

1, TITLE: AligNART: Non-autoregressive Neural Machine Translation by Jointly Learning to Estimate Alignment and Translate
<https://www.aclweb.org/anthology/2021.emnlp-main.1>

AUTHORS: Jongyoon Song, Sungwon Kim, Sungroh Yoon

HIGHLIGHT: In this paper, we introduce AligNART, which leverages full alignment information to explicitly reduce the modality of the target distribution.

2, TITLE: Zero-Shot Cross-Lingual Transfer of Neural Machine Translation with Multilingual Pretrained Encoders

<https://www.aclweb.org/anthology/2021.emnlp-main.2>

AUTHORS: Guanhua Chen, Shuming Ma, Yun Chen, Li Dong, Dongdong Zhang, Jia Pan, Wenping Wang, Furu Wei

HIGHLIGHT: In this paper, we focus on a zero-shot cross-lingual transfer task in NMT.

3, TITLE: ERNIE-M: Enhanced Multilingual Representation by Aligning Cross-lingual Semantics with Monolingual Corpora

<https://www.aclweb.org/anthology/2021.emnlp-main.3>

AUTHORS: Xuan Ouyang, Shuohuan Wang, Chao Pang, Yu Sun, Hao Tian, Hua Wu, Haifeng Wang

HIGHLIGHT: In this paper, we propose Ernie-M, a new training method that encourages the model to align the representation of multiple languages with monolingual corpora, to overcome the constraint that the parallel corpus size places on the model performance.

4, TITLE: Cross Attention Augmented Transducer Networks for Simultaneous Translation

<https://www.aclweb.org/anthology/2021.emnlp-main.4>

AUTHORS: Dan Liu, Mengge Du, Xiaoxi Li, Ya Li, Enhong Chen

HIGHLIGHT: This paper proposes a novel architecture, Cross Attention Augmented Transducer (CAAT), for simultaneous translation.

5, TITLE: Translating Headers of Tabular Data: A Pilot Study of Schema Translation

<https://www.aclweb.org/anthology/2021.emnlp-main.5>

AUTHORS: Kunrui Zhu, Yan Gao, Jiaqi Guo, Jian-Guang Lou

HIGHLIGHT: To facilitate the research study, we construct the first parallel dataset for schema translation, which consists of 3,158 tables with 11,979 headers written in 6 different languages, including English, Chinese, French, German, Spanish, and Japanese. Also, we propose the first schema translation model called CAST, which is a header-to-header neural machine translation model augmented with schema context.

6, TITLE: Towards Making the Most of Dialogue Characteristics for Neural Chat Translation

<https://www.aclweb.org/anthology/2021.emnlp-main.6>

AUTHORS: Yunlong Liang, Chulun Zhou, Fandong Meng, Jinan Xu, Yufeng Chen, Jinsong Su, Jie Zhou

HIGHLIGHT: In this paper, we propose to promote the chat translation by introducing the modeling of dialogue characteristics into the NCT model.

7, TITLE: Low-Resource Dialogue Summarization with Domain-Agnostic Multi-Source Pretraining

<https://www.aclweb.org/anthology/2021.emnlp-main.7>

AUTHORS: Yicheng Zou, Bolin Zhu, Xingwu Hu, Tao Gui, Qi Zhang

HIGHLIGHT: To bridge the gap between out-of-domain pretraining and in-domain fine-tuning, in this work, we propose a multi-source pretraining paradigm to better leverage the external summary data.

8, TITLE: Controllable Neural Dialogue Summarization with Personal Named Entity Planning

<https://www.aclweb.org/anthology/2021.emnlp-main.8>

AUTHORS: Zhengyuan Liu, Nancy Chen

HIGHLIGHT: In this paper, we propose a controllable neural generation framework that can flexibly guide dialogue summarization with personal named entity planning.

9, TITLE: Fine-grained Factual Consistency Assessment for Abstractive Summarization Models

<https://www.aclweb.org/anthology/2021.emnlp-main.9>

AUTHORS: Sen Zhang, Jianwei Niu, Chuyuan Wei

HIGHLIGHT: This paper proposes a fine-grained two-stage Fact Consistency assessment framework for Summarization models (SumFC).

10, TITLE: Decision-Focused Summarization

<https://www.aclweb.org/anthology/2021.emnlp-main.10>

AUTHORS: Chao-Chun Hsu, Chenhao Tan

HIGHLIGHT: We propose a novel problem, decision-focused summarization, where the goal is to summarize relevant information for a decision.

- 11, TITLE: Multiplex Graph Neural Network for Extractive Text Summarization
<https://www.aclweb.org/anthology/2021.emnlp-main.11>
AUTHORS: Baoyu Jing, Zeyu You, Tao Yang, Wei Fan, Hanghang Tong
HIGHLIGHT: To address these problems, we propose a novel Multiplex Graph Convolutional Network (Multi-GCN) to jointly model different types of relationships among sentences and words.
- 12, TITLE: A Thorough Evaluation of Task-Specific Pretraining for Summarization
<https://www.aclweb.org/anthology/2021.emnlp-main.12>
AUTHORS: Sascha Rothe, Joshua Maynez, Shashi Narayan
HIGHLIGHT: We compare three summarization specific pretraining objectives with the task agnostic corrupted span prediction pretraining in controlled study.
- 13, TITLE: HETFORMER: Heterogeneous Transformer with Sparse Attention for Long-Text Extractive Summarization
<https://www.aclweb.org/anthology/2021.emnlp-main.13>
AUTHORS: Ye Liu, Jianguo Zhang, Yao Wan, Congying Xia, Lifang He, Philip Yu
HIGHLIGHT: To mitigate these issues, this paper proposes HetFormer, a Transformer-based pre-trained model with multi-granularity sparse attentions for long-text extractive summarization.
- 14, TITLE: Unsupervised Keyphrase Extraction by Jointly Modeling Local and Global Context
<https://www.aclweb.org/anthology/2021.emnlp-main.14>
AUTHORS: Xinnian Liang, Shuangzhi Wu, Mu Li, Zhoujun Li
HIGHLIGHT: In this paper, we propose a novel method for UKE, where local and global contexts are jointly modeled.
- 15, TITLE: Distantly Supervised Relation Extraction using Multi-Layer Revision Network and Confidence-based Multi-Instance Learning
<https://www.aclweb.org/anthology/2021.emnlp-main.15>
AUTHORS: Xiangyu Lin, Tianyi Liu, Weijia Jia, Zhiguo Gong
HIGHLIGHT: In this paper, we propose a novel Multi-Layer Revision Network (MLRN) which alleviates the effects of word-level noise by emphasizing inner-sentence correlations before extracting relevant information within sentences.
- 16, TITLE: Logic-level Evidence Retrieval and Graph-based Verification Network for Table-based Fact Verification
<https://www.aclweb.org/anthology/2021.emnlp-main.16>
AUTHORS: Qi Shi, Yu Zhang, Qingyu Yin, Ting Liu
HIGHLIGHT: To address the aforementioned problems, in this work, we formulate the table-based fact verification task as an evidence retrieval and reasoning framework, proposing the Logic-level Evidence Retrieval and Graph-based Verification network (LERGV).
- 17, TITLE: A Partition Filter Network for Joint Entity and Relation Extraction
<https://www.aclweb.org/anthology/2021.emnlp-main.17>
AUTHORS: Zhiheng Yan, Chong Zhang, Jinlan Fu, Qi Zhang, Zhongyu Wei
HIGHLIGHT: We propose a partition filter network to model two-way interaction between tasks properly, where feature encoding is decomposed into two steps: partition and filter.
- 18, TITLE: TEBNER: Domain Specific Named Entity Recognition with Type Expanded Boundary-aware Network
<https://www.aclweb.org/anthology/2021.emnlp-main.18>
AUTHORS: Zheng Fang, Yanan Cao, Tai Li, Ruipeng Jia, Fang Fang, Yanmin Shang, Yuhai Lu
HIGHLIGHT: In this paper, we propose a novel dictionary extension method which extracts new entities through the type expanded model.
- 19, TITLE: Beta Distribution Guided Aspect-aware Graph for Aspect Category Sentiment Analysis with Affective Knowledge
<https://www.aclweb.org/anthology/2021.emnlp-main.19>
AUTHORS: Bin Liang, Hang Su, Rongdi Yin, Lin Gui, Min Yang, Qin Zhao, Xiaoqi Yu, Ruifeng Xu
HIGHLIGHT: In this paper, we investigate the Aspect Category Sentiment Analysis (ACSA) task from a novel perspective by exploring a Beta Distribution guided aspect-aware graph construction based on external knowledge.
- 20, TITLE: DILBERT: Customized Pre-Training for Domain Adaptation with Category Shift, with an Application to Aspect Extraction
<https://www.aclweb.org/anthology/2021.emnlp-main.20>

- AUTHORS: Entony Lekhtman, Yftah Ziser, Roi Reichart
HIGHLIGHT: This paper presents a new fine-tuning scheme for BERT, which aims to address the above challenges.
- 21, TITLE: Improving Multimodal fusion via Mutual Dependency Maximisation
<https://www.aclweb.org/anthology/2021.emnlp-main.21>
AUTHORS: Pierre Colombo, Emile Chapuis, Matthieu Labeau, Chloé Clavel
HIGHLIGHT: In this work, we investigate unexplored penalties and propose a set of new objectives that measure the dependency between modalities.
- 22, TITLE: Learning Implicit Sentiment in Aspect-based Sentiment Analysis with Supervised Contrastive Pre-Training
<https://www.aclweb.org/anthology/2021.emnlp-main.22>
AUTHORS: Zhengyan Li, Yicheng Zou, Chong Zhang, Qi Zhang, Zhongyu Wei
HIGHLIGHT: To overcome this issue, we adopt Supervised Contrastive Pre-training on large-scale sentiment-annotated corpora retrieved from in-domain language resources.
- 23, TITLE: Progressive Self-Training with Discriminator for Aspect Term Extraction
<https://www.aclweb.org/anthology/2021.emnlp-main.23>
AUTHORS: Qianlong Wang, Zhiyuan Wen, Qin Zhao, Min Yang, Ruifeng Xu
HIGHLIGHT: In this paper, we use two means to alleviate the noise in the pseudo-labels.
- 24, TITLE: Reinforced Counterfactual Data Augmentation for Dual Sentiment Classification
<https://www.aclweb.org/anthology/2021.emnlp-main.24>
AUTHORS: Hao Chen, Rui Xia, Jianfei Yu
HIGHLIGHT: In this work, we propose an end-to-end reinforcement learning framework, which jointly performs counterfactual data generation and dual sentiment classification.
- 25, TITLE: Idiosyncratic but not Arbitrary: Learning Idiolects in Online Registers Reveals Distinctive yet Consistent Individual Styles
<https://www.aclweb.org/anthology/2021.emnlp-main.25>
AUTHORS: Jian Zhu, David Jurgens
HIGHLIGHT: We introduce a new approach to studying idiolects through a massive cross-author comparison to identify and encode stylistic features.
- 26, TITLE: Narrative Theory for Computational Narrative Understanding
<https://www.aclweb.org/anthology/2021.emnlp-main.26>
AUTHORS: Andrew Piper, Richard Jean So, David Bamman
HIGHLIGHT: In this position paper, we introduce the dominant theoretical frameworks to the NLP community, situate current research in NLP within distinct narratological traditions, and argue that linking computational work in NLP to theory opens up a range of new empirical questions that would both help advance our understanding of narrative and open up new practical applications.
- 27, TITLE: (Mis)alignment Between Stance Expressed in Social Media Data and Public Opinion Surveys
<https://www.aclweb.org/anthology/2021.emnlp-main.27>
AUTHORS: Kenneth Joseph, Sarah Shugars, Ryan Gallagher, Jon Green, Alexi Quintana Math?, Zijian An, David Lazer
HIGHLIGHT: By presenting a framework for assessing the limitations of stance detection models, this work provides important insight into what stance detection truly measures.
- 28, TITLE: How Does Counterfactually Augmented Data Impact Models for Social Computing Constructs?
<https://www.aclweb.org/anthology/2021.emnlp-main.28>
AUTHORS: Indira Sen, Mattia Samory, Fabian Flück, Claudia Wagner, Isabelle Augenstein
HIGHLIGHT: We investigate the benefits of CAD for social NLP models by focusing on three social computing constructs - sentiment, sexism, and hate speech.
- 29, TITLE: Latent Hatred: A Benchmark for Understanding Implicit Hate Speech
<https://www.aclweb.org/anthology/2021.emnlp-main.29>
AUTHORS: Mai ElSherief, Caleb Ziems, David Muchlinski, Vaishnavi Anupindi, Jordyn Seybolt, Munmun De Choudhury, Diyi Yang
HIGHLIGHT: To fill this gap, this work introduces a theoretically-justified taxonomy of implicit hate speech and a benchmark corpus with fine-grained labels for each message and its implication.
- 30, TITLE: Distilling Linguistic Context for Language Model Compression

<https://www.aclweb.org/anthology/2021.emnlp-main.30>

AUTHORS: Geondo Park, Gyeongman Kim, Eunho Yang

HIGHLIGHT: In this paper, inspired by the recent observations that language representations are relatively positioned and have more semantic knowledge as a whole, we present a new knowledge distillation objective for language representation learning that transfers the contextual knowledge via two types of relationships across representations: Word Relation and Layer Transforming Relation.

31, TITLE: Dynamic Knowledge Distillation for Pre-trained Language Models

<https://www.aclweb.org/anthology/2021.emnlp-main.31>

AUTHORS: Lei Li, Yankai Lin, Shuhuai Ren, Peng Li, Jie Zhou, Xu Sun

HIGHLIGHT: In this paper, we explore whether a dynamic knowledge distillation that empowers the student to adjust the learning procedure according to its competency, regarding the student performance and learning efficiency.

32, TITLE: Few-Shot Text Generation with Natural Language Instructions

<https://www.aclweb.org/anthology/2021.emnlp-main.32>

AUTHORS: Timo Schick, Hinrich Sch?tze

HIGHLIGHT: In this paper, we show how these challenges can be tackled: We introduce GenPET, a method for text generation that is based on pattern-exploiting training, a recent approach for combining textual instructions with supervised learning that only works for classification tasks.

33, TITLE: SOM-NCSCM : An Efficient Neural Chinese Sentence Compression Model Enhanced with Self-Organizing Map

<https://www.aclweb.org/anthology/2021.emnlp-main.33>

AUTHORS: Kangli Zi, Shi Wang, Yu Liu, Jicun Li, Yanan Cao, Cungen Cao

HIGHLIGHT: In this work, we construct an SC dataset of Chinese colloquial sentences from a real-life question answering system in the telecommunication domain, and then, we propose a neural Chinese SC model enhanced with a Self-Organizing Map (SOM-NCSCM), to gain a valuable insight from the data and improve the performance of the whole neural Chinese SC model in a valid manner.

34, TITLE: Efficient Multi-Task Auxiliary Learning: Selecting Auxiliary Data by Feature Similarity

<https://www.aclweb.org/anthology/2021.emnlp-main.34>

AUTHORS: Po-Nien Kung, Sheng-Siang Yin, Yi-Cheng Chen, Tse-Hsuan Yang, Yun-Nung Chen

HIGHLIGHT: Therefore, this paper focuses on addressing these problems and proposes a time-efficient sampling method to select the data that is most relevant to the primary task.

35, TITLE: GOLD: Improving Out-of-Scope Detection in Dialogues using Data Augmentation

<https://www.aclweb.org/anthology/2021.emnlp-main.35>

AUTHORS: Derek Chen, Zhou Yu

HIGHLIGHT: We introduce GOLD as an orthogonal technique that augments existing data to train better OOS detectors operating in low-data regimes.

36, TITLE: Graph Based Network with Contextualized Representations of Turns in Dialogue

<https://www.aclweb.org/anthology/2021.emnlp-main.36>

AUTHORS: Bongseok Lee, Yong Suk Choi

HIGHLIGHT: In this paper, we propose the TUM CONTEXT AWARE GRAPH CONVOLUTIONAL NETWORK (TUCORE-GCN) modeled by paying attention to the way people understand dialogues.

37, TITLE: Automatically Exposing Problems with Neural Dialog Models

<https://www.aclweb.org/anthology/2021.emnlp-main.37>

AUTHORS: Dian Yu, Kenji Sagae

HIGHLIGHT: In this paper, we propose two methods including reinforcement learning to automatically trigger a dialog model into generating problematic responses.

38, TITLE: Event Coreference Data (Almost) for Free: Mining Hyperlinks from Online News

<https://www.aclweb.org/anthology/2021.emnlp-main.38>

AUTHORS: Michael Bugert, Iryna Gurevych

HIGHLIGHT: We demonstrate that collecting hyperlinks which point to the same article(s) produces extensive and high-quality CDCR data and create a corpus of 2M documents and 2.7M silver-standard event mentions called HyperCoref.

39, TITLE: Inducing Stereotypical Character Roles from Plot Structure

<https://www.aclweb.org/anthology/2021.emnlp-main.39>

- AUTHORS: Labiba Jahan, Rahul Mittal, Mark Finlayson
HIGHLIGHT: We present a fully unsupervised k-means clustering approach for learning stereotypical roles given only structural plot information.
- 40, TITLE: Multitask Semi-Supervised Learning for Class-Imbalanced Discourse Classification
<https://www.aclweb.org/anthology/2021.emnlp-main.40>
AUTHORS: Alexander Spangher, Jonathan May, Sz-Rung Shiang, Lingjia Deng
HIGHLIGHT: In this work, we show that a multitask learning approach can combine discourse datasets from similar and diverse domains to improve discourse classification.
- 41, TITLE: Low Frequency Names Exhibit Bias and Overfitting in Contextualizing Language Models
<https://www.aclweb.org/anthology/2021.emnlp-main.41>
AUTHORS: Robert Wolfe, Aylin Caliskan
HIGHLIGHT: We use a dataset of U.S. first names with labels based on predominant gender and racial group to examine the effect of training corpus frequency on tokenization, contextualization, similarity to initial representation, and bias in BERT, GPT-2, T5, and XLNet.
- 42, TITLE: Mitigating Language-Dependent Ethnic Bias in BERT
<https://www.aclweb.org/anthology/2021.emnlp-main.42>
AUTHORS: Jaimeen Ahn, Alice Oh
HIGHLIGHT: In this paper, we study ethnic bias and how it varies across languages by analyzing and mitigating ethnic bias in monolingual BERT for English, German, Spanish, Korean, Turkish, and Chinese.
- 43, TITLE: Adversarial Scrubbing of Demographic Information for Text Classification
<https://www.aclweb.org/anthology/2021.emnlp-main.43>
AUTHORS: Somnath Basu Roy Chowdhury, Sayan Ghosh, Yiyuan Li, Junier Oliva, Shashank Srivastava, Snigdha Chaturvedi
HIGHLIGHT: In this paper, we present an adversarial learning framework "Adversarial Scrubber" (AdS), to debias contextual representations.
- 44, TITLE: Open-domain clarification question generation without question examples
<https://www.aclweb.org/anthology/2021.emnlp-main.44>
AUTHORS: Julia White, Gabriel Poesia, Robert Hawkins, Dorsa Sadigh, Noah Goodman
HIGHLIGHT: We propose a framework for building a visually grounded question-asking model capable of producing polar (yes-no) clarification questions to resolve misunderstandings in dialogue.
- 45, TITLE: Improving Sequence-to-Sequence Pre-training via Sequence Span Rewriting
<https://www.aclweb.org/anthology/2021.emnlp-main.45>
AUTHORS: Wangchunshu Zhou, Tao Ge, Canwen Xu, Ke Xu, Furu Wei
HIGHLIGHT: In this paper, we propose Sequence Span Rewriting (SSR), a self-supervised task for sequence-to-sequence (Seq2Seq) pre-training.
- 46, TITLE: Coarse2Fine: Fine-grained Text Classification on Coarsely-grained Annotated Data
<https://www.aclweb.org/anthology/2021.emnlp-main.46>
AUTHORS: Dheeraj Mekala, Varun Gangal, Jingbo Shang
HIGHLIGHT: To accommodate such requirements, we introduce a new problem called coarse-to-fine grained classification, which aims to perform fine-grained classification on coarsely annotated data.
- 47, TITLE: Text2Mol: Cross-Modal Molecule Retrieval with Natural Language Queries
<https://www.aclweb.org/anthology/2021.emnlp-main.47>
AUTHORS: Carl Edwards, ChengXiang Zhai, Heng Ji
HIGHLIGHT: We propose a new task, Text2Mol, to retrieve molecules using natural language descriptions as queries.
- 48, TITLE: Classification of hierarchical text using geometric deep learning: the case of clinical trials corpus
<https://www.aclweb.org/anthology/2021.emnlp-main.48>
AUTHORS: Sohrab Ferdowsi, Nikolay Borissov, Julien Knafou, Poorya Amini, Douglas Teodoro
HIGHLIGHT: We consider the hierarchical representation of documents as graphs and use geometric deep learning to classify them into different categories.
- 49, TITLE: The Devil is in the Detail: Simple Tricks Improve Systematic Generalization of Transformers

<https://www.aclweb.org/anthology/2021.emnlp-main.49>

AUTHORS: R?bert Csord?s, Kazuki Irie, Juergen Schmidhuber

HIGHLIGHT: Here we demonstrate that by revisiting model configurations as basic as scaling of embeddings, early stopping, relative positional embedding, and Universal Transformer variants, we can drastically improve the performance of Transformers on systematic generalization.

50, TITLE: Artificial Text Detection via Examining the Topology of Attention Maps

<https://www.aclweb.org/anthology/2021.emnlp-main.50>

AUTHORS: Laida Kushnareva, Daniil Cherniavskii, Vladislav Mikhailov, Ekaterina Artemova, Serguei Barannikov, Alexander Bernstein, Irina Piontkovskaya, Dmitri Piontkovski, Evgeny Burnaev

HIGHLIGHT: To this end, we propose three novel types of interpretable topological features for this task based on Topological Data Analysis (TDA) which is currently understudied in the field of NLP.

51, TITLE: Active Learning by Acquiring Contrastive Examples

<https://www.aclweb.org/anthology/2021.emnlp-main.51>

AUTHORS: Katerina Margatina, Giorgos Vernikos, Lo?c Barrault, Nikolaos Aletras

HIGHLIGHT: In this work, leveraging the best of both worlds, we propose an acquisition function that opts for selecting contrastive examples, i.e. data points that are similar in the model feature space and yet the model outputs maximally different predictive likelihoods.

52, TITLE: Conditional Poisson Stochastic Beams

<https://www.aclweb.org/anthology/2021.emnlp-main.52>

AUTHORS: Clara Meister, Afra Amini, Tim Vieira, Ryan Cotterell

HIGHLIGHT: In this work, we propose a new method for turning beam search into a stochastic process: Conditional Poisson stochastic beam search.

53, TITLE: Building Adaptive Acceptability Classifiers for Neural NLG

<https://www.aclweb.org/anthology/2021.emnlp-main.53>

AUTHORS: Soumya Batra, Shashank Jain, Peyman Heidari, Ankit Arun, Catharine Youngs, Xintong Li, Pinar Donmez, Shawn Mei, Shiuunzu Kuo, Vikas Bhardwaj, Anuj Kumar, Michael White

HIGHLIGHT: We propose a novel framework to train models to classify acceptability of responses generated by natural language generation (NLG) models, improving upon existing sentence transformation and model-based approaches.

54, TITLE: Moral Stories: Situated Reasoning about Norms, Intents, Actions, and their Consequences

<https://www.aclweb.org/anthology/2021.emnlp-main.54>

AUTHORS: Denis Emelin, Ronan Le Bras, Jena D. Hwang, Maxwell Forbes, Yejin Choi

HIGHLIGHT: For this purpose, we introduce Moral Stories, a crowd-sourced dataset of structured, branching narratives for the study of grounded, goal-oriented social reasoning.

55, TITLE: Truth-Conditional Captions for Time Series Data

<https://www.aclweb.org/anthology/2021.emnlp-main.55>

AUTHORS: Harsh Jhamtani, Taylor Berg-Kirkpatrick

HIGHLIGHT: In this paper, we explore the task of automatically generating natural language descriptions of salient patterns in a time series, such as stock prices of a company over a week.

56, TITLE: Injecting Entity Types into Entity-Guided Text Generation

<https://www.aclweb.org/anthology/2021.emnlp-main.56>

AUTHORS: Xiangyu Dong, Wenhao Yu, Chenguang Zhu, Meng Jiang

HIGHLIGHT: To enhance the role of entity in NLG, in this paper, we aim to model the entity type in the decoding phase to generate contextual words accurately.

57, TITLE: Smelting Gold and Silver for Improved Multilingual AMR-to-Text Generation

<https://www.aclweb.org/anthology/2021.emnlp-main.57>

AUTHORS: Leonardo F. R. Ribeiro, Jonas Pfeiffer, Yue Zhang, Iryna Gurevych

HIGHLIGHT: In this paper, we investigate different techniques for automatically generating AMR annotations, where we aim to study which source of information yields better multilingual results.

58, TITLE: Learning Compact Metrics for MT

<https://www.aclweb.org/anthology/2021.emnlp-main.58>

AUTHORS: Amy Pu, Hyung Won Chung, Ankur Parikh, Sebastian Gehrmann, Thibault Sellam

HIGHLIGHT: We present a series of experiments which show that model size is indeed a bottleneck for cross-lingual transfer, then demonstrate how distillation can help addressing this bottleneck, by leveraging synthetic data generation and transferring knowledge from one teacher to multiple students trained on related languages.

59, **TITLE:** The Impact of Positional Encodings on Multilingual Compression

<https://www.aclweb.org/anthology/2021.emnlp-main.59>

AUTHORS: Vinit Ravishankar, Anders Søgaard

HIGHLIGHT: We first show that surprisingly, while these modifications tend to improve monolingual language models, none of them result in better multilingual language models. We then answer why that is: sinusoidal encodings were explicitly designed to facilitate compositionality by allowing linear projections over arbitrary time steps.

60, **TITLE:** Disentangling Representations of Text by Masking Transformers

<https://www.aclweb.org/anthology/2021.emnlp-main.60>

AUTHORS: Xiongyi Zhang, Jan-Willem van de Meent, Byron Wallace

HIGHLIGHT: In this paper we explore whether it is possible to learn disentangled representations by identifying existing subnetworks within pretrained models that encode distinct, complementary aspects.

61, **TITLE:** Exploring the Role of BERT Token Representations to Explain Sentence Probing Results

<https://www.aclweb.org/anthology/2021.emnlp-main.61>

AUTHORS: Hosein Mohebbi, Ali Modarressi, Mohammad Taher Pilehvar

HIGHLIGHT: In this paper, we provide a more in-depth analysis on the representation space of BERT in search for distinct and meaningful subspaces that can explain the reasons behind these probing results.

62, **TITLE:** Do Long-Range Language Models Actually Use Long-Range Context?

<https://www.aclweb.org/anthology/2021.emnlp-main.62>

AUTHORS: Simeng Sun, Kalpesh Krishna, Andrew Mattarella-Micke, Mohit Iyyer

HIGHLIGHT: In this paper, we perform a fine-grained analysis of two long-range Transformer language models (including the Routing Transformer, which achieves state-of-the-art perplexity on the PG-19 long-sequence LM benchmark dataset) that accept input sequences of up to 8K tokens.

63, **TITLE:** The World of an Octopus: How Reporting Bias Influences a Language Model's Perception of Color

<https://www.aclweb.org/anthology/2021.emnlp-main.63>

AUTHORS: Cory Paik, Stéphane Aroca-Ouellette, Alessandro Roncone, Katharina Kann

HIGHLIGHT: In this paper, we first demonstrate that reporting bias, the tendency of people to not state the obvious, is one of the causes of this limitation, and then investigate to what extent multimodal training can mitigate this issue.

64, **TITLE:** SELFEXPLAIN: A Self-Explaining Architecture for Neural Text Classifiers

<https://www.aclweb.org/anthology/2021.emnlp-main.64>

AUTHORS: Dheeraj Rajagopal, Vidhisha Balachandran, Eduard H Hovy, Yulia Tsvetkov

HIGHLIGHT: We introduce SelfExplain, a novel self-explaining model that explains a text classifier's predictions using phrase-based concepts.

65, **TITLE:** Memory and Knowledge Augmented Language Models for Inferring Salience in Long-Form Stories

<https://www.aclweb.org/anthology/2021.emnlp-main.65>

AUTHORS: David Wilmot, Frank Keller

HIGHLIGHT: This paper takes a recent unsupervised method for salience detection derived from Barthes Cardinal Functions and theories of surprise and applies it to longer narrative forms.

66, **TITLE:** Semantic Novelty Detection in Natural Language Descriptions

<https://www.aclweb.org/anthology/2021.emnlp-main.66>

AUTHORS: Nianzu Ma, Alexander Poltowicz, Sahisnu Mazumder, Jiahua Chen, Bing Liu, Eric Robertson, Scott Grigsby

HIGHLIGHT: This paper proposes to study a fine-grained semantic novelty detection task, which can be illustrated with the following example.

67, **TITLE:** Jump-Starting Item Parameters for Adaptive Language Tests

<https://www.aclweb.org/anthology/2021.emnlp-main.67>

AUTHORS: Arya D. McCarthy, Kevin P. Yancey, Geoff T. LaFlair, Jesse Egbert, Manqian Liao, Burr Settles

HIGHLIGHT: While prior work has addressed 'cold start' estimation of item difficulties without piloting, we devise a multi-task generalized linear model with BERT features to jump-start these estimates, rapidly improving their quality with as few as 500 test-takers and a small sample of item exposures (~6 each) from a large item bank (~4,000 items).

- 68, TITLE: Voice Query Auto Completion
<https://www.aclweb.org/anthology/2021.emnlp-main.68>
AUTHORS: Raphael Tang, Karun Kumar, Kendra Chalkley, Ji Xin, Liming Zhang, Wenyan Li, Gefei Yang, Yajie Mao, Junho Shin, Geoffrey Craig Murray, Jimmy Lin
HIGHLIGHT: In this paper, we extend QAC to the streaming voice search setting, where automatic speech recognition systems produce intermediate transcriptions as users speak.
- 69, TITLE: CoPHE: A Count-Preserving Hierarchical Evaluation Metric in Large-Scale Multi-Label Text Classification
<https://www.aclweb.org/anthology/2021.emnlp-main.69>
AUTHORS: Mat?? Falis, Hang Dong, Alexandra Birch, Beatrice Alex
HIGHLIGHT: In this work we argue for hierarchical evaluation of the predictions of neural LMTC models.
- 70, TITLE: Learning Universal Authorship Representations
<https://www.aclweb.org/anthology/2021.emnlp-main.70>
AUTHORS: Rafael A. Rivera-Soto, Olivia Elizabeth Miano, Juanita Ordonez, Barry Y. Chen, Aleem Khan, Marcus Bishop, Nicholas Andrews
HIGHLIGHT: To study these questions, we conduct the first large-scale study of cross-domain transfer for authorship verification considering zero-shot transfers involving three disparate domains: Amazon reviews, fanfiction short stories, and Reddit comments.
- 71, TITLE: Predicting emergent linguistic compositions through time: Syntactic frame extension via multimodal chaining
<https://www.aclweb.org/anthology/2021.emnlp-main.71>
AUTHORS: Lei Yu, Yang Xu
HIGHLIGHT: We present the syntactic frame extension model (SFEM) that draws on the theory of chaining and knowledge from "percept", "concept", and "language" to infer how verbs extend their frames to form new compositions with existing and novel nouns.
- 72, TITLE: Frequency Effects on Syntactic Rule Learning in Transformers
<https://www.aclweb.org/anthology/2021.emnlp-main.72>
AUTHORS: Jason Wei, Dan Garrette, Tal Linzen, Ellie Pavlick
HIGHLIGHT: Pre-trained language models perform well on a variety of linguistic tasks that require symbolic reasoning, raising the question of whether such models implicitly represent abstract symbols and rules. We investigate this question using the case study of BERT's performance on English subject-verb agreement.
- 73, TITLE: A surprisal-duration trade-off across and within the world's languages
<https://www.aclweb.org/anthology/2021.emnlp-main.73>
AUTHORS: Tiago Pimentel, Clara Meister, Elizabeth Salesky, Simone Teufel, Dami?n Blasi, Ryan Cotterell
HIGHLIGHT: Specifically, we find that, on average, phones are produced faster in languages where they are less surprising, and vice versa.
- 74, TITLE: Revisiting the Uniform Information Density Hypothesis
<https://www.aclweb.org/anthology/2021.emnlp-main.74>
AUTHORS: Clara Meister, Tiago Pimentel, Patrick Haller, Lena J?ger, Ryan Cotterell, Roger Levy
HIGHLIGHT: Here we investigate these facets of the UID hypothesis using reading time and acceptability data.
- 75, TITLE: Condenser: a Pre-training Architecture for Dense Retrieval
<https://www.aclweb.org/anthology/2021.emnlp-main.75>
AUTHORS: Luyu Gao, Jamie Callan
HIGHLIGHT: We propose to pre-train towards dense encoder with a novel Transformer architecture, Condenser, where LM prediction CONDITIONS ON DENSE Representation.
- 76, TITLE: Monitoring geometrical properties of word embeddings for detecting the emergence of new topics.
<https://www.aclweb.org/anthology/2021.emnlp-main.76>
AUTHORS: Cl?ment Christophe, Julien Velcin, Jairo Cugliari, Manel Boumghar, Philippe Suignard
HIGHLIGHT: In this work, we tackle the problem of early detection of slowly emerging new topics.
- 77, TITLE: Contextualized Query Embeddings for Conversational Search
<https://www.aclweb.org/anthology/2021.emnlp-main.77>
AUTHORS: Sheng-Chieh Lin, Jheng-Hong Yang, Jimmy Lin

HIGHLIGHT: This paper describes a compact and effective model for low-latency passage retrieval in conversational search based on learned dense representations.

78, **TITLE:** Ultra-High Dimensional Sparse Representations with Binarization for Efficient Text Retrieval
<https://www.aclweb.org/anthology/2021.emnlp-main.78>
AUTHORS: Kyoung-Rok Jang, Junmo Kang, Giwon Hong, Sung-Hyon Myaeng, Joohee Park, Taewon Yoon, Heecheol Seo
HIGHLIGHT: Taking the merits of the sparse and dense representations, we propose an ultra-high dimensional (UHD) representation scheme equipped with directly controllable sparsity.

79, **TITLE:** IR like a SIR: Sense-enhanced Information Retrieval for Multiple Languages
<https://www.aclweb.org/anthology/2021.emnlp-main.79>
AUTHORS: Rexhina Blloshmi, Tommaso Pasini, Niccolò Campolungo, Somnath Banerjee, Roberto Navigli, Gabriella Pasi
HIGHLIGHT: In this paper we present SIR (Sense-enhanced Information Retrieval) to mitigate both problems by leveraging word sense information.

80, **TITLE:** Neural Attention-Aware Hierarchical Topic Model
<https://www.aclweb.org/anthology/2021.emnlp-main.80>
AUTHORS: Yuan Jin, He Zhao, Ming Liu, Lan Du, Wray Buntine
HIGHLIGHT: To address these issues, we propose a variational autoencoder (VAE) NTM model that jointly reconstructs the sentence and document word counts using combinations of bag-of-words (BoW) topical embeddings and pre-trained semantic embeddings.

81, **TITLE:** Relational World Knowledge Representation in Contextual Language Models: A Review
<https://www.aclweb.org/anthology/2021.emnlp-main.81>
AUTHORS: Tara Safavi, Danai Koutra
HIGHLIGHT: In this review, we take a natural language processing perspective to these limitations, examining how they may be addressed in part by training deep contextual language models (LMs) to internalize and express relational knowledge in more flexible forms.

82, **TITLE:** Certified Robustness to Programmable Transformations in LSTMs
<https://www.aclweb.org/anthology/2021.emnlp-main.82>
AUTHORS: Yuhao Zhang, Aws Albarghouthi, Loris D'Antoni
HIGHLIGHT: We present an approach to certifying the robustness of LSTMs (and extensions of LSTMs) and training models that can be efficiently certified.

83, **TITLE:** ReGen: Reinforcement Learning for Text and Knowledge Base Generation using Pretrained Language Models
<https://www.aclweb.org/anthology/2021.emnlp-main.83>
AUTHORS: Pierre Dognin, Inkit Padhi, Igor Melnyk, Payel Das
HIGHLIGHT: In this paper, we present ReGen, a bidirectional generation of text and graph leveraging Reinforcement Learning to improve performance.

84, **TITLE:** Contrastive Out-of-Distribution Detection for Pretrained Transformers
<https://www.aclweb.org/anthology/2021.emnlp-main.84>
AUTHORS: Wenxuan Zhou, Fangyu Liu, Muhao Chen
HIGHLIGHT: In this paper, we develop an unsupervised OOD detection method, in which only the in-distribution (ID) data are used in training.

85, **TITLE:** MindCraft: Theory of Mind Modeling for Situated Dialogue in Collaborative Tasks
<https://www.aclweb.org/anthology/2021.emnlp-main.85>
AUTHORS: Cristian-Paul Bara, Sky CH-Wang, Joyce Chai
HIGHLIGHT: To enable theory of mind modeling in situated interactions, we introduce a fine-grained dataset of collaborative tasks performed by pairs of human subjects in the 3D virtual blocks world of Minecraft.

86, **TITLE:** Detecting Speaker Personas from Conversational Texts
<https://www.aclweb.org/anthology/2021.emnlp-main.86>
AUTHORS: Jia-Chen Gu, Zhenhua Ling, Yu Wu, Quan Liu, Zhigang Chen, Xiaodan Zhu
HIGHLIGHT: To tackle this issue, we study a new task, named Speaker Persona Detection (SPD), which aims to detect speaker personas based on the plain conversational text.

87, **TITLE:** Cross-lingual Intermediate Fine-tuning Improves Dialogue State Tracking

<https://www.aclweb.org/anthology/2021.emnlp-main.87>

AUTHORS: Nikita Moghe, Mark Steedman, Alexandra Birch

HIGHLIGHT: In this work, we enhance the transfer learning process by intermediate fine-tuning of pretrained multilingual models, where the multilingual models are fine-tuned with different but related data and/or tasks.

88, TITLE: ConvFiT: Conversational Fine-Tuning of Pretrained Language Models

<https://www.aclweb.org/anthology/2021.emnlp-main.88>

AUTHORS: Ivan Vulic, Pei-Hao Su, Samuel Coope, Daniela Gerz, Pawel Budzianowski, I?igo Casanueva, Nikola Mrk?ic, Tsung-Hsien Wen

HIGHLIGHT: In this work, we propose ConvFiT, a simple and efficient two-stage procedure which turns any pretrained LM into a universal conversational encoder (after Stage 1 ConvFiT-ing) and task-specialised sentence encoder (after Stage 2).

89, TITLE: We've had this conversation before: A Novel Approach to Measuring Dialog Similarity

<https://www.aclweb.org/anthology/2021.emnlp-main.89>

AUTHORS: Ofer Lavi, Ella Rabinovich, Segev Shlomov, David Boaz, Inbal Ronen, Ateret Anaby Tavor

HIGHLIGHT: We propose a novel adaptation of the edit distance metric to the scenario of dialog similarity.

90, TITLE: Towards Incremental Transformers: An Empirical Analysis of Transformer Models for Incremental NLU

<https://www.aclweb.org/anthology/2021.emnlp-main.90>

AUTHORS: Patrick Kahardipraja, Brielen Madureira, David Schlangen

HIGHLIGHT: In this work, we examine the feasibility of LT for incremental NLU in English.

91, TITLE: Feedback Attribution for Counterfactual Bandit Learning in Multi-Domain Spoken Language Understanding

<https://www.aclweb.org/anthology/2021.emnlp-main.91>

AUTHORS: Tobias Falke, Patrick Lehnen

HIGHLIGHT: In this paper, we study the feedback attribution problem that arises when using counterfactual bandit learning for multi-domain spoken language understanding.

92, TITLE: Label Verbalization and Entailment for Effective Zero and Few-Shot Relation Extraction

<https://www.aclweb.org/anthology/2021.emnlp-main.92>

AUTHORS: Oscar Sainz, Oier Lopez de Lacalle, Gorka Labaka, Ander Barrena, Eneko Agirre

HIGHLIGHT: In this work we reformulate relation extraction as an entailment task, with simple, hand-made, verbalizations of relations produced in less than 15 min per relation.

93, TITLE: Extend, don't rebuild: Phrasing conditional graph modification as autoregressive sequence labelling

<https://www.aclweb.org/anthology/2021.emnlp-main.93>

AUTHORS: Leon Weber, Jannes M?nchmeyer, Samuele Garda, Ulf Leser

HIGHLIGHT: In this work, we show that we can considerably increase performance on this problem by phrasing it as graph extension instead of graph generation.

94, TITLE: Zero-Shot Information Extraction as a Unified Text-to-Triple Translation

<https://www.aclweb.org/anthology/2021.emnlp-main.94>

AUTHORS: Chenguang Wang, Xiao Liu, Zui Chen, Haoyun Hong, Jie Tang, Dawn Song

HIGHLIGHT: We cast a suite of information extraction tasks into a text-to-triple translation framework.

95, TITLE: Learning Logic Rules for Document-Level Relation Extraction

<https://www.aclweb.org/anthology/2021.emnlp-main.95>

AUTHORS: Dongyu Ru, Changzhi Sun, Jiangtao Feng, Lin Qiu, Hao Zhou, Weinan Zhang, Yong Yu, Lei Li

HIGHLIGHT: To tackle this challenge, in this paper, we propose LogiRE, a novel probabilistic model for document-level relation extraction by learning logic rules.

