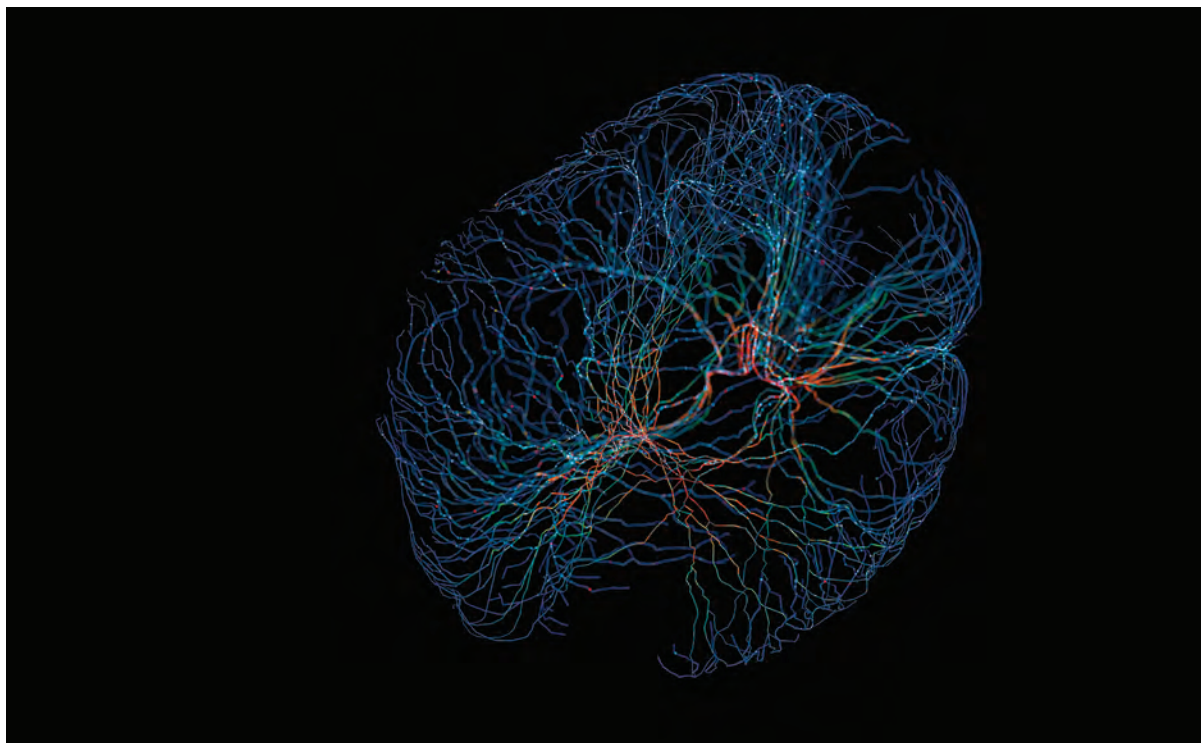# The Amazing World of Artificial Intelligence!

Welcome to the incredible world of Artificial Intelligence (AI)! In this article, we'll learn about AI. We'll explore what intelligence means, how our brains work, and some cool things AI can do for us!

## What is Intelligence?

Intelligence is when we think, learn, understand, and solve problems. It's like having a super brain! Humans have a unique intelligence that lets us create things, talk to each other, and adapt to different situations.

## How Do Our Brains Work?

Our brains are like supercomputers inside our heads! They have billions of tiny cells called neurons that pass messages from one part of the brain to another. When we learn new things, our brain creates connections or networks between these neurons, like building roads or cities. The more we practice, the stronger these connections become, making remembering and using what we learned easy. This whole system of cells and paths is an extensive brain network that lets us think, feel, and remember things.
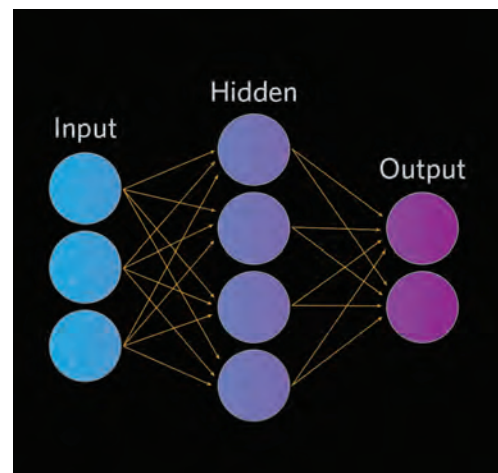


*Connections in the Brain*

Image created by David Robertshaw with Midjourney

*Model of Human Brain Networks*

## How Do Computer Brains Work?

An artificial brain in a computer is like a special web with points that talk to each other. It works like our brain. At the start, it gets information. Then, the data goes through hidden parts where the computer thinks and finds patterns. These remote parts are like its thinking spots. Finally, the report comes out with an answer. Like our brain, the more practice a computer has, the stronger these connections become, making remembering and using what it's learned easy. These parts help the computer learn, change, and make guesses.



