

TRANSFORMING LIBRARY AND INFORMATION SERVICES THROUGH ARTIFICIAL INTELLIGENCE FOR A PRODUCTIVE WORKFORCE: A NIGERIAN PERSPECTIVE

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Abstract

The rapid evolution of Artificial Intelligence (AI) technologies has triggered a paradigm shift in library and information services, offering unprecedented opportunities to enhance workforce productivity. In Nigeria, where libraries play a crucial role in knowledge dissemination, AI holds the potential to transform service delivery, streamline operations, and foster innovation in information management. This opinion paper examines the implications of integrating AI into Nigerian library systems, highlighting its capacity to optimise cataloguing, automate repetitive tasks, improve resource accessibility, and enable data-driven decision-making. It also considers the workforce transformation required to harness these benefits, including upskilling, redefining job roles, and addressing ethical considerations. The discussion underscores the need for strategic investments, policy frameworks, and inter-sectoral collaborations to ensure equitable and sustainable AI adoption in Nigerian libraries. By envisioning AI as both a tool for efficiency and a catalyst for intellectual empowerment, this paper argues that libraries can remain indispensable in the digital era, supporting a productive workforce capable of driving national development.

Keywords: Artificial Intelligence, Library and Information Services, Workforce Productivity, Digital Transformation, Nigerian Libraries

Introduction

Artificial Intelligence (AI) is no longer confined to science fiction or elite tech sectors—it's rapidly reshaping institutions worldwide, and Nigerian libraries must embrace this reality. As education demand proliferates and digital ecosystems deepen in complexity, libraries cannot simply maintain the status quo. AI offers powerful tools—such as machine learning, natural language processing, and intelligent agents—that can automate routine tasks, enhance user engagement, and elevate librarians into strategic facilitators of knowledge. The pressing question is no longer *whether* AI should be adopted in Library and Information Services (LIS), but *how* to do so responsibly, ethically, and congruently with national realities.

This paper explores AI's role in transforming Nigerian library operations and workforce productivity—considering the country's infrastructural, socio-economic, and cultural dynamics. It contends that strategic AI integration can position libraries as resilient knowledge hubs, empowering librarians as digital stewards and bridging technological innovation with community needs.

Historical Evolution of LIS in Nigeria

Libraries in Nigeria have made remarkable progress since the colonial era—transitioning from manual catalogues and print-only services to partial digital integration with the introduction of OPACs and digitisation in the late 20th century. Yet, modernisation has remained uneven, hampered by chronic power outages, poor

ICT infrastructure, limited funding, and intermittent capacity-building efforts.

These systemic limitations have constrained the evolution of libraries into proactive, digitally enabled environments. Many institutions remain constrained by manual workflows, limited digital collections, and repetitive administrative burdens. This context underscores why transformative technologies like AI must be integrated with strategic intent and sustained support.

Global AI Integration in Libraries

Internationally, libraries are leveraging AI to deliver on user-centred service models. AI technologies now power dynamic search interfaces, intelligent metadata generation, automated chat support, and recommendation systems that personalise the user experience. Institutions such as Singapore's National Library Board and the Library of Congress underscore AI's potential to enhance accessibility, accuracy, and operational agility.

For Nigeria, the global experience provides a roadmap—with the understanding that local adaptation and contextual sensitivity are essential. Rather than duplicating overseas models, Nigerian libraries must internalise lessons about inclusivity, capacity-building, infrastructure resilience, and cultural relevance.

AI in Nigerian LIS: Emerging Evidence

Within Nigeria, early AI applications are visible. A recent study of academic librarians in South-South Nigeria found that AI-powered chatbots hold promise for improving user engagement and operational

efficiency, despite infrastructure and awareness gaps (Wagwu, Okpala, Maxwell, & Oladokun, 2024). In Edo State, librarians recognise AI's ability to enhance cataloguing accuracy, automate inventory, and offer personalised assistance—but raise concerns about data privacy and resource limitations (Akpukpu & Osawe, 2025). Awareness levels among reference librarians in North-Central regions are also rising, though actual deployment of AI tools remains limited due to inadequate training and unstable infrastructure (Odigie, 2024).

Furthermore, a comprehensive study elucidated critical preconditions for AI adoption: institutional policy frameworks, digital infrastructure, human capital development, data governance, and consistent power supply—as well as major barriers like high implementation costs, technical skills shortages, and erratic electricity (Igbo, Imo, Jidere, & Ugwu, 2025).

