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|  | **1. What problem will the proposed work (does the reported work) solve?** | **Why does this problem matter?** | **What will the author do to solve it?** | **4. How is the author’s proposed solution different/better than prior work?** |
| **GOOGLE NMT** | In this paper we introduce a simple method to translate between multiple languages using a single model, taking advantage of multilingual data to improve NMT for all languages involved. Our method requires no change to the traditional NMT model architecture. | Machine translation has rapidly gained adoption in many large-scale settings | Instead, we add an artificial token to the input sequence to indicate the required target language, a simple amendment to the data only. | i) Simplicity  ii) Low-resource Languages Improvement,  iii) Enables Zero-shot translation |
| **LEMMING** | Solving these kinds of [ambiguity] problems requires global features on the lemma. Global features of this kind were not supported in previous systems. | Lemmatization is important for many NLP tasks, including parsing (Bjorkelund et al., 2010) and machine translation (Fraser et al., 2012). | We present the first joint log-linear model of morphological analysis and lemmatization that operates at the token level and is also able to lemmatize unknown forms. | i) Unlike other work it does not rely on morphological dictionaries or analyzers.  ii) State-of-the-art results.  iii) Easily incorporated into other models |
| **HARD MONOTONIC ATTENTION** | Morphological inflection generation. | The task is important for many down-stream NLP tasks such as machine translation, especially for dealing with data sparsity in morphologically rich languages where a lemma can be inflected into many different word forms. | Direct modeling of the almost monotonic alignment between the input and output character sequences, commonly found in the morphological inflection generation task. | We analyze and compare our model and the soft attention model, showing how they function very similarly with respect to the alignments and representations they learn, in spite of our model being much simpler. |

5b. How will the author evaluate their results?

6. What resources will be needed to complete the project? (Computing resources? Data sets? Human participants?) Where will they get these resources?

7. What kinds of problems might occur during the work that would prevent them from getting everything they want done? How will they handle these problems? Is there a fallback strategy?