

A Comparative Analysis of YorùBá Robotic Innovation As Artificial Intelligence, AI-Like

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Abstract

This study undertakes a comparative analysis of Yoruba robotic innovation as AI-like systems and contemporary robotic artificial intelligence, arguing that the history of intelligent machines has been narrowly framed within Western epistemologies while marginalising indigenous technocultural traditions such as those of the Yorùbá. It foregrounds mythological and ritual constructs like Ọsanyìn and Ère Ìbejì as culturally embedded “automata” that encode principles of automation, algorithmic reasoning, and adaptive response, thereby functioning as proto-robotic, AI-like entities within Yoruba knowledge systems. Methodologically, the study combines primary and secondary data: in-depth interviews with purposively selected Ifá and Ọsanyìn priests explore the ontological and operational characteristics of these figures, while textual analysis of relevant books, academic articles, and curated digital materials deepens the examination of Yorùbá mythology in relation to modern AI discourse. Transcribed data are interpreted through the lens of transculturalism, drawing on Ortiz (1947) and Welsch (1999), to illuminate how Yoruba robotic imaginaries and contemporary AI co-constitute a fluid field of intercultural exchange rather than discrete, “pure” traditions. The analysis demonstrates that Yoruba robotic innovation, understood as the design and ritual programming of AI-like agents, offers conceptual resources for rethinking embodiment, agency, and ethics in modern robotic AI, particularly in the areas of human–machine interaction, creativity, and problem-solving. The study ultimately argues that recognising Yoruba mythological and ritual automata as foundational to AI-like thinking expands global AI historiography and underscores the value of indigenous knowledge systems for more culturally inclusive and socially responsive AI development.

Keywords: Artificial Intelligence, Yorùbá Robotic Innovation, Ọsanyìn, Ère Ìbejì, Cultural Heritage, Intelligent Systems, Automata, Transculturalism.

Introduction

While the rapid, Western-led transformation driven by artificial intelligence defines the contemporary technological paradigm, this narrative obscures a deeper, more diverse history of humanity's quest to create autonomous intelligence. The dominant discourse, focused on algorithmic advancement and machine learning, often overlooks profound indigenous

epistemologies that have long conceptualized artificial agency. This study challenges the narrow lineage by examining the rich robotic innovations within Yorùbá culture, such as the automatons attributed to the artisan Sígídí, the mythological entity Ósanyìn, and the conceptual framework of Ère Ìbẹ̀jì. These manifestations represent a sophisticated, pre-digital system where agency derives from metaphysical forces, such as àṣẹ (life-force), and the mastery of Ògún, the deity associated with technology.

Despite AI's penetration into every sector, raising valid concerns about ethics, employment, and creativity, the philosophical debate remains culturally myopic. The persistent exclusion of non-Western frameworks, like the Yorùbá, constitutes a critical academic gap, relegating such innovations to myth rather than engaging them as serious philosophical prototypes for intelligence and autonomy. This research addresses this gap through a comparative analysis, positing Yorùbá robotic innovation as a coherent, AI-like conceptual system. By employing a mixed-methods approach, including in-depth interviews with Ifá priests, Ósanyìn priests, and cultural custodians, alongside participant observation and analysis of textual sources, this investigation moves beyond folklore to conduct a rigorous conceptual excavation.

Ultimately, this work contributes to knowledge by decolonizing the history of innovation, offering the Yorùbá metaphysical framework as a vital lens for enriching global AI ethics and building an interdisciplinary bridge between indigenous knowledge systems and computational philosophy. It argues that integrating such parallel intellectual traditions is essential for fostering a truly inclusive and philosophically robust understanding of artificial life in an age of technological transformation.

Theoretical Framework

This study is anchored in the transculturalism approach, elaborated through Fernando Ortiz's notion of transculturation and later refined by Wolfgang Welsch and Homi Bhabha. Transculturalism emphasizes cultural diffusion, transformation, and hybridity, foregrounding the dynamic interactions that occur when cultures meet, overlap, and mutually reshape one another. In the context of Yorùbá robotic innovation and modern artificial intelligence (AI), this perspective enables a nuanced reading of how indigenous ritual-technological forms and Western computational systems co-produce new configurations of "intelligent" agency and knowledge.

