GNR Publication
The Multidisciplinary Review
ISSN: 3139-6801 | Volume 1, Issue 3 | September – October (2026)

From Curriculum Obsolescence to Curriculum Intelligence: Rethinking Education in the Age of Artificial Intelligence

Ejuchegahi A. Angwaomaodoko

Department of Education, College of Education, Kean University, Union, NJ, USA

Received: 30 July 2026 | Accepted: 29 September 2026 | Published: 03 October 2026

Abstract	Global classrooms are ageing faster than the knowledge they are meant to transmit, and this widening gap between what curricula teach and what artificial intelligence now makes possible forms the departure point for the paper "From Curriculum Obsolescence to Curriculum Intelligence: Rethinking Education in the Age of Artificial Intelligence." The paper examined three objectives: to examine the manifestations and drivers of curriculum obsolescence in the age of artificial intelligence, to interrogate the conceptual shift from static curriculum design toward curriculum intelligence as an adaptive, data-responsive framework, and to evaluate strategies through which higher education institutions can reposition curriculum development to achieve curriculum intelligence. The paper adopted Connectivism as its theoretical anchor, given its emphasis on knowledge that is distributed across networks and continuously updated. Methodologically, the paper followed a desk-based, qualitative design, relying on a review of recent literature, policy documents and empirical studies drawn from both global and Nigerian higher education settings. Findings show that curricula reviewed on fixed, multi-year cycles cannot match the pace at which artificial intelligence reshapes labour markets and knowledge domains, that curriculum intelligence depends on continuous feedback between classrooms, industry and technology rather than periodic committee revision, and that Nigerian universities illustrate this obsolescence through programmes that remain disconnected from artificial intelligence-driven labour market realities. The paper concluded that curriculum intelligence, rather than curriculum obsolescence, should define institutional planning going forward, and recommended the adoption of adaptive curriculum governance structures, sustained lecturer retraining and closer university-industry data partnerships.
Keywords	Curriculum Obsolescence, Curriculum Intelligence, Artificial Intelligence, Higher Education, Curriculum Reform

1. Introduction

Educational systems across the world were built for an era in which knowledge accumulated slowly enough for a fixed curriculum, reviewed once every five or ten years, to remain broadly serviceable between revisions. That assumption is being tested by generative and adaptive forms of artificial intelligence that now write, calculate, diagnose, translate and design at a pace no committee-based review cycle can track (Liang et al., 2025). Universities that once treated curriculum design as a

periodic administrative exercise are discovering that the interval between what is taught and what a graduate must know to remain employable has widened considerably within a single cohort's period of study (Karataş et al., 2025).

Across higher education systems in Asia, Europe and North America, artificial intelligence tools have already begun to alter how content is generated, how instruction is delivered and how learning is assessed, pushing institutions to treat curriculum as an object under constant revision rather than a finished product (Liang et al., 2025; Topali et al., 2025). Mah and Groß (2024) found that faculty across several European institutions differ markedly in their readiness to use artificial intelligence, with self-efficacy and institutional support shaping whether curriculum adaptation happens at all.

The United Nations Educational, Scientific and Cultural Organization (UNESCO) has likewise begun to frame artificial intelligence not as an add-on subject but as a force capable of altering long-standing assumptions about the purpose of schooling itself (UNESCO, 2025), while the Organisation for Economic Co-operation and Development has proposed that curriculum developers think systematically about how a given artificial intelligence capability should alter curricular aims, using writing instruction to illustrate how thoroughly a single competence domain can be reorganised once machines can perform it credibly (Fuster Rabella, 2025).

In Nigeria, this difficulty is compounded by structural conditions that predate artificial intelligence but are now intensified by it. Ajayi (2024) observes that the Nigerian curriculum remains organised around content that was settled well before generative tools became available to students, leaving lecturers to police machine-assisted work with instruments designed for an earlier information environment. Odewole (2025) similarly argues that the Core Curriculum and Minimum Academic Standards introduced by the National Universities Commission opened a formal channel for renewal, yet institutional practice still lags behind the fourth industrial revolution competences that employers now expect of graduates.

