

# UNIT 1 – Artificial Intelligence

## Reading 1

Skills:

- Details
- Make inferences
- Vocabulary in context
- Understand negative facts

**Getting started:** What is Artificial Intelligence (AI)?

### A VERY BRIEF HISTORY OF ARTIFICIAL INTELLIGENCE



Artificial Intelligence (AI) is a **broad** field. Contained within are multiple areas of study in both practical and theoretical applications. Understanding the origins of the field and how it evolved over time is an important aspect of learning how to use it.

Artificial intelligence was born of a fundamental question: “Can machines think?” The concept of autonomous machines, robots even, was covered in works of science fiction, especially literature,

prior to the 1950s. Artificial Intelligence dates back to the mid-20<sup>th</sup> century, a time when computing technology had advanced enough to allow computers to store commands. Early computers could execute commands but were unable to store data. Another problem is that computing developments were also quite pricey in those days.

The mid-1960s brought about the creation of ELIZA, a natural language communications program. Originally programmed to mimic casual conversation, ELIZA was an early **chatbot**. The program could respond to typed messages from a pre-programmed dialog based on words provided by the participant but had no built-in framework for contextualizing events. AI development slowed through the 1970s, a time known as the first "**AI winter**" a period when obtaining funding for AI projects was difficult.

In the 1980s, early knowledge systems known as expert systems grew in popularity. These programs could provide answers to questions by going through saved information based on an operator's database. They were intended to provide information as a human expert might and simulate the knowledge they had. By the late 1990s and into the early 2000s, artificial intelligence had already **met** important goals envisioned by its creators.

Michael S. Gashler Ph.D. from the University of Arkansas, Department of Computer Science and Computer Engineering sees where the future for AI applications lie: "As AI applications move toward mobile devices, people with skills in sensors, wearable computing, and human-computer-interfaces will be needed. Since AI is immensely computer-intensive, people who know how to parallelize using general-purpose graphical processing units and cloud systems are also needed. And people who are familiar with the domains in which artificial intelligence is being applied play an important role in helping with the transition to building more fully-automated systems."

\*Adapted from <https://www.techopedia.com/how-should-i-start-learning-about-ai/2/32872>

#### **Glossary:**

- **Chatbot:** A chatbot is a software application used to conduct an on-line chat conversation via text or text-to-speech, instead of providing direct contact with a live human agent.

**Answer the following questions:**

1. The words **broad** in paragraph 1 is closest in meaning to
  - a. full
  - b. wide
  - c. exact
  - d. crowded
  
2. According to paragraph 2, what is the basis of AI?
  - a. Robotics
  - b. 20<sup>th</sup> century literature
  - c. Using computing technology
  - d. Knowing if machines can think
  
3. What is stated about technology in paragraph 2?
  - a. AI has its origins in 1850.
  - b. Computing technology was expensive.
  - c. Computing science has not advanced that much.
  - d. Information could be saved in the first computers.
  
4. What is mentioned about ELIZA in paragraph 3?
  - a. Eliza was developed around 1960.
  - b. It was intended to be a programming language.
  - c. It could respond to very specific linguistic exchanges.
  - d. Eliza had the ability to answer messages recorded in a script.
  
5. What can be inferred about the term **AI winter** in paragraph 3?
  - a. The advances in AI slowed down.
  - b. It used to snow a lot in the 1970s.
  - c. There was a lot of money for AI projects.
  - d. It was difficult to talk to people at that time.
  
6. What is NOT stated about expert systems in paragraph 4?
  - a. They were supposed to emulate the responses of a human.
  - b. They could respond certain type of questions.
  - c. They became popular after the AI winter.
  - d. They simulated an operator's behavior.
  
7. The word **met** in paragraph 4 is closest in meaning to
  - a. visited
  - b. greeted
  - c. reached
  - d. gathered

8. Based on paragraph 5, what is NOT a characteristic of the type of worker necessary in AI industries?

- a. People who know about the fields where AI can be used.
- b. People who are familiar with portable devices.
- c. People who have knowledge about sensors.
- d. People who build automated machines.

**What do you think?**

Will AI replace humans in the future?