Fernando Ortiz, a Cuban sociologist, first coined "transculturation" to describe the complex, multi-directional processes of cultural change in colonial and postcolonial Cuba (Ortiz, 1947). He argues that existing terms such as "acculturation" and "deculturation" were inadequate because they implied one-way absorption or loss; instead, "transculturation" and its counterpart "neoculturation" capture the reciprocal, transformative, and creative character of cultural interaction. Xiaoying Yang and Duo (2022) highlight how Ortiz's framework recognizes bi-directional flows of influence in which elements from distinct traditions intertwine, adapt, and generate novel cultural forms.

Building on such insights, Welsch (1999) advances "transculturality" to describe contemporary cultures as interwoven, overlapping networks rather than self-contained, homogeneous units. For Welsch, migration, media, and globalization dissolve rigid cultural borders and produce hybrid formations as the norm rather than the exception. Bhabha (1994), in turn, theorizes hybridity and the "third space of enunciation" as the site where cultural negotiation and translation occur, unsettling binary oppositions (such as coloniser/colonised or tradition/modernity) and allowing new subjectivities and discourses to emerge.

Ortiz's concept of transculturation rests on several core tenets: cultural interaction is

reciprocal rather than unilateral; cultural contact produces loss, acquisition, and creation simultaneously; and new cultural forms (neocultures) emerge from this ongoing process (Ortiz, 1947; Yang & Duo, 2022). His deliberate rejection of “acculturation” reflects a commitment to cultural equality, resisting hierarchical models that place one culture above another. Umera-Okeke (2016) extends this orientation by describing transculturalism as fostering intercultural understanding, linguistic adaptability, and peaceful coexistence, and by characterising transcultural subjects as individuals with fluid identities who “think outside the box” of their motherland while retaining rootedness in their own traditions.

This emphasis on reciprocity and equality is a major strength of transculturalism for the present study. It foregrounds the agency and resilience of marginalised cultures, challenging Eurocentric narratives that portray non-Western societies as passive recipients of technology. Hermann (2007) underscores this strength by showing how Ortiz’s concept illuminates transcultural exchange under conditions of power asymmetry, highlighting that even in unequal contexts, subordinated groups actively transform and reconfigure imposed cultural forms. In this sense, transculturation helps to recover indigenous contributions such as Yorùbá ritual automata within global histories of technology and AI.

However, the framework also has limitations. First, by stressing reciprocity and mutual transformation, some applications of transculturalism risk under-playing the depth of structural inequalities and technological dependencies that shape exchanges between African societies and Western AI industries. Second, Welsch’s more global, network-based account can drift into abstraction, potentially diluting the specificity of particular traditions such as Yorùbá cosmology and ritual practice if not carefully grounded. Bhabha’s third-space theory, while powerful for analysing hybridity and ambivalence, can be conceptually dense and less immediately operational for empirical work unless translated into concrete analytical categories.

For a study titled “A Comparative Analysis of Yorùbá Robotic Innovation as Artificial Intelligence, AI-Like,” transculturalism offers a robust interpretive lens in four key ways:

- **Origin and reciprocity:** Ortiz’s transculturation allows the study to conceptualise the contact between Yorùbá ritual technologies (for example, Òsanyìn and Ère Ìbejì as programmed, task-oriented entities) and Western robotic AI not as a one-way borrowing but as a site of reciprocal influence and creative rearticulation (Ortiz, 1947; Yang & Duo, 2022). This supports the argument that Yorùbá robotic innovation contributes conceptually to global AI imaginaries, rather than merely absorbing imported technologies.
- **Tenets and hybridity:** Welsch’s vision of transculturality legitimises reading contemporary AI systems designed or used in Yorùbá contexts as inherently hybrid artefacts, shaped simultaneously by local cosmologies, ritual logics, and global engineering discourses (Welsch, 1999). This allows the comparison to treat Yorùbá “automata” and silicon-based robots as participating in a single, though internally differentiated, field of intelligent systems.
- **Third space and negotiation:** Bhabha’s “third space” helps frame the intersection of Yorùbá robotic innovation and modern AI as a zone of negotiation where meanings of autonomy, agency, and intelligence are contested and re-defined (Bhabha, 1994). Interviews with Ifá and Òsanyìn priests, custodians, and practitioners can thus be analysed as articulations from this third space, where indigenous epistemologies encounter and re-script contemporary AI narratives.

