

Assignment - 2

AI with Python

1. Would you say that Deep Blue was intelligent? Explain.

According to Garry Kasparov, Deep Blue was not truly intelligent like a human. It could play chess extremely well, but it didn't think or understand the game. It just used its huge computing power to calculate millions of moves per second and pick the best one. Deep Blue didn't have creativity or intuition — it only followed what it was programmed to do.

2. What contributed to Deep Blue's success and how? Who/what should get credit for it?

Deep Blue won because of several things:

- i) Speed and power - It could look at millions of possible chess moves very quickly.
- ii) Good programming - IBM engineers and chess experts taught them many chess strategies and moves.
- iii) Human help - The team studied Kasparov's playing style and trained Deep Blue to handle his tactics.

So, its success came from teamwork between humans and machines.

The credit should go to the people — the IBM scientists, programmers, and chess experts who built and trained Deep Blue. The computer itself was just a tool that followed their instructions.

1. What implications do you think such digital assistants will have for people?

Google Duplex can make life easier for people by doing small everyday tasks, like making phone calls or booking appointments, all by itself. This saves people time and effort. It can also help those who have trouble speaking or hearing. However, it raises some concerns because it sounds so real that people might not know they are talking to a machine, which could cause trust or privacy issues.

2. What opportunities it might open for businesses?

For businesses, Google Duplex can be very helpful. It can answer calls, take bookings, and help customers anytime - even after hours. This reduces the workload for employees and lets them focus on more important tasks. It can also collect useful information about customers to help improve services and make them more personal.

3. Is Google Duplex narrow, general or super AI? Explain.

Google Duplex is a narrow AI because it is designed to do one specific job - making calls and setting up appointments. It can't think, learn, or understand things outside of that task like a human can.

4. What impressed you most in this demo?

The most amazing part of the demo was how natural Duplex sounded. It talked just like a real person, using pauses and words like "um" or "uh-huh." The person on the phone didn't even realize they were speaking to an AI. It showed how advanced and realistic speech technology has become.

1. What the author has to say about the importance of the Turing test?

The Turing Test, suggested by Alan Turing in 1950, is important because it helps answer the question: Can machines think? Instead of arguing about what “thinking” really means, Turing suggested checking if a machine can talk like a human so well that a person can’t tell the difference. The test focuses on how the machine behaves, not what’s going on inside it. If it can act human, it can be considered intelligent in a practical sense. The Turing Test became very influential in AI research and how scientists study human-like machines.

2. How Turing test is conducted?

In the Turing Test, a human judge talks (usually by text) with two unseen participants: one human and one machine. The judge asks questions and tries to figure out who is the human. If the judge can’t reliably tell the difference, the machine is said to pass the test, meaning it can imitate human conversation successfully.

3. What Turing predicted would happen by 2000? Did it happen in your opinion?

Turing predicted that by the year 2000, computers would be able to fool 30% of human judges in a five-minute conversation. By 2000, this hadn’t fully happened - chatbots still gave away that they were machines. Later, bots like Eugene Goostman (2014) came closer under limited conditions, but most experts agree that no machine has fully passed the Turing Test yet because true human-like understanding is still hard for AI.

4. What parts of Mitsuku's 2016 transcript resemble human conversation the most?

Mitsuku’s 2016 chat was impressive because it seemed friendly, natural, and funny. The parts that felt most human were - Answering casual questions and small talk naturally. Making jokes, showing emotion, and asking follow-up questions. Keeping the conversation flowing instead of just giving short answers. These human-like traits helped Mitsuku win the Loebner Prize, a competition based on the Turing Test.

5. Who was Eugene Goostman?

Eugene Goostman was a chatbot created in 2001 that pretended to be a 13-year-old boy from Ukraine. This made its occasional mistakes seem believable. In 2014, it gained attention for supposedly passing the Turing Test, fooling about 33% of judges. But experts said the test was limited, and the bot used tricks rather than real understanding.