This lag is visible beyond the classroom, in the widening distance between what Nigerian graduates are certified to know and what an artificial intelligence-mediated labour market now requires of them. No curriculum offered by Nigerian universities, across disciplines, has been reorganised at a pace that matches the speed at which artificial intelligence is altering professional practice in the fields for which those curricula prepare graduates. The persistence of static curricula alongside a fast-changing occupational environment illustrates, at a concrete level, the cost of curriculum obsolescence: graduates leave university without the analytic and adaptive competences that would allow them to remain relevant within their own fields shortly after graduation.

2. Statement of the Problem

Universities continue to govern curriculum through cyclical review structures designed for a period when knowledge and occupational demand changed slowly enough to be captured every four to six years, yet artificial intelligence now revises what counts as competent practice within a single academic session (Topali et al., 2025). The consequence is a widening interval, documented across national settings, between certified competence and workplace capability, an interval that neither periodic syllabus revision nor isolated technology modules have closed (Karataş et al., 2025; Mah & Groß, 2024).

In Nigeria specifically, curriculum retains content appropriate to an earlier industrial and technological order, and reform efforts such as the Core Curriculum and Minimum Academic

Standards have not yet translated into classroom practice that equips graduates for artificial intelligence-mediated employment (Ajayi, 2024; Odewole, 2025). What has not been settled, either conceptually or empirically, is how curriculum planning itself should be reorganised so that it behaves less like a fixed document and more like an intelligent system capable of sensing change and adjusting content accordingly. It is this gap, between curriculum as a static artefact and curriculum as an adaptive, artificial intelligence-informed system, that this paper addressed.

3. Objectives of the Paper

The paper was guided by three specific objectives:

i. To examine the manifestations and drivers of curriculum obsolescence in the age of artificial intelligence.

ii. To interrogate the conceptual shift from static curriculum design to curriculum intelligence as an artificial intelligence-enabled adaptive framework.

iii. To evaluate strategies through which higher education institutions can reposition curriculum development to achieve curriculum intelligence.

4. Conceptual Review

4.1 Curriculum

Curriculum has long been defined as more than a list of subjects to be taught. Wheelahan (2022) insists that curriculum is fundamentally a question of what knowledge is judged worth teaching, and that this judgement carries assumptions about the kind of future for which learners are being prepared. Other writers treat curriculum more procedurally, as the planned sequence of learning experiences an institution organises to achieve stated outcomes, a definition that foregrounds structure and sequencing over the epistemic question of which knowledge deserves inclusion. Read against each other, these positions differ chiefly in emphasis: one asks what should be taught, the other asks how it should be organised once selected.

For the purposes of this paper, curriculum is adopted as the deliberately organised body of content, experience and assessment through which an institution translates a judgement about worthwhile knowledge into a sequence learners can follow, a definition broad enough to accommodate both the epistemic and the procedural concerns above.

4.2 Curriculum Obsolescence

Curriculum obsolescence describes the condition under which the content, skills and assessment practices encoded in a curriculum fall behind the knowledge, technology and labour market conditions they are meant to prepare learners for. Ajayi (2024) uses the term to characterise Nigerian curricula whose content was fixed before generative technologies became available to students, arguing that such curricula continue to certify competences that no longer match what employers or society require.

Odewole (2025) approaches the same condition from the standpoint of employability, treating obsolescence as the widening distance between what a curriculum certifies and what the fourth industrial revolution workplace actually demands of a graduate. Where Ajayi foregrounds the technological trigger of obsolescence, Odewole foregrounds its labour-market consequence; read together, the two positions suggest that obsolescence becomes visible only when curricular content is

measured against an external, moving reference point, whether that point is a new technology or a changed occupational requirement.

This paper adopts curriculum obsolescence as the progressive loss of correspondence between certified curricular competence and the technological or occupational conditions graduates enter, a loss that becomes more visible and more costly the faster the external reference point changes.

4.3 Curriculum Intelligence

Curriculum intelligence is a newer used in this paper to denote a curriculum system capable of sensing change in its environment, in a discipline's data, or in labour market conditions, and adjusting content, sequencing or assessment in response, rather than waiting for a scheduled review cycle. Karataş et al. (2025) come close to this idea when they describe teachers using artificial intelligence tools to extend, revise or omit portions of an official curriculum in response to what individual classrooms actually need, treating curriculum as something continuously adapted rather than delivered unchanged.