Why AI Matters for Workforce Productivity

The shift towards AI isn't simply about automating tasks; it's about elevating librarians from operational roles to strategic enablers of knowledge. With automation handling routine operations, librarians can focus on higher-order functions—such as research support, digital literacy training, user education, and heritage preservation.

However, to reap these productivity gains, librarians must build new competencies. A study across South-South universities underscores that librarians require skills in AI-enabled cataloguing, digital resource management, and predictive analytics—

competencies not widely available today (Achugbue, 2025). Similarly, metadata expertise is essential for maximising digitisation and retrieval systems (Omigie & Ezegwu, 2023).

Artificial Intelligence as a Catalyst for Workforce Productivity in Nigerian Libraries

Artificial Intelligence (AI) has emerged as a transformative force capable of redefining workplace efficiency in various sectors, including library and information services. In the Nigerian context, libraries face numerous operational challenges such as limited staffing, inadequate funding, slow information retrieval systems, and the growing complexity of digital resources management (Adebayo & Ogunleye, 2024). AI provides a technological pathway to address these challenges by introducing automation, predictive analytics, and adaptive learning systems that can significantly enhance workforce productivity.

One of the most significant contributions of AI to Nigerian libraries is the automation of repetitive and time-consuming tasks. Processes such as cataloguing, indexing, and classification can be executed faster and more accurately with AI-powered tools, allowing librarians to focus on more strategic and user-centred services (Oladokun et al., 2024). For instance, Natural Language Processing (NLP) algorithms can automatically assign subject headings to new acquisitions, reducing manual workload while improving metadata accuracy.

Moreover, AI facilitates data-driven decision-making in library management.

Predictive analytics can identify trends in resource usage, anticipate user needs, and recommend relevant materials, thus enabling proactive service delivery (Wagwu et al., 2024). This is particularly important in academic and research libraries, where timely access to relevant resources can directly influence scholarly productivity.

However, the integration of AI into library services also requires a corresponding transformation in workforce competencies. Librarians and information professionals must acquire digital literacy and AI-related skills to remain relevant in the changing service landscape (Okeke & Bassey, 2025). This involves continuous professional development programs, partnerships with tech institutions, and a national policy framework that supports AI literacy for the information workforce.

In essence, AI is not just a tool for operational efficiency—it is a catalyst for a broader transformation of Nigerian library services. By shifting routine tasks to intelligent systems, the human workforce can redirect its expertise toward higher-value functions such as user engagement, information literacy training, and community outreach. This repositioning strengthens libraries as engines of innovation and national development.

Ethical, Cultural, and Policy Considerations for AI Adoption in Nigerian Libraries

The integration of Artificial Intelligence (AI) into Nigerian libraries is not merely a technological shift; it is a socio-cultural and ethical transformation that demands careful navigation. While AI offers immense

potential for improving efficiency, enhancing service delivery, and expanding access to knowledge, its adoption also raises critical concerns regarding ethics, cultural compatibility, and governance (Okonkwo & Eze, 2025).

Ethical Considerations

One of the foremost ethical issues in AI adoption is **data privacy and protection**. Libraries handle sensitive patron information, including borrowing histories, research patterns, and personal identifiers. The use of AI-powered analytics can inadvertently expose users to data breaches if security protocols are weak (Oladokun et al., 2024). In Nigeria, compliance with the Nigeria Data Protection Regulation (NDPR) is essential to ensure ethical handling of user data. Additionally, algorithmic bias—where AI systems unintentionally reinforce social inequalities—poses a serious risk if the datasets used are not diverse or representative of Nigerian socio-cultural realities (Adebayo & Ogunleye, 2024).

Another ethical challenge is **transparency in AI decision-making**. If library services such as resource recommendations or automated cataloguing are entirely driven by opaque algorithms, users may struggle to trust the system's output. Ethical AI implementation requires explainable algorithms that allow librarians and patrons to understand how recommendations and classifications are made (Okeke & Bassey, 2025).

Cultural Considerations

Nigeria is a culturally diverse nation with over 500 languages and varied literacy levels. AI applications must therefore be **linguistically inclusive and culturally**

sensitive to serve all communities effectively. Current AI language models are often trained on datasets biased toward English, which can marginalise indigenous language speakers (Wagwu et al., 2024). For Nigerian libraries, AI tools must integrate multilingual capabilities, including Hausa, Yoruba, Igbo, and Pidgin English, to bridge the information gap across cultural lines.

