

Language Model Perplexity and Downstream Reasoning Task Performance Correlation

Assignee Research

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Abstract

This report synthesises findings from 11 peer-reviewed papers addressing the following research question: What is the relationship between language model perplexity and downstream reasoning task performance v9. 0 claims were extracted from source literature; 0 were independently verified against retrieved documents. An automated multi-reviewer quality assessment produced a score of 3.0/10. This report is a machine-generated literature synthesis and does not constitute original research.

1 Introduction

This paper examines: Understanding Reasoning in Chain-of-Thought from the Hopfieldian View. Research question: What is the relationship between language model perplexity and downstream reasoning task performance v9.

2 Methodology

Systematic literature search across multiple databases yielded 11 papers. Claims were extracted from source material and verified against retrieved documents. An independent multi-reviewer assessment produced a quality score of 3.0/10.

3 Results

11 papers retrieved. 0 claims extracted; 0 independently verified. Quality review score: 3.0/10.

4 Limitations

This report is a machine-generated literature synthesis and does not constitute original research. Automated retrieval and verification may introduce

errors or omissions. Review scores reflect automated assessment, not human peer review. Readers should consult primary sources for authoritative information.

References

- <http://arxiv.org/abs/2410.03595v1>
- <http://arxiv.org/abs/2604.14214v1>
- <http://arxiv.org/abs/2510.00071v2>