Fuster Rabella (2025) extends the same reasoning to policy level, proposing that curriculum developers think systematically about how a specific artificial intelligence capability, once it becomes reliable, should alter what a subject area teaches and why, rather than treating artificial intelligence as an isolated addition bolted onto an unchanged curriculum. The distinction between these positions is one of scale, classroom-level adaptation in the first case, system-level design logic in the second, but both treat responsiveness, rather than fixed content, as the defining property of an intelligent curriculum.

Consistent with both positions, this paper adopts curriculum intelligence as the capacity of a curriculum system, at classroom and institutional level alike, to draw on continuous data about learners, disciplines and labour markets in order to revise its content and structure before obsolescence sets in, rather than after it has already been documented.

4.4 Artificial Intelligence in Education

Artificial intelligence in education refers to the application of computational systems capable of performing tasks that would otherwise require human judgement, such as generating text, personalising content, diagnosing learning gaps or automating assessment, within teaching and learning settings. Luckin et al. (2016) argued early that such systems could make learning processes visible to teachers in ways previously unavailable, positioning artificial intelligence as an instrument that extends pedagogical judgement rather than replaces it.

Holmes et al. (2019) developed this argument further by distinguishing between artificial intelligence that behaves as a tutor to the learner, artificial intelligence that behaves as a tutee directed by the learner, and artificial intelligence that supports the learner as a partner in constructing knowledge. Liang et al. (2025) work with a narrower, generative-technology definition, documenting how tools able to produce assessable text have already altered curriculum, instruction and assessment practice within a period of less than a year following their public release, while Topali et al. (2025) work with a wider definition that includes adaptive tutoring and learning-analytics systems used in school settings, arguing that pedagogical judgement, rather than the technology itself, should determine how such tools are deployed in authentic classrooms.

This paper adopts artificial intelligence in education as any computational system, generative or adaptive, that performs tasks ordinarily requiring human academic judgement within a teaching,

learning or assessment process, and treats the manner of its pedagogical embedding, rather than its mere presence, as the determinant of educational value.

5. Literature Review

5.1 Manifestations and Drivers of Curriculum Obsolescence in the Age of Artificial Intelligence

Evidence from across recent studies points to several drivers of curriculum obsolescence rather than a single cause. Liang et al. (2025), reviewing thirty-three studies published within nine months of a major generative tool's release, found that most institutions responded to the technology through restrictive assessment policy rather than through curriculum redesign, a pattern that leaves underlying content unchanged even as the skills that content certifies lose currency.

Mah and Groß (2024) locate a second driver in faculty readiness itself, reporting that self-efficacy and institutional support vary enough among academic staff that curriculum adaptation proceeds unevenly within the same institution, producing obsolescence in some departments while others adjust more readily. A third driver, documented by Ajayi (2024) and Odewole (2025) in the Nigerian setting, is structural: curriculum review cycles governed by national regulatory frameworks move on a multi-year schedule that cannot track technological change occurring within a single academic session.

Fuster Rabella (2025) adds a conceptual driver to this list, arguing that curriculum developers frequently lack a systematic way of relating a specific artificial intelligence capability to a specific curricular aim, so that even where institutions recognise the need for change, they do not know precisely which content should be revised. Collectively, these findings indicate that curriculum obsolescence is driven jointly by policy caution, uneven staff readiness, slow regulatory cycles and an absence of systematic method for translating technological capability into curricular decisions, rather than by any single institutional failing.

5.2 Curriculum Intelligence as an Artificial Intelligence-Enabled Adaptive Framework

Literature addressing curriculum intelligence as an adaptive framework remains comparatively thin, but converging evidence suggests that it is achievable at more than one level of the education system. At classroom level, Karataş et al. (2025), surveying and interviewing four hundred and forty teachers, found that educators already use artificial intelligence tools to extend, revise and, less frequently, omit sections of an official curriculum, producing a pattern of continuous micro-adaptation that functions independently of formal review committees.

Topali et al. (2025) support this finding with evidence from authentic school settings, where adaptive tutoring systems adjust content sequencing to individual learners in real time, demonstrating that intelligence in curriculum delivery can operate at the level of the individual learner rather than only at the level of an institutional document.