- Strengths and ethical re-orientation: Drawing on Hermann (2007), transculturalism and Umera-Okeke (2016) equips the study to highlight how Yorùbá knowledge systems can inform more inclusive and ethically attuned AI—reimagining “programming” as relational, spiritually accountable practice rather than purely computational. At the same time, recognising the framework’s weaknesses encourages the researcher to remain attentive to enduring power imbalances in funding, infrastructure, and discourse that may limit the practical impact of such indigenous contributions.

In sum, by combining works of Ortiz (1947) on transculturation, Welsch (1999) on transculturality, and Bhabha (1994) on third-space hybridity, the theoretical framework enables a comparative reading in which Yorùbá robotic innovation is not an anecdotal parallel but a constitutive dimension of what counts as “artificial intelligence, AI-like.”

Review of Relevant Literature

Artificial Intelligence (AI) and its development

The concept of Artificial Intelligence (AI) has been defined as "the science and engineering of making intelligent machines" (McCarthy, 2007). This definition, coined by John McCarthy, a pioneer in the field, emphasizes the computational aspect of intelligence as the ability to achieve goals in the world. McCarthy's work laid the foundation for AI research, which has evolved significantly (Russell & Norvig, 2010). **AI encompasses various disciplines, including computer science, engineering, mathematics, and cognitive psychology, to create machines that can simulate human intelligence** (Kurzweil, 2005). According to Kurzweil (2005), AI systems can be categorized into two main types: narrow or weak AI, designed to perform specific tasks, and general or strong AI, capable of performing any intellectual task that humans can. AI research focuses primarily on narrow AI, with applications in machine learning, natural language processing, and robotics (LeCun et al., 2015). Researchers continue to explore new approaches to achieve general AI, which would enable machines to learn, reason, and adapt like humans (Lake et al., 2017).



Fig.1. Image of Modern Robotic AI

Source: google.com (29/09/2024)

Artificial Intelligence (AI) has evolved significantly since its inception in the 1950s. Today, AI encompasses the science and engineering of computer systems capable of performing complex tasks, such as visual perception, speech recognition, language translations, and decision-making (Russell & Norvig, 2010). The field has experienced steady growth, albeit

slower than predicted by early pioneers. A pivotal milestone in AI's advancement was the introduction of machine learning, particularly deep learning, enabled by increased computational power and data availability (LeCun et al., 2015). This breakthrough has propelled AI's real-world impact, especially in the present moment. Machine learning algorithms now underpin various applications, including search engines, news feeds, chatbots, music composition, medical diagnoses, and engineering designs. The capabilities of AI systems have expanded dramatically, as evidenced by the contrast between early AI programs like Eliza and modern Large Language Models (LLMs) such as ChatGPT-4 (Brown et al., 2020). LLMs demonstrate remarkable language understanding and generation capabilities, underscoring AI's rapid progress.

The importance of technology for the future is enormous and gradually artificial intelligence has been employed virtually in every sphere of life. These advancements have far-reaching implications, influencing life-altering decisions in areas like employment, finance, and criminal justice. According to the World Economic Forum (2023), artificial intelligence already plays a crucial role in the decision-making processes of many companies. It is increasingly used to inform policy and public sector decisions around the world. Supervised learning, for example, is already used by some governments to detect potential criminals and terrorists. In the same vein, Michael and James (2021), opine that Artificial Intelligence (AI) revolutionizes decision-making by transforming data into actionable intelligence, augmenting or replacing expertise, and scaling predictions at minimal cost. AI-powered technologies have vast impacts, including:

- Inclusive governance through automated translation
- Efficient justice through optical character recognition and natural language processing
- Improved livestock health through sensor technology and AI analysis
- Accessible healthcare through AI-powered diagnosis
- Environmental sustainability through energy-efficient building design and deforestation monitoring
- Personalized education supporting children with disabilities
- Optimized agriculture ensuring stable incomes and responsible environmental use

However, experts emphasize responsible AI development to ensure equity, minimize disparities and biases, and establish ethical guardrails and regulatory frameworks to guide AI's continued growth and decision-making influence. For instance, the UN Secretary-General warns of AI's potential harms, including "misinformation and disinformation; the entrenching of bias and discrimination; surveillance and invasion of privacy; fraud, and other violations of human rights" (UN News, 2019). He emphasizes, "Without entering into a host of doomsday scenarios, the malicious use of AI could undermine trust in institutions, weaken social cohesion, and threaten democracy itself" (UN News, 2019).

