Chapter 1: Introduction

1.1 Background

Technology exists to make human lives easier. Thanks to research in science and technology, a number of fields have proven beneficial to our society. Notable amongst them is the field of Artificial Intelligence (AI). Indeed, the application of Artificial Intelligence has not only helped companies to deliver quality customer services, but also, created new opportunities for businesses to venture into. Despite the benefits that comes with the introduction of AI, companies still struggle with content (information) delivery and customer engagement. As a result of competition and continuous improvement, different companies are always searching for better ways of presenting information to their customers or targeted group in a way that fosters friendly interaction and allows for immediate feedback.

 The traditional approach to achieving the aforementioned problem is to implement websites that allows customers to reach out in case of any queries. Thankfully, with the advent of technology in the field of AI, companies with websites are evolving from the traditional email feedback and phone calls to live chats that allows for human-to-human interaction. It is worth mentioning that the emerging interest in live chats or virtual assistant is due to the new trend in communication—texting. It only makes logical sense in an internet driven world, to implement a communication system (with the help of chatbots) that can leverage on existing technology such as social media and online texting.

The live chat support is a new value-added system (VAS) used by the customer care department of a service industry to respond and engage with client's queries. Customers using live chat support system end up queuing as they wait for the response from the customers service

agents.[2] In fact, not all customers have enough time to wait for other customers to be served before their turn[1]. Having understood this, it is worth exploring better ways of presenting information in a way that is interactive, efficient and allow quick response for effective communication.

1.2 Problem Statement

Ashesi University is an educational institution established with the mission of instilling ethics and entrepreneurial skills into its members. The Ashesi Support Center is the go-to office or department that handles computer and information systems logistics. Members of the Ashesi community issue a report / complaint to the department, expecting answers/ solutions to be provided. Accessing information about Ashesi and reporting issues to the Support Center can be inconvenient and a time-consuming process.

Currently, the Ashesi community has an elegant website that provides its members with information for instance, information about Ashesi Career Service. This approach is time consuming as one has to open different. Ashesi website pages before one can access the information they want. Added to this problem is the issue of inadequate information on the website. For instance, one might want a quick response of the location of Dennis Owusu, a faculty's office. This information however, is not found on the website.

Another instance is when an external user tries searching for when Ashesi was commenced. In general, people will put in the question in different formats, but bearing the same meaning. As a result of this, the website will return to the user, all pages that bear the phrase typed into the search bar. Therefore, one must scroll through all the output returned to get exactly what they searched for on the website.

Similarly, with the Ashesi Support Center email, anytime a member of the Ashesi community sends an email enquiring or reporting an issue, he or she has to patiently wait for the agent at the Support Center office to respond or forward the request to the appropriate person or team who can address the request. As the number of emails increase, it generally takes longer than usual time before emails received are routed or forwarded to the people who can respond to them.

Having been painted with the above problem, this project seeks to provide readily available information to members of Ashesi community in a way that mimic the human conversation and is less time consuming.

The goal of the Ashesi support bot is to automatically and accurately provide response to queries posed to it, within Ashesi context. The chatbot will also guide people to resolve some of the issues which require the help of support personnel. For example, the bot can take one through a process of resolving an internet connection problem. This solution allows to shorten response time which I believe will be favorable to the Ashesi community. The proposed implementation, a chatbot, will act as an Ashesi Support Center team that responds to queries, initiated by the Ashesi community and other Ashesi stakeholders.

1.3 Related Work

Several companies are implementing chatbot to meet their specific needs. University of Sydney implemented a chatbot that handle financial queries as a way of reducing the burden of the work in the finance department.[3]

A Chatbot for university related FAQs was implemented in 2017 using Artificial Intelligence and Latent Semantic Analysis to handle parents and prospective students' queries concerning college admission and academics [2].

In 2017, Godson et.al [1], proposed a system architecture that handles the social media grievances customers send concerning a company's product or service they offer and initiate a conversation through a chatbot whenever the complaints needs and action. This application reduces the number of employees needed in the customer service department and gives customers a satisfying customer service treatment.

However, this paper proposes to make a chatbot for Ashesi University designed to handle the reports, queries the community might have, as a way of reducing email flooding at Ashesi Support Center and responding quickly to Ashesi people queries.

AIM

The aim of this project is to present both the available and the unavailable information in an interesting interactive form, provide information that cannot be found on the current platforms such as websites and reduce the time and hustles one must go through to access information about Ashesi as well as answer some of the queries that are directed to Ashesi Support Center.

References

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