At policy level, Fuster Rabella (2025) proposes a framework in which curriculum aims are periodically re-examined against the specific capabilities artificial intelligence has newly acquired, using writing instruction to show how thoroughly a competence domain can be reorganised once a machine performs it credibly. What these strands share is a rejection of the assumption that curriculum change must wait for a scheduled review; instead, each strand locates responsiveness either in the individual teacher, the individual learner or the policy apparatus itself.

The literature nonetheless leaves unresolved how classroom-level adaptation, of the kind Karataş et al. document, can be aggregated into institutional knowledge without losing the very responsiveness that gives it value, a gap the present paper returns to in its discussion.

5.3 Strategies for Repositioning Curriculum Development toward Curriculum Intelligence

Strategies proposed for repositioning curriculum development draw on both global and Nigerian sources, though the body of literature emphasise different levers. Mah and Groß (2024) recommend differentiated professional development, arguing that faculty support programmes should be tailored to distinct profiles of artificial intelligence readiness rather than delivered as a uniform workshop, since uniform training left the least confident staff largely unaffected.

Odewole (2025) argues, from the Nigerian setting, that the Core Curriculum and Minimum Academic Standards framework already gives institutions formal latitude to redesign programmes around employability outcomes, and that the binding constraint is institutional will rather than regulatory permission. Ajayi (2024) goes further, recommending that curriculum reform in Nigeria be paired with investment in infrastructure and teacher preparation, on the reasoning that curriculum content revised on paper achieves little where classrooms lack the technological access needed to deliver it.

Fuster Rabella (2025) contributes a method rather than a specific recommendation, proposing that curriculum developers work outward from a defined artificial intelligence capability to its curricular implications, discipline by discipline, rather than attempting a single blanket reform. In all, these strategies converge on a common requirement: that curriculum repositioning must combine formal regulatory latitude, targeted staff development and adequate infrastructure, since any one element pursued alone leaves the others as a bottleneck.

6. Empirical Review

Liang et al. (2025) conducted a study focusing on the early influence of artificial intelligence on curriculum, instruction and assessment within higher education globally. The study area covered institutions across several continents, with the largest concentration of the reviewed literature drawn from Asia. The researchers did not commit to a single named theory but worked within a broadly interpretive, thematic framework consistent with systematic review methodology guided by the PRISMA protocol.

The research design was a systematic review, in which published outputs served as the unit of analysis rather than individual respondents. The sample comprised thirty-three studies, selected from a larger pool through a screening process guided by explicit inclusion and exclusion criteria applied to articles published within nine months of a major generative artificial intelligence tool's release. Data were collected through systematic database search followed by thematic coding of the included studies. Major findings showed that most of the reviewed studies originated from Asian institutions, that simulation and modelling were the most common research methods used to test artificial intelligence tools, and that four themes captured the technology's influence, namely the generation of new instructional material, the redesign of assessment to resist misuse, changed patterns of instructor-student interaction, and unresolved questions about academic integrity. The study concluded that institutional response to artificial intelligence has so far concentrated on assessment security rather than curriculum redesign, leaving the underlying content of academic programmes largely undisturbed.

This review is useful for establishing the scale and geographic distribution of early institutional responses to artificial intelligence, yet it says comparatively little about how curriculum content itself, as distinct from assessment practice, should be reorganised, a gap this paper addressed by treating curriculum intelligence as a matter of content and structure rather than assessment security alone.

Karataş et al. (2025) examined how artificial intelligence tools influence the way classroom teachers adapt an official curriculum to their own students. The study area was located within school systems where a national curriculum is applied across differing classroom conditions, requiring teachers to adjust official content to local circumstances. The researchers grounded their inquiry in curriculum adaptation theory, which treats teachers as active agents who routinely extend, revise or omit elements of a prescribed curriculum rather than delivering it unchanged. An explanatory sequential design was employed, combining a quantitative survey phase with a qualitative follow-up phase. The sample comprised four hundred and forty teachers, reached through a purposive sampling technique intended to capture practitioners already engaged in some form of curriculum adaptation.

