SemEval 2022 Task 2: Multilingual Idiomaticity Detection and Sentence Embedding

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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

<table>
<thead>
<tr>
<th>MWE</th>
<th>Target Sentence</th>
<th>Previous Sentence</th>
<th>Next Sentence</th>
<th>Label</th>
<th>Idiomatic?</th>
<th>Paraphrase</th>
</tr>
</thead>
<tbody>
<tr>
<td>gold mine</td>
<td>This means that search data is a <em>gold mine</em> for marketing strategy. (<a href="http://marketingweek.com">marketingweek.com</a>)</td>
<td>The data that those searches generate builds...</td>
<td>It reveals which types of product...</td>
<td>Idiomatic 1</td>
<td>Yes</td>
<td>source of fortune</td>
</tr>
<tr>
<td>gold mine</td>
<td>The hashtag “Qixia <em>gold mine</em> incident” has been viewed many million of times on the social media site Weibo. (<a href="http://wsws.org">wsws.org</a>)</td>
<td>The rescue operation took place...</td>
<td>A week after the explosion...</td>
<td>Literal</td>
<td>No</td>
<td>mine</td>
</tr>
<tr>
<td>gold mine</td>
<td>The <em>Gold Mine</em>’s plain frontage &amp; sparse, white-walled dining room suggest that it’s a quick-fix refuelling stop rather than a place to linger. (<a href="http://squaremeal.co.uk">squaremeal.co.uk</a>)</td>
<td>SquareMeal Review of Gold Mine</td>
<td>The menu touts a bewildering array of dishes...</td>
<td>Proper Noun</td>
<td>No</td>
<td>Proper Noun</td>
</tr>
<tr>
<td>Sentence (E)</td>
<td>Correct Replacement ($E_{MWE\rightarrow c}$)</td>
<td>Wrong Replacement ($E_{MWE\rightarrow i}$)</td>
<td>Expected</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>----------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------</td>
<td></td>
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</tr>
</tbody>
</table>
| When removing a *big fish* from a net, it should be held in a manner that supports the girth. ([newsdakota.com](http://newsdakota.com)) | When removing a *fish* from a net, it should be held in a manner that supports the girth.                    | When removing a *important person* from a net, it should be held in a manner that supports the girth.     | $\text{sim}(E, E_{\rightarrow c}) = 1$  
$\text{sim}(E, E_{\rightarrow i}) = \text{sim}(E_{\rightarrow c}, E_{\rightarrow i})$                                      |
| To pay attention only to new housing and houses I think skews the *big picture*. ([streets.mn](http://streets.mn)) | To pay attention only to new housing and houses I think skews the *whole situation*.                         | To pay attention only to new housing and houses I think skews the *large image*.                        | $\text{sim}(E, E_{\rightarrow c}) = 1$  
$\text{sim}(E, E_{\rightarrow i}) = \text{sim}(E_{\rightarrow c}, E_{\rightarrow i})$                                      |
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

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Visit the Task Website (& join the Google Group)

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