

Prof. Gianni - Robotics and AI
Research Notes

1. How would you define Artificial Intelligence (AI)?

Simulation of human intelligence in machines.

2. AI has existed for nearly 70 years. Why is it experiencing an impressive growth right now?
because

- increased funding
- in 2012, GPUs began accelerating neural networks
- in 2017, the transformer architecture came along
- in 2022, ChatGPT was launched, and the public thereafter became much more conscious of AI

3. Can you identify three domains or classes of problems where current AI models still face significant challenges?

Lack of transparency, bias, physical intelligence (robotics).

4. Can you name at least three application sectors where robots are widely used, and explain why they are employed in those sectors?

healthcare, transport, manufacturing. Because they make tasks more efficient.

5. Do you believe that the convergence of Artificial General Intelligence (AGI) and fully autonomous robotics is imminent and could potentially have a major impact on the world?

Yes.

Sources

https://en.wikipedia.org/wiki/Artificial_intelligence

<https://jennykraft.de/deep-research/artificial-general-intelligence/>

<https://lumenalta.com/insights/ai-problems-9-common-challenges-and-solutions>