. Moreover, the examples in which TOTEMS inspire change do not stop growing. Furthermore, we are witness to the growth and development of companies that incorporate in their production and business. (andystalman.com, 2020)

Earlier in chapter 2, I mentioned the metaverse, which l will now discuss in detail in light of the ongoing convergence of art, digital, science, technology, and brands. Beyond totemic lineage, brands and logos now serve as avatars in the twenty-first century. However, as Stalman confirms, the rebirth of totemic ideology is more visible than ever before. Brands are learning how to personify their avatars to (1) design better identities, (2) to tell better stories and (3) leave a formidable legacy. We can use Google as an example. Google has designed better identities by putting the user first, and they have managed to tell better stories for their end-users through relevant usage of their avatars/logos. Google's logo has shape-shifted to represent the totemic behavioural design in the 21st century, both in search narrative and brand visuals. Below is a visual example of how fluid the brand has become. No matter its form, it still permeates the public with design relevance in storytelling value.



Google as brand logos and avatars

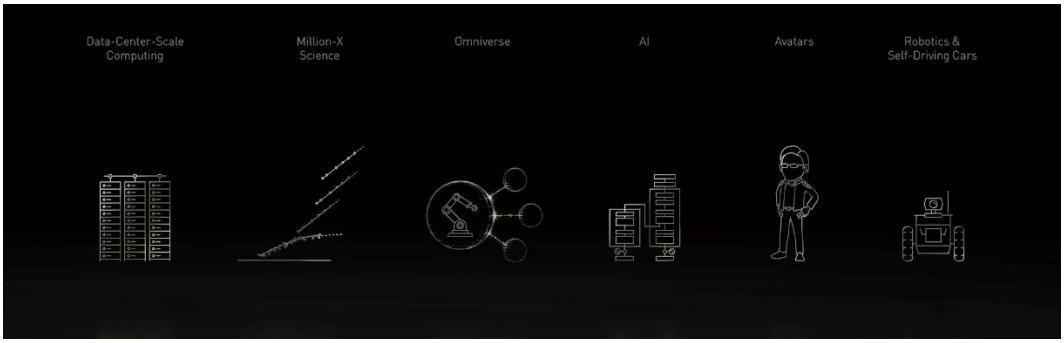


Figure 18: Taken from a keynote presentation delivered by CEO Jensen Huang of NVIDIA (2021). Avatars will play a key role in virtual worlds. See Huang's outlined drawing of his avatar (second image from the right). The avatar has a 3D animation, which is called ToyJensen, referred to as conversational AI ToyME.

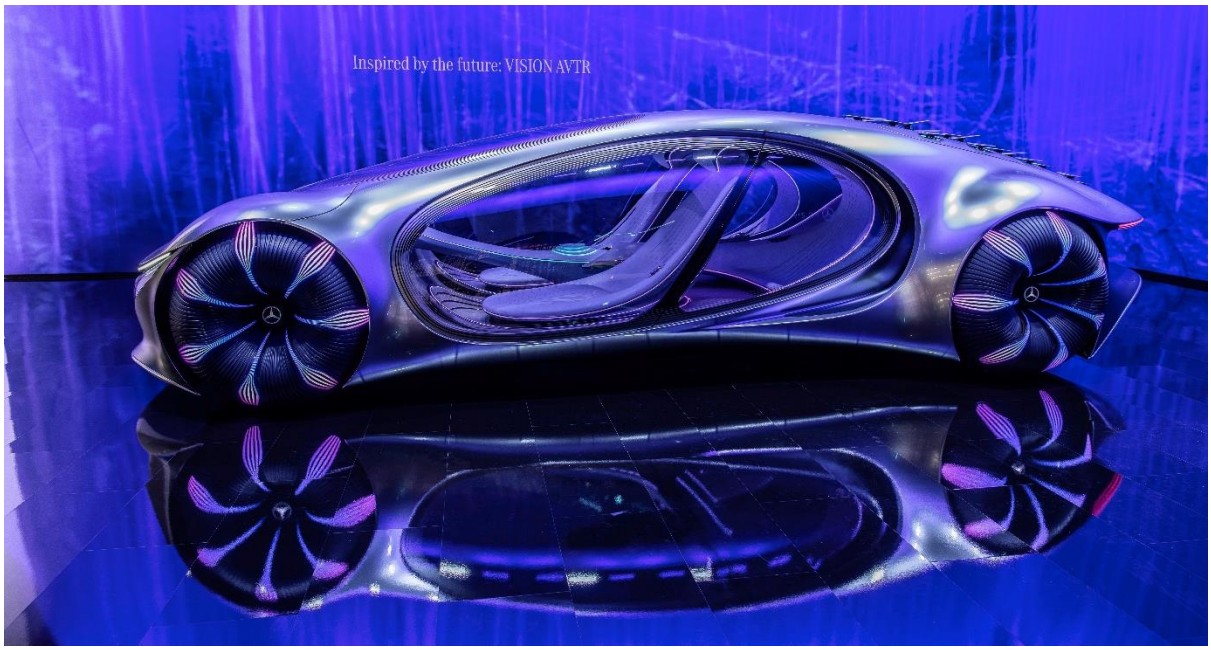


(Left) NVIDIA Omniverse Avatar Tokkio a talking kiosk and animated robot (Middle & Right) NVIDIA Omniverse Avatar ToyMe - Project 'Maxine in autonomous and artistic mode'

The metaverse/omniverse uses various elements to build virtual reality worlds. *One of the key ingredients in this fast-growing second world is the creation of avatars*. The construction of second worlds will include avatars in its planning and road maps. An example of these themes and initiatives that will be constant and '*that will shape our industries'* (Huang, 2021) are the following; (1) Data-Center-Scale Computing, (2) Million-X Science, (3) Omniverse, (4) Artificial Intelligence, (5) **Avatars** and (6) Robotics and Self-Driving Cars. In most board games in order to play one needs dice and tokens. I liken tokens to avatars in the metaverse, without an avatar (tokens) play might be impossible. As a result, avatars are a critical component in the world of play in the twenty-first century.

