

# Computational Models for Metaphor Understanding

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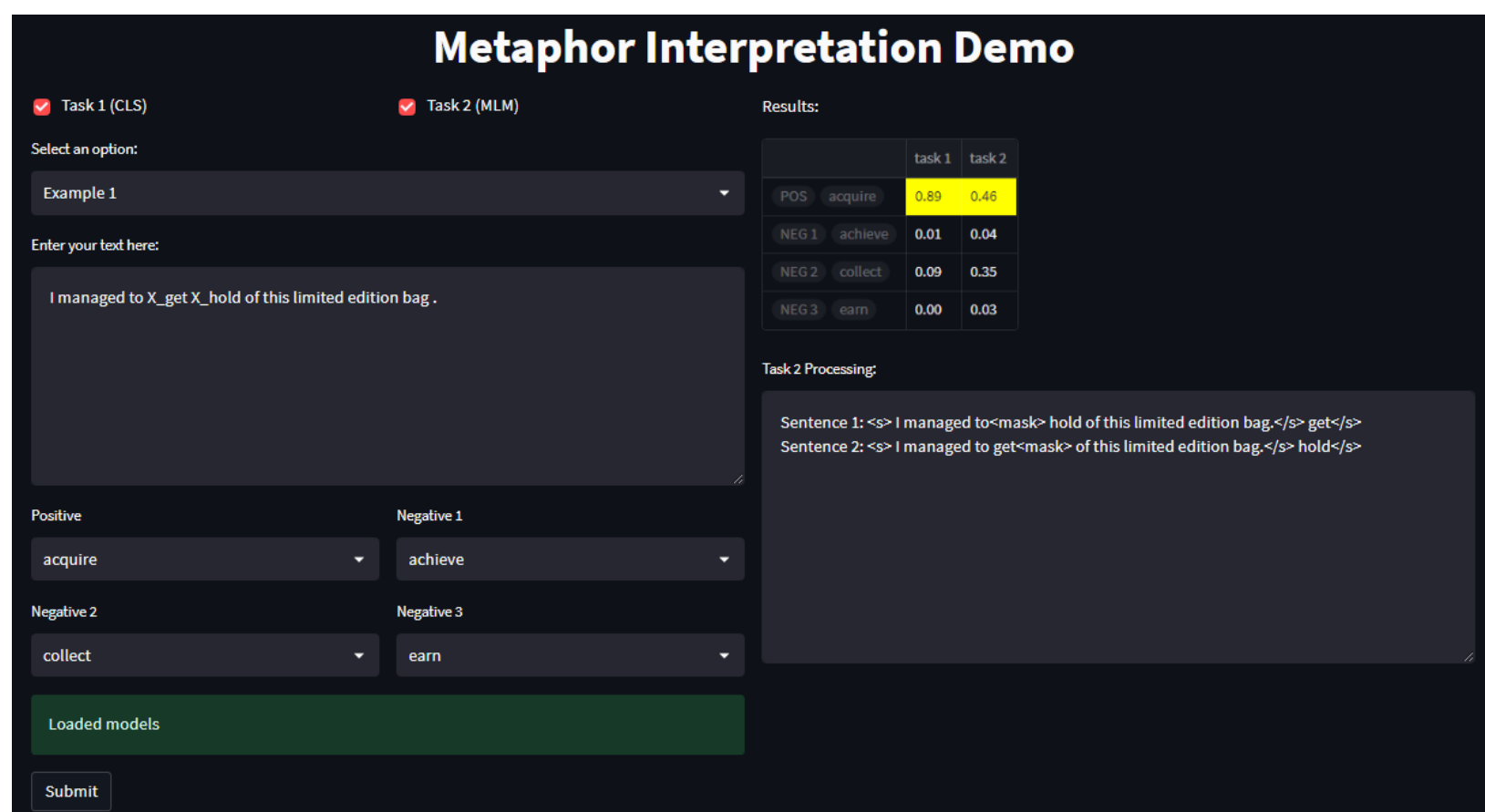
## Project Objectives

Metaphor Understanding is a complex NLP task that consists of 2 subtasks: Metaphor Identification and Metaphor Interpretation. This project proposes 2 BERT-based Metaphor Interpretation models based on different training paradigms: Classification (CLS) and Masked Language Modelling (MLM). Our unified processing methods apply to both single-word and Multi-Word Expression (MWE) metaphors, reducing complexity. A detailed evaluation is then conducted to compare the performances of both models on how generalizable they are in terms of unseen cases and MWEs. It is found that CLS performs better than MLM in general, but MLM is more generalizable on unseen labels.

