

The Global Beginner's Guide to Artificial Intelligence

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Explore how AI works, where we see it in daily life, and how you can start learning even if you have never written a line of code.



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Start where you are

FOREWARD



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Artificial Intelligence (AI) is no longer a distant concept confined to science fiction it is the beating heart of today's digital revolution, shaping how we live, work, and interact with the world. From voice assistants and recommendation engines to smart cities and autonomous vehicles, AI is influencing nearly every sector of the global economy.

This guide has been crafted with a singular mission: to demystify AI for the curious mind whether you're a student, professional, entrepreneur, or policymaker. You don't need a PhD in computer science to understand AI's transformative potential; you only need curiosity, and this book will do the rest.

"The Global Beginner's Guide to AI" offers a comprehensive yet accessible introduction to the core concepts, key technologies, ethical implications, and practical applications of AI. It navigates through machine learning, natural language processing, robotics, and data science with clarity, simplicity, and global relevance. The book also highlights how AI is being adopted across continents, making it a true global perspective rather than a one-size-fits-all approach.

At a time when digital skills are the new currency of innovation, this book is an essential tool for anyone looking to understand and participate in the AI-driven future. It encourages responsible exploration, promotes diversity in innovation, and serves as a launchpad for lifelong learning in this exciting field.

Whether you are just starting out or looking to strengthen your understanding of AI, this guide is your companion on a journey into one of the most powerful technologies of our time.

Welcome to the future, one intelligent step at a time.



The Global Beginner's Guide to Artificial Intelligence

This guide is a simple, friendly introduction to Artificial Intelligence (AI) for readers of all ages. Whether you are new to the subject or just curious, it explains key ideas like Machine Learning, algorithms, and fairness in AI using real-life examples from around the world.

What This Guide Covers

Understanding the Basics

- What Artificial Intelligence and Machine Learning mean
- Simple examples of how AI works in daily life

Ethics and Responsibility

- Why fairness, safety, and privacy matter in AI
- How to recognise and reduce bias

Exploring the AI Family

- Key areas like Deep Learning, Natural Language Processing, and Robotics
- What each part does and how it is used

Starting Your Learning Journey

- Tools and platforms that need no coding
- A learning path for every age and interest

AI in the Real World

- Real stories from Africa, Asia, Europe, and more
- How AI helps in farming, healthcare, schools, and cities

Glossary of Key Terms

- Easy definitions of AI-related words
- A simple guide for quick reference

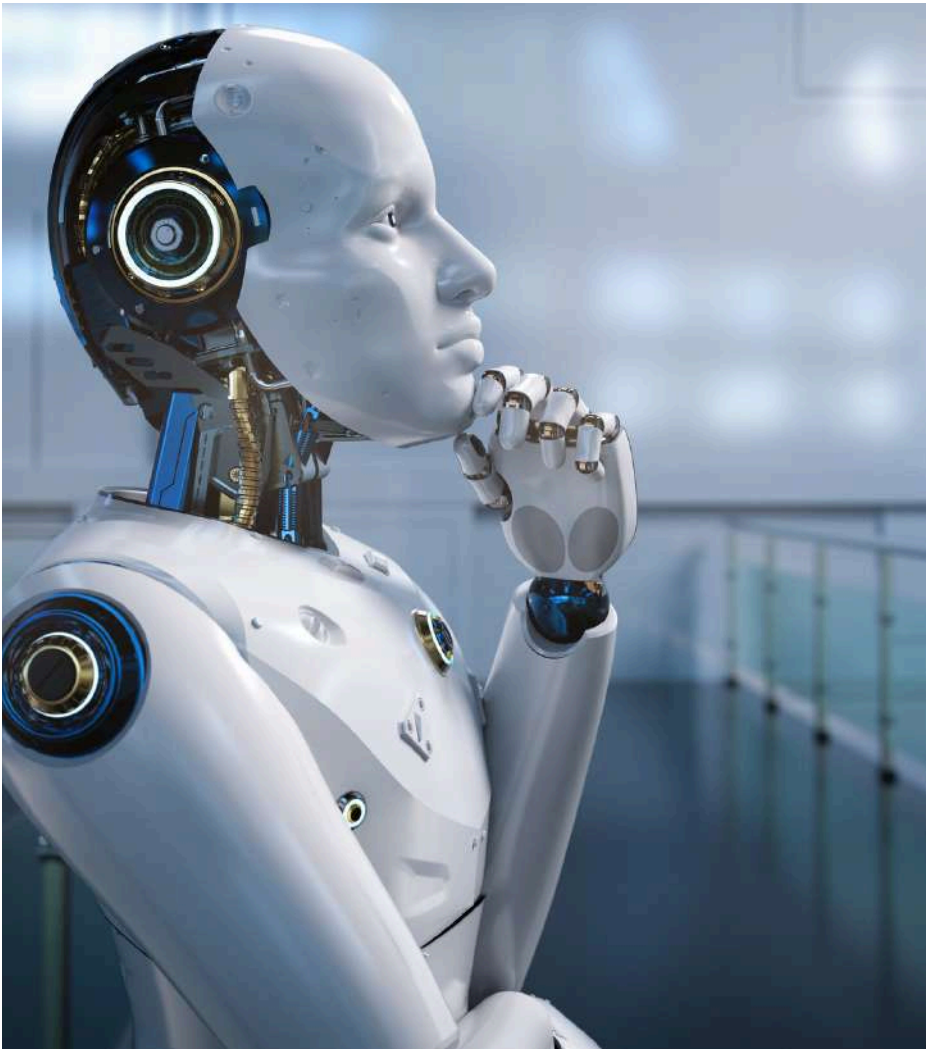
A Learning Path for Everyone

- Four levels: Curious Explorer, Beginner Builder, Aspiring Developer, and

Responsible Change Maker

- Tips and resources to learn at your own pace

Part 1: What Is Artificial Intelligence?



YOU ARE TALKING TO YOUR PHONE, AND IT TALKS BACK. YOU TYPE A MESSAGE, AND YOUR PHONE GUESSES YOUR NEXT WORD. YOU TAKE A PHOTO, AND YOUR PHONE KNOWS IT IS YOUR FRIEND, YOUR DOG, OR A TREE.

That is not magic. That is Artificial Intelligence.

Artificial Intelligence is when machines are built to think, learn, or make decisions in ways that seem smart, like humans.

It does not mean the computer is alive. It means it can:

- Understand things, like voice or pictures
- Solve problems, like finding the fastest way home
- Learn from experience, like improving film suggestions
- Make choices, like sorting spam from real emails

So Artificial Intelligence means:

A man-made brain that can do some of the smart things humans do.

Why Was AI Created. People created AI to:

- Help with hard or boring tasks, like sorting thousands of emails
- Do things faster, like scanning huge books in seconds
- Handle jobs too dangerous for people, like exploring space or deep oceans
- Solve complex problems, like diagnosing diseases

What Makes It "Artificial"?

The word "artificial" means something made by humans, not natural.

The word "intelligence" means the ability to understand, learn, or solve problems.

IT IS LIKE GIVING MACHINES A BRAIN – NOT LIKE OURS, BUT POWERFUL IN ITS OWN WAY.

How Is AI Different from a Regular Computer?

A regular computer follows exact instructions.

Example: Add $2 + 2 = 4$ – every time, no thinking needed.

But AI can learn and change over time.

Imagine this:

- A regular calculator gives the answer because it was programmed to
- AI can guess what you meant if you made a mistake
- It can suggest $4 + 2 = 6$ and also say, "Did you mean $2 + 4$ or $4 + 3$?"

Where Do We See AI Today?

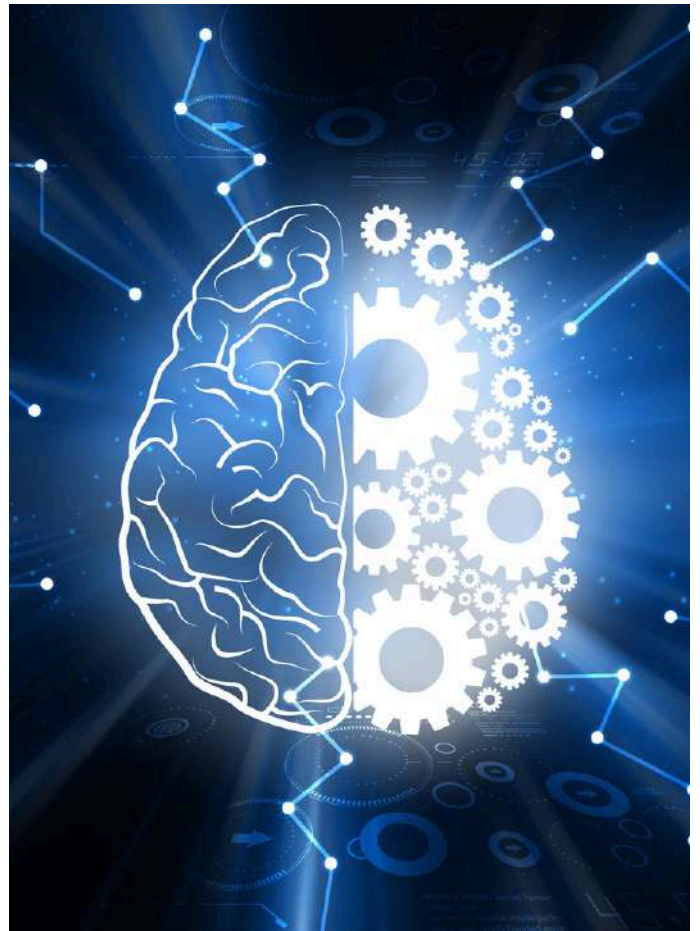
AI is already around you every day. Some examples:

- Google Search – Finds the answer you are really looking for
- YouTube or Netflix – Recommends videos or shows based on what you like
- Voice Assistants – Understand and respond to your questions
- Maps – Find the best way to your location
- Face Unlock – Recognise your face to unlock your phone
- Translate Apps – Turn words from one language into another

So is AI Smarter than Humans?