Chapter 5
Utility Matters: The Avatarial Phoenix Flying High - Brain Computer Interface & Biomimetic Design

> In the early twenty-first century, the train of progress is again pulling out of the station – and this will probably be the last train ever to leave the station called *Homo sapiens*. Those who miss this train will never get a second chance. In order to get a seat on it you need to understand twenty-first century technology, and in particular the powers of biotechnology and computer algorithms. These powers are far more potent than steam and the telegraph, and they will not be used for the production of food, textiles, vehicles and weapons. The main products of the twenty-first century will be bodies, brains and minds… (Harari, 2016, p. 319).



Advanced Vehicle Transformation: Mercedes-Benz VISION AVTR: operating the user interface with the power of thought (Press Information: September 6, 2021) – Fusion of Human, machine and nature, a contemporary totemic extension.

In the 21st century, humanity has gradually fused with technology and the rapidly increasing and intertwining digital-biosphere[52]. Augmented reality is rapidly becoming the new physical world. Access constraints due to economical inequalities is the main factor by far

[52] According to the Encyclopedia Britannica, the biosphere is a relatively thin life-supporting stratum of Earth's surface, extending from a few kilometres into the atmosphere to the deep-sea vents of the ocean. The biosphere is a global ecosystem composed of living organisms (biota) and the abiotic (nonliving) factors from which they derive energy and nutrients.

that stands between the 100% spread of this augmented reality phenomena globally. As technology and biology merge, concepts like the Internet-of-Things (IoT) are rapidly becoming a reality. It is becoming increasingly more challenging for a human to complete a twenty-four hour interactive cycle without having had any digital or technological experience. Video calling is becoming the new normal; voice notes are replacing thumb texting and standard calling.

Forgetting a set of household keys before going out for play[53] is not the worst thing that could happen to a Digital Native. Nonetheless, forgetting a mobile phone for a Digital Native before going out for play may result in multiple inconveniences and even mental stress. Mobile phones can now be used as access cards, especially in the aftermath of the Covid-19 pandemic. Access to company property and universities has been disrupted on a grand scale. An individual may access these places through mobile phones due to the need for verifications. For example, proof of Covid-19 health screening prior to visiting campus. A mobile phone can also be used as a banking device and a GPS unit for the end user. Its utility outperforms pre-19th-century totem maps and compasses regarding totemic value extension.

However, as with historical totemic items, users could hardly go about their daily routines and *play* without carrying one of their totemic objects. One's totemic staff served as a guide and spiritual reference point beyond creating an identity framework for self. The utility of the mobile phone extends to a self-totem, an extension of self-concept, and a modern example of atavistic and tactile totemic objects. Totems are ancient of course, but more importantly, they have a substantial utility value and serve to guide the user. Kubo and the Two Strings is an animated movie by **Laika**. The narrative has a lot of totemic elements, some of which serve as a guide to the protagonist, Kubo.



[53] I use the word *play* as referenced in page 6 in relation to Huizinga's theory. Play as activity in culture, in this instance social activity and interactivity.

Kubo and the Two Strings movie: Kubo's totems as his guide (monkey sculpture and beetle)



Kubo and the Two Strings movie: Monkey and Beetle totems transformed embodiments as Kubo's living guardians

To paraphrase Marshall McLuhan[54], the medium (mobile-phone in this instance) thus becomes the message.

> In a culture like ours, long accustomed to splitting and dividing all things as a means of control, it is sometimes a bit of a shock to be reminded that, in operational and practical fact, the medium is the message. This is merely to say that the personal and social consequences of any medium — that is, of any extension of ourselves — result from the new scale that is introduced into our affairs by each extension of ourselves, or by any new technology.[55] (2013, p. 14)

To be more specific and as a slight extension of socially misleading concepts and presuppositions, one's cellular phone brand as a medium may be a status and social class symbol. A mobile device may create assumptions about an end-user's social status and financial standing, which is a very deceptive message due to the medium and pop culture. Socially, we also ubiquitously notice this misleading perception around the type of bank card one carries. Black bank cards are associated with wealth. The owner of a black card is assumed to be rich, although this is not always the case. The card, as the medium, sends a wrong message.

[54] Understanding Media: The Extensions of Man
[55] Ibid. p. 14

From "Know thy self" to "knowledge of cell-f"[56]

Note:

21st century digital and technological jargon atavistically and 'subliminally' appropriates terms from biology. Extensions of biomimicry in jargon too, case in point a Cellular Phone. Definition: (1) Biology – having to do with the cells of an organism (2) Communications - relating to a phone system that sends a phone signals by radio instead of by wire.

(Definition Source: dictionary.cambridge.org/dictionary/english/cellular)

Hall (2012), in his semiotics book mentioned above, describes an example of tactile objects (signifiers) found in ancient Inuit maps. This is similar to a historical mobile device, except it only served as a guiding device. I bring this up concerning media becoming the message in everyday social life. Hall elaborates on these Inuit maps in the following ways:

> These are Inuit maps. They are made from wood. Rather than being visual, they are tactile. The Inuit hold this kind of map under their mittens and feel the contours with their fingers to discern patterns in the coastline. The advantage of these maps is that they can be used in the dark, they are weatherproof, they will float if you drop them into the water, and they work at any temperature. They will also last longer than printed maps.
>
> Although these Inuit maps are highly abstracted, they still resemble the shape of a coastline. While some maps follow the geography of the place that they represent in a fairly exact way, others do not. When specific information about the environment is represented on a map in an abstract way we tend to say that the map is schematic, whereas when a map resembles the world in a more concrete and exact way we say that it is topographical. (2012, p. 28)



The Inuit Map

[56] Self-knowledge spelt as Cell-f knowledge, credit given to the rapper, lecture and activist called KRS-One

The Inuit are indigenous peoples who live in Greenland, Canada, and Alaska's Arctic and subarctic regions. The Inuit languages are a subset of the Eskimo–Aleut languages. The above maps that the Inuit people use have totemic elements reminiscent of masks that inspired Pablo Picasso's cubism. At first glance, they may appear to be beautiful miniature sculptures just produced for craft's sake or perhaps kitsch. However, they imitate nature — as Hall alluded to about patterns of the coastline — and may resemble features of celebrated or commemorated ancestral sites. They might even resemble known ancestors. Benchmarking from Hall's report, on objects that serve as signifiers. In this case the Inuit Map (although tactile maps are rarely used in the contemporary digital and virtual space). They provide the end-user with a wide range of affordance beyond simple visual design.

