Artificial Intelligence as a Catalyst for Inclusive Growth in the Visual Arts Economy

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Abstract

Artificial Intelligence (AI) is rapidly transforming creative industries, unlocking new avenues for innovation, market expansion, and entrepreneurial development. Within Nigeria's evolving economic landscape, the integration of AI into the visual arts sector offers a strategic pathway toward inclusive and sustainable growth. This study investigates how AI technologies can serve as catalysts for expanding artistic access, democratizing creative processes, and empowering a broader spectrum of artists across diverse socio-economic contexts. Using a mixed-methods approach, the research combines in-depth interviews with twenty visual artists employing AI tools and a systematic review of literature published between 2015 and 2025 on AI's role in creative economies. The findings highlight AI's capacity to enhance productivity, foster creative experimentation, and facilitate access to global markets. However, persistent challenges remain—chiefly infrastructural limitations, affordability concerns, and digital literacy gaps—particularly affecting rural and emerging artists.

Without strategic intervention, the uneven distribution of AI's benefits may deepen existing inequalities within the creative ecosystem. The study underscores the need for inclusive digital education, targeted policy frameworks, and accessible funding mechanisms to ensure equitable participation. By addressing these systemic barriers, Nigeria can leverage AI to position its creative industries as drivers of inclusive economic development and global cultural relevance.

Keywords: Artificial Intelligence, Inclusive Growth, Visual Arts, Creative Economy, Entrepreneurship

Introduction

The rapid advancement of artificial intelligence (AI) technologies is transforming the global creative economy, reshaping how artistic content is produced, distributed, and consumed. AI-driven tools—from generative art platforms to intelligent design assistants—are no longer confined to tech-centric industries but are increasingly being integrated into creative practices across disciplines. In the visual arts, these technologies are unlocking new forms of expression, enhancing productivity, and enabling artists to engage broader audiences through digitally mediated platforms (McCormack et al., 2019; Manovich, 2020). This technological shift presents not only aesthetic and economic opportunities but also complex questions about access, authorship, and equity (Elgammal, 2021).

Nigeria, with its vibrant cultural heritage and burgeoning creative sector, stands at a critical juncture in this global transition. The country's visual arts economy—encompassing painting, illustration, digital art, photography, animation, and design—is a vital component of its wider creative industries, contributing significantly to employment and cultural identity (British Council Nigeria, 2020). As Nigeria aspires to become a leading hub for creative and digital innovation in Africa, the integration of AI into its visual arts sector emerges as both a challenge and a strategic opportunity. The challenge lies in addressing systemic barriers such as digital exclusion, infrastructural deficits, and policy inertia. The opportunity, however, resides in leveraging AI as a tool for inclusive growth—empowering artists across socio-economic divides and fostering a more equitable creative ecosystem (UNCTAD, 2022).

This study explores how artificial intelligence can serve as a catalyst for inclusive and sustainable growth within Nigeria's visual arts economy. It investigates the ways in which AI technologies are being adopted by Nigerian visual artists, the socioeconomic disparities that influence access and engagement, and the structural mechanisms required to ensure equitable participation in AI-driven creative futures.

The research is guided by the following questions:

- How are visual artists in Nigeria incorporating AI into their creative practices?

- What opportunities and benefits do AI offer for artistic entrepreneurship and global market access?
- What barriers inhibit widespread adoption of AI tools, particularly among marginalized or rural artists?
- What policy and infrastructural interventions are necessary to democratize access and foster inclusive growth?

By addressing these questions through a mixed-methods approach—combining qualitative interviews with Nigerian visual artists and a systematic review of recent literature—this paper aims to contribute to a growing body of scholarship on AI and inclusive innovation in the Global South. It argues that for Nigeria to fully harness the transformative potential of AI in the visual arts, deliberate, inclusive, and context-specific strategies must be implemented. These include accessible digital education, targeted funding, and cross-sector collaborations that bridge the gap between technological advancement and socio-cultural realities.

