Introduction to AI

AI Manifesto and how to work with AI in this Course

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School and Pool for Digital Talent

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Agenda

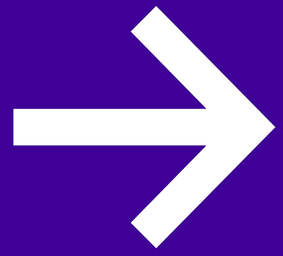
Part I: Where are we now with AI?

- Group Discussion
- Activity

Part II: How should I work with AI throughout this course?

- AI Manifesto

Part I: Where are we now with AI?



What's the first thing that comes to mind when you hear "Artificial Intelligence"?

Have you used any AI tools or apps recently? If so, which ones?

What do you hope AI will help us achieve in the future?

What concerns you most about AI and its future?

Where are we now with AI?

Please watch the video. While watching it, take notes on the questions:

Core Takeaways

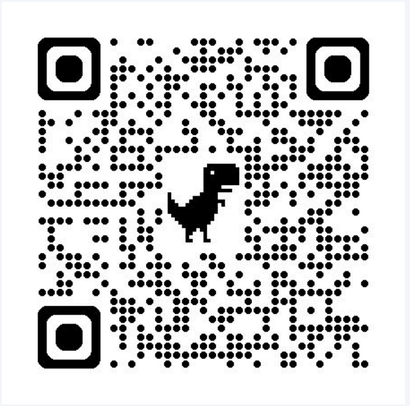
- What surprised you the most about the state of AI today?
- List 3 key strengths or opportunities of current AI systems mentioned in the video.
- List 3 challenges or limitations discussed in the video.

Regional Perspective

- What does the speaker say about Germany's or Europe's role in AI?
- What is "AlephAlpha," and what does it say about European ambitions in AI?

Critical Thinking

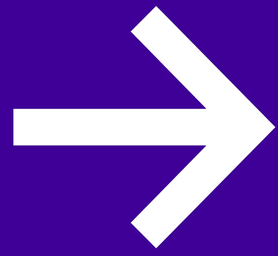
- The speaker distinguishes between AI hype and substance. Can you identify an example of each?
- What is meant by the "Jevons paradox" in the context of AI?
- What are "agentic AIs"? How might they change how we interact with the internet?



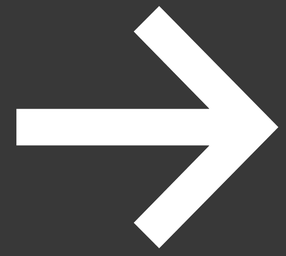
←Link to video

Meet back at 11.05

Part II: How should I work with AI in this course?