2.2. Yorùbá Mythology and Culture

The word "mythology" originates from the Greek term "mythologia", which is derived from two Greek words "mythos" meaning "story, legend, or tale," and "logos", meaning "discourse" or "study." In essence, mythology refers to the study of myths, or stories that explain natural phenomena, the origins of the world, and the lives and actions of gods, heroes, and other supernatural beings (Ali 2012). Sikiru (2017) opines that Mythology can be best understood by combining both the functionalist's view and the historicist view of myth. Ògúnyemí (2007) myths are widely recognized as stories possessing distinct qualities, conveying meaning beyond mere statements.

Yorùbá mythology and culture are rich and diverse, with a long history of storytelling, art, and spiritual practices. The origins of the Yorùbá people remain a topic of debate and controversy, despite general agreement on Ifè as their cradle city and Odùduwà as their ancestral parent (Kemi, 1986). However, discrepancies abound regarding Oduduwa's origin, the location of ancient Ifè, and the tribal identity of its indigenous inhabitants. The Ifá divination system (*Ọ̀yẹ̀kú Méjì*) accounts that Odùduwà descends from heaven to Ilé-Ifè (Abimbólá, 2008). Various narratives exist about the founding of Ifè, the dispersal of the Yorùbá people, and their eventual migration to surrounding territories, now comprising Ọ̀yó, Ọ̀gùn, Ọ̀ndó, Lagos, Bendel, and Kwara states in Nigeria (Kemi, 1986). These accounts shed light on the complex growth and civilization of the Yorùbá people, highlighting the need for further research to clarify their rich cultural heritage. Meanwhile, it is a known fact that the Yorùbá people are an ethnic group from West Africa, primarily located in Nigeria, Togo, and Benin and their mythology is characterized by a complex pantheon of gods and goddesses, known as Orishas, who are believed to have control over various aspects of nature and human life.

Yorùbá people regard Olódùmarè as the supreme God and creator of the universe despite their belief in Ọ̀kànlénínwó Irúnmọ̀lẹ̀ (401 divinities), this view is in tandem with Idowu's view (1962). Other notable Ọ̀rìsà include Ọ̀gún, the god of ironworking and technology, and Ọ̀sun, the goddess of love and fertility (Ọ̀gúndípẹ̀, 2004). Yorùbá mythology also emphasizes the importance of ancestors and the afterlife (Mbiti, 1990). In Yorùbá culture, there exists a profound and enduring connection between the living and their ancestors. This relationship is rooted in the belief that the dead continue to play an active role in the lives of their descendants, influencing their well-being, prosperity, and spiritual growth. The Yorùbá believe in a cyclical view of time, where the living and the dead are interconnected (Abiodun, 2014). Yorùbá culture is known for its vibrant art, music, and dance (Thompson, 1974). Their music and dance are characterized by complex rhythms and movements, often used in rituals and ceremonies. The Yorùbá people boast of an impressive cultural heritage, exemplified by their ancient traditions of woodcarving, pottery, and textiles. Examples of their woodcarvings include Ère Ìbejì, intricate twin figures, and Ọ̀mọ̀langidi, figurative sculptures dedicated to Ọ̀sanyìn, the revered god of medicine. These art forms demonstrate the Yorùbá people's technological innovation and creativity, predating Western civilization's influence. Furthermore, Yorùbá blacksmiths and goldsmiths showcased exceptional craftsmanship, designing and building specialized tools and mechanisms for farming and hunting purposes. Their resourcefulness and ingenuity are evident in the development of iron tools, intricate woodcarving techniques, and colorful textiles using natural dyes.

