Assignement -01

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1 AI Boom

The AI boom, is also known as AI spring. This indicates a period of rapid advancements in the field of AI. Starting from 2010 till 2020 we witnessed many breakthroughs in this field. A key moment was in 2012 when a team from University of Toronto used deep learning to improve image recognition with gave a push to this boom .A lot of public attention was gained when AlphaGo defeated a top Go player in 2016.The U.S. is always ahead to fund startups and get better in AI technologies . This has always brought in a series of arguments between U.S. and the China on the claim that the scientists involved are educated in China.Talking about the advancements across several fields they are a lot in number. Some significant ones where AlphaFold2 AI model predicting the protein structure , AI models like DALL-E,Midjourney, Stable Diffusion creating images from text prompt , OpenAI's Sora creating videos from the promts. GPT-3 released by OpenAI can generate human like text and also in 2016 Google DeepMind's wavenet generated realistic speech and music.In business big tech companies see AI as both an opportunity and threat.Nvidia became the worlds largest company by market capitalization due to high demand GPUs. Investment in AI has skyrocketed despite regulatory concerns.
AI boom also has some risk concerns. Cybersecurity threats , job losses , using personal data for training models , deepfake images and many more.AI requires significant electricity , making it harder for companies to meet net-zero emissions. AI boom also has initiated an arms race where companies are competing to have the most powerful AI.

2 AI Effect

The AI Effect occurs when we ignore the computers actions as not "real intelligence". When a machine was trained how to do something unique , like playing chess , solving problems fast then people ignored it by saying its not real thinking.So everytime a new thing is figured out by an AI it gets demoted to "a simple computation" which seemed "magical" earlier.Once AI masters any task people no longer see it as special because that success becomes a part of everyday life.Tesler's Theorem says that "AI is whatever hasn't been done yet". When a problem is not fully solved by computers alone and humans help in that , this combination is called a human-assisted Turing Machine.The main reason of AI effect is that the moment any advances are created in AI field they quickly get integrated into other fields like agriculture , hospitality and marketing. So there is a very often asked question that "Why is there no significant advancement in the field of central AI ?". One more reason to support AI effect is that of peoples desire to feel unique in this universe.

When IBM's chess-playing computer Deep Blue defeated champion kasparov the public viewed as steps of brute force. Its like if I defeat a chess champion then I am very highly intelligent but when a machine does this it is called automation.The Bulletin of the Atomic Scientists organization is worried that people might not realize how important AI is in military contexts. In the second AI winter many researchers found that they could get more funding and sell more software if they avoided "Artificial Intelligence" in their names.This "AI effect" also impacts decision-making in areas like supply chain risk management, which is not well-studied. To avoid the AI effect, experts suggest not overhyping AI's results from the start.