A Brief History of AI

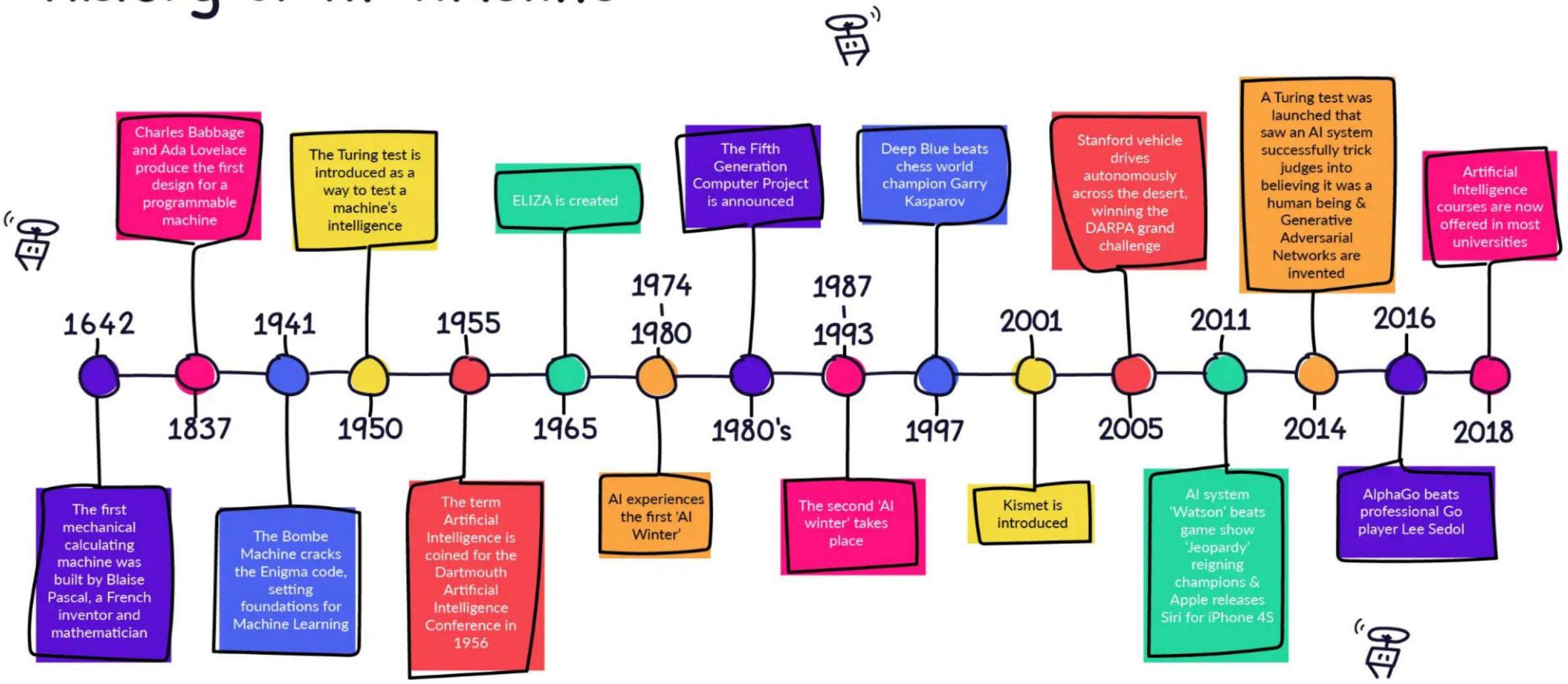


“Instead of trying to produce a program to simulate the adult mind, why not rather try to produce one which simulates the child’s?”

Alan Turing, 1950

mathematician and logician

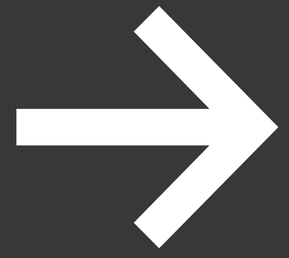
History of AI Timeline



https://codebots.com/artificial-intelligence/history-of-artificial-intelligence

AI is Here to Stay

AI Definition & Terminology



How would you define AI?

Artificial intelligence (AI) is the capability of computational systems to perform tasks typically associated with human intelligence, such as learning, reasoning, problem-solving, perception, and decision-making.

Wikipedia

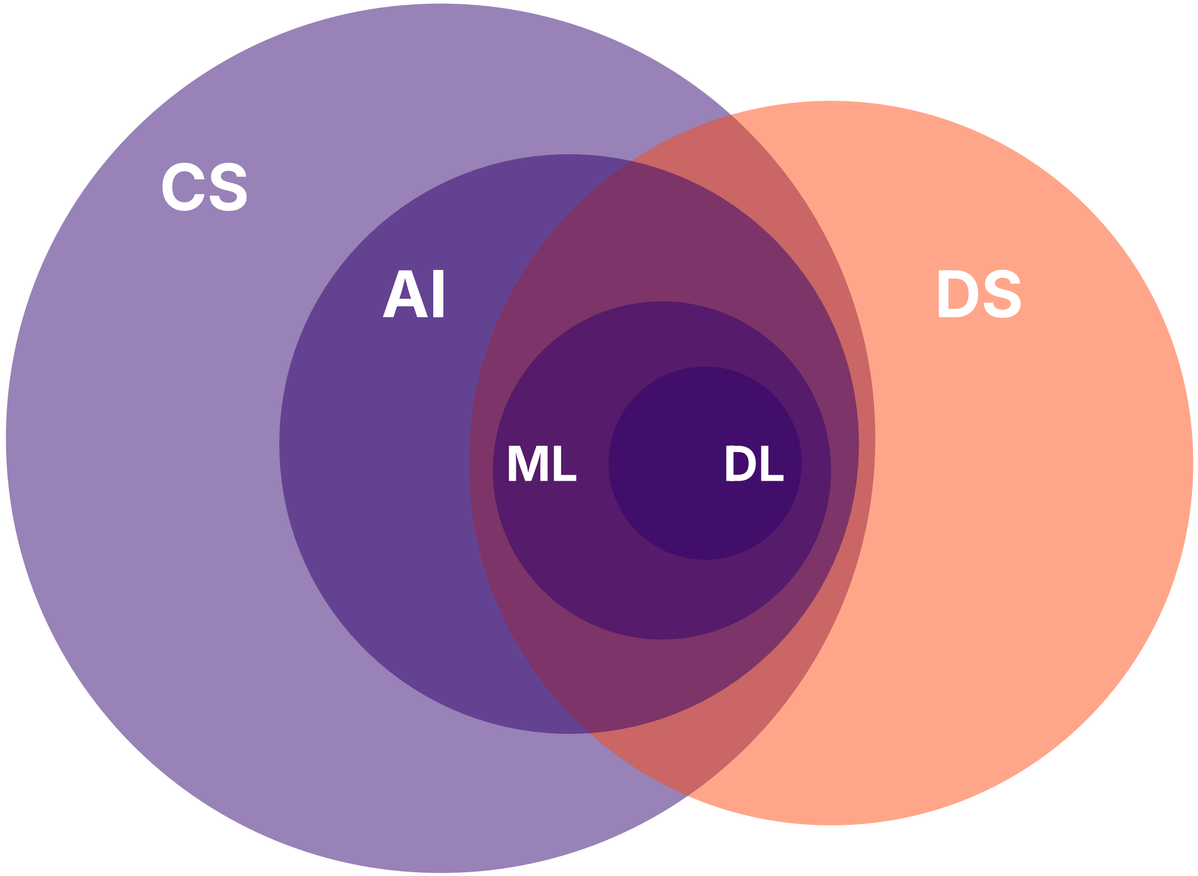
How do AI, Machine Learning and Computer Science relate?