3.1. Yorùbá Mythological Concepts and Yorùbá Robotic Innovation

Ọ̀sanyìn, is a revered Yorùbá deity of wisdom who was celebrated for his groundbreaking contributions to natural medicine, by harnessing the potency of herbs, roots, and leaves. Therefore, Ọ̀sanyìn pioneered the field of natural healing, providing holistic solutions to various ailments. According to Babalawo Ifániyò Okùnọ́lá Àtándá, Àrábà Awo of Igbón in Osun State, Nigeria, there are two types of Ọ̀sanyìn: the authentic, spirit-imbued Omolagidi wooden carvings and the fake, man-made ones used to deceive people. He further illustrates this with a traditional Yorùbá praise poem (*oríki*) dedicated to Ọ̀sanyìn as stated below:

Ọ̀sanyìn màwẹ̀	Ọ̀sanyìn, the great one, (the wise one)
Ọ̀kọ onísẹ̀jẹ	husband of Onísẹ̀jẹ, (The fulfiller of promises).

Ọ sá kẹkẹ gbẹjẹ	the one who stylishly receives and fulfills,
Ọ gbọpá ọwọ olókùnrun sọnu	the one who takes away the walking stick from the sick, a sick person
Alúwẹẹ lágbo	the one who swims in the pool of herbs,
Ọ já sí kòtò doògùn ijà mọyà	the fearless warrior, ready for battle

In Yorùbá mythology, Ọsanyìn has a complex relationship with Ọrúnmìlà, the god of wisdom and divination. Although Babalawos (Ifá priests) know Ọsanyìn, possessing him is spiritually unwise, as it may incur Orunmila's wrath and hinder success. His expertise in Ifá divination, learned from the esteemed Ọrúnmìlà, enabled him to integrate spiritual insights into his medicinal practices. Ọsanyìn also shared his knowledge with Ọrúnmìlà, teaching him the art of root and leaf medicine. This assertion is supported by scholarly research, including studies by Usman and Emmanuel (2019) and Raji (2023), which highlight Ọsanyìn's multifaceted qualities as a deity of wisdom, healing, and spiritual guidance.

The etymology of Ọsanyìn reveals him as Orunmila's servant, sent to clear his farm. However, Ọsanyìn refused, recognizing the medicinal value of every leaf. This narrative is supported by the Ifá corpus *Ọsẹdii* (Ọsé+Ọdí) below. One of our informants Babaláwo Awótúndé Awówùmí Anífálájé from iwó town in Osun state says:

Ifá ní gbinrin bí ìtì	Ifá says, heavy and solid like a massive log,
Ìtì náà gbinrin	A log, heavy and solid
A díá fún Ọrúnmìlà	make Ifá divination for Ọrúnmìlà
Ifá yòò ra Ọsanyìn lẹrú	Ifá would purchase Ọsanyìn as slave
.....
Ọsanyìn ní ewé kín ni kí Ọun ó ro?	Osanyin said Which of the leaves should I clear?
Gbinrin bí ìtì	Heavy and solid like a massive log,
Ìtì náà gbinrin	A log, heavy and solid
Ewé ajé ni kí Ọun ó r oni?	Is it ajé leaf he should clear?
Gbinrin bí ìtì	Gbinrin bí ìtì
Ìtì náà gbinrin	A log, heavy and solid
Ewé èkùyá ni ki Ọun ó ro ni?	Is it èkùyá leaf should he clear?
Gbinrin bí ìtì	Heavy and solid like a massive log,
Ìtì náà gbinrin	A log, heavy and solid
Ewé Alúpàidà ni ki Ọun ó ro ni?	Is it àlúpàidà leaf he should clear?
Gbinrin bí ìtì	Heavy and solid like a massive log,
Ìtì náà gbinrin	A log, heavy and solid
Ewé tẹtẹ ni ki Ọun ó ro ni?	Is it tete leaf should he clear?
Gbinrin bí ìtì	Heavy and solid like a massive log,
Ìtì náà gbinrin	A log, heavy and solid
Ewé Ọdúndún ni ki Ọun ó ro ni?	It it ọdúndún leaf should he clear?
Gbinrin bí ìtì	Heavy and solid like a massive log,
Ìtì náà gbinrin	A log, heavy and solid

The excerpt highlights Ọsanyìn's questioning of which leaves to clear, demonstrating his expertise in herbal medicine "Ọsanyìn ní ewé kín ni kí Ọun ó ro?" (Which leaves should I clear?).