96, TITLE: A Large-Scale Dataset for Empathetic Response Generation

<https://www.aclweb.org/anthology/2021.emnlp-main.96>

AUTHORS: Anuradha Welivita, Yubo Xie, Pearl Pu

HIGHLIGHT: In this paper, we describe a large-scale silver dataset consisting of 1M dialogues annotated with 32 fine-grained emotions, eight empathetic response intents, and the Neutral category.

97, TITLE: The Perils of Using Mechanical Turk to Evaluate Open-Ended Text Generation

<https://www.aclweb.org/anthology/2021.emnlp-main.97>

AUTHORS: Marzena Karpinska, Nader Akoury, Mohit Iyyer

HIGHLIGHT: In this paper, we first conduct a survey of 45 open-ended text generation papers and find that the vast majority of them fail to report crucial details about their AMT tasks, hindering reproducibility. We then run a series of story evaluation experiments with both AMT workers and English teachers and discover that even with strict qualification filters, AMT workers (unlike teachers) fail to distinguish between model-generated text and human-generated references.

98, **TITLE:** Documenting Large Webtext Corpora: A Case Study on the Colossal Clean Crawled Corpus
<https://www.aclweb.org/anthology/2021.emnlp-main.98>
AUTHORS: Jesse Dodge, Maarten Sap, Ana Marasovic, William Agnew, Gabriel Ilharco, Dirk Groeneveld, Margaret Mitchell, Matt Gardner
HIGHLIGHT: In this work we provide some of the first documentation for the Colossal Clean Crawled Corpus (C4; Raffel et al., 2020), a dataset created by applying a set of filters to a single snapshot of Common Crawl.

99, **TITLE:** AfroMT: Pretraining Strategies and Reproducible Benchmarks for Translation of 8 African Languages
<https://www.aclweb.org/anthology/2021.emnlp-main.99>
AUTHORS: Machel Reid, Junjie Hu, Graham Neubig, Yutaka Matsuo
HIGHLIGHT: To tackle these challenges, we propose AfroMT, a standardized, clean, and reproducible machine translation benchmark for eight widely spoken African languages.

100, **TITLE:** Evaluating the Evaluation Metrics for Style Transfer: A Case Study in Multilingual Formality Transfer
<https://www.aclweb.org/anthology/2021.emnlp-main.100>
AUTHORS: Eleftheria Briakou, Sweta Agrawal, Joel Tetreault, Marine Carpuat
HIGHLIGHT: In this paper, we evaluate leading automatic metrics on the oft-researched task of formality style transfer.

101, **TITLE:** MS-Mentions: Consistently Annotating Entity Mentions in Materials Science Procedural Text
<https://www.aclweb.org/anthology/2021.emnlp-main.101>
AUTHORS: Tim O’Gorman, Zach Jensen, Sheshera Mysore, Kevin Huang, Rubayyat Mahbub, Elsa Olivetti, Andrew McCallum
HIGHLIGHT: We present a new corpus of entity mention annotations over 595 Material Science synthesis procedural texts (157,488 tokens), which greatly expands the training data available for the Named Entity Recognition task.

102, **TITLE:** Understanding Politics via Contextualized Discourse Processing
<https://www.aclweb.org/anthology/2021.emnlp-main.102>
AUTHORS: Rajkumar Pujari, Dan Goldwasser
HIGHLIGHT: In this paper, we propose a Compositional Reader model consisting of encoder and composer modules, that captures and leverages such information to generate more effective representations for entities, issues, and events.

103, **TITLE:** Conundrums in Event Coreference Resolution: Making Sense of the State of the Art
<https://www.aclweb.org/anthology/2021.emnlp-main.103>
AUTHORS: Jing Lu, Vincent Ng
HIGHLIGHT: We present an empirical analysis of a state-of-the-art span-based event reference systems with the goal of providing the general NLP audience with a better understanding of the state of the art and reference researchers with directions for future research.

104, **TITLE:** Weakly supervised discourse segmentation for multiparty oral conversations
<https://www.aclweb.org/anthology/2021.emnlp-main.104>
AUTHORS: Lila Gravelier, Julie Hunter, Philippe Muller, Thomas Pellegrini, Isabelle Ferran?
HIGHLIGHT: We develop a weak supervision approach to adapt, using minimal annotation, a state of the art discourse segmenter trained on written text to French conversation transcripts.

105, **TITLE:** Narrative Embedding: Re-Contextualization Through Attention
<https://www.aclweb.org/anthology/2021.emnlp-main.105>
AUTHORS: Sean Wilner, Daniel Woolridge, Madeleine Glick
HIGHLIGHT: We present a novel approach for narrative event representation using attention to re-contextualize events across the whole story.

106, **TITLE:** Focus on what matters: Applying Discourse Coherence Theory to Cross Document Coreference
<https://www.aclweb.org/anthology/2021.emnlp-main.106>
AUTHORS: William Held, Dan Iter, Dan Jurafsky
HIGHLIGHT: We model the entities/events in a reader’s focus as a neighborhood within a learned latent embedding space which minimizes the distance between mentions and the centroids of their gold coreference clusters. We then use these neighborhoods to sample only hard negatives to train a fine-grained classifier on mention pairs and their local discourse features.

- 107, TITLE: Salience-Aware Event Chain Modeling for Narrative Understanding
<https://www.aclweb.org/anthology/2021.emnlp-main.107>
AUTHORS: Xiyang Zhang, Muhao Chen, Jonathan May
HIGHLIGHT: We introduce methods for extracting this principal chain from natural language text, by filtering away non-salient events and supportive sentences.
- 108, TITLE: Asking It All: Generating Contextualized Questions for any Semantic Role
<https://www.aclweb.org/anthology/2021.emnlp-main.108>
AUTHORS: Valentina Pyatkin, Paul Roit, Julian Michael, Yoav Goldberg, Reut Tsarfaty, Ido Dagan
HIGHLIGHT: To this end, we introduce the task of role question generation, which, given a predicate mention and a passage, requires producing a set of questions asking about all possible semantic roles of the predicate.
- 109, TITLE: Fast, Effective, and Self-Supervised: Transforming Masked Language Models into Universal Lexical and Sentence Encoders
<https://www.aclweb.org/anthology/2021.emnlp-main.109>
AUTHORS: Fangyu Liu, Ivan Vulic, Anna Korhonen, Nigel Collier
HIGHLIGHT: In this work, we demonstrate that it is possible to turn MLMs into effective lexical and sentence encoders even without any additional data, relying simply on self-supervision.
- 110, TITLE: RuleBERT: Teaching Soft Rules to Pre-Trained Language Models
<https://www.aclweb.org/anthology/2021.emnlp-main.110>
AUTHORS: Mohammed Saeed, Naser Ahmadi, Preslav Nakov, Paolo Papotti
HIGHLIGHT: Here, we aim to bridge this gap by teaching PLMs how to reason with soft Horn rules.
- 111, TITLE: Stepmothers are mean and academics are pretentious: What do pretrained language models learn about you?
<https://www.aclweb.org/anthology/2021.emnlp-main.111>
AUTHORS: Rochelle Choenni, Ekaterina Shutova, Robert van Rooij
HIGHLIGHT: In this paper, we investigate what types of stereotypical information are captured by pretrained language models.
- 112, TITLE: ConSeC: Word Sense Disambiguation as Continuous Sense Comprehension
<https://www.aclweb.org/anthology/2021.emnlp-main.112>
AUTHORS: Edoardo Barba, Luigi Procopio, Roberto Navigli
HIGHLIGHT: To address this limitation and drop this assumption, we propose CONTinuous SENSE Comprehension (ConSeC), a novel approach to WSD: leveraging a recent re-framing of this task as a text extraction problem, we adapt it to our formulation and introduce a feedback loop strategy that allows the disambiguation of a target word to be conditioned not only on its context but also on the explicit senses assigned to nearby words.
- 113, TITLE: Shortcuted Commonsense: Data Spuriousness in Deep Learning of Commonsense Reasoning
<https://www.aclweb.org/anthology/2021.emnlp-main.113>
AUTHORS: Ruben Branco, Ant?nio Branco, Jo?o Ant?nio Rodrigues, Jo?o Ricardo Silva
HIGHLIGHT: In this paper we seek to further pursue this analysis into the realm of commonsense related language processing tasks.
- 114, TITLE: When differential privacy meets NLP: The devil is in the detail
<https://www.aclweb.org/anthology/2021.emnlp-main.114>
AUTHORS: Ivan Habernal
HIGHLIGHT: Our contribution is a formal analysis of ADePT, a differentially private auto-encoder for text rewriting (Krishna et al, 2021).
- 115, TITLE: Achieving Model Robustness through Discrete Adversarial Training
<https://www.aclweb.org/anthology/2021.emnlp-main.115>
AUTHORS: Maor Ivgi, Jonathan Berant
HIGHLIGHT: In this work, we address this gap and leverage discrete attacks for online augmentation, where adversarial examples are generated at every training step, adapting to the changing nature of the model.
- 116, TITLE: Debiasing Methods in Natural Language Understanding Make Bias More Accessible
<https://www.aclweb.org/anthology/2021.emnlp-main.116>
AUTHORS: Michael Mendelson, Yonatan Belinkov

HIGHLIGHT: We propose a general probing-based framework that allows for post-hoc interpretation of biases in language models, and use an information-theoretic approach to measure the extractability of certain biases from the model's representations.

117, **TITLE:** Evaluating the Robustness of Neural Language Models to Input Perturbations

<https://www.aclweb.org/anthology/2021.emnlp-main.117>

AUTHORS: Milad Moradi, Matthias Samwald

HIGHLIGHT: In this study, we design and implement various types of character-level and word-level perturbation methods to simulate realistic scenarios in which input texts may be slightly noisy or different from the data distribution on which NLP systems were trained.

118, **TITLE:** How much pretraining data do language models need to learn syntax?

<https://www.aclweb.org/anthology/2021.emnlp-main.118>

AUTHORS: Laura P?rez-Mayos, Miguel Ballesteros, Leo Wanner

HIGHLIGHT: This calls for a study of the impact of pretraining data size on the knowledge of the models. We explore this impact on the syntactic capabilities of RoBERTa, using models trained on incremental sizes of raw text data.

119, **TITLE:** Sorting through the noise: Testing robustness of information processing in pre-trained language models

<https://www.aclweb.org/anthology/2021.emnlp-main.119>

AUTHORS: Lalchand Pandia, Allyson Ettinger

HIGHLIGHT: In this paper we tackle a component of this question by examining robustness of models' ability to deploy relevant context information in the face of distracting content.

120, **TITLE:** Contrastive Explanations for Model Interpretability

<https://www.aclweb.org/anthology/2021.emnlp-main.120>

AUTHORS: Alon Jacovi, Swabha Swayamdipta, Shauli Ravfogel, Yanai Elazar, Yejin Choi, Yoav Goldberg

HIGHLIGHT: We propose a method to produce contrastive explanations in the latent space, via a projection of the input representation, such that only the features that differentiate two potential decisions are captured.

121, **TITLE:** On the Transferability of Adversarial Attacks against Neural Text Classifier

<https://www.aclweb.org/anthology/2021.emnlp-main.121>

AUTHORS: Liping Yuan, Xiaoqing Zheng, Yi Zhou, Cho-Jui Hsieh, Kai-Wei Chang

HIGHLIGHT: Based on these studies, we propose a genetic algorithm to find an ensemble of models that can be used to induce adversarial examples to fool almost all existing models.

122, **TITLE:** Conditional probing: measuring usable information beyond a baseline

<https://www.aclweb.org/anthology/2021.emnlp-main.122>

AUTHORS: John Hewitt, Kawin Ethayarajh, Percy Liang, Christopher Manning

HIGHLIGHT: In this work, we extend a theory of usable information called V-information and propose conditional probing, which explicitly conditions on the information in the baseline.

123, **TITLE:** GFST: Gender-Filtered Self-Training for More Accurate Gender in Translation

<https://www.aclweb.org/anthology/2021.emnlp-main.123>

AUTHORS: Prafulla Kumar Choubey, Anna Currey, Prashant Mathur, Georgiana Dinu

HIGHLIGHT: We propose gender-filtered self-training (GFST) to improve gender translation accuracy on unambiguously gendered inputs.

124, **TITLE:** "Wikily" Supervised Neural Translation Tailored to Cross-Lingual Tasks

<https://www.aclweb.org/anthology/2021.emnlp-main.124>

AUTHORS: Mohammad Sadegh Rasooli, Chris Callison-Burch, Derry Tanti Wijaya

HIGHLIGHT: We present a simple but effective approach for leveraging Wikipedia for neural machine translation as well as cross-lingual tasks of image captioning and dependency parsing without using any direct supervision from external parallel data or supervised models in the target language.

125, **TITLE:** mT6: Multilingual Pretrained Text-to-Text Transformer with Translation Pairs

<https://www.aclweb.org/anthology/2021.emnlp-main.125>

AUTHORS: Zewen Chi, Li Dong, Shuming Ma, Shaohan Huang, Saksham Singhal, Xian-Ling Mao, Heyan Huang, Xia Song, Furu Wei

HIGHLIGHT: In this paper, we improve multilingual text-to-text transfer Transformer with translation pairs (mT6).

126, **TITLE:** Improving Zero-Shot Cross-Lingual Transfer Learning via Robust Training

<https://www.aclweb.org/anthology/2021.emnlp-main.126>

AUTHORS: Kuan-Hao Huang, Wasi Ahmad, Nanyun Peng, Kai-Wei Chang
HIGHLIGHT: In this work, we propose a learning strategy for training robust models by drawing connections between adversarial examples and the failure cases of zero-shot cross-lingual transfer.

127, TITLE: Speechformer: Reducing Information Loss in Direct Speech Translation

<https://www.aclweb.org/anthology/2021.emnlp-main.127>

AUTHORS: Sara Papi, Marco Gaido, Matteo Negri, Marco Turchi
HIGHLIGHT: To solve this issue, we propose Speechformer, an architecture that, thanks to reduced memory usage in the attention layers, avoids the initial lossy compression and aggregates information only at a higher level according to more informed linguistic criteria.

128, TITLE: Is "moby dick" a Whale or a Bird? Named Entities and Terminology in Speech Translation

<https://www.aclweb.org/anthology/2021.emnlp-main.128>

AUTHORS: Marco Gaido, Susana Rodríguez, Matteo Negri, Luisa Bentivogli, Marco Turchi
HIGHLIGHT: To fill this gap, we i) present the first systematic analysis of the behavior of state-of-the-art ST systems in translating NEs and terminology, and ii) release NEuRoparl-ST, a novel benchmark built from European Parliament speeches annotated with NEs and terminology.

129, TITLE: HintedBT: Augmenting Back-Translation with Quality and Transliteration Hints

<https://www.aclweb.org/anthology/2021.emnlp-main.129>

AUTHORS: Sahana Ramnath, Melvin Johnson, Abhirut Gupta, Aravindan Raghuvier
HIGHLIGHT: To improve effectiveness of the available BT data, we introduce HintedBT-a family of techniques which provides hints (through tags) to the encoder and decoder.

130, TITLE: Translation-based Supervision for Policy Generation in Simultaneous Neural Machine Translation

<https://www.aclweb.org/anthology/2021.emnlp-main.130>

AUTHORS: Ashkan Alinejad, Hassan S. Shavarani, Anoop Sarkar
HIGHLIGHT: We propose a novel supervised learning approach for training an agent that can detect the minimum number of reads required for generating each target token by comparing simultaneous translations against full-sentence translations during training to generate oracle action sequences.

131, TITLE: Nearest Neighbour Few-Shot Learning for Cross-lingual Classification

<https://www.aclweb.org/anthology/2021.emnlp-main.131>

AUTHORS: M Saiful Bari, Batool Haider, Saab Mansour
HIGHLIGHT: In this work, we investigate cross-lingual adaptation using a simple nearest-neighbor few-shot (<15 samples) inference technique for classification tasks.

132, TITLE: Cross-Attention is All You Need: Adapting Pretrained Transformers for Machine Translation

<https://www.aclweb.org/anthology/2021.emnlp-main.132>

AUTHORS: Mozhdeh Gheini, Xiang Ren, Jonathan May
HIGHLIGHT: We study the power of cross-attention in the Transformer architecture within the context of transfer learning for machine translation, and extend the findings of studies into cross-attention when training from scratch.

133, TITLE: Effects of Parameter Norm Growth During Transformer Training: Inductive Bias from Gradient Descent

<https://www.aclweb.org/anthology/2021.emnlp-main.133>

AUTHORS: William Merrill, Vivek Ramanujan, Yoav Goldberg, Roy Schwartz, Noah A. Smith
HIGHLIGHT: To better understand this bias, we study the tendency for transformer parameters to grow in magnitude (l2 norm) during training, and its implications for the emergent representations within self attention layers.

134, TITLE: Foreseeing the Benefits of Incidental Supervision

<https://www.aclweb.org/anthology/2021.emnlp-main.134>

AUTHORS: Hangfeng He, Mingyuan Zhang, Qiang Ning, Dan Roth
HIGHLIGHT: We propose a unified PAC-Bayesian motivated informativeness measure, PABI, that characterizes the uncertainty reduction provided by incidental supervision signals.

135, TITLE: Competency Problems: On Finding and Removing Artifacts in Language Data

<https://www.aclweb.org/anthology/2021.emnlp-main.135>

AUTHORS: Matt Gardner, William Merrill, Jesse Dodge, Matthew Peters, Alexis Ross, Sameer Singh, Noah A. Smith
HIGHLIGHT: In this work we argue that for complex language understanding tasks, all simple feature correlations are spurious, and we formalize this notion into a class of problems which we call competency problems.

- 136, TITLE: Knowledge-Aware Meta-learning for Low-Resource Text Classification
<https://www.aclweb.org/anthology/2021.emnlp-main.136>
AUTHORS: Huaxiu Yao, Ying-xin Wu, Maruan Al-Shedivat, Eric Xing
HIGHLIGHT: This paper studies a low-resource text classification problem and bridges the gap between meta-training and meta-testing tasks by leveraging the external knowledge bases.
- 137, TITLE: Sentence Bottleneck Autoencoders from Transformer Language Models
<https://www.aclweb.org/anthology/2021.emnlp-main.137>
AUTHORS: Ivan Montero, Nikolaos Pappas, Noah A. Smith
HIGHLIGHT: We therefore explore the construction of a sentence-level autoencoder from a pretrained, frozen transformer language model.
- 138, TITLE: Efficient Contrastive Learning via Novel Data Augmentation and Curriculum Learning
<https://www.aclweb.org/anthology/2021.emnlp-main.138>
AUTHORS: Seonghyeon Ye, Jiseon Kim, Alice Oh
HIGHLIGHT: We introduce EfficientCL, a memory-efficient continual pretraining method that applies contrastive learning with novel data augmentation and curriculum learning.
- 139, TITLE: CR-Walker: Tree-Structured Graph Reasoning and Dialog Acts for Conversational Recommendation
<https://www.aclweb.org/anthology/2021.emnlp-main.139>
AUTHORS: Wenchang Ma, Ryuichi Takanobu, Minlie Huang
HIGHLIGHT: To address these issues, we propose CR-Walker in this paper, a model that performs tree-structured reasoning on a knowledge graph, and generates informative dialog acts to guide language generation.
- 140, TITLE: DIALKI: Knowledge Identification in Conversational Systems through Dialogue-Document Contextualization
<https://www.aclweb.org/anthology/2021.emnlp-main.140>
AUTHORS: Zeqiu Wu, Bo-Ru Lu, Hannaneh Hajishirzi, Mari Ostendorf
HIGHLIGHT: We introduce a knowledge identification model that leverages the document structure to provide dialogue-contextualized passage encodings and better locate knowledge relevant to the conversation.
- 141, TITLE: Iconary: A Pictionary-Based Game for Testing Multimodal Communication with Drawings and Text
<https://www.aclweb.org/anthology/2021.emnlp-main.141>
AUTHORS: Christopher Clark, Jordi Salvador, Dustin Schwenk, Derrick Bonafilia, Mark Yatskar, Eric Kolve, Alvaro Herrasti, Jonghyun Choi, Sachin Mehta, Sam Skjonsberg, Carissa Schoenick, Aaron Sarnat, Hannaneh Hajishirzi, Aniruddha Kembhavi, Oren Etzioni, Ali Farhadi
HIGHLIGHT: We propose models to play Iconary and train them on over 55,000 games between human players.
- 142, TITLE: Self-training Improves Pre-training for Few-shot Learning in Task-oriented Dialog Systems
<https://www.aclweb.org/anthology/2021.emnlp-main.142>
AUTHORS: Fei Mi, Wanhao Zhou, Lingjing Kong, Fengyu Cai, Minlie Huang, Boi Faltings
HIGHLIGHT: Specifically, we propose a self-training approach that iteratively labels the most confident unlabeled data to train a stronger Student model.
- 143, TITLE: Contextual Rephrase Detection for Reducing Friction in Dialogue Systems
<https://www.aclweb.org/anthology/2021.emnlp-main.143>
AUTHORS: Zhuoyi Wang, Saurabh Gupta, Jie Hao, Xing Fan, Dingcheng Li, Alexander Hanbo Li, Chenlei Guo
HIGHLIGHT: To this end, we propose a contextual rephrase detection model ContReph to automatically identify rephrases from multi-turn dialogues.
- 144, TITLE: Few-Shot Intent Detection via Contrastive Pre-Training and Fine-Tuning
<https://www.aclweb.org/anthology/2021.emnlp-main.144>
AUTHORS: Jianguo Zhang, Trung Bui, Seunghyun Yoon, Xiang Chen, Zhiwei Liu, Congying Xia, Quan Hung Tran, Walter Chang, Philip Yu
HIGHLIGHT: In this work, we focus on a more challenging few-shot intent detection scenario where many intents are fine-grained and semantically similar.
- 145, TITLE: "It doesn't look good for a date": Transforming Critiques into Preferences for Conversational Recommendation Systems
<https://www.aclweb.org/anthology/2021.emnlp-main.145>

AUTHORS: Victor Bursztny, Jennifer Healey, Nedim Lipka, Eunyee Koh, Doug Downey, Larry Birnbaum
HIGHLIGHT: In this work, we present a method for transforming a user critique into a positive preference (e.g., "I prefer more romantic") in order to retrieve reviews pertaining to potentially better recommendations (e.g., "Perfect for a romantic dinner").

146, TITLE: AttentionRank: Unsupervised Keyphrase Extraction using Self and Cross Attentions
<https://www.aclweb.org/anthology/2021.emnlp-main.146>
AUTHORS: Haoran Ding, Xiao Luo
HIGHLIGHT: This paper proposes the AttentionRank, a hybrid attention model, to identify keyphrases from a document in an unsupervised manner.

147, TITLE: Unsupervised Relation Extraction: A Variational Autoencoder Approach
<https://www.aclweb.org/anthology/2021.emnlp-main.147>
AUTHORS: Chenhan Yuan, Hoda Eldardiry
HIGHLIGHT: We propose a VAE-based unsupervised relation extraction technique that overcomes this limitation by using the classifications as an intermediate variable instead of a latent variable.

148, TITLE: Robust Retrieval Augmented Generation for Zero-shot Slot Filling
<https://www.aclweb.org/anthology/2021.emnlp-main.148>
AUTHORS: Michael Glass, Gaetano Rossiello, Md Faisal Mahub Chowdhury, Alfio Gliozzo
HIGHLIGHT: In this paper, we present a novel approach to zero-shot slot filling that extends dense passage retrieval with hard negatives and robust training procedures for retrieval augmented generation models.

149, TITLE: Everything Is All It Takes: A Multipronged Strategy for Zero-Shot Cross-Lingual Information Extraction
<https://www.aclweb.org/anthology/2021.emnlp-main.149>
AUTHORS: Mahsa Yarmohammadi, Shijie Wu, Marc Marone, Haoran Xu, Seth Ebner, Guanghui Qin, Yunmo Chen, Jialiang Guo, Craig Harman, Kenton Murray, Aaron Steven White, Mark Dredze, Benjamin Van Durme
HIGHLIGHT: While the advance of pretrained multilingual encoders suggests an easy optimism of "train on English, run on any language", we find through a thorough exploration and extension of techniques that a combination of approaches, both new and old, leads to better performance than any one cross-lingual strategy in particular.

150, TITLE: Harms of Gender Exclusivity and Challenges in Non-Binary Representation in Language Technologies
<https://www.aclweb.org/anthology/2021.emnlp-main.150>
AUTHORS: Sunipa Dev, Masoud Monajatipoor, Anaelia Ovalle, Arjun Subramonian, Jeff Phillips, Kai-Wei Chang
HIGHLIGHT: In this paper, we explain the complexity of gender and language around it, and survey non-binary persons to understand harms associated with the treatment of gender as binary in English language technologies.

151, TITLE: Are Gender-Neutral Queries Really Gender-Neutral? Mitigating Gender Bias in Image Search
<https://www.aclweb.org/anthology/2021.emnlp-main.151>
AUTHORS: Jialu Wang, Yang Liu, Xin Wang
HIGHLIGHT: Therefore, we introduce two novel debiasing approaches: an in-processing fair sampling method to address the gender imbalance issue for training models, and a post-processing feature clipping method base on mutual information to debias multimodal representations of pre-trained models.

152, TITLE: Style Pooling: Automatic Text Style Obfuscation for Improved Classification Fairness
<https://www.aclweb.org/anthology/2021.emnlp-main.152>
AUTHORS: Fatemehsadat Mireshghallah, Taylor Berg-Kirkpatrick
HIGHLIGHT: We propose a VAE-based framework that obfuscates stylistic features of human-generated text through style transfer, by automatically re-writing the text itself.

153, TITLE: Modeling Disclosive Transparency in NLP Application Descriptions
<https://www.aclweb.org/anthology/2021.emnlp-main.153>
AUTHORS: Michael Saxon, Sharon Levy, Xinyi Wang, Alon Albalak, William Yang Wang
HIGHLIGHT: To improve this state of affairs, We introduce neural language model-based probabilistic metrics to directly model disclosive transparency, and demonstrate that they correlate with user and expert opinions of system transparency, making them a valid objective proxy.

154, TITLE: Reconstruction Attack on Instance Encoding for Language Understanding
<https://www.aclweb.org/anthology/2021.emnlp-main.154>
AUTHORS: Shangyu Xie, Yuan Hong
HIGHLIGHT: We propose a novel reconstruction attack to break TextHide by recovering the private training data, and thus unveil the privacy risks of instance encoding.

- 155, TITLE: Fairness-aware Class Imbalanced Learning
<https://www.aclweb.org/anthology/2021.emnlp-main.155>
AUTHORS: Shivashankar Subramanian, Afshin Rahimi, Timothy Baldwin, Trevor Cohn, Lea Frermann
HIGHLIGHT: In this work we evaluate long-tail learning methods for tweet sentiment and occupation classification, and extend a margin-loss based approach with methods to enforce fairness.
- 156, TITLE: CRYPTOGRU: Low Latency Privacy-Preserving Text Analysis With GRU
<https://www.aclweb.org/anthology/2021.emnlp-main.156>
AUTHORS: Bo Feng, Qian Lou, Lei Jiang, Geoffrey Fox
HIGHLIGHT: In this paper, we present a novel hybrid structure of HE and GC gated recurrent unit (GRU) network, , for low-latency secure inferences.
- 157, TITLE: Local Word Discovery for Interactive Transcription
<https://www.aclweb.org/anthology/2021.emnlp-main.157>
AUTHORS: William Lane, Steven Bird
HIGHLIGHT: Accordingly, we propose a new computational task which is tuned to the available knowledge and interests in an Indigenous community, and which supports the construction of high quality texts and lexicons.
- 158, TITLE: Segment, Mask, and Predict: Augmenting Chinese Word Segmentation with Self-Supervision
<https://www.aclweb.org/anthology/2021.emnlp-main.158>
AUTHORS: Mieradilijiang Maimaiti, Yang Liu, Yuanhang Zheng, Gang Chen, Kaiyu Huang, Ji Zhang, Huanbo Luan, Maosong Sun
HIGHLIGHT: In this work, we propose a self-supervised CWS approach with a straightforward and effective architecture.
- 159, TITLE: Minimal Supervision for Morphological Inflection
<https://www.aclweb.org/anthology/2021.emnlp-main.159>
AUTHORS: Omer Goldman, Reut Tsarfaty
HIGHLIGHT: In this work we aim to overcome this annotation bottleneck by bootstrapping labeled data from a seed as small as five labeled inflection tables, accompanied by a large bulk of unlabeled text.
- 160, TITLE: Fast WordPiece Tokenization
<https://www.aclweb.org/anthology/2021.emnlp-main.160>
AUTHORS: Xinying Song, Alex Salcianu, Yang Song, Dave Dopson, Denny Zhou
HIGHLIGHT: In this paper, we propose efficient algorithms for the WordPiece tokenization used in BERT, from single-word tokenization to general text (e.g., sentence) tokenization.
- 161, TITLE: You should evaluate your language model on marginal likelihood over tokenisations
<https://www.aclweb.org/anthology/2021.emnlp-main.161>
AUTHORS: Kris Cao, Laura Rimell
HIGHLIGHT: In this paper, we argue that instead, language models should be evaluated on their marginal likelihood over tokenisations.
- 162, TITLE: Broaden the Vision: Geo-Diverse Visual Commonsense Reasoning
<https://www.aclweb.org/anthology/2021.emnlp-main.162>
AUTHORS: Da Yin, Liunian Harold Li, Ziniu Hu, Nanyun Peng, Kai-Wei Chang
HIGHLIGHT: In this paper, we construct a Geo-Diverse Visual Commonsense Reasoning dataset (GD-VCR) to test vision-and-language models' ability to understand cultural and geo-location-specific commonsense.
- 163, TITLE: Reference-Centric Models for Grounded Collaborative Dialogue
<https://www.aclweb.org/anthology/2021.emnlp-main.163>
AUTHORS: Daniel Fried, Justin Chiu, Dan Klein
HIGHLIGHT: We present a grounded neural dialogue model that successfully collaborates with people in a partially-observable reference game.
- 164, TITLE: CrossVQA: Scalably Generating Benchmarks for Systematically Testing VQA Generalization
<https://www.aclweb.org/anthology/2021.emnlp-main.164>
AUTHORS: Arjun Akula, Soravit Changpinyo, Boqing Gong, Piyush Sharma, Song-Chun Zhu, Radu Soricut

HIGHLIGHT: In this paper, we propose a semi-automatic framework for generating disentangled shifts by introducing a controllable visual question-answer generation (VQAG) module that is capable of generating highly-relevant and diverse question-answer pairs with the desired dataset style.

165, **TITLE:** Visual Goal-Step Inference using wikiHow
<https://www.aclweb.org/anthology/2021.emnlp-main.165>
AUTHORS: Yue Yang, Artemis Panagopoulou, Qing Lyu, Li Zhang, Mark Yatskar, Chris Callison-Burch
HIGHLIGHT: We propose the Visual Goal-Step Inference (VGSi) task, where a model is given a textual goal and must choose which of four images represents a plausible step towards that goal.

166, **TITLE:** Systematic Generalization on gSCAN: What is Nearly Solved and What is Next?
<https://www.aclweb.org/anthology/2021.emnlp-main.166>
AUTHORS: Linlu Qiu, Hexiang Hu, Bowen Zhang, Peter Shaw, Fei Sha
HIGHLIGHT: We find that a general-purpose Transformer-based model with cross-modal attention achieves strong performance on a majority of the gSCAN splits, surprisingly outperforming more specialized approaches from prior work. Furthermore, our analysis suggests that many of the remaining errors reveal the same fundamental challenge in systematic generalization of linguistic constructs regardless of visual context. Second, inspired by this finding, we propose challenging new tasks for gSCAN by generating data to incorporate relations between objects in the visual environment.

167, **TITLE:** Effect of Visual Extensions on Natural Language Understanding in Vision-and-Language Models
<https://www.aclweb.org/anthology/2021.emnlp-main.167>
AUTHORS: Taichi Iki, Akiko Aizawa
HIGHLIGHT: To see how well this is achieved, we propose to evaluate V&L models using an NLU benchmark (GLUE).

168, **TITLE:** Neural Path Hunter: Reducing Hallucination in Dialogue Systems via Path Grounding
<https://www.aclweb.org/anthology/2021.emnlp-main.168>
AUTHORS: Nouha Dziri, Andrea Madotto, Osmar Zaiane, Avishek Joey Bose
HIGHLIGHT: In this paper, we focus on the task of improving faithfulness and reducing hallucination of neural dialogue systems to known facts supplied by a Knowledge Graph (KG).

169, **TITLE:** Thinking Clearly, Talking Fast: Concept-Guided Non-Autoregressive Generation for Open-Domain Dialogue Systems
<https://www.aclweb.org/anthology/2021.emnlp-main.169>
AUTHORS: Yicheng Zou, Zhihua Liu, Xingwu Hu, Qi Zhang
HIGHLIGHT: To facilitate a controllable and coherent dialogue, in this work, we devise a concept-guided non-autoregressive model (CG-nAR) for open-domain dialogue generation.

170, **TITLE:** Perspective-taking and Pragmatics for Generating Empathetic Responses Focused on Emotion Causes
<https://www.aclweb.org/anthology/2021.emnlp-main.170>
AUTHORS: Hyunwoo Kim, Byeongchang Kim, Gunhee Kim
HIGHLIGHT: Taking inspiration from social cognition, we leverage a generative estimator to infer emotion cause words from utterances with no word-level label. Also, we introduce a novel method based on pragmatics to make dialogue models focus on targeted words in the input during generation.

171, **TITLE:** Generation and Extraction Combined Dialogue State Tracking with Hierarchical Ontology Integration
<https://www.aclweb.org/anthology/2021.emnlp-main.171>
AUTHORS: Xinmeng Li, Qian Li, Wansen Wu, Qianjun Yin
HIGHLIGHT: To address the problem, we explore the hierarchical semantic of ontology and enhance the interrelation between slots with masked hierarchical attention.

172, **TITLE:** CoLV: A Collaborative Latent Variable Model for Knowledge-Grounded Dialogue Generation
<https://www.aclweb.org/anthology/2021.emnlp-main.172>
AUTHORS: Haolan Zhan, Lei Shen, Hongshen Chen, Hainan Zhang
HIGHLIGHT: In this paper, in order to improve the diversity of both knowledge selection and knowledge-aware response generation, we propose a collaborative latent variable (CoLV) model to integrate these two aspects simultaneously in separate yet collaborative latent spaces, so as to capture the inherent correlation between knowledge selection and response generation.

173, **TITLE:** A Three-Stage Learning Framework for Low-Resource Knowledge-Grounded Dialogue Generation
<https://www.aclweb.org/anthology/2021.emnlp-main.173>
AUTHORS: Shilei Liu, Xiaofeng Zhao, Bochao Li, Feiliang Ren, Longhui Zhang, Shujuan Yin

HIGHLIGHT: In this paper, we propose a novel three-stage learning framework based on weakly supervised learning which benefits from large scale ungrounded dialogues and unstructured knowledge base.

174, **TITLE:** Intention Reasoning Network for Multi-Domain End-to-end Task-Oriented Dialogue

<https://www.aclweb.org/anthology/2021.emnlp-main.174>

AUTHORS: Zhiyuan Ma, Jianjun Li, Zezheng Zhang, Guohui Li, Yongjing Cheng

HIGHLIGHT: To address these issues, we propose a novel intention mechanism to better model deterministic entity knowledge.

175, **TITLE:** More is Better: Enhancing Open-Domain Dialogue Generation via Multi-Source Heterogeneous Knowledge

<https://www.aclweb.org/anthology/2021.emnlp-main.175>

AUTHORS: Sixing Wu, Ying Li, Minghui Wang, Dawei Zhang, Yang Zhou, Zhonghai Wu

HIGHLIGHT: This paper proposes a novel dialogue generation model, MSKE-Dialog, to solve this issue with three unique advantages: (1) Rather than only one, MSKE-Dialog can simultaneously leverage multiple heterogeneous knowledge sources (it includes but is not limited to commonsense knowledge facts, text knowledge, infobox knowledge) to improve the knowledge coverage; (2) To avoid the topic conflict among the context and different knowledge sources, we propose a Multi-Reference Selection to better select context/knowledge; (3) We propose a Multi-Reference Generation to generate informative responses by referring to multiple generation references at the same time.

176, **TITLE:** Domain-Lifelong Learning for Dialogue State Tracking via Knowledge Preservation Networks

<https://www.aclweb.org/anthology/2021.emnlp-main.176>

AUTHORS: Qingbin Liu, Pengfei Cao, Cao Liu, Jiansong Chen, Xunliang Cai, Fan Yang, Shizhu He, Kang Liu, Jun Zhao

HIGHLIGHT: To this end, we propose a novel domain-lifelong learning method, called Knowledge Preservation Networks (KPN), which consists of multi-prototype enhanced retrospection and multi-strategy knowledge distillation, to solve the problems of expression diversity and combinatorial explosion in the DLL-DST task.

177, **TITLE:** CSAGN: Conversational Structure Aware Graph Network for Conversational Semantic Role Labeling

<https://www.aclweb.org/anthology/2021.emnlp-main.177>

AUTHORS: Han Wu, Kun Xu, Linqi Song

HIGHLIGHT: In this paper, we present a simple and effective architecture for CSRL which aims to address this problem.

178, **TITLE:** Different Strokes for Different Folks: Investigating Appropriate Further Pre-training Approaches for Diverse Dialogue Tasks

<https://www.aclweb.org/anthology/2021.emnlp-main.178>

AUTHORS: Yao Qiu, Jinchao Zhang, Jie Zhou

HIGHLIGHT: To investigate this, we carry out a study for improving multiple task-oriented dialogue downstream tasks through designing various tasks at the further pre-training phase.

179, **TITLE:** Knowledge Enhanced Fine-Tuning for Better Handling Unseen Entities in Dialogue Generation

<https://www.aclweb.org/anthology/2021.emnlp-main.179>

AUTHORS: Leyang Cui, Yu Wu, Shujie Liu, Yue Zhang

HIGHLIGHT: Specifically, with the help of a knowledge base, we introduce two auxiliary training objectives: 1) Interpret Masked Word, which conjectures the meaning of the masked entity given the context; 2) Hypernym Generation, which predicts the hypernym of the entity based on the context.

180, **TITLE:** An Evaluation Dataset and Strategy for Building Robust Multi-turn Response Selection Model

<https://www.aclweb.org/anthology/2021.emnlp-main.180>

AUTHORS: Kijong Han, Seojin Lee, Dong-hun Lee

HIGHLIGHT: In this study, we analyze the weaknesses of the open-domain Korean Multi-turn response selection models and publish an adversarial dataset to evaluate these weaknesses.

181, **TITLE:** Unsupervised Conversation Disentanglement through Co-Training

<https://www.aclweb.org/anthology/2021.emnlp-main.181>

AUTHORS: Hui Liu, Zhan Shi, Xiaodan Zhu

HIGHLIGHT: In this work, we explore training a conversation disentanglement model without referencing any human annotations.

