SemEval 2022 Task 2: Multilingual Idiomaticity Detection and Sentence Embedding

Dr Harish Tayyar Madabushi





Motivation for a Shared Task on Idioms

State of the art NLP systems have achieved extraordinary success across several tasks such as sentences classification (Zhang et al., 2019) and reading comprehension (Raffel et al., 2019)

However, they cannot effectively represent idiomatic multiword expressions (MWEs) (Yu and Ettinger, 2020; Garcia et al., 2021).

Addressing this is non-trivial due to their heavy reliance on compositionality at both the word and sub-word levels.



Proposed Tasks

Subtask A: Identification of Idiomaticity

Given a sentence with a potentially idiomatic MWE, classify the use of the MWE in the sentence as either: a) Idiomatic or b) Non-idiomatic

Subtask B: Idiom Representation

The effective representation of potentially idiomatic expressions so they can be used in downstream tasks



Subtask A: Data and Task

MWE	Target Sentence	Previous Sentence	Next Sentence	Label	Idiomatic?	Paraphrase
gold mine	This means that search data is a	The data that those	It reveals which	Idiomatic 1	Yes	source of fortune
	gold mine for marketing strategy.	searches generate	types of product			
	(marketingweek.com)	builds				
gold mine	The hashtag "Qixia gold mine in-	The rescue opera-	A week after the ex-	Literal	No	mine
	cident" has been viewed many	tion took place	plosion			
	million of times on the social me-					
	dia site Weibo. (wsws.org)					
gold mine	The Gold Mine's plain frontage	SquareMeal Re-	The menu touts a	Proper Noun	No	Proper Noun
	& sparse, white-walled dining	view of Gold	bewildering array			
	room suggest that it's a quick-fix	Mine	of dishes			
	refuelling stop rather than a place					
	to linger. (squaremeal.co.uk)					



Subtask B: Data and Task

Sentence (E)	Correct Replacement $(E_{MWE \rightarrow c})$	Wrong Replacement $(E_{MWE \rightarrow i})$	Expected
When removing a <i>big fish</i> from a net, it should be held in a manner that supports the girth. (newsdakota.com)	When removing a <i>fish</i> from a net, it should be held in a manner that supports the girth.	When removing a <i>important person</i> from a net, it should be held in a manner that supports the girth.	$sim(E, E_{\rightarrow c}) = 1$ $sim(E, E_{\rightarrow i}) = sim(E_{\rightarrow c}, E_{\rightarrow i})$
To pay attention only to new housing and houses I think skews the <i>big picture</i> . (streets.mn)	To pay attention only to new housing and houses I think skews the <i>whole situation</i> .	To pay attention only to new housing and houses I think skews the <i>large image</i> .	$sim(E, E_{\rightarrow c}) = 1$ $sim(E, E_{\rightarrow i}) = sim(E_{\rightarrow c}, E_{\rightarrow i})$



Baseline, Languages and Setup

Models struggle in the zero shot setting, which is the most interesting.

Representations of idiomatic expression without annotated data are poor

To this end we propose:

English Zero shot, One shot

Portugese Zero shot, One shot

Galician Zero shot, One shot (Transfer learning only)



Task Organisers

Aline Villavicencio

Marco Idiart

Carolina Scarton

Marcos Garcia

Harish Tayyar Madabushi

University of Sheffield, UK

Federal University of Rio Grande do Sul, Brazil

University of Sheffield, UK

Universidade de Santiago de Compostela, Spain

University of Sheffield, UK



Visit the Task Website (& join the Google Group)

https://sites.google.com/view/semeval2022task2-idiomaticity