Taxonomy of AI

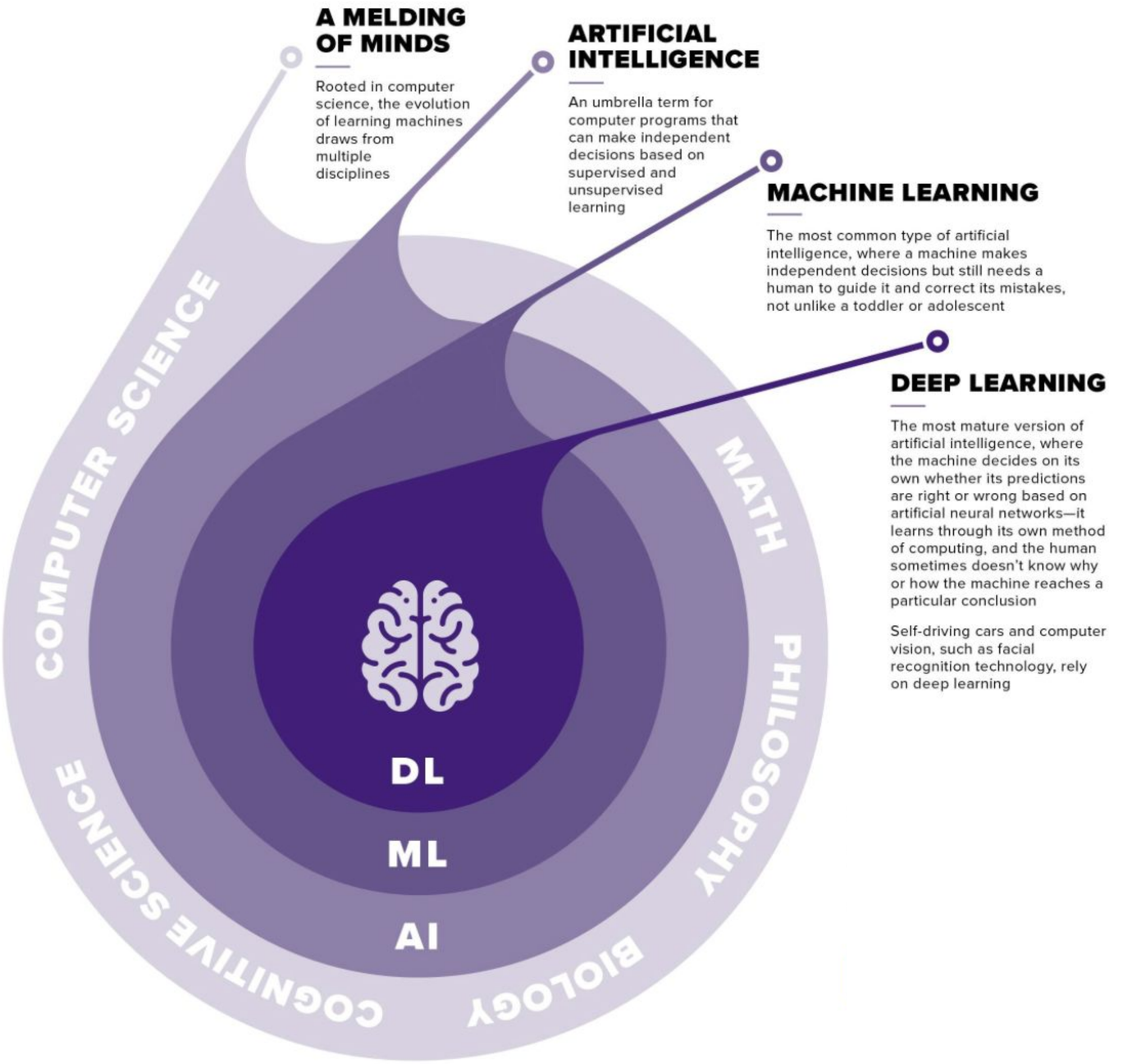
Let’s look at the Taxonomy!

In which circle belong the following terms:

- Artificial Intelligence (AI)
- Machine Learning (ML)
- Computer Science (CS)
- Data Science (DS)
- Deep Learning (DL)

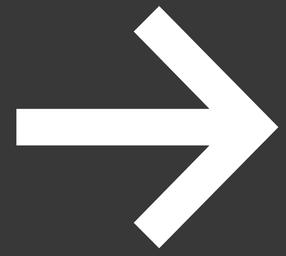


Based on: https://nikhilfernandes.substack.com/p/a-taxonomy-of-ai-showing-relationships



https://www.lsu.edu/ai/what-is-ai.php

Business Transformation through AI



AI Application Domains

01.	Daily Life	Virtual Assistants (Siri, Alexa), smart recommendations, Face ID, GPS navigation
02.	Healthcare	Disease detection, medical imaging, drug discovery, virtual health assistants
03.	Business	Chatbots, fraud detection, predictive analytics, process automation
04.	Education	Personalized learning, AI tutors, auto-grading, translation, content creation
05.	Transportation	Self-driving cars, traffic prediction, route optimization, logistics
06.	Entertainment	AI-generated content (music, art), game AI, personalized media, deep fakes

AI is a Tool for Augmentation, not Replacement

AI’s Impact on Business Transformation

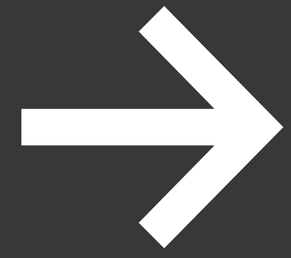
Human judgment remains at the center.