GPS platforms such as Google Maps and Waze have evolved to include other forms of guiding utility, such as oral and audio collaborative (avatarial) navigation techniques between the end-user and the tool that subtly mimic totemic Inuit maps. This is an example of how, (by referencing totems), modern technology can be used to improve avatarial devices while maintaining a high ethical standard.

In the Avatar space (the digital self), when using Google Maps or Waze, the user needs to sign in and use their online identity selves for interactivity and guidance. Similar means were employed with totemic sculptures. Most of these sculptures visually resembled family clans or individual user. Signing in then was through the use of your family names in order to utilise your totem. Shaman ritual practices such as putting on a mask, song and dancing are a means of signing in before accessing other worlds. More examples of these twenty-first-century functional forms of sculpture can be explored within the use of joysticks for gameplay, and VR goggles for virtual reality avatarial performance and identity formation (this is also evidence of functional design and affordance concerning the user and avatars).

McLuhan continues and elaborates his point in this manner,

> Thus, with automation, for example, the new patterns of human association tend to eliminate jobs, it is true. That is the negative result. Positively, automation creates roles for people, which is to say depth of involvement in their work and human association that our preceding mechanical technology had destroyed. Many people would be disposed to say that it was not the machine, but what one did with the machine, that was its meaning or message. In terms of the ways in which the machine altered our relations to one another and to ourselves, it mattered not in the least whether it turned our cornflakes or Cadillacs. (2013, p. 14)

True, automation has disrupted human jobs and roles as we know them in the twentieth and twenty-first centuries. Humans are becoming cyborgs due to digital avatars, IoT and technology. And indeed, a digitally augmented society. And, in the absence of totemic awareness, utility values and ethics, this reality may eliminate the need for human contributions. Although the preceding quote is not solely about the Cadillac brand, I will demonstrate this aspect of (a) automation, (b) the medium as a message, and (c) the homogeneity of human and modern machines by citing developments in the Mercedes-Benz brand.

Teaming up with the best: Totems, Avatars and Algorithms

As a case study for this paper, I have chosen Mercedes-Benz Advanced Vehicle Transformation as my primary technology and computer science case study. The Mercedes-Benz case study serves to consolidate all the discussed notions and the noted hybrid nature of Avatars and Totems.

Britta Seeger asserts the following:

> "Mercedes-Benz is setting another milestone in the merging of man and machine with the research and development of brain-computer interface applications in cars. BCI technology has the potential to further enhance driving comfort in the future, for example," said Britta Seeger, Member of the Board of Management of Daimler AG and Mercedes-Benz AG, responsible for Sales. "Mercedes-Benz has always pioneered intelligent, innovative solutions to provide our customers with the best product and service experience. BCI technology works completely independently of speech and touch. This opens up revolutionary possibilities for intuitive interaction with the vehicle." (2021, p 1)

Earlier, I made mentioned CEO Jensen Huang of NVIDIA. Nvidia Corporation is a multinational technology company based in Santa Clara, California, founded in Delaware. It creates graphics processing units for the gaming and professional markets and system on chip units for mobile computing and automotive applications. Mercedes-Benz, which is headquartered in Stuttgart, Germany, has announced their partnership with NVIDIA under the umbrella term "Teaming up with the best". Mercedes aims to be a market leader in car software and electric drive experiences. Mercedes in their 2020 strategy stated that; "Leadership in electric drive and proprietary car software will be essential for our future success." Seeger's mention of the merging of **man and machine** attests to the deliberate intent of the next iteration of the cyborg self-concept (our augmented selves). Instead of the plot line of **man vs machine**, we saw in 1997 through a chess match.

The man and machine concept is why I chose Mercedes to drive my message about biomimetics, the resurgence of totemism, and the fusion of man and machine. The Mercedes-Benz AVTR is a cutting-edge machine that becomes fully functional when it comes into contact with a human. The synchronicity of the Mercedes AVTR vehicle and the end-user, specifically the human, is the pinnacle of contemporary and practical notions of IoT and cyborgs and a giant leap towards Posthumanism in the twenty-first century.

Harari states that,

> The main products of the twenty-first century will be bodies, brains and minds, and the gap between those who know how to engineer bodies and brains and those who do not will be far bigger than the gap between Dicken's Britain and the Mahdi's Sudan. Indeed, it will be bigger than the gap between Sapiens and Neanderthals. In the twenty-first century, those who ride the train of progress will acquire divine abilities of creation and destruction, while those left behind will face extinction. (2017, p. 319)

The notion of evolution as we knew it before has changed vastly due to digital, robotics, avatars and automation. What happens when biomimicry and Human-computer interface or brain-computer interface converge. The fusion far surpasses the train technology and biomimicry model we discussed earlier. In this instance, we imagine the next revolution in train technology fusing man and machine, man's mind being merged with machines and AI. How does this affect the human or the end-user? Whose identity gets affected, that of the end-user or technology? How do communities and brands merge with art, science and technology to build new identities and create better homogenous relationships between machines and humankind?

Humans are morphing into Avatars and somewhat becoming machines (cyborgs). The creative forces combined to aid Mercedes in reaching this groundbreaking technology do not end with NVIDIA. Mercedes Benz has also collaborated with Disney to develop the concept. And the idea is also inspired by James Cameron's 2009 film Avatar. BCI is synonymous to the term Human-Computer Interface. Harold Goldes explores Human-Computer Interface in his paper called Designing the Human-Computer Interface. According to Goldes;



Mercedes-Benz Logo - The luxury and automotive brand with the three-pointed star

> Human Factors and Interface Design In contrast to Weizenbaum, Bronowski, and Chaplin, human factors or ergonomic studies offer an analysis of man-machine relationships that treats the human component as unique (Chapanis, 1 956), and the modification of the machine to fit man (rather than fitting man to machine) as the correct priority (Sinaiko and Wallace, 1961).
>
> As human factors, research also "supplies information to the process of designing the man-computer interface"(Clark, 1981, p. 278). It is an invaluable aid to the development of benign or user-friendly boundaries that, like Frost's fences, make good neighbours. The human-computer interface is the physical and conceptual locus of human-computer interaction. It is represented physically by the computer terminal and conceptually as a virtual workspace that corresponds to some real model the user already knows. Creation of the interface is a design process that seeks to identify an appropriate model or "defining metaphor" (Thomas and Carroll, 1981, p. 260). The model is translated into computer-based organisations and structures that will represent state of the system to the user.