However, Ọsanyin's transformation from a Yoruba deity of wisdom to a symbol of robotic innovation stems from his mythological confrontation with Ọrúnmìlà, the patron deity of Ifá divination. This ancient rivalry sparked Ọsanyin's infusion with technological capabilities. The mythological account highlights the intersection of traditional Yoruba knowledge and modern technological advancements. Ultimately, Ọsanyin's evolution showcases Yoruba culture's innovative problem-solving and adaptability, blending spirituality and technology.

According to Chief Priest Awólówò Agbójúléfá Awógbilé the Àràbà of Ìka land in Èjìgbò Local Government of Ọsun state, the power struggle emerged between Èbò, Ọrúnmìlà's son, and Ọògùn, Ọsanyin's son, as they contested their fathers' supremacy. To resolve this dispute, the two sons underwent a seven-day endurance test without food or water. On the first day, Ọrúnmìlà consulted his oracle and was instructed to offer ritual sacrifices (ètùtù) to Èṣù Ọdàrà, the deity of Àṣẹ. Meanwhile, Ọògùn, driven by hunger, discovered Èbò eating the sacrificed food and joined him. Upon inspection on the ultimatum day of their test, the people found Èbò alive, but Ọògùn's response was suppressed by Èbò, leading to the Yoruba proverb: "Èbò ní kǐ jé kǐ Ọògùn ó jé" (Sacrifice makes charm work ineffective).

This outcome solidified Ọrúnmìlà's superiority over Ọsanyin, sowing the seeds of their rift. This coupled with the fact that Ọrúnmìlà proclaimed himself "Ọótó inú jà ju ọògùn lọ" (Plain heart is mightier than charm), which infuriated Ọsanyin. Seeking revenge, Ọsanyin devised a trap for Ọrúnmìlà. Ọsanyin planted harmful charms at Ọrúnmìlà's doorstep, backyard, and divination tools. However, Ọrúnmìlà received a premonitory dream warning him to remain indoors and avoid consulting his divinity. Heeding the warning, Ọrúnmìlà stayed indoors. Ọsanyin, assuming Ọrúnmìlà had fallen victim to his charms, entered Ọrúnmìlà's house to confirm his demise. Instead, he discovered that Ọrúnmìlà had outsmarted him. The charms backfired, causing Ọsanyin to become blind and his body to shrink drastically, rendering him unrecognizable. Ọrúnmìlà subsequently relegated Ọsanyin to the edge of his house, covering him with a red cloth and tasking him to watch over the residence in his absence. This marked the beginning of Ọsanyin's transformation into a guardian figure. The myth concludes with the phrase:

"Ọótó inú jà ju ọògùn lọ

A díá fún Ọrúnmìlà

Ifá yòò mǎa jé orúkọ tí yòò mǎa bí Ọsanyin nínú"

the plain heart is mightier than charm

make Ifá divination for Ọrúnmìlà

Ifá will bear accolade that will arise the anger of Ọsanyin

Another mythological perspective of how Ọsanyin's transformation into a robotic innovation stems from a unique ritual practised by his worshipers. When one of the twins dies, devotees invoke Ọsanyin's spirit into the deceased twin's body. The corpse is then prepared with charms and intricately carved wooden statues, and placed inside a hollow irókò tree for six months. After this period, the worshiper returns to the tree and activates the wooden structure, symbolically reviving Ọsanyin's spirit. This ancient ritual essentially "reboots" the deceased twin, infusing it with Ọsanyin's essence and technological capabilities, effectively creating a primitive robotic entity (Babaláwo Ifásayò of Ogbè-iyónú temple ọ̀nà àbáyọ in Ondo town). This mythological account highlights the intersection of traditional Yorùbá spirituality and innovative technological concepts, illustrating the roots of Ọsanyin's association with robotic innovation.