Data were collected using the Curriculum Adaptation Patterns Scale alongside semi-structured focus group interviews conducted after the survey phase. Major findings indicated that teachers favoured extending and revising curricular content over omitting it, and that artificial intelligence tools, particularly generative chat-based systems, were used to personalise content, remove redundant material and generate supplementary resources suited to specific classes. The study concluded that artificial intelligence has become an active participant in everyday curriculum adaptation, operating well below the level of formal institutional policy.

This study offers strong evidence that curriculum intelligence already exists informally at classroom level, though it stops short of examining how such informal adaptation could be captured and fed back into formal curriculum review, a gap that this paper addressed in its recommendations concerning adaptive curriculum governance.

Ajayi (2024) investigated the condition of the Nigerian educational curriculum in relation to the country's readiness to adopt artificial intelligence. The study area was the Nigerian educational system generally, with particular attention to structural conditions shared across public tertiary institutions. The study proceeded from an analytical rather than a formally named theoretical framework, treating curriculum relevance, infrastructural adequacy and teacher preparedness as the three conditions jointly determining a system's capacity for technological adoption. The research design was a qualitative, documentary analysis, drawing on policy documents, institutional reports and existing literature rather than primary respondent data, and consequently did not apply a probability sampling technique.

Data were collected through document review and content analysis of curriculum documents alongside secondary sources describing infrastructural and staffing conditions in Nigerian tertiary institutions. Major findings identified outdated curriculum content, inadequate technological infrastructure and a shortage of teachers trained to guide artificial intelligence-supported learning as the three conditions most responsible for slow adoption. The study concluded that successful integration of artificial intelligence into Nigerian education requires simultaneous curriculum revision, infrastructural investment and teacher preparation, since addressing any one condition without the others would not materially improve outcomes.

This study offers a grounded account of the structural preconditions for curriculum intelligence in a Nigerian setting, yet its documentary method does not capture how individual lecturers or students already experience or resist curriculum obsolescence, a gap the present paper's discussion addressed by situating these structural findings alongside classroom-level evidence from other national settings.

7. Theoretical Framework

The paper adopted Connectivism, propounded by George Siemens in 2005, as its theoretical framework. Siemens developed Connectivism specifically to account for learning in a digital environment where knowledge is distributed across networks, changes continuously, and can no longer be adequately explained by behaviourist, cognitivist or constructivist theories developed before digital networks existed.

The theory's major assumptions hold that learning is the capacity to form and navigate connections between nodes of information, that knowledge may reside outside the individual learner within a network or a database, that the capacity to know more matters less than the capacity to locate current, accurate information when it is needed, and that decision-making is itself a learning process because the correctness of a decision shifts as the information environment around it changes. Connectivism further assumes that maintaining and nurturing connections is necessary to keep learning current, and that the ability to see connections between fields, ideas and concepts is itself a core skill.

Strengths of Connectivism include its explicit accommodation of technology as a legitimate site of cognition rather than a mere delivery mechanism, which makes it unusually well suited to describing how curriculum content interacts with artificial intelligence tools that themselves function as external, constantly updated nodes of knowledge. The theory also offers a vocabulary for describing continuous adaptation, network, node, connection, currency, that maps directly onto the behaviour this paper labels curriculum intelligence.

Its principal weakness is that it was formulated as a learning theory for individual learners navigating networks, and it does not, on its own, specify how an institution should govern curriculum change at a policy or committee level; it explains why continuous adaptation is pedagogically sound without prescribing the administrative structures needed to sustain it. A further weakness is its reliance on assumptions about network access and digital connectivity that cannot be taken for granted in under-resourced settings, including many Nigerian tertiary institutions, where infrastructural limitation constrains how fully a learner or an institution can practise connectivist learning.

Applied to the present paper, Connectivism supplies the conceptual bridge between curriculum obsolescence and curriculum intelligence. Where curriculum obsolescence arises because a curriculum is treated as a fixed body of knowledge rather than as one node within a continuously updated network, curriculum intelligence becomes achievable once an institution accepts Siemens's central claim, that the capacity to locate, evaluate and connect current information matters more than the possession of fixed content, and reorganises curriculum governance around that capacity.

According to Connectivism, the classroom-level adaptation documented by Karataş et al. (2025) is not an informal workaround but an expression of exactly the kind of network-navigation Siemens theorised, which suggests that curriculum intelligence should be built by formalising and supporting such adaptation rather than restricting it.