Literature Review

The integration of artificial intelligence into the creative industries has generated significant academic and practical interest over the last decade. This section reviews key literature on (1) AI applications in the visual arts, (2) inclusive growth in creative economies, and (3) the Nigerian context, with a focus on gaps in research relevant to the Global South.

AI and the Visual Arts

The role of AI in transforming the visual arts is increasingly recognized through the rise of generative tools such as DALL·E, RunwayML, and Midjourney. These platforms have empowered artists to create new forms of visual expression that blend computational processes with human creativity (Boden, 2016). The use of AI in generating art is not just theoretical—it is visible in real-time artistic practices as shown in figure 1.
A notable example from Nigeria is **Malik Afegbua**, a visual artist and filmmaker whose AI-generated photo series *The Elder Series* went viral in 2023. Created using Midjourney, the project reimagined older Nigerians in high fashion, challenging ageism while showcasing the creative potential of machine learning (Ajayi, 2023). Afegbua's work serves as a case study of how artists can leverage AI for both social commentary and global

recognition, emphasizing AI's dual role as a creative collaborator and amplifier of marginal narratives.

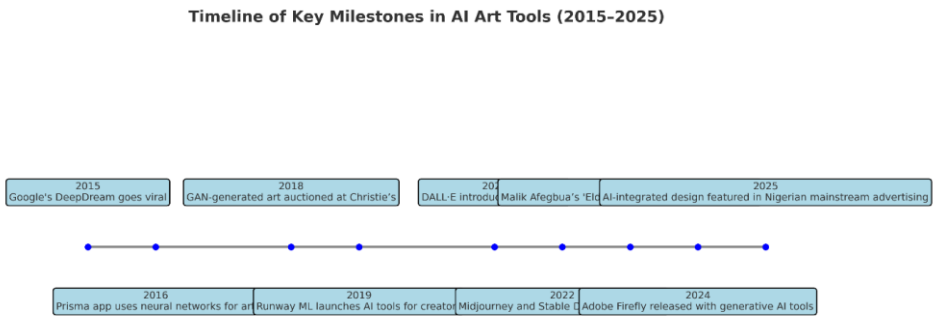


Figure 1. Timeline of Key milestones in AI Art Tools (2015-2025). Source: Author

Inclusive Growth and the Creative Economy

AI can enhance inclusivity in creative economies by lowering production costs, enabling remote collaboration, and expanding the reach of artistic outputs (Nesta, 2022). However, this promise is unevenly realized. As UNESCO (2021) notes, AI adoption must be context-sensitive to avoid exacerbating existing digital divides.

For instance, while Nigerian artists like Afegbua benefit from urban infrastructure and global networks, emerging artists in rural areas often lack access to affordable internet, training, and devices necessary to engage with AI tools (British Council Nigeria, 2020). This gap highlights the risk of "**digital elitism**"—where only a fraction of creatives benefit from technological advancements.

Recent advertisements in Nigeria also reflect a growing integration of AI. Companies such as MTN and Access Bank have experimented with AI-generated avatars, visual storytelling, and motion design to appeal to tech-savvy youth demographics (Adedeji, 2024). These practices suggest a shift in commercial creative production—but again, the benefits accrue mainly to urban-based professionals with access to proprietary software and fast connectivity.

