

AI-CHATBOTS FOR GUIDANCE AND COUNSELLING: FEATURES, BENEFITS, CHALLENGES AND INCLUSIVE STRATEGIES FOR STUDENTS OF LIBRARY AND INFORMATION SCIENCE IN NIGERIAN UNIVERSITIES

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Abstract

This paper is a structured overview of AI-chatbots for enhancing guidance and counselling services for students of Library and Information Science (LIS) in Nigeria universities. This paper established the increasing acceptance of AI-chatbots and how they impact guidance and counselling services. The key features of AI-chatbots as intelligent information retrieval and natural language understanding tools for effective digital counseling are revealed. The paper leveraged the Constructivist Learning Theory to explain AI-chatbots as helpful interactive and effective self-learning tools for student self-develop knowledge, skills and insights into understanding their individual mental health, stress situations, and academic development. There are also outlined benefits of AI-chatbots convenience, cost-effectiveness for personalized guidance, and its capability to create data-driven perception. Also are challenges associated with AI-chatbots, like the restricted emotional intelligence, data privacy worries, technical limitations, and user approval apathy. Effective strategic approaches are suggested,

including needs assessment, collaborative scheme system, ethical adherence, and structural incorporation with regular reviews. In conclusion, are the significantly enhance inclusivity for counselling and improved digital transformation for sustainable and innovation LIS student education.

Keywords: AI-Chatbots, Guidance and Counselling, LIS Students, Nigerian Universities.

Introduction

Generally, the integration of Artificial Intelligence (AI) into university education, are continually conveying enhanced support services and innovative transformations in the ivory towers. The latest being the adoption of AI-chatbots for enhancing guidance and counselling for students of Library and Information Science (LIS) programs in Nigerian universities. In Nigerian universities, guidance and counselling (G & C) is an academic specialized provision service that assists students to understand and navigate their academic, social, personal and professional challenges. For library and information science students whose courses are mostly technology-driven, guidance and counselling offers them tailored guidance on course selections and registrations, skills development, how to search and navigate the web for information, address stress and anxiety, prepares the students for workforce life, etc.

Generally, AI tools have been identified as effective improved support learning and engagement systems for guidance and cancelling university students. Specifically, AI-Chatbots are accessible, automated and data-driven support service artificial intelligence platforms. Examples include Dialogflow, Rasa, Aa, Buddy, chatSonic (writesonic), cloud-A, Gemni (Bard), etc. They are computers driven conversational natural language processing and machine

learning technologies. As digital assistants, they are created to interact with students, lecturers and also school administrators for effective learning and services delivery.

Already, many universities in Nigeria are adopting AI-chatbots as attractive and effective support learning services. For students of library and information science, the systems have been identified as innovative, timely, personalized and human learning interactions for efficient guidance and counselling. In many ways, AI-chatbots are recognized to help reshape students' learning activities and good attitudes especially in redesigning and promoting solutions to their varied challenges. For instant, the systems can be successfully applied in crucial traditional guidance and counselling services. Usman (2024) affirmed that chatbots are innovative solutions platforms that balances improve access to support students' academic focus and enhance personalized guidance and counselling anytime and anywhere. This therefore, explains why the tools are inevitable for the LIS students' personalized guidance and counselling.

Technologically, Chatbots are sophisticated AI systems. Their real powers are in their abilities to provide round the clock support services delivery. In guidance and counselling, chatbots can offer no delay and stress that are usually associated with traditional guidance and counselling methods (Edutech, 2025). As digital tools, Chatbots utilize AI Natural Language Processing (NLP) and machine learning to understand student input, determine intent and generate relevant responses (Oranye, 2024). Also, chatbots can be unique in

offering real-time conversations with a user as personalized provision facilities at user's appropriate time.

Like the intelligent virtual assistant, AI-chatbots are designed to effectively understand students. As software programs schemed to simulate conversations, AI-chatbots can answer precise questions, provide information or help with routine tasks within a distinct field (Crandall, 2024 & Vaidk, 2025). For the library and information science students, these tools can be effective applied to make enquires and receive appropriate responses and link students with many academic resources for flexible help and in personalized guidance and counselling services.

In many areas of learning, AI-Chabots offer direct personalized guidance to students and eliminate from them inferiority complexes by offering strategic solutions to issues of anxiety or stress, detect distress threats before they become devastating. Also, Edutech (2025) acknowledged that chatbots provide multilingual support for global learners and free students' counsellors from complex issues, save cost in sustenance services, provide admission guidance, help students in course registration, offer examination notices and deadline plus provide mental health and emotional wellness for students. All these are necessary for the LIS students in Nigerian Universities.