Not really. AI can do some things better than humans, like remembering lots of data or doing boring jobs fast. But it cannot:

- Feel emotions
- Make creative choices, like inventing new ideas from nothing
- Understand right and wrong the way people do



**AI is only as smart
as what we teach it
and that means it can
also make mistakes.**

A Fun Way to Remember It

- AI is smart software that learns.
- It is not a robot with a brain.
- It is a tool – a powerful one.

And when used wisely, it can help solve big problems and improve lives around the world.

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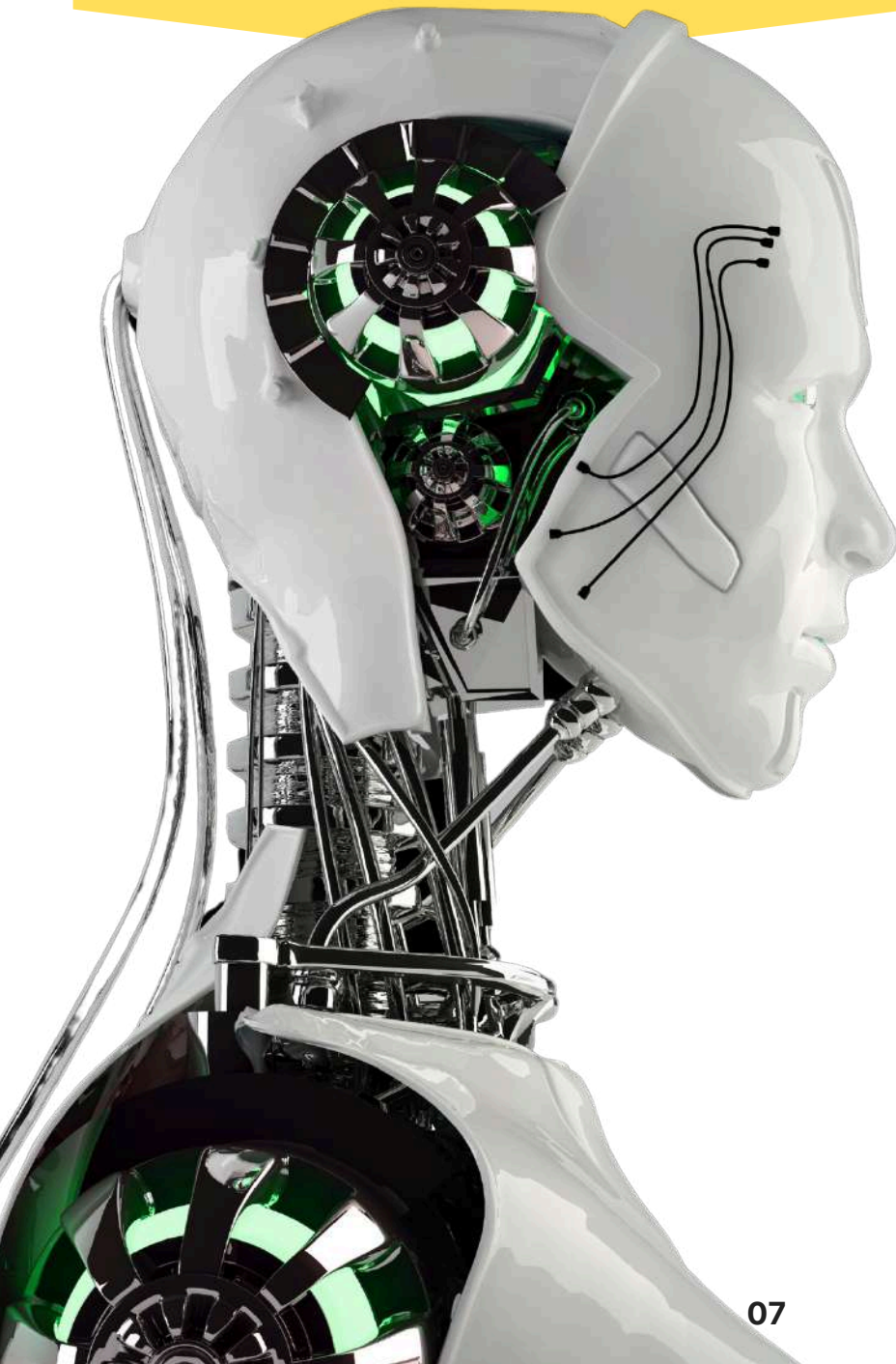
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Part 2: What Is Machine Learning?

In Part 1, we explained that Artificial Intelligence is when machines act in ways that seem smart, like solving problems or understanding what we say. But how do they learn to do this?

That is where Machine Learning comes in. Machine Learning is how machines learn from lots of examples instead of following strict instructions. We do not tell them every single rule. Instead, we show them many examples, and they start to spot patterns all by themselves.



A Helpful Example: Cats and Dogs

Imagine you want a computer to tell whether a picture shows a cat or a dog.

One way is to write lots of rules:

"If it has pointy ears and whiskers, it is a cat."

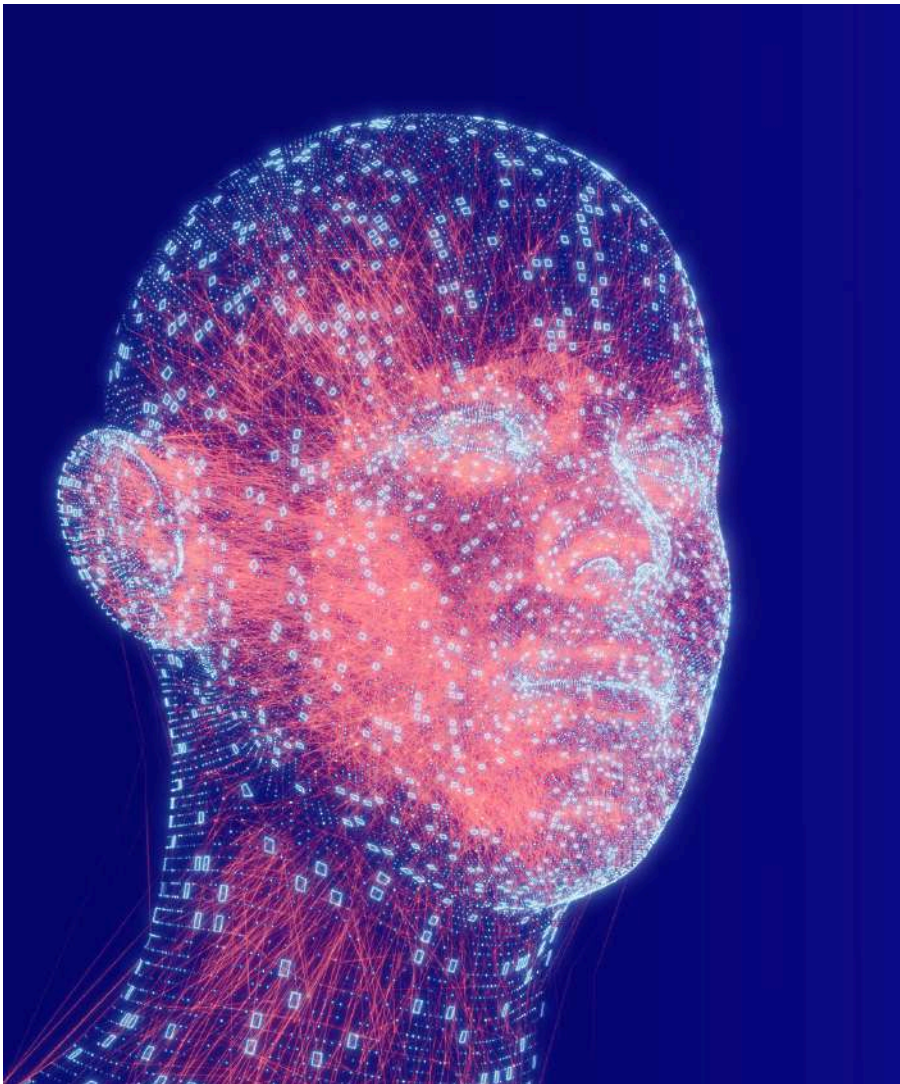
"If it has a long tongue and floppy ears, it is a dog."