AI is helping businesses work smarter and faster by:

- **Automating Repetitive Tasks** 🤖
  AI handles routine work, so people can focus on more important things.
- **Improving Decisions** 📊
  AI looks at data and helps businesses make better choices.
- **Making Supply Chains More Efficient** 🚚
  AI helps plan deliveries, reduce waste, and save time.
- **Personalizing Products and Services** 🛍️
  AI gives customers experiences that match their needs and preferences.
- **Speeding Up Innovation** 🔬
  AI helps companies create and test new ideas more quickly.
- **Creating New Business Models** 💡
  Businesses can offer smart tools and services powered by AI.
- **Boosting Security and Safety** 🛡️
  AI can detect fraud, prevent breakdowns, and spot cyber threats early.

Human Judgement Remains at the Center

Issues and Concerns with AI



“Algorithms are opinions embedded in code.”

Cathy O’Neil

(Author, ***Weapons of Math Destruction***)

Ethical Considerations in AI

Fair, Transparent, and Accountable ✅

- Design AI that is **fair to everyone**
- Be **open about how AI works**
- Make sure **someone is responsible** for its decisions

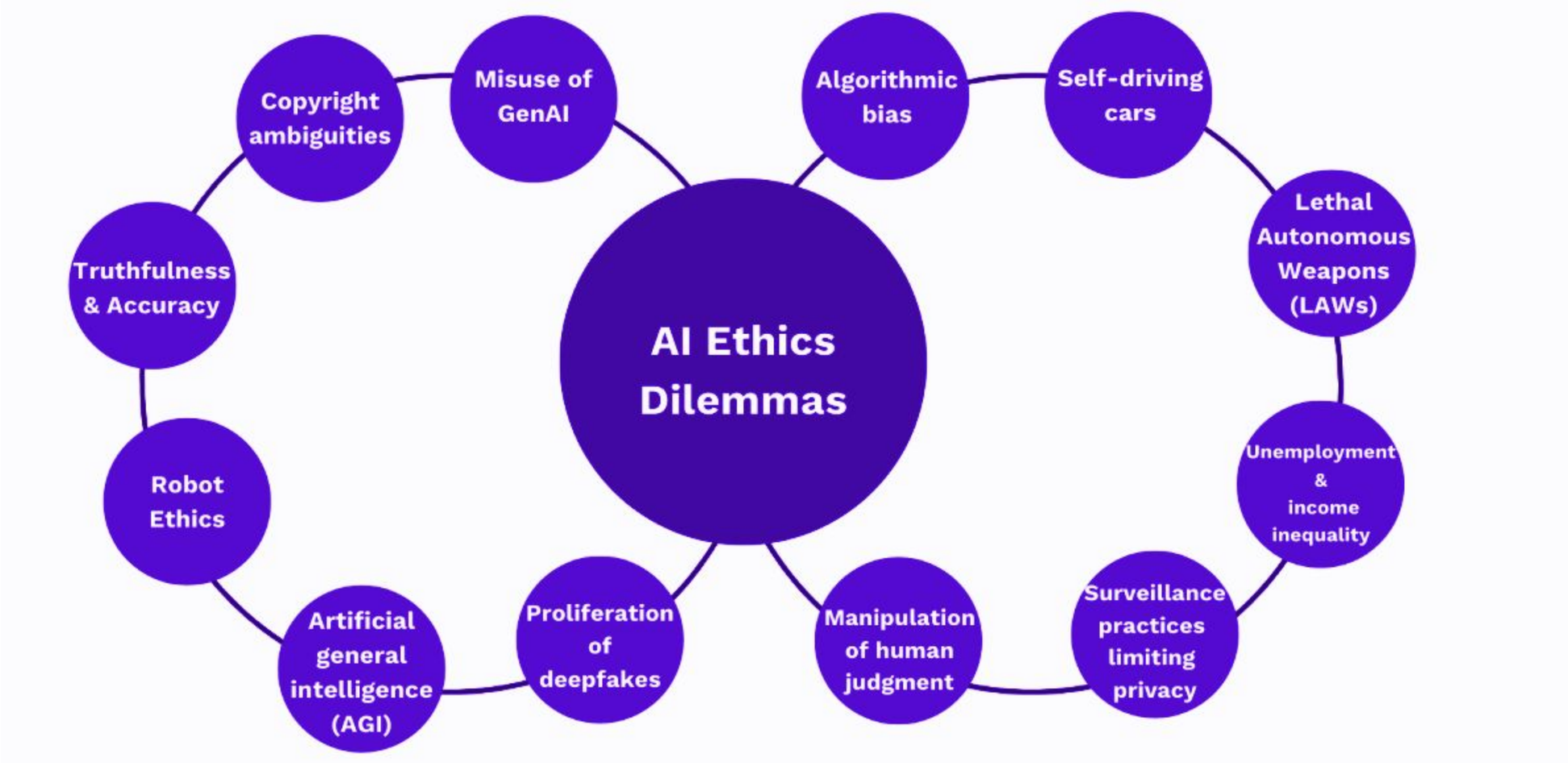
Human-Centered Design 🧬

- AI should **help people**, not replace them
- Always **respect human rights and dignity**