Currently, Nigerian universities are aligning with the universal inclusive AI-changes from traditional methods to smart digital systems of doing things. At the moment, Artificial

Intelligence tools are becoming the hubs where technologies and education are integrating in partnership and providing the inclusive university students development. As Haliso & Assika (2024) noted, chatbots are powerful AI-driven devices offering new possibilities to complement the universities' human counselling jobs. These tools can boost the LIS students' engagement, promote their mental health, and ensure a more supportive learning environment for them, etc. It is based on these premises, that this paper trust to examine the features, benefits, challenges and inclusive strategies of AI-chatbots for guidance and counseling library and information science students in Nigerian universities.

Methodology

This paper adopted literature perspectives and explanation survey methods. The reviewed literature and explanations are carefully imbedded in the wide-ranging discussions in the paper as are most appropriate and pertinent to strengthen the paper. Website posts, including books and journals were searched with key terms to previewed related content and their scope to appraise the subject matter. All the information extracted are argued in relation with the subjects presented in the paper.

Theoretical Framework

This paper is anchored on Constructivist Learning Theory. This theory is a synthesis evolutionary concepts from two theorists: Jean Piaget and Lev Vygotsky in the mid-20th century with a significant influence of the theory arising around the 1970s – 1980s.

Specifically, this theory is a knowledge based acquisition model which emphasizes that learners actively construct their knowledge through experiences and interactions with their environment rather than passively receive their knowledge. According to this theory, learning arises when the individuals interpret new information based on the previous experiences, opinions, and interpretations of existing knowledge or belief. The theory assumes that learning is dynamic and a personalized thing. When this theory is applied on AI-chatbots in guidance and counselling for library and information science students, it will offer a helpful interactive and effective self-learning for the individual student self-develop knowledge, skills and insights into needed understanding for their personal mental health, stress situations, and academic development.

The Features of AI-Chatbots for Guidance and Counselling

Distinctively, AI-chatbots have their features that can effectively improve guidance and counselling services for students of library and information science in Nigerian universities. A key feature, Igbafe (2024), Usman (2025) and Vaidk (2025) noted are in the chatbots' intelligent information retrieval systems that allow the tools to access and provide appropriate academic or counselling information materials or resources from reputable academic databases and digital repositories. Haliso & Assika (2024) likewise affirmed that AI-chatbots are all-round the clock available to assist students to receive personalized assistance and also help to resolve the issue with traditional counselling time restriction. In this way, chatbots provide the doorway, for students' all-time access to needed information. Crandall

(2024) likewise opined that chatbots use natural language intelligence to deduce and answer inquiries inputted in human natural language, and create a more human-like comfortable interactions especially for student who may want to protect their privates.

Additionally, many literature have proven that AI-chatbots possess the ability to integrate with other technology application systems. Adeyomo (2024) and Ajibola (2025) both affirmed that chatbots can be connected to academic databases such as JSTOR, ScienceDirect, and ProQuest, etc. to provide access to various academic journals, e-books and further intellectual resources for academic research works. These are crucial advantages to LIS students seeking information from these databases using chatbots. Furthermore, Nosrati, et al (2025) similarly affirmed that the students' information portals support integrated platforms for handling students' academic records, course registration, fee payments and management can be linked to AI-chatbots. Spyska (2025) also noted that the Learning Management System (LMS) which have Moodle, blackboard and canvas can provide lecturers the opportunities to create and deliver lecture notes, send assignments to students and interact excellently well with their students in a virtual classroom setting using AI-chatbots. All these are to ensure comfort for students in AI-chatbots transformative platforms.

In another development, as Ijale, Abubakar & Yusuf (2025) asserted, AI-chatbots capacity offer user inclusiveness and suitability services through multi-channel connectivity through social media platforms, mobile device apps and websites. Ofem, et al (2023) similarly noted that chatbots can provide students with lectures, guidance support services through

time management, academic development and emotion health to help them to balance their academic studies. Again, Abubakar & Yusuf (2025) stated that chatbots accuracy can fully guaranteed students' privacy through their data analytic systems, and machine learning and security processes. These provisions make the systems' operation highly consistent and sustainable for equity and inclusivity guidance and counselling for LIS students.

The Benefits for LIS Students' Guidance and Counselling

Significantly, AI-chatbots are available, competent and offer personalized support that guarantee inclusivity support needs for students including those outside campuses, where time limitations and traditional counselling services are not available. Anyochukwu (2025) agreed that AI-chatbots increase students' capacity to guidance and counselling at anytime and anyplace. In another view, Verma, et al (2025) advocated that AI-chatbots capacity and their enriched user-friendliness, assist students to search for guidance information at their convenient by using their mobile gadget to access whatever resources they need to handle situational issues. This dynamism makes the tools unique even for the LIS students' assignments and individual needs.