But animals are not always the same. Some cats have flat ears. Some dogs have short tongues. This is where Machine Learning works better.

How Machine Learning Works (Step by Step)

1. **Collect Data:** Show the computer many photos of cats and dogs. Each photo is labeled "cat" or "dog."
2. **Train the Model:** The computer looks at the pictures and finds patterns, like the shape of eyes or where the animal is usually found.
3. **Test It:** You give it a new photo it has never seen before. The computer takes a guess. That looks like a cat.
4. **Improve It:** If it is wrong, you correct it. The more examples it sees, the better it becomes at guessing right.





ONCE A MACHINE FINISHES LEARNING, IT BUILDS SOMETHING CALLED A MODEL.

What Is a Model?

A model is like a memory full of what it has learnt. It can now:

1. Guess what something is (like whether a photo is a cat or a dog)
2. Sort things (like messages into spam or not spam)
3. Suggest things (like a new video to watch)

Why Is It Called "Learning"?

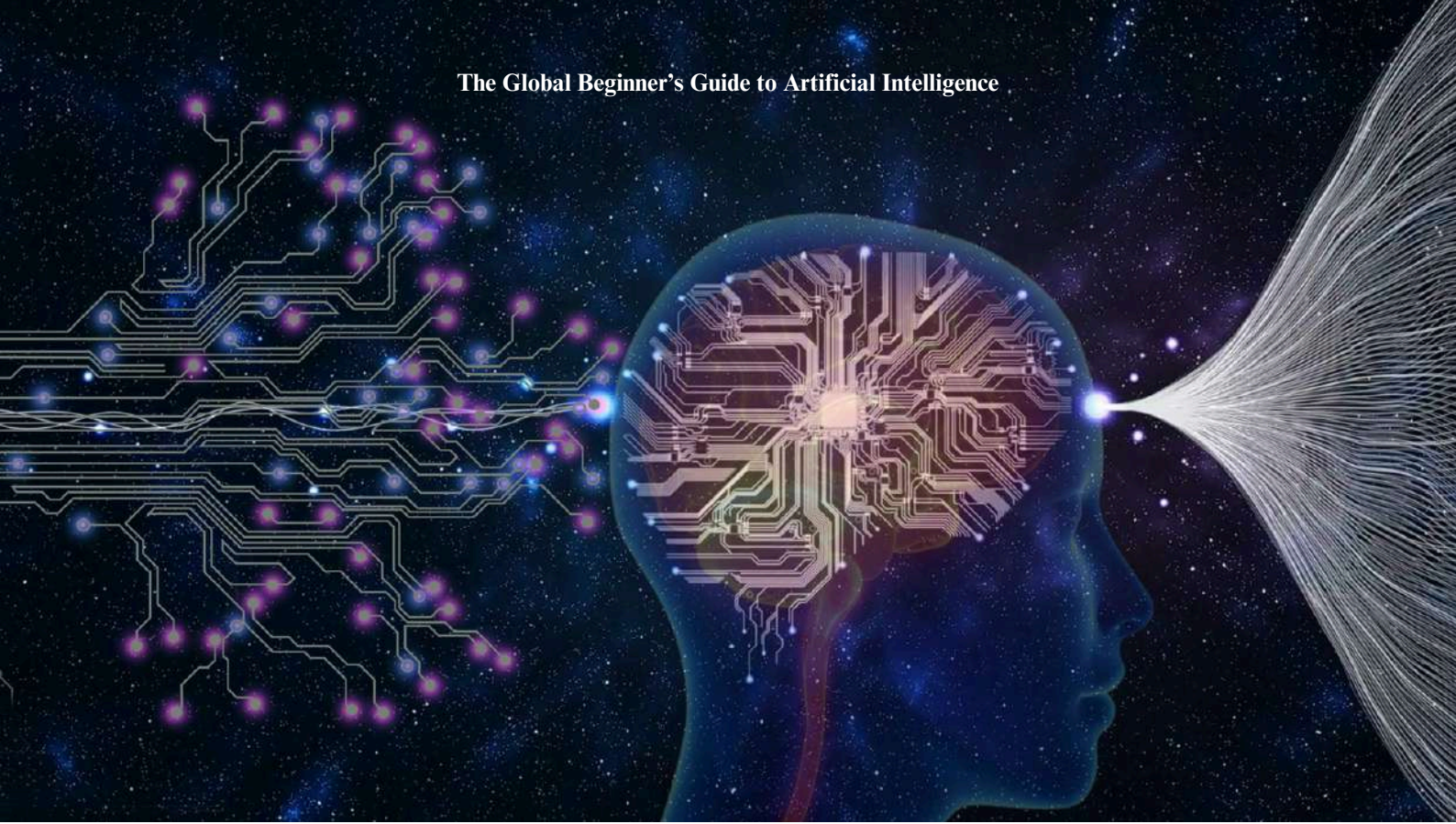
Just like we learn by solving maths problems or trying again after a mistake, machines do the same. They get better by looking at more examples.

The Three Main Types of Machine Learning

Type	How it Works	Example
Supervised Learning	We show the machine the right answers during training	"This is a cat. This is a dog."
Unsupervised Learning	No answers are given.	It finds patterns on its own Grouping shoppers by buying habits
Reinforcement Learning	It learns through trial and error	A robot learning to play football

Where Do We See Machine Learning in Daily Life?

Where	What it does
YouTube and Netflix	Suggests shows based on what you have watched
Email (Spam Filter)	Filters out unwanted messages based on past examples
Social Media Feeds	Shows posts you are likely to react to
Face Recognition	Helps unlock your phone by recognising your face
Language Translation	Converts text from one language to another



The more examples we give a machine, the better it becomes. That is why companies like Google or Netflix are so good at giving you the right suggestions. They have a lot of data from users around the world.

But there is a warning too: If the data is unfair, the machine might learn something wrong. That is why it is important to use fair and balanced data.

In Summary

Machine Learning means teaching computers by example, not by rules.

It is how your phone knows your face, how your TV recommends shows, and how robots learn to walk. When used well, it helps make life easier and smarter.

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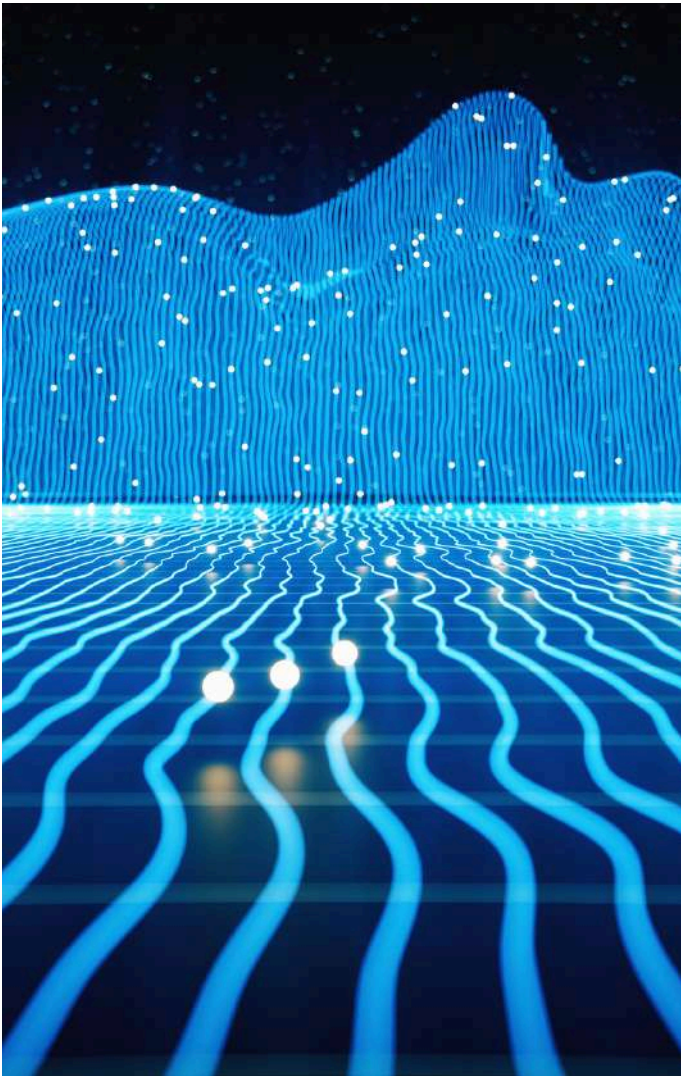
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Part 3: Meet the AI Family Tree



Think of Artificial Intelligence as a big family. Machine Learning is just one child in that family. Now let us meet the rest.

Each branch of AI has a special skill. Some listen. Some see. Some talk. Some move. Some think. And some do a bit of everything.

Deep Learning – The Big Thinker

What it is:

A powerful kind of Machine Learning that uses something called a neural network to understand things in layers.

Simple Idea:

Our brains use billions of small cells (neurons) to learn. Deep Learning uses digital neurons to do something similar.

