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CHAT-BOTS AS A TECHNOLOGY FOR THE INTERACTION OF ECONOMIC ENTITIES

ЧАТ-БОТЫ КАК ТЕХНОЛОГИЯ ВЗАИМОДЕЙСТВИЯ ЭКОНОМИЧЕСКИХ СУБЪЕКТОВ

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Ключевые слова: автоматизация, машинное обучение, чат-бот, искусственный интеллект, цифровой маркетинг, клиентский сервис.

Abstract. The article analyzes the possibilities of using chat-bots as one of the automation tools in digital marketing. The types of chat-bots, their advantages for business are considered, and an assessment is made of the effectiveness of their implementation in the organization's business processes.

Аннотация. В статье проанализированы возможности использования чат-ботов как одного из инструментов автоматизации в цифровом маркетинге. Рассмотрены виды чат-ботов, их преимущества для бизнеса, и выполнена оценка эффективности их внедрения в бизнес-процессы организации.

Automation is the most relevant trend in various business areas. More and more eCommerce companies are integrating machine learning and adopting chat-bots, which are becoming an important factor in the development of enterprises.

A chat-bot is a program that simulates a conversation with a user in natural language, allowing him to interact with a digital device as if he were a real person.

The bot processes the user's request and gives him the necessary response. Messaging – both text and voice – can take place in instant messengers, on a website, in a mobile application or through a phone.

Chat-bots are one of the highly effective AI-powered tools in terms of digital marketing automation. Today, most business websites are equipped with chat-bots that provide instant customer support instead of operators. Chat-bots answer the simplest queries, matching them to knowledge base articles and content based on clarifying questions. This technology can be further enhanced by using historical data and questions from previous consumers to create more personalized conversations. All this helps to reduce the waiting time for a response from the support service, and allows operators to focus on more complex tasks.

Marketing, sales and customer service are already reaping the benefits of chat-bot adoption, especially when combined with artificial intelligence and machine learning, the combination of which affects the analysis of customer behavior and service levels. Chat-bots become a «good friend» for the buyer; as a result of the growth of positive user experience, the retail business is becoming more efficient.

Currently, the following types of chat-bot s have been developed and are being used:

Chat-bots based on rules. Such chat-bots interact with the user based on the keywords in the request. Often, the bot itself prompts the user to select a keyword, since it is almost impossible to find all the words that a person is able to use in a question.

If the bot does not find the keywords embedded in its program in the request, it will not be able to give an answer. Usually in such cases, the user will be redirected to a "real" employee.

- Operates based on keywords and does not answer questions that do not contain keywords.
- Not able to learn from previous user experience, so improvements need to be done manually.
- Communication seems robotic.
- Quick and easy implementation.

Chat-bots based on artificial intelligence. AI-based chat-bots rely on NLP techniques, as well as speech recognition and text processing methods using neural networks. Such bots will answer the user even if he entered a non-standard question. The main advantage is the ability to self-learn.

- Uses NLP to recognize user input.
- Independently learns based on Machine Learning algorithms.
- Communication looks more realistic.
- The implementation process is more complex and takes more time.

Chat-bot is used to automate the following processes:

- Making an application, accepting an order, booking a ticket, etc.
- Technical support: answers customer questions about your product around the clock.

- Product recommendation: selects a suitable product for the customer based on a request or previous purchase experience.
- Mass mailings: timely notifies customers about promotions and sales.
- Collecting contact information: finds out from the user how to contact him and passes the information to the manager.

An important methodological issue is the evaluation of the effectiveness of chat-bots. Chat-bots can bring value in many ways in both business intelligence and business intelligence. By tracking trends in conversations and focusing on the type of customer, the chat-bot is able to generate reasonable, targeted offers that increase the chances of a purchase.

These targeted recommendations are part of the current vogue for personalization as a way to improve customer experience. Gartner research on personalization has found a growing need for personalization among customers, who are often willing to pay more for a service that provides a personalized experience. Collecting information about the user based on their interaction with the chat-bot will help companies meet this need.

