

PRESE

Expanding the Language model in a low-
resource hybrid MT system

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Summary of Work

Motivation

How may an existing MT system be improved?

Possible Solution

Fuse different language models to improve translation accuracy

MT system

Hybrid MT system

The original MT system uses a syntactically-defined phrasal language model.

Planned upgrade

Supplement the phrasal model with n-gram language models.

Implementation

Sample a monolingual corpus to create a second TL-side language model.

Post-process MT output to identify problematic cases

Define hypotheses based on lemma- or token-type information

Consult n-gram statistics to determine necessary corrections to the MT output

Results

Number of sentences	200	Resources	enrich.	
Reference translations	1	Language pair	EL-EN	
MT config.	Metrics			
	BLEU	NIST	Meteor	TER
Baseline	0.3008	6.541	0.3784	55.21
<i>H₁ to H₄</i>	0.3059	6.569	0.3790	54.96
<i>H₁ to H₅</i>	0.3105	6.593	0.3791	54.75
<i>H₁ to H₆</i>	0.3096	6.643	0.3779	54.64