#### Alan D. Thompson · Technical highlights · 2025

'A force of nature... Highly recommended as a keynote speaker in any venue where AI is of interest.' — IBM

'A one-man powerhouse of AI knowledge and analyses.' — NASA

# Technical papers and resources on large language models

- 2025. What's in Grok? Independent paper.
- 2025. <u>Microsoft</u>. Citation: Dr Thompson's analysis of frontier AI models.
- 2024. <u>G7 AI document</u>. Citation: Dr Thompson's analysis of the GPT-5 dataset.
- 2024. <u>Apple</u>. Citation: Dr Thompson's analysis of frontier AI models.
- 2024. What's in GPT-5? Independent paper.
- 2023. <u>Google DeepMind Gemini: A general specialist</u>. Independent paper.
- 2023. <u>Language models and cognitive</u> <u>automation for economic research</u>. National Bureau of Economic Research (USA). Citation: Dr Thompson's <u>GPT-3.5</u> + <u>ChatGPT: An illustrated overview</u>.
- 2023. <u>Models Table</u>. Dr Thompson's independent table of large language models.
- 2023. <u>The Memo</u>. US\$70/m, readers from the majority of F500s, research and consulting firms (RAND, BCG, PwC, Deloitte) and governments. Regular technical & high-level AI analysis.
- 2022. <u>Current Best Practices for Training LLMs from Scratch</u>. Weights & Biases. Citation: Dr Thompson's <u>Chinchilla viz</u>.
- 2022. <u>Google Pathways: An Exploration of</u> <u>the Pathways Architecture from PaLM to</u> <u>Parti</u>. Independent paper.

- 2022. What's in my AI? A Comprehensive Analysis of Datasets Used to Train GPT-1, GPT-2, GPT-3, GPT-NeoX-20B, Megatron-11B, MT-NLG, and Gopher.

  Independent paper used by Allen AI and other labs.
- 2020. <u>The new irrelevance of intelligence</u>. First published in the Journal of Australian Mensa, May 2020.

## Technical presentations on LLMs and AI

- 2025. Keynote: *GPT-5 and brain-machine interfacing*. For the 31st International Symposium on Controversies in Psychiatry.
- 2024. Keynote: *Artificial intelligence: Smarter than we think.* For Ernst & Young, 700 delegates in Australia, China, NZ, Japan, South Korea, Singapore.
- 2023. Keynote: Superintelligence: No one is smart enough. For Devoxx Ukraine.
- 2023. Keynote: *Large language models and law*. For Bond University.
- 2022. Opening keynote: *Artificial intelligence: You are here.* For Devoxx Belgium, 4,000 delegates from Microsoft, IBM, Red Hat, Google. Closing keynote by Dr James Gosling, Java language founder.
- 2021. Keynote:  $AI + Prompt \ crafting \ beyond$  GPT-3. For the Australian Computer Society.
- 2021. Workshop: *Mind as algorithm* (panel participant). For Google Brain.

2021. <u>Leta AI</u>. 67 episodes, 5M views. GPT-3, GPT-2, GPT-J, and other models. Now part of the <u>Internet Archive</u>.

2019. Workshop: *Elon Musk & Joshua Dahn's big questions*. For Cambridge International School, Central Asia.

2018. Keynote: *Integrated AI*. For Asia Pacific Conference on Giftedness.

# Government and industry advisory on LLMs and AI

Many under NDA, some with 'no identify' clauses. Recent technical engagements:

- Private sovereign wealth fund managing >\$1 trillion in reserves.
- Confidential invitation to train congressional departments and agencies of federal government on GPT & reasoning models.
- Mott MacDonald (engineering).
- Johnson & Johnson (healthcare).
- Major UN, EU, G7 governments.

#### For academia

2023. Executive Masters in AI program design, on GPT-4 (GPT-4 was specially trained on Icelandic), developed by invitation of the ICAI Icelandic Center for Artificial Intelligence.

2023. <u>AI vs human: The creativity experiment</u> for ABC. Series consultant and expert.

2023. MBA AI stream design, invitation by the Australian Institute of Management.

2022. <u>The ChatGPT prompt book</u>. Used by many universities & institutions. 3M views.

2022. Professional development on AI for the Australian Computer Society.

2021. Oxford Union debate on AI ethics, using Megatron-11B.

2017. <u>Decoding Genius</u> for GE. Series consultant and expert.

## Suggested technical keynotes on LLMs and AI

### 1. Keynote: Artificial intelligence and your business

This year has brought about an explosion in the world of artificial intelligence, transforming the business landscape and beyond. As an AI consultant to Fortune 500 companies, Alan reveals the astonishing intelligence and capabilities of today's AI systems. Learn how leading organizations in your industry are already using these powerful tools. This keynote demonstrates how this remarkable technology can fundamentally transform your business.

### 2. Keynote: Artificial general intelligence and artificial superintelligence

Post-2020 AI is humanity's greatest accomplishment. Find out how we moved through large language models to human-like intelligence to superintelligence, and how it impacts you. Learn about the practical applications already emerging in industries from healthcare to scientific research. We'll look at what this means for your career, business, and daily life as AI becomes increasingly integrated into our world.

#### 3. Workshop: Hands-on with the latest AI models

Join Alan as we explore the latest frontier models and next-generation AI copilots. Learn how to craft powerful prompts and set up AI operators to supercharge your daily work. Through hands-on exercises, discover how to get AI to handle complex tasks and enhance your productivity. Get practical experience with tools you can use immediately in your work. Requires high-speed internet + laptops and AI platform logins for all participants.

#### 4. Custom keynote

Tailored to your organization or government body.

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