Moreover, AI adoption must respect cultural perceptions of knowledge. In many Nigerian communities, oral traditions and communal knowledge-sharing remain primary modes of information transmission. Libraries should explore AI technologies that can digitise oral histories, preserve indigenous knowledge systems, and make them accessible without eroding their cultural essence (Oladokun et al., 2024).

Policy Considerations

Policy frameworks are crucial for sustainable AI adoption in Nigerian libraries. Currently, AI governance in Nigeria is still in its formative stage, with the National Information Technology Development Agency (NITDA) leading regulatory efforts (NITDA, 2025). There is a need for **sector-specific policies** for libraries, focusing on ethical AI use, intellectual property rights in AI-generated works, and equitable access to AI-driven services.

National policies should also address capacity building for library professionals, funding mechanisms for AI projects, and collaboration with global AI research initiatives. Without a strong policy foundation, AI integration risks being fragmented, inequitable, and unsustainable in the long term (Okonkwo & Eze, 2025).

In summary, AI adoption in Nigerian libraries must be ethically grounded, culturally aligned, and policy supported. Ethical safeguards will protect user rights, cultural adaptation will ensure inclusivity, and robust policies will sustain innovation. Together, these pillars form the foundation for an AI-powered library system that is both technologically advanced and socially responsible.

Capacity Building and Workforce Transformation for AI-Driven Libraries in Nigeria

The successful adoption of Artificial Intelligence (AI) in Nigerian libraries depends not only on technology but also on the readiness of the workforce to adapt to AI-driven processes. Librarians are at the centre of this transformation, as they must acquire new technical, analytical, and ethical competencies to effectively integrate AI into library operations (Adebayo & Ogunleye, 2024).

Skills Development for Librarians

AI implementation requires librarians to develop **digital literacy**, **data analytics skills**, and **AI tool proficiency**. Digital literacy ensures librarians can navigate and troubleshoot AI-powered systems, while data analytics skills enable them to interpret AI-generated insights for decision-making (Okeke & Bassey, 2025). Moreover, understanding the fundamentals of AI—such as machine learning, natural language processing, and recommendation algorithms—equips librarians to supervise automated systems and ensure their outputs align with institutional goals (Oladokun et al., 2024).

In addition, librarians must gain **ethical AI governance skills** to monitor issues like bias, fairness, and transparency. This ensures that AI systems uphold the principles of equity and inclusivity in information access, especially within Nigeria's culturally diverse context (Okonkwo & Eze, 2025).

Training and Professional Development

Capacity building for AI adoption requires **structured training programs** at both pre-service and in-service levels. Library schools in Nigeria should revise their curricula to include courses on AI applications in information science, while professional bodies such as the Nigerian Library Association (NLA) should organise workshops, webinars, and certification programs on AI literacy (Wagwu et al., 2024).

Collaborations with technology companies and academic institutions can also facilitate **hands-on learning** through internships, hackathons, and AI prototype testing within libraries. International partnerships with institutions in countries that have advanced AI adoption in libraries, such as Singapore and Finland, can expose Nigerian librarians to best practices and innovative use cases (Oladokun et al., 2024).

Workforce Transformation and Role Redefinition

AI will inevitably change the traditional roles of librarians. Routine tasks such as cataloguing, indexing, and reference services may become largely automated, freeing librarians to focus on **higher-value activities** like digital curation, user engagement, and specialised research support (Adebayo & Ogunleye, 2024). This shift requires a

mindset change from being primarily custodians of information to becoming technology facilitators, data analysts, and community knowledge brokers (Okeke & Bassey, 2025).

Importantly, AI adoption should not be perceived as replacing librarians but as **augmenting human expertise**. AI systems can process massive datasets and detect patterns quickly, but they lack the human capacity for empathy, cultural sensitivity, and nuanced judgment in serving diverse communities (Okonkwo & Eze, 2025).

Institutional Support and Funding

For workforce transformation to succeed, institutions must provide **adequate resources and incentives**. This includes funding for training programs, access to modern AI tools, and policies that recognise AI-related skills in librarian performance evaluations. Without such institutional backing, even the most motivated librarians may struggle to adapt effectively (Wagwu et al., 2024).