> The design process entails an attempt to identify the specific human factors, behavioral and psychological, that the interface must engage, support, and amplify. (1983, p.10)

The fitting of man to machine is a creative, artistic and daring attempt of what the Mercedes Benz AVTR has managed to achieve today in the 21st century. Technology, art and anthropological design processes team up to enhance end-user/human factors such as psychology and human behavior. A non-invasive means of a homogenous and immersive reciprocity between machine and the human brain. Outer body experiences also hint at Homo sapiens' early attempts to explore our being as "man the thinking and empathetic machine", which we currently refer to as Brain-Computer Interaction. This concept supports values of safety, which to a certain extent, promotes ethics and moral enhancement.

In this instance, safety for you and for people and animals around you when driving, for example. A proper totemic stance and designed thinking, cooperating with algorithms and digital avatars. A totemic design thinking model, a homogenous automation design model that drastically reduces mortality rates for road users, bearing in mind that road users are not only people but animals too. It is a step in the right direction for encouraging apps like Waze and Google maps to not only search routes by the quickness of travel. But to expand travel search on these apps by road safety as another search criterion. The roads with fewer accidents and roads that may be prone to life-threatening accidents, both for the driver and pedestrians. These algorithms will be essential for the upkeep of automation and safety regulations, safety for all road users. Adding algorithms might mean developments such as BCI circumvent accidents of animals on the road. Creating empathetic driving experiences.

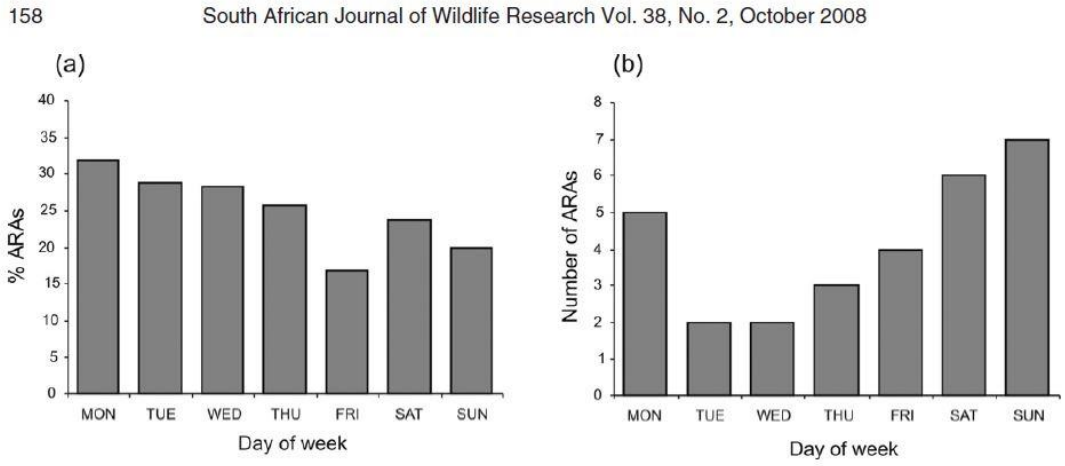


Fig. 3. Daily animal-related accidents from 1994 to 1998. **a**, Proportions among all road accidents (n = 122) for all months of the year; **b**, frequencies (n = 29) during hunting seasons (June to July).

The above graph is taken from Pet Eloff and Adriaan Van Niekerk's analysis in a paper called *Temporal patterns of animal-related traffic accidents in the Eastern Cape, South Africa*. Eloff and Niekerk from the University of Stellenbosch note that the following indicated the animal-related accidents in South Africa (concerning the Kudu).

> The road between Uitenhage and Graaff-Reinet is a main traffic route linking the Nelson Mandela Metropolitan Area with a number of smaller towns and settlements inland. Many people who work in the city keep close ties with family in these small towns and regularly travel this route to visit them over weekends. These visits increase the number of vehicles on the road over weekends.
>
> (… Fig. 3a). One can speculate that **kudu** avoid roadways over weekends, possibly due to the disturbance caused by the higher than normal traffic volumes. Figure 3b, however, indicates that during the hunting season (June to July) there is a marked increase in the number of ARAs on Friday through Sunday. (2008, p. 157) (emphasis mine).

My fellow Witsies[57] for an example who are represented by a KUDU (as an Avatar and Totem) may be urged to observe this stat above and the team up as Academia with Wildlife, Tech and Digital Arts to help enable the Kudu's safety on the road.

[57] A learner or student at the University of the Witwatersrand, Johannesburg, South Africa.

Chapter 6
Virtue in the virtual

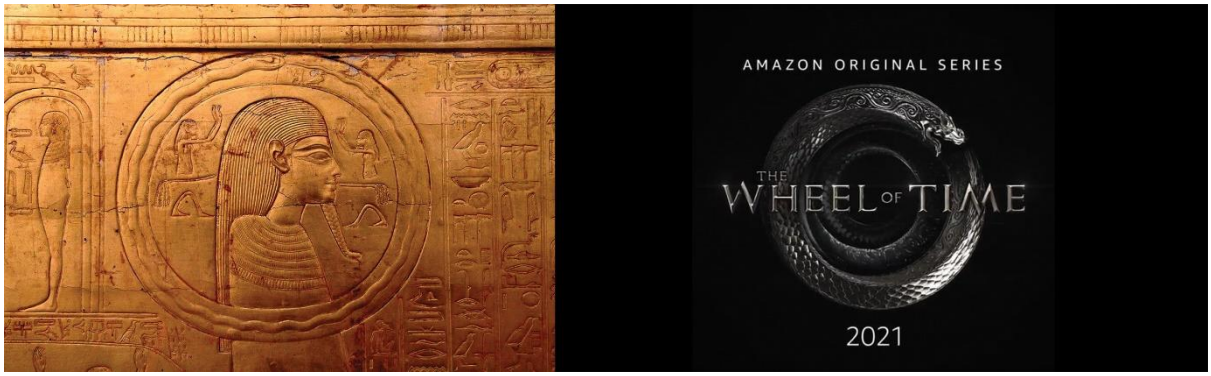
Conclusion or Ouroboros

Totems making way for Avatars in the Metaverse?