What it helps with:

- Self-driving cars
- Reading messy handwriting
- Voice assistants (like Siri and Google)
- Spotting diseases in medical scans

Natural Language Processing – The Language Helper

What it is:

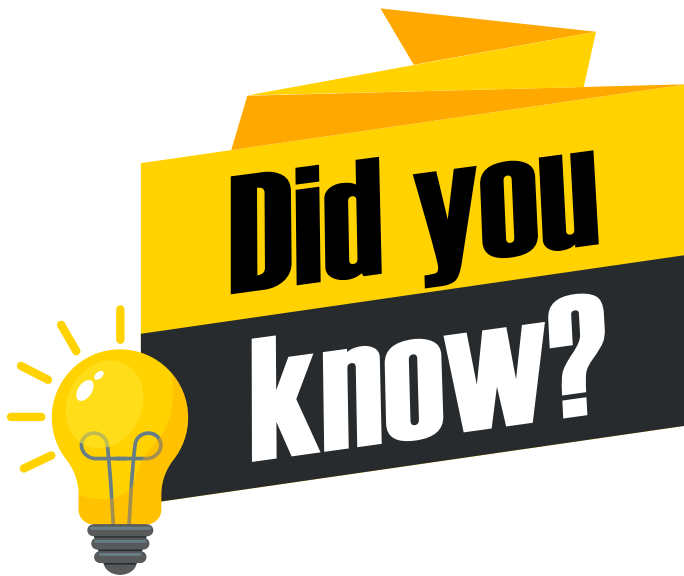
This is how AI learns to read, write, and understand human language.

Simple Idea:

It helps computers understand what people mean when they speak or type.

What it helps with:

- Chatbots and online customer support
- Voice assistants like Alexa
- Translation between languages
- Spell checks and word suggestions
- Writing tools such as ChatGPT



AI does not just read words. It tries to understand them, just like you do when reading a story.

Computer Vision - The Machine's Eye

What it is:

This allows machines to look at pictures or videos and understand what they see.

Simple Idea:

Your eyes send images to your brain. AI uses cameras and software to do the same.

What it helps with:

- Face recognition for unlocking phones
- Self-driving cars spotting traffic signs
- Tagging friends in photos
- Diagnosing illness from medical images

Extra Tip:

Some phone apps now use this to help blind users understand what is around them.



Robotics - The Movers and Doers

What it is:

This is when AI controls machines that move and act in the real world.

Simple Idea:

The robot is the body. AI is the brain inside.

What it helps with:

- Robot vacuum cleaners
- Drones delivering packages
- Factory machines building cars
- Robots that help in disaster zones



REMINDER

Not all robots are smart. Only those with AI can learn and improve.

Data Science- The Information Wizard

What it is:

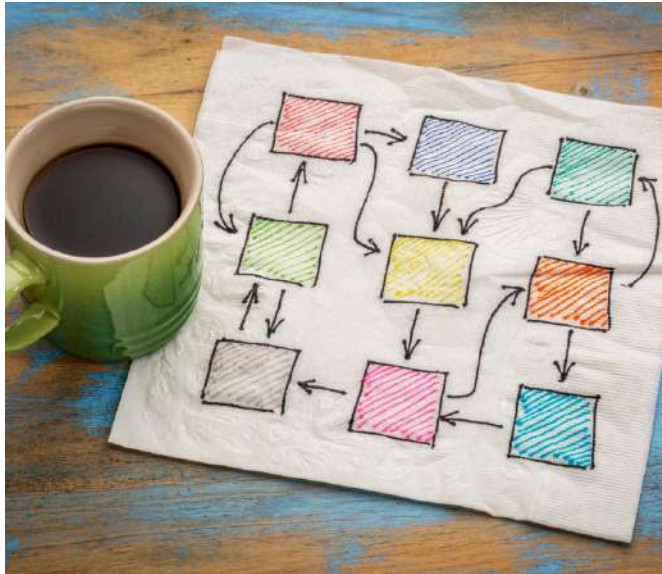
The job of collecting, sorting, and making sense of information so AI can learn.

Simple Idea:

Data is like food for AI. Good data helps it grow. Bad data confuses it.

What it helps with:

- Understanding customer behaviour
- Predicting the weather
- Studying health and education trends
- Improving school results by looking at test scores



Models - The Trained Minds

What it is:

The end result of training an AI system. It is the 'brain' that does the work.

Simple Idea:

Once trained with enough examples, a model can start making decisions on its own.

What it helps with:

- Suggesting your next word while typing
- Finding students who might need help
- Spotting false news stories

Training, Testing and Feedback – How AI Gets Smarter

What it is:

The three steps we use to teach AI, just like school.

Simple Idea:

- Training: Give it lots of examples
- Testing: Try new examples to see what it has learned
- Feedback: Tell it what it got right or wrong
- Repeat this over and over, and AI improves.

Algorithms - The Secret Recipes

What it is:

A set of clear steps that help computers make decisions or learn.

Simple Idea:

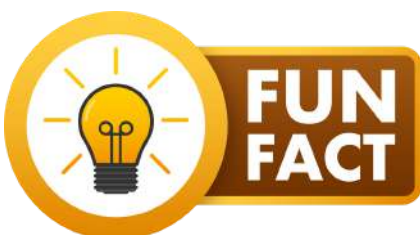
A recipe tells you how to bake a cake. An algorithm tells AI how to do its job.

What it helps with:

- Showing the right adverts
- Recommending books and videos
- Sorting emails
- Detecting harmful comments online

Supervised, Unsupervised, and Reinforcement Learning – The Three Learning Styles

Type	How it Works	Example
Supervised Learning	We give the computer the right answers first	"This is a cat. This is a dog."
Unsupervised Learning	The computer finds patterns by itself	Grouping people by shopping habits
Reinforcement Learning	It learns through trial and error	A robot learning to play football



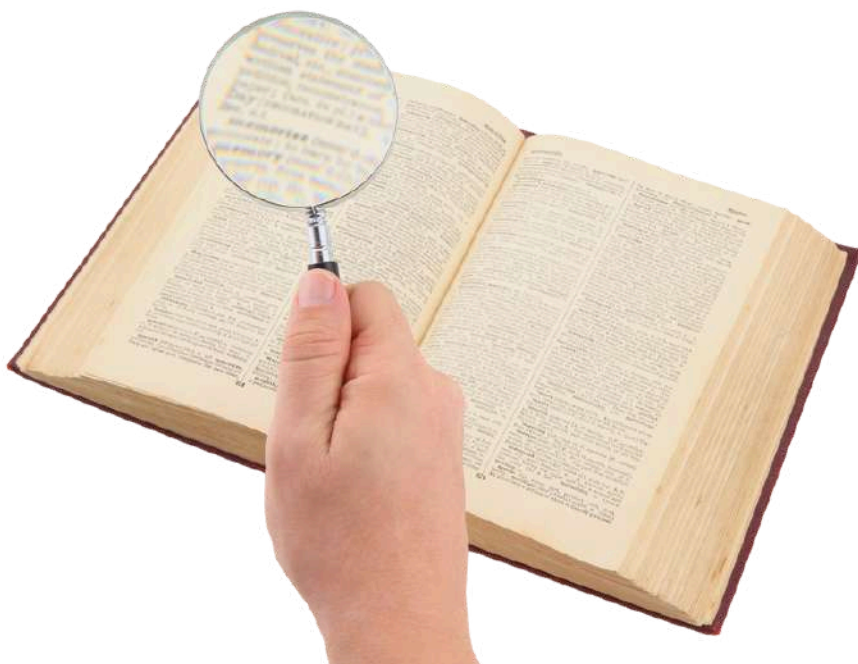
Reinforcement learning is like raising a child. Try, fail, learn, improve!



Why Knowing the AI Family Matters

When people talk about AI, they might mean any part of this family. Learning the names and roles helps you:

- Understand what the news is saying
- Ask better questions in school
- Speak confidently about technology
- Choose your learning path



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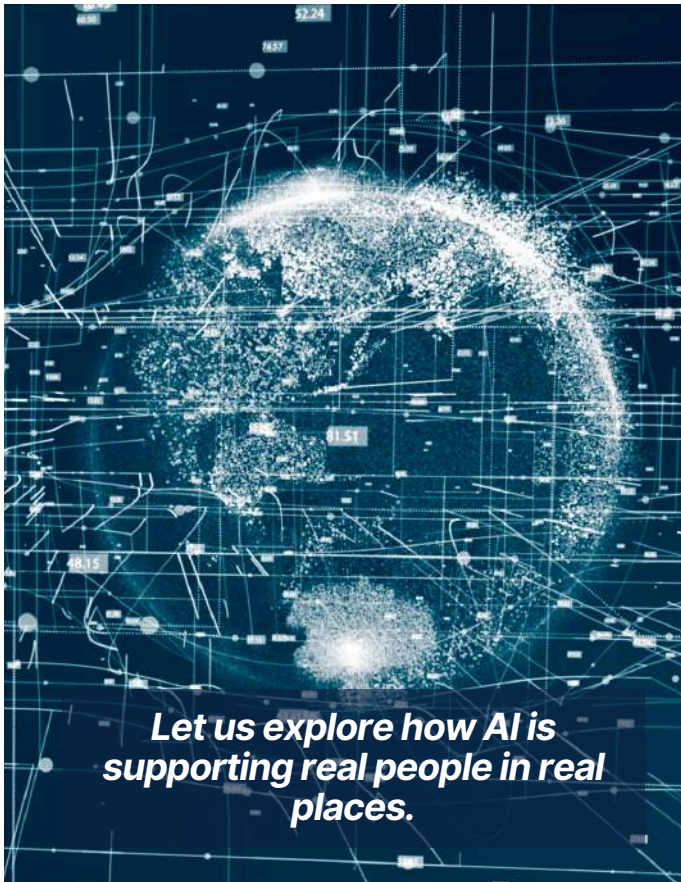
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- Code.org. "AI for Oceans." Available at: www.code.org/oceans

Part 4: AI Around the World

– Real Stories, Real Impact

You might think Artificial Intelligence only lives in big tech companies or places like Silicon Valley. But the truth is, AI is being used all over the world. It is helping teachers, doctors, farmers, delivery workers, and even small shop owners.



