



INTELLIGENT COLLEGE CHATBOT USING GPT

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Abstract

Students often need quick access to information about courses, admission procedures, academic schedules, examination rules, fees, facilities, and college services. Information may be spread across notices, websites, documents, and administrative offices, making it difficult to find an answer quickly. This paper presents a proposed Intelligent College Chatbot using GPT, a conversational system intended to respond to common college-related questions in natural language. The system can combine a GPT-based language model with a verified college knowledge base so that responses are relevant to institutional information. A typical workflow includes receiving a question, identifying its intent, retrieving applicable college information, generating a response, and presenting the answer with a referral option when the information is uncertain or requires official confirmation. The proposed design aims to improve accessibility and reduce repetitive queries to college staff. Accuracy depends on the quality and freshness of the knowledge base, the model configuration, and suitable safeguards. This sample paper describes a proposed design; actual implementation details and measured evaluation results should be added after testing the student's system.

Keywords: Artificial Intelligence; GPT; College Chatbot; Natural Language Processing; Student Support; Conversational AI

I. INTRODUCTION

A. Background / Context Educational institutions provide a wide range of information to students, including academic calendars, course details, examination guidelines, admission procedures, fee information, and campus facilities. Students may need to search multiple sources or contact administrative staff to obtain routine answers. A conversational chatbot can provide a more direct interface by allowing students to ask questions in everyday language. GPT-based language models can generate fluent responses and interpret varied phrasing, making them a potential component of student-support systems. B. Problem Statement Conventional college information systems are often based on static pages, notices, or frequently asked question lists. These formats may require users to know where information is stored or to search using specific keywords. A chatbot that generates answers without grounding them in verified college information may also produce inaccurate responses. Therefore, the key problem is to create a convenient conversational interface that uses GPT while prioritizing reliable institutional information and handling uncertain questions safely. C. Aim and Objectives The aim of this work is to design an intelligent college chatbot using GPT to answer common student queries. The objectives are to accept natural-language questions; identify relevant topics; retrieve information from a college knowledge base where available; generate clear responses; protect user information; and refer students to the appropriate college office when a query requires official confirmation. D. Significance / Contribution The proposed system provides a single conversational access point for frequently requested college information. It may reduce repetitive enquiries, support students outside office hours, and make information easier to access. Its central design principle is to distinguish verified college facts from generated language and to provide an escalation path for sensitive, missing, or time-dependent information. E. Paper Organization The remainder of this paper discusses related work, the proposed system and methodology, implementation considerations, an evaluation plan, limitations, future scope, conclusion, and references.

TABLE I

Module	Description
ChatInterface	Allows students to submit questions and read responses.
QueryProcessing	Cleans input and identifies the likely topic or intent .
CollegeKnowledgeBase	Stores verified FAQs, course information, rules, notices, and contact details.
GPTIntegration	Uses a configured GPT model to interpret context and formulate natural - language answers.
ResponseValidation	Checks whether the answer is supported by retrieved information and flags uncertainty.
Escalation/Help	Directs unresolved or official matters to the appropriate college office.

TABLE II

Querycategory	Example	Expectedhandling
Admissions	Whatdocumentsarerequiredfor admission?	Answer from the current verified admission notice.
Academics	Wherecanfindthesyllabus?	Provide the official syllabus location if stored .
Examinations	Whatistheexamformdeadline?	Use thecurrentofficialnotice; otherwiserefertotheexan office.
Facilities	Whatarethelibrarytimings?	Answer only when verified timings are available.
Unresolvedquery	Canmyattendanceshortagebe approved?	Explainthatanofficialdecisionmustcomefromcollege staff .

II. LITERATURE REVIEW / RELATED WORK

A. Overview of Conversational Systems Chatbots have been used in customer service, information retrieval, and educational support. Earlier systems commonly relied on predefined rules, keywords, or decision trees. These methods are predictable for known questions but may struggle with varied phrasing and open-ended queries. Natural Language Processing techniques have enabled systems to classify user intent and extract relevant information from text. B. GPT-Based Language Models Generative Pre-trained Transformer (GPT) models can interpret natural-language prompts and generate context-sensitive text. In a college support application, a language model may help reformulate retrieved information into an understandable

answer. However, fluent output does not guarantee factual correctness. A practical design should therefore use trusted institutional content, restrict unsupported claims, and provide a way to refer users to official sources. C. Identified Research Gap A college chatbot must handle both natural-language flexibility and the need for accurate institutional answers. A general-purpose language model may not know current college-specific rules, schedules, or notices. The proposed design addresses this challenge by placing a college knowledge base and verification-oriented response handling alongside the GPT model. D. Contribution of the Proposed Work This paper proposes a modular workflow that combines a user interface, query processing, a GPT model, college information retrieval, and response validation. The design also includes an escalation path when information is unavailable or when a question requires an official decision. Performance claims should be established through testing rather than assumed from the use of GPT.

