

### **A proposal for an update-able system for the automatic figure of speech authoring support system:**

To create a system that can update itself on new, generated and update-able data, the following update system is recommended to be implemented into the API:

- Every time a series of metaphors are generated, the author can identify which of the items in the list could be figures of speech (humans are relatively accurate in deciding this as the validation of this paper shows).
- The chosen sentences are picked and accurately classified by the BERT classification model. If the model identifies the sentence as "neutral sentence", the sentence is discarded as a redundancy feature.
- The sentence or sentences with the correct labels are added to the already existing database of figures.

Once a sufficient amount of sentences have been added to the database (500 to 1000), the entire system (BERT model, GPT2 fine tune and embedded database) can be retrained and/or updated for added accuracy.

These steps are visualised in the figure below.

This pipeline will ensure that the system is not static but constantly growing and thereby getting more accurate in providing support. In the case more different figures of speech are added to the database, this system will ensure that those figures will be included into the API.