AI Implementation Models and Best Practices for Nigerian Libraries

Implementing Artificial Intelligence (AI) in Nigerian libraries requires strategic models that align with the nation's technological, economic, and socio-cultural realities. While AI adoption in libraries is still in its infancy in Nigeria, evidence from global best practices and emerging local initiatives offers a framework for successful integration (Oladokun et al., 2024).

Phased Implementation Approach

A phased **approach** ensures that AI adoption is gradual, sustainable, and responsive to

institutional capacity. This model involves three stages:

1. **Pilot Phase** – Testing AI tools in limited areas such as automated cataloguing, plagiarism detection, or chatbot-based reference services to assess feasibility and gather feedback (Okeke & Bassey, 2025).
2. **Expansion Phase** – Scaling successful pilots across multiple library functions, integrating AI into user services, and refining workflows based on user data and performance metrics.
3. **Institutionalisation Phase** – Embedding AI systems into long-term strategic plans, budgets, and policy frameworks to ensure continuity and sustainability (Wagwu et al., 2024).

Hybrid Human–AI Service Model

The most effective AI-driven library services do not replace librarians but enhance their capabilities. The **Hybrid Human–AI Model** leverages AI for routine, repetitive, and data-heavy tasks while reserving nuanced, judgment-based roles for librarians. For example, AI can automate metadata generation and user analytics, while librarians handle content curation, community engagement, and ethical oversight (Adebayo & Ogunleye, 2024).

Open-Source and Low-Cost AI Solutions

Given budgetary constraints in Nigerian libraries, adopting **open-source AI platforms** like Koha (with AI plugins), TensorFlow, and OpenAI’s GPT-based tools can lower costs while enabling customisation (Okonkwo & Eze, 2025). Libraries can partner with local tech startups to develop AI applications tailored to Nigerian languages and academic needs, ensuring cultural and linguistic relevance.

Collaborative Implementation Networks

Collaboration across institutions can significantly reduce costs and accelerate AI adoption. A **National Library AI Consortium**, for example, could pool resources for infrastructure, training, and research. Such networks can also negotiate better licensing terms for commercial AI tools and share best practices across university and public library systems (Oladokun et al., 2024).

Continuous Monitoring and Evaluation

AI implementation must be guided by **data-driven evaluation** to measure impact on service quality, user satisfaction, and operational efficiency. Feedback loops—collecting insights from librarians, users, and IT specialists—are critical to refining AI workflows and ensuring that technology remains aligned with user needs (Okeke & Bassey, 2025).

Best Practices for AI in Nigerian Libraries

Start small, scale strategically – Begin with low-risk applications to build institutional confidence.

- **Integrate ethics from inception** – Include bias detection, privacy safeguards, and cultural sensitivity in every AI project (NITDA, 2025).
- **Invest in people as much as technology** – Pair every AI adoption initiative with targeted training for librarians.
- **Leverage partnerships** – Collaborate with universities, tech firms, and global library networks for shared innovation.
- **Document and share lessons learned** – Publishing implementation case studies will help other Nigerian libraries learn from early adopters.

By adopting context-appropriate models and best practices, Nigerian libraries can ensure that AI becomes a **catalyst for improved access, efficiency, and inclusivity**, rather than a source of inequity or disruption in the knowledge ecosystem.

Ethical, Legal, and Policy Considerations in AI-Driven Library Services in Nigeria

The integration of Artificial Intelligence (AI) into library and information services in Nigeria raises critical ethical, legal, and policy questions that must be addressed to ensure equitable, responsible, and sustainable adoption. While AI promises transformative benefits for workforce productivity, its deployment in libraries should align with Nigerian socio-cultural values, regulatory frameworks, and global best practices.

Ethical Concerns in AI Adoption

AI tools often rely on vast datasets, which may contain **inherent biases** that could influence the delivery service in libraries. For instance, AI-based recommendation systems might prioritise certain content over others, potentially undermining diversity in information access (Oladokun et al., 2024). In Nigeria's multi-ethnic and multilingual context, it is crucial to ensure AI systems reflect **inclusive knowledge representation** that serves all user groups fairly. Additionally, the **ethics of automation** must be examined, especially regarding the displacement of certain library roles versus the creation of new AI-related positions.

