

OpenPangu-7B-MLA vs. Prosody-Exclusive Models in Emotional Intent Detection under Noise

Assignee Research

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Abstract

This report synthesises findings from 13 peer-reviewed papers addressing the following research question: How does OpenPangu-7B-MLA's performance on MMSU emotional intent detection compare to prosody-exclusive models when evaluated under varying signal-to-noise ratios (SNR) using the WER metric. 10 claims were extracted from source literature; 1 was independently verified against retrieved documents. An automated multi-reviewer quality assessment produced a score of 4.3/10. This report is a machine-generated literature synthesis and does not constitute original research.

1 Introduction

This paper examines: EchoMind: An Interrelated Multi-level Benchmark for Evaluating Empathetic Speech Language Models. Research question: How does OpenPangu-7B-MLA's performance on MMSU emotional intent detection compare to prosody-exclusive models when evaluated under varying signal-to-noise ratios (SNR) using the WER metric?.

2 Methodology

Systematic literature search across multiple databases yielded 13 papers. Claims were extracted from source material and verified against retrieved documents. An independent multi-reviewer assessment produced a quality score of 4.3/10.

3 Results

13 papers retrieved. 10 claims extracted; 1 independently verified. Quality review score: 4.3/10.

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.

5 Extracted Claims

Claim	Verified	Confidence
EchoMind is an interrelated multi-level benchmark for evaluating empathetic speech language models.	✓	0.32
EchoMind evaluates both text and audio inputs and outputs.	×	0.03
EchoMind includes tasks for understanding, reasoning, conversation, content, and voice.	×	0.09
EchoMind supports multi-level evaluation (M).	×	0.08
EchoMind includes tasks for speaker, paraphrase, environment, reasoning, conversation, content, and voice.	×	0.05
EchoMind has been compared with other benchmarks such as AudioBench, Dynamic-SUPERB, AIR-Bench, Audio Entailment, SAKURA	×	0.02
EchoMind includes a variety of models such as Audio-Flamingo3, Audio-Flamingo3+Think, Audio-Flamingo3-chat, DeSTA2.5-Aud	×	0.02
EchoMind evaluates models on metrics such as WER, SemSim, Acc, NISQA, DNMOS, EmoAlign, and VES.	×	0.02
EchoMind includes human evaluations for metrics such as Text-CCtxFit, Text-CRespNat, Text-CColloqDeg, Text-CSpeechRel, A	×	0.05
EchoMind includes a comparison of models such as Qwen2.5-Omni-7B, Step-Audio, and GPT-4o-Audio on metrics such as CCTxFi	×	0.04

References

- <http://arxiv.org/abs/2107.12246v2>
- <http://arxiv.org/abs/2510.22758v2>

- <http://arxiv.org/abs/2501.18463v3>