182, **TITLE:** Don't be Contradicted with Anything! CI-ToD: Towards Benchmarking Consistency for Task-oriented Dialogue System

<https://www.aclweb.org/anthology/2021.emnlp-main.182>

AUTHORS: Libo Qin, Tianbao Xie, Shijue Huang, Qiguang Chen, Xiao Xu, Wanxiang Che

- HIGHLIGHT: In this paper, we argue that consistency problem is more urgent in task-oriented domain.
- 183, TITLE: Transferable Persona-Grounded Dialogues via Grounded Minimal Edits
<https://www.aclweb.org/anthology/2021.emnlp-main.183>
AUTHORS: Chen Henry Wu, Yinhe Zheng, Xiaoxi Mao, Minlie Huang
HIGHLIGHT: To address the challenges, we propose the grounded minimal editing framework, which minimally edits existing responses to be grounded on the given concept.
- 184, TITLE: EARL: Informative Knowledge-Grounded Conversation Generation with Entity-Agnostic Representation Learning
<https://www.aclweb.org/anthology/2021.emnlp-main.184>
AUTHORS: Hao Zhou, Minlie Huang, Yong Liu, Wei Chen, Xiaoyan Zhu
HIGHLIGHT: In this paper, we propose an Entity-Agnostic Representation Learning (EARL) method to introduce knowledge graphs to informative conversation generation.
- 185, TITLE: DialogueCSE: Dialogue-based Contrastive Learning of Sentence Embeddings
<https://www.aclweb.org/anthology/2021.emnlp-main.185>
AUTHORS: Che Liu, Rui Wang, Jinghua Liu, Jian Sun, Fei Huang, Luo Si
HIGHLIGHT: In this paper, we propose DialogueCSE, a dialogue-based contrastive learning approach to tackle this issue.
- 186, TITLE: Improving Graph-based Sentence Ordering with Iteratively Predicted Pairwise Orderings
<https://www.aclweb.org/anthology/2021.emnlp-main.186>
AUTHORS: Shaopeng Lai, Ante Wang, Fandong Meng, Jie Zhou, Yubin Ge, Jiali Zeng, Junfeng Yao, Degen Huang, Jinsong Su
HIGHLIGHT: In this paper, we propose a novel sentence ordering framework which introduces two classifiers to make better use of pairwise orderings for graph-based sentence ordering (Yin et al. 2019, 2021).
- 187, TITLE: Not Just Classification: Recognizing Implicit Discourse Relation on Joint Modeling of Classification and Generation
<https://www.aclweb.org/anthology/2021.emnlp-main.187>
AUTHORS: Feng Jiang, Yaxin Fan, Xiaomin Chu, Peifeng Li, Qiaoming Zhu
HIGHLIGHT: Specifically, we propose a joint model, CG-T5, to recognize the relation label and generate the target sentence containing the meaning of relations simultaneously.
- 188, TITLE: A Language Model-based Generative Classifier for Sentence-level Discourse Parsing
<https://www.aclweb.org/anthology/2021.emnlp-main.188>
AUTHORS: Ying Zhang, Hidetaka Kamigaito, Manabu Okumura
HIGHLIGHT: To solve the problem, we propose a language model-based generative classifier (LMGC) for using more information from labels by treating the labels as an input while enhancing label representations by embedding descriptions for each label.
- 189, TITLE: Multimodal Phased Transformer for Sentiment Analysis
<https://www.aclweb.org/anthology/2021.emnlp-main.189>
AUTHORS: Junyan Cheng, Iordanis Fostiropoulos, Barry Boehm, Mohammad Soleymani
HIGHLIGHT: We propose multimodal Sparse Phased Transformer (SPT) to alleviate the problem of self-attention complexity and memory footprint.
- 190, TITLE: Hierarchical Multi-label Text Classification with Horizontal and Vertical Category Correlations
<https://www.aclweb.org/anthology/2021.emnlp-main.190>
AUTHORS: Linli Xu, Sijie Teng, Ruoyu Zhao, Junliang Guo, Chi Xiao, Deqiang Jiang, Bo Ren
HIGHLIGHT: In this paper, we propose a novel HMTC framework that considers both vertical and horizontal category correlations.
- 191, TITLE: RankNAS: Efficient Neural Architecture Search by Pairwise Ranking
<https://www.aclweb.org/anthology/2021.emnlp-main.191>
AUTHORS: Chi Hu, Chenglong Wang, Xiangnan Ma, Xia Meng, Yinqiao Li, Tong Xiao, Jingbo Zhu, Changliang Li
HIGHLIGHT: This paper addresses the efficiency challenge of Neural Architecture Search (NAS) by formulating the task as a ranking problem.
- 192, TITLE: FLiText: A Faster and Lighter Semi-Supervised Text Classification with Convolution Networks

- <https://www.aclweb.org/anthology/2021.emnlp-main.192>
AUTHORS: Chen Liu, Zhang Mengchao, Fu Zhibing, Panpan Hou, Yu Li
HIGHLIGHT: In this work, we develop a new SSL framework called FLiText, which stands for Faster and Lighter semi-supervised Text classification.
- 193, TITLE: Evaluating Debiasing Techniques for Intersectional Biases
<https://www.aclweb.org/anthology/2021.emnlp-main.193>
AUTHORS: Shivashankar Subramanian, Xudong Han, Timothy Baldwin, Trevor Cohn, Lea Frermann
HIGHLIGHT: In this paper we argue that a truly fair model must consider 'gerrymandering' groups which comprise not only single attributes, but also intersectional groups.
- 194, TITLE: Definition Modelling for Appropriate Specificity
<https://www.aclweb.org/anthology/2021.emnlp-main.194>
AUTHORS: Han Huang, Tomoyuki Kajiwara, Yuki Arase
HIGHLIGHT: Herein, we propose a method for definition generation with appropriate specificity.
- 195, TITLE: Transductive Learning for Unsupervised Text Style Transfer
<https://www.aclweb.org/anthology/2021.emnlp-main.195>
AUTHORS: Fei Xiao, Liang Pang, Yanyan Lan, Yan Wang, Huawei Shen, Xueqi Cheng
HIGHLIGHT: To tackle this problem, we propose a novel transductive learning approach in this paper, based on a retrieval-based context-aware style representation.
- 196, TITLE: Integrating Semantic Scenario and Word Relations for Abstractive Sentence Summarization
<https://www.aclweb.org/anthology/2021.emnlp-main.196>
AUTHORS: Yong Guan, Shaoru Guo, Ru Li, Xiaoli Li, Hu Zhang
HIGHLIGHT: To simultaneously capture the word relations and structure information from sentences, we propose a novel Dual Graph network for Abstractive Sentence Summarization.
- 197, TITLE: Coupling Context Modeling with Zero Pronoun Recovering for Document-Level Natural Language Generation
<https://www.aclweb.org/anthology/2021.emnlp-main.197>
AUTHORS: Xin Tan, Longyin Zhang, Guodong Zhou
HIGHLIGHT: In this case, we propose a highly adaptive two-stage approach to couple context modeling with ZP recovering to mitigate the ZP problem in NLG tasks.
- 198, TITLE: Adaptive Bridge between Training and Inference for Dialogue Generation
<https://www.aclweb.org/anthology/2021.emnlp-main.198>
AUTHORS: Haoran Xu, Hainan Zhang, Yanyan Zou, Hongshen Chen, Zhuoye Ding, Yanyan Lan
HIGHLIGHT: In this paper, we propose a novel adaptive switching mechanism, which learns to automatically transit between ground-truth learning and generated learning regarding the word-level matching score, such as the cosine similarity.
- 199, TITLE: ConRPG: Paraphrase Generation using Contexts as Regularizer
<https://www.aclweb.org/anthology/2021.emnlp-main.199>
AUTHORS: Yuxian Meng, Xiang Ao, Qing He, Xiaofei Sun, Qinghong Han, Fei Wu, Chun Fan, Jiwei Li
HIGHLIGHT: In this paper, we propose a new unsupervised paradigm for paraphrase generation based on the assumption that the probabilities of generating two sentences with the same meaning given the same context should be the same.
- 200, TITLE: Building the Directed Semantic Graph for Coherent Long Text Generation
<https://www.aclweb.org/anthology/2021.emnlp-main.200>
AUTHORS: Ziao Wang, Xiaofeng Zhang, Hongwei Du
HIGHLIGHT: To address aforementioned research issue, this paper proposes a novel two-stage approach to generate coherent long text.
- 201, TITLE: Iterative GNN-based Decoder for Question Generation
<https://www.aclweb.org/anthology/2021.emnlp-main.201>
AUTHORS: Zichu Fei, Qi Zhang, Yaqian Zhou
HIGHLIGHT: To address these problems, we design the Iterative Graph Network-based Decoder (IGND) to model the previous generation using a Graph Neural Network at each decoding step.
- 202, TITLE: Asking Questions Like Educational Experts: Automatically Generating Question-Answer Pairs on Real-World Examination Data

- <https://www.aclweb.org/anthology/2021.emnlp-main.202>
AUTHORS: Fanyi Qu, Xin Jia, Yunfang Wu
HIGHLIGHT: This paper for the first time addresses the question-answer pair generation task on the real-world examination data, and proposes a new unified framework on RACE.
- 203, TITLE: Syntactically-Informed Unsupervised Paraphrasing with Non-Parallel Data
<https://www.aclweb.org/anthology/2021.emnlp-main.203>
AUTHORS: Erguang Yang, Mingtong Liu, Deyi Xiong, Yujie Zhang, Yao Meng, Changjian Hu, Jinan Xu, Yufeng Chen
HIGHLIGHT: In this paper, we take this research direction to the extreme and investigate whether it is possible to learn syntactically controlled paraphrase generation with nonparallel data.
- 204, TITLE: Exploring Task Difficulty for Few-Shot Relation Extraction
<https://www.aclweb.org/anthology/2021.emnlp-main.204>
AUTHORS: Jiale Han, Bo Cheng, Wei Lu
HIGHLIGHT: In this paper, we introduce a novel approach based on contrastive learning that learns better representations by exploiting relation label information.
- 205, TITLE: MuVER: Improving First-Stage Entity Retrieval with Multi-View Entity Representations
<https://www.aclweb.org/anthology/2021.emnlp-main.205>
AUTHORS: Xinyin Ma, Yong Jiang, Nguyen Bach, Tao Wang, Zhongqiang Huang, Fei Huang, Weiming Lu
HIGHLIGHT: In this work, we propose Multi-View Entity Representations (MuVER), a novel approach for entity retrieval that constructs multi-view representations for entity descriptions and approximates the optimal view for mentions via a heuristic searching method.
- 206, TITLE: Treasures Outside Contexts: Improving Event Detection via Global Statistics
<https://www.aclweb.org/anthology/2021.emnlp-main.206>
AUTHORS: Rui Li, Wenlin Zhao, Cheng Yang, Sen Su
HIGHLIGHT: Specifically, we propose a Semantic and Statistic-Joint Discriminative Network (SS-JDN) consisting of a semantic feature extractor, a statistical feature extractor, and a joint event discriminator.
- 207, TITLE: Uncertain Local-to-Global Networks for Document-Level Event Factuality Identification
<https://www.aclweb.org/anthology/2021.emnlp-main.207>
AUTHORS: Pengfei Cao, Yubo Chen, Yuqing Yang, Kang Liu, Jun Zhao
HIGHLIGHT: In this paper, we propose an Uncertain Local-to-Global Network (ULGN) to make use of these two characteristics.
- 208, TITLE: A Novel Global Feature-Oriented Relational Triple Extraction Model based on Table Filling
<https://www.aclweb.org/anthology/2021.emnlp-main.208>
AUTHORS: Feiliang Ren, Longhui Zhang, Shujuan Yin, Xiaofeng Zhao, Shilei Liu, Bochao Li, Yaduo Liu
HIGHLIGHT: To overcome this deficiency, we propose a global feature-oriented triple extraction model that makes full use of the mentioned two kinds of global associations.
- 209, TITLE: Structure-Augmented Keyphrase Generation
<https://www.aclweb.org/anthology/2021.emnlp-main.209>
AUTHORS: Jihyuk Kim, Myeongho Jeong, Seungtaek Choi, Seung-won Hwang
HIGHLIGHT: Our contribution is generating/augmenting structure then injecting these information in the encoding, using existing keyphrases of other documents, complementing missing/incomplete titles.
- 210, TITLE: An Empirical Study on Multiple Information Sources for Zero-Shot Fine-Grained Entity Typing
<https://www.aclweb.org/anthology/2021.emnlp-main.210>
AUTHORS: Yi Chen, Haiyun Jiang, Lemao Liu, Shuming Shi, Chuang Fan, Min Yang, Ruifeng Xu
HIGHLIGHT: In this paper, we empirically study three kinds of auxiliary information: context consistency, type hierarchy and background knowledge (e.g., prototypes and descriptions) of types, and propose a multi-source fusion model (MSF) targeting these sources.
- 211, TITLE: DyLex: Incorporating Dynamic Lexicons into BERT for Sequence Labeling
<https://www.aclweb.org/anthology/2021.emnlp-main.211>
AUTHORS: Baojun Wang, Zhao Zhang, Kun Xu, Guang-Yuan Hao, Yuyang Zhang, Lifeng Shang, Linlin Li, Xiao Chen, Xin Jiang, Qun Liu
HIGHLIGHT: In this paper, we propose DyLex, a plug-in lexicon incorporation approach for BERT based sequence labeling tasks.

- 212, TITLE: MapRE: An Effective Semantic Mapping Approach for Low-resource Relation Extraction
<https://www.aclweb.org/anthology/2021.emnlp-main.212>
AUTHORS: Manqing Dong, Chunguang Pan, Zhipeng Luo
HIGHLIGHT: In this work, we propose a framework considering both label-agnostic and label-aware semantic mapping information for low resource relation extraction.
- 213, TITLE: Heterogeneous Graph Neural Networks for Keyphrase Generation
<https://www.aclweb.org/anthology/2021.emnlp-main.213>
AUTHORS: Jiacheng Ye, Ruijian Cai, Tao Gui, Qi Zhang
HIGHLIGHT: To address these problems, we propose a novel graph-based method that can capture explicit knowledge from related references.
- 214, TITLE: Machine Reading Comprehension as Data Augmentation: A Case Study on Implicit Event Argument Extraction
<https://www.aclweb.org/anthology/2021.emnlp-main.214>
AUTHORS: Jian Liu, Yufeng Chen, Jinan Xu
HIGHLIGHT: In this paper, we take a new perspective to address the data sparsity issue faced by implicit EAE, by bridging the task with machine reading comprehension (MRC).
- 215, TITLE: Importance Estimation from Multiple Perspectives for Keyphrase Extraction
<https://www.aclweb.org/anthology/2021.emnlp-main.215>
AUTHORS: Mingyang Song, Liping Jing, Lin Xiao
HIGHLIGHT: In this paper, we propose a new approach to estimate the importance of keyphrase from multiple perspectives (called as KIEMP) and further improve the performance of keyphrase extraction.
- 216, TITLE: Gradient Imitation Reinforcement Learning for Low Resource Relation Extraction
<https://www.aclweb.org/anthology/2021.emnlp-main.216>
AUTHORS: Xuming Hu, Chenwei Zhang, Yawen Yang, Xiaohe Li, Li Lin, Lijie Wen, Philip S. Yu
HIGHLIGHT: To alleviate selection bias due to the lack of feedback loops in existing LRE learning paradigms, we developed a Gradient Imitation Reinforcement Learning method to encourage pseudo label data to imitate the gradient descent direction on labeled data and bootstrap its optimization capability through trial and error.
- 217, TITLE: Low-resource Taxonomy Enrichment with Pretrained Language Models
<https://www.aclweb.org/anthology/2021.emnlp-main.217>
AUTHORS: Kunihiko Takeoka, Kosuke Akimoto, Masafumi Oyamada
HIGHLIGHT: To tackle the problem of low-resource taxonomy enrichment, we propose Musubu, an efficient framework for taxonomy enrichment in low-resource settings with pretrained language models (LMs) as knowledge bases to compensate for the shortage of information.
- 218, TITLE: Entity Relation Extraction as Dependency Parsing in Visually Rich Documents
<https://www.aclweb.org/anthology/2021.emnlp-main.218>
AUTHORS: Yue Zhang, Zhang Bo, Rui Wang, Junjie Cao, Chen Li, Zuyi Bao
HIGHLIGHT: In this paper, we adapt the popular dependency parsing model, the biaffine parser, to this entity relation extraction task.
- 219, TITLE: Synchronous Dual Network with Cross-Type Attention for Joint Entity and Relation Extraction
<https://www.aclweb.org/anthology/2021.emnlp-main.219>
AUTHORS: Hui Wu, Xiaodong Shi
HIGHLIGHT: In this paper, we design a novel synchronous dual network (SDN) with cross-type attention via separately and interactively considering the entity types and relation types.
- 220, TITLE: Less is More: Pretrain a Strong Siamese Encoder for Dense Text Retrieval Using a Weak Decoder
<https://www.aclweb.org/anthology/2021.emnlp-main.220>
AUTHORS: Shuqi Lu, Di He, Chenyan Xiong, Guolin Ke, Waleed Malik, Zhicheng Dou, Paul Bennett, Tie-Yan Liu, Arnold Overwijk
HIGHLIGHT: To address this, we propose a new self-learning method that pre-trains the autoencoder using a weak decoder, with restricted capacity and attention flexibility to push the encoder to provide better text representations.
- 221, TITLE: TransPrompt: Towards an Automatic Transferable Prompting Framework for Few-shot Text Classification
<https://www.aclweb.org/anthology/2021.emnlp-main.221>

AUTHORS: Chengyu Wang, Jianing Wang, Minghui Qiu, Jun Huang, Ming Gao
HIGHLIGHT: Based on continuous prompt embeddings, we propose TransPrompt, a transferable prompting framework for few-shot learning across similar tasks.

222, TITLE: Weakly-supervised Text Classification Based on Keyword Graph
<https://www.aclweb.org/anthology/2021.emnlp-main.222>
AUTHORS: Lu Zhang, Jiandong Ding, Yi Xu, Yingyao Liu, Shuigeng Zhou
HIGHLIGHT: In this paper, we propose a novel framework called ClassKG to explore keyword-keyword correlation on keyword graph by GNN.

223, TITLE: Efficient-FedRec: Efficient Federated Learning Framework for Privacy-Preserving News Recommendation
<https://www.aclweb.org/anthology/2021.emnlp-main.223>
AUTHORS: Jingwei Yi, Fangzhao Wu, Chuhan Wu, Ruixuan Liu, Guangzhong Sun, Xing Xie
HIGHLIGHT: In this paper, we propose an efficient federated learning framework for privacy-preserving news recommendation.

224, TITLE: RocketQAv2: A Joint Training Method for Dense Passage Retrieval and Passage Re-ranking
<https://www.aclweb.org/anthology/2021.emnlp-main.224>
AUTHORS: Ruiyang Ren, Yingqi Qu, Jing Liu, Wayne Xin Zhao, QiaoQiao She, Hua Wu, Haifeng Wang, Ji-Rong Wen
HIGHLIGHT: In this paper, we propose a novel joint training approach for dense passage retrieval and passage reranking.

225, TITLE: Dealing with Typos for BERT-based Passage Retrieval and Ranking
<https://www.aclweb.org/anthology/2021.emnlp-main.225>
AUTHORS: Shengyao Zhuang, Guido Zuccon
HIGHLIGHT: In this paper we consider the Dense Retriever (DR), a passage retrieval method, and the BERT re-ranker, a popular passage re-ranking method.

226, TITLE: From Alignment to Assignment: Frustratingly Simple Unsupervised Entity Alignment
<https://www.aclweb.org/anthology/2021.emnlp-main.226>
AUTHORS: Xin Mao, Wenting Wang, Yuanbin Wu, Man Lan
HIGHLIGHT: Based on this re-definition, we propose a frustratingly Simple but Effective Unsupervised entity alignment method (SEU) without neural networks.

227, TITLE: Simple and Effective Unsupervised Redundancy Elimination to Compress Dense Vectors for Passage Retrieval
<https://www.aclweb.org/anthology/2021.emnlp-main.227>
AUTHORS: Xueguang Ma, Minghan Li, Kai Sun, Ji Xin, Jimmy Lin
HIGHLIGHT: In this paper, we analyze the redundancy present in encoded dense vectors and show that the default dimension of 768 is unnecessarily large.

228, TITLE: Relation Extraction with Word Graphs from N-grams
<https://www.aclweb.org/anthology/2021.emnlp-main.228>
AUTHORS: Han Qin, Yuanhe Tian, Yan Song
HIGHLIGHT: To address this limitation, in this paper, we propose attentive graph convolutional networks (A-GCN) to improve neural RE methods with an unsupervised manner to build the context graph, without relying on the existence of a dependency parser.

229, TITLE: A Bayesian Framework for Information-Theoretic Probing
<https://www.aclweb.org/anthology/2021.emnlp-main.229>
AUTHORS: Tiago Pimentel, Ryan Cotterell
HIGHLIGHT: This paper proposes a new framework to measure what we term Bayesian mutual information, which analyses information from the perspective of Bayesian agents-allowing for more intuitive findings in scenarios with finite data.

230, TITLE: Masked Language Modeling and the Distributional Hypothesis: Order Word Matters Pre-training for Little
<https://www.aclweb.org/anthology/2021.emnlp-main.230>
AUTHORS: Koustuv Sinha, Robin Jia, Dieuwke Hupkes, Joelle Pineau, Adina Williams, Douwe Kiela
HIGHLIGHT: In this paper, we propose a different explanation: MLMs succeed on downstream tasks almost entirely due to their ability to model higher-order word co-occurrence statistics.

231, TITLE: What's Hidden in a One-layer Randomly Weighted Transformer?
<https://www.aclweb.org/anthology/2021.emnlp-main.231>

AUTHORS: Sheng Shen, Zhewei Yao, Douwe Kiela, Kurt Keutzer, Michael Mahoney
HIGHLIGHT: We demonstrate that, hidden within one-layer randomly weighted neural networks, there exist subnetworks that can achieve impressive performance, without ever modifying the weight initializations, on machine translation tasks.

232, TITLE: Rethinking Denoised Auto-Encoding in Language Pre-Training
<https://www.aclweb.org/anthology/2021.emnlp-main.232>
AUTHORS: Fuli Luo, Pengcheng Yang, Shicheng Li, Xuancheng Ren, Xu Sun, Songfang Huang, Fei Huang
HIGHLIGHT: However, such pre-training approaches are prone to learning representations that are covariant with the noise, leading to the discrepancy between the pre-training and fine-tuning stage. To remedy this, we present ContrAstive Pre-Training (CAPT) to learn noise invariant sequence representations.

233, TITLE: Lifelong Explainer for Lifelong Learners
<https://www.aclweb.org/anthology/2021.emnlp-main.233>
AUTHORS: Xuelin Situ, Sameen Maruf, Ingrid Zukerman, Cecile Paris, Gholamreza Haffari
HIGHLIGHT: In this paper, we propose a novel Lifelong Explanation (LLE) approach that continuously trains a student explainer under the supervision of a teacher - an arbitrary explanation algorithm - on different tasks undertaken in LL.

234, TITLE: Linguistic Dependencies and Statistical Dependence
<https://www.aclweb.org/anthology/2021.emnlp-main.234>
AUTHORS: Jacob Louis Hoover, Wenyu Du, Alessandro Sordoni, Timothy J. O'Donnell
HIGHLIGHT: In this work we contribute an extensive analysis of the relationship between linguistic dependencies and statistical dependence between words.

235, TITLE: Modeling Human Sentence Processing with Left-Corner Recurrent Neural Network Grammars
<https://www.aclweb.org/anthology/2021.emnlp-main.235>
AUTHORS: Ryo Yoshida, Hiroshi Noji, Yohei Oseki
HIGHLIGHT: In this paper, we investigated whether hierarchical structures make LMs more human-like, and if so, which parsing strategy is most cognitively plausible.

236, TITLE: A Simple and Effective Positional Encoding for Transformers
<https://www.aclweb.org/anthology/2021.emnlp-main.236>
AUTHORS: Pu-Chin Chen, Henry Tsai, Srinadh Bhojanapalli, Hyung Won Chung, Yin-Wen Chang, Chun-Sung Ferng
HIGHLIGHT: Motivated by this, we introduce Decoupled Positional Attention for Transformers (DIET), a simple yet effective mechanism to encode position and segment information into the Transformer models.

237, TITLE: Explore Better Relative Position Embeddings from Encoding Perspective for Transformer Models
<https://www.aclweb.org/anthology/2021.emnlp-main.237>
AUTHORS: Anlin Qu, Jianwei Niu, Shasha Mo
HIGHLIGHT: In this paper, we investigate the potential problems in Shaw-RPE and XL-RPE, which are the most representative and prevalent RPEs, and propose two novel RPEs called Low-level Fine-grained High-level Coarse-grained (LFHC) RPE and Gaussian Cumulative Distribution Function (GCDF) RPE.

238, TITLE: Adversarial Mixing Policy for Relaxing Locally Linear Constraints in Mixup
<https://www.aclweb.org/anthology/2021.emnlp-main.238>
AUTHORS: Guang Liu, Yuzhao Mao, Huang Hailong, Gao Weiguo, Li Xuan
HIGHLIGHT: To address these issues, we propose the Adversarial Mixing Policy (AMP), organized in a "min-max-rand" formulation, to relax the Locally Linear Constraints in Mixup.

239, TITLE: Is this the end of the gold standard? A straightforward reference-less grammatical error correction metric
<https://www.aclweb.org/anthology/2021.emnlp-main.239>
AUTHORS: Md Asadul Islam, Enrico Magnani
HIGHLIGHT: We propose a reference-less GEC evaluation system that is strongly correlated with human judgement, solves the issues related to the use of a reference, and does not need another annotated dataset for fine-tuning.

240, TITLE: Augmenting BERT-style Models with Predictive Coding to Improve Discourse-level Representations
<https://www.aclweb.org/anthology/2021.emnlp-main.240>
AUTHORS: Vladimir Araujo, Andr s Villa, Marcelo Mendoza, Marie-Francine Moens, Alvaro Soto
HIGHLIGHT: In this work, we propose to use ideas from predictive coding theory to augment BERT-style language models with a mechanism that allows them to learn suitable discourse-level representations.

- 241, TITLE: Backdoor Attacks on Pre-trained Models by Layerwise Weight Poisoning
<https://www.aclweb.org/anthology/2021.emnlp-main.241>
AUTHORS: Linyang Li, Demin Song, Xiaonan Li, Jichang Zeng, Ruotian Ma, Xipeng Qiu
HIGHLIGHT: In this paper, we propose a stronger weight-poisoning attack method that introduces a layerwise weight poisoning strategy to plant deeper backdoors; we also introduce a combinatorial trigger that cannot be easily detected.
- 242, TITLE: GAML-BERT: Improving BERT Early Exiting by Gradient Aligned Mutual Learning
<https://www.aclweb.org/anthology/2021.emnlp-main.242>
AUTHORS: Wei Zhu, Xiaoling Wang, Yuan Ni, Guotong Xie
HIGHLIGHT: In this work, we propose a novel framework, Gradient Aligned Mutual Learning BERT (GAML-BERT), for improving the early exiting of BERT.
- 243, TITLE: The Power of Scale for Parameter-Efficient Prompt Tuning
<https://www.aclweb.org/anthology/2021.emnlp-main.243>
AUTHORS: Brian Lester, Rami Al-Rfou, Noah Constant
HIGHLIGHT: In this work, we explore "prompt tuning," a simple yet effective mechanism for learning "soft prompts" to condition frozen language models to perform specific downstream tasks.
- 244, TITLE: Scalable Font Reconstruction with Dual Latent Manifolds
<https://www.aclweb.org/anthology/2021.emnlp-main.244>
AUTHORS: Nikita Srivatsan, Si Wu, Jonathan Barron, Taylor Berg-Kirkpatrick
HIGHLIGHT: We propose a deep generative model that performs typography analysis and font reconstruction by learning disentangled manifolds of both font style and character shape.
- 245, TITLE: Neuro-Symbolic Approaches for Text-Based Policy Learning
<https://www.aclweb.org/anthology/2021.emnlp-main.245>
AUTHORS: Subhajit Chaudhury, Prithviraj Sen, Masaki Ono, Daiki Kimura, Michiaki Tatsubori, Asim Munawar
HIGHLIGHT: We present Symbolic Action policy for Textual Environments (SLATE), that learns interpretable action policy rules from symbolic abstractions of textual observations for improved generalization.
- 246, TITLE: Layer-wise Model Pruning based on Mutual Information
<https://www.aclweb.org/anthology/2021.emnlp-main.246>
AUTHORS: Chun Fan, Jiwei Li, Tianwei Zhang, Xiang Ao, Fei Wu, Yuxian Meng, Xiaofei Sun
HIGHLIGHT: Inspired by mutual information (MI) based feature selection in SVMs and logistic regression, in this paper, we propose MI-based layer-wise pruning: for each layer of a multi-layer neural network, neurons with higher values of MI with respect to preserved neurons in the upper layer are preserved.
- 247, TITLE: Hierarchical Heterogeneous Graph Representation Learning for Short Text Classification
<https://www.aclweb.org/anthology/2021.emnlp-main.247>
AUTHORS: Yaqing Wang, Song Wang, Quanming Yao, Dejing Dou
HIGHLIGHT: In this paper, we propose a new method called SHINE, which is based on graph neural network (GNN), for short text classification.
- 248, TITLE: kFolden: k-Fold Ensemble for Out-Of-Distribution Detection
<https://www.aclweb.org/anthology/2021.emnlp-main.248>
AUTHORS: Xiaoya Li, Jiwei Li, Xiaofei Sun, Chun Fan, Tianwei Zhang, Fei Wu, Yuxian Meng, Jun Zhang
HIGHLIGHT: In this work, we propose a simple yet effective framework kFolden, which mimics the behaviors of OOD detection during training without the use of any external data.
- 249, TITLE: Frustratingly Simple Pretraining Alternatives to Masked Language Modeling
<https://www.aclweb.org/anthology/2021.emnlp-main.249>
AUTHORS: Atsuki Yamaguchi, George Chrysostomou, Katerina Margatina, Nikolaos Aletras
HIGHLIGHT: In this paper, we explore five simple pretraining objectives based on token-level classification tasks as replacements of MLM.
- 250, TITLE: HRKD: Hierarchical Relational Knowledge Distillation for Cross-domain Language Model Compression
<https://www.aclweb.org/anthology/2021.emnlp-main.250>
AUTHORS: Chenhe Dong, Yaliang Li, Ying Shen, Minghui Qiu
HIGHLIGHT: In this paper, we target to compress PLMs with knowledge distillation, and propose a hierarchical relational knowledge distillation (HRKD) method to capture both hierarchical and domain relational information.

- 251, TITLE: Searching for an Effective Defender: Benchmarking Defense against Adversarial Word Substitution
<https://www.aclweb.org/anthology/2021.emnlp-main.251>
AUTHORS: Zongyi Li, Jianhan Xu, Jiehang Zeng, Linyang Li, Xiaoqing Zheng, Qi Zhang, Kai-Wei Chang, Cho-Jui Hsieh
HIGHLIGHT: In this paper, we seek to fill the gap of systematic studies through comprehensive researches on understanding the behavior of neural text classifiers trained by various defense methods under representative adversarial attacks.
- 252, TITLE: Re-embedding Difficult Samples via Mutual Information Constrained Semantically Oversampling for Imbalanced Text Classification
<https://www.aclweb.org/anthology/2021.emnlp-main.252>
AUTHORS: Jiachen Tian, Shizhan Chen, Xiaowang Zhang, Zhiyong Feng, Deyi Xiong, Shaojuan Wu, Chunliu Dou
HIGHLIGHT: In this paper, we propose a Mutual Information constrained Semantically Oversampling framework (MISO) that can generate anchor instances to help the backbone network determine the re-embedding position of a non-overlapping representation for each difficult sample.
- 253, TITLE: Beyond Text: Incorporating Metadata and Label Structure for Multi-Label Document Classification using Heterogeneous Graphs
<https://www.aclweb.org/anthology/2021.emnlp-main.253>
AUTHORS: Chenchen Ye, Linhai Zhang, Yulan He, Deyu Zhou, Jie Wu
HIGHLIGHT: Therefore, in this paper, we propose a novel neural network based approach for multi-label document classification, in which two heterogeneous graphs are constructed and learned using heterogeneous graph transformers.
- 254, TITLE: Natural Language Processing Meets Quantum Physics: A Survey and Categorization
<https://www.aclweb.org/anthology/2021.emnlp-main.254>
AUTHORS: Sixuan Wu, Jian Li, Peng Zhang, Yue Zhang
HIGHLIGHT: In this survey, we review representative methods at the intersection of NLP and quantum physics in the past ten years, categorizing them according to the use of quantum theory, the linguistic targets that are modeled, and the downstream application.
- 255, TITLE: MetaTS: Meta Teacher-Student Network for Multilingual Sequence Labeling with Minimal Supervision
<https://www.aclweb.org/anthology/2021.emnlp-main.255>
AUTHORS: Zheng Li, Danqing Zhang, Tianyu Cao, Ying Wei, Yiwei Song, Bing Yin
HIGHLIGHT: In this work, we explore multilingual sequence labeling with minimal supervision using a single unified model for multiple languages.
- 256, TITLE: Neural Machine Translation with Heterogeneous Topic Knowledge Embeddings
<https://www.aclweb.org/anthology/2021.emnlp-main.256>
AUTHORS: Weixuan Wang, Wei Peng, Meng Zhang, Qun Liu
HIGHLIGHT: In this paper, we propose heterogeneous ways of embedding topic information at the sentence level into an NMT model to improve translation performance.
- 257, TITLE: Allocating Large Vocabulary Capacity for Cross-Lingual Language Model Pre-Training
<https://www.aclweb.org/anthology/2021.emnlp-main.257>
AUTHORS: Bo Zheng, Li Dong, Shaohan Huang, Saksham Singhal, Wanxiang Che, Ting Liu, Xia Song, Furu Wei
HIGHLIGHT: To this end, we propose an algorithm VoCap to determine the desired vocabulary capacity of each language.
- 258, TITLE: Recurrent Attention for Neural Machine Translation
<https://www.aclweb.org/anthology/2021.emnlp-main.258>
AUTHORS: Jiali Zeng, Shuangzhi Wu, Yongjing Yin, Yufan Jiang, Mu Li
HIGHLIGHT: In this paper, we push further in this research line and propose a novel substitute mechanism for self-attention: Recurrent Attention (RAN).
- 259, TITLE: Learning from Multiple Noisy Augmented Data Sets for Better Cross-Lingual Spoken Language Understanding
<https://www.aclweb.org/anthology/2021.emnlp-main.259>
AUTHORS: Yingmei Guo, Linjun Shou, Jian Pei, Ming Gong, Mingxing Xu, Zhiyong Wu, Daxin Jiang
HIGHLIGHT: In this paper we focus on mitigating noise in augmented data.
- 260, TITLE: Enlivening Redundant Heads in Multi-head Self-attention for Machine Translation
<https://www.aclweb.org/anthology/2021.emnlp-main.260>
AUTHORS: Tianfu Zhang, Heyan Huang, Chong Feng, Longbing Cao

HIGHLIGHT: We propose a redundant head enlivening (RHE) method to precisely identify redundant heads, and then vitalize their potential by learning syntactic relations and prior knowledge in the text without sacrificing the roles of important heads.

261, **TITLE:** Unsupervised Neural Machine Translation with Universal Grammar

<https://www.aclweb.org/anthology/2021.emnlp-main.261>

AUTHORS: Zuchao Li, Masao Utiyama, Eiichiro Sumita, Hai Zhao

HIGHLIGHT: Therefore, in this paper, we seek to leverage such shared grammar clues to provide more explicit language parallel signals to enhance the training of unsupervised machine translation models.

262, **TITLE:** Encouraging Lexical Translation Consistency for Document-Level Neural Machine Translation

<https://www.aclweb.org/anthology/2021.emnlp-main.262>

AUTHORS: Xinglin Lyu, Junhui Li, Zhengxian Gong, Min Zhang

HIGHLIGHT: In this paper we apply "one translation per discourse" in NMT, and aim to encourage lexical translation consistency for document-level NMT.

263, **TITLE:** Improving Neural Machine Translation by Bidirectional Training

<https://www.aclweb.org/anthology/2021.emnlp-main.263>

AUTHORS: Liang Ding, Di Wu, Dacheng Tao

HIGHLIGHT: We present a simple and effective pretraining strategy - bidirectional training (BiT) for neural machine translation.

264, **TITLE:** Scheduled Sampling Based on Decoding Steps for Neural Machine Translation

<https://www.aclweb.org/anthology/2021.emnlp-main.264>

AUTHORS: Yijin Liu, Fandong Meng, Yufeng Chen, Jinan Xu, Jie Zhou

HIGHLIGHT: To alleviate the above discrepancy, we propose scheduled sampling methods based on decoding steps, increasing the selection chance of predicted tokens with the growth of decoding steps.

265, **TITLE:** Learning to Rewrite for Non-Autoregressive Neural Machine Translation

<https://www.aclweb.org/anthology/2021.emnlp-main.265>

AUTHORS: Xinwei Geng, Xiaocheng Feng, Bing Qin

HIGHLIGHT: In this paper, we propose an architecture named RewriteNAT to explicitly learn to rewrite the erroneous translation pieces.

266, **TITLE:** SHAPE : Shifted Absolute Position Embedding for Transformers

<https://www.aclweb.org/anthology/2021.emnlp-main.266>

AUTHORS: Shun Kiyono, Sosuke Kobayashi, Jun Suzuki, Kentaro Inui

HIGHLIGHT: Existing position representations suffer from a lack of generalization to test data with unseen lengths or high computational cost. We investigate shifted absolute position embedding (SHAPE) to address both issues.

267, **TITLE:** Self-Supervised Quality Estimation for Machine Translation

<https://www.aclweb.org/anthology/2021.emnlp-main.267>

AUTHORS: Yuanhang Zheng, Zhixing Tan, Meng Zhang, Mieradilijiang Maimaiti, Huanbo Luan, Maosong Sun, Qun Liu, Yang Liu

HIGHLIGHT: To reduce the negative impact of noises, we propose a self-supervised method for both sentence- and word-level QE, which performs quality estimation by recovering the masked target words.

268, **TITLE:** Generalised Unsupervised Domain Adaptation of Neural Machine Translation with Cross-Lingual Data Selection

<https://www.aclweb.org/anthology/2021.emnlp-main.268>

AUTHORS: Thuy-Trang Vu, Xuanli He, Dinh Phung, Gholamreza Haffari

HIGHLIGHT: We propose a cross-lingual data selection method to extract in-domain sentences in the missing language side from a large generic monolingual corpus.

269, **TITLE:** STANKER: Stacking Network based on Level-grained Attention-masked BERT for Rumor Detection on Social Media

<https://www.aclweb.org/anthology/2021.emnlp-main.269>

AUTHORS: Dongning Rao, Xin Miao, Zhihua Jiang, Ran Li

HIGHLIGHT: To alleviate these problems, we build a new Chinese microblog dataset named Weibo20 by collecting posts and associated comments from Sina Weibo and propose a new ensemble named STANKER (Stacking neTwork bAsed-on atTeNtion-masked BERT).

- 270, TITLE: ActiveEA: Active Learning for Neural Entity Alignment
<https://www.aclweb.org/anthology/2021.emnlp-main.270>
AUTHORS: Bing Liu, Harrison Scells, Guido Zuccon, Wen Hua, Genghong Zhao
HIGHLIGHT: In this paper, we devise a novel Active Learning (AL) framework for neural EA, aiming to create highly informative seed alignment to obtain more effective EA models with less annotation cost.
- 271, TITLE: Cost-effective End-to-end Information Extraction for Semi-structured Document Images
<https://www.aclweb.org/anthology/2021.emnlp-main.271>
AUTHORS: Wonseok Hwang, Hyunji Lee, Jinyeong Yim, Geewook Kim, Minjoon Seo
HIGHLIGHT: Here we present our recent effort on transitioning from our existing pipeline-based IE system to an end-to-end system focusing on practical challenges that are associated with replacing and deploying the system in real, large-scale production.
- 272, TITLE: Improving Math Word Problems with Pre-trained Knowledge and Hierarchical Reasoning
<https://www.aclweb.org/anthology/2021.emnlp-main.272>
AUTHORS: Weijiang Yu, Yingpeng Wen, Fudan Zheng, Nong Xiao
HIGHLIGHT: In this paper, we propose a Reasoning with Pre-trained Knowledge and Hierarchical Structure (RPKHS) network, which contains a pre-trained knowledge encoder and a hierarchical reasoning encoder.
- 273, TITLE: GraphMR: Graph Neural Network for Mathematical Reasoning
<https://www.aclweb.org/anthology/2021.emnlp-main.273>
AUTHORS: Weijie Feng, Binbin Liu, Dongpeng Xu, Qilong Zheng, Yun Xu
HIGHLIGHT: Having transformed to the new representations, we proposed a graph-to-sequence neural network GraphMR, which can effectively learn the hierarchical information of graphs inputs to solve mathematics and speculate answers.
- 274, TITLE: What Changes Can Large-scale Language Models Bring? Intensive Study on HyperCLOVA: Billions-scale Korean Generative Pretrained Transformers
<https://www.aclweb.org/anthology/2021.emnlp-main.274>
AUTHORS: Boseop Kim, HyoungSeok Kim, Sang-Woo Lee, Gichang Lee, Donghyun Kwak, Jeon Dong Hyeon, Sunghyun Park, Sungju Kim, Seonhoon Kim, Dongpil Seo, Heungsub Lee, Minyoung Jeong, Sungjae Lee, Minsub Kim, Suk Hyun Ko, Seokhun Kim, Taeyong Park, Jinuk Kim, Soyoung Kang, Na-Hyeon Ryu, Kang Min Yoo, Minsuk Chang, Soobin Suh, Sookyo In, Jinseong Park, Kyungduk Kim, Hiun Kim, Jisu Jeong, Yong Goo Yeo, Donghoon Ham, Dongju Park, Min Young Lee, Jaewook Kang, Inho Kang, Jung-Woo Ha, Woomyoung Park, Nako Sung
HIGHLIGHT: To achieve this, we introduce HyperCLOVA, a Korean variant of 82B GPT-3 trained on a Korean-centric corpus of 560B tokens.
- 275, TITLE: APIRecX: Cross-Library API Recommendation via Pre-Trained Language Model
<https://www.aclweb.org/anthology/2021.emnlp-main.275>
AUTHORS: Yuning Kang, Zan Wang, Hongyu Zhang, Junjie Chen, Hanmo You
HIGHLIGHT: In this paper, we propose APIRecX, the first cross-library API recommendation approach, which uses BPE to split each API call in each API sequence and pre-trains a GPT based language model.
- 276, TITLE: GMH: A General Multi-hop Reasoning Model for KG Completion
<https://www.aclweb.org/anthology/2021.emnlp-main.276>
AUTHORS: Yao Zhang, Hongru Liang, Adam Jatowt, Wenqiang Lei, Xin Wei, Ning Jiang, Zhenglu Yang
HIGHLIGHT: Therefore, we propose a general model which resolves the issues with three modules: 1) the local-global knowledge module to estimate the possible paths, 2) the differentiated action dropout module to explore a diverse set of paths, and 3) the adaptive stopping search module to avoid over searching.
- 277, TITLE: BPM_MT: Enhanced Backchannel Prediction Model using Multi-Task Learning
<https://www.aclweb.org/anthology/2021.emnlp-main.277>
AUTHORS: Jin Yea Jang, San Kim, Minyoung Jung, Saim Shin, Gahgene Gweon
HIGHLIGHT: To address this limitation, we present a BC prediction model called BPM_MT (Backchannel prediction model with multitask learning), which utilizes KoBERT, a pre-trained language model.
- 278, TITLE: Graphine: A Dataset for Graph-aware Terminology Definition Generation
<https://www.aclweb.org/anthology/2021.emnlp-main.278>
AUTHORS: Zequn Liu, Shukai Wang, Yiyang Gu, Ruiyi Zhang, Ming Zhang, Sheng Wang
HIGHLIGHT: In this paper, we present a large-scale terminology definition dataset Graphine covering 2,010,648 terminology definition pairs, spanning 227 biomedical subdisciplines.