Joy Reynolds

*Computer Brain Network Model*

# What is Generative AI?

Think about a generative AI called "ChatGPT." It's like a talking robot that writes text. It learns from conversations and stories, so it can make up new stories or answer questions like a human. Generative AI learns by looking at examples. Imagine teaching a robot how to draw cats. You'd show it many cat pictures, and the robot would discover what makes a cat look like a cat, such as pointy ears and a tail. Once it understands, it can draw new cat pictures using what it learned.  So when you see art or hear music made by computers, remember it's like a robot artist using its learning to be creative! Even this article got some help from Generative AI.

**1.** What is intelligence, and how is it related to problem-solving?

**2.** What are some examples of how AI can help us daily?
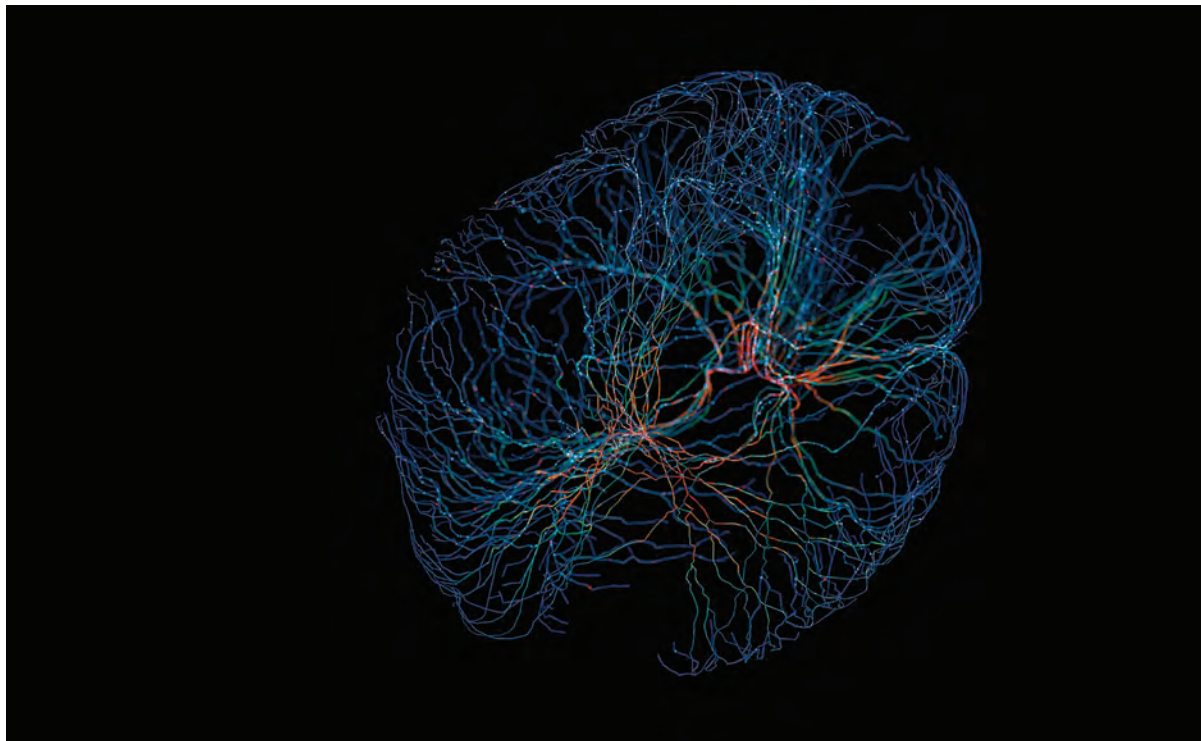
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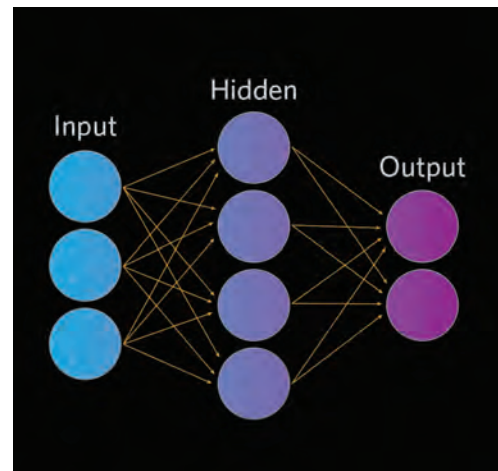


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**1.** What is intelligence, and how is it related to problem-solving?

*Intelligence is thinking, learning, understanding, and solving problems. It allows us to gather information from the world, process it, and make decisions based on that knowledge. Our intelligence helps us find solutions and make informed choices when we face challenges or puzzles.*

**2.** What are some examples of how AI can help us daily?

*AI can help us in many ways in our daily lives. For instance, virtual assistants like Siri, Alexa, and Google Assistant can answer our questions and control smart home devices. AI in education can provide personalized learning materials based on our strengths and weaknesses. In healthcare, AI can assist doctors in diagnosing diseases and suggesting treatments. AI is also used in self-driving cars, video games, and other fields to make tasks more efficient and safer.*

Teacher Edition