Accountability & Oversight 🧭

- Clearly state **who is in charge** of AI outcomes
- Allow people to **challenge or correct AI decisions**

AI Ethics Dilemmas



https://research.aimultiple.com/ai-ethics/

Ethics and Integrity are Non-Negotiable

Other issues related to AI

BBC

Home News Sport Business Innovation Culture Arts Travel Earth Video Live

AI drives 48% increase in Google emissions

3 July 2024

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Imran Rahman-Jones
Technology reporter

BUSINESS • TECHNOLOGY

Exclusive: OpenAI Used Kenyan Workers on Less Than $2 Per Hour to Make ChatGPT Less Toxic

15 MINUTE READ

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ENERGY

Microsoft's carbon emissions have risen 30% since 2020 due to data center expansion

PUBLISHED WED, MAY 15 2024•3:45 PM EDT | UPDATED WED, MAY 15 2024•4:21 PM EDT

Data center emissions probably 662% higher than big tech claims. Can it keep up the ruse?

Emissions from in-house data centers of Google, Microsoft, Meta and Apple may be 7.62 times higher than official tally

China | Making friends, not babies

Young Chinese are turning to AI chatbots for friendship and love

It is not doing anything for the low birth rate

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Good listener PHOTOGRAPH: MICROSOFT

May 15th 2025 | 3 min read

Science & technology | Fake-news news

Many AI researchers think fakes will become undetectable

Both detection software and watermarks can be defeated

How sexually explicit deepfakes undermine democracy and women's role in the EU

Female politicians have been disproportionately impacted by AI-generated pornographic content.

A solidarity protest of women in the UK against gender-based violence, 2021.

AMY

EU AI Act

🇪🇺 EU AI Act – A Global First in AI Regulation

The **EU AI Act** is the world's first major law to regulate artificial intelligence with the goal: Make AI **safe**, **transparent**, and **respectful of human rights**.

Key Objectives

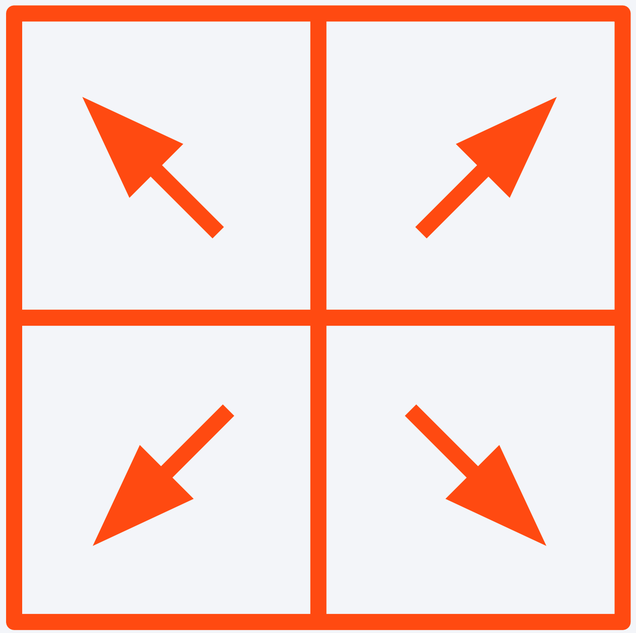
- Protect people from harmful or biased AI
- Promote ethical, trustworthy AI
- Create clear rules for companies and governments using AI

EU AI Act

AI Systems Are Grouped by Risk Level

Who must comply?

Unacceptable Risk
Banned AI (e.g., social scoring, real-time facial recognition in public)



High Risk
Strict rules apply (e.g., AI in hiring, healthcare, law enforcement)

Minimal Risk
Mostly unregulated (e.g., spam filters, AI in games)

Limited Risk
Transparency required (e.g., AI chatbots must identify themselves)

Break!