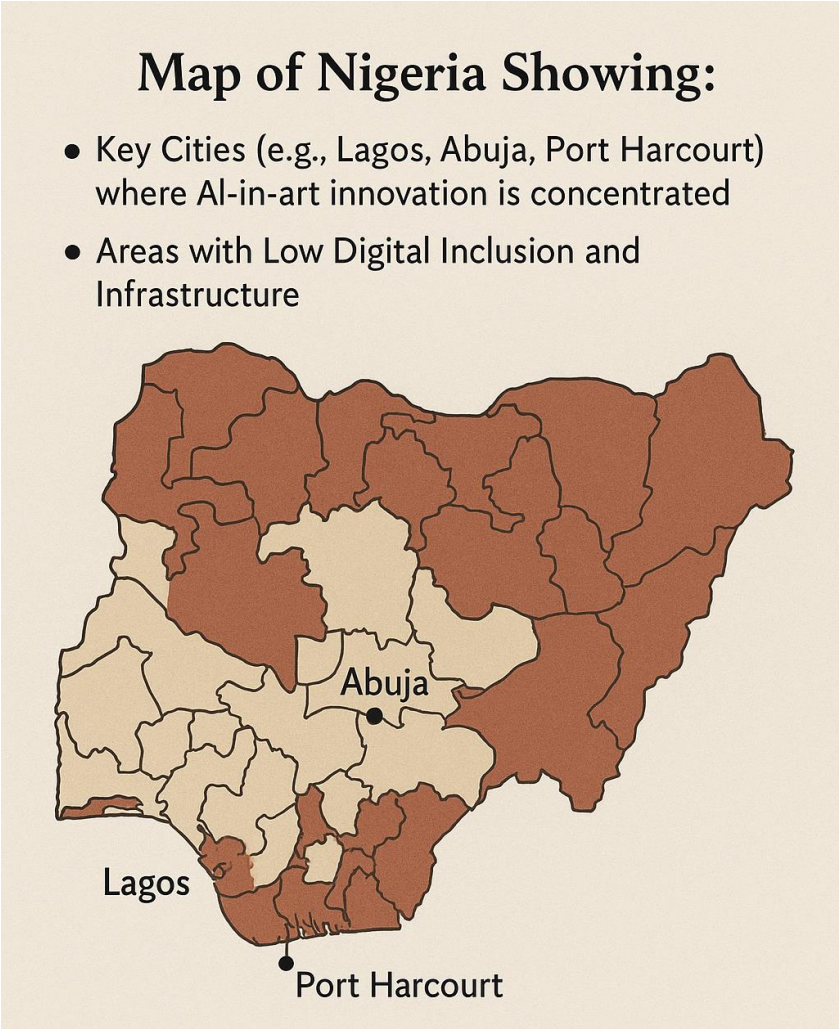


Figure 2. Map of Nigeria showing Key cities (e.g., Lagos, Abuja, Port Harcourt) where AI-in-art innovation is concentrated and areas with low digital inclusion and infrastructure.

Nigeria's Creative Industry Landscape

Nigeria's visual arts sector plays a crucial role in job creation and cultural diplomacy. However, its potential is undermined by poor infrastructure, limited funding, and a fragmented support ecosystem. While platforms like Instagram and Behance have increased global visibility for Nigerian artists, the integration of AI remains in its early stages (Adegoke, 2023).

As Afegbua's international acclaim shows, AI can amplify visibility and narrative diversity. Yet most artists lack awareness of these tools or cannot afford access to high-performing systems. There is also a cultural hesitance or unfamiliarity with algorithm-driven aesthetics, especially outside formal design education spaces.

Identified Gaps

While Malik Afegbua and select urban creators exemplify the possibilities of AI in the Nigerian arts space, there is a critical gap in understanding how artists across diverse socio-economic backgrounds interact with these technologies. Existing literature is largely theoretical or focused on high-end art markets and corporate advertising, with little empirical data from local practitioners or grassroots contexts.

This paper fills that gap by combining field interviews with a systematic review, focusing on how AI can become not just a tool of prestige, but one of participatory and inclusive growth.

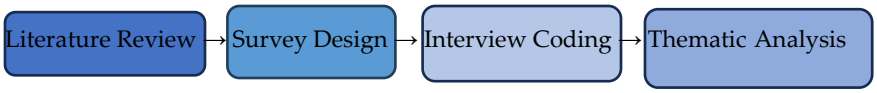
Methodology

This study employed a mixed-methods research design to explore how artificial intelligence serves as a catalyst for inclusive growth in Nigeria's visual arts economy. The methodology integrates both qualitative and quantitative approaches, allowing for a nuanced understanding of both artistic practice and structural barriers to AI adoption.