Figure 19: Characters and Narrative from the film Star Wars

A Life of Virtue was a Condition required by the Egyptian Mysteries as Elsewhere Mentioned. The virtues were not mere abstractions or ethical sentiments, but were positive valours and virility of the soul. Temperance meant complete control of the passional nature. Fortitude meant such courage as would not allow adversity to turn us away from our goal. Prudence meant the deep insight that befits the faculty of Seership. Justice meant the unswerving righteousness of thought and action. Furthermore, when we compare the two ethical systems, we discover that the greater includes the less, and that it suggests the origin of the latter. In the Egyptian Mysteries, the Neophyte was required to manifest the following soul attributes: - (1) Control of thought and (2) Control of action, the combination of which, Plato called *Justice* (i.e., the unswerving righteousness of thought and action). (3) Steadfastness of purpose, which was equivalent to *Fortitude*. (4) Identity with spiritual life or the higher ideals, which was equivalent to *Temperance* an attribute attained when the individual had gained conquest over the passional nature. (5) Evidence of having a mission in life and (6) Evidence of a call to spiritual Orders or the Priesthood in the Mysteries: the combination of which was equivalent to *Prudence* or a deep insight and graveness that befitted the faculty of Seership. Other requirements in the ethical system of the Egyptian Mysteries were: - (7) Freedom from resentment, when under the experience of persecution and wrong. This was known as courage. (8) Confidence in the power of the master (as Teacher), and (9) Confidence in one's own ability to learn; both attributes being known as Fidelity. (10) Readiness or preparedness for initiation. (James, 1954 p. 31)



Atavism in Narratives (Left) Oldest record of ouroboros: Ancient Egypt 1600BC (Right) Ouroboros referencing in 21st century film

Digital Need for Moral Imagination

Ruha Benjamin is a sociologist and professor at Princeton University in the Department of African American Studies. n her keynote address called Race after Technology, Benjamin speaks of how 'ancestral co-presence has long fortified struggles for justice and liberation'. She emphasizes how the memory of the ones that came before us historically helps to solidify a sense of value within the self. Benjamin reinforces a re-imagined take at Black Youth-Led Technology. The fascinating aspect about her discussion (although my talk is not specific to race dynamics), is when she hints on the need for moral imagination, talking about guided missiles and misguided man. She highlights the "over investment in technological prowess", and a lack of moral imagination[58]. This is what my paper has been leaning towards and what I have attempted to articulate to strengthen the digital avatarial moral fibre using totemism.

I argue that while Totems may excel and fuel the power of 'moral imagination', avatars can do the same but fuel it even further by adding 'moral creativity'. A virtuous life in the 21st century sounds boring and it is not often painted as a rosy undertaking. The pop-cultural word 'cool', often said by youth, is not often associated with virtuous actions. Morals and virtue are every so often linked with struggle and suffering. Virtue and morality are reduced to tragedy first, then catharsis. The phoenix going through excruciating flames of pain and burning before it may emerge new and purified. This virtuous restoration of self, behavioural design and morality in the digital space has to find creative and imaginative means of telling better stories. As stated above, historically, about "*A Life of Virtue being a Condition required by the Egyptian Mysteries",* perhaps the same steps may be adapted to this avatarial age. I will mimic the Egyptian Soul attributes and adapt them to Digital avatars as a manifesto.

[58] Taken from Martin Luther King, Jr.

Digital Avatar-Embodiment attributes: Avatarial Brand Commandments

1. Control of thought
2. Control of action
3. Steadfastness of purpose
4. Identity with spiritual life or the higher ideals
5. Evidence of having a mission
6. Evidence of a call to spiritual Orders
7. Freedom from resentment
8. Confidence in the power of the master (as Teacher)
9. Confidence in one's own ability to learn
10. Readiness or preparedness for initiation

Benjamin further mentions the potential intrusive aspects of machines (if machines are allowed to be invasive and to have unregulated and excessive surveillance over humans in the name of capitalism), when humans supposedly regress to become newly enslaved people, robots of the future. Benjamin emphasizes how "*Embodiment does not magically disappear with automation but can be more intrusive and violent*" (2020). She begins by clearly defining a robot as follows; "…it is worth recalling that the etymology of the Czech word robot is drawn from …*robata*, which means servitude, hardship. And as anthropologist Kathleen Richardson[59] observes 'robots have historically been a way to talk about dehumanization'. In her talk (at the Harvard Kennedy School in Benjamin further speaks of both coded bias and imagined objectivity, and terms the combination *The New Jim Code*.

Our twenty-first century digital avatarial phoenix will soon perish and rise again. This time it will come back as a fully immersive virtual phoenix. Perhaps this might happen sooner than we think. This could be the beginning of a better pedigree for the next iteration of digital and virtual avatars, perhaps the avatarial phoenix of the not-so-distant twenty-second century.

Beyond BCI: Fitting An Avatar's Mind to Machine

I argue that totemism is a universal and galactic language and system. It attempts to see the end-user more than just Homo Sapien or Homo Narran. It attempts to view a human as a universal entity that is part of a whole in an entire system. To totemism, an end-user is an essential and unique cog representing multiple and diverse cogs. All work to achieve one purpose that promotes life and social interactivity. Through **Avatarial-Totemism** we will realise that we share more in common via responsibility and accountability concerning our

[59] An Anthropology of Robots and Ai: Annihilation Anxiety and Machines (2015)

self-concepts and identities using the digital arts. The avatarial phoenix can apply the same notions in the virtual and fast-emerging metaverse.

