

HOW CAN USE ARTIFICIAL INTELLIGENCE (AI) IN Scientific RESEARCH

Workshop goals and Objectives

In this workshop, participants will be able:

- * To learn What is Artificial Intelligence (AI).
- * To become familiar with using AI Software.
- * To avoid the disadvantages of using AI.

* What is Artificial Intelligence (AI)?

Artificial Intelligence is <u>the ability for a computer to</u> <u>think, learn and simulate human mental processes</u>, <u>such as perceiving, reasoning, and learning</u>.

It can also independently perform complex tasks that once required human input.

How does machine Learning Relate to AI?

*Although the terms AI and machine learning are frequently used interchangeably, (machine learning is a subset of the larger category of AI).

Al signifies computers' general ability to mimic human thought while carrying out tasks in real-world environments.

*Machine learning implies to the technologies and algorithms that allow systems to recognize patterns, make decisions, and improve themselves through experience and data.

EXAMPLES

Al can be used for various situations, but these are some examples of Al in our daily life.

*Virtual assistance

- * Autonomous vehicle
- *Recommendation system
- *Navigation applications
- *Facial recognition

*Text editors



Sofia the AI ROBOT

Sophia is a realistic humanoid robot capable of displaying humanlike expressions and interacting with people.

It's designed for <u>research</u>, <u>education</u>, <u>and</u> <u>entertainment</u>, and helps promote public discussion about AI ethics and the future of robotics.

WHAT PROBLEMS CAN AI SOLVE?

AI can solve a LOT of problems:-

Cybersecurity→ dectecting spam

Healthcare \rightarrow medical records

Research→ finding data, idea generation

Transportation→ self driving cars

what are the disadvantages of AI?

Lack of Transparency **Bias and Discrimination Privacy Concerns Ethical Dilemmas** Security Risks **Concentration of Power** Dependence on AI **Job Displacement**

How can we use Al responsibly?

- * Choose data and privacy goals
- * Minimize unintended bias
- * Ensure AI transparency

* People should use their own creativity, not copy off of Al! Al is just a tool for efficiency!

Al Software: Most Popular Products



Gemini