- 279, TITLE: Leveraging Order-Free Tag Relations for Context-Aware Recommendation
<https://www.aclweb.org/anthology/2021.emnlp-main.279>
AUTHORS: Junmo Kang, Jeonghwan Kim, Suwon Shin, Sung-Hyon Myaeng
HIGHLIGHT: We propose a sequence-oblivious generation method for tag recommendation, in which the next tag to be generated is independent of the order of the generated tags and the order of the ground truth tags occurring in training data.
- 280, TITLE: End-to-End Conversational Search for Online Shopping with Utterance Transfer
<https://www.aclweb.org/anthology/2021.emnlp-main.280>
AUTHORS: Liqiang Xiao, Jun Ma, Xin Luna Dong, Pascual Martinez-Gomez, Nasser Zalmout, Wei Chen, Tong Zhao, Hao He, Yaohui Jin
HIGHLIGHT: In this work we first propose ConvSearch, an end-to-end conversational search system that deeply combines the dialog system with search.
- 281, TITLE: Self-Supervised Curriculum Learning for Spelling Error Correction
<https://www.aclweb.org/anthology/2021.emnlp-main.281>
AUTHORS: Zifa Gan, Hongfei Xu, Hongying Zan
HIGHLIGHT: In this paper, we study how to further improve the performance of the state-of-the-art SEC method with CL, and propose a Self-Supervised Curriculum Learning (SSCL) approach.
- 282, TITLE: Fix-Filter-Fix: Intuitively Connect Any Models for Effective Bug Fixing
<https://www.aclweb.org/anthology/2021.emnlp-main.282>
AUTHORS: Haiwen Hong, Jingfeng Zhang, Yin Zhang, Yao Wan, Yulei Sui
HIGHLIGHT: Based on these, we propose an intuitive yet effective general framework (called Fix-Filter-Fix or F³) for bug fixing.
- 283, TITLE: Neuro-Symbolic Reinforcement Learning with First-Order Logic
<https://www.aclweb.org/anthology/2021.emnlp-main.283>
AUTHORS: Daiki Kimura, Masaki Ono, Subhajit Chaudhury, Ryosuke Kohita, Akifumi Wachi, Don Joven Agravante, Michiaki Tatsubori, Asim Munawar, Alexander Gray
HIGHLIGHT: In order to achieve fast convergence and interpretability for the policy in RL, we propose a novel RL method for text-based games with a recent neuro-symbolic framework called Logical Neural Network, which can learn symbolic and interpretable rules in their differentiable network.
- 284, TITLE: Biomedical Concept Normalization by Leveraging Hypernyms
<https://www.aclweb.org/anthology/2021.emnlp-main.284>
AUTHORS: Cheng Yan, Yuanzhe Zhang, Kang Liu, Jun Zhao, Yafei Shi, Shengping Liu
HIGHLIGHT: In this paper, we exploit biomedical concept hypernyms to facilitate BCN.
- 285, TITLE: Leveraging Capsule Routing to Associate Knowledge with Medical Literature Hierarchically
<https://www.aclweb.org/anthology/2021.emnlp-main.285>
AUTHORS: Xin Liu, Qingcai Chen, Junying Chen, Wenxiu Zhou, Tingyu Liu, Xinlan Yang, Weihua Peng
HIGHLIGHT: In this paper, to alleviate this problem, we propose leveraging capsule routing to associate knowledge with medical literature hierarchically (called HiCapsRKL).
- 286, TITLE: Label-Enhanced Hierarchical Contextualized Representation for Sequential Metaphor Identification
<https://www.aclweb.org/anthology/2021.emnlp-main.286>
AUTHORS: Shuqun Li, Liang Yang, Weidong He, Shiqi Zhang, Jingjie Zeng, Hongfei Lin
HIGHLIGHT: In this paper, we propose a model augmented with hierarchical contextualized representation to extract more information from both sentence-level and discourse-level.
- 287, TITLE: SpellBERT: A Lightweight Pretrained Model for Chinese Spelling Check
<https://www.aclweb.org/anthology/2021.emnlp-main.287>
AUTHORS: Tuo Ji, Hang Yan, Xipeng Qiu
HIGHLIGHT: To that end, we propose SpellBERT, a pretrained model with graph-based extra features and independent on confusion set.
- 288, TITLE: Automated Generation of Accurate & Fluent Medical X-ray Reports
<https://www.aclweb.org/anthology/2021.emnlp-main.288>
AUTHORS: Hoang Nguyen, Dong Nie, Taivanbat Badamdorj, Yujie Liu, Yingying Zhu, Jason Truong, Li Cheng
HIGHLIGHT: Our paper aims to automate the generation of medical reports from chest X-ray image inputs, a critical yet time-consuming task for radiologists.

289, TITLE: Enhancing Document Ranking with Task-adaptive Training and Segmented Token Recovery Mechanism
<https://www.aclweb.org/anthology/2021.emnlp-main.289>
AUTHORS: Xingwu Sun, Yanling Cui, Hongyin Tang, Fuzheng Zhang, Beihong Jin, Shi Wang
HIGHLIGHT: In this paper, we propose a new ranking model DR-BERT, which improves the Document Retrieval (DR) task by a task-adaptive training process and a Segmented Token Recovery Mechanism (STRM).

290, TITLE: Abstract, Rationale, Stance: A Joint Model for Scientific Claim Verification
<https://www.aclweb.org/anthology/2021.emnlp-main.290>
AUTHORS: Zhiwei Zhang, Jiyi Li, Fumiyo Fukumoto, Yanming Ye
HIGHLIGHT: We thus propose an approach, named as ARSJoint, that jointly learns the modules for the three tasks with a machine reading comprehension framework by including claim information.

291, TITLE: A Fine-Grained Domain Adaption Model for Joint Word Segmentation and POS Tagging
<https://www.aclweb.org/anthology/2021.emnlp-main.291>
AUTHORS: Peijie Jiang, Dingkun Long, Yueheng Sun, Meishan Zhang, Guangwei Xu, Pengjun Xie
HIGHLIGHT: In this work, we start from joint word segmentation and POS tagging, presenting a fine-grained domain adaption method to model the gaps accurately.

292, TITLE: Answering Open-Domain Questions of Varying Reasoning Steps from Text
<https://www.aclweb.org/anthology/2021.emnlp-main.292>
AUTHORS: Peng Qi, Haejun Lee, Tg Sido, Christopher Manning
HIGHLIGHT: We employ a single multi-task transformer model to perform all the necessary subtasks-retrieving supporting facts, reranking them, and predicting the answer from all retrieved documents-in an iterative fashion.

293, TITLE: Adaptive Information Seeking for Open-Domain Question Answering
<https://www.aclweb.org/anthology/2021.emnlp-main.293>
AUTHORS: Yunchang Zhu, Liang Pang, Yanyan Lan, Huawei Shen, Xueqi Cheng
HIGHLIGHT: In this paper, we propose a novel adaptive information-seeking strategy for open-domain question answering, namely AISO.

294, TITLE: Mapping probability word problems to executable representations
<https://www.aclweb.org/anthology/2021.emnlp-main.294>
AUTHORS: Simon Suster, Pieter Fizez, Pietro Totis, Angelika Kimmig, Jesse Davis, Luc de Raedt, Walter Daelemans
HIGHLIGHT: In this paper, we employ and analyse various neural models for answering such word problems.

295, TITLE: Enhancing Multiple-choice Machine Reading Comprehension by Punishing Illogical Interpretations
<https://www.aclweb.org/anthology/2021.emnlp-main.295>
AUTHORS: Yiming Ju, Yuanzhe Zhang, Zhixing Tian, Kang Liu, Xiaohuan Cao, Wenting Zhao, Jinlong Li, Jun Zhao
HIGHLIGHT: Based on post-hoc interpretation methods, we assess attributions of paragraphs in multiple-choice MRC and improve the model by punishing the illogical attributions.

296, TITLE: Large-Scale Relation Learning for Question Answering over Knowledge Bases with Pre-trained Language Models
<https://www.aclweb.org/anthology/2021.emnlp-main.296>
AUTHORS: Yuanmeng Yan, Rumei Li, Sirui Wang, Hongzhi Zhang, Zan Daoguang, Fuzheng Zhang, Wei Wu, Weiran Xu
HIGHLIGHT: To bridge the gap between the natural language and the structured KB, we propose three relation learning tasks for BERT-based KBQA, including relation extraction, relation matching, and relation reasoning.

297, TITLE: Phrase Retrieval Learns Passage Retrieval, Too
<https://www.aclweb.org/anthology/2021.emnlp-main.297>
AUTHORS: Jinhuk Lee, Alexander Wettig, Danqi Chen
HIGHLIGHT: In this work, we follow the intuition that retrieving phrases naturally entails retrieving larger text blocks and study whether phrase retrieval can serve as the basis for coarse-level retrieval including passages and documents.

298, TITLE: Neural Natural Logic Inference for Interpretable Question Answering
<https://www.aclweb.org/anthology/2021.emnlp-main.298>
AUTHORS: Jihao Shi, Xiao Ding, Li Du, Ting Liu, Bing Qin
HIGHLIGHT: In this paper, we investigate a neural-symbolic QA approach that integrates natural logic reasoning within deep learning architectures, towards developing effective and yet explainable question answering models.

- 299, TITLE: Smoothing Dialogue States for Open Conversational Machine Reading
<https://www.aclweb.org/anthology/2021.emnlp-main.299>
AUTHORS: Zhuosheng Zhang, Siru Ouyang, Hai Zhao, Masao Utiyama, Eiichiro Sumita
HIGHLIGHT: In this work, we propose an effective gating strategy by smoothing the two dialogue states in only one decoder and bridge decision making and question generation to provide a richer dialogue state reference.
- 300, TITLE: FinQA: A Dataset of Numerical Reasoning over Financial Data
<https://www.aclweb.org/anthology/2021.emnlp-main.300>
AUTHORS: Zhiyu Chen, Wenhui Chen, Charese Smiley, Sameena Shah, Iana Borova, Dylan Langdon, Reema Moussa, Matt Beane, Ting-Hao Huang, Bryan Routledge, William Yang Wang
HIGHLIGHT: In this work, we focus on answering deep questions over financial data, aiming to automate the analysis of a large corpus of financial documents.
- 301, TITLE: FiD-Ex: Improving Sequence-to-Sequence Models for Extractive Rationale Generation
<https://www.aclweb.org/anthology/2021.emnlp-main.301>
AUTHORS: Kushal Lakhotia, Bhargavi Paranjape, Asish Ghoshal, Scott Yih, Yashar Mehdad, Srinu Iyer
HIGHLIGHT: In this paper, we develop FiD-Ex, which addresses these shortcomings for seq2seq models by: 1) introducing sentence markers to eliminate explanation fabrication by encouraging extractive generation, 2) using the fusion-in-decoder architecture to handle long input contexts, and 3) intermediate fine-tuning on re-structured open domain QA datasets to improve few-shot performance.
- 302, TITLE: RockNER: A Simple Method to Create Adversarial Examples for Evaluating the Robustness of Named Entity Recognition Models
<https://www.aclweb.org/anthology/2021.emnlp-main.302>
AUTHORS: Bill Yuchen Lin, Wenyang Gao, Jun Yan, Ryan Moreno, Xiang Ren
HIGHLIGHT: To audit the robustness of named entity recognition (NER) models, we propose RockNER, a simple yet effective method to create natural adversarial examples.
- 303, TITLE: Diagnosing the First-Order Logical Reasoning Ability Through LogicNLI
<https://www.aclweb.org/anthology/2021.emnlp-main.303>
AUTHORS: Jidong Tian, Yitian Li, Wenqing Chen, Liqiang Xiao, Hao He, Yaohui Jin
HIGHLIGHT: In this work, we propose a diagnostic method for first-order logic (FOL) reasoning with a new proposed benchmark, LogicNLI.
- 304, TITLE: Constructing a Psychometric Testbed for Fair Natural Language Processing
<https://www.aclweb.org/anthology/2021.emnlp-main.304>
AUTHORS: Ahmed Abbasi, David Dobolyi, John P. Lalor, Richard G. Netemeyer, Kendall Smith, Yi Yang
HIGHLIGHT: In this paper we describe our efforts to construct a corpus for psychometric natural language processing (NLP) related to important dimensions such as trust, anxiety, numeracy, and literacy, in the health domain.
- 305, TITLE: COUGH: A Challenge Dataset and Models for COVID-19 FAQ Retrieval
<https://www.aclweb.org/anthology/2021.emnlp-main.305>
AUTHORS: Xinliang Frederick Zhang, Heming Sun, Xiang Yue, Simon Lin, Huan Sun
HIGHLIGHT: We present a large, challenging dataset, COUGH, for COVID-19 FAQ retrieval.
- 306, TITLE: Chinese WPLC: A Chinese Dataset for Evaluating Pretrained Language Models on Word Prediction Given Long-Range Context
<https://www.aclweb.org/anthology/2021.emnlp-main.306>
AUTHORS: Huibin Ge, Chenxi Sun, Deyi Xiong, Qun Liu
HIGHLIGHT: This paper presents a Chinese dataset for evaluating pretrained language models on Word Prediction given Long-term Context (Chinese WPLC).
- 307, TITLE: WinoLogic: A Zero-Shot Logic-based Diagnostic Dataset for Winograd Schema Challenge
<https://www.aclweb.org/anthology/2021.emnlp-main.307>
AUTHORS: Weinan He, Canming Huang, Yongmei Liu, Xiaodan Zhu
HIGHLIGHT: To better evaluate NLMs, we propose a logic-based framework that focuses on high-quality commonsense knowledge.
- 308, TITLE: Pseudo Zero Pronoun Resolution Improves Zero Anaphora Resolution

<https://www.aclweb.org/anthology/2021.emnlp-main.308>

AUTHORS: Ryuto Konno, Shun Kiyono, Yuichiroh Matsubayashi, Hiroki Ouchi, Kentaro Inui
HIGHLIGHT: The first is a new pretraining task that trains MLMs on anaphoric relations with explicit supervision, and the second proposal is a new finetuning method that remedies a notorious issue, the pretrain-finetune discrepancy.

309, TITLE: Aligning Cross-lingual Sentence Representations with Dual Momentum Contrast

<https://www.aclweb.org/anthology/2021.emnlp-main.309>

AUTHORS: Liang Wang, Wei Zhao, Jingming Liu

HIGHLIGHT: In this paper, we propose to align sentence representations from different languages into a unified embedding space, where semantic similarities (both cross-lingual and monolingual) can be computed with a simple dot product.

310, TITLE: Total Recall: a Customized Continual Learning Method for Neural Semantic Parsers

<https://www.aclweb.org/anthology/2021.emnlp-main.310>

AUTHORS: Zhuang Li, Lizhen Qu, Gholamreza Haffari

HIGHLIGHT: Therefore, we propose TotalRecall, a continual learning method designed for neural semantic parsers from two aspects: i) a sampling method for memory replay that diversifies logical form templates and balances distributions of parse actions in a memory; ii) a two-stage training method that significantly improves generalization capability of the parsers across tasks.

311, TITLE: Exophoric Pronoun Resolution in Dialogues with Topic Regularization

<https://www.aclweb.org/anthology/2021.emnlp-main.311>

AUTHORS: Xintong Yu, Hongming Zhang, Yangqiu Song, Changshui Zhang, Kun Xu, Dong Yu

HIGHLIGHT: Motivated by this, we propose to jointly leverage the local context and global topics of dialogues to solve the out-of-text PCR problem.

312, TITLE: Context-Aware Interaction Network for Question Matching

<https://www.aclweb.org/anthology/2021.emnlp-main.312>

AUTHORS: Zhe Hu, Zuohui Fu, Yu Yin, Gerard de Melo

HIGHLIGHT: We propose a context-aware interaction network (COIN) to properly align two sequences and infer their semantic relationship.

313, TITLE: TEMP: Taxonomy Expansion with Dynamic Margin Loss through Taxonomy-Paths

<https://www.aclweb.org/anthology/2021.emnlp-main.313>

AUTHORS: Zichen Liu, Hongyuan Xu, Yanlong Wen, Ning Jiang, HaiYing Wu, Xiaojie Yuan

HIGHLIGHT: In this paper, we propose TEMP, a self-supervised taxonomy expansion method, which predicts the position of new concepts by ranking the generated taxonomy-paths.

314, TITLE: A Graph-Based Neural Model for End-to-End Frame Semantic Parsing

<https://www.aclweb.org/anthology/2021.emnlp-main.314>

AUTHORS: ZhiChao Lin, Yueheng Sun, Meishan Zhang

HIGHLIGHT: In this work, we propose an end-to-end neural model to tackle the task jointly.

315, TITLE: Virtual Data Augmentation: A Robust and General Framework for Fine-tuning Pre-trained Models

<https://www.aclweb.org/anthology/2021.emnlp-main.315>

AUTHORS: Kun Zhou, Wayne Xin Zhao, Sirui Wang, Fuzheng Zhang, Wei Wu, Ji-Rong Wen

HIGHLIGHT: In this work, we present Virtual Data Augmentation (VDA), a general framework for robustly fine-tuning PLMs.

316, TITLE: CATE: A Contrastive Pre-trained Model for Metaphor Detection with Semi-supervised Learning

<https://www.aclweb.org/anthology/2021.emnlp-main.316>

AUTHORS: Zhenxi Lin, Qianli Ma, Jiangyue Yan, Jieyu Chen

HIGHLIGHT: In this paper, we proposed a Contrastive pre-Trained model (CATE) for metaphor detection with semi-supervised learning.

317, TITLE: To be Closer: Learning to Link up Aspects with Opinions

<https://www.aclweb.org/anthology/2021.emnlp-main.317>

AUTHORS: Yuxiang Zhou, Lejian Liao, Yang Gao, Zhanming Jie, Wei Lu

HIGHLIGHT: In this work, we aim to shorten the distance between aspects and corresponding opinion words by learning an aspect-centric tree structure.

318, TITLE: Seeking Common but Distinguishing Difference, A Joint Aspect-based Sentiment Analysis Model

- <https://www.aclweb.org/anthology/2021.emnlp-main.318>
AUTHORS: Hongjiang Jing, Zuchao Li, Hai Zhao, Shu Jiang
HIGHLIGHT: Therefore, we propose a joint ABSA model, which not only enjoys the benefits of encoder sharing but also focuses on the difference to improve the effectiveness of the model.
- 319, TITLE: Argument Pair Extraction with Mutual Guidance and Inter-sentence Relation Graph
<https://www.aclweb.org/anthology/2021.emnlp-main.319>
AUTHORS: Jianzhu Bao, Bin Liang, Jingyi Sun, Yice Zhang, Min Yang, Ruifeng Xu
HIGHLIGHT: In this paper, we tackle the APE task by a mutual guidance framework, which could utilize the information of an argument in one passage to guide the identification of arguments that can form pairs with it in another passage.
- 320, TITLE: Emotion Inference in Multi-Turn Conversations with Addressee-Aware Module and Ensemble Strategy
<https://www.aclweb.org/anthology/2021.emnlp-main.320>
AUTHORS: Dayu Li, Xiaodan Zhu, Yang Li, Suge Wang, Deyu Li, Jian Liao, Jianxing Zheng
HIGHLIGHT: In this study, we focus on investigating the task of emotion inference in multi-turn conversations by modeling the propagation of emotional states among participants in the conversation history, and propose an addressee-aware module to automatically learn whether the participant keeps the historical emotional state or is affected by others in the next upcoming turn.
- 321, TITLE: Improving Federated Learning for Aspect-based Sentiment Analysis via Topic Memories
<https://www.aclweb.org/anthology/2021.emnlp-main.321>
AUTHORS: Han Qin, Guimin Chen, Yuanhe Tian, Yan Song
HIGHLIGHT: To address this issue and make the best use of all labeled data, we propose a novel ABSA model with federated learning (FL) adopted to overcome the data isolation limitations and incorporate topic memory (TM) proposed to take the cases of data from diverse sources (domains) into consideration.
- 322, TITLE: Comparative Opinion Quintuple Extraction from Product Reviews
<https://www.aclweb.org/anthology/2021.emnlp-main.322>
AUTHORS: Ziheng Liu, Rui Xia, Jianfei Yu
HIGHLIGHT: To address these limitations, in this work we first introduce a new Comparative Opinion Quintuple Extraction (COQE) task, to identify comparative sentences from product reviews and extract all comparative opinion quintuples (Subject, Object, Comparative Aspect, Comparative Opinion, Comparative Preference).
- 323, TITLE: CTAL: Pre-training Cross-modal Transformer for Audio-and-Language Representations
<https://www.aclweb.org/anthology/2021.emnlp-main.323>
AUTHORS: Hang Li, Wenbiao Ding, Yu Kang, Tianqiao Liu, Zhongqin Wu, Zitao Liu
HIGHLIGHT: In this paper, we present a Cross-modal Transformer for Audio-and-Language, i.e., CTAL, which aims to learn the intra-modality and inter-modality connections between audio and language through two proxy tasks on a large amount of audio-and-language pairs: masked language modeling and masked cross-modal acoustic modeling.
- 324, TITLE: Relation-aware Video Reading Comprehension for Temporal Language Grounding
<https://www.aclweb.org/anthology/2021.emnlp-main.324>
AUTHORS: Jialin Gao, Xin Sun, Mengmeng Xu, Xi Zhou, Bernard Ghanem
HIGHLIGHT: This paper will formulate temporal language grounding into video reading comprehension and propose a Relation-aware Network (RaNet) to address it.
- 325, TITLE: Mutual-Learning Improves End-to-End Speech Translation
<https://www.aclweb.org/anthology/2021.emnlp-main.325>
AUTHORS: Jiawei Zhao, Wei Luo, Boxing Chen, Andrew Gilman
HIGHLIGHT: In this paper, we propose an alternative-a trainable mutual-learning scenario, where the MT and the ST models are collaboratively trained and are considered as peers, rather than teacher/student.
- 326, TITLE: Vision Guided Generative Pre-trained Language Models for Multimodal Abstractive Summarization
<https://www.aclweb.org/anthology/2021.emnlp-main.326>
AUTHORS: Tiezheng Yu, Wenliang Dai, Zihan Liu, Pascale Fung
HIGHLIGHT: In this paper, we present a simple yet effective method to construct vision guided (VG) GPLMs for the MAS task using attention-based add-on layers to incorporate visual information while maintaining their original text generation ability.
- 327, TITLE: Natural Language Video Localization with Learnable Moment Proposals
<https://www.aclweb.org/anthology/2021.emnlp-main.327>
AUTHORS: Shaoning Xiao, Long Chen, Jian Shao, Yueting Zhuang, Jun Xiao

HIGHLIGHT: In this paper, we argue that the performance of propose-and-rank models are underestimated due to the predefined manners: 1) Hand-designed rules are hard to guarantee the complete coverage of targeted segments.

328, **TITLE:** Language-Aligned Waypoint (LAW) Supervision for Vision-and-Language Navigation in Continuous Environments

<https://www.aclweb.org/anthology/2021.emnlp-main.328>

AUTHORS: Sonia Raychaudhuri, Saim Wani, Shivansh Patel, Unnat Jain, Angel Chang

HIGHLIGHT: In this work, we propose a simple and effective language-aligned supervision scheme, and a new metric that measures the number of sub-instructions the agent has completed during navigation.

329, **TITLE:** How to leverage the multimodal EHR data for better medical prediction?

<https://www.aclweb.org/anthology/2021.emnlp-main.329>

AUTHORS: Bo Yang, Lijun Wu

HIGHLIGHT: Therefore, in this paper, we first extract the accompanying clinical notes from EHR and propose a method to integrate these data, we also comprehensively study the different models and the data leverage methods for better medical task prediction performance.

330, **TITLE:** Considering Nested Tree Structure in Sentence Extractive Summarization with Pre-trained Transformer

<https://www.aclweb.org/anthology/2021.emnlp-main.330>

AUTHORS: Jingun Kwon, Naoki Kobayashi, Hidetaka Kamigaito, Manabu Okumura

HIGHLIGHT: We propose a nested tree-based extractive summarization model on RoBERTa (NeRoBERTa), where nested tree structures consist of syntactic and discourse trees in a given document.

331, **TITLE:** Frame Semantic-Enhanced Sentence Modeling for Sentence-level Extractive Text Summarization

<https://www.aclweb.org/anthology/2021.emnlp-main.331>

AUTHORS: Yong Guan, Shaoru Guo, Ru Li, Xiaoli Li, Hongye Tan

HIGHLIGHT: In this paper, we propose a novel Frame Semantic-Enhanced Sentence Modeling for Extractive Summarization, which leverages Frame semantics to model sentences from both intra-sentence level and inter-sentence level, facilitating the text summarization task.

332, **TITLE:** CAST: Enhancing Code Summarization with Hierarchical Splitting and Reconstruction of Abstract Syntax Trees

<https://www.aclweb.org/anthology/2021.emnlp-main.332>

AUTHORS: Ensheng Shi, Yanlin Wang, Lun Du, Hongyu Zhang, Shi Han, Dongmei Zhang, Hongbin Sun

HIGHLIGHT: In this paper, we propose a novel model CAST that hierarchically splits and reconstructs ASTs.

333, **TITLE:** SgSum: Transforming Multi-document Summarization into Sub-graph Selection

<https://www.aclweb.org/anthology/2021.emnlp-main.333>

AUTHORS: Moye Chen, Wei Li, Jiachen Liu, Xinyan Xiao, Hua Wu, Haifeng Wang

HIGHLIGHT: In this paper, we propose a novel MDS framework (SgSum) to formulate the MDS task as a sub-graph selection problem, in which source documents are regarded as a relation graph of sentences (e.g., similarity graph or discourse graph) and the candidate summaries are its sub-graphs.

334, **TITLE:** Event Graph based Sentence Fusion

<https://www.aclweb.org/anthology/2021.emnlp-main.334>

AUTHORS: Ruifeng Yuan, Zili Wang, Wenjie Li

HIGHLIGHT: In this paper, we explore the effective sentence fusion method in the context of text summarization.

335, **TITLE:** Transformer-based Lexically Constrained Headline Generation

<https://www.aclweb.org/anthology/2021.emnlp-main.335>

AUTHORS: Kosuke Yamada, Yuta Hitomi, Hideaki Tamori, Ryohei Sasano, Naoaki Okazaki, Kentaro Inui, Koichi Takeda

HIGHLIGHT: Inspired by previous RNN-based methods generating token sequences in backward and forward directions from the given phrase, we propose a simple Transformer-based method that guarantees to include the given phrase in the high-quality generated headline.

336, **TITLE:** Learn to Copy from the Copying History: Correlational Copy Network for Abstractive Summarization

<https://www.aclweb.org/anthology/2021.emnlp-main.336>

AUTHORS: Haoran Li, Song Xu, Peng Yuan, Yujia Wang, Youzheng Wu, Xiaodong He, Bowen Zhou

HIGHLIGHT: In this paper, we propose a novel copying scheme named Correlational Copying Network (CoCoNet) that enhances the standard copying mechanism by keeping track of the copying history.

- 337, TITLE: Gradient-Based Adversarial Factual Consistency Evaluation for Abstractive Summarization
<https://www.aclweb.org/anthology/2021.emnlp-main.337>
AUTHORS: Zhiyuan Zeng, Jiaze Chen, Weiran Xu, Lei Li
HIGHLIGHT: In this paper, we proposed an efficient weak-supervised adversarial data augmentation approach to form the factual consistency dataset.
- 338, TITLE: Word Reordering for Zero-shot Cross-lingual Structured Prediction
<https://www.aclweb.org/anthology/2021.emnlp-main.338>
AUTHORS: Tao Ji, Yong Jiang, Tao Wang, Zhongqiang Huang, Fei Huang, Yuanbin Wu, Xiaoling Wang
HIGHLIGHT: In this paper, we build structured prediction models with bag-of-words inputs, and introduce a new reordering module to organizing words following the source language order, which learns task-specific reordering strategies from a general-purpose order predictor model.
- 339, TITLE: A Unified Encoding of Structures in Transition Systems
<https://www.aclweb.org/anthology/2021.emnlp-main.339>
AUTHORS: Tao Ji, Yong Jiang, Tao Wang, Zhongqiang Huang, Fei Huang, Yuanbin Wu, Xiaoling Wang
HIGHLIGHT: In this paper, we propose a novel attention-based encoder unifying representation of all structures in a transition system.
- 340, TITLE: Improving Unsupervised Question Answering via Summarization-Informed Question Generation
<https://www.aclweb.org/anthology/2021.emnlp-main.340>
AUTHORS: Chenyang Lyu, Lifeng Shang, Yvette Graham, Jennifer Foster, Xin Jiang, Qun Liu
HIGHLIGHT: In order to overcome these shortcomings, we propose a distantly-supervised QG method which uses questions generated heuristically from summaries as a source of training data for a QG system.
- 341, TITLE: TransferNet: An Effective and Transparent Framework for Multi-hop Question Answering over Relation Graph
<https://www.aclweb.org/anthology/2021.emnlp-main.341>
AUTHORS: Jiaxin Shi, Shulin Cao, Lei Hou, Juanzi Li, Hanwang Zhang
HIGHLIGHT: In this paper, we propose TransferNet, an effective and transparent model for multi-hop QA, which supports both label and text relations in a unified framework.
- 342, TITLE: Topic Transferable Table Question Answering
<https://www.aclweb.org/anthology/2021.emnlp-main.342>
AUTHORS: Saneem Chemmengath, Vishwajeet Kumar, Samarth Bharadwaj, Jaydeep Sen, Mustafa Canim, Soumen Chakrabarti, Alfio Gliozzo, Karthik Sankaranarayanan
HIGHLIGHT: In this work we simulate the practical topic shift scenario by designing novel challenge benchmarks WikiSQL-TS and WikiTable-TS, consisting of train-dev-test splits in five distinct topic groups, based on the popular WikiSQL and WikiTable-Questions datasets.
- 343, TITLE: WebSRC: A Dataset for Web-Based Structural Reading Comprehension
<https://www.aclweb.org/anthology/2021.emnlp-main.343>
AUTHORS: Xingyu Chen, Zihan Zhao, Lu Chen, JiaBao Ji, Danyang Zhang, Ao Luo, Yuxuan Xiong, Kai Yu
HIGHLIGHT: In this paper, we introduce the task of web-based structural reading comprehension.
- 344, TITLE: Cryptonite: A Cryptic Crossword Benchmark for Extreme Ambiguity in Language
<https://www.aclweb.org/anthology/2021.emnlp-main.344>
AUTHORS: Avia Efrat, Uri Shaham, Dan Kilman, Omer Levy
HIGHLIGHT: We present Cryptonite, a large-scale dataset based on cryptic crosswords, which is both linguistically complex and naturally sourced.
- 345, TITLE: End-to-End Entity Resolution and Question Answering Using Differentiable Knowledge Graphs
<https://www.aclweb.org/anthology/2021.emnlp-main.345>
AUTHORS: Amir Saffari, Armin Oliya, Priyanka Sen, Tom Ayoola
HIGHLIGHT: In this work, we extend the boundaries of E2E learning for KGQA to include the training of an ER component.
- 346, TITLE: Improving Query Graph Generation for Complex Question Answering over Knowledge Base
<https://www.aclweb.org/anthology/2021.emnlp-main.346>
AUTHORS: Kechen Qin, Cheng Li, Virgil Pavlu, Javed Aslam
HIGHLIGHT: In this paper, we propose a new solution to query graph generation that works in the opposite manner: we start with the entire knowledge base and gradually shrink it to the desired query graph.

- 347, TITLE: DiscoDVT: Generating Long Text with Discourse-Aware Discrete Variational Transformer
<https://www.aclweb.org/anthology/2021.emnlp-main.347>
AUTHORS: Haozhe Ji, Minlie Huang
HIGHLIGHT: In this paper, we propose DiscoDVT, a discourse-aware discrete variational Transformer to tackle the incoherence issue.
- 348, TITLE: Mathematical Word Problem Generation from Commonsense Knowledge Graph and Equations
<https://www.aclweb.org/anthology/2021.emnlp-main.348>
AUTHORS: Tianqiao Liu, Qiang Fang, Wenbiao Ding, Hang Li, Zhongqin Wu, Zitao Liu
HIGHLIGHT: To address above problem, we develop an end-to-end neural model to generate diverse MWPs in real-world scenarios from commonsense knowledge graph and equations.
- 349, TITLE: Generic resources are what you need: Style transfer tasks without task-specific parallel training data
<https://www.aclweb.org/anthology/2021.emnlp-main.349>
AUTHORS: Huiyuan Lai, Antonio Toral, Malvina Nissim
HIGHLIGHT: We propose a novel approach to this task that leverages generic resources, and without using any task-specific parallel (source-target) data outperforms existing unsupervised approaches on the two most popular style transfer tasks: formality transfer and polarity swap.
- 350, TITLE: Revisiting Pivot-Based Paraphrase Generation: Language Is Not the Only Optional Pivot
<https://www.aclweb.org/anthology/2021.emnlp-main.350>
AUTHORS: Yitao Cai, Yue Cao, Xiaojun Wan
HIGHLIGHT: In this paper, we explore the feasibility of using semantic and syntactic representations as the pivot for paraphrase generation.
- 351, TITLE: Structural Adapters in Pretrained Language Models for AMR-to-Text Generation
<https://www.aclweb.org/anthology/2021.emnlp-main.351>
AUTHORS: Leonardo F. R. Ribeiro, Yue Zhang, Iryna Gurevych
HIGHLIGHT: In this paper, we propose StructAdapt, an adapter method to encode graph structure into PLMs.
- 352, TITLE: Data-to-text Generation by Splicing Together Nearest Neighbors
<https://www.aclweb.org/anthology/2021.emnlp-main.352>
AUTHORS: Sam Wiseman, Arturs Backurs, Karl Stratos
HIGHLIGHT: We propose to tackle data-to-text generation tasks by directly splicing together retrieved segments of text from "neighbor" source-target pairs.
- 353, TITLE: Contextualize Knowledge Bases with Transformer for End-to-end Task-Oriented Dialogue Systems
<https://www.aclweb.org/anthology/2021.emnlp-main.353>
AUTHORS: Yanjie Gou, Yinjie Lei, Lingqiao Liu, Yong Dai, Chunxu Shen
HIGHLIGHT: To achieve this, we propose a COntext-aware Memory Enhanced Transformer framework (COMET), which treats the KB as a sequence and leverages a novel Memory Mask to enforce the entity to only focus on its relevant entities and dialogue history, while avoiding the distraction from the irrelevant entities.
- 354, TITLE: Efficient Dialogue Complementary Policy Learning via Deep Q-network Policy and Episodic Memory Policy
<https://www.aclweb.org/anthology/2021.emnlp-main.354>
AUTHORS: Yangyang Zhao, Zhenyu Wang, Changxi Zhu, Shihan Wang
HIGHLIGHT: Inspired by the human brain, this paper proposes a novel complementary policy learning (CPL) framework, which exploits the complementary advantages of the episodic memory (EM) policy and the deep Q-network (DQN) policy to achieve fast and effective dialogue policy learning.
- 355, TITLE: CRFR: Improving Conversational Recommender Systems via Flexible Fragments Reasoning on Knowledge Graphs
<https://www.aclweb.org/anthology/2021.emnlp-main.355>
AUTHORS: Jinfeng Zhou, Bo Wang, Ruifang He, Yuexian Hou
HIGHLIGHT: We propose CRFR, which effectively does explicit multi-hop reasoning on KGs with a conversational context-based reinforcement learning model.
- 356, TITLE: DuRecDial 2.0: A Bilingual Parallel Corpus for Conversational Recommendation
<https://www.aclweb.org/anthology/2021.emnlp-main.356>

AUTHORS: Zeming Liu, Haifeng Wang, Zheng-Yu Niu, Hua Wu, Wanxiang Che
HIGHLIGHT: In this paper, we provide a bilingual parallel human-to-human recommendation dialog dataset (DuRecDial 2.0) to enable researchers to explore a challenging task of multilingual and cross-lingual conversational recommendation.

357, TITLE: End-to-End Learning of Flowchart Grounded Task-Oriented Dialogs
<https://www.aclweb.org/anthology/2021.emnlp-main.357>
AUTHORS: Dinesh Raghu, Shantanu Agarwal, Sachindra Joshi, Mausam
HIGHLIGHT: We propose a novel problem within end-to-end learning of task oriented dialogs (TOD), in which the dialog system mimics a troubleshooting agent who helps a user by diagnosing their problem (e.g., car not starting).

358, TITLE: Dimensional Emotion Detection from Categorical Emotion
<https://www.aclweb.org/anthology/2021.emnlp-main.358>
AUTHORS: Sungjoon Park, Jiseon Kim, Seonghyeon Ye, Jaeyeol Jeon, Hee Young Park, Alice Oh
HIGHLIGHT: We present a model to predict fine-grained emotions along the continuous dimensions of valence, arousal, and dominance (VAD) with a corpus with categorical emotion annotations.

359, TITLE: Not All Negatives are Equal: Label-Aware Contrastive Loss for Fine-grained Text Classification
<https://www.aclweb.org/anthology/2021.emnlp-main.359>
AUTHORS: Varsha Suresh, Desmond Ong
HIGHLIGHT: In this work, we analyse the contrastive fine-tuning of pre-trained language models on two fine-grained text classification tasks, emotion classification and sentiment analysis.

360, TITLE: Joint Multi-modal Aspect-Sentiment Analysis with Auxiliary Cross-modal Relation Detection
<https://www.aclweb.org/anthology/2021.emnlp-main.360>
AUTHORS: Xincheng Ju, Dong Zhang, Rong Xiao, Junhui Li, Shoushan Li, Min Zhang, Guodong Zhou
HIGHLIGHT: Therefore, in this paper, we are the first to jointly perform multi-modal ATE (MATE) and multi-modal ASC (MASC), and we propose a multi-modal joint learning approach with auxiliary cross-modal relation detection for multi-modal aspect-level sentiment analysis (MALSA).

361, TITLE: Solving Aspect Category Sentiment Analysis as a Text Generation Task
<https://www.aclweb.org/anthology/2021.emnlp-main.361>
AUTHORS: Jian Liu, Zhiyang Teng, Leyang Cui, Hanmeng Liu, Yue Zhang
HIGHLIGHT: We consider a more direct way of making use of pre-trained language models, by casting the ACSA tasks into natural language generation tasks, using natural language sentences to represent the output.

362, TITLE: Semantics-Preserved Data Augmentation for Aspect-Based Sentiment Analysis
<https://www.aclweb.org/anthology/2021.emnlp-main.362>
AUTHORS: Ting-Wei Hsu, Chung-Chi Chen, Hen-Hsen Huang, Hsin-Hsi Chen
HIGHLIGHT: In this paper, we propose a semantics-preservation data augmentation approach by considering the importance of each word in a textual sequence according to the related aspects and sentiments.

363, TITLE: The Effect of Round-Trip Translation on Fairness in Sentiment Analysis
<https://www.aclweb.org/anthology/2021.emnlp-main.363>
AUTHORS: Jonathan Christiansen, Mathias Gammelgaard, Anders S?gaard
HIGHLIGHT: We explore the impact of round-trip translation on the demographic parity of sentiment classifiers and show how round-trip translation consistently improves classification fairness at test time (reducing up to 47% of between-group gaps).

364, TITLE: CHoRaL: Collecting Humor Reaction Labels from Millions of Social Media Users
<https://www.aclweb.org/anthology/2021.emnlp-main.364>
AUTHORS: Zixiaofan Yang, Shayan Hooshmand, Julia Hirschberg
HIGHLIGHT: We propose CHoRaL, a framework to generate perceived humor labels on Facebook posts, using the naturally available user reactions to these posts with no manual annotation needed.

365, TITLE: CSDS: A Fine-Grained Chinese Dataset for Customer Service Dialogue Summarization
<https://www.aclweb.org/anthology/2021.emnlp-main.365>
AUTHORS: Haitao Lin, Liqun Ma, Junnan Zhu, Lu Xiang, Yu Zhou, Jiajun Zhang, Chengqing Zong
HIGHLIGHT: Therefore, in this paper, we introduce a novel Chinese dataset for Customer Service Dialogue Summarization (CSDS).

366, TITLE: CodRED: A Cross-Document Relation Extraction Dataset for Acquiring Knowledge in the Wild

<https://www.aclweb.org/anthology/2021.emnlp-main.366>

AUTHORS: Yuan Yao, Jiaju Du, Yankai Lin, Peng Li, Zhiyuan Liu, Jie Zhou, Maosong Sun

HIGHLIGHT: In this work, we present the problem of cross-document RE, making an initial step towards knowledge acquisition in the wild.