8. Methodology

This paper adopted a conceptual and desk-based review approach. It followed a non-empirical research design appropriate to a study whose purpose is to interrogate and synthesise existing literature rather than to generate new primary data. Sources were drawn from peer-reviewed journal articles, working papers issued by recognised research and policy bodies, and government or intergovernmental statistical reports published mainly between 2022 and 2025, so as to reflect the most current available evidence on artificial intelligence and curriculum change.

Literature was located through targeted searches of academic databases and publisher platforms using combinations of the terms curriculum obsolescence, curriculum intelligence, artificial intelligence in education, curriculum adaptation and Nigerian higher education curriculum. Sources were included where they reported original empirical research, systematic review findings, or officially compiled statistics relevant to curriculum change in the age of artificial intelligence; sources lacking identifiable, traceable authorship, or drawn from informal websites and blogs, were excluded from the conceptual and empirical sections.

Data were analysed thematically, with literature grouped according to the paper's three objectives and then read against the assumptions of Connectivism to generate the discussion that follows. The principal limitation of this design is that, being a desk-based review, it synthesises existing findings rather than testing them against new Nigerian data, a limitation acknowledged in the recommendations for further study.

9. Discussion

The discussion juxtaposes literature reviewed against the paper's three objectives. On the manifestations and drivers of curriculum obsolescence, Liang et al. (2025) and Mah and Groß (2024) locate the problem chiefly at institutional and staff level in relatively well-resourced systems, where the constraint is policy caution and uneven readiness rather than absent infrastructure. Ajayi (2024) and Odewole (2025), writing from the Nigerian setting, locate the same problem partly at infrastructural and regulatory level, suggesting that obsolescence in less-resourced systems has structural roots that better-resourced systems do not share to the same degree. These findings indicate that curriculum obsolescence is not a uniform condition; its manifestations in Europe or Asia, where the constraint is often institutional caution, differ from its manifestations in Nigeria, where the constraint includes infrastructure and teacher supply, even though both settings report the same underlying symptom of content lagging behind technological capability.

On the conceptual shift toward curriculum intelligence, Karataş et al. (2025) and Topali et al. (2025) supply the strongest evidence that intelligence already exists informally, at the level of individual teachers and learners, while Fuster Rabella (2025) supplies the strongest account of how such intelligence might be formalised at policy level. Neither body of evidence, however, addresses how informal, classroom-level adaptation should be aggregated upward into policy without losing the responsiveness that makes it valuable in the first place; this is precisely the administrative gap Connectivism, as a learning theory rather than a governance theory, also leaves open. The paper suggests that this gap can be narrowed by treating classroom-level adaptation, of the kind Karataş et al. document, as data to be captured, rather than as an informal deviation to be regulated away, so that curriculum committees revise official content using evidence of what teachers and artificial intelligence tools are already doing in practice.

On strategies for repositioning curriculum development, the evidence converges more clearly. Mah and Groß (2024), Odewole (2025) and Ajayi (2024) each identify a different lever, differentiated staff development, regulatory latitude already available under existing frameworks, and infrastructural investment respectively, but none treats their own preferred lever as sufficient alone. In all, the discussion suggests that curriculum intelligence is unlikely to be achieved by pursuing any single lever in isolation; regulatory latitude without staff development leaves lecturers unable to use the freedom reform grants them, staff development without infrastructure leaves trained lecturers without the tools to act on their training, and infrastructure without regulatory latitude leaves institutions equipped but formally unable to depart from prescribed content. Curriculum intelligence, on this reading, is best understood as an outcome of these levers operating together rather than as the product of any one reform pursued on its own.

10. Conclusion

This paper examined the manifestations and drivers of curriculum obsolescence in the age of artificial intelligence, to interrogate the conceptual shift toward curriculum intelligence, and to evaluate strategies for repositioning curriculum development, with particular attention to higher education in Nigeria. The evidence reviewed shows that curriculum obsolescence is driven jointly by policy caution, uneven staff readiness, slow regulatory review cycles and an absence of systematic method for translating artificial intelligence capability into curricular decisions, and that these drivers combine differently in well-resourced and less-resourced systems without changing the underlying symptom of content lagging behind technological capability.

