

MODULE 1 · WEEK 1 · LESSON 2

From Turing to Transformers: A 75-Year Story in 7 Minutes

Why AI exploded now, not in 1990

WHAT YOU WILL BE ABLE TO DO

- Place five milestones of AI history in order
- Explain the three ingredients behind the modern AI boom
- Describe what a transformer architecture changed

LESSON CONTENT

1950-1997: the question and the first winters

Alan Turing asked 'Can machines think?' in 1950 and proposed the imitation game we now call the Turing Test. Early symbolic AI could play checkers and prove theorems, but brittle rules collapsed in the messy real world. Funding collapsed twice - the famous 'AI winters'.

1997-2012: statistics quietly wins

Deep Blue beat Kasparov in 1997 using brute search, not understanding. The real revolution was statistical: machine learning that learns rules from data instead of being handed them. By 2012, a deep neural network called AlexNet crushed an image competition, powered by GPUs and millions of labelled pictures.

2017-today: the transformer changes everything

A 2017 paper, 'Attention Is All You Need', introduced the transformer: an architecture that reads a whole sentence at once and weighs which words matter for each other. Transformers scale beautifully with data and compute, giving us GPT-style large language models. Three ingredients made the boom: abundant data, cheap parallel compute, and the transformer.

KEY TERMS

Turing Test	A machine passes if a human cannot reliably tell it from a human in conversation.
AI winter	Periods when AI funding and interest collapsed after over-promising.
Transformer	2017 architecture using attention; foundation of modern LLMs.
Scaling	Performance improving as data, parameters and compute grow.

HANDS-ON TASK

Timeline card · Tools: Paper and pen

1. Draw a timeline with 1950, 1997, 2012, 2017 and today.
2. Add one line per date: what changed and why it mattered.
3. Photograph it and keep it for your Portfolio of Evidence.

KEY TAKEAWAYS

- ✓ Before you go, three takeaways from this lesson.

- ✓ One: Place five milestones of AI history in order.
- ✓ Two: Explain the three ingredients behind the modern AI boom.
- ✓ Three: Describe what a transformer architecture changed.
- ✓ And your hands-on task: timeline card.
- ✓ Draw a timeline with 1950, 1997, 2012, 2017 and today.
- ✓ When it is done, mark the lesson complete on your dashboard, keep the artifact for your portfolio, and step into the next lesson.
- ✓ I will see you there.

Watch the lesson video on your dashboard, complete the task, then mark the lesson complete. Your artifact belongs in your Portfolio of Evidence.