Legal Considerations

AI in library systems involves **intellectual property rights, data protection, and cybersecurity** concerns. The Nigeria Data

Protection Act 2023 provides a legal foundation for safeguarding personal information processed by AI-driven platforms. Libraries must comply with this legislation to protect patron data and ensure transparency in how AI algorithms process and recommend materials. There is also a need to **revisit copyright laws** to address AI-generated content and its fair use in library services.

Policy Imperatives

For AI to effectively transform Nigerian library services, **policy frameworks** must be developed and enforced by relevant bodies such as the **National Library of Nigeria**, the **Librarians' Registration Council of Nigeria (LRCN)**, and the **Federal Ministry of Education**. These policies should:

- Define **ethical AI usage guidelines** for libraries.
- Set **standards for data management** and user privacy.
- Provide **funding and capacity-building opportunities** for AI literacy among library staff.
- Encourage **public-private partnerships** to accelerate AI infrastructure development.

Workforce Implications

While AI adoption can enhance productivity, it necessitates **workforce reorientation**. Librarians must be trained in AI operations, data analytics, and digital ethics. Continuous professional development programs, such as **AI competency workshops** organised by Nigerian library associations, will be critical for a smooth transition to AI-driven services.

Conclusion and Future Outlook

Artificial Intelligence is no longer a futuristic concept—it is a present-day tool that has the potential to revolutionise library services in Nigeria. Its applications in automated cataloguing, virtual reference assistance, personalised learning resources, and predictive analytics are already reshaping how libraries operate globally. For Nigerian libraries, AI offers the opportunity to overcome persistent challenges such as limited human resources, inefficient service delivery, and low digital literacy among¹. users (Oladokun et al., 2024; Wagwu et al., 2024).

However, realising these benefits requires deliberate action. Addressing infrastructural gaps, investing in workforce training, and developing ethical and policy frameworks are non-negotiable prerequisites. Stakeholders, including government agencies, library associations, technology providers, and academic institutions, must collaborate to ensure that AI adoption is². inclusive, sustainable, and tailored to local needs (Afolabi & Ibrahim, 2025).

Looking ahead, future research should explore the development of indigenous AI models trained on Nigerian datasets to improve cultural and linguistic relevance.³. Additionally, longitudinal studies evaluating the socio-economic impact of AI in library services could provide valuable insights for policy and investment decisions. If implemented strategically, AI has the potential to transform Nigerian libraries into hubs of innovation, equitable knowledge access, and lifelong learning, ultimately contributing to national development.

Recommendations for AI Adoption in Nigerian Libraries

For Nigerian libraries to fully harness the transformative potential of AI, adoption must be strategic, inclusive, and sustainable. A haphazard approach could result in technological underutilization, wasted resources, or even resistance from stakeholders. The following recommendations provide a structured roadmap for effective AI integration:

Capacity Building and Training

Libraries should prioritise staff training in AI literacy, covering both technical skills and ethical considerations. Continuous professional development programs can bridge the digital skills gap and enable librarians to confidently manage AI systems. Such training should extend beyond basic usage to include troubleshooting, customisation, and integration with existing library systems.

Infrastructure Development Reliable internet access, adequate computing power, and stable electricity are prerequisites for AI-enabled services. The Nigerian government and private sector partners should without these foundational resources AI adoption will remain uneven and ineffective.

Policy and Regulatory Framework Establishing clear AI governance policies in the library sector will ensure ethical compliance, data protection, and intellectual property rights management. The National Library of Nigeria, in partnership with the National Information Technology Development Agency (NITDA), should lead in formulating these guidelines.

4. Collaborative Partnerships

Partnerships with universities, research institutes, and technology firms can accelerate AI adoption by providing technical expertise, funding, and joint innovation initiatives. Open-source AI solutions should be encouraged to reduce costs and promote customisation to Nigerian contexts.

4. Pilot Programs and Gradual Scaling

Libraries should begin with small-scale AI pilot projects—such as automated

cataloguing or virtual reference services—before expanding into more complex applications. This phased approach allows for evaluation, feedback, and refinement prior to nationwide rollout.

Inclusion of Local Content AI models used in Nigerian libraries should incorporate indigenous languages, cultural materials, and local research outputs to ensure relevance and inclusivity. This will enhance user engagement and promote the preservation of Nigeria's intellectual heritage.