Africa – Helping Farmers Grow More Food

Countries: Kenya, Nigeria, Ghana

How AI helps:

- Predicts the best time to plant crops
- Spots signs of plant diseases using smartphone photos
- Gives farming advice in local languages

Why this matters: Farming is a key part of life in many African countries. AI helps farmers protect their crops, reduce waste, and earn more income, especially in places without nearby expert help.

India – Translating Languages and Saving Lives

Country: India

How AI helps:

- Translates between many Indian languages like Hindi, Tamil, and Bengali
- Speeds up medical scans in hospitals
- Detects eye diseases early using image analysis

Why this matters: India is home to hundreds of languages and millions of patients. AI helps doctors care for more people and supports communication across regions.

Brazil – Improving Healthcare and Fighting Dengue Fever

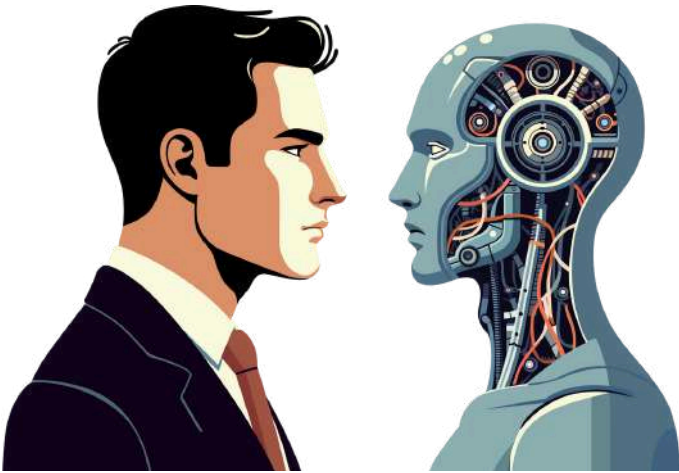
Cities: Rio de Janeiro, São Paulo

How AI helps:

- Predicts dengue fever outbreaks using weather and location data
- Speeds up diagnosis in public hospitals
- Translates voice commands for people with disabilities

Why this matters: In parts of Brazil, health services can be uneven. AI makes healthcare more accurate and helps it reach people in rural or poorer areas.





Europe – Safer Cities and Smarter Schools

Countries: United Kingdom, Finland, Germany

How AI helps:

- Monitors traffic to reduce road accidents
- Uses face recognition to improve school safety (with proper rules)
- Supports teachers by understanding how each child learns

Why this matters: AI helps cities stay safer and schools offer more personal learning for every child.

China – Managing Large Cities with Smart AI

Cities: Beijing, Shanghai, Shenzhen

How AI helps:

- Runs traffic lights and public transport
- Tracks air pollution and helps create clean-up plans
- Powers smart factories that build electronics and clothes

Why this matters: With large populations and busy cities, China uses AI to stay clean, organised, and efficient.

United States and Canada – Smarter Shopping, Safer Driving

Cities: California, Toronto, New York

How AI helps:

- Self-driving cars are being tested
- Detects fake news and harmful content online
- Runs smart fridges and voice helpers in homes

Why this matters: AI is making everyday life smoother and helping people stay informed and safe.

Middle East – Supporting Energy and Education

Countries: United Arab Emirates, Saudi Arabia, Jordan

How AI helps:

- Manages energy in tall buildings
- Translates religious texts accurately
- Helps students learn using virtual tutors

Why this matters: AI is helping the region combine tradition with modern learning and smarter living.

Southeast Asia – Helping Small Businesses Grow

Countries: Indonesia, Philippines, Vietnam

How AI helps:

- Tracks customer shopping habits
- Suggests best times to post on social media
- Translates languages for better trade

Why this matters: AI gives small shops and businesses more chances to grow and connect with more people.

Remote Areas – Reaching People in Hard-to-Reach Places

How AI helps:

- Delivers school lessons by chatbot in low-internet areas
- Uses satellite pictures to predict floods or fires
- Sends medicine by drone to remote villages

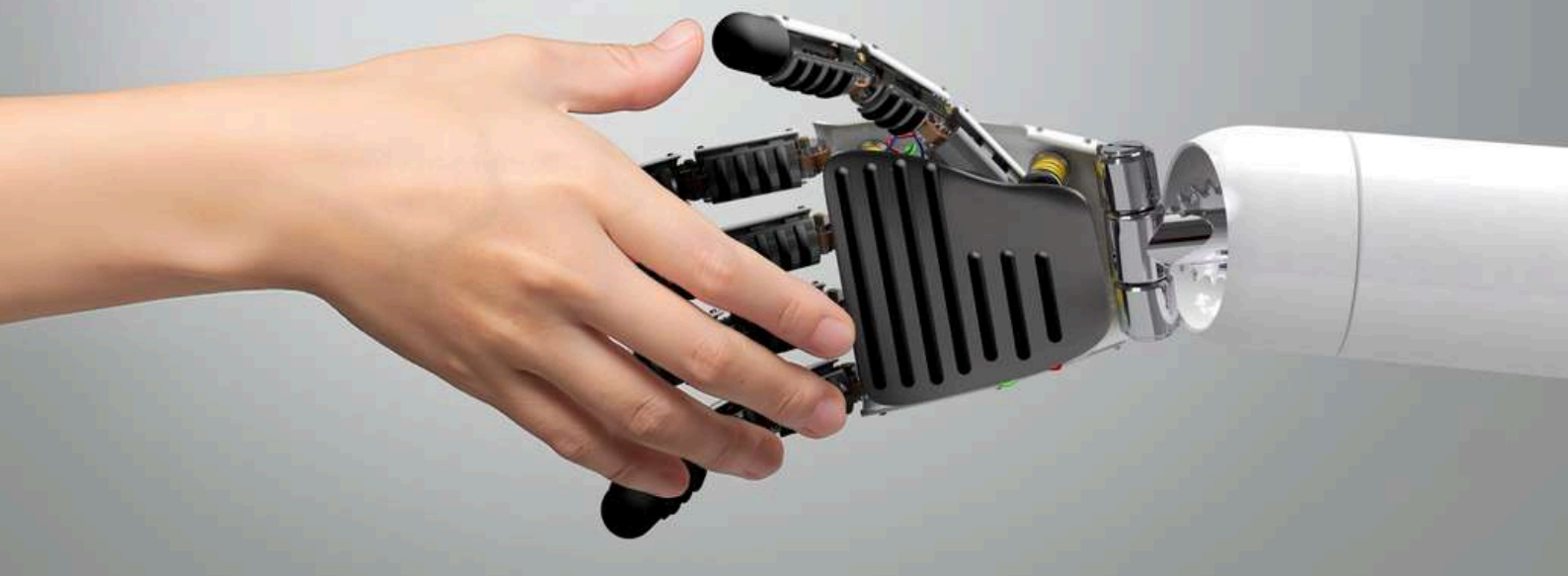
Why this matters: Even in faraway places, AI brings education, health care, and emergency support quickly.

So Why Should You Care?

AI is not just about robots or fancy gadgets. It is a tool that:

- Feeds people
- Translates languages
- Saves lives
- Protects the planet
- Helps children learn

And the best part, It needs people like you from every country and culture to help shape it for good.



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Part 5: AI and Ethics – Why Smart Technology Needs Human Wisdom

By now, you have seen how helpful AI can be. It supports farmers, doctors, teachers, and drivers. It can speak many languages, recognise faces, and even drive cars.

But here is something important to remember:

Even the smartest AI can be unfair or unsafe if we do not use it carefully.

That is why we need ethical AI.



What is Ethical AI?

Let us keep it simple:

Ethics means doing what is right and fair.

Ethical AI means building and using AI in ways that are good for everyone.

We are not just teaching machines to be clever. We are helping them act with care.

Can AI Be Unfair?

Yes. Because AI learns from data. And that data comes from people.

