Artificial Intelligence Trends

AI-based medical diagnostics, flying cars, autonomous cars, practical quantum circuits, atomically precise manufacturing, AI passes the Turing test, cryptologically useful quantum processors, medical nanorobots, connections between the human cortex and the Cloud.

No, I am not describing scenes from sci-fi movies. I am talking about the trends that are expected to become a reality sooner than we think. Even Peter Diamandis alludes to this and more in Countdown to Singularity.

With Artificial Intelligence (AI) fast becoming a reality, global AI spend is expected to reach 100 B dollars with a CAGR of 30% by 2025

AI is impacting not only the industrial segments but also our day-to-day lives. I am a huge fan of Spotify, and users of Spotify app will know that the listening experience of over **200 Mn** users is governed by AI through multiple algorithms and it is also believed that Spotify algorithms probably know musical tastes of each user even better than they know it themselves.

Same is the case in the world of Netflix. As you would probably be aware, from recommendations to contextual thumb-nail selection, everything in Netflix is AI governed.

In this context, I wanted to discuss some of the top trends in AI in 2020 that are going to re-define our lives in 2020 and beyond.

Trend 1: Magical transportation in the world of Muggles

Uber has spent more than a billion dollars on driverless cars till 2019; there is a huge investment in driverless trucks by companies like plus.ai. Many companies across the globe have started pilot flights for flying taxis. Apart from the automotive OEMs, tech giants like Apple, Intel, Cisco, Amazon, Sony are investing big time in AI for self-driving vehicles, which is going to make magical transportation, driven by algorithms like reinforcement learning, a reality in a few years. It won't be a surprise if such driverless cars and trucks start penning their autobiographies extending the AI that governs them. No limit to possibilities with AI!!

Trend 2: AI + IoT = AIoT (Artificial Intelligence of Things)

IoT devices are generating a vast amount of data that can be then gleaned for insights with AI. Investors and enterprises are definitely realizing this potential and are investing heavily in AI for IoT.

Enterprises are moving from an era of connected AI to pervasive AI.

Be it integrating AI-driven platforms in medical scanning devices or applied vector regression methods on sensor data to forecast ground water reserves or servitizing every industry through pay-per-use business models, AI is definitely making IoT eco-system smarter.

Trend 3: 'AI'chemist and the many elixirs

One industry that is going to vastly benefit from AI is going to be pharmaceuticals and healthcare.

AI/ML technologies like computers and machine vision are being used in medicine for diagnostics, viewing scans and medical images, surgery, and more. AI-Enabled Genomic today can determine personalised treatments, 3D printing helps doctors replicate patient-specific organs, AI Neural Network is improving healthcare biometrics, AI is being used to evaluate stem cell-derived "patches" tissue for successful implants.

Trend 4: AI for precision agriculture - A true game-changer

The agriculture sector constantly struggles with extreme climatic challenges, along with alarming groundwater crises, and a lack of transparency in the pricing of goods.

Many enterprises are aiming to develop products in the field of precision agriculture, smart irrigation, remote sensing technology, drone applications, and cold storage solutions. With hundreds of other start-ups that are investing heavily in technologies and management solutions to aid farmers across the globe, this sector is already witnessing huge transformation because of AI.

Trend5: AI/ML powered data management

By 2025, enterprises will generate more than 200 zeta bytes of data. With such data explosion and every company in every industry becoming a data company, it is only natural that AI will come into play to manage the humungous data that will become humanly impossible to handle. In such complex and volatile environments “data literacy” will be a key differentiator. We are already witnessing huge investments in AI/ML enabled auto data discovery, AI-based intelligent data harmonization and so on. Automatic identification of data patterns, anomalies and even the way we interact with data is undergoing a major change through natural language querying, voice-based access and conversational analytics powered by AI.

With all of the above and more becoming a reality faster than we think,

I would like to end with a short story that I came across recently.

Scientists created an AI program, and asked it, "Is there a God?"

The AI replied, "Insufficient computing power to determine an answer."

The scientists connected the AI to a powerful supercomputer and gave it access to Wikipedia, and asked it again, "Is there a God?"

Again, the AI replied, "Insufficient computing power to determine an answer."

The scientists spend years and years, and finally got the AI to be installed on every supercomputer, network, PC, console, mobile device, smartwatch, anything with a chip. They gave the AI access to every database, website, book, social media platform, every piece of software ever written, and every piece of knowledge ever obtained by humankind. And for the last time, they asked the AI, "Is there a God?"

The AI replied, "There is now.

This might seem funny reading it now, but we are at the risk of seeing this become a reality. I am sure we as humans can have the right debates and as a responsible society put technology to good use rather than let technology take control.

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