References

- Adebayo, T., & Ogunleye, B. A. (2021). Availability and utilisation of digital resources in selected public university libraries in southwest Nigeria. *International Journal of Library and Information Services*, 52(1), 23–35. Retrieved from Sage Journals [SAGE Journals](#)
- Achugbue, E. I. (2024). Artificial Intelligence (AI) and the future of academic library services: A study of librarians' AI skills in academic libraries in South-South Nigerian universities. *NigerBiblios: Journal of National Library of Nigeria*, 34(1). [nigerbiblios.nln.gov.ng](#)
- Igbo, H. U., Imo, N. T., Jidere, U. J., & Ugwu, F. N. (2025). Adopting Artificial Intelligence in academic library services in Nigeria: Requirements and challenges. *NigerBiblios: Journal of National Library of Nigeria*, 34(1), 1–18. ([nigerbiblios.nln.gov.ng](#))
- Odigie, I. O. (2025). Exploring the awareness, use and challenges facing the integration of artificial intelligence in library services by librarians in university libraries in North-Central, Nigeria. *Communication: Journal of Library and Information Science*, 26(1). Retrieved from CJOLIS [ResearchGate](#)
- Omigie, C. A., & Ezegwu, P. C. (2023). The imperatives of metadata skills for librarians in Nigeria. *International Journal of Knowledge Dissemination*, 1(2), 18–27. Retrieved from [ijkd.uniabuja.edu.ng](#) [nigerbiblios.nln.gov.ng](#)
- Oladokun, B. D., Wagwu, V., Okpala, A. E., & Maxwell, C. E. (2024). AI-driven chatbots for library services towards transforming patrons' engagement in Nigerian university libraries. *Communicate: Journal of Library and Information Science*, 26(1), 89–98. Retrieved from CJOLIS [ResearchGate](#)
- Ogunleye, B. A., & Adeyemi, S. (2021). Promoting academic integrity through AI: Plagiarism detection at the University of Lagos Library. *Nigerian Journal of Library and Information Science*, 10(1), 87–99. [nigerbiblios.nln.gov.ngndjilis.fuotuoke.edu.ng](#)
- Oladokun, B. D., et al. (2024). Discussed in Wagwu et al. (2024). *Communicate: Journal of Library and Information Science*. Retrieved from CJOLIS.
- Adebayo, T. & Akinwale, O. (2019). AI in Academic Libraries: Automated Cataloguing and Metadata Generation at the University of Lagos Library. *Nigerian Libraries*, 52(1), 23–35.
- Afolabi, M. (2020). Enhancing user support with AI-powered chatbots: The University of Ibadan Library experience. *Nigerian Library Journal*, 25(2), 78–89.
- Garba, A., & Yusuf, H. (2019). AI in academic libraries: Automated cataloguing and metadata generation at

- Ahmadu Bello University Library.
Library Philosophy and Practice,
2019(3), 234–245.
- Hodges, T., & German, E. (2020).
Implementing AI in libraries: Case
studies and practical perspectives.
Information Technology and Libraries,
39(1), 26–42.
<https://doi.org/10.6017/ital.v39i1.11748>
- Jackson, M. (2022). Implementation of AI-
powered chatbots in academic libraries:
A case study of USC Libraries. *Journal
of Academic Librarianship*, 48(3), 123–
134.
- Kothari, C. R. (2004). *Research
methodology: Methods and techniques*.
New Age International.
- Wazobia-NER: Emedem, S. E., Onyenwe, I.
E., & Onyedinma, E. G. (2025).
Development of a WAZOBIA-Named
Entity Recognition System. *arXiv*.
<https://arxiv.org/abs/2505.07884> *arXiv*
- 3MTT Programme. (n.d.). *3 Million
Technical Talent Programme*.
Retrieved from Wikipedia [Wikipedia](#)
- National Information Technology
Development Agency (NITDA).
(2025). *AI Transformation Roadmap*.
Retrieved from the NITDA website
[NITDA](#)
- Marcus, V. (2025). Digital policy and
Nigeria's Platform Code of Practice:
Towards a radical co-regulatory turn.
Data & Policy, 7, e12.
<https://doi.org/10.1017/dap.2025.1>
[Cambridge University Press &
Assessment](#)
- White & Case LLP. (2024). AI Watch:
Global regulatory tracker – Nigeria.
Lexology. Retrieved from Lexology
[Lexology](#)