In his discussion of Homo Narrans concepts, which we began with in this paper, John Niles explains that;

> Even more than the use of language in and of itself or other systems of symbol management, storytelling is an ability that defines the human species as such, at least as far as our knowledge of human experience extends into the historical past and into the sometimes, startling realms that ethnography has brought to light. Through storytelling, an otherwise unexceptional biological species has become a much more interesting thing, *Homo narrans: that hominid who not only has succeeded in negotiating the world of nature, finding enough food and shelter to survive, but also has learned to inhabit mental worlds that pertain to times that are not present and places that are the stuff of dreams*. It is through such symbolic and mental activities that people have gained the ability to create themselves into human beings and thereby transform the world of nature into shapes not known before. (1999, p. 3 [Italic emphasis mine])

This notion of *inhabiting mental worlds that pertain to times that are not present and places that are the stuff of dreams,* as explained by Niles is what Avatars do. BCI excels in this potential.

The atavisms we witness in the 21st century are reminiscent of the Ouroboros. The Ouroboros is an ancient symbol, in the context of my paper, I use it to emphasise how nothing is ever new under the sun. Avatars thrive through a chronological sequence of time and an essence totemic lineage. The Ouroboros, according to the online Encyclopedia Britannica, is defined as follows:

> **Ouroboros**, emblematic serpent of ancient Egypt and Greece represented with its tail in its mouth, continually devouring itself and being reborn from itself.
> A gnostic and alchemical symbol, Ouroboros expresses the unity of all things, material and spiritual, which never disappear but perpetually change form in an eternal cycle of destruction and re-creation. (2022)

The image of ancient Egypt above and the Amazon series The Wheel of Time are visual representations of 'trend' destruction and re-creation. I also support this atavistic theory and claim by quoting a line from George Lucas' film Star Wars. "I am you father," a line Totems would say to Avatars. We alluded to how Brain-computer technology and algorithms fit man to machine. Instead of just fitting man's **brain** to a machine, Totemism as a model will help fit man's **mind** to the machine.

References:

Asante, MK 2005*, Encyclopedia of Black Studies,* Sage Publications, Inc., Carlifornia

Benjamin, W 1935, *The Work of Art in the Age of Mechanical Reproduction*, New York: Schocken Books, 1969

Booker, C 2004, *The Seven Basic Plots: Why We Tell Stories*, Continuum, London

Braidotti, R and Hlavajova, M 2018, *Posthuman Glossary*, Bloomsbury Publishing, London and New York

Casalis, E 1997 *The Basutos,* Morija Printing Works, Morija, Lesotho

Colton, JS and Holmes, S 2018 *Rhetoric, Technology, and the Virtues Book,* University Press of Colorado, Utah State University Press,

Combs, TD and Brown RA 2018, *Digital Behavioral Design,* Boundless Mind

Diop, CA 1974, *The African Origins of Civilization: Myth or Reality*, Lawrence Hill & Company, New York and Westport

Diop, CA 1987, *Precolonial Black Africa: A Comparative Study of the Political and Social Systems of Europe and Black Africa, from Antiquity to the Formation of Modern States,* Lawrence Hill & Company, Westport, Connecticut

Dixon, S 2007*, Digital Performance: A History of New Media in theatre, Dance, Performance Art and Installation,* The MIT Press, Massachusetts Institute of Technology

Douglas, M 2003, *Natural Symbols: Exploration in Cosmology,* Routledge Classics, London and New York.

Dunlap, CJ Jr. 2011, *The Military-Industrial Complex,* American Academy of Arts & Sciences and The MIT Press

Durkeim, E 1995, *The Elementary Forms of Religious Life*, The Free Press, New York

Eliot, TS 1982, *Tradition and Individual Talent*, The MIT Press, Yale University

Eloff, P and van Niekerk A 2008, *Temporal patterns of animal-related traffic accidents in the Eastern Cape, South Africa*, Department of Geology, Geography and Environmental Studies, Stellenbosch University

Fourie, PJ 2018, *Media Studies: Media Content and Media Audiences,* Juta and Company (Pty) Ltd, Cape Town

Freud, S 2004, *Totem and Taboo: Some Points of Agreement between the Mental Lives of Savages and Neurotics,* Routledge Classics, Taylor & Francis e-Library

Goldes, HJ 1983, *Designing the Human-Computer Interface,* Educational Technology Publications, Inc.

Graham, J et al. 2016, *Centripetal and centrifugal forces in the moral circle: Competing constraints on moral learning,* Elsevier Publishing Company

Hall, S 2012*, This Means This, This Means That: A User's Guide to Semiotics,* Laurence King Publishing Ltd, Great Britain

Hara, N and Huang BY 2011, *Online Social Movements,* School of Library & Information Science, Indiana University Bloomington

Harari, YN 2017*, Homo Deus: A brief History of Tomorrow,* Vintage, London

Harari, YN 2011*, Sapiens: A brief History of Humankind,* Vintage, London

Haraway, DJ 2016, *A Cyborg Manifesto: Science, Technology*, *and Socialist-Feminism in the late twentieth century*, University of Minnesota Press.

Hillis, K 1999, *Digital Sensations*, University of Minnesota Press,

Heljakka, K 2012, Aren't you a doll! Toying with avatars in digital playgrounds, *Journal of Gaming & Virtual Worlds*, Vol. 4, No. 2, Aalto University School of Arts

Huizinga, J 1992, *Homo Ludens: A study of the play element in culture,* The Beacon press, Boston

Jurgenson, N 2012, *When Atoms Meet Bits: Social Media, the Mobile Web and Augmented Revolution,* University of Maryland, College Park, USA

Kigen, SK 2018, "*Totemism Re-examined: A Study of Totems and their Relevance Today with Special Reference to the Keiyo Community in Kenya",* University of Vienna

Kirkpatrick, D 2010, *The Facebook Effect: The Real Inside Story Of Mark Zuckerberg and The World's Fastest-Growing Company,* Virgin Books, Ebury Publishing A Random House Group Company

Klevjer, R 2006, *What is the Avatar: Fiction and Embodiment in Avatar-Based Singleplayer computer Games*, University of Bergen, Department of Information Science and Media Studies

Liljenquist, K et al. 2010, *The Smell of Virtue: Clean Scents Promote Reciprocity and Charity,* Sage Publications, Inc.

Lobban Jr, RA 2002, *Was Aesop a Nubian Kummaji (Folkteller)?* Michigan State University Press

Mackey, J and Sisodia, R 2014, *Conscious Capitalism: Liberation The Heroic Spirit of Business,* Harvard Business Review Press, Boston, Massachusetts

Morrin M and Ratneshwar, R 2003, *Does It Make Sense to Use Scents to Enhance Brand Memory?* Sage Publications, Inx., Boston, American marketing Association

McLuhan, M 2013, *Understanding Media: The Extensions of Man,* GINGKO PRESS Inc., California.

