AI Reflection & Critical Thinking Questions

1. How has the definition and goals of AI research evolved over time?

Early AI aimed to replicate human thinking, but today it focuses more on solving specific tasks using machine intelligence.

2. What were some of the early optimistic predictions about AI, and why were many not achieved in the projected timeframes?

Predictions included human-like robots and smart machines, but they failed due to lack of data, weak computers, and limited understanding of intelligence.

3. What were some of the major challenges and setbacks for AI research over the decades, leading to 'AI winters'?

Progress was slow, funding was cut, and systems didn't work well in real life. These led to reduced interest and support.

4. How did researchers work to overcome some of these challenges?

They improved algorithms, used GPUs, gathered more data, and focused on practical applications of AI.

5. What breakthroughs enabled AI progress in recent decades?

Deep learning, big data, and powerful computing made AI better at image recognition, language processing, and more.

Quick Questions & Simple Answers

Question	Simple Answer
How has the definition of AI changed?	From human-like thinking to solving specific tasks.
Why were early AI predictions wrong?	Computers were weak, and intelligence was underestimated.
What caused AI winters?	Lack of progress and overhyped expectations.
How did AI improve?	Better hardware, more data, new algorithms.
Why is deep learning important?	It helps recognize patterns in data.
Why is data important for AI?	AI learns better with more data.

Additional Reflection Questions

- What is the difference between Artificial General Intelligence (AGI) and Narrow AI?
- Can AI ever fully replace human decision-making? Why or why not?
- What are some ethical risks of using AI in daily life?
- How can we ensure that AI models give fair and unbiased results?
- How should we verify if AI-generated answers are accurate?