People can make mistakes. People can be unfair. So if the data is unfair, AI can learn the wrong things.

What Is Bias in AI?

Bias means treating people unfairly. It happens when an AI system learns patterns that are not fair.

For example:

An AI is asked to choose the best job applicant. But all the past data shows men were hired more often.

The AI wrongly learns that men are better workers – and does not pick women, even if they are great for the job.

The AI is not trying to be unfair. It just learned from biased data.

Real Examples of Unfair AI

Problem	What Happened
Face recognition bias	Some AI tools worked well on white faces but not on darker skin
Job Hiring AI	One system preferred men because it trained on biased job history
Voice assistants	Early systems struggled to understand women or people with accents
Predictive policing	AI said more crime would happen in poor areas just because more police had been sent there in the past

The Five Golden Rules of Ethical AI

01. Fairness

Treat everyone equally, no matter their background.

03. Privacy

Keep personal information safe.

02. Transparency

Let people understand how AI makes choices.

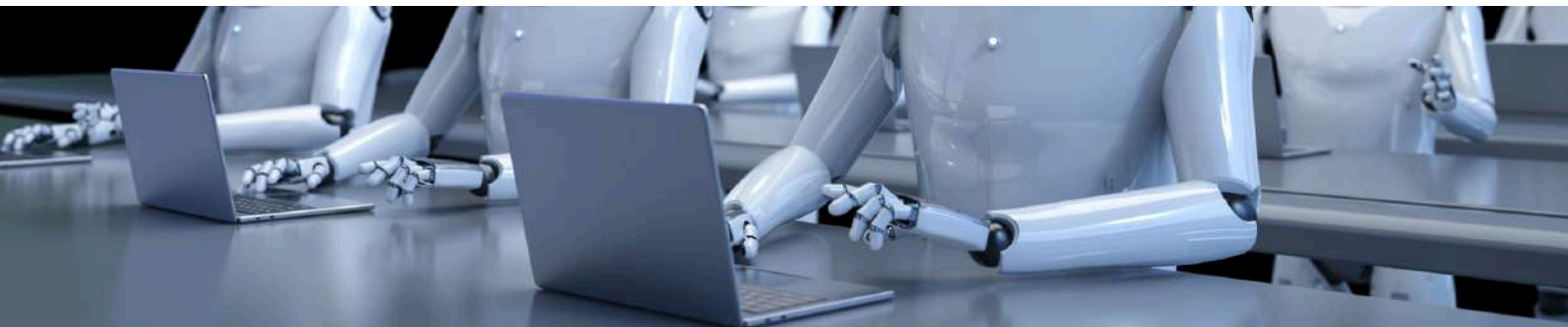
04. Accountability

If AI goes wrong, people must take responsibility.



05. Safety

Test AI often to stop it from causing harm.



Who Makes These Rules?

Right now, researchers, leaders, and teachers across the world are working together to:

- Write better rules for AI
- Stop unfair systems
- Teach young people how to build safe, fair tools

What can you do?

Even if you are just starting, you can help.

You can:

- Ask, "Where did this AI get its information?"
- Watch out for unfair patterns
- Speak up if something feels wrong
- Learn how to build AI that helps people
- People Leading the Way

Here are some inspiring voices in the fight for fair AI:

Joy Buolamwini (Ghana/USA)

Challenges unfair face recognition

Timnit Gebru (Ethiopia/USA)

Studies bias and supports justice in AI

Kate Crawford (Australia)

Writes about AI, power, and human rights

Fei-Fei Li (China/USA)

Works on human-friendly AI design

They show us that ethics in AI is not just technical – it is about people.

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A Simple Reminder

Just because we can build something with AI does not always mean we should. Being clever is good. Being kind is better. Being both is how we build a better world.

Part 6: How to Start Learning AI

(EVEN IF YOU DO NOT KNOW CODING YET)

We have talked about what Artificial Intelligence is, how it learns, how it is used across the world, and why it must be used wisely.

Now comes the big question:

How can you begin learning about AI?

Here is some good news:

You do not need to be a programmer. You do not need expensive equipment. You just need curiosity, patience, and the right place to begin.



A Simple Step-by-Step Guide to Learning AI

Think of it like climbing a ladder. Start on the first step, and take your time.

Level 1: Just Curious

Goal:

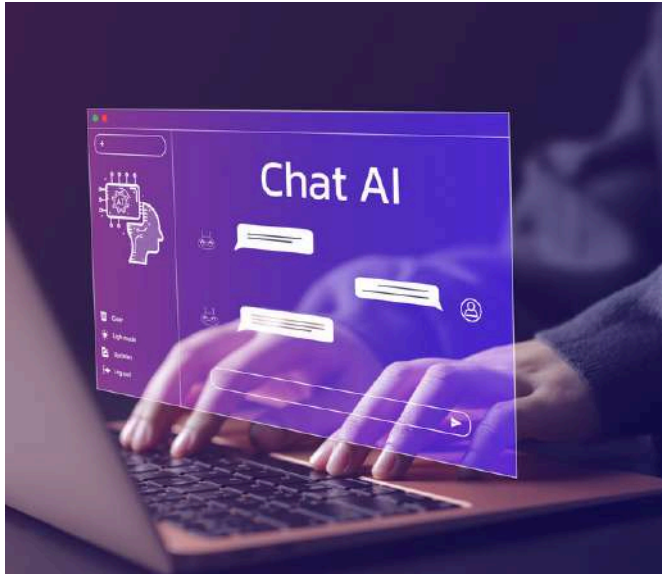
Understand what AI is and how it works by exploring and playing.

Best for:

Children aged 10 and up, or adults who are new to technology.

Try these simple tools:

- **Teachable Machine** (by Google): Upload photos or sounds and teach a computer to recognise them. www.teachablemachine.withgoogle.com
- **AI for Oceans** (by Code.org): A game where you train AI to clean the ocean by sorting rubbish. website: www.code.org/oceans
- **Quick, Draw!**: Draw pictures while AI tries to guess what you are drawing, using examples from people around the world. Website: www.quickdraw.withgoogle.com
- **Machine Learning for Kids**: Connects to Scratch (a drag-and-drop tool) to build simple AI projects. Website: www.machinelearningforkids.co.uk



Level 3: Aspiring Developer

(Light coding begins here)

Goal:

Learn how to build your own AI by writing simple code and using real data.

Learn:

- Basic coding with Python (a beginner-friendly language)
- How to find and understand data
- What terms like "model", "training", and "prediction" mean

Try these beginner-friendly courses:

- AI + Ethics for Kids (by MIT RAISE): Learn how to code and think about fairness at the same time Website: www.raising.mit.edu
- DataCamp: Offers simple Python lessons and interactive practice. Website: www.datacamp.com
- Kaggle Learn: A free space to learn AI and work on projects with real data. Website: www.kaggle.com/learn

Level 2: Beginner Builder

(Still no coding needed)

Goal:

Make small AI projects using tools that help you build, create, and explore.

Try these simple tools:

- **Cognimates** (from MIT): Create your own games or talking assistants using AI. Website: www.cognimates.me
- AI Experiments (by Google): Try fun experiments like TalkToBooks, AutoDraw, and more. Website: www.experiments.withgoogle.com/collection/ai
- Chat Tools: Use tools like ChatGPT or Bard to ask questions, write poems, or create quizzes.



Level 4: Responsible Innovator

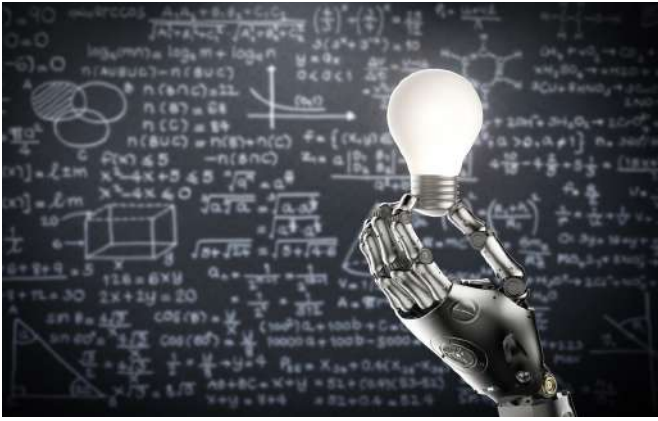
(Ethics and thoughtful design)

Goal:

Learn how to build and support AI in a way that is helpful, fair, and respectful to people.

Explore

- What fairness means in AI
- How to spot and fix bias in data
- How AI affects people in different parts of the world



One Last Thought

Learning AI is like learning a new language.

At first, it feels unfamiliar. But if you practise, it becomes part of how you think.

Soon, you will not just be learning about AI – you will be building it.

- To solve real problems.
- To help real people.
- To shape a better future.

Join or follow these global movements:

- Algorithmic Justice League (founded by Joy Buolamwini): Works to stop bias in facial recognition. Website: www.ajl.org
- AI4ALL: Helps young people from all backgrounds learn about AI and use it for good. Website: www.ai-4-all.org
- Mozilla's Responsible Computing Curriculum: A free guide for learning ethical tech design. Website: www.foundation.mozilla.org/en/responsible-computing

Tips to Keep Going

- Ask questions – Being curious is how learning begins.
- Start small – A tiny project is better than a big idea left unfinished.
- Join others – Learn with friends, family, or online communities.
- Make mistakes – That is how all great learning happens.