McMillan, U 2015, *Embodied Avatars*, New York University Press, New York and London

Molefe, M 2019, *Ubuntu and Development: An African Conception of Development,* Indiana University Press

Nakamura, L 2008, *Digitizing Race: Visual Cultures of the Internet*, University of Minnesota Press, Minneapolis, London

Nile, J 1999, *Homo Narrans: The Poetics and Anthropology of Oral Literature*, University of Pennsylvania Press, Philadelphia, Pennsylvania

Paul, C 2015, *Digital Art (World of Art) Third Edition*, Thames & Hudson, London.

Palfrey, J and Gasser, U 2008, *Born Digital: Understanding The First Generation of Digital Natives*, Basic Books, New York.

Parikka, J 2010, *Insect Media, An Archaeology of Animals and Technology,* University of Minnesota Press, Minneapolis, London.

Tart, CT 1972, *Altered States of Consciousness,* John Wiley & Sons, Inc. United State of America

Ribble, MS et al. 2004, *Digital Citizenship: Addressing Appropriate Technology Behavior,* ISTE (International Society for Technology), U.S. & Canada.

Schwab, K 2016, *The Fourth Industrial Revolution,* World Economic Forum

Sink, JK and Bales, R 2016, *Born in the Bandwidth: "Digital Native" As Pretext for Age Discrimination in Hiring*, American Bar Association

Thacker, E 2004, *Biomedia*, Unversity of Minnesota Press, London

Wilkinson, RH 2013, *The Complete Gods and Goddesses of Ancient Egypt,* Thames & Hudson Inc., New York

Zaytoun, KD 2015*, "Now Let Us Shift" the Subject: Tracing the Path and Posthumanist Implications of La Naguala / The Shapeshifter in the Works of Gloria Anzaldúa,* Oxford University Press on behalf of Society for the Study of the Multi Ethnic Literature of the United States

2020, Merriam-Webster, Incorporated [Online] Merriam-Webster. Available from: https://www.merriamwebster.com/dictionary/atavism#other-words

Placeme GR, (2021) 17:42 *Fashion & Augmented Reality (AR) | 3D Avatars* [online video] Available at: https://www.youtube.com/watch?v=AQAlH-Q3ReY [Accessed: 31 Aug 2022]

Innovation Rocks Consulting GmbH, (2019) *Augmented Reality Avatar - Soft Skill Training* [online video] Available at: https://www.youtube.com/watch?v=3jhCvAQIiJE [Accessed: 11 Nov 2021]

Posey B, (2009) *Augmented Reality Business Card – Avatar Concept* [online video] Available at: https://www.youtube.com/watch?v=humqD4PR2f8 [Accessed: 11 Nov 2021]

Getty Images, Available at: https://www.gettyimages.com/detail/news-photo/the-michael-jackson-hand-print-appears-on-display-at-the-news-photo/102333735?adppopup=true [Accessed 11 Nov 2021]

Mercedes-Benz, (2013) 18:18, *Mercedes-Benz "Chicken" Magic Body Control TV commercial* [Online video] Available at: https://www.youtube.com/watch?v=nLwML2PagbY [Accessed 11 Nov 2021]

Nahrain, (2019) 21:16 *Nokia Hands… Startup Intro* [Online video] Available at: https://www.youtube.com/watch?v=G-DUQhVXH44 [Accessed 11 Nov 2021]

Dictionary.com, 17:30 *Powered by Oxford* Available at: https://www.lexico.com/definition/atavism [Accessed 11 Nov 2021]

Kastrenakes J, (2021) 17:40, Available at: https://www.theverge.com/2021/5/11/22430254/cryptopunks-christies-sale-larva-labs [Accessed 06 Dec 2021]

PCmag.com, 20:17, Available at: https://www.pcmag.com/encyclopedia/term/skin [Accessed 08 Dec 2021]

Parentzone, 15:13, Available at: https://parentzone.org.uk/article/what-skin-gambling#:~:text=A%20skin%20is%20a%20graphic,the%20outcome%20of%20the%20game [Accessed 09 Dec 2021]

Askanydifference.com, (2021) 16:30, Available at: https://askanydifference.com/difference-between-animism-and-animatism/ [Accessed 09 Dec 2021]

Sociologyguide.com, 16:39: Available at: https://www.sociologyguide.com/anthropology/animatism-and-manaism.php [Accessed 09 Dec 2021]

Britannica, 13:50: Available at: https://www.britannica.com/topic/MUD-electronic-game-by-Trubshaw-and-Bartle [Accessed 12 Dec 2021]

GameCity Nottingham, (2014) 14:08, *The Guardian at GameCity 2014 - Interview with Prof. Richard Bartle* [Online video] Available at: https://www.youtube.com/watch?v=57Ll0giPWhE&t=7s [Accessed 12 Dec 2021]

Stuart K, (2014) 14:28: *Richard Bartle: we invented multiplayer games as a political gesture* Available at: https://www.theguardian.com/technology/2014/nov/17/richard-bartle-multiplayer-games-political-gesture [Accessed 12 Dec 2021]

Rutsch E, (2013) 16:13: *Obama Speaks about Ubuntu & Empathy at Nelson Mandela Memorial Service* [Online video] Available at: https://www.youtube.com/watch?v=jiebOGRPPxg [Accessed 14 Dec 2021]

Britannica, 23:30: Available at: https://www.britannica.com/topic/phoenix-mythological-bird [Accessed 15 Dec 2021]

Merriam-Webster, 08:54: Available at: https://www.merriam-webster.com/thesaurus/totem [Accessed 18 Dec 2021]

Merriam-Webster, 08:55: Available at: https://www.merriam-webster.com/thesaurus/avatar [Accessed 18 Dec 2021]

Asma ST, (2020) 21:28: *Ancient animistic beliefs live on in our intimacy with tech* Available at: https://aeon.co/ideas/ancient-animistic-beliefs-live-on-in-our-intimacy-with-tech?utm_source=Aeon+Newsletter&utm_campaign=20f515bcf7-EMAIL_CAMPAIGN_2020_02_27_01_16&utm_medium=email&utm_term=0_411a82e59d-20f515bcf7-63362773 [Accessed 20 Dec 2021]