Fig.2

Òsanyìn Image

Source: google.com (29/09/2024)

However, Ère Ìbejì is revered robotic innovations, akin to Òsanyìn, embodying ancient wisdom and technological prowess. These traditional artifacts, infused with spiritual essence, function remarkably like modern robotic AI systems. Ère Ìbejì, comprising twin wooden carvings representing male and female forms, showcases Yorùbá ingenuity in artificial intelligence. Once the spirit is cast into these carvings, they can perform various robotic functions, mirroring modern AI capabilities. Our informant, Ifá priest, Chief Awólówò Agbójúléfá Awógbilé, the Àràbà Awo of Ìka land in Èjìgbò Local Government Òsun state, Nigeria, states that. some herbalists exploited Ere Ibeji's mystical properties to craft charms for cocaine smugglers. This illicit practice involved invoking the spirits within twin Ère Ìbejì statues, with one accompanying the smuggler abroad and the other remaining in Nigeria, tied to the cocaine. Through spiritual connection, the Ère Ìbejì in Nigeria would miraculously transport the cocaine to reunite with its twin abroad, enabling the smuggler to evade detection by immigration, NDLEA, and customs officials at the airport. This clandestine tactic relied on the ancient belief in Ere Ibeji's transcendent abilities, highlighting the complex interplay between traditional spirituality and modern criminal enterprise.



Fig.3

Effigy of Ìbejì

Source: google.com (29/09/2024)

4.0. The Intersection of Yorùbá Robotic Innovation and Modern AI

The fusion of Yorùbá robotic innovation and modern AI transforms technological development, blending rich cultural heritage with cutting-edge advancements. This intersection enables culturally sensitive AI design, Afrocentric AI systems, and the incorporation of Indigenous Yorùbá knowledge -human-centered design, algorithmic Ifá-inspired decision-making, Òrìsà-inspired AI, Yorùbá language processing, and cultural heritage preservation through AI-driven conservation. These innovations embody the principles of acculturation and transculturalism, harmoniously integrating traditional Yorùbá values with modern technological advancements, while countering Anglocentric dominance.

4.1. Ọ̀sanyìn: Automation and Machine Learning

Ọ̀sanyìn, a potent and revered Yorùbá deity, proffers efficacious solutions to complex problems, traversing realms with fluid spirituality. Analogous to AI, Ọ̀sanyìn is often dispatched on errands, carrying out tasks with autonomy and precision. When invoked, Ọ̀sanyìn's presence is palpable, yet elusive; if absent, no amount of summons can compel his response. Upon his return, an unexplainable breeze often signals his presence, leaving an indelible mark. Babalawo Ifámákindé Oláwúwu further explains that Ọ̀sanyìn possesses omniscient wisdom, anticipating and resolving human problems before they are articulated. When seekers approach Ọ̀sanyìn's worship site, they experience an astonishing display of psychic awareness, Ọ̀sanyìn recites the client's biography, diagnoses their concerns, and offers tailored remedies. Therefore, Ọ̀sanyìn can be connected to automation and machine learning in the following ways:

- i. Ọ̀sanyìn embodies the spirit of automation, where cutting-edge technology and innovation converge. Remarkably, Ọ̀sanyìn anticipates clients' intentions, intuitively preparing bespoke natural remedies with uncanny precision, mirroring the seamless efficiency of modern robotic AI. Just as automation enables robots and machines to execute tasks without human intervention, Ọ̀sanyìn's extraordinary abilities facilitate swift, personalized solutions, harmoniously blending ancient wisdom with contemporary technological ideals.
- ii. Ọ̀sanyìn's extraordinary abilities resonate with machine learning principles, where

- algorithms empower robots to learn from experience and adapt to novel situations. As a revered expert in natural medicine, Ọsanyìn shares his vast knowledge with herbalists, imparting ancient wisdom on potent charms and remedies. When faced with seemingly incurable disease outbreaks, Ọsanyìn guides his custodian, an esteemed herbalist, in crafting effective natural solutions. With precise instructions, he prescribes the necessary ingredients, preparation methods, and administration techniques, ensuring efficacious treatments that alleviate suffering and promote well-being.
- iii. Ọsanyìn's extraordinary ability to decipher omens and signs offers a profound analogy with data analysis and pattern recognition in machine learning. By interpreting subtle patterns in nature, human behavior, and cosmic alignments, Ọsanyìn demonstrates an uncanny capacity for predictive insight, mirroring machine learning algorithms that uncover hidden relationships within complex datasets. Osanyin's intuitive analysis of seemingly disparate elements yields actionable wisdom, much like data analytics informs evidence-based decision-making. Moreover, Osanyin's anticipatory guidance – preparing solutions before clients articulate their concerns – echoes the predictive capabilities of advanced data models, underscoring the symbiotic relationship between ancient Yorubá wisdom and cutting-edge data science.