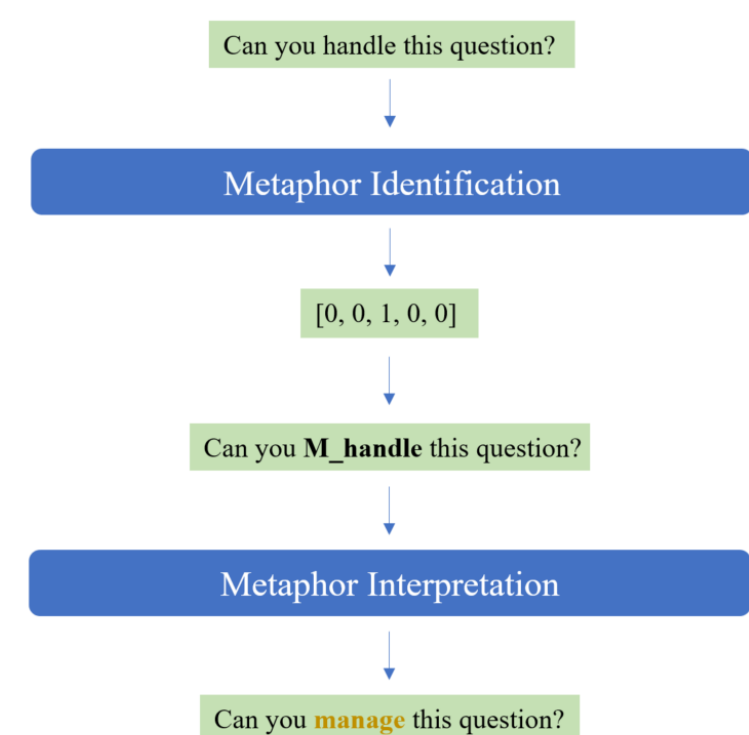
METAPHOR INTERPRETATION

	Task	Overall	Unseen Labels	Unseen Metaphors	MWE Label	MWE Metaphor
RoBERTa	Task 1 (CLS)	<b>74.92</b>	14.29	52.87	57.90	56.67
	Task 2 (MLM)	66.03	<b>42.86</b>	45.98	57.90	56.67
BERT	Task 1 (CLS)	72.38	0.00	48.28	<b>63.16</b>	<b>60.00</b>
	Task 2 (MLM)	64.44	38.34	<b>60.92</b>	52.63	50.00
ELECTRA	Task 1 (CLS)	73.33	14.29	49.43	<b>63.16</b>	53.33
	Task 2 (MLM)	42.22	14.29	22.99	52.63	23.33

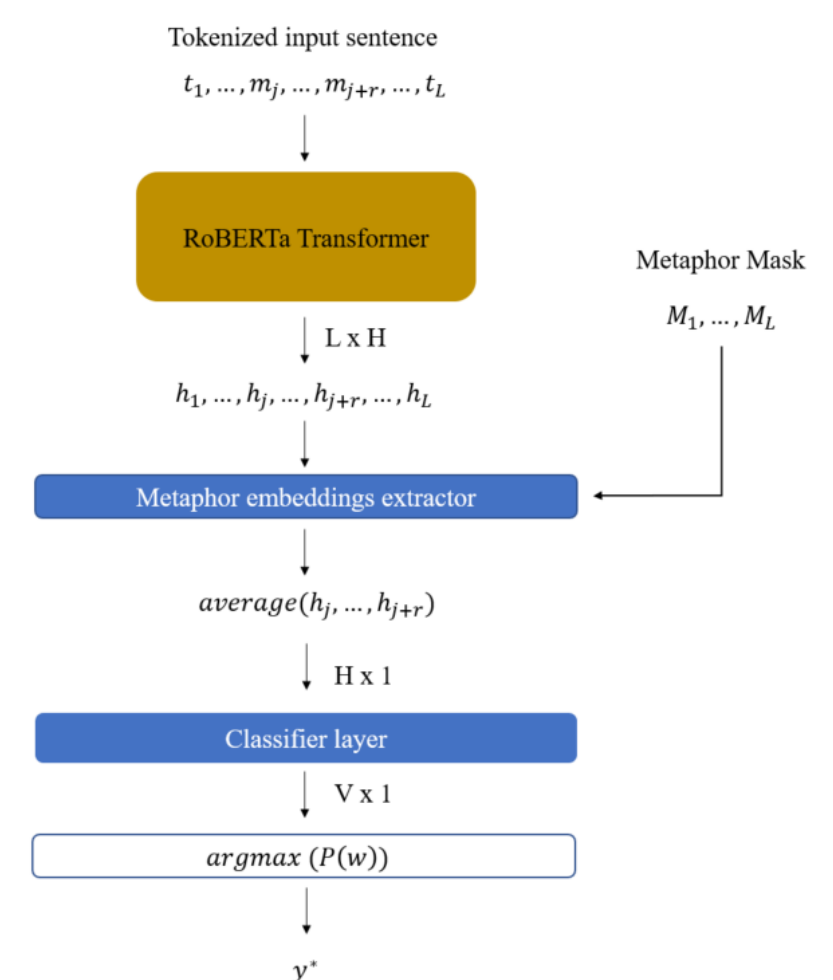
## Metaphor Interpretation tool



## Metaphor Understanding



## Paradigm 1: Classification



## Paradigm 2: Masked LM

