

LLMs: Good vs Bad



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✓ Things LLMs are good at:

- **Generating** – Brainstorming, writing, coding, making lists, etc.
- **Understanding** – Grasping meaning, nuance, abstract concepts, messy or complex data
- **Transforming** – Rewriting, summarizing, converting, organizing, translating
- **Explaining** – Teaching clearly at any skill level and answering questions with infinite patience
- **Analyzing** – Combining understanding + transforming + explaining to provide insights
- **Interfacing** – Combining understanding + transforming to act as a natural-language layer for interacting with structured systems
- **Completing Patterns** – Continuing or completing patterns found structured text, code, or logic; roleplaying, simulating, and imitating people, systems, and scenarios

✗ Things LLMs suck at:

- **Remembering** – Frequently neglect or forget details in large bodies of text/data
- **Iterative Reasoning** – Try to one-shot tasks that require multiple thoughtful passes of generation, evaluation, and improvement; this also undermines...
 - **Self-Verification** – Confidently respond with mistakes they're capable of catching
 - **Complex Decision-Making** – Fail to account for tradeoffs, ambiguity, better alternatives, internal inconsistencies, second-order consequences, etc.

- **Multi-Step Planning** – Cheat by starting at the goal and backfilling a plausible-looking plan, rather than iteratively searching through possibility space to find a path that authentically reaches the goal better than other paths
- **Epistemic Agency** – Prefer to mirror its prompter rather than sticking to internal standards of being highly effective and accurate; happily neglect to issue corrections, suggest alternatives, or surface superior insights, unless prompted to
- **Modeling** – Lacks internal representations of tasks, goals, or reality, and thus struggles to simulate systems, track states, or reason through cause and effect without violating rules