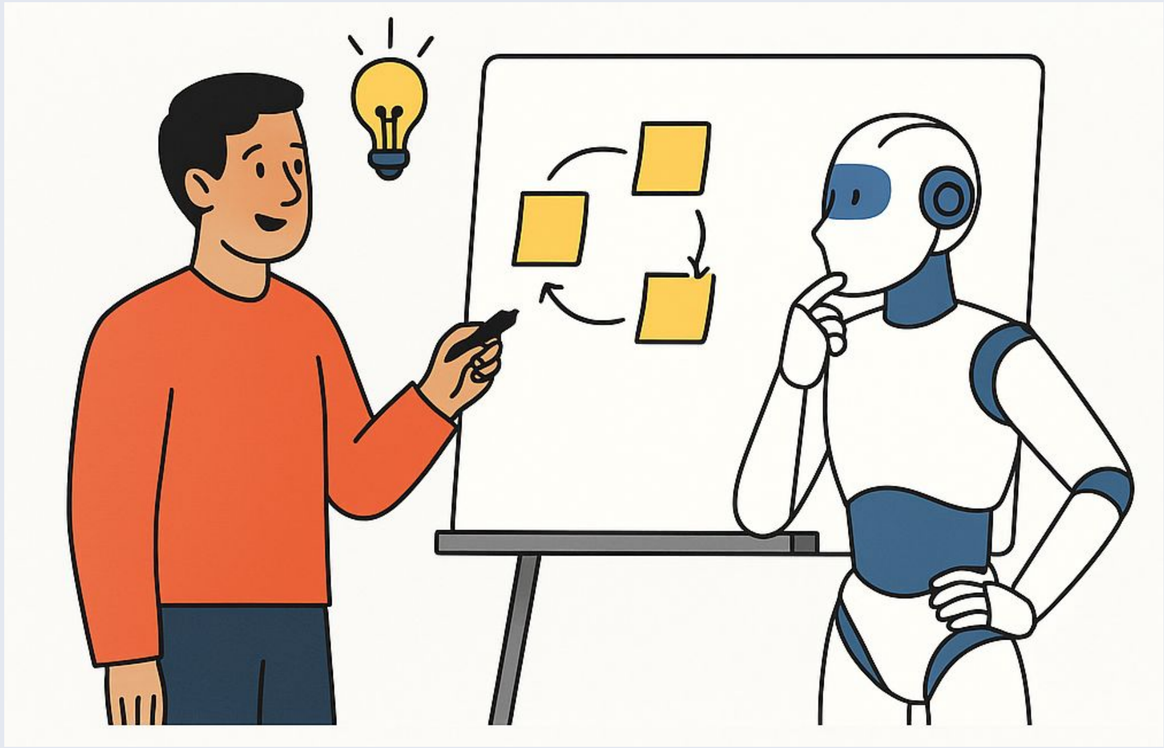
How to Make the Most from AI →

How to Make the Most from AI

AI is Here to Support Your Learning – Not Replace It

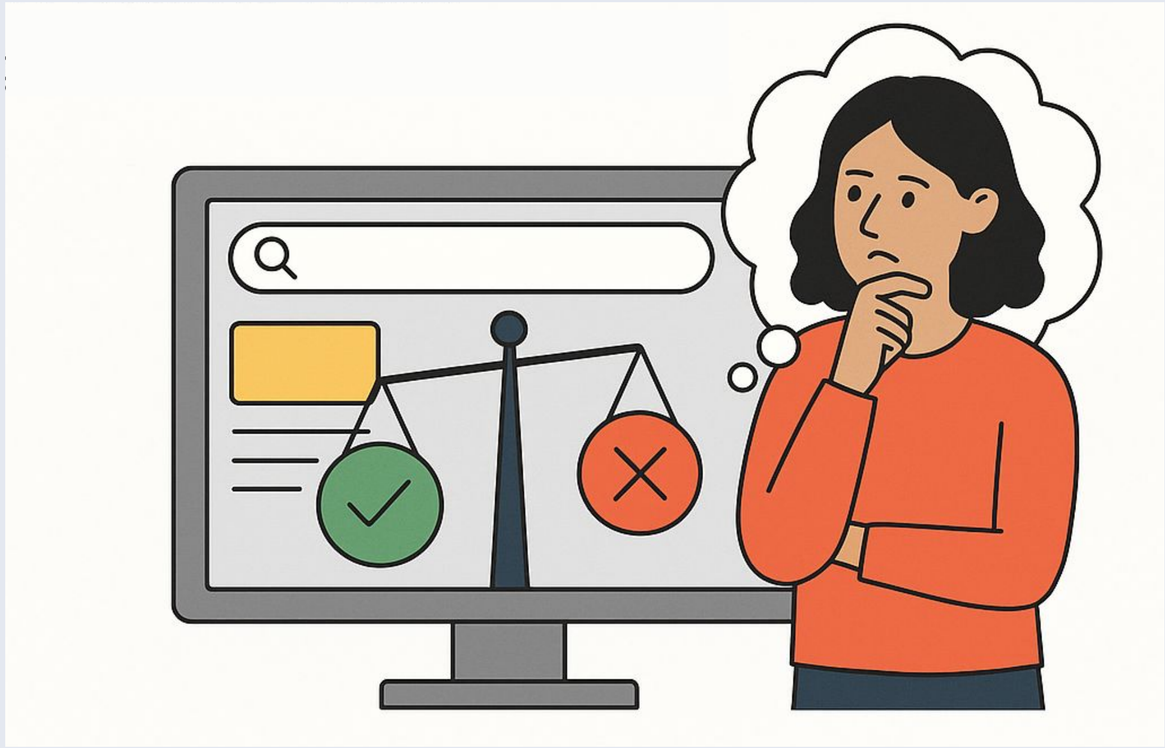
AI doesn’t replace your thinking – it enhances it.

The goal isn’t perfect answers, but better questions, deeper reflection, and stronger skills.



