The development and study of intelligent hardware and software, often known as intelligent agents, is a key component of artificial intelligence's (AI) increasing integration into our daily lives. Various tasks, from manual labor to complex operations, can be performed by intelligent agents.

A chatbot is a computer software that replies to questions and comments like a smart entity. The exchange may take place via voice message or text. Natural Language Processing enables any chatbot program to comprehend one or more human languages. Chatbots are referred to as digital assistants, interactive agents, clever bots, and artificial conversation beings.

Alan Turing examined if a computer program could communicate with a group of people in 1950 without the participants recognizing that their interlocutor was artificial. Many people believe that the Turing Test is the inspiration behind chatbots.

In 1966, the first chatbot with the name ELIZA was created. ELIZA returned the user's statements in the interrogative form, simulating the work of a psychiatrist. Despite its limited communication capabilities, it served as an inspiration for the creation of later chatbots.

It made use of a template-based response mechanism and straightforward pattern matching. Although it had poor conversational skills, it was nonetheless able to perplex users at a time when they were not accustomed to talking with machines, which inspired the creation of other chatbots. A chatbot dubbed PARRY that was created in 1972 was an upgrade over ELIZA.

The chatbot ALICE was created in 1995 and won the Loebner Prize, also known as the annual Turing Test, in 2000, 2001, and 2004. The title of "most human computer" was initially attained by this machine. The core intelligence of ALICE is built on the Artificial Intelligence Markup Language (AIML), which enables developers to describe the fundamentals of chatbot knowledge.

In 2001, chatbots like Smarter Child were created and made accessible through message services. The development of virtual personal assistants such as Apple Siri, Microsoft Cortana, Amazon Alexa, Google Assistant, and IBM Watson was the following development [17].