Prof. R. Wattenhofer

Translating modern English to Homeric Style with Deep Learning

The very recent advances in deep learning models for natural language processing have enormously advanced the state of the art performance in many different language tasks. Of particular relevance are the Transformer model and its different variants (BERT, GPT, XLNet..). These models are pretrained on very large datasets, which allegedly provides them a good understanding of language. Then, by fine-tuning the pretrained model the understanding of language acquired by the model is leveraged to solve a specific task.
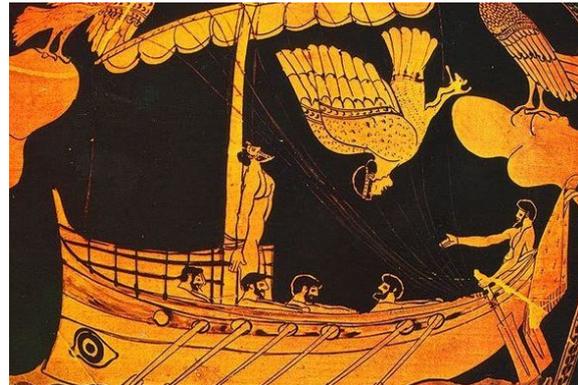
The objective of this project is to use transformer models to translate XXI century English into Homeric style. Homer wrote back in the XIII century b.c. the Iliad and the Odyssey, which are considered to be the founding texts of western literature. These works have been studied during over three thousand years and have been translated multiple times to many different language. However, the translations differ largely one another and while some of them maintain the verse and the metric in an attempt to be loyal to the original style, more modern translations focus on keeping the meaning while improving the readability.

In this project we aim at using two different translations of the Iliad and Odyssey, one from the XVIII century which respects the original style and one in prose from the XXI century, to fine-tune a transformer model in order to perform translation between both styles. In this manner, the objective is to build a model that givena piece of text written in modern English translates it into Homeric style.

If this sounds interesting to you do not hesitate to contact us.

Requirements: Knowledge in Deep Learning, or solid background in Machine Learning. Implementation experience with TensorFlow is an advantage. English proficiency and interest in the Iliad and Odyssey are desirable. The student should be able to work independently on this topic!

Interested? Please contact us for more details!

Contacts

- Damian Pascual Ortiz: dpascual@ethz.ch, ETZ G97

- Gino Brunner: brunnegi@ethz.ch, ETZ H93