How to Make the Most from AI

AI Isn’t Neutral – That’s Why You Stay in Charge

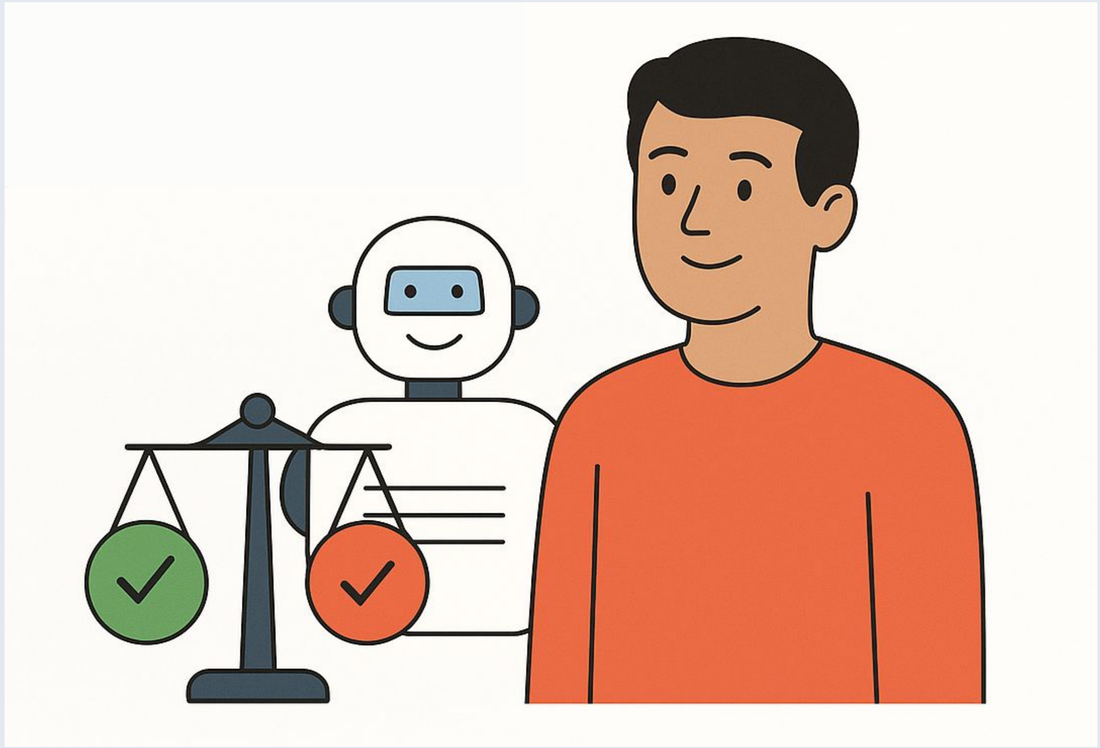


AI reflects the biases and assumptions in the data it’s trained on. Your creativity and critical thinking are what bring balance and value.

Don’t just trust outputs – question them.

How to Make the Most from AI

Lifelong Learners Work with AI, Not Against It



Learning how to use AI well prepares you for the future. It’s not about one assignment – it’s about growing through reflection, adaptation, and exploration.

Learning to work with AI will be a key part of lifelong learning.

How should you work with AI throughout this course?

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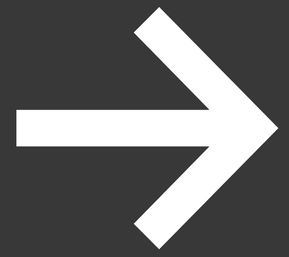
AI Guidelines



Think with AI, Not through AI

Best Practices for Using Chat GPT

1. Ask Clear Questions

Be specific about what you need to get the best answer. Vague or incomplete questions can lead to unclear or irrelevant responses.

- **Example:**
  Instead of asking:
  "How do I clean my data?"
  Ask:
  "How can I remove rows with missing values from a DataFrame in Python using Pandas?"
  This makes your request more focused, and ChatGPT can provide an exact answer, like:

```python
df = df.dropna()
```

Why It's Important:

Clear questions help Chat GPT understand your problem and save you time.

2. Follow Up

If the first answer isn't perfect or you need more details, ask follow-up questions. Think of ChatGPT as a conversation, not a one-time query.

- **Example:**
  You ask:
  "How do I calculate the median in Python?"
  ChatGPT answers:

```python
import statistics
median = statistics.median([1, 2, 3, 4, 5])
```

If you're working with a DataFrame and need more details, follow up with:
"How do I calculate the median for a specific column in a Pandas DataFrame?"

ChatGPT can refine its response to:

```python
median = df['column_name'].median()
```

Why It's Important:

Iterative questions help you get closer to the exact solution you need.

Think Critically – Know What “Good” Looks Like

3. Check Answers

Always verify Chat GPT’s suggestions against trusted sources, like official documentation, textbooks, or your own knowledge.

ChatGPT can sometimes give incorrect or outdated answers.

Verifying ChatGPT’s answers ensures your work is accurate and reliable.

- Example UXUI:
  You ask ChatGPT:

  “Write a usability test script for my app.”

- It gives you a polished-looking output – but the tasks are vague, the user goals aren’t clear, and there's no prioritisation.
  - Check if the tasks match actual user flows.
  - Ask: Does this test script follow usability best practices?
  - Compare it with real examples from NNGroup or your course material.

