

# AI Snake Oil: Chapter 4 Part 1

Yes, we're finally here at GenAI!

## Chapter 4: The Long Road to Generative AI

### Part 1 - *In the beginning...*

Things that came to mind with interspersed questions:

GenAI is broadly defined as AI that is capable of creating text, images, or other media.

**Question:** Is that definition too limited? Is it any software that generates *things* with a "learning" or dynamic component?

Nice to see they added some historical background. That back and forth of cycles/fads is rather frustrating but also an opportunity to look back for innovation.

**Question:** Does our terminology (neural networks, intelligences, etc) impact how we think about this tech? Should we keep using "thinking" type terminology / is it even possible to change?

Disappointing that symbolic approaches weren't covered in more detail.

Side thought: There's a lot of talk about hybrid neurosymbolic systems, but what is the level 0 or "operating system" that integrates how the two systems will work together?

**Question:** Is it more important to have theoretical understanding based on maths or empirical understanding based on evidence?

Nice call out about benchmarking with specific training and unseen test data as a short-hand to evaluate model performance. But no discussion on issues with benchmarks and whether they are fundamentally useful.

Benchmarks push us to higher model **accuracy** as measured in specific ways. Examples of using scraped data and ImageNet were used to illustrate the historical disregard for issues with training data in pursuit of better test results. Claimed that this in turn resulted in slow, brittle models – that also required accepting biases inherent in the data.

**Question:** What do people think about this analysis?

**Question:** Is there a disconnect between accuracy of a model and an application's performance in messy real-world environments? Are there alternative measures of AI models that might better align to what we want from AI models?

Absence of experts make it hard to evaluate performance for nuanced info. **Question:** Do technical leaders disdain experts or is it just ignorance and a desire for efficiency?

There has historically been a norm of openness between researchers in AI but they claim this is shifting. **Question:** Are others seeing this? What's the impact if we shift to a more closed environment?

There was a sidebar/transition to talking about the impact on creative work.

**Question:** How do people think about the use of copyright items in training a model? What are some alternatives? For the models that are already released, is there any recourse?

There was an implication that we could eliminate creativity at a large societal level by eliminating the financial and other incentives of creative work. But no statistically significant examples are provided.

**Question:** Are we expressing a fear about our own intelligences/uniqueness or are there ways we can measure this impact? And perhaps, does this passing statement in the book actually underestimate the impact on creativity, learning through mistakes, and novel ideas?

There were several minor sidenotes of AI gone "wrong" in face recognition, legal example fabrication, and companion bots. Several of these examples beg for the need of guidelines and regulation.

**Question:** What are the implications of the recent UK and US government support for AI with less regulation and more financial support?