REFERENCES

- **UNESCO.** "Artificial Intelligence and Children's Rights: Policy Guidance." 2021. Available at: <https://unesdoc.unesco.org/ark:/48223/pf0000377071>
- **MIT RAISE.** "AI + Ethics Curriculum for Middle School." Massachusetts Institute of Technology. Available at: <https://raise.mit.edu/>
- **Code.org.** "AI for Oceans – Learn How AI Can Help Clean the Oceans." Available at: <https://code.org/oceans>
- **Google Teachable Machine.** "Train a Computer to Recognise Your Images, Sounds, and Poses." Available at: <https://teachablemachine.withgoogle.com/>

glossary

Part 7: The AI Glossary – Simple Words, Clear Meanings

This glossary gives you plain and simple definitions of important words in the world of Artificial Intelligence. Think of it as your go-to guide whenever something sounds tricky or unfamiliar.

- **Artificial Intelligence (AI)** - When machines are designed to think, learn, or make decisions like humans.
- A** • **Algorithm** - A list of steps a computer follows to solve a problem. Think of it like a recipe that tells the computer what to do.

- B** • **Bias** - When an AI system makes unfair choices because the data it learned from was not fair or balanced.

- **Chatbot** - A computer program that can talk to people using text or voice, like a friendly robot you can message.
- C** • **Computer Vision** - When a machine can look at pictures or videos and understand what it sees.

- **Data** - Information like numbers, words, or pictures that machines use to learn and make decisions.
- D** • **Data Science** - The job of collecting, cleaning, and studying data to find useful patterns.
- **Deep Learning** - A special kind of machine learning that uses many layers to solve complex problems, like recognising faces or voices.

- E** • **Ethical AI** - AI that is designed to be fair, respectful, safe, and helpful for everyone.

F • **Facial Recognition** - AI that can tell who someone is by looking at their face.

L • **Labelled Data** - Information that has the correct answer written on it, like pictures marked "cat" or "dog" so AI can learn the difference.

L • **Learning (in AI)** - When a machine improves at something by studying examples and practising over time.

M • **Machine Learning** - A way for computers to learn from data instead of being told exactly what to do.

M • **Model** - The trained brain the machine builds after learning. It uses this to make decisions or guesses.

N • **Natural Language Processing (NLP)** - AI that understands and works with human language, such as speaking, reading, or writing.

N • **Neural Network** - A group of connected parts inside AI that helps it learn – inspired by how human brains work.

P • **Prediction** - A smart guess made by AI based on what it has learned from past information.

P • **Privacy (in AI)** - Keeping people's personal information safe and not using it without their permission.

R • **Reinforcement Learning** - A learning style where AI improves by trying things, making mistakes, and learning from rewards or feedback – like learning to play a game.

R • **Robotics** - When machines can move and act in the real world, like robot arms or drones, often with the help of AI.

S • **Supervised Learning** - A kind of machine learning where the AI is trained using data that already has the answers.

T • **Training (AI)** - The process of teaching AI by giving it lots of examples so it can learn patterns and make better choices.
• **Transparency** - Making it clear how an AI system works and how it makes its decisions.

U • **Unsupervised Learning** - A type of machine learning where the computer learns by spotting patterns in data without being told the answers.

W **Workflow (in AI)** - The step-by-step process AI follows – from collecting data to making a final decision.

Bonus Tip – When to Use This Glossary:

- When reading or watching anything about AI
- When you find a word you do not understand
- When teaching someone else about smart technology
- When you want to explain AI clearly to friends, family, or learners



Part 8: A Beginner's Learning Path – Start Where You Are

Whether you are 12 or 62, just curious or ready to build something, this learning path is for anyone who wants to understand Artificial Intelligence. You do not need to be a genius or a coder. All you need is interest, patience, and a place to begin.

Let us walk through four simple stages – each with clear goals, helpful tools, and friendly guidance. You can begin at any level and move at your own pace



Level 1: The Curious Explorer

Who is this for?

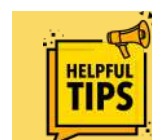
- Children aged 10 and above
- Adults with no background in technology
- Anyone asking, "What is AI and how does it work?"

Goal:

Discover what AI means in real life. Start with playful learning.

What to do:

- Watch short explainer videos (e.g., CrashCourse AI, TED-Ed)
- Try interactive tools like Teachable Machine and AI for Oceans
- Use this guide to learn common terms and everyday examples
- Chat with AI tools (like ChatGPT) to explore how they respond



Most people begin here – this is a great place to start.



Follow what you enjoy – games, languages, art, science – AI is part of all of them.

Level 2: The Beginner Builder

Who is this for?

- Teenagers or adults who want to create something simple
- Parents or teachers introducing AI at home or school
- Students working on class projects about AI

Goal:

Discover what AI means in real life. Start with playful learning.

What to do:

- Watch short explainer videos (e.g., CrashCourse AI, TED-Ed)
- Try interactive tools like Teachable Machine and AI for Oceans
- Use this guide to learn common terms and everyday examples
- Chat with AI tools (like ChatGPT) to explore how they respond

Level 3: The Aspiring Developer

Who is this for?

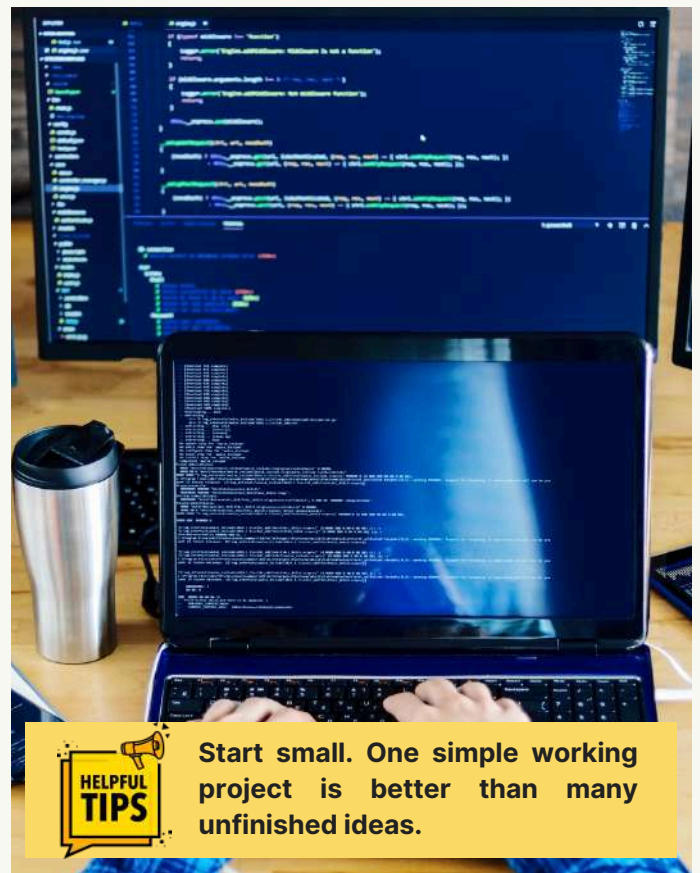
- Older teenagers and young adults
- Curious learners ready to try basic coding
- Anyone interested in future jobs in technology or data

Goal:

Understand how to train a model, use real-world data, and write simple code.

What to do:

- Learn Python with beginner platforms like DataCamp, Khan Academy, or Codecademy
- Explore beginner projects using real datasets on Kaggle Learn
- Look into open datasets from your country (e.g. health, environment, education)



Start small. One simple working project is better than many unfinished ideas.

Level 4: The Responsible Changemaker

Who is this for?

- Youth leaders, teachers, creators, or anyone interested in fairness
- Future AI designers, storytellers, or researchers
- People who want to use AI to make the world better

Goal:

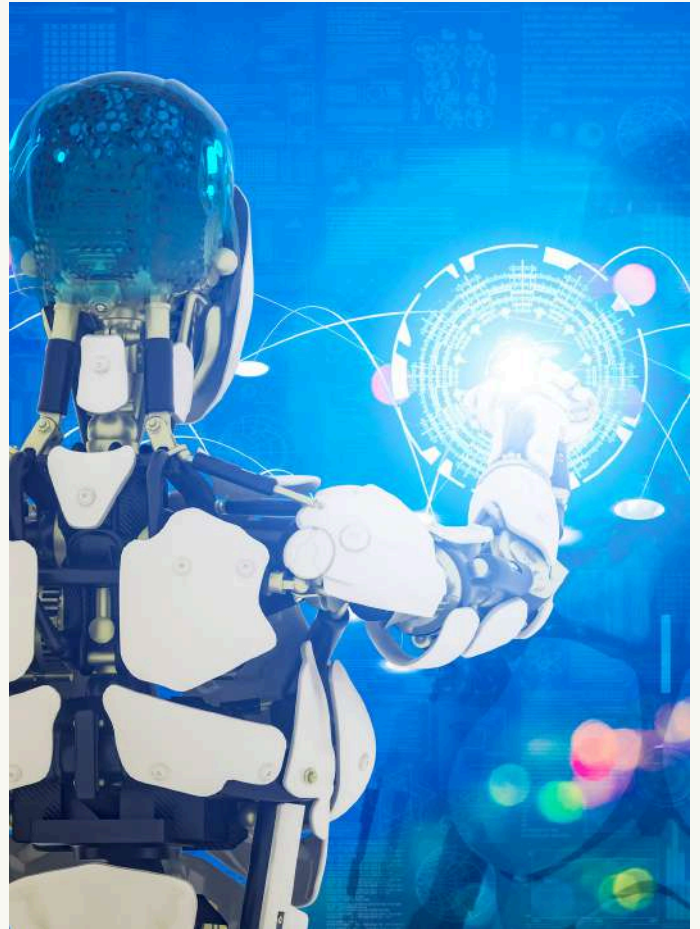
Use AI to solve real problems. Think deeply about ethics, privacy, and inclusion.