367, TITLE: Building and Evaluating Open-Domain Dialogue Corpora with Clarifying Questions

<https://www.aclweb.org/anthology/2021.emnlp-main.367>

AUTHORS: Mohammad Aliannejadi, Julia Kiseleva, Aleksandr Chuklin, Jeff Dalton, Mikhail Burtsev

HIGHLIGHT: To address the problem of 'asking clarifying questions in open-domain dialogues': (1) we collect and release a new dataset focused on open-domain single- and multi-turn conversations, (2) we benchmark several state-of-the-art neural baselines, and (3) we propose a pipeline consisting of offline and online steps for evaluating the quality of clarifying questions in various dialogues.

368, TITLE: We Need to Talk About train-dev-test Splits

<https://www.aclweb.org/anthology/2021.emnlp-main.368>

AUTHORS: Rob van der Goot

HIGHLIGHT: We propose to use a tune-set when developing neural network methods, which can be used for model picking so that comparing the different versions of a new model can safely be done on the development data.

369, TITLE: PhoMT: A High-Quality and Large-Scale Benchmark Dataset for Vietnamese-English Machine Translation

<https://www.aclweb.org/anthology/2021.emnlp-main.369>

AUTHORS: Long Doan, Linh The Nguyen, Nguyen Luong Tran, Thai Hoang, Dat Quoc Nguyen

HIGHLIGHT: We introduce a high-quality and large-scale Vietnamese-English parallel dataset of 3.02M sentence pairs, which is 2.9M pairs larger than the benchmark Vietnamese-English machine translation corpus IWSLT15.

370, TITLE: Lying Through One's Teeth: A Study on Verbal Leakage Cues

<https://www.aclweb.org/anthology/2021.emnlp-main.370>

AUTHORS: Min-Hsuan Yeh, Lun-Wei Ku

HIGHLIGHT: In this paper, we study verbal leakage cues to understand the effect of the data construction method on their significance, and examine the relationship between such cues and models' validity.

371, TITLE: Multi-granularity Textual Adversarial Attack with Behavior Cloning

<https://www.aclweb.org/anthology/2021.emnlp-main.371>

AUTHORS: Yangyi Chen, Jin Su, Wei Wei

HIGHLIGHT: To address such problems, in this paper we propose MAYA, a Multi-grAnularitY Attack model to effectively generate high-quality adversarial samples with fewer queries to victim models.

372, TITLE: All Bark and No Bite: Rogue Dimensions in Transformer Language Models Obscure Representational Quality

<https://www.aclweb.org/anthology/2021.emnlp-main.372>

AUTHORS: William Timkey, Marten van Schijndel

HIGHLIGHT: In this work, we call into question the informativity of such measures for contextualized language models.

373, TITLE: Incorporating Residual and Normalization Layers into Analysis of Masked Language Models

<https://www.aclweb.org/anthology/2021.emnlp-main.373>

AUTHORS: Goro Kobayashi, Tatsuki Kuribayashi, Sho Yokoi, Kentaro Inui

HIGHLIGHT: In this study, we extended the scope of the analysis of Transformers from solely the attention patterns to the whole attention block, i.e., multi-head attention, residual connection, and layer normalization.

374, TITLE: Mind the Style of Text! Adversarial and Backdoor Attacks Based on Text Style Transfer

<https://www.aclweb.org/anthology/2021.emnlp-main.374>

AUTHORS: Fanchao Qi, Yangyi Chen, Xurui Zhang, Mukai Li, Zhiyuan Liu, Maosong Sun

HIGHLIGHT: In this paper, we make the first attempt to conduct adversarial and backdoor attacks based on text style transfer, which is aimed at altering the style of a sentence while preserving its meaning.

375, TITLE: Sociolectal Analysis of Pretrained Language Models

<https://www.aclweb.org/anthology/2021.emnlp-main.375>

AUTHORS: Sheng Zhang, Xin Zhang, Weiming Zhang, Anders S?gaard

HIGHLIGHT: Using data from English cloze tests, in which subjects also self-reported their gender, age, education, and race, we examine performance differences of pretrained language models across demographic groups, defined by these (protected) attributes.

- 376, TITLE: Examining Cross-lingual Contextual Embeddings with Orthogonal Structural Probes
<https://www.aclweb.org/anthology/2021.emnlp-main.376>
AUTHORS: Tomasz Limisiewicz, David Marecek
HIGHLIGHT: We evaluate syntactic (UD) and lexical (WordNet) structural information encoded in mBERT's contextual representations for nine diverse languages.
- 377, TITLE: Are Transformers a Modern Version of ELIZA? Observations on French Object Verb Agreement
<https://www.aclweb.org/anthology/2021.emnlp-main.377>
AUTHORS: Bingzhi Li, Guillaume Wisniewski, Benoit Crabb?
HIGHLIGHT: We take a critical look at this line of research by showing that it is possible to achieve high accuracy on this agreement task with simple surface heuristics, indicating a possible flaw in our assessment of neural networks' syntactic ability.
- 378, TITLE: Fine-grained Entity Typing via Label Reasoning
<https://www.aclweb.org/anthology/2021.emnlp-main.378>
AUTHORS: Qing Liu, Hongyu Lin, Xinyan Xiao, Xianpei Han, Le Sun, Hua Wu
HIGHLIGHT: In this paper, we argue that the implicitly entailed extrinsic and intrinsic dependencies between labels can provide critical knowledge to tackle the above challenges.
- 379, TITLE: Enhanced Language Representation with Label Knowledge for Span Extraction
<https://www.aclweb.org/anthology/2021.emnlp-main.379>
AUTHORS: Pan Yang, Xin Cong, Zhenyu Sun, Xingwu Liu
HIGHLIGHT: To address those problems, we introduce a fresh paradigm to integrate label knowledge and further propose a novel model to explicitly and efficiently integrate label knowledge into text representations.
- 380, TITLE: PRIDE: Predicting Relationships in Conversations
<https://www.aclweb.org/anthology/2021.emnlp-main.380>
AUTHORS: Anna Tiginova, Paramita Mirza, Andrew Yates, Gerhard Weikum
HIGHLIGHT: To infer speakers' relationships from dialogues we propose PRIDE, a neural multi-label classifier, based on BERT and Transformer for creating a conversation representation.
- 381, TITLE: Extracting Fine-Grained Knowledge Graphs of Scientific Claims: Dataset and Transformer-Based Results
<https://www.aclweb.org/anthology/2021.emnlp-main.381>
AUTHORS: Ian Magnusson, Scott Friedman
HIGHLIGHT: Instead we focus on the subtleties of how experimental associations are presented by building SciClaim, a dataset of scientific claims drawn from Social and Behavior Science (SBS), PubMed, and COVID-19 papers.
- 382, TITLE: Sequential Cross-Document Coreference Resolution
<https://www.aclweb.org/anthology/2021.emnlp-main.382>
AUTHORS: Emily Allaway, Shuai Wang, Miguel Ballesteros
HIGHLIGHT: In this paper we propose a new model that extends the efficient sequential prediction paradigm for coreference resolution to cross-document settings and achieves competitive results for both entity and event coreference while providing strong evidence of the efficacy of both sequential models and higher-order inference in cross-document settings.
- 383, TITLE: Mixture-of-Partitions: Infusing Large Biomedical Knowledge Graphs into BERT
<https://www.aclweb.org/anthology/2021.emnlp-main.383>
AUTHORS: Zaiqiao Meng, Fangyu Liu, Thomas Clark, Ehsan Shareghi, Nigel Collier
HIGHLIGHT: In this paper, we proposed Mixture-of-Partitions (MoP), an infusion approach that can handle a very large knowledge graph (KG) by partitioning it into smaller sub-graphs and infusing their specific knowledge into various BERT models using lightweight adapters.
- 384, TITLE: Filling the Gaps in Ancient Akkadian Texts: A Masked Language Modelling Approach
<https://www.aclweb.org/anthology/2021.emnlp-main.384>
AUTHORS: Koren Lazar, Benny Saret, Asaf Yehudai, Wayne Horowitz, Nathan Wasserman, Gabriel Stanovsky
HIGHLIGHT: We present models which complete missing text given transliterations of ancient Mesopotamian documents, originally written on cuneiform clay tablets (2500 BCE - 100 CE).
- 385, TITLE: AVocaDo: Strategy for Adapting Vocabulary to Downstream Domain
<https://www.aclweb.org/anthology/2021.emnlp-main.385>
AUTHORS: Jimin Hong, TaeHee Kim, Hyesu Lim, Jaegul Choo

HIGHLIGHT: We propose to consider the vocabulary as an optimizable parameter, allowing us to update the vocabulary by expanding it with domain specific vocabulary based on a tokenization statistic.

386, **TITLE:** Can We Improve Model Robustness through Secondary Attribute Counterfactuals?
<https://www.aclweb.org/anthology/2021.emnlp-main.386>
AUTHORS: Ananth Balashankar, Xuezhi Wang, Ben Packer, Nithum Thain, Ed Chi, Alex Beutel
HIGHLIGHT: In this paper we study how and why modeling counterfactuals over multiple attributes can go significantly further in improving model performance.

387, **TITLE:** Long-Range Modeling of Source Code Files with eWASH: Extended Window Access by Syntax Hierarchy
<https://www.aclweb.org/anthology/2021.emnlp-main.387>
AUTHORS: Colin Clement, Shuai Lu, Xiaoyu Liu, Michele Tufano, Dawn Drain, Nan Duan, Neel Sundaresan, Alexey Svyatkovskiy
HIGHLIGHT: While there are many efforts to extend the context window, we introduce an architecture-independent approach for leveraging the syntactic hierarchies of source code for incorporating entire file-level context into a fixed-length window.

388, **TITLE:** Can Language Models be Biomedical Knowledge Bases?
<https://www.aclweb.org/anthology/2021.emnlp-main.388>
AUTHORS: Mujeen Sung, Jinhyuk Lee, Sean Yi, Minji Jeon, Sungdong Kim, Jaewoo Kang
HIGHLIGHT: To this end, we create the BioLAMA benchmark, which is comprised of 49K biomedical factual knowledge triples for probing biomedical LMs.

389, **TITLE:** LayoutReader: Pre-training of Text and Layout for Reading Order Detection
<https://www.aclweb.org/anthology/2021.emnlp-main.389>
AUTHORS: Zilong Wang, Yiheng Xu, Lei Cui, Jingbo Shang, Furu Wei
HIGHLIGHT: Therefore, in an automated manner, we construct ReadingBank, a benchmark dataset that contains reading order, text, and layout information for 500,000 document images covering a wide spectrum of document types.

390, **TITLE:** Region under Discussion for visual dialog
<https://www.aclweb.org/anthology/2021.emnlp-main.390>
AUTHORS: Mauricio Mazuecos, Franco M. Luque, Jorge S?nchez, Hern?n Maina, Thomas Vadora, Luciana Benotti
HIGHLIGHT: In this paper we define what it means for a visual question to require dialog history and we release a subset of the Guesswhat?!

391, **TITLE:** Learning grounded word meaning representations on similarity graphs
<https://www.aclweb.org/anthology/2021.emnlp-main.391>
AUTHORS: Mariella Dimiccoli, Herwig Wendt, Pau Battle Franch
HIGHLIGHT: This paper introduces a novel approach to learn visually grounded meaning representations of words as low-dimensional node embeddings on an underlying graph hierarchy.

392, **TITLE:** WhyAct: Identifying Action Reasons in Lifestyle Vlogs
<https://www.aclweb.org/anthology/2021.emnlp-main.392>
AUTHORS: Oana Ignat, Santiago Castro, Hanwen Miao, Weiji Li, Rada Mihalcea
HIGHLIGHT: We introduce and make publicly available the WhyAct dataset, consisting of 1,077 visual actions manually annotated with their reasons.

393, **TITLE:** Genre as Weak Supervision for Cross-lingual Dependency Parsing
<https://www.aclweb.org/anthology/2021.emnlp-main.393>
AUTHORS: Max M?ller-Eberstein, Rob van der Goot, Barbara Plank
HIGHLIGHT: Specifically, we project treebank-level genre information to the finer-grained sentence level, with the goal to amplify information implicitly stored in unsupervised contextualized representations.

394, **TITLE:** On the Relation between Syntactic Divergence and Zero-Shot Performance
<https://www.aclweb.org/anthology/2021.emnlp-main.394>
AUTHORS: Ofir Arviv, Dmitry Nikolaev, Taelin Karidi, Omri Abend
HIGHLIGHT: We explore the link between the extent to which syntactic relations are preserved in translation and the ease of correctly constructing a parse tree in a zero-shot setting.

395, **TITLE:** Improved Latent Tree Induction with Distant Supervision via Span Constraints
<https://www.aclweb.org/anthology/2021.emnlp-main.395>

AUTHORS: Zhiyang Xu, Andrew Drozdov, Jay Yoon Lee, Tim O’Gorman, Subendhu Rongali, Dylan Finkbeiner, Shilpa Suresh, Mohit Iyyer, Andrew McCallum
HIGHLIGHT: In this work, we present a technique that uses distant supervision in the form of span constraints (i.e. phrase bracketing) to improve performance in unsupervised constituency parsing.

396, TITLE: Aligning Multidimensional Worldviews and Discovering Ideological Differences
<https://www.aclweb.org/anthology/2021.emnlp-main.396>

AUTHORS: Jeremiah Milbauer, Adarsh Mathew, James Evans
HIGHLIGHT: Extending the ability of word embedding models to capture the semantic and cultural characteristics of their training corpora, we propose a novel method for discovering the multifaceted ideological and worldview characteristics of communities.

397, TITLE: Just Say No: Analyzing the Stance of Neural Dialogue Generation in Offensive Contexts
<https://www.aclweb.org/anthology/2021.emnlp-main.397>

AUTHORS: Ashutosh Baheti, Maarten Sap, Alan Ritter, Mark Riedl
HIGHLIGHT: To better understand the dynamics of contextually offensive language, we investigate the stance of dialogue model responses in offensive Reddit conversations.

398, TITLE: Multi-Modal Open-Domain Dialogue
<https://www.aclweb.org/anthology/2021.emnlp-main.398>

AUTHORS: Kurt Shuster, Eric Michael Smith, Da Ju, Jason Weston
HIGHLIGHT: With the goal of getting humans to engage in multi-modal dialogue, we investigate combining components from state-of-the-art open-domain dialogue agents with those from state-of-the-art vision models.

399, TITLE: A Label-Aware BERT Attention Network for Zero-Shot Multi-Intent Detection in Spoken Language Understanding
<https://www.aclweb.org/anthology/2021.emnlp-main.399>

AUTHORS: Ting-Wei Wu, Ruolin Su, Biing Juang
HIGHLIGHT: Motivated by the above, we propose a Label-Aware BERT Attention Network (LABAN) for zero-shot multi-intent detection.

400, TITLE: Zero-Shot Dialogue Disentanglement by Self-Supervised Entangled Response Selection
<https://www.aclweb.org/anthology/2021.emnlp-main.400>

AUTHORS: Ta-Chung Chi, Alexander Rudnicky
HIGHLIGHT: In this paper, we are the first to propose a zero-shot dialogue disentanglement solution.

401, TITLE: SIMMC 2.0: A Task-oriented Dialog Dataset for Immersive Multimodal Conversations
<https://www.aclweb.org/anthology/2021.emnlp-main.401>

AUTHORS: Satwik Kottur, Seungwhan Moon, Alborz Geramifard, Babak Damavandi
HIGHLIGHT: To overcome, we present a new dataset for Situated and Interactive Multimodal Conversations, SIMMC 2.0, which includes 11K task-oriented user-<->assistant dialogs (117K utterances) in the shopping domain, grounded in immersive and photo-realistic scenes.

402, TITLE: RAST: Domain-Robust Dialogue Rewriting as Sequence Tagging
<https://www.aclweb.org/anthology/2021.emnlp-main.402>

AUTHORS: Jie Hao, Linfeng Song, Liwei Wang, Kun Xu, Zhaopeng Tu, Dong Yu
HIGHLIGHT: We address this robustness issue by proposing a novel sequence-tagging-based model so that the search space is significantly reduced, yet the core of this task is still well covered.

403, TITLE: MRF-Chat: Improving Dialogue with Markov Random Fields
<https://www.aclweb.org/anthology/2021.emnlp-main.403>

AUTHORS: Ishaan Grover, Matthew Huggins, Cynthia Breazeal, Hae Won Park
HIGHLIGHT: In this work, we propose a novel probabilistic approach using Markov Random Fields (MRF) to augment existing deep-learning methods for improved next utterance prediction.

404, TITLE: Dialogue State Tracking with a Language Model using Schema-Driven Prompting
<https://www.aclweb.org/anthology/2021.emnlp-main.404>

AUTHORS: Chia-Hsuan Lee, Hao Cheng, Mari Ostendorf
HIGHLIGHT: Here, we introduce a new variation of the language modeling approach that uses schema-driven prompting to provide task-aware history encoding that is used for both categorical and non-categorical slots.

- 405, TITLE: Signed Coreference Resolution
<https://www.aclweb.org/anthology/2021.emnlp-main.405>
AUTHORS: Kayo Yin, Kenneth DeHaan, Malihe Alikhani
HIGHLIGHT: In this paper, we: (1) introduce Signed Coreference Resolution (SCR), a new challenge for coreference modeling and Sign Language Processing; (2) collect an annotated corpus of German Sign Language with gold labels for coreference together with an annotation software for the task; (3) explore features of hand gesture, iconicity, and spatial situated properties and move forward to propose a set of linguistically informed heuristics and unsupervised models for the task; (4) put forward several proposals about ways to address the complexities of this challenge effectively.
- 406, TITLE: Consistent Accelerated Inference via Confident Adaptive Transformers
<https://www.aclweb.org/anthology/2021.emnlp-main.406>
AUTHORS: Tal Schuster, Adam Fisch, Tommi Jaakkola, Regina Barzilay
HIGHLIGHT: In this work, we present CATs - Confident Adaptive Transformers - in which we simultaneously increase computational efficiency, while guaranteeing a specifiable degree of consistency with the original model with high confidence.
- 407, TITLE: Improving and Simplifying Pattern Exploiting Training
<https://www.aclweb.org/anthology/2021.emnlp-main.407>
AUTHORS: Derek Tam, Rakesh R. Menon, Mohit Bansal, Shashank Srivastava, Colin Raffel
HIGHLIGHT: In this paper, we focus on few-shot learning without any unlabeled data and introduce ADAPET, which modifies PET's objective to provide denser supervision during fine-tuning.
- 408, TITLE: Unsupervised Data Augmentation with Naive Augmentation and without Unlabeled Data
<https://www.aclweb.org/anthology/2021.emnlp-main.408>
AUTHORS: David Lowell, Brian Howard, Zachary C. Lipton, Byron Wallace
HIGHLIGHT: In this paper, we re-examine UDA and demonstrate its efficacy on several sequential tasks.
- 409, TITLE: Pre-train or Annotate? Domain Adaptation with a Constrained Budget
<https://www.aclweb.org/anthology/2021.emnlp-main.409>
AUTHORS: Fan Bai, Alan Ritter, Wei Xu
HIGHLIGHT: In this paper, we study domain adaptation under budget constraints, and approach it as a customer choice problem between data annotation and pre-training.
- 410, TITLE: Lawyers are Dishonest? Quantifying Representational Harms in Commonsense Knowledge Resources
<https://www.aclweb.org/anthology/2021.emnlp-main.410>
AUTHORS: Ninareh Mehrabi, Pei Zhou, Fred Morstatter, Jay Pujara, Xiang Ren, Aram Galstyan
HIGHLIGHT: Here we focus on two widely used CSKBs, ConceptNet and GenericsKB, and establish the presence of bias in the form of two types of representational harms, overgeneralization of polarized perceptions and representation disparity across different demographic groups in both CSKBs.
- 411, TITLE: OSCaR: Orthogonal Subspace Correction and Rectification of Biases in Word Embeddings
<https://www.aclweb.org/anthology/2021.emnlp-main.411>
AUTHORS: Sunipa Dev, Tao Li, Jeff M Phillips, Vivek Srikumar
HIGHLIGHT: To address this challenge, we propose OSCaR (Orthogonal Subspace Correction and Rectification), a bias-mitigating method that focuses on disentangling biased associations between concepts instead of removing concepts wholesale.
- 412, TITLE: Sentence-Permuted Paragraph Generation
<https://www.aclweb.org/anthology/2021.emnlp-main.412>
AUTHORS: Wenhao Yu, Chenguang Zhu, Tong Zhao, Zhichun Guo, Meng Jiang
HIGHLIGHT: Our idea is permuting the sentence orders to improve the content diversity of multi-sentence paragraph.
- 413, TITLE: Extract, Denoise and Enforce: Evaluating and Improving Concept Preservation for Text-to-Text Generation
<https://www.aclweb.org/anthology/2021.emnlp-main.413>
AUTHORS: Yuning Mao, Wenchang Ma, Deren Lei, Jiawei Han, Xiang Ren
HIGHLIGHT: In this paper, we present a systematic analysis that studies whether current seq2seq models, especially pre-trained language models, are good enough for preserving important input concepts and to what extent explicitly guiding generation with the concepts as lexical constraints is beneficial.
- 414, TITLE: Paraphrase Generation: A Survey of the State of the Art
<https://www.aclweb.org/anthology/2021.emnlp-main.414>
AUTHORS: Jianing Zhou, Suma Bhat

HIGHLIGHT: This paper focuses on paraphrase generation, which is a widely studied natural language generation task in NLP.

415, TITLE: Exposure Bias versus Self-Recovery: Are Distortions Really Incremental for Autoregressive Text Generation?
<https://www.aclweb.org/anthology/2021.emnlp-main.415>

AUTHORS: Tianxing He, Jingzhao Zhang, Zhiming Zhou, James Glass

HIGHLIGHT: In this work, we focus on the task of open-ended language generation, propose metrics to quantify the impact of exposure bias in the aspects of quality, diversity, and consistency.

416, TITLE: Generating Self-Contained and Summary-Centric Question Answer Pairs via Differentiable Reward Imitation Learning
<https://www.aclweb.org/anthology/2021.emnlp-main.416>

AUTHORS: Li Zhou, Kevin Small, Yong Zhang, Sandeep Atluri

HIGHLIGHT: Motivated by suggested question generation in conversational news recommendation systems, we propose a model for generating question-answer pairs (QA pairs) with self-contained, summary-centric questions and length-constrained, article-summarizing answers.

417, TITLE: Unsupervised Paraphrasing with Pretrained Language Models
<https://www.aclweb.org/anthology/2021.emnlp-main.417>

AUTHORS: Tong Niu, Semih Yavuz, Yingbo Zhou, Nitish Shirish Keskar, Huan Wang, Caiming Xiong

AUTHORS: Tong Niu, Semih Yavuz, Yingbo Zhou, Nitish Shirish Keskar, Huan Wang, Caiming Xiong

HIGHLIGHT: To address this drawback, we adopt a transfer learning approach and propose a training pipeline that enables pre-trained language models to generate high-quality paraphrases in an unsupervised setting.

418, TITLE: Profanity-Avoiding Training Framework for Seq2seq Models with Certified Robustness
<https://www.aclweb.org/anthology/2021.emnlp-main.418>

AUTHORS: Hengtong Zhang, Tianhang Zheng, Yaliang Li, Jing Gao, Lu Su, Bo Li

AUTHORS: Hengtong Zhang, Tianhang Zheng, Yaliang Li, Jing Gao, Lu Su, Bo Li

HIGHLIGHT: To address this problem, we propose a training framework with certified robustness to eliminate the causes that trigger the generation of profanity.

419, TITLE: Journalistic Guidelines Aware News Image Captioning
<https://www.aclweb.org/anthology/2021.emnlp-main.419>

AUTHORS: Xuewen Yang, Svebor Karaman, Joel Tetreault, Alejandro Jaimes

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HIGHLIGHT: In this work, we propose a new approach to this task, motivated by caption guidelines that journalists follow.

420, TITLE: AESOP: Paraphrase Generation with Adaptive Syntactic Control
<https://www.aclweb.org/anthology/2021.emnlp-main.420>

AUTHORS: Jiao Sun, Xuezhe Ma, Nanyun Peng

AUTHORS: Jiao Sun, Xuezhe Ma, Nanyun Peng

HIGHLIGHT: We propose to control paraphrase generation through carefully chosen target syntactic structures to generate more proper and higher quality paraphrases.

421, TITLE: Refocusing on Relevance: Personalization in NLG
<https://www.aclweb.org/anthology/2021.emnlp-main.421>

AUTHORS: Shiran Dudy, Steven Bedrick, Bonnie Webber

AUTHORS: Shiran Dudy, Steven Bedrick, Bonnie Webber

HIGHLIGHT: In this work, we argue that NLG systems in general should place a much higher level of emphasis on making use of additional context, and suggest that relevance (as used in Information Retrieval) be thought of as a crucial tool for designing user-oriented text-generating tasks.

422, TITLE: The Future is not One-dimensional: Complex Event Schema Induction by Graph Modeling for Event Prediction
<https://www.aclweb.org/anthology/2021.emnlp-main.422>

AUTHORS: Manling Li, Sha Li, Zhenhailong Wang, Lifu Huang, Kyunghyun Cho, Heng Ji, Jiawei Han, Clare Voss

AUTHORS: Manling Li, Sha Li, Zhenhailong Wang, Lifu Huang, Kyunghyun Cho, Heng Ji, Jiawei Han, Clare Voss

HIGHLIGHT: We introduce a new concept of Temporal Complex Event Schema: a graph-based schema representation that encompasses events, arguments, temporal connections and argument relations.

423, TITLE: Learning Constraints and Descriptive Segmentation for Subevent Detection
<https://www.aclweb.org/anthology/2021.emnlp-main.423>

AUTHORS: Haoyu Wang, Hongming Zhang, Muhao Chen, Dan Roth

AUTHORS: Haoyu Wang, Hongming Zhang, Muhao Chen, Dan Roth

HIGHLIGHT: To bridge the two tasks together, we propose an approach to learning and enforcing constraints that capture dependencies between subevent detection and EventSeg prediction, as well as guiding the model to make globally consistent inference.

424, TITLE: ChemNER: Fine-Grained Chemistry Named Entity Recognition with Ontology-Guided Distant Supervision

<https://www.aclweb.org/anthology/2021.emnlp-main.424>

AUTHORS: Xuan Wang, Vivian Hu, Xiangchen Song, Shweta Garg, Jinfeng Xiao, Jiawei Han
HIGHLIGHT: We propose ChemNER, an ontology-guided, distantly-supervised method for fine-grained chemistry NER to tackle these challenges.

425, TITLE: Moving on from OntoNotes: Coreference Resolution Model Transfer

<https://www.aclweb.org/anthology/2021.emnlp-main.425>

AUTHORS: Patrick Xia, Benjamin Van Durme
HIGHLIGHT: We aim to quantify transferability of coref models based on the number of annotated documents available in the target dataset.

426, TITLE: Document-level Entity-based Extraction as Template Generation

<https://www.aclweb.org/anthology/2021.emnlp-main.426>

AUTHORS: Kung-Hsiang Huang, Sam Tang, Nanyun Peng
HIGHLIGHT: To address this issue, we propose a generative framework for two document-level EE tasks: role-filler entity extraction (REE) and relation extraction (RE).

427, TITLE: Learning Prototype Representations Across Few-Shot Tasks for Event Detection

<https://www.aclweb.org/anthology/2021.emnlp-main.427>

AUTHORS: Viet Lai, Franck Dernoncourt, Thien Huu Nguyen
HIGHLIGHT: We propose to model the relations between training tasks in episodic few-shot learning by introducing cross-task prototypes.

428, TITLE: Lifelong Event Detection with Knowledge Transfer

<https://www.aclweb.org/anthology/2021.emnlp-main.428>

AUTHORS: Pengfei Yu, Heng Ji, Prem Natarajan
HIGHLIGHT: In reality, the ontology of interest may change over time, adding emergent new types or more fine-grained subtypes. We propose a new lifelong learning framework to address this challenge.

429, TITLE: Modular Self-Supervision for Document-Level Relation Extraction

<https://www.aclweb.org/anthology/2021.emnlp-main.429>

AUTHORS: Sheng Zhang, Cliff Wong, Naoto Usuyama, Sarthak Jain, Tristan Naumann, Hoifung Poon
HIGHLIGHT: In this paper, we propose decomposing document-level relation extraction into relation detection and argument resolution, taking inspiration from Davidsonian semantics.

430, TITLE: Unsupervised Paraphrasing Consistency Training for Low Resource Named Entity Recognition

<https://www.aclweb.org/anthology/2021.emnlp-main.430>

AUTHORS: Rui Wang, Ricardo Henao
HIGHLIGHT: In this paper, we explore the use of paraphrasing as a more principled data augmentation scheme for NER unsupervised consistency training.

431, TITLE: Fine-grained Entity Typing without Knowledge Base

<https://www.aclweb.org/anthology/2021.emnlp-main.431>

AUTHORS: Jing Qian, Yibin Liu, Lema Liu, Yangming Li, Haiyun Jiang, Haisong Zhang, Shuming Shi
HIGHLIGHT: Under this setting, we propose a two-step framework to train FET models.

432, TITLE: Adversarial Attack against Cross-lingual Knowledge Graph Alignment

<https://www.aclweb.org/anthology/2021.emnlp-main.432>

AUTHORS: Zeru Zhang, Zijie Zhang, Yang Zhou, Lingfei Wu, Sixing Wu, Xiaoying Han, Dejing Dou, Tianshi Che, Da Yan
HIGHLIGHT: This paper proposes an adversarial attack model with two novel attack techniques to perturb the KG structure and degrade the quality of deep cross-lingual entity alignment.

433, TITLE: Towards Realistic Few-Shot Relation Extraction

<https://www.aclweb.org/anthology/2021.emnlp-main.433>

AUTHORS: Sam Brody, Sichao Wu, Adrian Benton
HIGHLIGHT: In this paper we take a deeper look at the efficacy of strong few-shot classification models in the more common relation extraction setting, and show that typical few-shot evaluation metrics obscure a wide variability in performance across relations.

- 434, TITLE: Data Augmentation for Cross-Domain Named Entity Recognition
<https://www.aclweb.org/anthology/2021.emnlp-main.434>
AUTHORS: Shuguang Chen, Gustavo Aguilar, Leonardo Neves, Tamar Solorio
HIGHLIGHT: In this work, we take this research direction to the opposite and study cross-domain data augmentation for the NER task.
- 435, TITLE: Incorporating medical knowledge in BERT for clinical relation extraction
<https://www.aclweb.org/anthology/2021.emnlp-main.435>
AUTHORS: Arpita Roy, Shimei Pan
HIGHLIGHT: To solve these issues, in this research, we conduct a comprehensive examination of different techniques to add medical knowledge into a pre-trained BERT model for clinical relation extraction.
- 436, TITLE: ECONET: Effective Continual Pretraining of Language Models for Event Temporal Reasoning
<https://www.aclweb.org/anthology/2021.emnlp-main.436>
AUTHORS: Rujun Han, Xiang Ren, Nanyun Peng
HIGHLIGHT: We present a continual pre-training approach that equips PTLMs with targeted knowledge about event temporal relations.
- 437, TITLE: Learning from Noisy Labels for Entity-Centric Information Extraction
<https://www.aclweb.org/anthology/2021.emnlp-main.437>
AUTHORS: Wenxuan Zhou, Muhao Chen
HIGHLIGHT: Motivated by such properties, we propose a simple co-regularization framework for entity-centric information extraction, which consists of several neural models with identical structures but different parameter initialization.
- 438, TITLE: Extracting Material Property Measurement Data from Scientific Articles
<https://www.aclweb.org/anthology/2021.emnlp-main.438>
AUTHORS: Gihan Panapitiya, Fred Parks, Jonathan Sepulveda, Emily Saldanha
HIGHLIGHT: In this work, we describe a methodology for developing an automatic property extraction framework using material solubility as the target property.
- 439, TITLE: Modeling Document-Level Context for Event Detection via Important Context Selection
<https://www.aclweb.org/anthology/2021.emnlp-main.439>
AUTHORS: Amir Pouran Ben Veysch, Minh Van Nguyen, Nghia Ngo Trung, Bonan Min, Thien Huu Nguyen
HIGHLIGHT: To address this issue, we propose a novel method to model document-level context for ED that dynamically selects relevant sentences in the document for the event prediction of the target sentence.
- 440, TITLE: Crosslingual Transfer Learning for Relation and Event Extraction via Word Category and Class Alignments
<https://www.aclweb.org/anthology/2021.emnlp-main.440>
AUTHORS: Minh Van Nguyen, Tuan Ngo Nguyen, Bonan Min, Thien Huu Nguyen
HIGHLIGHT: To address this issue, we propose a novel crosslingual alignment method that leverages class information of REE tasks for representation learning.
- 441, TITLE: Corpus-based Open-Domain Event Type Induction
<https://www.aclweb.org/anthology/2021.emnlp-main.441>
AUTHORS: Jiaming Shen, Yunyi Zhang, Heng Ji, Jiawei Han
HIGHLIGHT: This work presents a corpus-based open-domain event type induction method that automatically discovers a set of event types from a given corpus.
- 442, TITLE: PDALN: Progressive Domain Adaptation over a Pre-trained Model for Low-Resource Cross-Domain Named Entity Recognition
<https://www.aclweb.org/anthology/2021.emnlp-main.442>
AUTHORS: Tao Zhang, Congying Xia, Philip S. Yu, Zhiwei Liu, Shu Zhao
HIGHLIGHT: To address these challenges, we propose a progressive domain adaptation Knowledge Distillation (KD) approach - PDALN.
- 443, TITLE: Multi-Vector Attention Models for Deep Re-ranking
<https://www.aclweb.org/anthology/2021.emnlp-main.443>
AUTHORS: Giulio Zhou, Jacob Devlin
HIGHLIGHT: In this paper, we present a lightweight architecture that explores this joint cost vs. accuracy trade-off based on multi-vector attention (MVA).

- 444, TITLE: Toward Deconfounding the Effect of Entity Demographics for Question Answering Accuracy
<https://www.aclweb.org/anthology/2021.emnlp-main.444>
AUTHORS: Maharshi Gor, Kellie Webster, Jordan Boyd-Graber
HIGHLIGHT: Toward Deconfounding the Effect of Entity Demographics for Question Answering Accuracy
- 445, TITLE: Exploring Strategies for Generalizable Commonsense Reasoning with Pre-trained Models
<https://www.aclweb.org/anthology/2021.emnlp-main.445>
AUTHORS: Kaixin Ma, Filip Ilievski, Jonathan Francis, Satoru Ozaki, Eric Nyberg, Alessandro Oltramari
HIGHLIGHT: In this paper, we investigate what models learn from commonsense reasoning datasets.
- 446, TITLE: Transformer Feed-Forward Layers Are Key-Value Memories
<https://www.aclweb.org/anthology/2021.emnlp-main.446>
AUTHORS: Mor Geva, Roei Schuster, Jonathan Berant, Omer Levy
HIGHLIGHT: We show that feed-forward layers in transformer-based language models operate as key-value memories, where each key correlates with textual patterns in the training examples, and each value induces a distribution over the output vocabulary.
- 447, TITLE: Connecting Attributions and QA Model Behavior on Realistic Counterfactuals
<https://www.aclweb.org/anthology/2021.emnlp-main.447>
AUTHORS: Xi Ye, Rohan Nair, Greg Durrett
HIGHLIGHT: This paper investigates how well different attribution techniques align with this assumption on realistic counterfactuals in the case of reading comprehension (RC).
- 448, TITLE: How Do Neural Sequence Models Generalize? Local and Global Cues for Out-of-Distribution Prediction
<https://www.aclweb.org/anthology/2021.emnlp-main.448>
AUTHORS: D. Anthony Bau, Jacob Andreas
HIGHLIGHT: We show that RNN and transformer language models exhibit structured, consistent generalization in out-of-distribution contexts.
- 449, TITLE: Comparing Text Representations: A Theory-Driven Approach
<https://www.aclweb.org/anthology/2021.emnlp-main.449>
AUTHORS: Gregory Yauney, David Mimno
HIGHLIGHT: We adapt general tools from computational learning theory to fit the specific characteristics of text datasets and present a method to evaluate the compatibility between representations and tasks.
- 450, TITLE: Human Rationales as Attribution Priors for Explainable Stance Detection
<https://www.aclweb.org/anthology/2021.emnlp-main.450>
AUTHORS: Sahil Jayaram, Emily Allaway
HIGHLIGHT: In this work, we present a method for imparting human-like rationalization to a stance detection model using crowdsourced annotations on a small fraction of the training data.
- 451, TITLE: The Stem Cell Hypothesis: Dilemma behind Multi-Task Learning with Transformer Encoders
<https://www.aclweb.org/anthology/2021.emnlp-main.451>
AUTHORS: Han He, Jinho D. Choi
HIGHLIGHT: Based on this finding, we propose the Stem Cell Hypothesis to reveal the existence of attention heads naturally talented for many tasks that cannot be jointly trained to create adequate embeddings for all of those tasks.
- 452, TITLE: Text Counterfactuals via Latent Optimization and Shapley-Guided Search
<https://www.aclweb.org/anthology/2021.emnlp-main.452>
AUTHORS: Xiaoli Fern, Quintin Pope
HIGHLIGHT: Given a textual input and a classification model, we aim to minimally alter the text to change the model's prediction.
- 453, TITLE: "Average" Approximates "First Principal Component"- An Empirical Analysis on Representations from Neural Language Models
<https://www.aclweb.org/anthology/2021.emnlp-main.453>
AUTHORS: Zihan Wang, Chengyu Dong, Jingbo Shang
HIGHLIGHT: In this paper, we present an empirical property of these representations-"average" approximates "first principal component".

- 454, TITLE: Controlled Evaluation of Grammatical Knowledge in Mandarin Chinese Language Models
<https://www.aclweb.org/anthology/2021.emnlp-main.454>
AUTHORS: Yiwen Wang, Jennifer Hu, Roger Levy, Peng Qian
HIGHLIGHT: However, it remains unclear if such an inductive bias would also improve language models' ability to learn grammatical dependencies in typologically different languages. Here we investigate this question in Mandarin Chinese, which has a logographic, largely syllable-based writing system; different word order; and sparser morphology than English.
- 455, TITLE: GradTS: A Gradient-Based Automatic Auxiliary Task Selection Method Based on Transformer Networks
<https://www.aclweb.org/anthology/2021.emnlp-main.455>
AUTHORS: Weicheng Ma, Renze Lou, Kai Zhang, Lili Wang, Soroush Vosoughi
HIGHLIGHT: This paper presents GradTS, an automatic auxiliary task selection method based on gradient calculation in Transformer-based models.
- 456, TITLE: NegatER: Unsupervised Discovery of Negatives in Commonsense Knowledge Bases
<https://www.aclweb.org/anthology/2021.emnlp-main.456>
AUTHORS: Tara Safavi, Jing Zhu, Danai Koutra
HIGHLIGHT: As a first step toward the latter, this paper proposes NegatER, a framework that ranks potential negatives in commonsense KBs using a contextual language model (LM).
- 457, TITLE: Instance-adaptive training with noise-robust losses against noisy labels
<https://www.aclweb.org/anthology/2021.emnlp-main.457>
AUTHORS: Lifeng Jin, Linfeng Song, Kun Xu, Dong Yu
HIGHLIGHT: This work proposes novel instance-adaptive training frameworks to change single dataset-wise hyperparameters of noise resistance in such losses to be instance-wise.
- 458, TITLE: Distributionally Robust Multilingual Machine Translation
<https://www.aclweb.org/anthology/2021.emnlp-main.458>
AUTHORS: Chunting Zhou, Daniel Levy, Xian Li, Marjan Ghazvininejad, Graham Neubig
HIGHLIGHT: In this paper, we propose a new learning objective for MNMT based on distributionally robust optimization, which minimizes the worst-case expected loss over the set of language pairs.
- 459, TITLE: Model Selection for Cross-lingual Transfer
<https://www.aclweb.org/anthology/2021.emnlp-main.459>
AUTHORS: Yang Chen, Alan Ritter
HIGHLIGHT: In this paper, we show that it is possible to select consistently better models when small amounts of annotated data are available in auxiliary pivot languages.
- 460, TITLE: Continual Few-Shot Learning for Text Classification
<https://www.aclweb.org/anthology/2021.emnlp-main.460>
AUTHORS: Ramakanth Pasunuru, Veselin Stoyanov, Mohit Bansal
HIGHLIGHT: In this work, we propose a continual few-shot learning (CFL) task, in which a system is challenged with a difficult phenomenon and asked to learn to correct mistakes with only a few (10 to 15) training examples.
- 461, TITLE: Efficient Nearest Neighbor Language Models
<https://www.aclweb.org/anthology/2021.emnlp-main.461>
AUTHORS: Junxian He, Graham Neubig, Taylor Berg-Kirkpatrick
HIGHLIGHT: In this paper, we take the recently proposed k-nearest neighbors language model as an example, exploring methods to improve its efficiency along various dimensions.
- 462, TITLE: STraTA: Self-Training with Task Augmentation for Better Few-shot Learning
<https://www.aclweb.org/anthology/2021.emnlp-main.462>
AUTHORS: Tu Vu, Minh-Thang Luong, Quoc Le, Grady Simon, Mohit Iyyer
HIGHLIGHT: To address this shortcoming, we propose STraTA, which stands for Self-Training with Task Augmentation, an approach that builds on two key ideas for effective leverage of unlabeled data.
- 463, TITLE: TADPOLE: Task ADapted Pre-Training via AnOmaLy DEtection
<https://www.aclweb.org/anthology/2021.emnlp-main.463>
AUTHORS: Vivek Madan, Ashish Khetan, Zohar Kamin
HIGHLIGHT: In this paper, we address the problem for the case when the downstream corpus is too small for additional pre-training.

