

AI and Effective Corporate Governance

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Artificial intelligence (AI) definition

Definition of AI is evolving with the potential to reshape mission critical risks

NIST definition

Interdisciplinary field, usually regarded as a branch of computer science, dealing with models and systems for the performance of functions generally associated with human intelligence, such as reasoning and learning

Source: An In-Depth Glossary of Terms. (National Institute of Standards and Technology, Gaithersburg, MD), NIST Artificial Intelligence AI 100-3.
<https://doi.org/10.6028/NIST.AI.100-3>.

ChatGPT definition

Development of computer systems that can perform tasks that typically require human intelligence, such as visual perception, speech recognition, decision-making, and language translation. Involves creation of algorithms and models that allow computers to learn from data, recognize patterns, and make decisions based on that data. Ultimate goal is to create intelligent machines that can perform complex tasks and even replicate human cognitive abilities, such as reasoning, learning, and problem-solving

Source: OpenAI. (May 2023) ChatGPT [AI language model].



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Key AI terminology

MACHINE LEARNING

Subset of AI; involves training algorithms to detect patterns and make recommendations/decisions

DEEP LEARNING

Subset of machine learning; neural networks process wide ranges of data by enabling complex pattern recognition (different layers learn from data)

NATURAL LANGUAGE PROCESSING (NLP)

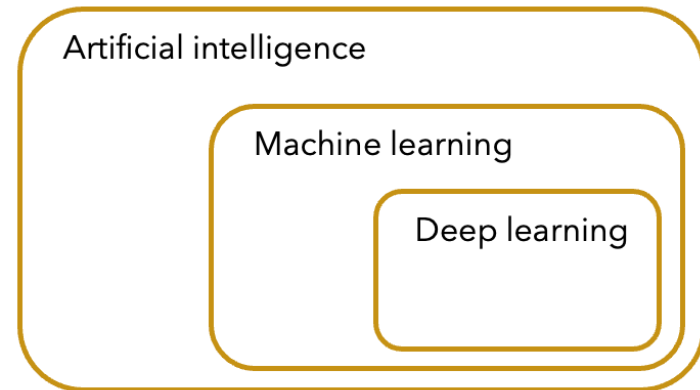
Application of deep learning; involves teaching computers to understand and interpret human speech patterns to generate language (utilizes data to create algorithms to interpret language, e.g., chatbots)

GENERATIVE AI

Utilizes deep learning models to generate new content in response to a prompt (e.g., ChatGPT)

LARGE LANGUAGE MODEL (LLM)

Underlying technology behind generative AI; ability to develop models for understanding, generating, and predicting natural language (utilizes data to train models to recognize language patterns and meaning)



Lexical v. semantic search

Lexical: Traditional, keyword-based search that looks for exact matches to a query

Semantic: Form of NLP that uses text embedding to create a response based on the query (i.e., compares the semantic meaning of the query to responses)

Source: What is Semantic Search? Cohere.
<https://txt.cohere.com/what-is-semantic-search/>



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