Cold-Start Aware User and Product Attention for Sentiment Classification
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Q1: How do models perform on sparse data?

- By solving the cold-start problem, HCSC achieves better results without sacrificing training speed.
- On sparse data with more cold-start users/products, 1. Previous SOTA (i.e., NSC) performs worse than the same model without using user/product information (i.e., NSC(IA)).
- HCSC still performs well even in cold-start conditions.

Q2: When does HCSC get accuracy gains?

- When review frequency is smaller, increase in performance is seen from NSC to HCSC.

Q3: How few is cold start?

- Answer: we don’t know!
- But HCSC provides insights through its Weibull distribution:
  1. Users have a more lenient cold-start cut-off point than products.
  2. It depends on the domain of the dataset (Yelp vs. IMDB).

Q4: How are shared pooled vectors made?

- The HCSC framework provides insights into how shared pooled vectors are created. They are created in the following manner:
  1. The model learns a shared representation for each user/product.
  2. The model then uses this representation to improve classification accuracy.

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