

USE BOT CHATS WITH ARTIFICIAL INTELLIGENCE IN THE SPHERE OF TELECOMMUNICATIONS TO REDUCE THE QUEUE TO OPERATORS

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ABSTRACT

The use of a chatbot with artificial intelligence gives a tremendous impetus to the development of the implemented sphere. One of the areas where it is necessary to apply technology with artificial intelligence in the field of telecommunications. With economic growth, the population using the Internet, mobile communications, and various telecommunication services is growing at a rapid pace. In this regard, the number of calls to operators and employees will certainly increase. Queues are an actual problem in these cases. The queue is one of the factors that impede the rapid development of a particular company or even a small firm.

Keywords: Chat bot, SMS, AI, Watson Conversation

INTRODUCTION

Chatbots in a general sense is usually understood as special programs that carry out their work on the Internet, most often with one or more users, using artificial intelligence. The modern type of Internet communication is able to act as a virtual interlocutor, repeat, and reproduce a written set of human signs, providing a programmed response to given actions. [4]

Due to the fact that the information space is extremely large, manual control of this entire data array looks like an unrealistic process. For the same reason, over the past couple of decades, the introduction of information technology in management has become a routine process, since it helps to solve this problem. The process of managing an organization includes the main functions: planning, organization, control, and motivation, but, in addition, the tasks of a manager include such processes as production management, sales of products, marketing, finance, accounting, and working with customers. [6]

MATERIALS AND METHODS

As the research of the international recruiting company Hays has shown, most companies are already actively introducing automation of various HR units and about 80% of the companies surveyed are satisfied with the available systems. A fifth of the respondents - about 18% - do not want to change anything in current processes, the law on personal data stops 7% of companies, and only 1% of companies believe that automation is not needed at all. "Now everyone is concerned about improving the efficiency of work processes, no one wants to do routine. [1]

The dynamics of popularity and Popularity by region for chatbots can be found on "Google Trends". [2] As can be seen from statistics, economically developed countries like China, Singapore are actively introducing a chatbot to their services and increasing the efficiency of work processes.

The largest retail chain of Ukraine, by launching chatbots in Viber and Telegram messengers, helps to save time for four million regular customers of 1,044 ATB supermarkets in 24 regions of the country. [3]

RESULTS AND DISCUSSION

Today there are many different services for introducing a chatbot into a specific area. One of them is the IBM software product (IBM Conversation A.I). [5] Using this product, you can create a bot for a specific area. Watson Conversation provides a platform where you can build any structure and integrate with different services. After building the structure and after learning the bot, our language can be used to access the bot through the API.

For example, the implementation of a chatbot for telecommunication services can see in (Fig. 1.)

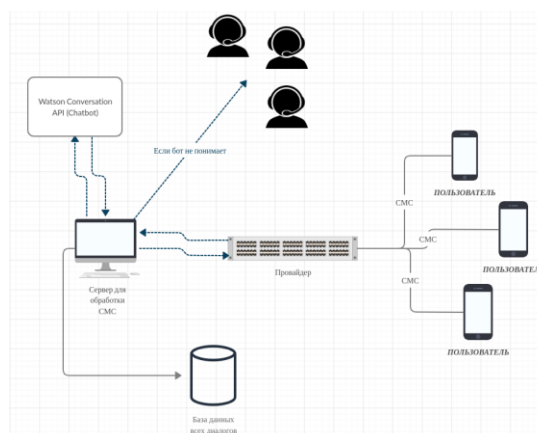


Fig.1. System architecture

Features of the construction of this architecture:

- Parallel user service
- Work with SMS messages
- In case of misunderstanding of the trained bot, redirection to operators
- According to the collected data, the communication between the bot and the client can be used to train the bot

When using a chatbot from the given architecture, you can achieve:

- Reducing the queue to operators
- Don't let customers wait
- Instant problem resolution
- Based on the collected statistics, you can create a report on the analysis of services

Disadvantages:

- For training, you will need complete instruction on services
- Testing the bot may take a little time
- Dialogues between the operator and customers will be required.

CONCLUSION

Since the client, while waiting for his turn and thus wasting a huge amount of time on this, may not use the next time and refuse the services of the company and go to another.

To solve this problem, you must first find a suitable platform, a software product for implementation. How to choose it for our language? Can the selected software product integrate with existing services? When choosing, these issues must be taken into account.

One suitable software product is the IBM Watson Conversation software product. It is a pre-built platform, an initially built foundation that can be applied and developed for our telecommunications industry.

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