CSE 576: Topics in Natural Language Processing

Dataset - 3

Phase 2 Report

Task Statement: Understand the task and think about alternative ways to represent the same task. To create a variant task, you can write alternate definitions by changing writing style, vocabulary, length of definition etc. and change the instances generated by the dataset

Solution: We created 1-5 variants of the task definitions by paraphrasing the original definitions.

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task072_abductivenli_answer_generation.json

task092_check_prime_classification.json task093_conala_normalize_lists.json task094_conala_calculate_mean.json task095_conala_max_absolute_value.json task096_conala_list_index_subtraction.json task097_conala_remove_duplicates.json

List of tasks:

task073_commonsenseqa_answer_generation.json task074 squad1.1 question generation.json task075 squad1.1 answer generation.json task076_splash_correcting_sql_mistake.json task077 splash explanation to sql.json task078 splash sql to explanation.json task079 conala concat strings.json task080 piga answer generation.json task081_piqa_wrong_answer_generation.json task082 babi t1 single supporting fact question generation ison task083 babi t1 single supporting fact answer generation.json task084 babi t1 single supporting fact identify relevant fact ison task085 unnatural addsub arithmetic.json task086 translated symbol arithmetic.json task087 new operator addsub arithmetic.json task088_identify_typo_verification.json task089 swap words verification.json task090 equation learner algebra.json

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task098 conala list intersection.json
task102_commongen_sentence_generation.json
task103 facts2story long text generation.json
task104 semeval 2019 task10 closed vocabulary mathematical answer generation.json
task105 story cloze-rocstories sentence generation.json
task106 scruples ethical judgment.json
task107 splash question to sql.json
task108 contextualabusedetection classification.json
task109 smsspamcollection spamsmsdetection.json
task110 logic2text sentence generation.json
task111 asset sentence simplification.json
task112 asset simple sentence identification.json
task113 count frequency of letter.json
task114_is_the_given_word_longest.json
task115 help advice classification.json
task116_com2sense_commonsense_reasoning.json
task117_spl_translation_en_de.json
task118 semeval 2019 task10 open vocabulary mathematical answer generation.json
task119_semeval_2019_task10_geometric_mathematical_answer_generation.json
```

For Tasks 72-95:

Number of variants created per task -

task119_zest_text_modification.json task120 zest text modification.json

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Tools used -

DiverseParaphraser

Casual2Former

Former2Casual

Quillbot.com

Styleformer

MySecondTransformation

Number of Instances Generated -

In the range 200 - 6500

New Instances generated for -

Task 72, 73, 74, 75, 80, 81

<u>Tasks for which the instances were shuffled as all the instances of the dataset were used</u> - Tasks 76, 77, 78, 79, 82, 83, 84, 85, 86, 87, 88, 89, 90, 92, 93, 94, 95

Datasets Used -

Abductive NLI

CommonsenseQA

SQuad1.1

```
Splash
Conala
PIQA
BABI
```

Synthetic

Types of Definitions Generated-

Paraphrase, Long, Short, Formal, Casual, Summary

For Tasks 96-120:

```
Number of variants created per task - 1
```

Tools used -

sentence_reordering style_paraphraser concat_monolingual styleformer

New instances were generated for the tasks -

102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 115, 116, 117, 118, 119, 119, 120

New instances couldn't be generated for the tasks due to lesser size of the training dataset -

96, 97, 98, 113, 114

Number of instances generated -

In the range 150 to 2500

<u>Datasets used -</u>

CoNala

commongen

Fact2Story

semeval 2019 task10

story cloze and ROCStories

scruples

splash

context abuse detection

SMS spam collection v.1

Logic2Text

Synthetic dataset

Help dataset from EMNLP 2020 paper

SPL

zest

asset

Com2Sense

Types of Definitions Generated-

Paraphrase, Long, Short, Formal, Casual, Summary