

Elon Musk's new company: xAI

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July 23, 2023: New York: **Elon Musk**, CEO of Tesla and SpaceX, and, owner of Twitter, while announcing the launch of 22 Starlink satellites by Falcon 9, tossed a comment: 'Not sure what subtle clues gave it way, but I like the letter X'. Is it because he has set up a new AI company xAI on July 12, 2023, with the goal to "understand the true nature of the universe".



Team members behind xAI are alumni of OpenAI, DeepMind, Google Research, Microsoft Research, Twitter and Tesla, and have worked on projects including DeepMind's AlphaCode and OpenAI's GPT-3.5 and GPT-4 chatbots. Musk seems to be positioning xAI to compete with companies like OpenAI, Google's Bard (<https://bard.google.com/>) and Anthropic's Claude (which is being developed for different companies, like a Poe chatbot for Quora (<https://poe.com/>)).

Please see Appendices 1 and 2 below on Open AI and Deep Mind.

Elon Musk has been vocal about the importance of developing AI technologies that are safe and beneficial for humanity, and he has expressed concerns about the potential risks of uncontrolled AI. Since in AI terminology, xAI means 'explainable AI', www.DiGiNews360.com does not know whether Elon Musk is proposing that his new AI company should develop **explainable AI products only**. We shall keep the Readers informed, as more information becomes available. *Please see Appendix 3 below on xAI.*

----APPENDIX 1: A Brief Note on OpenAI----

OpenAI is an American artificial intelligence (AI) research laboratory consisting of the non-profit OpenAI and its for-profit subsidiary corporation OpenAI Limited Partnership. Their goal is to advance digital intelligence in the way that

is most likely to benefit humanity as a whole, unconstrained by a need to generate financial return. They research generative models and how to align them with human values. They have developed GPT-4 which is their most advanced system, producing safer and more useful responses.

(Reference: <https://openai.com/blog/introducing-openai>)

OpenAI has raised more than \$1 billion in venture funding, according to Crunchbase data. Microsoft is its largest investor. Other investors include Khosla Ventures, Sequoia Capital, Tiger Global, Y Combinator and Bedrock Capital. OpenAI was recently valued at \$20 billion in a secondary sale of its shares.

OpenAI was founded in 2015 by Ilya Sutskever, Greg Brockman, Trevor Blackwell, Vicki Cheung, Andrej Karpathy, Durk Kingma, Jessica Livingston, John Schulman, Pamela Vagata, and Wojciech Zaremba. Elon Musk was also one of the initial board members but resigned from the board in February 2018 but remained a donor. **Sam Altman** is the CEO of OpenAI.

----APPENDIX 2: A Brief Note on Deep Mind----

The company DeepMind began as a London-based startup in 2010. It was acquired by Google in 2014. It is now a subsidiary of Alphabet Inc., the parent company of Google.

DeepMind is an artificial intelligence technology that uses machine learning to solve problems that computers haven't traditionally been able to tackle.

Scientists from Google DeepMind developed an AI system that has predicted how nearly every known protein folds into its 3D shape. On 22nd September 2022, **Demis Hassabis** and **John Jumper**, two scientists from DeepMind won the \$3 million Breakthrough Prize for their work on developing **AlphaFold**, which accurately predicts the structure of proteins. Demis Hassabis is the co-founder and CEO of DeepMind and John Jumper is a senior staff research scientist at DeepMind.

AlphaFold, the open-source program, makes its predictions based on the sequence of a protein's amino acids, or the molecular units that make up the protein. These individual units link up in a long chain that then gets "folded" into a 3D shape. The 3D structure of a protein dictates what that protein can do, whether that's cutting DNA or tagging dangerous pathogens for destruction, so

being able to infer the shape of proteins from their amino acid sequence is incredibly powerful. (Reference: <https://www.livescience.com/alphafold-wins-breakthrough-prize>)

DeepMind's tech is now being used in real-world applications. For example, it plays a role in slashing energy use at computing data centers and in optimizing phone battery life.

Every year the Breakthrough Prize Foundation and its founding sponsors – Sergey Brin, Priscilla Chan and Mark Zuckerberg, Julia and Yuri Milner, and Anne Wojcicki – announce the **Breakthrough Prize laureates**, recognized for their game-changing discoveries in **Fundamental Physics, Life Sciences and Mathematics**. The Foundation also awards to **early-career scientists** who have made significant contributions to their fields. (Reference: <https://breakthroughprize.org/>)

----APPENDIX 3: A Brief Note on Explainable AI----

xAI, or explainable AI, is an important area of research in artificial intelligence that seeks to make AI systems more transparent and understandable to humans. The goal of xAI is to create AI systems that can explain their decision-making processes in a way that is comprehensible to humans.

In many cases, AI systems are considered "black boxes", meaning that their inner workings are opaque and difficult to understand. This is particularly true for deep learning models, which can have millions of parameters and layers that are difficult to interpret.

However, there are many situations in which it is important for humans to understand why an AI system made a particular decision. For example, in healthcare, it is crucial for doctors to understand how AI systems are making diagnoses in order to trust and validate the system's recommendations.

xAI techniques include various methods such as building models with interpretable features, generating explanations for specific decisions made by the model, and visualizing the model's internal workings. These techniques can help to improve the transparency of AI systems and make them more trustworthy and accountable.