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RELEVANCE OF ULESSON PLATFORM IN THE ERA OF ARTIFICIAL INTELLIGENCE IN EDUCATION SYSTEM

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Abstract

The integration of Artificial Intelligence (AI) into education through developed and utilization of an educative platform called ulesson is heralding a new era of teaching and learning with profound application of using indigenous learning resources. It remains highly relevant because it utilizes personalized learning, localized learning experiences that address specific student gaps in African education. It functions as a complementary tool to human teachers not a replacement but enhance engagement, academic outcomes through adoptive / adaptive learning materials that drives learning home in a rapidly changing global educational landscape. This paper provides an in-depth knowledge on the benefits of integrating AI into education through utilization of personalized developed educative platform.

Keywords: Ulesson Platform, Artificial Intelligence, Education System

Introduction

In recent years, education has embarked on developing several innovations. Some of these innovations include developing Artificial Intelligence (AI). The word 'developing' can be described as an art of creating something for a purpose. Anything artificial can be said to be unnatural or already made. On the other hand, the word intelligence can be termed knowledge or understanding.

The father and popularizer of AI is John McCarthy in 1956. McCarthy crucial role in establishing the field lead to the development of the first AI programming language. The early AI programming language lead research progress and advancement in algorithms, hardware, machine learning techniques that gave birth to development of deep learning and its widespread applications.

Artificial intelligence (AI) can be referred to as a part of science which involves with helping machines, finding solutions to difficult problems in a more human-like ways. Okekeokosisi, Obili and Boh (2024) described AI as a set of technologies that enable computers to perform a variety of advanced functions including the ability to see, understand and translate spoken and written language, analyze data and make recommendations. It is an automated man made machine through human reasoning to enhance work force and to sustain other unreached human activities. AI as a branch of science deals with machines that could be in human-like form that assists human to solve complex problems (Ghosh & Thirugnanam, 2021). It involves studying, designing and developing algorithms and systems that can make decisions based on what they perceive and experience in their environment. Trisoni, Ardiani, Herawati, Mudinillah, Mai-mori, Khairat, David and Nazliati (2023) defined AI as an application and instructions that are connected to computer programming to be able to do something in the human view is intelligent or can be understood as a lesson on how to make computers able to do things that are currently done better than humans who did it. It follows sequence of instructions which are automated and could be inform of application packages or support system for effective guidance to learn and promote learners to achieve notwithstanding the gender. Examples of learning support systems that are AI generated are; intelligent tutoring systems, personalized learning platforms, automated grading tools and virtual reality experiences. These systems offer

tailored instruction, efficient assessment and engaging learning environments. Thus, the study adopted indigenous personalized learning platforms and attain to other non-indigenous platforms.

Personalized learning is defined as a student-centered system that supports their diverse needs and the development of abilities. It is learning style / approach that meet individual student needs, interests and learning styles, rather than employing a one-size-fits-all approach (Okekeokosisi & Anaekwe, 2024). This approach aims to foster student engagement, improve learning outcomes, and promote equity in education. It provides students with unique characteristics and interests. Makhambetova, Zhiyenbayeva and Ergesheva (2021) referred Personalized learning as Dual-oriented learning that contributes to self-development, self-organization of the cognitive activity that offers relevant context to learners, increasing creativity, social significance, cultural value, goal setting and the change of semantic attitudes. This Personalized cum dual-oriented learning was attributed to be developed by two educators Maria Montessori and John Dewey in the late 19th and early 20th centuries. The developed theory was to mold learners through pedagogy for professional development leading to self-determination. The molding involves customized learning paths, flexible learning environments and student-driven learning experiences.

The customized learning paths this study employed is uLesson. uLesson is an online education platform classified under personalized learning. It is an indigenous learning platform designed for primary and secondary school students in Africa founded by Sim Shagaya in 2019. It provides access to pre-recorded video lessons, live classes, practice tests and homework help. The platform also features a personalized learning experience with AI-powered homework assistance and detailed learning reports. ULesson aims to make quality education accessible and affordable for learners across the continent. It employs the use of technology and mobile application in the learning process. It equally possess the following advantages; content library, live classes, practice and assessment, homework help, learning devices, accessibility, subscription options, reseller network. According to report of Guardian Nigeria (2022) over half of uLesson learners (52 per cent) are using the app on their own mobile phones to access pre-recorded video lessons. The pre-recorded video lessons cut across various subjects apart from STEM topics. The users of uLesson are domicile in African countries and they are mainly teachers and students. The stated report of Guardian Nigeria (2022) portray that uLesson supports gender friendly platform, involves learners and stimulates learning. Therefore, this study x-rayed the benefits of uLesson in instructional process.

Benefits of Ulesson platform in instructional process

The Ulesson platform being technology driven is revolutionizing education worldwide through;