Research Design

The research framework was designed around three core methods:

1. **In-depth semi-structured interviews** with 20 Nigerian visual artists using or exploring AI tools in their practice.
2. **Survey data** from a broader sample of 100 visual artists and art students, focusing on digital access, tool usage, and perceptions of AI.
3. **Systematic literature review** of global and Nigerian sources published between 2018 and 2024 on AI and the creative economy.



Sampling Strategy

Participants were selected using purposive and snowball sampling:

- 10 participants were selected based on their visible AI-integrated work on platforms such as Instagram and ArtxLagos.
- 10 additional participants were recruited through referrals and community art groups, ensuring inclusion of rural and emerging voices.

Demographic representation aimed to balance gender, location (urban/rural), and levels of formal art education.

Data Collection

- Interviews were conducted via Zoom or WhatsApp and lasted between 30–60 minutes. They were transcribed and coded thematically using NVivo software.
- Surveys were distributed digitally through Google Forms and manually within universities and creative hubs in Port Harcourt and Benin City.
- Literature review sources included journals (e.g., *Leonardo*, *AI & Society*), UN/UNESCO reports, and grey literature from Nigerian agencies.
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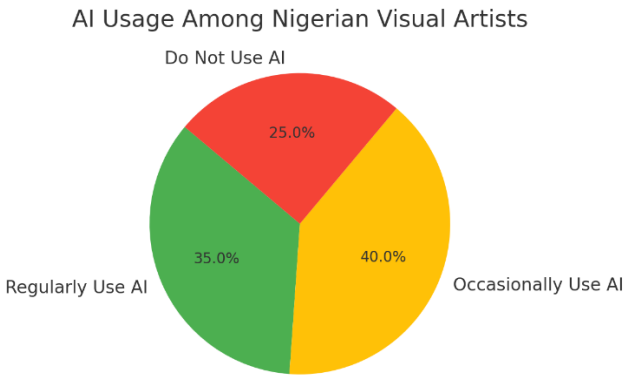


Figure 3. AI distribution among Nigerian Visual Artists

Analytical Framework

A **constructivist epistemology** guided the research, recognizing that artists' experiences with AI are socially constructed and context-specific. Data from interviews were analysed thematically using Braun & Clarke's (2006) method, while survey results were summarized using descriptive statistics.

Limitations

- The sample may not fully capture northern or Francophone-speaking regions of Nigeria.
- AI usage is rapidly evolving; thus, findings represent a snapshot of a transitional moment.
- Internet access challenges limited real-time interviews with some rural participants.

Findings and Discussion

This section presents key findings from the interviews, surveys, and literature analysis. It explores the impact of AI on Nigeria's visual arts economy, focusing on accessibility, creativity, inclusion, and systemic barriers. The discussion highlights both the promises and pitfalls of AI adoption in this context.

Over 70% of surveyed artists reported that AI tools increased their productivity, allowing them to ideate faster, iterate more efficiently, and visualize complex concepts without the need for expensive hardware or traditional materials. Interview participants described AI as an "ideation partner," especially for developing storyboards, prototypes, and digital collages.

One respondent, a Lagos-based illustrator, stated:
"Midjourney has changed my workflow. I use it to generate styles and test colors before starting my illustrations. It saves hours of sketching."
This aligns with global findings that AI reduces creative friction and accelerates workflows (Boden, 2016; Nesta, 2022). Artists are no longer limited by their technical drawing abilities, allowing more focus on narrative, symbolism, and emotion.