- 464, TITLE: Gradient-based Adversarial Attacks against Text Transformers
<https://www.aclweb.org/anthology/2021.emnlp-main.464>
AUTHORS: Chuan Guo, Alexandre Sablayrolles, Hervé Jégou, Douwe Kiela
HIGHLIGHT: We propose the first general-purpose gradient-based adversarial attack against transformer models.
- 465, TITLE: Do Transformer Modifications Transfer Across Implementations and Applications?
<https://www.aclweb.org/anthology/2021.emnlp-main.465>
AUTHORS: Sharan Narang, Hyung Won Chung, Yi Tay, Liam Fedus, Thibault Fevry, Michael Matena, Karishma Malkan, Noah Fiedel, Noam Shazeer, Zhenzhong Lan, Yanqi Zhou, Wei Li, Nan Ding, Jake Marcus, Adam Roberts, Colin Raffel
HIGHLIGHT: In this paper, we comprehensively evaluate many of these modifications in a shared experimental setting that covers most of the common uses of the Transformer in natural language processing.
- 466, TITLE: Paired Examples as Indirect Supervision in Latent Decision Models
<https://www.aclweb.org/anthology/2021.emnlp-main.466>
AUTHORS: Nitish Gupta, Sameer Singh, Matt Gardner, Dan Roth
HIGHLIGHT: In this work, we introduce a way to leverage paired examples that provide stronger cues for learning latent decisions.
- 467, TITLE: Pairwise Supervised Contrastive Learning of Sentence Representations
<https://www.aclweb.org/anthology/2021.emnlp-main.467>
AUTHORS: Dejiao Zhang, Shang-Wen Li, Wei Xiao, Henghui Zhu, Ramesh Nallapati, Andrew O. Arnold, Bing Xiang
HIGHLIGHT: In this paper, we propose PairSupCon, an instance discrimination based approach aiming to bridge semantic entailment and contradiction understanding with high-level categorical concept encoding.
- 468, TITLE: Muppet: Massive Multi-task Representations with Pre-Finetuning
<https://www.aclweb.org/anthology/2021.emnlp-main.468>
AUTHORS: Armen Aghajanyan, Anchit Gupta, Akshat Shrivastava, Xilun Chen, Luke Zettlemoyer, Sonal Gupta
HIGHLIGHT: We propose pre-finetuning, an additional large-scale learning stage between language model pre-training and fine-tuning.
- 469, TITLE: Diverse Distributions of Self-Supervised Tasks for Meta-Learning in NLP
<https://www.aclweb.org/anthology/2021.emnlp-main.469>
AUTHORS: Trapit Bansal, Karthick Prasad Gunasekaran, Tong Wang, Tsendsuren Munkhdalai, Andrew McCallum
HIGHLIGHT: In this work, we aim to provide task distributions for meta-learning by considering self-supervised tasks automatically proposed from unlabeled text, to enable large-scale meta-learning in NLP.
- 470, TITLE: A Simple and Effective Method To Eliminate the Self Language Bias in Multilingual Representations
<https://www.aclweb.org/anthology/2021.emnlp-main.470>
AUTHORS: Ziyi Yang, Yinfei Yang, Daniel Cer, Eric Darve
HIGHLIGHT: We explore this problem from a novel angle of geometric algebra and semantic space.
- 471, TITLE: A Massively Multilingual Analysis of Cross-linguality in Shared Embedding Space
<https://www.aclweb.org/anthology/2021.emnlp-main.471>
AUTHORS: Alexander Jones, William Yang Wang, Kyle Mahowald
HIGHLIGHT: Here, we investigate the linguistic and non-linguistic factors affecting sentence-level alignment in cross-lingual pretrained language models for 101 languages and 5,050 language pairs.
- 472, TITLE: Frustratingly Simple but Surprisingly Strong: Using Language-Independent Features for Zero-shot Cross-lingual Semantic Parsing
<https://www.aclweb.org/anthology/2021.emnlp-main.472>
AUTHORS: Jingfeng Yang, Federico Fancellu, Bonnie Webber, Diyi Yang
HIGHLIGHT: To this end, we experiment with six Discourse Representation Structure (DRS) semantic parsers in English, and generalize them to Italian, German and Dutch, where there are only a small number of manually annotated parses available.
- 473, TITLE: Improving Simultaneous Translation by Incorporating Pseudo-References with Fewer Reorderings
<https://www.aclweb.org/anthology/2021.emnlp-main.473>
AUTHORS: Junkun Chen, Renjie Zheng, Atsuhito Kita, Mingbo Ma, Liang Huang
HIGHLIGHT: We propose a novel method that rewrites the target side of existing full-sentence corpora into simultaneous-style translation.

474, TITLE: Classification-based Quality Estimation: Small and Efficient Models for Real-world Applications
<https://www.aclweb.org/anthology/2021.emnlp-main.474>
AUTHORS: Shuo Sun, Ahmed El-Kishky, Vishrav Chaudhary, James Cross, Lucia Specia, Francisco Guzmán
HIGHLIGHT: In this work, we evaluate several model compression techniques for QE and find that, despite their popularity in other NLP tasks, they lead to poor performance in this regression setting.

475, TITLE: A Large-Scale Study of Machine Translation in Turkic Languages
<https://www.aclweb.org/anthology/2021.emnlp-main.475>
AUTHORS: Jamshidbek Mirzakhlov, Anoop Babu, Duygu Ataman, Sherzod Kariev, Francis Tyers, Otabek Abduraufov, Mammad Hajili, Sardana Ivanova, Abror Khaytbaev, Antonio Laverghetta Jr., Bekhzodbek Moydinboev, Esra Onal, Shaxnoza Pulatova, Ahsan Wahab, Orhan Firat, Sriram Chellappan
HIGHLIGHT: In this paper, we provide the first large-scale case study of the practical application of MT in the Turkic language family in order to realize the gains of NMT for Turkic languages under high-resource to extremely low-resource scenarios.

476, TITLE: Analyzing the Surprising Variability in Word Embedding Stability Across Languages
<https://www.aclweb.org/anthology/2021.emnlp-main.476>
AUTHORS: Laura Burdick, Jonathan K. Kummerfeld, Rada Mihalcea
HIGHLIGHT: To gain further insight into word embeddings, we explore their stability (e.g., overlap between the nearest neighbors of a word in different embedding spaces) in diverse languages.

477, TITLE: Rule-based Morphological Inflection Improves Neural Terminology Translation
<https://www.aclweb.org/anthology/2021.emnlp-main.477>
AUTHORS: Weijia Xu, Marine Carpuat
HIGHLIGHT: In this paper, we introduce a modular framework for incorporating lemma constraints in neural MT (NMT) in which linguistic knowledge and diverse types of NMT models can be flexibly applied.

478, TITLE: Data and Parameter Scaling Laws for Neural Machine Translation
<https://www.aclweb.org/anthology/2021.emnlp-main.478>
AUTHORS: Mitchell A Gordon, Kevin Duh, Jared Kaplan
HIGHLIGHT: We observe that the development cross-entropy loss of supervised neural machine translation models scales like a power law with the amount of training data and the number of non-embedding parameters in the model.

479, TITLE: Good-Enough Example Extrapolation
<https://www.aclweb.org/anthology/2021.emnlp-main.479>
AUTHORS: Jason Wei
HIGHLIGHT: To operationalize this question, I propose a simple data augmentation protocol called "good-enough example extrapolation" (GE3).

480, TITLE: Learning to Selectively Learn for Weakly-supervised Paraphrase Generation
<https://www.aclweb.org/anthology/2021.emnlp-main.480>
AUTHORS: Kaize Ding, Dingcheng Li, Alexander Hanbo Li, Xing Fan, Chenlei Guo, Yang Liu, Huan Liu
HIGHLIGHT: In this work, we go beyond the existing paradigms and propose a novel approach to generate high-quality paraphrases with data of weak supervision.

481, TITLE: Effective Convolutional Attention Network for Multi-label Clinical Document Classification
<https://www.aclweb.org/anthology/2021.emnlp-main.481>
AUTHORS: Yang Liu, Hua Cheng, Russell Klopfer, Matthew R. Gormley, Thomas Schaaf
HIGHLIGHT: In this paper, we present an effective convolutional attention network for the MLDC problem with a focus on medical code prediction from clinical documents.

482, TITLE: Contrastive Code Representation Learning
<https://www.aclweb.org/anthology/2021.emnlp-main.482>
AUTHORS: Paras Jain, Ajay Jain, Tianjun Zhang, Pieter Abbeel, Joseph Gonzalez, Ion Stoica
HIGHLIGHT: We propose ContraCode: a contrastive pre-training task that learns code functionality, not form.

483, TITLE: IGA: An Intent-Guided Authoring Assistant
<https://www.aclweb.org/anthology/2021.emnlp-main.483>
AUTHORS: Simeng Sun, Wenlong Zhao, Varun Manjunatha, Rajiv Jain, Vlad Morariu, Franck Démoncourt, Balaji Vasanth Srinivasan, Mohit Iyyer

HIGHLIGHT: We leverage advances in language modeling to build an interactive writing assistant that generates and rephrases text according to fine-grained author specifications.

484, **TITLE:** Math Word Problem Generation with Mathematical Consistency and Problem Context Constraints
<https://www.aclweb.org/anthology/2021.emnlp-main.484>
AUTHORS: Zichao Wang, Andrew Lan, Richard Baraniuk
HIGHLIGHT: In this paper, we develop a novel MWP generation approach that leverages i) pre-trained language models and a context keyword selection model to improve the language quality of generated MWPs and ii) an equation consistency constraint for math equations to improve the mathematical validity of the generated MWPs.

485, **TITLE:** Navigating the Kaleidoscope of COVID-19 Misinformation Using Deep Learning
<https://www.aclweb.org/anthology/2021.emnlp-main.485>
AUTHORS: Yuanzhi Chen, Mohammad Hasan
HIGHLIGHT: By conducting a systematic investigation, we show that: (i) the deep Transformer-based pre-trained models, utilized via the mixed-domain transfer learning, are only good at capturing the local context, thus exhibits poor generalization, and (ii) a combination of shallow network-based domain-specific models and convolutional neural networks can efficiently extract local as well as global context directly from the target data in a hierarchical fashion, enabling it to offer a more generalizable solution.

486, **TITLE:** Detecting Health Advice in Medical Research Literature
<https://www.aclweb.org/anthology/2021.emnlp-main.486>
AUTHORS: Yingya Li, Jun Wang, Bei Yu
HIGHLIGHT: This study fills the gap by developing and validating an NLP-based prediction model for identifying health advice in research publications.

487, **TITLE:** A Semantic Feature-Wise Transformation Relation Network for Automatic Short Answer Grading
<https://www.aclweb.org/anthology/2021.emnlp-main.487>
AUTHORS: Zhaohui Li, Yajur Tomar, Rebecca J. Passonneau
HIGHLIGHT: We propose a Semantic Feature-wise transformation Relation Network (SFRN) that exploits the multiple components of ASAG datasets more effectively.

488, **TITLE:** Evaluating Scholarly Impact: Towards Content-Aware Bibliometrics
<https://www.aclweb.org/anthology/2021.emnlp-main.488>
AUTHORS: Saurav Manchanda, George Karypis
HIGHLIGHT: We present approaches to estimate content-aware bibliometrics to quantitatively measure the scholarly impact of a publication.

489, **TITLE:** A Scalable Framework for Learning From Implicit User Feedback to Improve Natural Language Understanding in Large-Scale Conversational AI Systems
<https://www.aclweb.org/anthology/2021.emnlp-main.489>
AUTHORS: Sunghyun Park, Han Li, Ameen Patel, Sidharth Mudgal, Sungjin Lee, Young-Bum Kim, Spyros Matsoukas, Ruhi Sarikaya
HIGHLIGHT: We propose a scalable and automatic approach for improving NLU in a large-scale conversational AI system by leveraging implicit user feedback, with an insight that user interaction data and dialog context have rich information embedded from which user satisfaction and intention can be inferred.

490, **TITLE:** Summarize-then-Answer: Generating Concise Explanations for Multi-hop Reading Comprehension
<https://www.aclweb.org/anthology/2021.emnlp-main.490>
AUTHORS: Naoya Inoue, Harsh Trivedi, Steven Sinha, Niranjan Balasubramanian, Kentaro Inui
HIGHLIGHT: Instead, we advocate for an abstractive approach, where we propose to generate a question-focused, abstractive summary of input paragraphs and then feed it to an RC system.

491, **TITLE:** FewshotQA: A simple framework for few-shot learning of question answering tasks using pre-trained text-to-text models
<https://www.aclweb.org/anthology/2021.emnlp-main.491>
AUTHORS: Rakesh Chada, Pradeep Natarajan
HIGHLIGHT: To address this, we propose a simple fine-tuning framework that leverages pre-trained text-to-text models and is directly aligned with their pre-training framework.

492, **TITLE:** Multi-stage Training with Improved Negative Contrast for Neural Passage Retrieval
<https://www.aclweb.org/anthology/2021.emnlp-main.492>
AUTHORS: Jing Lu, Gustavo Hernandez Abrego, Ji Ma, Jianmo Ni, Yinfei Yang

HIGHLIGHT: We propose a multi-stage framework comprising of pre-training with synthetic data, fine-tuning with labeled data, and negative sampling at both stages.

493, **TITLE:** Perhaps PTLMs Should Go to School - A Task to Assess Open Book and Closed Book QA
<https://www.aclweb.org/anthology/2021.emnlp-main.493>
AUTHORS: Manuel Ciosici, Joe Cecil, Dong-Ho Lee, Alex Hedges, Marjorie Freedman, Ralph Weischedel
HIGHLIGHT: Our goal is to deliver a new task and leaderboard to stimulate research on question answering and pre-trained language models (PTLMs) to understand a significant instructional document, e.g., an introductory college textbook or a manual.

494, **TITLE:** ReasonBERT: Pre-trained to Reason with Distant Supervision
<https://www.aclweb.org/anthology/2021.emnlp-main.494>
AUTHORS: Xiang Deng, Yu Su, Alyssa Lees, You Wu, Cong Yu, Huan Sun
HIGHLIGHT: We present ReasonBert, a pre-training method that augments language models with the ability to reason over long-range relations and multiple, possibly hybrid contexts.

495, **TITLE:** Single-dataset Experts for Multi-dataset Question Answering
<https://www.aclweb.org/anthology/2021.emnlp-main.495>
AUTHORS: Dan Friedman, Ben Dodge, Danqi Chen
HIGHLIGHT: Our approach is to model multi-dataset question answering with an ensemble of single-dataset experts, by training a collection of lightweight, dataset-specific adapter modules (Houlsby et al., 2019) that share an underlying Transformer model.

496, **TITLE:** Simple Entity-Centric Questions Challenge Dense Retrievers
<https://www.aclweb.org/anthology/2021.emnlp-main.496>
AUTHORS: Christopher Sciovolino, Zexuan Zhong, Jinhyuk Lee, Danqi Chen
HIGHLIGHT: We investigate this issue and uncover that dense retrievers can only generalize to common entities unless the question pattern is explicitly observed during training.

497, **TITLE:** Mitigating False-Negative Contexts in Multi-document Question Answering with Retrieval Marginalization
<https://www.aclweb.org/anthology/2021.emnlp-main.497>
AUTHORS: Ansong Ni, Matt Gardner, Pradeep Dasigi
HIGHLIGHT: We develop a new parameterization of set-valued retrieval that handles unanswerable queries, and we show that marginalizing over this set during training allows a model to mitigate false negatives in supporting evidence annotations.

498, **TITLE:** MultiDoc2Dial: Modeling Dialogues Grounded in Multiple Documents
<https://www.aclweb.org/anthology/2021.emnlp-main.498>
AUTHORS: Song Feng, Siva Sankalp Patel, Hui Wan, Sachindra Joshi
HIGHLIGHT: In this work, we aim to address more realistic scenarios where a goal-oriented information-seeking conversation involves multiple topics, and hence is grounded on different documents.

499, **TITLE:** GupShup: Summarizing Open-Domain Code-Switched Conversations
<https://www.aclweb.org/anthology/2021.emnlp-main.499>
AUTHORS: Laiba Mehnaz, Debanjan Mahata, Rakesh Gosangi, Uma Sushmitha Gunturi, Riya Jain, Gauri Gupta, Amardeep Kumar, Isabelle G. Lee, Anish Acharya, Rajiv Ratn Shah
HIGHLIGHT: Towards this objective, we introduce the task of abstractive summarization of Hindi-English (Hi-En) code-switched conversations.

500, **TITLE:** BiSECT: Learning to Split and Rephrase Sentences with Bitexts
<https://www.aclweb.org/anthology/2021.emnlp-main.500>
AUTHORS: Joongwon Kim, Mounica Maddela, Reno Kriz, Wei Xu, Chris Callison-Burch
HIGHLIGHT: We introduce a novel dataset and a new model for this 'split and rephrase' task.

501, **TITLE:** Data Collection vs. Knowledge Graph Completion: What is Needed to Improve Coverage?
<https://www.aclweb.org/anthology/2021.emnlp-main.501>
AUTHORS: Kenneth Church, Yuchen Bian
HIGHLIGHT: This survey/position paper discusses ways to improve coverage of resources such as WordNet.

502, **TITLE:** Universal Sentence Representation Learning with Conditional Masked Language Model
<https://www.aclweb.org/anthology/2021.emnlp-main.502>
AUTHORS: Ziyi Yang, Yinfei Yang, Daniel Cer, Jax Law, Eric Darve

HIGHLIGHT: This paper presents a novel training method, Conditional Masked Language Modeling (CMLM), to effectively learn sentence representations on large scale unlabeled corpora.

503, **TITLE:** On the Benefit of Syntactic Supervision for Cross-lingual Transfer in Semantic Role Labeling

<https://www.aclweb.org/anthology/2021.emnlp-main.503>

AUTHORS: Zhisong Zhang, Emma Strubell, Eduard Hovy

HIGHLIGHT: In this work, we perform an empirical exploration of the helpfulness of syntactic supervision for crosslingual SRL within a simple multitask learning scheme.

504, **TITLE:** Implicit Premise Generation with Discourse-aware Commonsense Knowledge Models

<https://www.aclweb.org/anthology/2021.emnlp-main.504>

AUTHORS: Tuhin Chakrabarty, Aadit Trivedi, Smaranda Muresan

HIGHLIGHT: We tackle the task of generating the implicit premise in an enthymeme, which requires not only an understanding of the stated conclusion and premise but also additional inferences that could depend on commonsense knowledge.

505, **TITLE:** Inducing Transformer's Compositional Generalization Ability via Auxiliary Sequence Prediction Tasks

<https://www.aclweb.org/anthology/2021.emnlp-main.505>

AUTHORS: Yichen Jiang, Mohit Bansal

HIGHLIGHT: Motivated by the failure of a Transformer model on the SCAN compositionality challenge (Lake and Baroni, 2018), which requires parsing a command into actions, we propose two auxiliary sequence prediction tasks as additional training supervision.

506, **TITLE:** Flexible Generation of Natural Language Deductions

<https://www.aclweb.org/anthology/2021.emnlp-main.506>

AUTHORS: Kaj Bostrom, Xinyu Zhao, Swarat Chaudhuri, Greg Durrett

HIGHLIGHT: In this paper, we describe ParaPattern, a method for building models to generate deductive inferences from diverse natural language inputs without direct human supervision.

507, **TITLE:** Structure-aware Fine-tuning of Sequence-to-sequence Transformers for Transition-based AMR Parsing

<https://www.aclweb.org/anthology/2021.emnlp-main.507>

AUTHORS: Jiawei Zhou, Tahira Naseem, Ram'n Fernandez Astudillo, Young-Suk Lee, Radu Florian, Salim Roukos

HIGHLIGHT: In this work we explore the integration of general pre-trained sequence-to-sequence language models and a structure-aware transition-based approach.

508, **TITLE:** Think about it! Improving defeasible reasoning by first modeling the question scenario.

<https://www.aclweb.org/anthology/2021.emnlp-main.508>

AUTHORS: Aman Madaan, Niket Tandon, Dheeraj Rajagopal, Peter Clark, Yiming Yang, Eduard Hovy

HIGHLIGHT: Our research goal asks whether neural models can similarly benefit from envisioning the question scenario before answering a defeasible query.

509, **TITLE:** Open Aspect Target Sentiment Classification with Natural Language Prompts

<https://www.aclweb.org/anthology/2021.emnlp-main.509>

AUTHORS: Ronald Seoh, Ian Birtle, Mrinal Tak, Haw-Shiuan Chang, Brian Pinette, Alfred Hough

HIGHLIGHT: To address this, we propose simple approaches that better solve ATSC with natural language prompts, enabling the task under zero-shot cases and enhancing supervised settings, especially for few-shot cases.

510, **TITLE:** Does BERT Learn as Humans Perceive? Understanding Linguistic Styles through Lexica

<https://www.aclweb.org/anthology/2021.emnlp-main.510>

AUTHORS: Shirley Hayati, Dongyeop Kang, Lyle Ungar

HIGHLIGHT: In this study, we investigate lexicon usages across styles throughout two lenses: human perception and machine word importance, since words differ in the strength of the stylistic cues that they provide.

511, **TITLE:** Improving Stance Detection with Multi-Dataset Learning and Knowledge Distillation

<https://www.aclweb.org/anthology/2021.emnlp-main.511>

AUTHORS: Yingjie Li, Chenye Zhao, Comelia Caragea

HIGHLIGHT: Second, we investigate the knowledge distillation in stance detection and observe that transferring knowledge from a teacher model to a student model can be beneficial in our proposed training settings.

512, **TITLE:** Discovering the Unknown Knowns: Turning Implicit Knowledge in the Dataset into Explicit Training Examples for Visual Question Answering

- <https://www.aclweb.org/anthology/2021.emnlp-main.512>
AUTHORS: Jihyung Kil, Cheng Zhang, Dong Xuan, Wei-Lun Chao
HIGHLIGHT: Building upon these insights, we present a simple data augmentation pipeline SimpleAug to turn this "known" knowledge into training examples for VQA.
- 513, TITLE: Improving Pre-trained Vision-and-Language Embeddings for Phrase Grounding
<https://www.aclweb.org/anthology/2021.emnlp-main.513>
AUTHORS: Zi-Yi Dou, Nanyun Peng
HIGHLIGHT: To this end, we propose a method to extract matched phrase-region pairs from pre-trained vision-and-language embeddings and propose four fine-tuning objectives to improve the model phrase grounding ability using image-caption data without any supervised grounding signals.
- 514, TITLE: Sequential Randomized Smoothing for Adversarially Robust Speech Recognition
<https://www.aclweb.org/anthology/2021.emnlp-main.514>
AUTHORS: Raphael Olivier, Bhiksha Raj
HIGHLIGHT: Our paper overcomes some of these challenges by leveraging speech-specific tools like enhancement and ROVER voting to design an ASR model that is robust to perturbations.
- 515, TITLE: Hitting your MARQ: Multimodal ARGument Quality Assessment in Long Debate Video
<https://www.aclweb.org/anthology/2021.emnlp-main.515>
AUTHORS: Md Kamrul Hasan, James Spann, Masum Hasan, Md Saiful Islam, Kurtis Haut, Rada Mihalcea, Ehsan Hoque
HIGHLIGHT: In this paper, we study argument quality assessment in a multimodal context, and experiment on DBATES, a publicly available dataset of long debate videos.
- 516, TITLE: Mind the Context: The Impact of Contextualization in Neural Module Networks for Grounding Visual Referring Expressions
<https://www.aclweb.org/anthology/2021.emnlp-main.516>
AUTHORS: Arjun Akula, Spandana Gella, Keze Wang, Song-Chun Zhu, Siva Reddy
HIGHLIGHT: In this work, we address these limitations and evaluate the impact of contextual clues in improving the performance of NMN models.
- 517, TITLE: Weakly-Supervised Visual-Retriever-Reader for Knowledge-based Question Answering
<https://www.aclweb.org/anthology/2021.emnlp-main.517>
AUTHORS: Man Luo, Yankai Zeng, Pratyay Banerjee, Chitta Baral
HIGHLIGHT: We introduce various ways to retrieve knowledge using text and images and two reader styles: classification and extraction.
- 518, TITLE: NDH-Full: Learning and Evaluating Navigational Agents on Full-Length Dialogue
<https://www.aclweb.org/anthology/2021.emnlp-main.518>
AUTHORS: Hyounghun Kim, Jialu Li, Mohit Bansal
HIGHLIGHT: In this paper, we explore the Navigation from Dialogue History (NDH) task, which is based on the Cooperative Vision-and-Dialogue Navigation (CVDN) dataset, and present a state-of-the-art model which is built upon Vision-Language transformers.
- 519, TITLE: Timeline Summarization based on Event Graph Compression via Time-Aware Optimal Transport
<https://www.aclweb.org/anthology/2021.emnlp-main.519>
AUTHORS: Manling Li, Tengfei Ma, Mo Yu, Lingfei Wu, Tian Gao, Heng Ji, Kathleen McKeown
HIGHLIGHT: Following a different route, we propose to represent the news articles as an event-graph, thus the summarization becomes compressing the whole graph to its salient sub-graph.
- 520, TITLE: StreamHover: Livestream Transcript Summarization and Annotation
<https://www.aclweb.org/anthology/2021.emnlp-main.520>
AUTHORS: Sangwoo Cho, Franck Demoncourt, Tim Ganter, Trung Bui, Nedim Lipka, Walter Chang, Hailin Jin, Jonathan Brandt, Hassan Foroosh, Fei Liu
HIGHLIGHT: In this paper, we present StreamHover, a framework for annotating and summarizing livestream transcripts.
- 521, TITLE: Cross-Register Projection for Headline Part of Speech Tagging
<https://www.aclweb.org/anthology/2021.emnlp-main.521>
AUTHORS: Adrian Benton, Hanyang Li, Igor Malioutov
HIGHLIGHT: In this work, we automatically annotate news headlines with POS tags by projecting predicted tags from corresponding sentences in news bodies.

- 522, TITLE: Editing Factual Knowledge in Language Models
<https://www.aclweb.org/anthology/2021.emnlp-main.522>
AUTHORS: Nicola De Cao, Wilker Aziz, Ivan Titov
HIGHLIGHT: We present KnowledgeEditor, a method which can be used to edit this knowledge and, thus, fix 'bugs' or unexpected predictions without the need for expensive re-training or fine-tuning.
- 523, TITLE: Sparse Attention with Linear Units
<https://www.aclweb.org/anthology/2021.emnlp-main.523>
AUTHORS: Biao Zhang, Ivan Titov, Rico Sennrich
HIGHLIGHT: In this work, we introduce a novel, simple method for achieving sparsity in attention: we replace the softmax activation with a , and show that sparsity naturally emerges from such a formulation.
- 524, TITLE: Knowledge Base Completion Meets Transfer Learning
<https://www.aclweb.org/anthology/2021.emnlp-main.524>
AUTHORS: Vid Kocijan, Thomas Lukasiewicz
HIGHLIGHT: In this work, we introduce the first approach for transfer of knowledge from one collection of facts to another without the need for entity or relation matching.
- 525, TITLE: SPECTRA: Sparse Structured Text Rationalization
<https://www.aclweb.org/anthology/2021.emnlp-main.525>
AUTHORS: Nuno M. Guerreiro, Andr? F. T. Martins
HIGHLIGHT: In this paper, we present a unified framework for deterministic extraction of structured explanations via constrained inference on a factor graph, forming a differentiable layer.
- 526, TITLE: Towards Zero-Shot Knowledge Distillation for Natural Language Processing
<https://www.aclweb.org/anthology/2021.emnlp-main.526>
AUTHORS: Ahmad Rashid, Vasileios Lioutas, Abbas Ghaddar, Mehdi Rezagholizadeh
HIGHLIGHT: We present, to the best of our knowledge, the first work on Zero-shot Knowledge Distillation for NLP, where the student learns from the much larger teacher without any task specific data.
- 527, TITLE: Adversarial Regularization as Stackelberg Game: An Unrolled Optimization Approach
<https://www.aclweb.org/anthology/2021.emnlp-main.527>
AUTHORS: Simiao Zuo, Chen Liang, Haoming Jiang, Xiaodong Liu, Pengcheng He, Jianfeng Gao, Weizhu Chen, Tuo Zhao
HIGHLIGHT: To address this issue, we propose Stackelberg Adversarial Regularization (SALT), which formulates adversarial regularization as a Stackelberg game.
- 528, TITLE: Aspect-Controllable Opinion Summarization
<https://www.aclweb.org/anthology/2021.emnlp-main.528>
AUTHORS: Reinald Kim Amplayo, Stefanos Angelidis, Mirella Lapata
HIGHLIGHT: In this paper, we propose an approach that allows the generation of customized summaries based on aspect queries (e.g., describing the location and room of a hotel).
- 529, TITLE: QuestEval: Summarization Asks for Fact-based Evaluation
<https://www.aclweb.org/anthology/2021.emnlp-main.529>
AUTHORS: Thomas Scialom, Paul-Alexis Dray, Sylvain Lamprier, Benjamin Piwowarski, Jacopo Staiano, Alex Wang, Patrick Gallinari
HIGHLIGHT: In this paper, we extend previous approaches and propose a unified framework, named QuestEval.
- 530, TITLE: Simple Conversational Data Augmentation for Semi-supervised Abstractive Dialogue Summarization
<https://www.aclweb.org/anthology/2021.emnlp-main.530>
AUTHORS: Jiaao Chen, Diyi Yang
HIGHLIGHT: To reduce the dependence on labeled summaries, in this work, we present a simple yet effective set of Conversational Data Augmentation (CODA) methods for semi-supervised abstractive conversation summarization, such as random swapping/deletion to perturb the discourse relations inside conversations, dialogue-acts-guided insertion to interrupt the development of conversations, and conditional-generation-based substitution to substitute utterances with their paraphrases generated based on the conversation context.
- 531, TITLE: Finding a Balanced Degree of Automation for Summary Evaluation

<https://www.aclweb.org/anthology/2021.emnlp-main.531>

AUTHORS: Shiyue Zhang, Mohit Bansal

HIGHLIGHT: In this work, we propose flexible semiautomatic to automatic summary evaluation metrics, following the Pyramid human evaluation method.

532, TITLE: CLIFF: Contrastive Learning for Improving Faithfulness and Factuality in Abstractive Summarization

<https://www.aclweb.org/anthology/2021.emnlp-main.532>

AUTHORS: Shuyang Cao, Lu Wang

HIGHLIGHT: We study generating abstractive summaries that are faithful and factually consistent with the given articles.

533, TITLE: Multilingual Unsupervised Neural Machine Translation with Denoising Adapters

<https://www.aclweb.org/anthology/2021.emnlp-main.533>

AUTHORS: Ahmet ?st?n, Alexandre Berard, Laurent Besacier, Matthias Gall?

HIGHLIGHT: In this paper we propose instead to use _denoising adapters_, adapter layers with a denoising objective, on top of pre-trained mBART-50.

534, TITLE: BERT, mBERT, or BiBERT? A Study on Contextualized Embeddings for Neural Machine Translation

<https://www.aclweb.org/anthology/2021.emnlp-main.534>

AUTHORS: Haoran Xu, Benjamin Van Durme, Kenton Murray

HIGHLIGHT: In this paper, we demonstrate that simply using the output (contextualized embeddings) of a tailored and suitable bilingual pre-trained language model (dubbed BiBERT) as the input of the NMT encoder achieves state-of-the-art translation performance.

535, TITLE: Controlling Machine Translation for Multiple Attributes with Additive Interventions

<https://www.aclweb.org/anthology/2021.emnlp-main.535>

AUTHORS: Andrea Schioppa, David Vilar, Artem Sokolov, Katja Filippova

HIGHLIGHT: We address these problems by introducing vector-valued interventions which allow for fine-grained control over multiple attributes simultaneously via a weighted linear combination of the corresponding vectors.

536, TITLE: A Generative Framework for Simultaneous Machine Translation

<https://www.aclweb.org/anthology/2021.emnlp-main.536>

AUTHORS: Yishu Miao, Phil Blunsom, Lucia Specia

HIGHLIGHT: We propose a generative framework for simultaneous machine translation.

537, TITLE: It Is Not As Good As You Think! Evaluating Simultaneous Machine Translation on Interpretation Data

<https://www.aclweb.org/anthology/2021.emnlp-main.537>

AUTHORS: Jinning Zhao, Philip Arthur, Gholamreza Haffari, Trevor Cohn, Ehsan Shareghi

HIGHLIGHT: In the absence of interpretation training data, we propose a translation-to-interpretation (T2I) style transfer method which allows converting existing offline translations into interpretation-style data, leading to up-to 2.8 BLEU improvement.

538, TITLE: Boosting Cross-Lingual Transfer via Self-Learning with Uncertainty Estimation

<https://www.aclweb.org/anthology/2021.emnlp-main.538>

AUTHORS: Liyan Xu, Xuchao Zhang, Xujiang Zhao, Haifeng Chen, Feng Chen, Jinho D. Choi

HIGHLIGHT: In this work, we propose a self-learning framework that further utilizes unlabeled data of target languages, combined with uncertainty estimation in the process to select high-quality silver labels.

539, TITLE: Levenshtein Training for Word-level Quality Estimation

<https://www.aclweb.org/anthology/2021.emnlp-main.539>

AUTHORS: Shuoyang Ding, Marcin Junczys-Dowmunt, Matt Post, Philipp Koehn

HIGHLIGHT: We propose a novel scheme to use the Levenshtein Transformer to perform the task of word-level quality estimation.

540, TITLE: Interactive Machine Comprehension with Dynamic Knowledge Graphs

<https://www.aclweb.org/anthology/2021.emnlp-main.540>

AUTHORS: Xingdi Yuan

HIGHLIGHT: We describe methods that dynamically build and update these graphs during information gathering, as well as neural models to encode graph representations in RL agents.

541, TITLE: Residual Adapters for Parameter-Efficient ASR Adaptation to Atypical and Accented Speech

<https://www.aclweb.org/anthology/2021.emnlp-main.541>

AUTHORS: Katrin Tomanek, Vicky Zayats, Dirk Padfield, Kara Vaillancourt, Fadi Biadsy
HIGHLIGHT: We show that by adding a relatively small number of extra parameters to the encoder layers via so-called residual adapter, we can achieve similar adaptation gains compared to model fine-tuning, while only updating a tiny fraction (less than 0.5%) of the model parameters.

542, TITLE: Visual News: Benchmark and Challenges in News Image Captioning
<https://www.aclweb.org/anthology/2021.emnlp-main.542>
AUTHORS: Fuxiao Liu, Yinghan Wang, Tianlu Wang, Vicente Ordonez
HIGHLIGHT: We propose Visual News Captioner, an entity-aware model for the task of news image captioning.

543, TITLE: Integrating Visuospatial, Linguistic, and Commonsense Structure into Story Visualization
<https://www.aclweb.org/anthology/2021.emnlp-main.543>
AUTHORS: Adyasha Maharana, Mohit Bansal
HIGHLIGHT: In this paper, we first explore the use of constituency parse trees using a Transformer-based recurrent architecture for encoding structured input. Second, we augment the structured input with commonsense information and study the impact of this external knowledge on the generation of visual story. Third, we also incorporate visual structure via bounding boxes and dense captioning to provide feedback about the characters/objects in generated images within a dual learning setup.

544, TITLE: VideoCLIP: Contrastive Pre-training for Zero-shot Video-Text Understanding
<https://www.aclweb.org/anthology/2021.emnlp-main.544>
AUTHORS: Hu Xu, Gargi Ghosh, Po-Yao Huang, Dmytro Okhonko, Armen Aghajanyan, Florian Metze, Luke Zettlemoyer, Christoph Feichtenhofer
HIGHLIGHT: We present VideoCLIP, a contrastive approach to pre-train a unified model for zero-shot video and text understanding, without using any labels on downstream tasks.

545, TITLE: NewsCLIPPings: Automatic Generation of Out-of-Context Multimodal Media
<https://www.aclweb.org/anthology/2021.emnlp-main.545>
AUTHORS: Grace Luo, Trevor Darrell, Anna Rohrbach
HIGHLIGHT: We introduce several strategies for automatically retrieving convincing images for a given caption, capturing cases with inconsistent entities or semantic context.

546, TITLE: Powering Comparative Classification with Sentiment Analysis via Domain Adaptive Knowledge Transfer
<https://www.aclweb.org/anthology/2021.emnlp-main.546>
AUTHORS: Zeyu Li, Yilong Qin, Zihan Liu, Wei Wang
HIGHLIGHT: We propose Sentiment Analysis Enhanced COMparative Network (SAECON) which improves CPC accuracy with a sentiment analyzer that learns sentiments to individual entities via domain adaptive knowledge transfer.

547, TITLE: Tribrid: Stance Classification with Neural Inconsistency Detection
<https://www.aclweb.org/anthology/2021.emnlp-main.547>
AUTHORS: Song Yang, Jacopo Urbani
HIGHLIGHT: To improve the performance, we present a new neural architecture where the input also includes automatically generated negated perspectives over a given claim.

548, TITLE: SYSML: Stylometry with Structure and Multitask Learning: Implications for Darknet Forum Migrant Analysis
<https://www.aclweb.org/anthology/2021.emnlp-main.548>
AUTHORS: Pranav Maneriker, Yuntian He, Srinivasan Parthasarathy
HIGHLIGHT: We develop a novel stylometry-based multitask learning approach for natural language and model interactions using graph embeddings to construct low-dimensional representations of short episodes of user activity for authorship attribution.

549, TITLE: Few-Shot Emotion Recognition in Conversation with Sequential Prototypical Networks
<https://www.aclweb.org/anthology/2021.emnlp-main.549>
AUTHORS: Ga?l Guibon, Matthieu Labeau, H?!?ne Flamein, Luce Lefeuvre, Chlo? Clavel
HIGHLIGHT: In this work, we place ourselves in the scope of a live chat customer service in which we want to detect emotions and their evolution in the conversation flow.

550, TITLE: CLASSIC: Continual and Contrastive Learning of Aspect Sentiment Classification Tasks
<https://www.aclweb.org/anthology/2021.emnlp-main.550>
AUTHORS: Zixuan Ke, Bing Liu, Hu Xu, Lei Shu
HIGHLIGHT: The key novelty is a contrastive continual learning method that enables both knowledge transfer across tasks and knowledge distillation from old tasks to the new task, which eliminates the need for task ids in testing.

- 551, TITLE: Implicit Sentiment Analysis with Event-centered Text Representation
<https://www.aclweb.org/anthology/2021.emnlp-main.551>
AUTHORS: Deyu Zhou, Jianan Wang, Linhai Zhang, Yulan He
HIGHLIGHT: In this paper, we focus on event-centric implicit sentiment analysis that utilizes the sentiment-aware event contained in a sentence to infer its sentiment polarity.
- 552, TITLE: SimCSE: Simple Contrastive Learning of Sentence Embeddings
<https://www.aclweb.org/anthology/2021.emnlp-main.552>
AUTHORS: Tianyu Gao, Xingcheng Yao, Danqi Chen
HIGHLIGHT: This paper presents SimCSE, a simple contrastive learning framework that greatly advances the state-of-the-art sentence embeddings.
- 553, TITLE: When is Wall a Pared and when a Muro?: Extracting Rules Governing Lexical Selection
<https://www.aclweb.org/anthology/2021.emnlp-main.553>
AUTHORS: Aditi Chaudhary, Kayo Yin, Antonios Anastasopoulos, Graham Neubig
HIGHLIGHT: In this work, we present a method for automatically identifying fine-grained lexical distinctions, and extracting rules explaining these distinctions in a human- and machine-readable format.
- 554, TITLE: Aligning Actions Across Recipe Graphs
<https://www.aclweb.org/anthology/2021.emnlp-main.554>
AUTHORS: Lucia Donatelli, Theresa Schmidt, Debanjali Biswas, Arne Kohn, Fangzhou Zhai, Alexander Koller
HIGHLIGHT: We present a novel and fully-parsed English recipe corpus, ARA (Aligned Recipe Actions), which annotates correspondences between individual actions across similar recipes with the goal of capturing information implicit for accurate recipe understanding.
- 555, TITLE: Generating Datasets with Pretrained Language Models
<https://www.aclweb.org/anthology/2021.emnlp-main.555>
AUTHORS: Timo Schick, Hinrich Schütze
HIGHLIGHT: In this paper, we show how PLMs can be leveraged to obtain high-quality sentence embeddings without the need for labeled data, finetuning or modifications to the pretraining objective: We utilize the generative abilities of large and high-performing PLMs to generate entire datasets of labeled text pairs from scratch, which we then use for finetuning much smaller and more efficient models.
- 556, TITLE: Continuous Entailment Patterns for Lexical Inference in Context
<https://www.aclweb.org/anthology/2021.emnlp-main.556>
AUTHORS: Martin Schmitt, Hinrich Schütze
HIGHLIGHT: Contrasting patterns where a "token" can be any continuous vector from those where a discrete choice between vocabulary elements has to be made, we call our method CONTinuous pAtterNs (CONAN).
- 557, TITLE: Numeracy enhances the Literacy of Language Models
<https://www.aclweb.org/anthology/2021.emnlp-main.557>
AUTHORS: Avijit Thawani, Jay Pujara, Filip Ilievski
HIGHLIGHT: This paper studies the effect of using six different number encoders on the task of masked word prediction (MWP), as a proxy for evaluating literacy.
- 558, TITLE: Students Who Study Together Learn Better: On the Importance of Collective Knowledge Distillation for Domain Transfer in Fact Verification
<https://www.aclweb.org/anthology/2021.emnlp-main.558>
AUTHORS: Mitch Paul Mithun, Sandeep Suntwal, Mihai Surdeanu
HIGHLIGHT: We propose Group Learning, a knowledge and model distillation approach for fact verification in which multiple student models have access to different delexicalized views of the data, but are encouraged to learn from each other through pair-wise consistency losses.
- 559, TITLE: MultiEURLEX - A multi-lingual and multi-label legal document classification dataset for zero-shot cross-lingual transfer
<https://www.aclweb.org/anthology/2021.emnlp-main.559>
AUTHORS: Ilias Chalkidis, Manos Fergadiotis, Ion Androutsopoulos
HIGHLIGHT: We introduce MULTI-EURLEX, a new multilingual dataset for topic classification of legal documents.
- 560, TITLE: Joint Passage Ranking for Diverse Multi-Answer Retrieval

<https://www.aclweb.org/anthology/2021.emnlp-main.560>

AUTHORS: Sewon Min, Kenton Lee, Ming-Wei Chang, Kristina Toutanova, Hannaneh Hajishirzi
HIGHLIGHT: In this paper, we introduce JPR, a joint passage retrieval model focusing on reranking.