Learn with Integrity

4. Learn, don’t Copy

Use Chat GPT’s answers as a starting point to learn and develop your own skills, rather than just copying and pasting solutions.

- Project Management example:

  You ask ChatGPT:

  “Prepare a risk analysis for my digital app project.”

- It gives you a nice-looking template – but if you just paste it into your capstone project, you’ll miss the point.

  Instead, use the output to understand how a risk management plan is structured. Then ask:

  - What specific risks exist in my project?
  - What’s the likelihood and impact?
  - Who owns the mitigation?

Learning the reasoning behind a solution helps you build problem-solving skills and prepares you for real-world challenges.

5. Know Its Limits

Understand that ChatGPT doesn’t have live updates and may not know the latest tools, libraries, or trends. It also doesn’t always understand complex, real-world scenarios.

Knowing the limits helps you use ChatGPT wisely and avoid frustration when it can’t fully solve your problem.

- **Example 1:**
  If you ask:
  “What are the latest features in ECMAScript 2023?”
  ChatGPT might not know if its training data doesn’t include the latest release notes. Always cross-check with official release documentation.

- **Example 2:**
  For real-world problems like:
  “Why is my SQL query running slow on a 10 million row dataset?”
  ChatGPT can suggest generic tips (e.g., *“Use indexing”* or *“Avoid SELECT ”), but it won’t know the specific performance issues in your database environment.

Practice, Plan, and Stay on Track

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Use AI to Support Your Study Habits

Use AI like a smart study coach. Let it help you reflect, stay organized, and keep going – but you set the direction.

Learning Support Examples:

- “Quiz me on today's lesson in 5 questions”
- “Explain what I got wrong in this answer”
- “Create flashcards from this document”

Planning Support Examples:

- “Break this assignment into 3 steps I can finish this today”
- “What should I review to prepare for tomorrow’s session?”
- “Remind me what I struggled with last week”

Share What Works – and Learn by Teaching

Share What Works – and Learn by Teaching

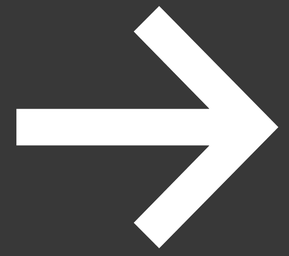
AI is a powerful tool – but it becomes even more powerful when we share how we use it.

When you find a prompt, technique, or workflow that helped you learn something better, share it with your peers. Teaching is one of the best ways to deepen your own understanding.

What you can share:

- A smart or creative prompt that worked well
- A way you used AI to solve a project challenge
- A mistake you made – and what you learned from it

AI Manifesto



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Ai Manifesto for Students

Use it to grow.
Own your learning.
Stay curious.

Our Beliefs on Ai

- **AI is here to stay** – and it will play a major role in the coming decades. Learning how to use it thoughtfully, and practicing it often, will be an essential skill for the future.
- **AI is a tool for augmentation, not replacement**
  We see AI as a positive force that enhances what humans can achieve – not something that replaces human intelligence, creativity, or judgment.
- **Human judgment remains at the center**
  AI must serve human needs, not the other way around. Final decisions and responsibility always stay with people.
- **Ethics and integrity are non-negotiable**
  when working with AI. Using AI responsibly is a core part of learning and professional growth.

How to make the most from Ai

AI is here to support your learning – not replace it. The goal isn't perfect answers. It's better questions, deeper thinking, and real confidence in your own abilities.

As you work with AI, remember: it's not neutral. It reflects the knowledge – and the biases – of the world it learns from. Your critical thinking and creativity remain at the center.

Learning to work with AI will be a key part of lifelong learning – empowering you to reflect, adapt, and grow as the world around you changes.

Think Smart: Ai Guidelines

1. Think with Ai, Not through Ai
Ai is your thinking partner, not your replacement. Start with your own brAin, prompt with purpose, and validate relentlessly. Ai can challenge your ideas, spark new thoughts, or help you understand something better. But you stay in charge. Stay active, not passive.

2. Practice, Plan, and Stay on Track
Use Ai to support your learning routines – not replace them. Ask it to quiz you, check your writing, or explAin mistakes. Let it help you plan your week, break down tasks, and stay focused. Track your progress, reflect on feedback, and use Ai to build habits that stick.

3. Learn with Integrity
Ai is not a shortcut. It's a thinking partner. Use it to explore, reflect, and build real skills – not to bypass the learning process. Growth starts with honesty.

4. Think Critically – Know What "Good" Looks Like
Ai doesn't always get it right, even when it sounds convincing. Check facts and question the source. At the same time, learn what a good answer should look like – whether it's a user story, a design critique, or a strategy doc. That's how you turn Ai output into real value.

5. Share What Works – and Learn by Teaching
When you find a smart or creative way to use Ai, share it with others. Collaboration fuels innovation – and teaching others is one of the best ways to deepen your own understanding.

Your journey is your own!

By learning the fundamentals yourself, you'll build the skills to understand, challenge, and validate what AI creates – and that's the core of what we're here to help you achieve.

AI can be a fantastic companion – but only you can do the learning!

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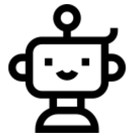
Thank you! 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