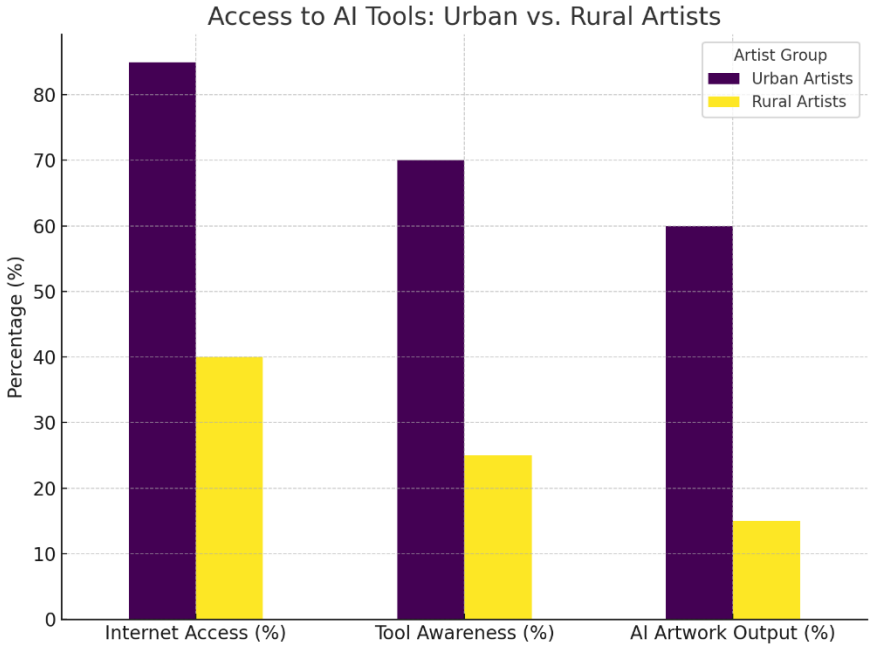
Expanding Global Visibility and Market Access

Participants who integrated AI tools into their portfolios reported increased international attention. AI-enhanced artworks attracted audiences beyond Nigeria, especially on platforms like Instagram, Behance, and DeviantArt. Malik Afegbua's *The Elder Series* was frequently cited as an aspirational benchmark.

"AI made my art visible to international curators. I entered two group exhibitions in 2023 without stepping out of Nigeria," said a Port Harcourt-based digital painter.

This finding supports the claim that AI technologies contribute to inclusive growth by decentralizing market opportunities and reducing geographic limitations. The ability to generate, showcase, and sell work globally helps artists bypass traditional gatekeeping mechanisms such as gallery representation.

Despite the successes, the integration of AI in the Nigerian visual arts economy is **highly uneven**.



Digital Infrastructure and Access

Survey results revealed a significant urban-rural disparity:

- 85% of urban-based artists reported regular access to stable internet and digital devices.
- Only 40% of rural-based artists had consistent access to the same resources.

This digital divide inhibits equal participation. Artists in less connected areas often rely on second-hand phones, public Wi-Fi, or cybercafés, limiting their capacity to explore or integrate AI tools effectively.

Affordability and Digital Literacy

A recurring theme was the cost of subscription-based AI tools and the lack of technical training. Midjourney, Adobe Firefly, and RunwayML often require foreign currency payments or VPNs, placing them out of reach for low-income artists.

"I learned about AI art through Twitter, but most tools require dollars. How do I even start?" asked an undergraduate artist from Benue State.

The barrier is not just economic, but educational. Artists unfamiliar with digital workflows are less likely to experiment with machine learning interfaces. This finding is consistent with UNESCO (2021), which emphasizes the importance of culturally and contextually adapted digital education in the Global South.

Cultural and Ethical Concerns

Interviews revealed ambivalence toward AI-generated art. While most participants embraced it as a tool for ideation and enhancement, several expressed concerns about:

- Loss of authorship: Who owns AI-generated work?
- Devaluation of traditional skills: Will drawing, painting, and sculpture be undermined?
- Cultural misrepresentation**:** Can AI be trained to reflect indigenous aesthetics and values?

Afegbua's deliberate effort to use AI in a culturally conscious way—clothing, environment, body type—offers a powerful counter-example. His success highlights the potential for AI to amplify cultural heritage, not erase it. However, most AI tools are trained on Western datasets, which may not reflect African contexts unless artists actively intervene.