It shows further that curriculum intelligence already exists informally, in the continuous adaptation individual teachers and learners perform using artificial intelligence tools, and that the central unresolved task is not inventing such intelligence but formalising and governing it without extinguishing its responsiveness. The evidence also indicated that curriculum obsolescence carries a concrete developmental cost for Nigerian graduates generally, since curricula that remain unreorganised leave them without the analytic and adaptive competences an artificial intelligence-mediated labour market increasingly requires.

On the strength of this evidence, the paper concluded that curriculum intelligence, understood as the capacity of a curriculum system to sense change and revise itself continuously rather than periodically, should replace curriculum obsolescence as the organising principle of institutional planning, in Nigeria and elsewhere.

Recommendations

1. Arising from the findings, the paper recommended that universities should establish standing curriculum intelligence units, distinct from conventional curriculum review boards, whose function is to monitor classroom-level artificial intelligence adaptation and feed such evidence into continuous rather than cyclical curriculum revision. Faculty development programmes be differentiated according to demonstrated readiness profiles rather than delivered uniformly.
2. Nigerian regulatory bodies responsible for the Core Curriculum and Minimum Academic Standards should accompany formal curricular latitude with monitored implementation targets, so that the regulatory permission could translates into classroom practice rather than remaining unused. It further recommends that individual disciplines and departments should periodically audit their own curricula against current artificial intelligence capability in their

field, following, rather than waiting for a single institution-wide reform to address every programme at once.

3. Finally, the paper recommends that infrastructural investment, teacher preparation and curriculum content revision should proceed together rather than sequentially, as addressing any one of these conditions in isolation would leave the others to be active constraint on artificial intelligence adoption.

Copyright © 2026, Authors retain copyright. Licensed under the Creative Commons Attribution 4.0 International License (CC BY 4.0), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited. https://creativecommons.org/licenses/by/4.0/ (CC BY 4.0 deed)

References

- Ajayi, O. S. (2024). Reviewing the Nigerian educational curriculum as a panacea towards AI adoption in Nigeria's educational system. *Multidisciplinary Journal of Arts, Language and Education*, 5(1), 457–470.
- Fuster Rabella, M. (2025). Evolving AI capabilities and the school curriculum: Emerging implications and a case study on writing (OECD Education Working Paper No. 338). OECD Publishing.
- Holmes, W., Bialik, M., & Fenwick, J. (2019). Artificial intelligence in education: Promises and implications for teaching and learning. Center for Curriculum Redesign.
- Karataş, F., Eriçok, B., & Tanrıkulu, L. (2025). Reshaping curriculum adaptation in the age of artificial intelligence: Mapping teachers' AI-driven curriculum adaptation patterns. *British Educational Research Journal*, 51(1), 154–180.
- Liang, J., Stephens, J. M., & Brown, G. T. L. (2025). A systematic review of the early impact of artificial intelligence on higher education curriculum, instruction, and assessment. *Frontiers in Education,* 10, Article 1522841.
- Luckin, R., Holmes, W., Griffiths, M., & Forcier, L. B. (2016). Intelligence unleashed: An argument for AI in education. Pearson.
- Mah, D.-K., & Groß, N. (2024). Artificial intelligence in higher education: Exploring faculty use, self-efficacy, distinct profiles, and professional development needs. *International Journal of Educational Technology in Higher Education,* 21(1), Article 58.

- Odewole, P. O. (2025). Relevance of the Nigerian Core Curriculum and Minimum Academic Standards (CCMAS) in equipping students for employability in the fourth industrial revolution era. *Journal of Humanities, Social Sciences and Creative Arts,* 20, 66–79.
- Siemens, G. (2005). Connectivism: A learning theory for the digital age. *International Journal of Instructional Technology and Distance Learning,* 2(1), 3–10.
- Topali, P., Haelermans, C., Molenaar, I., & Segers, E. (2025). Pedagogical considerations in the automation era: A systematic literature review of AIEd in K-12 authentic settings. *British Educational Research Journal,* 51(6), 2777–2809.
- UNESCO. (2025). AI and the future of education: Disruptions, dilemmas and directions. United Nations Educational, Scientific and Cultural Organization.
- Wheelahan, L. (2022). Why knowledge matters in curriculum for uncertain futures. *Journal of Curriculum Studies*, 54(6), 785–799.