



BERT Learns Numbers:

Training Transforms to Capture Quantity in Text

Ayme Tomson
Computing
David Buttler





Natural Language Processing

The U.S. records **???** total cases and another day of at least **???** deaths.

NUM year study of **NUM** reefs in **NUM** countries around the world reveals "sharks are functionally extinct on many of the world's reefs". Sharks were not observed on nearly **NUM** of surveyed reefs, suggesting a widespread decline that has gone undocumented on this scale until now.

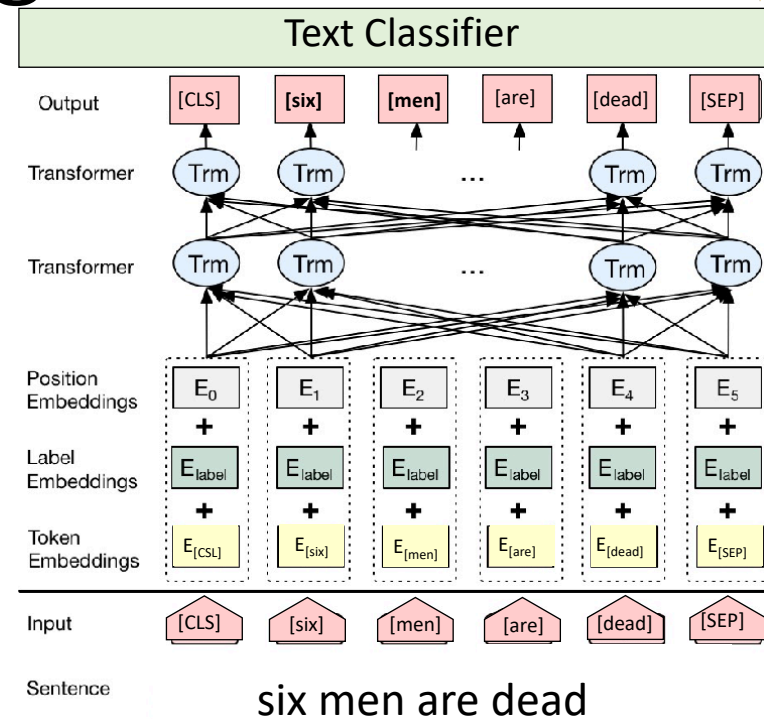
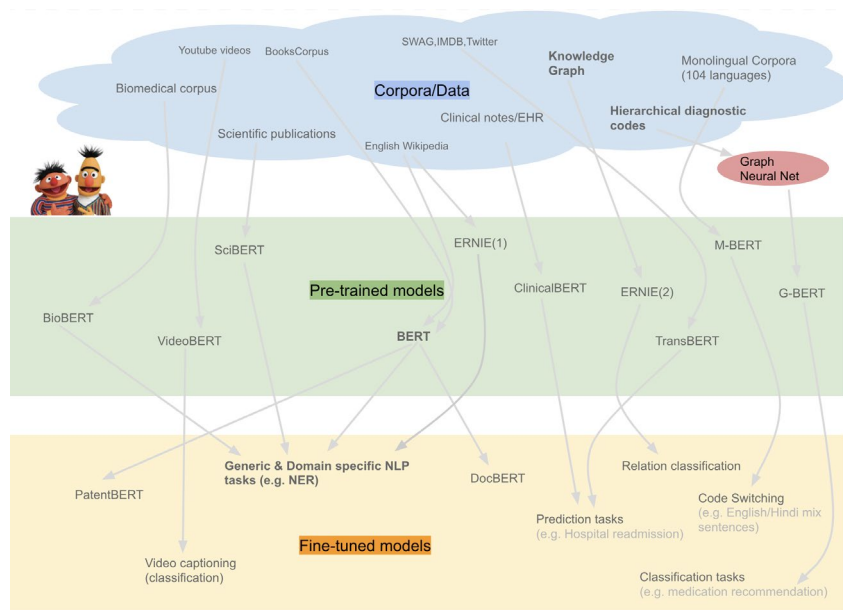
news.ucsb.edu/2020/0...

A **10+**-year-old former Nazi SS concentration camp guard has been found guilty of complicity in the murder of more than **10+** prisoners. Bruno Dey was handed a **0-9**-year suspended prison sentence by a court in the German city of Hamburg.

bbc.com/news/w...



BERT: Transform Learning



Training Data

Input Sentences from News	Hand Annotated Label
only three countries , the u.s., colombia and venezuela , had offered assistance.	Number: three Unit: countries
about 60 pct of usx's sales come from oil and natural gas.	Number: 60 Unit: pct



Natural Language Understanding

The U.S. records **four million** total cases and another day of at least **1,100** deaths.

Four year study of **371** reefs in **58** countries around the world reveals "sharks are functionally extinct on many of the world's reefs". Sharks were not observed on nearly **20%** of surveyed reefs, suggesting a widespread decline that has gone undocumented on this scale until now.

news.ucsb.edu/2020/0...

A **93**-year-old former Nazi SS concentration camp guard has been found guilty of complicity in the murder of more than **5,000** prisoners. Bruno Dey was handed a **two**-year suspended prison sentence by a court in the German city of Hamburg.

bbc.com/news/w...



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