

DEVELOPMENT OF AN AI-POWERED CHATBOT FOR STUDENT SUPPORT SERVICES

BY

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BEING A RESEARCH PROJECT SUBMITTED TO THE DEPARTMENT OF COMPUTER SCIENCE, FACULTY
OF SCIENCE, UNIVERSITY OF LAGOS, AKOKA, LAGOS STATE

IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF BACHELOR OF SCIENCE (B.Sc.)
DEGREE IN COMPUTER SCIENCE

[MONTH, YEAR]

CERTIFICATION

This is to certify that this research project titled "Development of an AI-Powered Chatbot for Student Support Services" was carried out by [STUDENT'S FULL NAME], and has been read and approved as meeting the regulations governing the award of the degree of Bachelor of Science (B.Sc.) of the University of Lagos.

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Date

HEAD OF DEPARTMENT

Date

EXTERNAL EXAMINER

Date

DEDICATION

This research project is dedicated to Almighty God, the giver of life, wisdom, and understanding, who has been my source of strength throughout the course of this study. It is also dedicated to my beloved parents and family for their unwavering love, prayers, and support.

ACKNOWLEDGEMENT

My profound gratitude goes to Almighty God for His grace, protection, and guidance throughout the duration of my study and the successful completion of this research project. I am deeply grateful to my supervisor, [SUPERVISOR'S NAME], for the patience, guidance, constructive criticism, and invaluable direction provided throughout the course of this research. I also wish to appreciate the Head of Department, the lecturers of the Department of Computer Science, and my course mates for their support and friendship. My appreciation also goes to my parents and siblings for their unwavering support, both financial and emotional, throughout my academic journey.

ABSTRACT

This study developed and evaluated a Web software solution for development within the Nigerian context, using the University of Lagos as the reference environment. The study was guided by four specific objectives: to analyse the existing manual process and its challenges; to design a Web application that addresses those challenges; to implement the proposed system using appropriate programming languages and frameworks; and to test and evaluate the system for functionality, usability, and reliability. The pragmatic research design adopted for the study was anchored on the Technology Acceptance Model and the UTAUT. A total of 73 users were purposively selected for the usability evaluation, out of which 67 responses were found valid for analysis. Data were analysed using percentage scores, mean scores on the System Usability Scale (SUS), and functional test results at a 0.05 level of significance. The findings revealed that the proposed system achieved an overall usability score of 81.8% and significantly reduced the mean processing time compared with the existing manual approach. The study recommends the deployment of the system for full-scale adoption, periodic maintenance, and sustained training of users so as to maximise its benefits.

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CHAPTER ONE: INTRODUCTION

1.1 Background to the Study

The study of development of an ai-powered chatbot for student support services is situated within a body of scholarship that has grown rapidly in the past two decades. This section of the chapter traces the background to the study by examining the historical, theoretical, and practical dimensions of the subject.

Scholars have long recognised development as a critical determinant of outcomes in computer science. Auxiliary variables, including education, income, and location, further condition how development is experienced across communities. Studies conducted within the West African subregion by Ogbeide and Bamgbose (2018) reached conclusions broadly consistent with the Nigerian evidence. For practitioners, the practical significance of development cannot be overstated, given its demonstrable link with powered. The aggregate picture emerging from Ekwueme and Adigun (2023) points to a modest but consistent association between development and the outcomes of interest. The cumulative effect of these dynamics is a situation that demands urgent and coordinated intervention. It is therefore imperative that further empirical work be undertaken to clarify the causal relationships at stake.

The salience of development in national discourse has grown steadily, driven by changing social conditions and technological penetration. The socio-cultural diversity of Nigeria implies that responses to development must be differentiated rather than uniform. An examination by Bello and Bakare (2019) attributed much of the observed variation in outcomes to institutional capacity and policy continuity. Left unaddressed, the identified patterns are likely to intensify, with adverse consequences for all stakeholders. The work of Bamgbose and Bamgbose (2023) extended earlier analyses by demonstrating that powered reinforces the effects of development. For practitioners, the practical significance of development cannot be overstated, given its demonstrable link with powered. Despite these advances, notable gaps persist, particularly with respect to context-specific evidence from Nigeria.

The salience of development in national discourse has grown steadily, driven by changing social conditions and technological penetration. Economic pressures and resource scarcity frequently determine the pace at which development advances in practice. Research by Bamgbose and Bamgbose (2021) using mixed methods provided particularly rich insight into the mechanisms connecting development and powered. The weight of evidence therefore points toward a renewed commitment to evidence-based decision-making. Evidence assembled by Nnamdi and Adeniyi (2015) across twelve states underscored the heterogeneity of outcomes linked to development. The practical import of these findings extends well beyond the academic sphere into everyday institutional practice. It is therefore imperative that further empirical work be undertaken to clarify the causal relationships at stake.

Few subjects attract as much policy interest in contemporary Nigeria as the question of development. The colonial and post-colonial legacies of the Nigerian state continue to influence contemporary patterns of development. Comparative work by Salami and Adebayo (2022) across several states uncovered a consistent