561, TITLE: Generative Context Pair Selection for Multi-hop Question Answering

<https://www.aclweb.org/anthology/2021.emnlp-main.561>

AUTHORS: Dheeru Dua, Cicero Nogueira dos Santos, Patrick Ng, Ben Athiwaratkun, Bing Xiang, Matt Gardner, Sameer Singh

HIGHLIGHT: We propose a generative context selection model for multi-hop QA that reasons about how the given question could have been generated given a context pair and not just independent contexts.

562, TITLE: Synthetic Data Augmentation for Zero-Shot Cross-Lingual Question Answering

<https://www.aclweb.org/anthology/2021.emnlp-main.562>

AUTHORS: Arij Riabi, Thomas Scialom, Rachel Keraron, Beno?t Sagot, Djam? Seddah, Jacopo Staiano

HIGHLIGHT: We propose a method to improve the Cross-lingual Question Answering performance without requiring additional annotated data, leveraging Question Generation models to produce synthetic samples in a cross-lingual fashion.

563, TITLE: Have You Seen That Number? Investigating Extrapolation in Question Answering Models

<https://www.aclweb.org/anthology/2021.emnlp-main.563>

AUTHORS: Jeonghwan Kim, Giwon Hong, Kyung-min Kim, Junmo Kang, Sung-Hyon Myaeng

HIGHLIGHT: Our work rigorously tests state-of-the-art models on DROP, a numerical MRC dataset, to see if they can handle passages that contain out-of-range numbers.

564, TITLE: Surface Form Competition: Why the Highest Probability Answer Isn't Always Right

<https://www.aclweb.org/anthology/2021.emnlp-main.564>

AUTHORS: Ari Holtzman, Peter West, Vered Shwartz, Yejin Choi, Luke Zettlemoyer

HIGHLIGHT: We introduce Domain Conditional Pointwise Mutual Information, an alternative scoring function that directly compensates for surface form competition by simply reweighing each option according to its a priori likelihood within the context of a specific task.

565, TITLE: Entity-Based Knowledge Conflicts in Question Answering

<https://www.aclweb.org/anthology/2021.emnlp-main.565>

AUTHORS: Shayne Longpre, Kartik Perisetla, Anthony Chen, Nikhil Ramesh, Chris DuBois, Sameer Singh

HIGHLIGHT: To understand how models use these sources together, we formalize the problem of knowledge conflicts, where the contextual information contradicts the learned information.

566, TITLE: Back-Training excels Self-Training at Unsupervised Domain Adaptation of Question Generation and Passage Retrieval

<https://www.aclweb.org/anthology/2021.emnlp-main.566>

AUTHORS: Devang Kulshreshtha, Robert Belfer, Iulian Vlad Serban, Siva Reddy

HIGHLIGHT: In this work, we introduce back-training, an alternative to self-training for unsupervised domain adaptation (UDA).

567, TITLE: DWUG: A large Resource of Diachronic Word Usage Graphs in Four Languages

<https://www.aclweb.org/anthology/2021.emnlp-main.567>

AUTHORS: Dominik Schlechtweg, Nina Tahmasebi, Simon Hengchen, Haim Dubossarsky, Barbara McGillivray

HIGHLIGHT: In this paper, we describe the creation of the largest resource of graded contextualized, diachronic word meaning annotation in four different languages, based on 100,000 human semantic proximity judgments.

568, TITLE: I Wish I Would Have Loved This One, But I Didn't - A Multilingual Dataset for Counterfactual Detection in Product Review

<https://www.aclweb.org/anthology/2021.emnlp-main.568>

AUTHORS: James O'Neill, Polina Rozenshtein, Ryuichi Kiryo, Motoko Kubota, Danushka Bollegala

HIGHLIGHT: We consider the problem of counterfactual detection (CFD) in product reviews.

569, TITLE: Does It Capture STEL? A Modular, Similarity-based Linguistic Style Evaluation Framework

<https://www.aclweb.org/anthology/2021.emnlp-main.569>

AUTHORS: Anna Wegmann, Dong Nguyen

HIGHLIGHT: We propose the modular, fine-grained and content-controlled similarity-based STyle EvaLuation framework (STEL) to test the performance of any model that can compare two sentences on style.

- 570, TITLE: Evaluating the Morphosyntactic Well-formedness of Generated Texts
<https://www.aclweb.org/anthology/2021.emnlp-main.570>
AUTHORS: Adithya Pratapa, Antonios Anastasopoulos, Shruti Rijhwani, Aditi Chaudhary, David R. Mortensen, Graham Neubig, Yulia Tsvetkov
HIGHLIGHT: In this paper, we propose L'AMBRE - a metric to evaluate the morphosyntactic well-formedness of text using its dependency parse and morphosyntactic rules of the language.
- 571, TITLE: AM2iCo: Evaluating Word Meaning in Context across Low-Resource Languages with Adversarial Examples
<https://www.aclweb.org/anthology/2021.emnlp-main.571>
AUTHORS: Qianchu Liu, Edoardo Maria Ponti, Diana McCarthy, Ivan Vulic, Anna Korhonen
HIGHLIGHT: In order to address these gaps, we present AM2iCo (Adversarial and Multilingual Meaning in Context), a wide-coverage cross-lingual and multilingual evaluation set; it aims to faithfully assess the ability of state-of-the-art (SotA) representation models to understand the identity of word meaning in cross-lingual contexts for 14 language pairs.
- 572, TITLE: CrossFit: A Few-shot Learning Challenge for Cross-task Generalization in NLP
<https://www.aclweb.org/anthology/2021.emnlp-main.572>
AUTHORS: Qinyuan Ye, Bill Yuchen Lin, Xiang Ren
HIGHLIGHT: In this paper, we explore whether and how such cross-task generalization ability can be acquired, and further applied to build better few-shot learners across diverse NLP tasks.
- 573, TITLE: On the Influence of Masking Policies in Intermediate Pre-training
<https://www.aclweb.org/anthology/2021.emnlp-main.573>
AUTHORS: Qinyuan Ye, Belinda Z. Li, Sinong Wang, Benjamin Bolte, Hao Ma, Wen-tau Yih, Xiang Ren, Madian Khabsa
HIGHLIGHT: In this paper, we perform a large-scale empirical study to investigate the effect of various masking policies in intermediate pre-training with nine selected tasks across three categories.
- 574, TITLE: ValNorm Quantifies Semantics to Reveal Consistent Valence Biases Across Languages and Over Centuries
<https://www.aclweb.org/anthology/2021.emnlp-main.574>
AUTHORS: Autumn Toney, Aylin Caliskan
HIGHLIGHT: By extending methods that quantify human-like biases in word embeddings, we introduce ValNorm, a novel intrinsic evaluation task and method to quantify the valence dimension of affect in human-rated word sets from social psychology.
- 575, TITLE: Perturbation CheckLists for Evaluating NLG Evaluation Metrics
<https://www.aclweb.org/anthology/2021.emnlp-main.575>
AUTHORS: Ananya B. Sai, Tanay Dixit, Dev Yashpal Sheth, Sreyas Mohan, Mitesh M. Khapra
HIGHLIGHT: Given this situation, we propose CheckLists for better design and evaluation of automatic metrics.
- 576, TITLE: Robust Open-Vocabulary Translation from Visual Text Representations
<https://www.aclweb.org/anthology/2021.emnlp-main.576>
AUTHORS: Elizabeth Salesky, David Etter, Matt Post
HIGHLIGHT: Motivated by the robustness of human language processing, we propose the use of visual text representations, which dispense with a finite set of text embeddings in favor of continuous vocabularies created by processing visually rendered text with sliding windows.
- 577, TITLE: Don't Go Far Off: An Empirical Study on Neural Poetry Translation
<https://www.aclweb.org/anthology/2021.emnlp-main.577>
AUTHORS: Tuhin Chakrabarty, Arkadiy Saakyan, Smaranda Muresan
HIGHLIGHT: We present an empirical investigation for poetry translation along several dimensions: 1) size and style of training data (poetic vs. non-poetic), including a zero-shot setup; 2) bilingual vs. multilingual learning; and 3) language-family-specific models vs. mixed-language-family models.
- 578, TITLE: Improving Multilingual Translation by Representation and Gradient Regularization
<https://www.aclweb.org/anthology/2021.emnlp-main.578>
AUTHORS: Yilin Yang, Akiko Eriguchi, Alexandre Muzio, Prasad Tadepalli, Stefan Lee, Hany Hassan
HIGHLIGHT: To address this issue, we propose a joint approach to regularize NMT models at both representation-level and gradient-level.
- 579, TITLE: Learning Kernel-Smoothed Machine Translation with Retrieved Examples
<https://www.aclweb.org/anthology/2021.emnlp-main.579>
AUTHORS: Qingnan Jiang, Mingxuan Wang, Jun Cao, Shanbo Cheng, Shujian Huang, Lei Li

HIGHLIGHT: In this work, we propose to learn Kernel-Smoothed Translation with Example Retrieval (KSTER), an effective approach to adapt neural machine translation models online.

580, **TITLE:** Uncertainty-Aware Balancing for Multilingual and Multi-Domain Neural Machine Translation Training
<https://www.aclweb.org/anthology/2021.emnlp-main.580>
AUTHORS: Minghao Wu, Yitong Li, Meng Zhang, Liangyou Li, Gholamreza Haffari, Qun Liu
HIGHLIGHT: In this work, we propose an approach, MultiUAT, that dynamically adjusts the training data usage based on the model's uncertainty on a small set of trusted clean data for multi-corpus machine translation.

581, **TITLE:** Universal Simultaneous Machine Translation with Mixture-of-Experts Wait-k Policy
<https://www.aclweb.org/anthology/2021.emnlp-main.581>
AUTHORS: Shaolei Zhang, Yang Feng
HIGHLIGHT: In this paper, we propose a universal SiMT model with Mixture-of-Experts Wait-k Policy to achieve the best translation quality under arbitrary latency with only one trained model.

582, **TITLE:** How much coffee was consumed during EMNLP 2019? Fermi Problems: A New Reasoning Challenge for AI
<https://www.aclweb.org/anthology/2021.emnlp-main.582>
AUTHORS: Ashwin Kalyan, Abhinav Kumar, Arjun Chandrasekaran, Ashish Sabharwal, Peter Clark
HIGHLIGHT: To help advance AI systems towards such capabilities, we propose a new reasoning challenge, namely Fermi Problems (FPs), which are questions whose answers can only be approximately estimated because their precise computation is either impractical or impossible.

583, **TITLE:** Will this Question be Answered? Question Filtering via Answer Model Distillation for Efficient Question Answering
<https://www.aclweb.org/anthology/2021.emnlp-main.583>
AUTHORS: Siddhant Garg, Alessandro Moschitti
HIGHLIGHT: In this paper we propose a novel approach towards improving the efficiency of Question Answering (QA) systems by filtering out questions that will not be answered by them.

584, **TITLE:** Learning with Instance Bundles for Reading Comprehension
<https://www.aclweb.org/anthology/2021.emnlp-main.584>
AUTHORS: Dheeru Dua, Pradeep Dasigi, Sameer Singh, Matt Gardner
HIGHLIGHT: Drawing on ideas from contrastive estimation, we introduce several new supervision losses that compare question-answer scores across multiple related instances.

585, **TITLE:** Explaining Answers with Entailment Trees
<https://www.aclweb.org/anthology/2021.emnlp-main.585>
AUTHORS: Bhavana Dalvi, Peter Jansen, Oyvind Tafjord, Zhengnan Xie, Hannah Smith, Leighanna Pipatanangkura, Peter Clark
HIGHLIGHT: Our goal, in the context of open-domain textual question-answering (QA), is to explain answers by showing the line of reasoning from what is known to the answer, rather than simply showing a fragment of textual evidence (a "rationale").

586, **TITLE:** SituatedQA: Incorporating Extra-Linguistic Contexts into QA
<https://www.aclweb.org/anthology/2021.emnlp-main.586>
AUTHORS: Michael Zhang, Eunsol Choi
HIGHLIGHT: To study this challenge, we introduce SituatedQA, an open-retrieval QA dataset where systems must produce the correct answer to a question given the temporal or geographical context.

587, **TITLE:** ConvAbuse: Data, Analysis, and Benchmarks for Nuanced Detection in Conversational AI
<https://www.aclweb.org/anthology/2021.emnlp-main.587>
AUTHORS: Amanda Cercas Curry, Gavin Abercrombie, Verena Rieser
HIGHLIGHT: We present the first English corpus study on abusive language towards three conversational AI systems gathered 'in the wild': an open-domain social bot, a rule-based chatbot, and a task-based system.

588, **TITLE:** Conversational Multi-Hop Reasoning with Neural Commonsense Knowledge and Symbolic Logic Rules
<https://www.aclweb.org/anthology/2021.emnlp-main.588>
AUTHORS: Forough Arabshahi, Jennifer Lee, Antoine Bosselut, Yejin Choi, Tom Mitchell
HIGHLIGHT: In this paper, we propose a zero-shot commonsense reasoning system for conversational agents in an attempt to achieve this.

- 589, TITLE: Towards Automatic Evaluation of Dialog Systems: A Model-Free Off-Policy Evaluation Approach
<https://www.aclweb.org/anthology/2021.emnlp-main.589>
AUTHORS: Haoming Jiang, Bo Dai, Mengjiao Yang, Tuo Zhao, Wei Wei
HIGHLIGHT: To bridge such a gap, we propose a new framework named ENIGMA for estimating human evaluation scores based on recent advances of off-policy evaluation in reinforcement learning.
- 590, TITLE: Continual Learning in Task-Oriented Dialogue Systems
<https://www.aclweb.org/anthology/2021.emnlp-main.590>
AUTHORS: Andrea Madotto, Zhaojiang Lin, Zhenpeng Zhou, Seungwhan Moon, Paul Crook, Bing Liu, Zhou Yu, Eunjoon Cho, Pascale Fung, Zhiguang Wang
HIGHLIGHT: In this paper, we propose a first-ever continual learning benchmark for task-oriented dialogue systems with 37 domains to be learned continuously in both modularized and end-to-end learning settings.
- 591, TITLE: Multilingual and Cross-Lingual Intent Detection from Spoken Data
<https://www.aclweb.org/anthology/2021.emnlp-main.591>
AUTHORS: Daniela Gerz, Pei-Hao Su, Razvan Kusztos, Avishek Mondal, Michal Lis, Eshan Singhal, Nikola Mrk?ic, Tsung-Hsien Wen, Ivan Vulic
HIGHLIGHT: We present a systematic study on multilingual and cross-lingual intent detection (ID) from spoken data.
- 592, TITLE: Investigating Robustness of Dialog Models to Popular Figurative Language Constructs
<https://www.aclweb.org/anthology/2021.emnlp-main.592>
AUTHORS: Harsh Jhamtani, Varun Gangal, Eduard Hovy, Taylor Berg-Kirkpatrick
HIGHLIGHT: In this work, we analyze the performance of existing dialog models in situations where the input dialog context exhibits use of figurative language.
- 593, TITLE: Effective Sequence-to-Sequence Dialogue State Tracking
<https://www.aclweb.org/anthology/2021.emnlp-main.593>
AUTHORS: Jeffrey Zhao, Mahdis Mahdih, Ye Zhang, Yuan Cao, Yonghui Wu
HIGHLIGHT: In this paper, we study this problem from the perspectives of pre-training objectives as well as the formats of context representations.
- 594, TITLE: MS²: Multi-Document Summarization of Medical Studies
<https://www.aclweb.org/anthology/2021.emnlp-main.594>
AUTHORS: Jay DeYoung, Iz Beltagy, Madeleine van Zuylen, Bailey Kuehl, Lucy Wang
HIGHLIGHT: In support of this goal, we release MS² (Multi-Document Summarization of Medical Studies), a dataset of over 470k documents and 20K summaries derived from the scientific literature.
- 595, TITLE: CLIPScore: A Reference-free Evaluation Metric for Image Captioning
<https://www.aclweb.org/anthology/2021.emnlp-main.595>
AUTHORS: Jack Hessel, Ari Holtzman, Maxwell Forbes, Ronan Le Bras, Yejin Choi
HIGHLIGHT: In this paper, we report the surprising empirical finding that CLIP (Radford et al., 2021), a cross-modal model pretrained on 400M image+caption pairs from the web, can be used for robust automatic evaluation of image captioning without the need for references.
- 596, TITLE: On the Challenges of Evaluating Compositional Explanations in Multi-Hop Inference: Relevance, Completeness, and Expert Ratings
<https://www.aclweb.org/anthology/2021.emnlp-main.596>
AUTHORS: Peter Jansen, Kelly J. Smith, Dan Moreno, Huitzililn Ortiz
HIGHLIGHT: To address this, we construct a large corpus of 126k domain-expert (science teacher) relevance ratings that augment a corpus of explanations to standardized science exam questions, discovering 80k additional relevant facts not rated as gold.
- 597, TITLE: ESTER: A Machine Reading Comprehension Dataset for Reasoning about Event Semantic Relations
<https://www.aclweb.org/anthology/2021.emnlp-main.597>
AUTHORS: Rujun Han, I-Hung Hsu, Jiao Sun, Julia Baylon, Qiang Ning, Dan Roth, Nanyun Peng
HIGHLIGHT: To facilitate these tasks, we introduce **ESTER**, a comprehensive machine reading comprehension (MRC) dataset for Event Semantic Relation Reasoning.
- 598, TITLE: RICA: Evaluating Robust Inference Capabilities Based on Commonsense Axioms
<https://www.aclweb.org/anthology/2021.emnlp-main.598>
AUTHORS: Pei Zhou, Rahul Khanna, Seyeon Lee, Bill Yuchen Lin, Daniel Ho, Jay Pujara, Xiang Ren

HIGHLIGHT: In the pursuit of advancing fluid human-AI communication, we propose a new challenge, RICA: Robust Inference using Commonsense Axioms, that evaluates robust commonsense inference despite textual perturbations.

599, **TITLE:** Compression, Transduction, and Creation: A Unified Framework for Evaluating Natural Language Generation
<https://www.aclweb.org/anthology/2021.emnlp-main.599>

AUTHORS: Mingkai Deng, Bowen Tan, Zhengzhong Liu, Eric Xing, Zhiting Hu

HIGHLIGHT: In this paper, we propose a unifying perspective based on the nature of information change in NLG tasks, including compression (e.g., summarization), transduction (e.g., text rewriting), and creation (e.g., dialog).

600, **TITLE:** MATE: Multi-view Attention for Table Transformer Efficiency

<https://www.aclweb.org/anthology/2021.emnlp-main.600>

AUTHORS: Julian Eisenschlos, Maharshi Gor, Thomas M?ller, William Cohen

HIGHLIGHT: This work presents a sparse-attention Transformer architecture for modeling documents that contain large tables.

601, **TITLE:** Learning with Different Amounts of Annotation: From Zero to Many Labels

<https://www.aclweb.org/anthology/2021.emnlp-main.601>

AUTHORS: Shujian Zhang, Chengyue Gong, Eunsol Choi

HIGHLIGHT: Extending a MixUp data augmentation framework, we propose a learning algorithm that can learn from training examples with different amount of annotation (with zero, one, or multiple labels).

602, **TITLE:** When Attention Meets Fast Recurrence: Training Language Models with Reduced Compute

<https://www.aclweb.org/anthology/2021.emnlp-main.602>

AUTHORS: Tao Lei

HIGHLIGHT: In this work, we present SRU++, a highly-efficient architecture that combines fast recurrence and attention for sequence modeling.

603, **TITLE:** Universal-KD: Attention-based Output-Grounded Intermediate Layer Knowledge Distillation

<https://www.aclweb.org/anthology/2021.emnlp-main.603>

AUTHORS: Yimeng Wu, Mehdi Rezagholizadeh, Abbas Ghaddar, Md Akmal Haidar, Ali Ghodsi

HIGHLIGHT: To tackle the aforementioned problems all together, we propose Universal-KD to match intermediate layers of the teacher and the student in the output space (by adding pseudo classifiers on intermediate layers) via the attention-based layer projection.

604, **TITLE:** Highly Parallel Autoregressive Entity Linking with Discriminative Correction

<https://www.aclweb.org/anthology/2021.emnlp-main.604>

AUTHORS: Nicola De Cao, Wilker Aziz, Ivan Titov

HIGHLIGHT: In this work, we propose a very efficient approach that parallelizes autoregressive linking across all potential mentions and relies on a shallow and efficient decoder.

605, **TITLE:** Word-Level Coreference Resolution

<https://www.aclweb.org/anthology/2021.emnlp-main.605>

AUTHORS: Vladimir Dobrovolskii

HIGHLIGHT: We propose instead to consider coreference links between individual words rather than word spans and then reconstruct the word spans.

606, **TITLE:** A Secure and Efficient Federated Learning Framework for NLP

<https://www.aclweb.org/anthology/2021.emnlp-main.606>

AUTHORS: Chenghong Wang, Jieren Deng, Xianrui Meng, Yijue Wang, Ji Li, Sheng Lin, Shuo Han, Fei Miao, Sanguthevar Rajasekaran, Caiwen Ding

HIGHLIGHT: In this work, we consider the problem of designing secure and efficient federated learning (FL) frameworks for NLP.

607, **TITLE:** Controllable Semantic Parsing via Retrieval Augmentation

<https://www.aclweb.org/anthology/2021.emnlp-main.607>

AUTHORS: Panupong Pasupat, Yuan Zhang, Kelvin Guu

HIGHLIGHT: To this end, we propose Controllable Semantic Parser via Exemplar Retrieval (CASPER).

608, **TITLE:** Constrained Language Models Yield Few-Shot Semantic Parsers

<https://www.aclweb.org/anthology/2021.emnlp-main.608>

AUTHORS: Richard Shin, Christopher Lin, Sam Thomson, Charles Chen, Subhro Roy, Emmanouil Antonios Platanios, Adam Pauls, Dan Klein, Jason Eisner, Benjamin Van Durme
HIGHLIGHT: To bridge the gap, we use language models to paraphrase inputs into a controlled sublanguage resembling English that can be automatically mapped to a target meaning representation.

609, TITLE: ExplaGraphs: An Explanation Graph Generation Task for Structured Commonsense Reasoning
<https://www.aclweb.org/anthology/2021.emnlp-main.609>
AUTHORS: Swarnadeep Saha, Prateek Yadav, Lisa Bauer, Mohit Bansal
HIGHLIGHT: In this work, we present ExplaGraphs, a new generative and structured commonsense-reasoning task (and an associated dataset) of explanation graph generation for stance prediction.

610, TITLE: Connect-the-Dots: Bridging Semantics between Words and Definitions via Aligning Word Sense Inventories
<https://www.aclweb.org/anthology/2021.emnlp-main.610>
AUTHORS: Wenlin Yao, Xiaoman Pan, Lifeng Jin, Jianshu Chen, Dian Yu, Dong Yu
HIGHLIGHT: To address the data sparsity problem and generalize the model to be independent of one predefined inventory, we propose a gloss alignment algorithm that can align definition sentences (glosses) with the same meaning from different sense inventories to collect rich lexical knowledge.

611, TITLE: LM-Critic: Language Models for Unsupervised Grammatical Error Correction
<https://www.aclweb.org/anthology/2021.emnlp-main.611>
AUTHORS: Michihiro Yasunaga, Jure Leskovec, Percy Liang
HIGHLIGHT: In this work, we show how to leverage a pretrained language model (LM) in defining an LM-Critic, which judges a sentence to be grammatical if the LM assigns it a higher probability than its local perturbations.

612, TITLE: Language-agnostic Representation from Multilingual Sentence Encoders for Cross-lingual Similarity Estimation
<https://www.aclweb.org/anthology/2021.emnlp-main.612>
AUTHORS: Nattapong Tiyajamorn, Tomoyuki Kajiwara, Yuki Arase, Makoto Onizuka
HIGHLIGHT: We propose a method to distill a language-agnostic meaning embedding from a multilingual sentence encoder.

613, TITLE: Classifying Dyads for Militarized Conflict Analysis
<https://www.aclweb.org/anthology/2021.emnlp-main.613>
AUTHORS: Niklas Stoehr, Lucas Torroba Hennigen, Samin Ahabab, Robert West, Ryan Cotterell
HIGHLIGHT: The aim of this work is to compare these two causes in terms of how they correlate with conflict between two entities.

614, TITLE: Point-of-Interest Type Prediction using Text and Images
<https://www.aclweb.org/anthology/2021.emnlp-main.614>
AUTHORS: Danae S?nchez Villegas, Nikolaos Aletras
HIGHLIGHT: This paper presents a study on POI type prediction using multimodal information from text and images available at posting time.

615, TITLE: Come hither or go away? Recognising pre-electoral coalition signals in the news
<https://www.aclweb.org/anthology/2021.emnlp-main.615>
AUTHORS: Ines Rehbein, Simone Paolo Ponzetto, Anna Adendorf, Oke Bahnsen, Lukas Stoetzer, Heiner Stuckenschmidt
HIGHLIGHT: In this paper, we introduce the task of political coalition signal prediction from text, that is, the task of recognizing from the news coverage leading up to an election the (un)willingness of political parties to form a government coalition.

616, TITLE: #HowYouTagTweets: Learning User Hashtagging Preferences via Personalized Topic Attention
<https://www.aclweb.org/anthology/2021.emnlp-main.616>
AUTHORS: Yuji Zhang, Yubo Zhang, Chunpu Xu, Jing Li, Ziyang Jiang, Baolin Peng
HIGHLIGHT: To help people find the topics they want to discuss, this paper characterizes a user's hashtagging preferences via predicting how likely they will post with a hashtag.

617, TITLE: Learning Neural Templates for Recommender Dialogue System
<https://www.aclweb.org/anthology/2021.emnlp-main.617>
AUTHORS: Zujie Liang, Huang Hu, Can Xu, Jian Miao, Yingying He, Yining Chen, Xiubo Geng, Fan Liang, Daxin Jiang
HIGHLIGHT: To tackle these challenges, we introduce a novel framework called NTRD for recommender dialogue system that can decouple the dialogue generation from the item recommendation.

- 618, TITLE: Proxy Indicators for the Quality of Open-domain Dialogues
<https://www.aclweb.org/anthology/2021.emnlp-main.618>
AUTHORS: Rostislav Nedelchev, Jens Lehmann, Ricardo Usbeck
HIGHLIGHT: This work investigates using a deep-learning model trained on the General Language Understanding Evaluation (GLUE) benchmark to serve as a quality indication of open-domain dialogues.
- 619, TITLE: Q2: Evaluating Factual Consistency in Knowledge-Grounded Dialogues via Question Generation and Question Answering
<https://www.aclweb.org/anthology/2021.emnlp-main.619>
AUTHORS: Or Honovich, Leshem Choshen, Roei Aharoni, Ella Neeman, Idan Szpektor, Omri Abend
HIGHLIGHT: Inspired by recent work on evaluating factual consistency in abstractive summarization, we propose an automatic evaluation metric for factual consistency in knowledge-grounded dialogue using automatic question generation and question answering.
- 620, TITLE: Knowledge-Aware Graph-Enhanced GPT-2 for Dialogue State Tracking
<https://www.aclweb.org/anthology/2021.emnlp-main.620>
AUTHORS: Weizhe Lin, Bo-Hsiang Tseng, Bill Byrne
HIGHLIGHT: We present a novel hybrid architecture that augments GPT-2 with representations derived from Graph Attention Networks in such a way to allow causal, sequential prediction of slot values.
- 621, TITLE: A Collaborative Multi-agent Reinforcement Learning Framework for Dialog Action Decomposition
<https://www.aclweb.org/anthology/2021.emnlp-main.621>
AUTHORS: Huimin Wang, Kam-Fai Wong
HIGHLIGHT: To solve these problems, we model the dialog policy learning problem with a novel multi-agent framework, in which each part of the action is led by a different agent.
- 622, TITLE: Zero-Shot Dialogue State Tracking via Cross-Task Transfer
<https://www.aclweb.org/anthology/2021.emnlp-main.622>
AUTHORS: Zhaojiang Lin, Bing Liu, Andrea Madotto, Seungwhan Moon, Zhenpeng Zhou, Paul Crook, Zhiguang Wang, Zhou Yu, Eunjoon Cho, Rajen Subba, Pascale Fung
HIGHLIGHT: In this work, we propose to transfer the cross-task knowledge from general question answering (QA) corpora for the zero-shot DST task.
- 623, TITLE: Uncertainty Measures in Neural Belief Tracking and the Effects on Dialogue Policy Performance
<https://www.aclweb.org/anthology/2021.emnlp-main.623>
AUTHORS: Carel van Niekerk, Andrey Malinin, Christian Geisshauer, Michael Heck, Hsien-chin Lin, Nurul Lubis, Shutong Feng, Milica Gasic
HIGHLIGHT: We propose the use of different uncertainty measures in neural belief tracking.
- 624, TITLE: Dynamic Forecasting of Conversation Derailment
<https://www.aclweb.org/anthology/2021.emnlp-main.624>
AUTHORS: Yova Kementchedjhieva, Anders S?gaard
HIGHLIGHT: Automatically forecasting derailment in public online conversations provides an opportunity to take early action to moderate it. Previous work in this space is limited, and we extend it in several ways.
- 625, TITLE: A Semantic Filter Based on Relations for Knowledge Graph Completion
<https://www.aclweb.org/anthology/2021.emnlp-main.625>
AUTHORS: Zongwei Liang, Junan Yang, Hui Liu, Keju Huang
HIGHLIGHT: Inspired by this fact, this paper designs Semantic Filter Based on Relations(SFBR) to extract the required attributes of the entities. Then the rationality of triples is compared under these extracted attributes through the traditional embedding models.
- 626, TITLE: AdapterDrop: On the Efficiency of Adapters in Transformers
<https://www.aclweb.org/anthology/2021.emnlp-main.626>
AUTHORS: Andreas R?ckl?, Gregor Geigle, Max Glockner, Tilman Beck, Jonas Pfeiffer, Nils Reimers, Iryna Gurevych
HIGHLIGHT: In this paper, we propose AdapterDrop, removing adapters from lower transformer layers during training and inference, which incorporates concepts from all three directions.
- 627, TITLE: Understanding and Overcoming the Challenges of Efficient Transformer Quantization
<https://www.aclweb.org/anthology/2021.emnlp-main.627>
AUTHORS: Yelysei Bondarenko, Markus Nagel, Tijmen Blankevoort

HIGHLIGHT: In this work, we explore quantization for transformers.

628, TITLE: CAPE: Context-Aware Private Embeddings for Private Language Learning

<https://www.aclweb.org/anthology/2021.emnlp-main.628>

AUTHORS: Richard Plant, Dimitra Gkatzia, Valerio Giuffrida

HIGHLIGHT: To ameliorate this issue, we propose Context-Aware Private Embeddings (CAPE), a novel approach which combines differential privacy and adversarial learning to preserve privacy during training of embeddings.

629, TITLE: Text Detoxification using Large Pre-trained Neural Models

<https://www.aclweb.org/anthology/2021.emnlp-main.629>

AUTHORS: David Dale, Anton Voronov, Daryna Dementieva, Varvara Logacheva, Olga Kozlova, Nikita Semenov, Alexander Panchenko

HIGHLIGHT: We present two novel unsupervised methods for eliminating toxicity in text.

630, TITLE: Document-Level Text Simplification: Dataset, Criteria and Baseline

<https://www.aclweb.org/anthology/2021.emnlp-main.630>

AUTHORS: Renliang Sun, Hanqi Jin, Xiaojun Wan

HIGHLIGHT: In this paper, we define and investigate a new task of document-level text simplification, which aims to simplify a document consisting of multiple sentences.

631, TITLE: A Bag of Tricks for Dialogue Summarization

<https://www.aclweb.org/anthology/2021.emnlp-main.631>

AUTHORS: Muhammad Khalifa, Miguel Ballesteros, Kathleen McKeown

HIGHLIGHT: In this work, we explore four different challenges of the task: handling and differentiating parts of the dialogue belonging to multiple speakers, negation understanding, reasoning about the situation, and informal language understanding.

632, TITLE: Paraphrasing Compound Nominalizations

<https://www.aclweb.org/anthology/2021.emnlp-main.632>

AUTHORS: John Lee, Ho Hung Lim, Carol Webster

HIGHLIGHT: Our goal is to interpret nominalizations by generating clausal paraphrases.

633, TITLE: Data-QuestEval: A Referenceless Metric for Data-to-Text Semantic Evaluation

<https://www.aclweb.org/anthology/2021.emnlp-main.633>

AUTHORS: Clement Rebuffel, Thomas Scialom, Laure Soulier, Benjamin Piwowarski, Sylvain Lamprier, Jacopo Staiano, Geoffrey Scoutheeten, Patrick Gallinari

HIGHLIGHT: To this purpose, we propose a method to build synthetic multimodal corpora enabling to train multimodal components for a data-QuestEval metric.

634, TITLE: Low-Rank Subspaces for Unsupervised Entity Linking

<https://www.aclweb.org/anthology/2021.emnlp-main.634>

AUTHORS: Akhil Arora, Alberto Garcia-Duran, Robert West

HIGHLIGHT: We propose a light-weight and scalable entity linking method, Eigenthemes, that relies solely on the availability of entity names and a referent knowledge base.

635, TITLE: TDEER: An Efficient Translating Decoding Schema for Joint Extraction of Entities and Relations

<https://www.aclweb.org/anthology/2021.emnlp-main.635>

AUTHORS: Xianming Li, Xiaotian Luo, Chenghao Dong, Daichuan Yang, Beidi Luan, Zhen He

HIGHLIGHT: To address such a problem, this paper proposes a novel efficient entities and relations extraction model called TDEER, which stands for Translating Decoding Schema for Joint Extraction of Entities and Relations.

636, TITLE: Extracting Event Temporal Relations via Hyperbolic Geometry

<https://www.aclweb.org/anthology/2021.emnlp-main.636>

AUTHORS: Xingwei Tan, Gabriele Pergola, Yulan He

HIGHLIGHT: We introduce two approaches to encode events and their temporal relations in hyperbolic spaces.

637, TITLE: Honey or Poison? Solving the Trigger Curse in Few-shot Event Detection via Causal Intervention

<https://www.aclweb.org/anthology/2021.emnlp-main.637>

AUTHORS: Jiawei Chen, Hongyu Lin, Xianpei Han, Le Sun

HIGHLIGHT: In this paper, we identify and solve the trigger curse problem in few-shot event detection (FSED) from a causal view.

638, TITLE: Back to the Basics: A Quantitative Analysis of Statistical and Graph-Based Term Weighting Schemes for Keyword Extraction
<https://www.aclweb.org/anthology/2021.emnlp-main.638>
AUTHORS: Asahi Ushio, Federico Liberatore, Jose Camacho-Collados
HIGHLIGHT: In this paper, we perform an exhaustive and large-scale empirical comparison of both statistical and graph-based term weighting methods in the context of keyword extraction.

639, TITLE: Time-dependent Entity Embedding is not All You Need: A Re-evaluation of Temporal Knowledge Graph Completion Models under a Unified Framework
<https://www.aclweb.org/anthology/2021.emnlp-main.639>
AUTHORS: Zhen Han, Gengyuan Zhang, Yunpu Ma, Volker Tresp
HIGHLIGHT: In this work, we systematically study six temporal embedding approaches and empirically quantify their performance across a wide range of configurations with about 3000 experiments and 13159 GPU hours.

640, TITLE: Matching-oriented Embedding Quantization For Ad-hoc Retrieval
<https://www.aclweb.org/anthology/2021.emnlp-main.640>
AUTHORS: Shitao Xiao, Zheng Liu, Yingxia Shao, Defu Lian, Xing Xie
HIGHLIGHT: In this work, we propose the Matching-oriented Product Quantization (MoPQ), where a novel objective Multinoulli Contrastive Loss (MCL) is formulated.

641, TITLE: Efficient Mind-Map Generation via Sequence-to-Graph and Reinforced Graph Refinement
<https://www.aclweb.org/anthology/2021.emnlp-main.641>
AUTHORS: Mengting Hu, Honglei Guo, Shiwan Zhao, Hang Gao, Zhong Su
HIGHLIGHT: To deal with the above challenges, we propose an efficient mind-map generation network that converts a document into a graph via sequence-to-graph.

642, TITLE: Deep Attention Diffusion Graph Neural Networks for Text Classification
<https://www.aclweb.org/anthology/2021.emnlp-main.642>
AUTHORS: Yonghao Liu, Renchu Guan, Fausto Giunchiglia, Yanchun Liang, Xiaoyue Feng
HIGHLIGHT: In this paper, a Deep Attention Diffusion Graph Neural Network (DADGNN) model is proposed to learn text representations, bridging the chasm of interaction difficulties between a word and its distant neighbors.

643, TITLE: Balancing Methods for Multi-label Text Classification with Long-Tailed Class Distribution
<https://www.aclweb.org/anthology/2021.emnlp-main.643>
AUTHORS: Yi Huang, Buse Giledereleli, Abdullatif K?ksal, Arzucan ?zg?r, Elif Ozkirimli
HIGHLIGHT: Here, we introduce the application of balancing loss functions for multi-label text classification.

644, TITLE: Bayesian Topic Regression for Causal Inference
<https://www.aclweb.org/anthology/2021.emnlp-main.644>
AUTHORS: Maximilian Ahrens, Julian Ashwin, Jan-Peter Calliess, Vu Nguyen
HIGHLIGHT: This paper presents the Bayesian Topic Regression (BTR) model that uses both text and numerical information to model an outcome variable.

645, TITLE: Enjoy the Saliency: Towards Better Transformer-based Faithful Explanations with Word Saliency
<https://www.aclweb.org/anthology/2021.emnlp-main.645>
AUTHORS: George Chrysostomou, Nikolaos Aletras
HIGHLIGHT: In this paper, we hypothesize that salient information extracted a priori from the training data can complement the task-specific information learned by the model during fine-tuning on a downstream task.

646, TITLE: What's in Your Head? Emergent Behaviour in Multi-Task Transformer Models
<https://www.aclweb.org/anthology/2021.emnlp-main.646>
AUTHORS: Mor Geva, Uri Katz, Aviv Ben-Arie, Jonathan Berant
HIGHLIGHT: In this work, we examine the behaviour of non-target heads, that is, the output of heads when given input that belongs to a different task than the one they were trained for.

647, TITLE: Don't Search for a Search Method - Simple Heuristics Suffice for Adversarial Text Attacks
<https://www.aclweb.org/anthology/2021.emnlp-main.647>
AUTHORS: Nathaniel Berger, Stefan Riezler, Sebastian Ebert, Artem Sokolov

HIGHLIGHT: We conclude from these results that current TextAttack benchmark tasks are too easy and constraints are too strict, preventing meaningful research on black-box adversarial text attacks.

648, TITLE: Adversarial Attacks on Knowledge Graph Embeddings via Instance Attribution Methods
<https://www.aclweb.org/anthology/2021.emnlp-main.648>
AUTHORS: Peru Bhardwaj, John Kelleher, Luca Costabello, Declan O'Sullivan
HIGHLIGHT: We study data poisoning attacks against KGE models for link prediction.

649, TITLE: Locke's Holiday: Belief Bias in Machine Reading
<https://www.aclweb.org/anthology/2021.emnlp-main.649>
AUTHORS: Anders Sgaard
HIGHLIGHT: I highlight a simple failure mode of state-of-the-art machine reading systems: when contexts do not align with commonly shared beliefs.

650, TITLE: Sequence Length is a Domain: Length-based Overfitting in Transformer Models
<https://www.aclweb.org/anthology/2021.emnlp-main.650>
AUTHORS: Dusan Varis, Ondrej Bojar
HIGHLIGHT: We present results which suggest that the issue might also be in the mismatch between the length distributions of the training and validation data combined with the aforementioned tendency of the neural networks to overfit to the training data.

651, TITLE: Contrasting Human- and Machine-Generated Word-Level Adversarial Examples for Text Classification
<https://www.aclweb.org/anthology/2021.emnlp-main.651>
AUTHORS: Maximilian Mozes, Max Bartolo, Pontus Stenetorp, Bennett Kleinberg, Lewis Griffin
HIGHLIGHT: In this work, we investigate this through the lens of human language ability.