What to do:

- Join global platforms like AI4ALL or the Algorithmic Justice League
- Build projects that help people or protect the planet
- Share what you learn by starting clubs, blogs, or school lessons
- Explore how policy, history, and storytelling connect with AI



This level is not only about smart technology – it is about kind and fair technology.



No Pressure – Your Path Is Yours

Not everyone needs to become a full-time AI expert. And that is perfectly fine.

AI needs many kinds of people:

- Writers to explain it clearly
- Artists to design its look and feel
- Teachers to guide young minds
- Ethicists to ask hard questions
- Community leaders to make wise choices



**Start where you are. Keep going.
And help shape the future of AI in
your own way.**



Prof. Celestine Iwendi

ABOUT ME

Celestine is an IEEE Brand Ambassador, Professor of Artificial Intelligence and the Head of the Centre of Intelligence of Things (CloTh) at the University of Greater Manchester, Bolton. With a PhD in Electronics Engineering, he has over 25 years of technical expertise in wireless sensor networks, AI, ML, and IoT. As a Senior Member of IEEE and Chartered Engineer, Celestine has developed testing procedures, provided technical support, and ensured safety compliance for electronic systems. He has received prestigious recognition from the Royal Academy of Engineering under the Exceptional Talent Scheme for his contributions to AI and medical applications, and has been featured in Elsevier's World's Top 2% Influential Scientists list for four consecutive years. His research spans 13 of the 17 UN SDGs, with 92.6% of his work internationally co-authored, and 60.7% of his publications ranking among the top 25% most-cited globally. He is also a Visiting Professor at five universities worldwide.



Celestine is the Chair of the Election Committee of IEEE Computer Society Worldwide 2024. He is the IEEE University of Bolton Student Branch Counselor and a former Board Member of IEEE Sweden Section, a Fellow of The Higher Education Academy in the United Kingdom, and a Fellow of the Institute of Management Consultants. Additionally, Celestine is an Ambassador in the prestigious Manchester Conference Ambassador Programme and IEEE ComSoc Distinguished Lecturer. He was named a 2024 Highly Ranked Scholar – Prior Five Years in All Fields of Scholarly Endeavour by ScholarGPS, placing him among the top 0.05% of 30 million scholars worldwide.

Uchenna Victor Moses

ABOUT ME

I am an AI enthusiast and Digital Transformation expert, currently serving as a Digital Project Manager with the UK's Medicines and Healthcare products Regulatory Agency (MHRA). I lead large-scale, cross-government digital infrastructure projects that enhance public service delivery through innovation, compliance, and strategic coordination.

In June 2024, I co-organised the Next Generation Artificial Intelligence Conference at a leading University in Greater Manchester. The event brought together global AI experts, industry leaders, and researchers to explore emerging trends in artificial intelligence and officially launched the Centre of Intelligence of Things (CloTH). This experience deepened my commitment to advancing digital transformation that is both inclusive and future-facing.



Previously, I served as the President of the Students' Union, where I championed leadership, innovation, and inclusion across campus and beyond. My work bridges the public and private sectors across the UK and Africa, with a strong focus on using technology to solve real-world problems. Whether delivering strategic digital programmes or mentoring the next generation of changemakers, I remain committed to people-centred progress and technology with purpose.

Ugochukwu Njubigbo

ABOUT ME



I'm a cybersecurity analyst and digital resilience strategist, currently supporting the UK's National Health Service in safeguarding critical healthcare infrastructure. With a background that spans cybersecurity operations, cloud security, and stakeholder engagement, I help bridge the gap between technical risk and strategic decision-making.

My journey into cybersecurity began in the high-stakes world of marketing, where I led digital growth for major brands across the UK and Africa. This unique foundation sharpened my ability to communicate complex challenges with clarity and influence—skills I now apply to threat detection, incident response, and cyber awareness training that's both inclusive and impactful.

A strong advocate for accessible security and technology with purpose, I hold expertise in Microsoft Security Suite amongst others. I've also delivered security training across diverse teams and collaborated with third-party vendors to improve organisational posture. I also provide guidance to beginners and entry level professionals into Cybersecurity.

Whether I'm deep in log analysis or mentoring future cybersecurity professionals, I bring curiosity, clarity, and a people-first approach to the evolving digital threat landscape.

I'm here to shape a future where resilience is built-in, innovation is secure, and no one gets left behind.

Timothy Ayodele Olatunji

ABOUT ME

I am a passionate data analytics professional with a strong foundation in mathematics and advanced expertise in digital intelligence across healthcare systems.

I am currently working as a Senior Data Analyst with the NHS, where I support service transformation and strategic decision-making through innovative and inclusive analytics practices.

With a master's degree in data analytics and technologies from the University of Bolton and a bachelor's degree in mathematics, I bring a deep understanding of statistical modelling, data visualization and digital performance intelligence. My analytical career spans cancer services, community and mental health, where I've used tools like R, SQL, Power BI, SSRS, SSAS and SIMUL8 to forecast service demand, optimize capacity and drive evidence-based policy.



What sets me apart is my ability to bridge data science and human need: translating complex health data into meaningful narratives that resonate with clinicians, operational leaders, and service users alike. I lead with empathy, think strategically, and continuously push for smarter ways to use data to support the people we serve.

Whether supporting the redesign of NHS pathways or mentoring early-career analysts, I am committed to advancement in technology, data with integrity and outcomes that matter.

Chrysanthus Obinna Chiagwah

ABOUT ME



I'm Chrysanthus Obinna Chiagwah — a results-driven Software Developer, tech leader, mentor, and speaker with a passion for emerging technologies such as AI, robotics, and automation. I'm committed to driving meaningful digital transformation through innovative, user-centered solutions.

I currently work at The Walton Centre NHS Foundation Trust, where I develop and support essential in-house software that underpins both clinical operations and corporate efficiency. My role ensures that internal teams have access to secure, reliable, and effective systems that support critical healthcare services.

Throughout my career, I've delivered impactful projects across diverse industries including healthcare, hospitality, and education — building technology that simplifies processes, improves user experience, and creates real value. I've also mentored junior developers, promoted engineering best practices, and helped foster a culture of continuous learning and collaboration.

Known for my strategic mindset, strong communication skills, and ability to break down complex challenges, I focus not just on writing code, but on building purposeful technology that makes a difference in the real world.

Rukayat Adesola Balogun

ABOUT ME



As a dedicated professional with a passion for using data and technology to drive meaningful change. My journey has always been shaped by a love for problem-solving and a belief in the power of data to unlock insights that lead to better decisions.

Currently, I work as a Remote Monitoring Controller at United Utilities, where I'm part of a team that ensures the smooth running of essential services. Every day, I dive into data, using my skills to streamline processes, identify trends, and provide actionable insights.

It's rewarding to see how my work can directly improve operational efficiency and support decision-makers in real-time.

In 2024, I had the incredible opportunity to co-organize the Data for Social Impact and Leadership Conference, where we brought together passionate changemakers to explore how technology can reshape society for the better. It was one of those moments where everything clicked, reaffirming my belief that technology is only as powerful as the people who use it for good.

Before this, my career path took me through various roles in data analysis, backend development, and even leadership positions that allowed me to bring people together to innovate. One of the highlights of my journey was serving as the Ex-IEEE Student Branch Chair at the University of Greater Manchester, where I championed initiatives to empower students and foster collaboration across diverse groups in Europe, Middle East and Africa. These experiences taught me the value of building inclusive, engaged teams that work toward shared goals.

Along the way, I've embraced the entrepreneurial spirit by founding Lunddr, a platform designed to bridge the gap between technology and human-centred progress. This project has been a huge part of my growth, pushing me to think critically about how we can use tech to solve problems on a larger scale and create lasting impact.

Above all, I'm driven by the belief that technology, when used thoughtfully and ethically, has the potential to create a brighter, more inclusive future. I'm excited about the work I do, the people I get to collaborate with, and the impact we can make together.