

The Turing Test

Waiting at the bus stop clutching her bus pass, Helen felt excited. She didn't know much about the experiment, but it paid quite well. Two hundred and fifty pounds, just for an hour of her time! And double that if she made the correct decision! She wasn't sure what the decision was all about, and she was sure she'd get it wrong, but even £250 would make quite a difference to her finances. Things were so expensive these days.

The bus whisked her off to the Royal Infirmary. The Edinburgh Robotics building was nearby, in something called the Bioquarter. Helen had to get out the invitation letter she'd been sent and look carefully at the enclosed map to find where to go.

When she found the right building, a woman in a stripy top was waiting for her. "You must be Helen Stevenson?" she asked.

Helen nodded as she shook hands.

"Welcome to Edinburgh Robotics. I'm Bridget Calvin. Pleased to meet you!"

She seems nice, Helen thought. Probably in her thirties or early forties. That top is not very flattering, though.

"Come this way." They took the lift to the fourth floor and entered a large office with an eye-catching view of the Edinburgh skyline.

"Let me introduce you to Dr Robertson. Bob, Mrs Stevenson will be helping us with the experiment this afternoon."

A tall man in a smart navy-blue suit rose, a little stiffly, from an odd-looking chair by the window. "Delighted to meet you. Please call me Bob." He smiled pleasantly and his handshake was warm and firm. "Do take a seat. I hope you found us without too much trouble?"

Bob was in his mid to late fifties, Helen guessed, and was quite attractive. She found herself warming to him as they chatted for a few minutes.

"Now, Helen, if you don't mind, shall we get down to business?"

"Yes, of course. The invitation letter said I have to make some kind of

decision, but I don't know anything about it, really."

"Well, let's start with some background details. How much do you know about artificial intelligence?"

"Almost nothing I'm afraid. Does that matter?"

"Not at all" he reassured her. "Perhaps a little history would help. Back around 2022 - over five years ago, now - there was a quantum leap in software language models like ChatGPT. Computers started to be able to have much more natural conversations with people."

"Yes, I chat with my laptop now." Helen smiled sadly. "Since my husband died, I probably talk more to my laptop than to real people!"

"We at Edinburgh Robotics are at the forefront of research into the integration of software language models with robots. And being located here in the Bioquarter we can work with researchers in regenerative medicine, who are developing artificial tissue, such as skin and muscle."

He paused. "To cut a long story short, we have developed a human-looking robot, which is almost indistinguishable from a real person."

Helen gasped. "Oh my goodness!" This was far beyond anything she had imagined. "That sounds absolutely terrifying. Horrifying! But, surely, it's still a machine? It isn't really a person?"

Bob smiled. "Yes, it is still a machine. I expect you have many questions, but I'm afraid we don't have time to go into details."

"What am I here for?" Helen wanted to know. "Am I going to meet this... machine?"

Bob looked at Bridget.

"Well, you need to know a little more, first," Bridget explained. "Things are perhaps not quite as advanced as you suppose. The machine in question is child-sized and only has childish behavioural and language capabilities. Have you heard of the Turing test?"

"Is that something to do with Alan Turing?" Helen asked, "I remember seeing a film about him a few years ago."

"Turing invented a test for artificial intelligence. In essence, a tester

interacts with two entities A and B and tries to determine which one is a person and which is artificial. If the tester cannot determine which is which, the artificial entity is deemed to be intelligent.”

“Is that what I have to do? Decide who is human and who isn’t?”

“Yes. We will be behind a one-way mirror, and you will be able to see two children playing. We want you to decide which is the machine and which is the real human child.”

“And if I make the correct decision, I will get...” This was a little embarrassing, but she wanted to be sure. “... the full £500?”

“Yes.” Bridget checked her phone. “We need to start. You’ll have fifteen minutes to watch the children, and then I will help you through a questionnaire.”

Bob stood up. “Thank you, Bridget. Shall we make our way to the lab?”

He led the way to an open-plan area, full of desks, computer screens and what seemed to be robot parts. From a partitioned-off corner, she could hear the sounds of children playing.

“We’ll sit in the darkened cubicle at the far end” explained Bridget. “We should only talk in whispers, to avoid disturbing the children.”

The cubicle was a bit stuffy, but the one-way glass gave a good view of the play area and the two children. A man in a teeshirt was sitting on the opposite side of the room.

“Oscar is seven. Susan is five.” Bridget explained. “Jake over there is just supervising their play. That’s all I am allowed to tell you.”

Helen clutched the arms of her chair as she studied the children.

Fifteen minutes later, sitting round a table back in the office, Bridget asked the question Helen had been dreading. “Could you decide which is the machine and which is the human child?”

Helen really had no idea. They had both seemed so natural, absorbed in their play, chatting and squabbling like siblings. But she needed to make a decision. There was a 50-50 chance of being right, and even if she wasn’t, she

would still get £250.

“Um. I think ... Susan is the machine.” She looked from Bridget to Bob and back again, but both were impassive. Bridget tapped something on her iPad.

“How sure are you, on a scale from one to ten, where one means you are not at all certain and ten is absolutely certain?”

“One”.

“And what made you pick Susan?”

“I think it was when Oscar was playing with his toy robot. After a couple of minutes, he started marching about pretending to be a robot! I thought he wouldn’t have done that if he really was a robot. So it had to be Susan.”

There was still no sign from Bob or Bridget. There were a few more questions about the children’s behaviour until finally, Bridget said “Thank you, Helen, that has been most helpful.”

“But was I right? Did I make the right decision?”

Bob looked unhappy. “Actually, the situation is rather more complex than you were told.”

Helen was downcast for a moment. Then she had a flash of inspiration. She looked up at Bob. “They are both machines, aren’t they!”

Bridget said “No. They are both human children. In fact, they are my children. Jake’s and mine.”

Helen felt angry and cheated. She began to complain, but Bridget broke in.

“You will get paid the full £500. I’m sorry we tricked you. It is all part of the experimental protocol.”

“But why?”

“We’re not as advanced as we led you to believe. To make progress, we need to know how people react when they think they’re looking at a robot. What signals do they look for? What behaviours are significant? That data is so valuable to us.”

Helen turned to Bob, who looked quite dispirited. He’s a good sort, she thought. Not like his assistant. She smiled at him, and he seemed to perk up a

bit. "Bob, are we finished now?"

Bob smiled back, stood up and fetched an envelope from the desk. "Thank you so much for participating. Your input is very valuable, and I am so sorry you were upset. Let me show you out."

Helen accepted the envelope, and, ignoring Bridget, she followed Bob to the lift. As she was leaving the building she dropped her purse, and Bob picked it up for her.

"Thanks, Bob. It's been a pleasure meeting you." Helen smiled warmly as they said goodbye.

Bob made his way, somewhat slowly, back to Bridget's office.

"How do you think the test went?" she asked.

Bob's voice was rather weak and flat. "It's difficult for me to tell. But I think she accepted me completely. Entering low power mode."

"Ah. Let's get you sorted." Bob sat down in his special chair. Bridget flicked a nearby switch.

As Helen waited for the bus, she thought about Bob. What a horrid place to work, with all those machines. She'd heard a faint electrical whine from somewhere as Bob bent to retrieve her purse. He was such a nice man.