Call for Participation in the 1st Shared Task on Multilingual Clause-level Morphology

Co-located with the 2nd Workshop on Multilingual Representation Learning (MRL) at EMNLP
8 December 2022, Abu Dhabi

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Description and Objectives

Morphology has been widely studied as a word-level task, although in many languages it has complex hierarchical relationships with different layers of language, such as phonetic, syntactic or semantic representations of phrase or sentence-level utterances. The extent of this relationship as well as its complexity, however, still remain unknown. The new shared task on multilingual clause-level morphology aims to investigate methods for morphological analysis or generation of different forms in languages with varying typology, where the modeling and alignment of morphosyntactic structure is accomplished at the level of clauses.

The shared task aims to provide a new benchmark that can help bring novel understandings in:

- The relationship between morphology and syntax in different languages
- How morphosyntactic structure aligns across languages with varying typology
- The performance of conventional statistical methods for language modeling or representation learning in learning abstract linguistic features that can generalize across forms and languages
- The limitations of conventional methods for morphological or syntactic modeling as well as the specifications required for developing more comprehensive and theoretically complete models of language

Languages

The shared task will initially include six languages from different language families and with varying morphological characteristics: English, French, German, Hebrew, Russian and Turkish. We anticipate the extension of the benchmark to include more languages as time and resources become available.

Tasks
The shared task can be studied in terms of three parts.

**Task 1: Inflection**

In this task the input is verbal *lemma* (the form given as a lexicon entry) and a specific set of *inflectional features*. The task requires generating the desired output clause manifesting the features.

**Examples**

<table>
<thead>
<tr>
<th>Input</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>English: <em>give IND;FUT;NOM(1,SG);ACC(3,SG,MASC);DAT(3,SG,FEM)</em></td>
<td><em>I will give him to her</em></td>
</tr>
<tr>
<td>German: <em>geben IND;FUT;NOM(1,SG);ACC(3,SG,MASC);DAT(3,SG,FEM)</em></td>
<td><em>Ich werde ihn ihr geben</em></td>
</tr>
<tr>
<td>Turkish: <em>vermek IND;FUT;NOM(1,SG);ACC(3,SG);DAT(3,SG)</em></td>
<td><em>Onu ona vereceğim</em></td>
</tr>
<tr>
<td>Hebrew: <em>נתן IND;FUT;NOM(1,SG);ACC(3,SG,MASC);DAT(3,SG,FEM)</em></td>
<td><em>אант אנט לוה</em></td>
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**Task 2: Reinflection**

In this task the input is an *inflected clause*, accompanied by its *features*, and a new set of *features* representing the desired form. The task is to generate the desired output that will represent the desired features.

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<td>English: <em>I will give him to her IND;FUT;NOM(1,SG);ACC(3,SG,MASC);DAT(3,SG,FEM)</em></td>
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<td>German: <em>Ich werde ihn ihr geben IND;FUT;NOM(1,SG);ACC(3,SG,MASC);DAT(3,SG,FEM)</em></td>
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<td>Turkish: <em>Onu ona vereceğim IND;FUT;NOM(1,SG);ACC(3,SG,MASC);DAT(3,SG,FEM)</em></td>
<td><em>Seni onlara vermiyoruzem</em></td>
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<tr>
<td>Hebrew: <em>אתן אתו לה IND;FUT;NOM(1,SG);ACC(3,SG,MASC);DAT(3,SG,FEM)</em></td>
<td><em>אנאנו לא נותנים אהר לוה</em></td>
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**Task 3: Analysis**

This task is the opposite of task 1, where a system is required to analyze given *clauses* and generate the *lemma* and *features* underlying them.

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Participation

Interested parties are invited to join the mailing list at participants-mcmsharedtask-2022@googlegroups.com to be involved in the competition.

All participating systems will be evaluated together with our baselines against the same held-out test set, to be released shortly before evaluation. Submitted systems can compete in some or all sub-tasks.

Participating teams will be invited to submit a short paper describing their work to the MRL workshop and to present it in a special session in the workshop.

Important Dates

May 16, 2022: Release of training and development data
July 20, 2022: Release of testing data
July 30, 2022: Deadline for submission of systems
August 15, 2022: Release of rankings and results
September 7, 2022: Deadline for submitting system description papers

Evaluation

System outputs will be evaluated using standard evaluation metrics used in morphological analysis and inflection, including the exact match accuracy ratings (precision, recall and F-1) as well as metrics for generated text, such as the edit distance.

Organizers

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