



## BOT-BASED RESEARCHES IN UZBEKISTAN

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<b>Received:</b> December, 26 <sup>th</sup> 2020	This article discusses the concept of bots and their classification according to their characteristic features, as well as methods of creation. It analyzes bot research in Uzbekistan.
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Nowadays, chat bots are gaining great popularity on social networks as well as on regular sites. Going to various electronic sources of information, we increasingly come across online consultants who offer assistance in providing the information we need. With the help of various types of bots, live communication with people, in the form of correspondence, is replaced by electronic.

A bot is a computer program that tries to create the impression that it is a real person, sitting somewhere on the Internet and having its own opinion and the beginnings of intelligence. A chat bot is a certain type of bot that works in instant messengers and looks like a regular contact.

So that a person can save his time for communicating with other people, using modern technology, instant messaging services, that is, instant messengers have been developed.

As a result, there are two types of chat bots:

1. Functions based on rules. This type of chatbot usually responds to extremely precise and specific commands. If you send an incorrect or incorrect request, the system will not be able to understand it and will display an error.

2. Operates on the basis of machine learning. This type has artificial intelligence. Artificial intelligence is a scientific area within which the tasks of hardware or software modeling of those types of human activity that are traditionally considered intellectual are set and solved [1].

Working with it, there is no longer a need to write your query as accurately and specifically as possible, since systems of the second type understand not only narrow commands, but also the language itself. As a result of communication with a person, such a chatbot becomes smarter. Building a chatbot is a complex process, but quite doable. Before programming and launching your own bot in the messenger, you first need to understand what problems will be solved with the help of this bot, and on which platform to settle it.

At the moment, in Uzbekistan, most messengers support bot platforms, the first place is occupied by Telegram, the second is Facebook messenger, and the third is the little-known Slack. "The main difficulty in building chatbots is not so much about technology as about user experience. The most successful bots will be those that provide significant value and that users will turn to on a regular basis. "Matt Hartman, director of seed investment at Betaworks. It doesn't take much programming knowledge to create your own simple chatbot. There are programs that you can work with online to create them, for example: robot.me, Chatfuel. However, to create an online consultant on the site, you need to know the programming language, as well as special programs, for example: siteheart, MEOKAY, CortanaIntelligence.

The chatbot market is growing at a breakneck pace. And there are good reasons for this: chat bots can close simple requests, collect and qualify leads, organize meetings, and sell. That is why many companies are changing their direction of development and are planning to introduce chatbots into their ecosystems in the near future. It is important for business to adapt to new technologies in time in order to keep up with competitors, develop customer service and reduce costs.

Today's bots are much more efficient than their predecessors are they can already remove routine tasks from employees and answer simple questions from users 24/7. In addition, this is just the beginning of their offensive.

Today, chatbots are no longer as secure. They are used for a variety of purposes, including criminal ones. Used by hackers to find out passwords of bank cards or accounts, as well as to send spam or viruses. Classification of bots with characteristic features:

1. By types:

- Chat bots are a specially trained interlocutor program
- Exchange bot - a bot that sets the tactics and algorithm for working with the exchange. He does everything himself and instantly reacts to market changes.
- Game bot - programs that perform some processes in the game, such as pumping a character online in strategies

- Web bot - this type of bots is used to copy content, collect information and hack accounts.
- Search bot - the main function of this bot is to search for information, as well as index pages of sites.

### 2. By function:

- Helpers - the bot is used in messengers and search engines, which provides data on information at the user's request, and is able to independently monitor and notify about changes in information on various resources.
- Consultants - used in commercial activities to communicate with real or potential clients in various fields
- Entertainment - used on entertainment services and portals.

### 3. By form:

- Simple
- Using artificial intelligence

### 4. By location on platforms:

- Telegram
- Facebook
- Slack
- Twitter

Let's consider the advantages of chat bots:

1. Simple and convenient to use;
2. High response speed, with low traffic consumption;
3. No need to create an account to communicate with him;
4. Ability to create and work in group chats;
5. Security;
6. Free;
7. To work with a bot, you do not need to download and install it.