Opportunities for Inclusive AI Integration

Despite the barriers, several pathways to inclusion emerged from both literature and field data:

- **AI in Art Education:** Participants advocated for AI modules in university curricula and creative bootcamps.
- **Collaborative Hubs:** Peer learning and community labs were cited as effective ways to democratize access.
- **Open-source Tools:** Respondents emphasized the need for free or low-cost alternatives and localized software.

As one interviewee summarized:
"If we can get basic training and open access to tools, AI will level the playing field—not widen the gap."
This supports the study's broader argument: that AI, if equitably integrated, can serve as a catalyst for not only innovation but also **empowerment and inclusion** in Nigeria's visual arts ecosystem.

Finding	Implication
AI boosts creativity and efficiency	Need to integrate AI tools into creative education and training
Visibility on global platforms increases	Encourage online showcasing and digital literacy
Rural artists face infrastructure barriers	Invest in broadband and rural digital inclusion initiatives
High cost of tools limits adoption	Provide subsidies or support for open-source alternatives
Ethical and cultural concerns persist	Promote culturally aware AI development and usage

Policy Recommendations and Conclusion

The findings underscore both the transformative potential of AI and the systemic challenges that threaten equitable participation in Nigeria's visual arts economy. This final section outlines strategic recommendations for policymakers, educational institutions, tech developers, and cultural organizations, and closes with a synthesis of the study's contributions.

Policy Recommendations

1. Develop Inclusive Digital Infrastructure

To address urban-rural disparities, national and state governments should:

- Expand broadband access in underserved areas.
- Subsidize digital equipment for creative professionals through targeted grants.
- Partner with local telecoms and art institutions to create AI-powered art labs in rural and peri-urban regions.

2. Integrate AI into Creative and Art Education

Tertiary institutions and vocational training centres should:

- Introduce AI and machine learning modules into visual arts curricula.
- Host regular workshops on ethical, technical, and cultural applications of AI in the arts.
- Encourage interdisciplinary collaborations between arts, computer science, and entrepreneurship faculties.

3. Promote Open-Source and Localized AI Tools

Government innovation hubs and tech incubators should:

- Fund the development of **open-source AI platforms** tailored to African visual cultures.
- Create partnerships with global AI labs to localize datasets and interfaces (e.g., in Pidgin, Hausa, Yoruba, Igbo).
- Facilitate knowledge-sharing between digital artists, technologists, and linguists.

4. Offer Accessible Funding and Business Support

To foster entrepreneurship in the AI art space:

- Create AI-specific creative economy grants for emerging artists and small businesses.
- Simplify application processes and provide digital mentorship.
- Incentivize private sector support through tax breaks and public recognition.

5. Address Ethical and Legal Frameworks

Regulatory agencies (e.g., NCC, NOTAP) should:

- Clarify ownership rights of AI-generated content.

- Offer guidelines for fair use, authorship, and cultural appropriation.
- Engage artists in policy formation to ensure regulations reflect ground realities.

Conclusion

Artificial Intelligence is not merely a technological tool—it is a transformative catalyst with the power to redefine how creativity is expressed, monetized, and accessed in Nigeria's visual arts economy. From enabling digital storytelling to automating design processes and globalizing artistic reach, AI is already altering the contours of the sector. However, as this study shows, the potential for inclusive growth hinges on deliberate, equitable integration strategies.

The core insight is clear: equitable access to AI tools, education, and infrastructure is critical. Without it, AI may exacerbate existing inequalities, sidelining rural, emerging, and under-resourced artists while benefitting a digitally privileged few. Therefore, Nigeria must treat AI not as a neutral innovation but as a policy priority in its cultural and economic development agenda.

Multi-stakeholder engagement is non-negotiable. Artists need training; educators must revise curricula; tech providers must build localized, accessible solutions; and policymakers must legislate with clarity, ethics, and inclusion at heart. Only through this collaborative commitment can Nigeria unlock the full promise of AI and chart a course where innovation and inclusion go hand in hand.

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