In the field of business intelligence, chat-bots are a fast and effective tool that helps managers to monitor various aspects of the company's work directly and make informed decisions. Chat-bots contain the most up-to-date information (on KPIs and other metrics) available on demand at any time, and this is their key advantage.

Chat-bots are capable of more than just collecting user data. Text sentiment analysis is often used in social networks to study opinions about a product or service. It can be integrated into chat-bot s to determine the mood of the customer, which is especially valuable for combating user churn.

Also, sentiment analysis helps companies to better understand their customers. Information about which elements of the service are especially useful for different people, and which most influence the decision to purchase a product or service, is invaluable. Technologies aimed at understanding the full range of human emotions in the processing of dialogues with buyers have great potential.

As a result of the study, the following benefits of chat-bots for business have been identified:

1. Ideal employee
- Available 24/7. The bot never gets tired, never pretends not to see your message, and never takes sick leave. It is ready to help users even during weekends or non-working hours.
- Multitasking. Able to conduct conversations with hundreds of customers at once and at the same time remain no less productive than on the first day after the vacation.
- Economical. The chat-bot does not require a salary increase. It does not demand payment for its work at all. It works on sheer enthusiasm.

2. Positive customer experience. The chat-bot reduces customer waiting time. Studies have confirmed that a robotic helpdesk responds three times faster than a real person. This is probably the reason why chat-bots increase customer satisfaction by 24 %.

3. Collection of customer data. Communicating with the user, the chat-bot collects information about him and transfers it to other departments. The resulting data can be used by the marketer to improve their interaction with customers. For example, to send more personalized emails or to offer products and services that will interest a potential buyer.

4. Increase sales. Bots accompany and advise the client throughout the entire path to the purchase. They personalize the user experience based on previously collected information. Thus, bots are always ready to give the user recommendations that will interest him.

Thus, the creation of a chat-bot and its use is an important step in modernizing the image of business organizations, allowing them to move on to more efficient work. With the help of a chat-bot, informing employees is simplified, the internal processes of the enterprise are optimized, and working time is saved. All this increases the efficiency of the organization as a whole, making it more competitive, which in modern conditions is an important criterion for the success of the company. Chat-bot technology, as well as technologies used in conjunction with it, is already changing user experience, «humanizing» interaction with software systems, taking it to a new level. It should also be noted that there are ample opportunities for using chat-bot technology in business, since it allows you to reduce costs and adapt to the needs of the consumer as much as possible, which is critical in a highly competitive market.

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DIRECTIONS OF FORMATION OF FINANCIAL SECURITY

НАПРАВЛЕНИЯ ФОРМИРОВАНИЯ ФИНАНСОВОЙ БЕЗОПАСНОСТИ

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Abstract. The report considers the directions of formation of financial security, which are based on the financial development of the country, defines indicators for assessing financial development, including indicators of financial depth, financial inclusiveness, stability and efficiency. In order to achieve financial security, the necessity of taking into account the contradictory nature of the presented directions of financial development is proved. The complex nature of achieving financial stability has been determined, in particular, an important factor in achieving it in conditions of high risks has been identified – this is the improvement of the financial state and the formation of the foundations for a coordinated policy of the governments of individual countries in the field of counteracting external shocks.

Аннотация. В докладе рассмотрены направления формирования финансовой безопасности, которые базируются на финансовом развитии страны, определены показатели оценки финансового развития, включающие показатели финансовой глубины, финансовой инклюзивности, стабильности и эффективности. С целью достижения финансовой безопасности доказывается необходимость учета противоречивого характера представленных направлений финансового развития. Определен комплексный характер достижения финансовой стабильности, в частности выявлен важный фактор ее достижения в условиях высоких рисков – это совершенствование финансового регулирования и формирование основ для согласованной политики правительств отдельных стран в области противодействия внешним угрозам.