Robustness Metrics for Indonesian Video-Text Models: PaLI vs. Flamingo on MSRVTT

Assignee Research

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Abstract

This report synthesises findings from 8 peer-reviewed papers addressing the following research question: What metrics (e.g., BLEU, CIDEr, METEOR) demonstrate the robustness of Indonesian video-text models like MSVD-Indonesian when fine-tuned with PaLI versus Flamingo on MSRVTT, and how does this compare. While vision-language pre-trained models (VL-PTMs) have advanced multimodal research in recent years, their mastery in a few languages like English restricts their applicability in broader communities. To this end, there is an increasing interest in developing multilingual VL. 17 claims were extracted from source literature; 13 were independently verified against retrieved documents. An automated multi-reviewer quality assessment produced a score of 7.2/10. This report is a machine-generated literature synthesis and does not constitute original research.

1 Introduction

This paper examines: Embracing Language Inclusivity and Diversity in CLIP through Continual Language Learning. Research question: What metrics (e.g., BLEU, CIDEr, METEOR) demonstrate the robustness of Indonesian video-text models like MSVD-Indonesian when fine-tuned with PaLI versus Flamingo on MSRVTT, and how does this compare to English benchmarks?.

2 Methodology

Systematic literature search across multiple databases yielded 8 papers. Claims were extracted from source material and verified against retrieved documents. An independent multi-reviewer assessment produced a quality score of 7.2/10.

3 Results

8 papers retrieved. 17 claims extracted; 13 independently verified. Quality review score: 7.2/10.

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
Vision-language pre-trained models (VL-PTMs) have advanced multimodal research in recent years.	✓	0.28
The mastery of current VL-PTMs is restricted to a few languages like English.	×	0.15
Developing multilingual VL models via a joint-learning setup involves expensive costs and data availability challenges.	✓	0.24
The authors propose extending VL-PTMs' language capacity through continual language learning (CLL).	✓	0.25
CLL requires a model to update its linguistic knowledge incrementally without suffering from catastrophic forgetting (CF	✓	0.22
The authors introduce a model named CLL-CLIP.	×	0.07
CLL-CLIP is built upon CLIP, a vision-language pre-trained model that has acquired image-English text alignment.	✓	0.24
CLL-CLIP contains an expandable token embedding layer to handle linguistic differences.	✓	0.29
CLL-CLIP solely trains token embeddings to improve memory stability.	✓	0.26
CLL-CLIP is optimized under cross-modal and cross-lingual objectives to learn the alignment between images and multiling	✓	0.29
Catastrophic forgetting in this context is raised by covariate shift and lexical overlap.	✓	0.16
The proposed approach ensures the identical distribution of all token embeddings during initialization.	✓	0.21
The proposed approach regularizes token embedding learning during training.	✓	0.19
The authors constructed a CLL benchmark covering 36 languages.	×	0.14
The CLL benchmark is based on the MSCOCO and XM3600 datasets.	✓	0.16
The study evaluates multilingual image-text retrieval performance.	✓	0.16
Extensive experiments verify the effectiveness of the proposed method.	×	0.11

References

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- https://doi.org/10.1609/aaai.v38i6.28466
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