4.2. Ère Ịbejì: Human-machine Interaction and Creativity

The revered Yorubá deity, Ère Ịbejì, embodying the essence of twins and creativity, reveals intriguing parallels with human-machine interaction and innovative design. Specifically, Ère Ịbejì's association with duality, harmony, and inventive expression resonates with the synergy between humans and machines, illuminating potential connections in the following areas:

- i. Ère Ịbejì's profound connection to twins illuminates the transformative power of duality and collaboration in human-machine interaction. Just as twins embody unity in diversity, the effigy of Ịbejì inspires harmonious synergy between humans and machines, fostering reciprocal enhancement and mutual learning. This sacred Yorubá deity's essence encourages designers to craft intuitive interfaces, adaptive systems, and collaborative AI tools that leverage human creativity and machine precision. By embracing the effigy of Ịbejì's principles, innovators can create hybrid intelligence that amplifies human potential, ensures inclusive decision-making, and cultivates empathetic problem-solving, ultimately reflecting the balanced interplay and cooperative spirit embodied by the sacred twins. Creativity and Innovation: Ere Ibeji's role as a patron of creativity can be connected to the development of innovative human-machine interfaces that foster artistic expression and imagination.
- ii. The twin essence of Ère Ịbejì elegantly encapsulates the dynamic of mirroring and reflection in human-machine interaction, where machines intuitively reflect and adapt to human behavior, and humans, in turn, respond and refine their interactions. This symbiotic dance echoes the sacred twins' harmonious interplay, illustrating the potential for reciprocal learning and mutual growth. Ere Ibeji's mirroring principle inspires AI-driven interfaces that echo human emotions, gestures, and intentions, fostering empathetic engagement and personalized experiences. Conversely, human reflection on machine feedback enables iterative improvement, crystallizing the Ere

- Ibeji-inspired paradigm: adaptive machines, reflective humans, and the emergent wisdom born from their synergistic exchange.
- iii. Ère Ìbejì's mystical realm of imagination and fantasy inspires the creation of immersive human-machine interfaces that unlock creative expression, storytelling, and innovation. By tapping into the sacred twins' boundless imagination, designers can craft intuitive platforms that merge art, technology, and human experience. Ère Ibeji's fantastical essence fuels virtual and augmented reality environments, where humans and machines co-create vivid narratives, interactive mythologies, and immersive simulations. This deity's imaginative spark ignites generative AI tools that empower artists, writers, and musicians to push boundaries and redefine creative frontiers. Through Ère Ibeji's guidance, human-machine collaboration becomes a dynamic, dreamlike dance, where fantasy and reality converge to give birth to novel forms of artistic expression, therapeutic outlets, and visionary technologies.

5.0. Conclusion

This research explores the intersection of Yorùbá robotic innovation and modern AI, revealing the vast potential for cross-cultural exchange and innovation. Integrating Yorùbá principles enhances AI's adaptability, inclusivity, and social responsibility, broadening goals to prioritize community harmony and mitigating cultural biases. Our findings suggest African knowledge systems can revolutionize AI development, creating contextually aware, socially beneficial, and culturally responsive systems. Contributing to Afrocentric AI, this research highlights the importance of centering African perspectives in AI development. As AI shapes our world, prioritizing diversity, inclusivity, and social responsibility is crucial. Future research should continue exploring African knowledge-AI intersections, fostering a diverse technological landscape benefiting humanity.

This study explores Yorùbá robotic innovation's cultural perspective on AI development, emphasizing community, social harmony, and adaptability. Yorùbá principles like "Ogbon" and "Àṣẹ" align with modern AI goals, facilitating cross-cultural exchange. Contextualized AI design and integrating Indigenous knowledge systems like Yorùbá Ifá enhance problem-solving capabilities. Social responsibility is paramount, prioritizing community and harmony. Incorporating Yorùbá robotic innovation mitigates cultural biases, enriching AI development with diverse perspectives. This study highlights the importance of inclusive AI development, prioritizing diverse cultural perspectives and contextual understanding. Integrating indigenous knowledge systems enhances AI capabilities, fostering a more equitable technological landscape. By integrating African perspectives, this study enriches the field of AI development, promoting social responsibility and inclusivity.

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