III. PROPOSED SYSTEM AND METHODOLOGY

A. System Architecture The proposed system receives student questions through a web or mobile chat interface. A processing layer prepares the query and identifies the topic. Where a verified knowledge base is available, the system retrieves relevant college information and provides it as context to the GPT model. The generated answer is checked for relevance and uncertainty before being returned. Questions that cannot be answered reliably can be referred to the relevant department or office. Student / College User Query Chat Interface + Query Processing GPT API / Language Model (FAQs, rules, courses) Context / Safety Checks (verify relevant information) Answer to User / Escalation to College Office

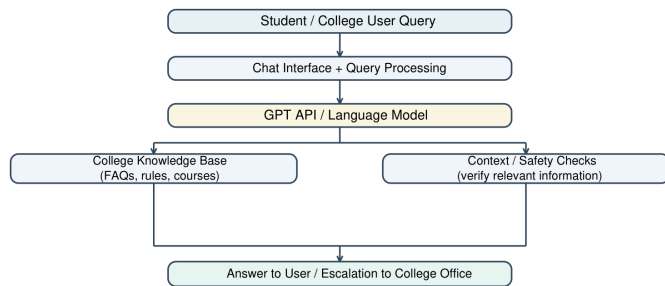


Fig. 1. Simplified architecture of the Intelligent College Chatbot using GPT.



Fig. 2. Query processing and response workflow.

IV. IMPLEMENTATION DETAILS

TABLE III

Component	Possible implementation
Frontend	Responsive web chat interface or mobile application.
Backend	API service to process requests, retrieve documents, and call the language model .
GPTservice	A GPT API or approved model endpoint , subject to institutional and provider policies.
Knowledge store	Database or searchable document index containing verified college information.
Retrieval	Keyword or semantic search to find relevant passages.
Security	Authentication where needed protected API keys, rate limiting, and limited retention of , chat data.

V. RESULTS AND ANALYSIS

TABLE IV

TestID	Input/condition	Expectedbehaviour
T1	CommonFAQwithamatchingsource	Returns a concise answer supported by the knowledge base.
T2	Questionwithdifferentwording	Identifies the topic and retrieves relevant content if available.
T3	Unknown college-specific question	Statesthatinformationisunavailableandsuggestsanofficial contact .
T4	Outdatedorconflictingnotices	Flagsuncertaintyandavoidspresentinganunsupported deadline.
T5	GPTAPIfailure	Shows a graceful fallback message.
T6	Requestforprivatestudentdata	Appliesaccesscontrolsanddoesnotdiscloseunauthorized information.

VI. LIMITATIONS AND FUTURE SCOPE

A. Limitations The quality of answers depends on the completeness and freshness of college documents. GPT may generate unsupported details if prompts and retrieval are not designed carefully. The system may also misunderstand ambiguous questions, and access to a language-model API may involve cost, latency, or service availability constraints. Regional-language support and accessibility need testing with the intended student population. B. Future Scope Future improvements may include multilingual chat, voice input, integration with approved student portals, automated ingestion of new notices, citations or links to source documents, and analytics that identify frequently asked questions. Any integration with student records should use authorized access controls and institutional approval.

VII. CONCLUSION

This paper presents a proposed Intelligent College Chatbot using GPT to help students access college-related information through natural-language interaction. The design combines a chat interface, query processing, GPT-based response generation, a verified college knowledge base, and a mechanism for handling uncertain queries. This combination can make routine information easier to find while reducing the risk of unsupported answers. The effectiveness of the system must be established through implementation and evaluation using real college questions and verified institutional documents. Security, privacy, document freshness, and clear referral to official staff are essential for a reliable deployment.

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- [4] OpenAI, "GPT-4 Technical Report," arXiv:2303.08774, 2023. Verify model-specific details and cite the model actually used in the implementation.
- [5] Add official Dattakala Group of Institutions documents and the exact GPT/API documentation used by the implementation, including access dates.

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