However, along with the advantages, there are also a number of disadvantages:

1. Limited opportunities due to the underdevelopment of artificial intelligence technologies;
2. There are no specific sites for chatbots.

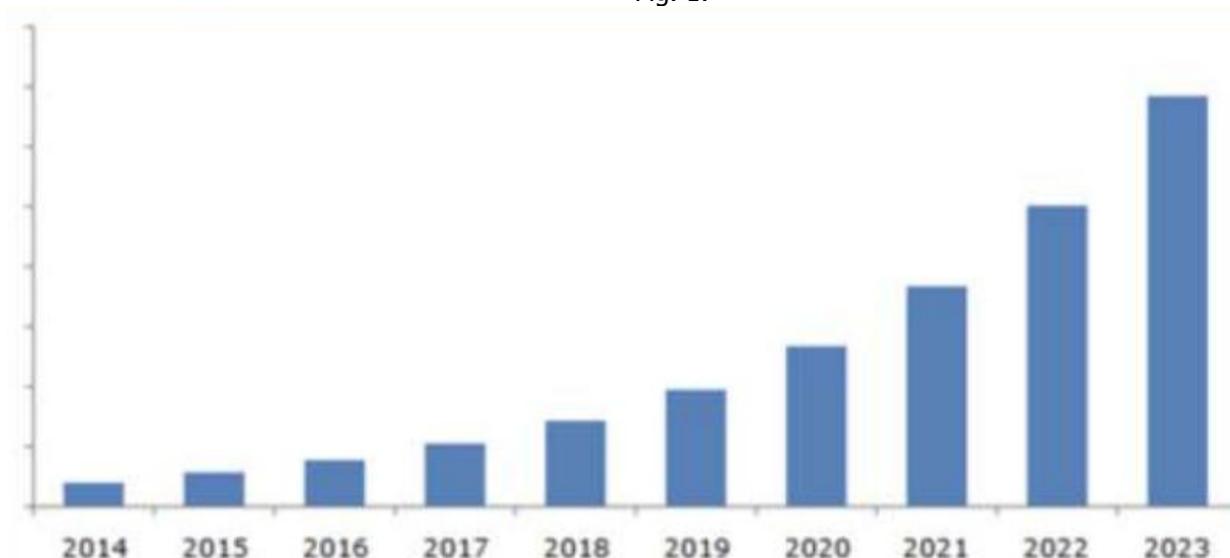
For this period in our time chatbots using artificial intelligence have reached a high level of performance. Dialogues with bots look very natural, and these programs run in real chats and it is difficult to determine whether a person is talking with a real person or with a chatbot. But now the presence of the chatbot is not hidden, but rather advertised, while creating advertising and attracting visitors.

Below are some examples that operate in Uzbekistan, what bots are needed and what for.

1. Grocer Bot - helps you select and order groceries from your favorite store.
2. Forecaster bot - ask him about the weather in your city. It can also regularly send forecasts, in the morning or evening at a given time.
3. Bot financier - helps to manage personal finances.
4. Corresponding bot - will tell you what is happening in the world.
5. Bot psychotherapist - share your problems and get advice.
6. Planner bot - write him about all plans for the week / month, and get the optimal schedule of meetings.
7. Bot buddy - this is a popular Xiaoice bot from Microsoft in China. More than 20 million people have been in regular correspondence with it.

Below in fig. 1 shown the growth of bot researches in Uzbekistan.

Fig. 1.



In conclusion, I would like to note that the idea of consciousness of chat bots with artificial intelligence is very interesting. With their help, many businesses can promote their sites or other sources of information to attract the maximum number of buyers. If you look at it from the other side, then, once in the hands of unscrupulous people,

chat bots can cause enormous harm, both to the whole society and to an individual. The creation of an ideal, humanoid artificial intelligence is one of the most difficult tasks of our time, which will take more than a dozen years to solve. However, one thing is clear that artificial intelligence will be an irreplaceable thing in human life, because if the work of millions of people replace algorithms, life will become much easier and more interesting, and people themselves will be able to earn as much money as possible without making significant efforts.

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