Askanydifference.com, (2021) 12:33, *Difference Between Animism and Animatism* Available at: https://askanydifference.com/difference-between-animism-and-animatism/ [Accessed 21 Dec 2021]

Victoriafalls-guide.net, 00:40: Available at: https://www.victoriafalls-guide.net/zimbabwe-bird.html [Accessed 23 Dec 2021]

Luces M, (2017) 15:20, *'Pokémon GO' Avatar Update Allows Trainers To Walk Barefoot, Catch Pokémon Sans Backpack* Available at: https://www.ibtimes.com/pokemon-go-avatar-update-allows-trainers-walk-barefoot-catch-pokemon-sans-backpack-2493026 [Accessed 27 Dec 2021]

Walsh B, (2021) 13:02, *The real smell of virtual reality* Available at: https://www.axios.com/virtual-reality-smell-ovr-technology-2bda4861-77d4-4f7e-a755-3d439e5cf85f.html [Accessed 1 Jan 2022]

Cleveland J, (2020) 14:56, *The nature of design: the Fibonacci sequence and the Golden Ratio* Available at: https://clevelanddesign.com/insights/the-nature-of-design-the-fibonacci-sequence-and-the-golden-ratio/ [Accessed 1 Jan 2022]

Casserly M, (2011) 08:29, *Multiple Personalities And Social Media: The Many Faces of Me* Available at: https://www.forbes.com/sites/meghancasserly/2011/01/26/multiple-personalities-and-social-media-the-many-faces-of-me/?sh=4d4c7c836d51 [Accessed 3 Jan 2022]

Igbal M, (2022) 18:12, *App Download Data (2022)* Available at: https://www.businessofapps.com/data/app-statistics/ [Accessed 6 Jan 2022]

Hocaogle C and Mohamed S, (2021) 21:34, *Anxiety Disorders: The New Achievements* Available at: https://books.google.co.za/books?hl=en&lr=&id=i74zEAAAQBAJ&oi=fnd&pg=PA3&dq=olalekan+popoola+social+media+and+suicide&ots=wu6NihN3lD&sig=EJbkXQaykqHG8TYgQz2qCTKEuMA#v=onepage&q=olalekan%20popoola%20social%20media%20and%20suicide&f=false [Accessed 7 Jan 2022]

www.gov.za, (2001) 16:30, *Government Gazette* Available at: https://www.gov.za/sites/default/files/22356.pdf [Accessed 9 Jan 2022]

Chen J, (2022) 12:45, *Organizational Chart* Available at: https://www.investopedia.com/terms/o/organizational-chart.asp [Accessed 11 Jan 2022]

Criddle C, (2021) 23:30, *Bitcoin consumes 'more electricity than Argentina'* Available at: https://www.bbc.com/news/technology-56012952 [Accessed 16 Jan 2022]

Jones HT, (2018) 10:30, *Nakatsu's Kingfisher; or how biomimicry beat the boom* Available at: https://medium.com/bells-whistles/gooddesign-baddesign-nakatsus-kingfisher-or-how-biomimicry-beat-the-boom-a91287d2d831 [Accessed 17 Jan 2022]

Müller C and der Smitten TI, (2021) 14:39, *Mercedes-Benz VISION AVTR: operating the user interface with the power of thought* Available at: https://media.mercedes-benz.com/article/1997d2c2-8336-4eb1-b56f-c80a0bd98e8c [Accessed 3 Mar 2022]

Walter JP, (2008) 15:23, *Mnemonic Practices 5: Homo narrans* Available at: http://www.jpwalter.com/machina/archives/680 [Accessed 3 Oct 2021]

Elly, (2018) 16:01, *This Viking Berserker Spirit Will Help You Out Of Adversities* Available at: https://bavipower.com/blogs/bavipower-viking-blog/this-viking-berserker-spirit-will-help-you-out-of-adversities [Accessed 13 Mar 2022]

Molefi KA, 23:41, *Ananse: Folklore character* Available at: https://www.britannica.com/topic/Ananse [Accessed 14 Mar 2022]

Harvard Carr Center for Human Rights Policy, (2020) 11:06, *Race after Technology: The New Jim Code* [Online video] Available at: https://www.youtube.com/watch?v=bSK2ygnuXxE [Accessed 28 August 2022]

Gartner Glossary, 14:18, Available at: https://www.gartner.com/en/information-technology/glossary/bug [Accessed 30 August 2022]

IGI Global, 12:35, *What is feature* Available at: https://www.igi-global.com/dictionary/feature/10958 [Accessed 31 August 2022]

Learning Factory, (2018) *Totems* [Online video] Available at: https://www.youtube.com/watch?v=ES3rWWenTRQ [Accessed 1 September 2022]

Consciousness Rising, (2020) *Ivan Murambiwa talks Mitupo & the family totems in some Zimbabwean Cultures* [Online video] Available at: https://www.youtube.com/watch?v=a1oOifk-RWo
[Accessed 1 September 2022]

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Figure 3: Atavism in 21st century visual storytelling – Microsoft referencing Michelangelo's The Creation of Adam and Nokia (Instagram - 2022)

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Chapter 2:

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Figure 14: Avatarial and Totemic storytelling – Examples of selected overt Totemic National Flags

Figure 15: Avatarial and Totemic storytelling – Selected University avatars

Figure 16: Totemic-avatars within the sports industry

Chapter 4:

Figure 17: Avatarial and Totemic storytelling – Selected Company Logos (as Avatars) (Left) Lamborghini (Top center) Mercedes-Benz (Bottom center) Puma clothing brand (Ferrari)

Figure 18: Taken from a keynote presentation delivered by CEO Jensen Huang of NVIDIA (2021). Avatars will play a key role in virtual worlds. See Huang's outlined drawing of his avatar (second image from the right). The avatar has a 3D animation, which is called ToyJensen, referred to as conversational AI ToyME.

Chapter 6:

Figure 19: Characters and Narrative from the film Star Wars

[60] Selected Figures, not exhaustive as some images are deliberately used as visual cues for the reader's clarity