**“Latest technological innovation: AI trends bringing significant changes in the modern day world”**

**-|By Ishika Rastogi |BBA - 2nd Year|**

Artificial intelligence, better known as AI, is promptly emerging and transforming many aspects relating to people, business, society, and the environment. Today AI assists various business organizations in data analysis, strategy recommendations and decision making. Disciplines such as business, management, accounting, social science, engineering, computer science, and mathematics are significantly influenced by AI research. This article provides valuable insights of latest technological innovations that are bringing significant changes in modern day world.

**Multimodal AI (and video)**

Generative AI is growing continuously. The next big waves of advancement will focus on multimodal models that can take multiple types of data as input. Models that work across different data modalities-text-to-image models like CLIP and speech-to-text models like Wave2Vec have been around for years now. This wave of model is interdisciplinary; these include proprietary models such as OpenAI's GPT-4V and Google's Gemini and those open-source such as LLaVa, Adept or Qwen-VL. Easy and free shifting between the NLP tasks and computer vision is also possible with these models. The advantages of multimodal AI involve more intuitive applications of AI and virtual assistants.

**Shadow Ai**

One of the most significant developments in AI is “Shadow Ai” which is the use of AI tools and applications. It further supports quick development and problems related to security and compliance. It protects against the risk of data breaches and lack of system integration. The businesses which have good Shadow Ai have a competitive advantage in terms of being more responsive and agile. The need for Shadow AI typically arises when employees need quick solutions to a problem or want to explore new technology faster than official channels allow.

**Quantum AI**

The latest trend known as Quantum AI, which enhances ai algorithms using ideas about quantum computing. This improves machine learning models quite drastically by handling large datasets and doing easy computations on them; it will further spur innovation to solve problems much faster compared to a traditional computing system.

**A Shift Toward Cybersecurity**

As data is used in different fields like healthcare, education, manufacturing, marketing etc. Hackers or cyber criminals are in urge to get access to sensitive information of the user. It is crucial to protect sensitive information of the user. So, a significant trend in AI is developing technology to recognise and report common types of attacks. Anti-virus software is also being developed by using AI in the same manner as this technology can help prevent a malware threat from having devastating consequences. These tools then run algorithms to identify patterns and detect or predict threatening activity, potential data breaches, etc.

**Augmented Intelligence**

People should not be afraid of losing their jobs to AI. It is not less than a miracle that scientists have found that human mind is similar to artificial intelligence in many aspects. That said, it is the future of humans that depend a great deal on the way they use technology and how they maintain their feelings, morals, and values. On the other hand, AI has the capability of extracting information from diverse sources and inferring on it which is a function of intelligence.

**Collaborations of Humans and Robots (Cobots)**

Cobots or collaborative robots have led the world move towards automation. They are termed as collaborative as they can safely work with employees. Cobots are proficient, affordable and user friendly technology that helps businesses to improve their productivity and meet customer demands. It makes the customer more engaged and they are more likely to purchase when it showcases products, content, and services.

**Conclusion: “The world is on the cusp of revolutionizing many sectors through artificial intelligence, but the way AI systems are developed need to be better understood”**

To sum up, AI has made an exceptional progress and have a significant influence on people, businesses and society. It has the ability to perform task such as making predictions, interpreting speech and generating natural language. Although, AI is continuously developing and trying to recreate human-like intelligence in machines.