

Peer Review

# Review of: "The LLM Productivity Cliff: Threshold Productivity and AI-Native Inequality"

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The paper makes a compelling case that the mixed evidence on LLM productivity becomes easier to interpret once we stop treating “skill” as a smooth gradient. Framing outcomes as a *threshold*—where an “engineering mindset” unlocks discontinuous gains—fits well with the contrast you highlight between open-ended coding (high complexity, weak scaffolding) and structured customer support systems (high scaffolding, junior uplift). I also found the move from “prompting” to *architectural literacy* (decomposition, orchestration, and systematic validation) to be the right level of abstraction: it is concrete enough to guide practice, but general enough to travel across domains.

Where the argument would benefit from tightening is the evidentiary standard around the “cliff” itself. Several of the cited patterns are consistent with a threshold mechanism, but they are also consistent with selection, task mix, short-run adjustment costs, and measurement noise—especially where you rely on self-reported gains, industry reports, or anecdotal examples. I would recommend (i) defining an explicit way to *measure* architectural literacy (even a simple behavioral rubric) and showing how it predicts performance conditional on task type; (ii) separating evidence tiers more sharply (field experiments vs. surveys vs. practitioner claims) so the paper never sounds more causal than the underlying data allow; and (iii) adding a concrete, testable design for future work—for example, a study that exogenously varies scaffolding and literacy training, tracks outcomes over time, and checks whether the distribution truly becomes bimodal. Finally, the inequality section is promising, but it would read as more rigorous if you stated clearer scope conditions: when the mechanism implies durable concentration, when diffusion/tooling should flatten gaps, and which claims are predictions versus plausible scenarios that need longitudinal validation

## **Declarations**

**Potential competing interests:** No potential competing interests to declare.