1. **Personalized Learning Experiences**: The platform being automated can analyze student data to identify their strengths, weaknesses and learning preferences. It tailors the content to suit individual needs of learners. Such is done through providing personalized video lessons, quizzes and assessments for students preparing for national and international exams. By analyzing student performance, the platform customizes learning materials to address specific gaps, ensuring that no student is left behind (Adegboye & Okafor, 2022, Samuel & Amina, 2025). This approach is particularly beneficial for underserved regions where access to qualified teachers is limited. Equally personalized learning fosters engagement, builds confidence and ensures better academic outcomes for students (Okekeokosisi & Anaekwe, 2024)
2. **Ulesson Powered AI for Practical Lessons and Simulations:** It supports practical learning through interactive videos, simulations and hands-on projects designed to foster critical thinking and problem-solving. The platform uses animated videos to illustrate scientific principles, making abstract concepts easier to grasp and offers project-based activities to provide practical experience and reinforce learning. Other AI-powered platforms such as Labster and PhET Interactive Simulations provide virtual experimental lessons that enhance experiential learning. These tools are accessible through smartphones or computers making them suitable for Africa - Nigeria's educational context, where digital devices are increasingly becoming more available.
3. **Progress and Performance Reports:** ULesson provides detailed progress and performance reports, but it doesn't issue official grades in the way a traditional school does; instead, it offers insights into a learner's strengths and areas needing improvement based on their activity within the app, such as quizzes and assessments. The platform help learners track their academic growth and provides a

recommended learning path to improve school grades. At such, reduces administrative workloads for teachers, teachers can better cater to students' needs and deliver high-quality instruction (UNESCO, 2023).

4. **Accessibility of Learning and Learning Materials:** Adoption of AI tools - embedded- automated platform providing high-quality and affordable education through an online app, educational tablets and a network of resellers. The platform offers engaging video lessons, practice quizzes, homework help and personalized learning paths for students across Africa. It even supports offline access and learning at one's own pace
5. **Supports Professional Development:** The invention and adoption of technology into education system plays a crucial role in teacher professional development by making educators – teachers to stay updated with technological inventions and emerging issues in educational system. Thus, AI-powered platforms like Ulesson can provide teachers' personalized training modules, resources and real-time feedback to enable teachers to continuously improve their skills. Adoption of AI tools - embedded- automated platform providing high-quality and affordable education through an online app, educational tablets and a network of resellers. The platform offers engaging video lessons, practice quizzes, homework help and personalized learning paths for students across Africa. It even supports offline access and learning at one's own pace.

Application of Ulesson in Instructional Process

Ways of using ulesson in teaching-learning process as cited by Samuel & Amina (2025);

A. **Study design and setup:** This is the first stage a facilitator should bear in mind. The stage calls for;
   - Clearly defining aims
   - Identifying the study population / participant selection (select base on specific criteria either access to software or willingness to participate.
   - **Software / device access and Provision:** Making provision for the software if not in the computer system or device to use in the teaching and learning
   - **Training:** Ensuring that the users are oriented and trained for its effective use (how to navigate the app, access different subjects, watch video lessons, attempt quizzes and track their progress)

B. **Implementation of Ulesson Software / App:** This is the action plan stage that involves critical thinking, application and implementation. This can be achieved through;
   - **Curriculum Integration:** Aligning Ulesson content to the curriculum of a class to be used. Ensuring that the learning materials and instructional materials covered matches with the intending class to use for the lesson.
   - **Interactive Lessons:** Students are to access pre-recorded video lessons anchored on the platform for participation, drill and practice, interaction and engagement during the lesson. The lessons utilizes animations, illustrations and practical examples to enhance stimulation, understanding, achievement, diversification of ideas and retention of concepts.
   - **Practice and Assessments:** After watching the video lessons, students' attempt quizzes and practice questions provided within the platform. These assessments could be designed, adopt or adapted from already designed ulesson app embedded in the platform. The aim is to test their understanding of the materials used and to provide instant feedback.
   - **Progress Tracking:** The platform tracks students' progress through the curriculum that records any lessons watched and the scores obtained in quizzes. Teachers and researchers could monitor these data to assess student engagement and achievement without the consent of the learners.
   - **Supplemental Learning Materials:** The ulesson platform provides additional resources such as summary notes, flashcards and interactive exercises which could be adopted or adapted for any lesson if suitable. Students could be encouraged to use these materials to reinforce their learning.

C. **Monitoring and Supporting:** This stage determines extent to which the set goals are achieved or to identify problems encountered during the study. It equally provide feedback both to the learner and the facilitator - teacher. For it to be achieved,

- **Teacher Involvement:** Teacher ought to be actively involved in monitoring students' use of the platform through regular check-ins to ensure students are effectively using the platform and to provide guidance.
- **Technical Support:** Technical support should be available to resolve any issues related to the platform or materials use in the lesson. This includes troubleshooting connectivity issues, platform functionality problems and general user support.

D. Evaluation and Feedback: In this stage, it provide details, timely and final judgment on learning outcome. This help for decision-making on method – strategies applied, learning materials used and the learners' level of academic achievement.

In evaluation of learners' / immediate feedback, the platform uses these pattern;

- **Data Collection:** Data on student usage, quiz performance and overall engagement are embedded in the ulesson platform. Several research can be conducted using the infrastructure - platform.
- **Performance Comparison:** Data collected could be used to evaluate each learner's achievement without the learners' knowledge.
- **Feedback Analysis:** Feedback from students and teachers could be used to identify strengths and areas for improvement in the use of the Ulesson platform. This feedback could be used to refine the implementation process and make necessary adjustments.

E. Outcomes: This is the final stage of any learning process. It shows the result of every learner, cumulative achievement and the consequence of using the strategy – ulesson platform.

Way forward

For effective use of uLesson in the learning process, the developer needs to;

1. involve continued innovation in its features like enhanced more on engagement
2. expanded access of the application package and bridging the digital divide

Conclusion

In using uLesson in instructional delivery, it significantly offers access to high-quality of instruction, curriculum-aligned video lessons and interactive elements. Drills, practice and assessment are anchored in the platform. It is a supplement of traditional classroom learning that makes learning lovely, entertaining, motivating and stimulating.

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