Through routine enquiries, chatbots can also be adjusted to fit a counsellor's job volume and time by assisting the counsellor to put added attention on more complex students issues. As Abubakar & Yusuf (2025) noted, unlike the traditional counselling that is limited by analytical tools, AI-chatbots diagnostic proficiency can allow counsellor to gain advanced

deeper knowledge and understanding of a student issue and identify an evolving enhancement solution services. Again, chatbots capacity responses to situational needs can facilitate apt intervention for student issues such as academic stress, emotional challenges and unclear profession choice. Through a student records input, Valdik (2025) opined that chatbots can analyze and provide individual student assistance using adaptive guidance to support student's needs and priorities.

In another development, Spytka (2025) maintained that chatbots have efficient strong data privacy capacity that guarantee student trust and assured confidentiality in conversations during counselling time. Again, the systems' tools are cost-effective and the scalability capacity provides wide range assistance that requires little or no human control supervision, etc. In Nigerian universities context, where some students might dread judgment or stigma after seeking counselling, AI-chatbots programed with individual-values can assist as a free alternative to such threats. AI-chatbots have the capacity to deliver instant support, keep privacy, and provide a psychologically harmless space for students to chat their private and academic worries, etc.

Challenges of Using AI-Chatbots in Guidance and Counselling

Despite AI-chatbots astounding assistance, the tools still have some issues especially in the task for guidance and counselling. Ijale, Abubakar & Yusuf (2025) asserted that chatbot tools may stimulate empathy but lack significant emotional intelligence to fully comprehend

the extent of human pains or the complex psychological situations to be able to offer real-time guidance and counselling. The absence of this emotional intelligence, we believe, is a significant hurdle that cannot be compromised when there are over dependence on the systems with no other alternative.

Another serious challenge is in the systems substantial dependence on the programming and training data for accuracy and reliability for quality responses. Igbafe (2024) and Haliso & Assika (2024) suggested that insufficient data input can lead to biased or misinformation to tackle critical issues. Other issues that can obstruct the services may include technical system errors, time interruption, power outage, and other pitiable and annoying network connectivity problems. Again, issues of data privacy and ethical breaches with the AI-chatbots cannot be so surely guaranteed. Counselling interactions are sometimes very complex and delicate especially with the personal information involved. Without a strong, and strict adherence to data regulatory protection and robust university ethical policies, confidentiality can be compromised leading to lack of trust and even to litigations.

Yet as tools, AI-chatbots have the inability to understand and efficiently appreciate students' emotional concern or experience during counsellings. A student may view the machine as a mere artificial tool and so, may be reluctant, to accept and trust the tools. Again, cost of deploying these tools coupled with the need for their maintenance by technical experts for sustainability, are guaranteed. Nigerians corrupt attitudes can smartly ruin the innovative systems especially when ethical policies are not seriously guided, etc.

Strategies for Application and Adoption in Nigerian Universities

Adopting a comprehensive exploits of strategic efficacy applications of AI-chatbots are inevitable by university managements. First, there are requisitions for each university adopting the systems to conduct needs assessment that are essential to carve directions that would align the tools proficiency with each university counselling goals. This can be achievable through what Igbafe (2022) and Verma et al, (2025) noted as a collaborative system development that involves students' counsellors, the AI developers and IT professionals to ensure that together with the technical accuracy and psychological appropriateness of AI chatbots, there are maximized efficiency.

Again, it is very inevitable to prioritize the ethical and data privacy agreement with AI-chatbots through what Usman (2024) declared as encryption, anonymity, and vibrant data control system platforms for adaptable continuous use through the Learning Management System (LMS) and counselling databases operation. Ampropali (2025) opined that increased inclusiveness of the chatbot tools are achievable through multichannel accessibility over websites and mobile device platforms. This author noted that through capacity building for lecturers, each university can effectively promote their lecturers digital competences and using model testing and continuous assessment can refine their chatbot tools before applications on wider-scale. From side to side regular staff development programs and updating of the tool systems, the lecturers can then boost their routine functions and significance with the systems.

Through these approaches, it is possible for the Nigerian universities to recognize and embrace sustainable, effective and ethical AI-chatbots counselling structural systems that are capable of complementing the traditional human guidance and counselling structures already for the LIS students, etc.

Recommendations

1. This paper wishes to recommend for Nigerian universities to adopt strategic collaborative and data-security methods for their effective implementation of AI-chatbots that would enhance inclusiveness, innovative and responsive guidance and counselling of digital transformation and sustainability.
2. For the LIS students, exploring chatbots technologies like Dialoglow, Rasa, Buddy, ClaudAI, QuillBot, etc. provide them instant personalized guidance and information sharing, open-source framework for contextual academic support, adaptable AI-chatbots for academic provision in Nigeria, support for LIS courses, careers, internship and mental health solutions, etc.

Conclusion

This paper looked at the emergency of AI-chatbots as transforming guidance and counselling services for LIS students in universities in Nigeria through the provision of accessible, personalized efficient support through mobile devices and online platforms. The AI-chatbots are presented as educational support systems, with the features of natural

language interaction and intelligent information retrieval practices with regards to each university ethical policy disposition, technical effectiveness, and the user's confidence.

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