652, TITLE: Is Information Density Uniform in Task-Oriented Dialogues?
<https://www.aclweb.org/anthology/2021.emnlp-main.652>
AUTHORS: Mario Giulianelli, Arabella Sinclair, Raquel Fernandez
HIGHLIGHT: In this paper, we test whether, and within which contextual units this principle holds in task-oriented dialogues.

653, TITLE: On Homophony and Rényi Entropy
<https://www.aclweb.org/anthology/2021.emnlp-main.653>
AUTHORS: Tiago Pimentel, Clara Meister, Simone Teufel, Ryan Cotterell
HIGHLIGHT: We first propose a new information-theoretic quantification of a language's homophony: the sample Rényi entropy. Then, we use this quantification to revisit Trott and Bergen's claims.

654, TITLE: Synthetic Textual Features for the Large-Scale Detection of Basic-level Categories in English and Mandarin
<https://www.aclweb.org/anthology/2021.emnlp-main.654>
AUTHORS: Yiwen Chen, Simone Teufel
HIGHLIGHT: We present the first method for the detection of BLC at scale that makes use of Rosch-style semantic features.

655, TITLE: TimeTraveler: Reinforcement Learning for Temporal Knowledge Graph Forecasting
<https://www.aclweb.org/anthology/2021.emnlp-main.655>
AUTHORS: Haohai Sun, Jialun Zhong, Yunpu Ma, Zhen Han, Kun He
HIGHLIGHT: To address these challenges, we propose the first reinforcement learning method for forecasting.

656, TITLE: Code-switched inspired losses for spoken dialog representations
<https://www.aclweb.org/anthology/2021.emnlp-main.656>
AUTHORS: Pierre Colombo, Emile Chapuis, Matthieu Labeau, Clément Clavel
HIGHLIGHT: In this work, we introduce new pretraining losses tailored to learn generic multilingual spoken dialogue representations.

657, TITLE: BiQUE: Biquaternionic Embeddings of Knowledge Graphs
<https://www.aclweb.org/anthology/2021.emnlp-main.657>
AUTHORS: Jia Guo, Stanley Kok
HIGHLIGHT: To do so, we propose BiQUE, a novel model that employs biquaternions to integrate multiple geometric transformations, viz., scaling, translation, Euclidean rotation, and hyperbolic rotation.

658, TITLE: Learning Neural Ordinary Equations for Forecasting Future Links on Temporal Knowledge Graphs

<https://www.aclweb.org/anthology/2021.emnlp-main.658>

AUTHORS: Zhen Han, Zifeng Ding, Yunpu Ma, Yujia Gu, Volker Tresp
HIGHLIGHT: To this end, we propose a novel continuum model by extending the idea of neural ordinary differential equations (ODEs) to multi-relational graph convolutional networks.

659, TITLE: RAP: Robustness-Aware Perturbations for Defending against Backdoor Attacks on NLP Models

<https://www.aclweb.org/anthology/2021.emnlp-main.659>

AUTHORS: Wenkai Yang, Yankai Lin, Peng Li, Jie Zhou, Xu Sun
HIGHLIGHT: In this work, we propose an efficient online defense mechanism based on robustness-aware perturbations.

660, TITLE: FAME: Feature-Based Adversarial Meta-Embeddings for Robust Input Representations

<https://www.aclweb.org/anthology/2021.emnlp-main.660>

AUTHORS: Lukas Lange, Heike Adel, Jannik Strötgen, Dietrich Klakow
HIGHLIGHT: As an alternative to attention-based meta-embeddings, we propose feature-based adversarial meta-embeddings (FAME) with an attention function that is guided by features reflecting word-specific properties, such as shape and frequency, and show that this is beneficial to handle subword-based embeddings.

661, TITLE: A Strong Baseline for Query Efficient Attacks in a Black Box Setting

<https://www.aclweb.org/anthology/2021.emnlp-main.661>

AUTHORS: Rishabh Maheshwary, Saket Maheshwary, Vikram Pudi
HIGHLIGHT: In this paper, we propose a query efficient attack strategy to generate plausible adversarial examples on text classification and entailment tasks.

662, TITLE: Machine Translation Decoding beyond Beam Search

<https://www.aclweb.org/anthology/2021.emnlp-main.662>

AUTHORS: Rami Leblond, Jean-Baptiste Alayrac, Laurent Sifre, Miruna Pislari, Lespiau Jean-Baptiste, Ioannis Antonoglou, Karen Simonyan, Oriol Vinyals
HIGHLIGHT: Our aim is to establish whether beam search can be replaced by a more powerful metric-driven search technique.

663, TITLE: Document Graph for Neural Machine Translation

<https://www.aclweb.org/anthology/2021.emnlp-main.663>

AUTHORS: Mingzhou Xu, Liangyou Li, Derek F. Wong, Qun Liu, Lidia S. Chao
HIGHLIGHT: To address this issue, we hypothesize that a document can be represented as a graph that connects relevant contexts regardless of their distances.

664, TITLE: An Empirical Investigation of Word Alignment Supervision for Zero-Shot Multilingual Neural Machine Translation

<https://www.aclweb.org/anthology/2021.emnlp-main.664>

AUTHORS: Alessandro Raganato, Raquel Viquez, Mathias Creutz, Jörg Tiedemann
HIGHLIGHT: In this paper, we investigate the benefits of an explicit alignment to language labels in Transformer-based MNMT models in the zero-shot context, by jointly training one cross attention head with word alignment supervision to stress the focus on the target language label.

665, TITLE: Graph Algorithms for Multiparallel Word Alignment

<https://www.aclweb.org/anthology/2021.emnlp-main.665>

AUTHORS: Ayyoob ImaniGooghari, Masoud Jalili Sabet, Lutfi Kerem Senel, Philipp Dufter, François Yvon, Hinrich Schütze
HIGHLIGHT: We present two graph algorithms for edge prediction: one inspired by recommender systems and one based on network link prediction.

666, TITLE: Improving the Quality Trade-Off for Neural Machine Translation Multi-Domain Adaptation

<https://www.aclweb.org/anthology/2021.emnlp-main.666>

AUTHORS: Eva Hasler, Tobias Domhan, Jonay Trenous, Ke Tran, Bill Byrne, Felix Hieber
HIGHLIGHT: We study this problem in an adaptation setting where the goal is to preserve the existing system quality while incorporating data for domains that were not the focus of the original translation system.

667, TITLE: Language Modeling, Lexical Translation, Reordering: The Training Process of NMT through the Lens of Classical SMT

<https://www.aclweb.org/anthology/2021.emnlp-main.667>

AUTHORS: Elena Voita, Rico Sennrich, Ivan Titov

HIGHLIGHT: In this work, we look at the competences related to three core SMT components and find that during training, NMT first focuses on learning target-side language modeling, then improves translation quality approaching word-by-word translation, and finally learns more complicated reordering patterns.

668, **TITLE:** Effective Fine-Tuning Methods for Cross-lingual Adaptation

<https://www.aclweb.org/anthology/2021.emnlp-main.668>

AUTHORS: Tao Yu, Shafiq Joty

HIGHLIGHT: In this work, we propose a novel fine-tuning method based on co-training that aims to learn more generalized semantic equivalences as a complementary to multilingual language modeling using the unlabeled data in the target language.

669, **TITLE:** Rethinking Data Augmentation for Low-Resource Neural Machine Translation: A Multi-Task Learning Approach

<https://www.aclweb.org/anthology/2021.emnlp-main.669>

AUTHORS: Víctor M. Sánchez-Cartagena, Miquel Espí-Gomis, Juan Antonio Pérez-Ortiz, Felipe Sánchez-Martínez

HIGHLIGHT: In this paper, we propose to follow a completely different approach and present a multi-task DA approach in which we generate new sentence pairs with transformations, such as reversing the order of the target sentence, which produce unfluent target sentences.

670, **TITLE:** Wino-X: Multilingual Winograd Schemas for Commonsense Reasoning and Coreference Resolution

<https://www.aclweb.org/anthology/2021.emnlp-main.670>

AUTHORS: Denis Emelin, Rico Sennrich

HIGHLIGHT: This work presents Wino-X, a parallel dataset of German, French, and Russian schemas, aligned with their English counterparts.

671, **TITLE:** One Source, Two Targets: Challenges and Rewards of Dual Decoding

<https://www.aclweb.org/anthology/2021.emnlp-main.671>

AUTHORS: Jitao Xu, François Yvon

HIGHLIGHT: In this paper, we consider a stronger requirement: to jointly generate two texts so that each output side effectively depends on the other.

672, **TITLE:** Discrete and Soft Prompting for Multilingual Models

<https://www.aclweb.org/anthology/2021.emnlp-main.672>

AUTHORS: Mengjie Zhao, Hinrich Schütze

HIGHLIGHT: In this paper, we show that discrete and soft prompting perform better than finetuning in multilingual cases: Crosslingual transfer and in-language training of multilingual natural language inference.

673, **TITLE:** Vision Matters When It Should: Sanity Checking Multimodal Machine Translation Models

<https://www.aclweb.org/anthology/2021.emnlp-main.673>

AUTHORS: Jiaoda Li, Duygu Ataman, Rico Sennrich

HIGHLIGHT: In this paper, we present a qualitative study that examines the role of datasets in stimulating the leverage of visual modality and we propose methods to highlight the importance of visual signals in the datasets which demonstrate improvements in reliance of models on the source images.

674, **TITLE:** Efficient Inference for Multilingual Neural Machine Translation

<https://www.aclweb.org/anthology/2021.emnlp-main.674>

AUTHORS: Alexandre Berard, Dain Lee, Stephane Clinchant, Kweonwoo Jung, Vassilina Nikoulina

HIGHLIGHT: In this work, we consider several ways to make multilingual NMT faster at inference without degrading its quality.

675, **TITLE:** Role of Language Relatedness in Multilingual Fine-tuning of Language Models: A Case Study in Indo-Aryan Languages

<https://www.aclweb.org/anthology/2021.emnlp-main.675>

AUTHORS: Tejas Dhamecha, Rudra Murthy, Samarth Bharadwaj, Karthik Sankaranarayanan, Pushpak Bhattacharyya

HIGHLIGHT: We explore the impact of leveraging the relatedness of languages that belong to the same family in NLP models using multilingual fine-tuning.

676, **TITLE:** Comparing Feature-Engineering and Feature-Learning Approaches for Multilingual Translationese Classification

<https://www.aclweb.org/anthology/2021.emnlp-main.676>

AUTHORS: Daria Pylypenko, Kwabena Amponsah-Kaakyire, Koel Dutta Chowdhury, Josef van Genabith, Cristina Español-Bonet

HIGHLIGHT: In this work, we (i) compare the traditional feature-engineering-based approach to the feature-learning-based one and (ii) analyse the neural architectures in order to investigate how well the hand-crafted features explain the variance in the neural models' predictions.

677, **TITLE:** Multi-Sentence Resampling: A Simple Approach to Alleviate Dataset Length Bias and Beam-Search Degradation
<https://www.aclweb.org/anthology/2021.emnlp-main.677>
AUTHORS: Ivan Provilkov, Andrey Malinin
HIGHLIGHT: In this work, we analyze errors that cause major quality degradation with large beams in NMT and Automatic Speech Recognition (ASR).

678, **TITLE:** Cross-Policy Compliance Detection via Question Answering
<https://www.aclweb.org/anthology/2021.emnlp-main.678>
AUTHORS: Marzieh Saeidi, Majid Yazdani, Andreas Vlachos
HIGHLIGHT: In this paper we propose to address policy compliance detection via decomposing it into question answering, where questions check whether the conditions stated in the policy apply to the scenario, and an expression tree combines the answers to obtain the label.

679, **TITLE:** Meta-LMTC: Meta-Learning for Large-Scale Multi-Label Text Classification
<https://www.aclweb.org/anthology/2021.emnlp-main.679>
AUTHORS: Ran Wang, Xi?ao Su, Siyu Long, Xinyu Dai, Shujian Huang, Jiajun Chen
HIGHLIGHT: In this paper, for the first time, this problem is addressed from a meta-learning perspective.

680, **TITLE:** Unsupervised Multi-View Post-OCR Error Correction With Language Models
<https://www.aclweb.org/anthology/2021.emnlp-main.680>
AUTHORS: Harsh Gupta, Luciano Del Corro, Samuel Broscheit, Johannes Hoffart, Eliot Brenner
HIGHLIGHT: The goal of this study is to understand if a pretrained language model (LM) can be used in an unsupervised way to reconcile the different OCR views such that their combination contains fewer errors than each individual view.

681, **TITLE:** Parallel Refinements for Lexically Constrained Text Generation with BART
<https://www.aclweb.org/anthology/2021.emnlp-main.681>
AUTHORS: Xingwei He
HIGHLIGHT: To address these challenges, we proposed Constrained BART (CBART) for lexically constrained text generation.

682, **TITLE:** BERT-Beta: A Proactive Probabilistic Approach to Text Moderation
<https://www.aclweb.org/anthology/2021.emnlp-main.682>
AUTHORS: Fei Tan, Yifan Hu, Kevin Yen, Changwei Hu
HIGHLIGHT: In this work, we explore an alternative perspective by augmenting reactive reviews with proactive forecasting.

683, **TITLE:** STaCK: Sentence Ordering with Temporal Commonsense Knowledge
<https://www.aclweb.org/anthology/2021.emnlp-main.683>
AUTHORS: Deepanway Ghosal, Navonil Majumder, Rada Mihalcea, Soujanya Poria
HIGHLIGHT: In this paper, we introduce STaCK - a framework based on graph neural networks and temporal commonsense knowledge to model global information and predict the relative order of sentences.

684, **TITLE:** Preventing Author Profiling through Zero-Shot Multilingual Back-Translation
<https://www.aclweb.org/anthology/2021.emnlp-main.684>
AUTHORS: David Adelani, Miaoran Zhang, Xiaoyu Shen, Ali Davody, Thomas Kleinbauer, Dietrich Klakow
HIGHLIGHT: In this paper, we propose a simple, zero-shot way to effectively lower the risk of author profiling through multilingual back-translation using off-the-shelf translation models.

685, **TITLE:** CodeT5: Identifier-aware Unified Pre-trained Encoder-Decoder Models for Code Understanding and Generation
<https://www.aclweb.org/anthology/2021.emnlp-main.685>
AUTHORS: Yue Wang, Weishi Wang, Shafiq Joty, Steven C.H. Hoi
HIGHLIGHT: We present CodeT5, a unified pre-trained encoder-decoder Transformer model that better leverages the code semantics conveyed from the developer-assigned identifiers.

686, **TITLE:** Detect and Classify - Joint Span Detection and Classification for Health Outcomes

<https://www.aclweb.org/anthology/2021.emnlp-main.686>

AUTHORS: Micheal Abaho, Danushka Bollegala, Paula Williamson, Susanna Dodd
HIGHLIGHT: To address this, we propose a method that uses both word-level and sentence-level information to simultaneously perform outcome span detection and outcome type classification.

687, TITLE: Multi-Class Grammatical Error Detection for Correction: A Tale of Two Systems

<https://www.aclweb.org/anthology/2021.emnlp-main.687>

AUTHORS: Zheng Yuan, Shiva Taslimipoor, Christopher Davis, Christopher Bryant
HIGHLIGHT: In this paper, we show how a multi-class grammatical error detection (GED) system can be used to improve grammatical error correction (GEC) for English.

688, TITLE: Towards Zero-shot Commonsense Reasoning with Self-supervised Refinement of Language Models

<https://www.aclweb.org/anthology/2021.emnlp-main.688>

AUTHORS: Tassilo Klein, Moin Nabi
HIGHLIGHT: To this end, we propose a novel self-supervised learning approach that refines the language model utilizing a set of linguistic perturbations of similar concept relationships.

689, TITLE: To Share or not to Share: Predicting Sets of Sources for Model Transfer Learning

<https://www.aclweb.org/anthology/2021.emnlp-main.689>

AUTHORS: Lukas Lange, Jannik Str?tgen, Heike Adel, Dietrich Klakow
HIGHLIGHT: To tackle this problem, we propose a new approach to automatically determine which and how many sources should be exploited.

690, TITLE: Self-Supervised Detection of Contextual Synonyms in a Multi-Class Setting: Phenotype Annotation Use Case

<https://www.aclweb.org/anthology/2021.emnlp-main.690>

AUTHORS: Jingqing Zhang, Luis Bolanos Trujillo, Tong Li, Ashwani Tanwar, Guilherme Freire, Xian Yang, Julia Ive, Vibhor Gupta, Yike Guo
HIGHLIGHT: In this paper, we propose a self-supervised pre-training approach which is able to detect contextual synonyms of concepts being training on the data created by shallow matching.

691, TITLE: ClauseRec: A Clause Recommendation Framework for AI-aided Contract Authoring

<https://www.aclweb.org/anthology/2021.emnlp-main.691>

AUTHORS: Vinay Aggarwal, Aparna Garimella, Balaji Vasan Srinivasan, Anandhavelu N, Rajiv Jain
HIGHLIGHT: In this paper, we introduce the task of clause recommendation, as a first step to aid and accelerate the authoring of contract documents.

692, TITLE: Finnish Dialect Identification: The Effect of Audio and Text

<https://www.aclweb.org/anthology/2021.emnlp-main.692>

AUTHORS: Mika H?m?l?inen, Khalid Alnajjar, Niko Partanen, Jack Rueter
HIGHLIGHT: We present the first approach to automatically detect the dialect of a speaker based on a dialect transcript and transcript with audio recording in a dataset consisting of 23 different dialects.

693, TITLE: English Machine Reading Comprehension Datasets: A Survey

<https://www.aclweb.org/anthology/2021.emnlp-main.693>

AUTHORS: Daria Dzendzik, Jennifer Foster, Carl Vogel
HIGHLIGHT: Our analysis reveals that Wikipedia is by far the most common data source and that there is a relative lack of why, when, and where questions across datasets.

694, TITLE: Expanding End-to-End Question Answering on Differentiable Knowledge Graphs with Intersection

<https://www.aclweb.org/anthology/2021.emnlp-main.694>

AUTHORS: Priyanka Sen, Armin Oliya, Amir Saffari
HIGHLIGHT: In this paper, we propose a model that explicitly handles multiple-entity questions by implementing a new intersection operation, which identifies the shared elements between two sets of entities.

695, TITLE: Structured Context and High-Coverage Grammar for Conversational Question Answering over Knowledge Graphs

<https://www.aclweb.org/anthology/2021.emnlp-main.695>

AUTHORS: Pierre Marion, Pawel Nowak, Francesco Piccinno
HIGHLIGHT: We introduce a new Logical Form (LF) grammar that can model a wide range of queries on the graph while remaining sufficiently simple to generate supervision data efficiently.

- 696, TITLE: Improving Question Answering Model Robustness with Synthetic Adversarial Data Generation
<https://www.aclweb.org/anthology/2021.emnlp-main.696>
AUTHORS: Max Bartolo, Tristan Thrush, Robin Jia, Sebastian Riedel, Pontus Stenetorp, Douwe Kiela
HIGHLIGHT: In this work, we are the first to use synthetic adversarial data generation to make question answering models more robust to human adversaries.
- 697, TITLE: BeliefBank: Adding Memory to a Pre-Trained Language Model for a Systematic Notion of Belief
<https://www.aclweb.org/anthology/2021.emnlp-main.697>
AUTHORS: Nora Kassner, Oyvind Tafjord, Hinrich Sch?tze, Peter Clark
HIGHLIGHT: Our approach is to embed a PTLM in a broader system that also includes an evolving, symbolic memory of beliefs - a BeliefBank - that records but then may modify the raw PTLM answers.
- 698, TITLE: MLEC-QA: A Chinese Multi-Choice Biomedical Question Answering Dataset
<https://www.aclweb.org/anthology/2021.emnlp-main.698>
AUTHORS: Jing Li, Shangping Zhong, Kaizhi Chen
HIGHLIGHT: In this paper, we present MLEC-QA, the largest-scale Chinese multi-choice biomedical QA dataset, collected from the National Medical Licensing Examination in China.
- 699, TITLE: IndoNLG: Benchmark and Resources for Evaluating Indonesian Natural Language Generation
<https://www.aclweb.org/anthology/2021.emnlp-main.699>
AUTHORS: Samuel Cahyawijaya, Genta Indra Winata, Bryan Wilie, Karissa Vincentio, Xiaohong Li, Adhiguna Kuncoro, Sebastian Ruder, Zhi Yuan Lim, Syafri Bahar, Masayu Khodra, Ayu Purwarianti, Pascale Fung
HIGHLIGHT: Here we introduce IndoNLG, the first benchmark to measure natural language generation (NLG) progress in three low-resource -yet widely spoken- languages of Indonesia: Indonesian, Javanese, and Sundanese.
- 700, TITLE: Is Multi-Hop Reasoning Really Explainable? Towards Benchmarking Reasoning Interpretability
<https://www.aclweb.org/anthology/2021.emnlp-main.700>
AUTHORS: Xin Lv, Yixin Cao, Lei Hou, Juanzi Li, Zhiyuan Liu, Yichi Zhang, Zelin Dai
HIGHLIGHT: In this paper, we propose a unified framework to quantitatively evaluate the interpretability of multi-hop reasoning models so as to advance their development.
- 701, TITLE: Global Explainability of BERT-Based Evaluation Metrics by Disentangling along Linguistic Factors
<https://www.aclweb.org/anthology/2021.emnlp-main.701>
AUTHORS: Marvin Kaster, Wei Zhao, Steffen Eger
HIGHLIGHT: In this work, we use a simple regression based global explainability technique to disentangle metric scores along linguistic factors, including semantics, syntax, morphology, and lexical overlap.
- 702, TITLE: Exploring Underexplored Limitations of Cross-Domain Text-to-SQL Generalization
<https://www.aclweb.org/anthology/2021.emnlp-main.702>
AUTHORS: Yujian Gan, Xinyun Chen, Matthew Purver
HIGHLIGHT: In this work, we investigate the robustness of text-to-SQL models when the questions require rarely observed domain knowledge.
- 703, TITLE: What happens if you treat ordinal ratings as interval data? Human evaluations in NLP are even more under-powered than you think
<https://www.aclweb.org/anthology/2021.emnlp-main.703>
AUTHORS: David M. Howcroft, Verena Rieser
HIGHLIGHT: Here, we argue that there are two common factors which make this problem even worse: NLP studies usually (a) treat ordinal data as interval data and (b) operate under high variance settings while the differences they are hoping to detect are often subtle.
- 704, TITLE: NeuTral Rewriter: A Rule-Based and Neural Approach to Automatic Rewriting into Gender Neutral Alternatives
<https://www.aclweb.org/anthology/2021.emnlp-main.704>
AUTHORS: Eva Vanmassenhove, Chris Emmery, Dimitar Shterionov
HIGHLIGHT: In this work, we present a rule-based and a neural approach to gender-neutral rewriting for English along with manually curated synthetic data (WinoBias+) and natural data (OpenSubtitles and Reddit) benchmarks.
- 705, TITLE: Benchmarking Commonsense Knowledge Base Population with an Effective Evaluation Dataset
<https://www.aclweb.org/anthology/2021.emnlp-main.705>

AUTHORS: Tianqing Fang, Weiqi Wang, Sehyun Choi, Shibo Hao, Hongming Zhang, Yangqiu Song, Bin He
HIGHLIGHT: In this paper, we benchmark the CSKB population task with a new large-scale dataset by first aligning four popular CSKBs, and then presenting a high-quality human-annotated evaluation set to probe neural models' commonsense reasoning ability.

706, TITLE: Enhancing the Context Representation in Similarity-based Word Sense Disambiguation
<https://www.aclweb.org/anthology/2021.emnlp-main.706>
AUTHORS: Ming Wang, Jianzhang Zhang, Yinglin Wang
HIGHLIGHT: In this paper, we investigate the contribution of both word-level and sense-level global context of an ambiguous word for disambiguation.

707, TITLE: Data Augmentation with Hierarchical SQL-to-Question Generation for Cross-domain Text-to-SQL Parsing
<https://www.aclweb.org/anthology/2021.emnlp-main.707>
AUTHORS: Kun Wu, Lijie Wang, Zhenghua Li, Ao Zhang, Xinyan Xiao, Hua Wu, Min Zhang, Haifeng Wang
HIGHLIGHT: This paper presents a simple yet effective data augmentation framework.

708, TITLE: SPARQLing Database Queries from Intermediate Question Decompositions
<https://www.aclweb.org/anthology/2021.emnlp-main.708>
AUTHORS: Irina Saparina, Anton Osokin
HIGHLIGHT: Annotating a large dataset with queries is difficult as it requires query-language expertise. We reduce this burden using grounded in databases intermediate question representations.

709, TITLE: Time-aware Graph Neural Network for Entity Alignment between Temporal Knowledge Graphs
<https://www.aclweb.org/anthology/2021.emnlp-main.709>
AUTHORS: Chengjin Xu, Fenglong Su, Jens Lehmann
HIGHLIGHT: In this paper, we focus on the task of aligning entity pairs between TKGs and propose a novel Time-aware Entity Alignment approach based on Graph Neural Networks (TEA-GNN).

710, TITLE: Cross-Domain Label-Adaptive Stance Detection
<https://www.aclweb.org/anthology/2021.emnlp-main.710>
AUTHORS: Momchil Hardalov, Amav Arora, Preslav Nakov, Isabelle Augenstein
HIGHLIGHT: In this paper, we perform an in-depth analysis of 16 stance detection datasets, and we explore the possibility for cross-domain learning from them.

711, TITLE: Text AutoAugment: Learning Compositional Augmentation Policy for Text Classification
<https://www.aclweb.org/anthology/2021.emnlp-main.711>
AUTHORS: Shuhuai Ren, Jinchao Zhang, Lei Li, Xu Sun, Jie Zhou
HIGHLIGHT: To overcome the above limitations, we propose a framework named Text AutoAugment (TAA) to establish a compositional and learnable paradigm for data augmentation.

712, TITLE: Distilling Relation Embeddings from Pretrained Language Models
<https://www.aclweb.org/anthology/2021.emnlp-main.712>
AUTHORS: Asahi Ushio, Jose Camacho-Collados, Steven Schockaert
HIGHLIGHT: To obtain relation embeddings from a pre-trained language model, we encode word pairs using a (manually or automatically generated) prompt, and we fine-tune the language model such that relationally similar word pairs yield similar output vectors.

713, TITLE: Avoiding Inference Heuristics in Few-shot Prompt-based Finetuning
<https://www.aclweb.org/anthology/2021.emnlp-main.713>
AUTHORS: Prasetya Utama, Nafise Sadat Moosavi, Victor Sanh, Iryna Gurevych
HIGHLIGHT: In this work, we demonstrate that, despite its advantages on low data regimes, finetuned prompt-based models for sentence pair classification tasks still suffer from a common pitfall of adopting inference heuristics based on lexical overlap, e.g., models incorrectly assuming a sentence pair is of the same meaning because they consist of the same set of words.

714, TITLE: A Differentiable Relaxation of Graph Segmentation and Alignment for AMR Parsing
<https://www.aclweb.org/anthology/2021.emnlp-main.714>
AUTHORS: Chunchuan Lyu, Shay B. Cohen, Ivan Titov
HIGHLIGHT: To ensure end-to-end differentiable optimization, we introduce a differentiable relaxation of the segmentation and alignment problems.

- 715, TITLE: Integrating Personalized PageRank into Neural Word Sense Disambiguation
<https://www.aclweb.org/anthology/2021.emnlp-main.715>
AUTHORS: Ahmed El Sheikh, Michele Bevilacqua, Roberto Navigli
HIGHLIGHT: In this work, we improve a classification model by recomputing logits as a function of both the vanilla independently produced logits and the global WordNet graph.
- 716, TITLE: Cross-lingual Sentence Embedding using Multi-Task Learning
<https://www.aclweb.org/anthology/2021.emnlp-main.716>
AUTHORS: Koustava Goswami, Sourav Dutta, Haytham Assem, Theodorus Franssen, John P. McCrae
HIGHLIGHT: In this paper, we propose a novel sentence embedding framework based on an unsupervised loss function for generating effective multilingual sentence embeddings, eliminating the need for parallel corpora.
- 717, TITLE: NB-MLM: Efficient Domain Adaptation of Masked Language Models for Sentiment Analysis
<https://www.aclweb.org/anthology/2021.emnlp-main.717>
AUTHORS: Nikolay Arefyev, Dmitrii Kharchev, Artem Shelmanov
HIGHLIGHT: We propose a technique for more efficient adaptation that focuses on predicting words with large weights of the Naive Bayes classifier trained for the task at hand, which are likely more relevant than the most frequent words.
- 718, TITLE: Revisiting Self-training for Few-shot Learning of Language Model
<https://www.aclweb.org/anthology/2021.emnlp-main.718>
AUTHORS: Yiming Chen, Yan Zhang, Chen Zhang, Grandee Lee, Ran Cheng, Haizhou Li
HIGHLIGHT: In this work, we revisit the self-training technique for language model fine-tuning and present a state-of-the-art prompt-based few-shot learner, SFLM.
- 719, TITLE: Bridging Perception, Memory, and Inference through Semantic Relations
<https://www.aclweb.org/anthology/2021.emnlp-main.719>
AUTHORS: Johanna Björklund, Adam Dahlgren Lindström, Frank Drewes
HIGHLIGHT: In this work, we probe six popular language models for semantic relations and outline a future line of research to study how the constituent subsystems can be jointly realised and integrated.
- 720, TITLE: Unimodal and Crossmodal Refinement Network for Multimodal Sequence Fusion
<https://www.aclweb.org/anthology/2021.emnlp-main.720>
AUTHORS: Xiaobao Guo, Adams Kong, Huan Zhou, Xianfeng Wang, Min Wang
HIGHLIGHT: In this paper, Unimodal and Crossmodal Refinement Network (UCRN) is proposed to enhance both unimodal and crossmodal representations.
- 721, TITLE: YASO: A Targeted Sentiment Analysis Evaluation Dataset for Open-Domain Reviews
<https://www.aclweb.org/anthology/2021.emnlp-main.721>
AUTHORS: Matan Orbach, Orith Toledo-Ronen, Artem Spector, Ranit Aharonov, Yoav Katz, Noam Slonim
HIGHLIGHT: To address this gap, we present YASO - a new TSA evaluation dataset of open-domain user reviews.
- 722, TITLE: An Empirical Study on Leveraging Position Embeddings for Target-oriented Opinion Words Extraction
<https://www.aclweb.org/anthology/2021.emnlp-main.722>
AUTHORS: Samuel Mensah, Kai Sun, Nikolaos Aletras
HIGHLIGHT: In this paper, we explore a variety of text encoders based on pretrained word embeddings or language models that leverage part-of-speech and position embeddings, aiming to examine the actual contribution of each component in TOWE.
- 723, TITLE: Improving Multimodal Fusion with Hierarchical Mutual Information Maximization for Multimodal Sentiment Analysis
<https://www.aclweb.org/anthology/2021.emnlp-main.723>
AUTHORS: Wei Han, Hui Chen, Soujanya Poria
HIGHLIGHT: In this work, we propose a framework named MultiModal InfoMax (MMIM), which hierarchically maximizes the Mutual Information (MI) in unimodal input pairs (inter-modality) and between multimodal fusion result and unimodal input in order to maintain task-related information through multimodal fusion.
- 724, TITLE: BERT4GCN: Using BERT Intermediate Layers to Augment GCN for Aspect-based Sentiment Classification
<https://www.aclweb.org/anthology/2021.emnlp-main.724>
AUTHORS: Zeguan Xiao, Jiarun Wu, Qingliang Chen, Congjian Deng
HIGHLIGHT: In this paper, we propose a novel model, BERT4GCN, which integrates the grammatical sequential features from the PLM of BERT, and the syntactic knowledge from dependency graphs.

- 725, TITLE: Does Social Pressure Drive Persuasion in Online Fora?
<https://www.aclweb.org/anthology/2021.emnlp-main.725>
AUTHORS: Ayush Jain, Shashank Srivastava
HIGHLIGHT: While previous research has focused on arguments between a view-holder and a persuader, we explore the premise that apart from the merits of arguments, persuasion is influenced by the ambient social community.
- 726, TITLE: Aspect Sentiment Quad Prediction as Paraphrase Generation
<https://www.aclweb.org/anthology/2021.emnlp-main.726>
AUTHORS: Wenxuan Zhang, Yang Deng, Xin Li, Yifei Yuan, Lidong Bing, Wai Lam
HIGHLIGHT: In this work, we introduce the Aspect Sentiment Quad Prediction (ASQP) task, aiming to jointly detect all sentiment elements in quads for a given opinionated sentence, which can reveal a more comprehensive and complete aspect-level sentiment structure.
- 727, TITLE: Cross-lingual Aspect-based Sentiment Analysis with Aspect Term Code-Switching
<https://www.aclweb.org/anthology/2021.emnlp-main.727>
AUTHORS: Wenxuan Zhang, Ruidan He, Haiyun Peng, Lidong Bing, Wai Lam
HIGHLIGHT: In this paper, we consider the unsupervised cross-lingual transfer for the ABSA task, where only labeled data in the source language is available and we aim at transferring its knowledge to the target language having no labeled data.
- 728, TITLE: Towards Label-Agnostic Emotion Embeddings
<https://www.aclweb.org/anthology/2021.emnlp-main.728>
AUTHORS: Sven Buechel, Luise Modersohn, Udo Hahn
HIGHLIGHT: To resolve this unsatisfactory state of affairs we here propose a training scheme that learns a shared latent representation of emotion independent from different label formats, natural languages, and even disparate model architectures.
- 729, TITLE: Collaborative Learning of Bidirectional Decoders for Unsupervised Text Style Transfer
<https://www.aclweb.org/anthology/2021.emnlp-main.729>
AUTHORS: Yun Ma, Yangbin Chen, Xudong Mao, Qing Li
HIGHLIGHT: In this paper, we propose a collaborative learning framework for unsupervised text style transfer using a pair of bidirectional decoders, one decoding from left to right while the other decoding from right to left.
- 730, TITLE: Exploring Non-Autoregressive Text Style Transfer
<https://www.aclweb.org/anthology/2021.emnlp-main.730>
AUTHORS: Yun Ma, Qing Li
HIGHLIGHT: In this paper, we explore Non-AutoRegressive (NAR) decoding for unsupervised text style transfer.
- 731, TITLE: PASTE: A Tagging-Free Decoding Framework Using Pointer Networks for Aspect Sentiment Triplet Extraction
<https://www.aclweb.org/anthology/2021.emnlp-main.731>
AUTHORS: Rajdeep Mukherjee, Tapas Nayak, Yash Butala, Sourangshu Bhattacharya, Pawan Goyal
HIGHLIGHT: Different from these, we present a tagging-free solution for the task, while addressing the limitations of the existing works.
- 732, TITLE: Adaptive Proposal Generation Network for Temporal Sentence Localization in Videos
<https://www.aclweb.org/anthology/2021.emnlp-main.732>
AUTHORS: Daizong Liu, Xiaoye Qu, Jianfeng Dong, Pan Zhou
HIGHLIGHT: In this paper, we propose an Adaptive Proposal Generation Network (APGN) to maintain the segment-level interaction while speeding up the efficiency.
- 733, TITLE: Progressively Guide to Attend: An Iterative Alignment Framework for Temporal Sentence Grounding
<https://www.aclweb.org/anthology/2021.emnlp-main.733>
AUTHORS: Daizong Liu, Xiaoye Qu, Pan Zhou
HIGHLIGHT: In this paper, we propose an Iterative Alignment Network (IA-Net) for TSG task, which iteratively interacts inter- and intra-modal features within multiple steps for more accurate grounding.
- 734, TITLE: Language Models are Few-Shot Butlers
<https://www.aclweb.org/anthology/2021.emnlp-main.734>
AUTHORS: Vincent Micheli, Francois Fleuret
HIGHLIGHT: We introduce a two-stage procedure to learn from a small set of demonstrations and further improve by interacting with an environment.

- 735, TITLE: R³Net:Relation-embedded Representation Reconstruction Network for Change Captioning
<https://www.aclweb.org/anthology/2021.emnlp-main.735>
AUTHORS: Yunbin Tu, Liang Li, Chenggang Yan, Shengxiang Gao, Zhengtao Yu
HIGHLIGHT: In this paper, we propose a Relation-embedded Representation Reconstruction Network (R³Net) to explicitly distinguish the real change from the large amount of clutter and irrelevant changes.
- 736, TITLE: Looking for Confirmations: An Effective and Human-Like Visual Dialogue Strategy
<https://www.aclweb.org/anthology/2021.emnlp-main.736>
AUTHORS: Alberto Testoni, Raffaella Bernardi
HIGHLIGHT: Inspired by the cognitive literature on information search and cross-situational word learning, we design Confirm-it, a model based on a beam search re-ranking algorithm that guides an effective goal-oriented strategy by asking questions that confirm the model's conjecture about the referent.
- 737, TITLE: A Unified Speaker Adaptation Approach for ASR
<https://www.aclweb.org/anthology/2021.emnlp-main.737>
AUTHORS: Yingzhu Zhao, Chongjia Ni, Cheung-Chi Leung, Shafiq Joty, Eng Siong Chng, Bin Ma
HIGHLIGHT: In this work, we propose a unified speaker adaptation approach consisting of feature adaptation and model adaptation.
- 738, TITLE: Caption Enriched Samples for Improving Hateful Memes Detection
<https://www.aclweb.org/anthology/2021.emnlp-main.738>
AUTHORS: Efrat Blaier, Itzik Malkiel, Lior Wolf
HIGHLIGHT: Motivated by the need to model the contrast between the image content and the overlaid text, we suggest applying an off-the-shelf image captioning tool in order to capture the first.
- 739, TITLE: Sparsity and Sentence Structure in Encoder-Decoder Attention of Summarization Systems
<https://www.aclweb.org/anthology/2021.emnlp-main.739>
AUTHORS: Potsawee Manakul, Mark Gales
HIGHLIGHT: Modified encoder architectures such as LED or LoBART use local attention patterns to address this problem for summarization. In contrast, this work focuses on the transformer's encoder-decoder attention mechanism.
- 740, TITLE: BARThez: a Skilled Pretrained French Sequence-to-Sequence Model
<https://www.aclweb.org/anthology/2021.emnlp-main.740>
AUTHORS: Moussa Kamal Eddine, Antoine Tixier, Michalis Vazirgiannis
HIGHLIGHT: In this work, we introduce BARThez, the first large-scale pretrained seq2seq model for French.
- 741, TITLE: ARMAN: Pre-training with Semantically Selecting and Reordering of Sentences for Persian Abstractive Summarization
<https://www.aclweb.org/anthology/2021.emnlp-main.741>
AUTHORS: Alireza Salemi, Emad Kebriaei, Ghazal Neisi Minaei, Azadeh Shakery
HIGHLIGHT: We propose ARMAN, a Transformer-based encoder-decoder model pre-trained with three novel objectives to address this issue.
- 742, TITLE: Models and Datasets for Cross-Lingual Summarisation
<https://www.aclweb.org/anthology/2021.emnlp-main.742>
AUTHORS: Laura Perez-Beltrachini, Mirella Lapata
HIGHLIGHT: We present a cross-lingual summarisation corpus with long documents in a source language associated with multi-sentence summaries in a target language.
- 743, TITLE: Learning Opinion Summarizers by Selecting Informative Reviews
<https://www.aclweb.org/anthology/2021.emnlp-main.743>
AUTHORS: Arthur Bra?inskas, Mirella Lapata, Ivan Titov
HIGHLIGHT: In this work, we collect a large dataset of summaries paired with user reviews for over 31,000 products, enabling supervised training.
- 744, TITLE: Enriching and Controlling Global Semantics for Text Summarization
<https://www.aclweb.org/anthology/2021.emnlp-main.744>
AUTHORS: Thong Nguyen, Anh Tuan Luu, Truc Lu, Tho Quan

HIGHLIGHT: In this paper, we attempt to address this issue by introducing a neural topic model empowered with normalizing flow to capture the global semantics of the document, which are then integrated into the summarization model.

745, **TITLE:** Revisiting Tri-training of Dependency Parsers

<https://www.aclweb.org/anthology/2021.emnlp-main.745>

AUTHORS: Joachim Wagner, Jennifer Foster

HIGHLIGHT: We compare two orthogonal semi-supervised learning techniques, namely tri-training and pretrained word embeddings, in the task of dependency parsing.

746, **TITLE:** Bridge to Target Domain by Prototypical Contrastive Learning and Label Confusion: Re-explore Zero-Shot Learning for Slot Filling

<https://www.aclweb.org/anthology/2021.emnlp-main.746>

AUTHORS: Liwen Wang, Xuefeng Li, Jiachi Liu, Keqing He, Yuanmeng Yan, Weiran Xu

HIGHLIGHT: To solve this, we propose a novel approach based on prototypical contrastive learning with a dynamic label confusion strategy for zero-shot slot filling.

747, **TITLE:** Neuralizing Regular Expressions for Slot Filling

<https://www.aclweb.org/anthology/2021.emnlp-main.747>

AUTHORS: Chengyue Jiang, Zijian Jin, Kewei Tu

HIGHLIGHT: In this paper, we study the integration of the two approaches for the slot filling task by converting regular expressions into neural networks.

748, **TITLE:** Causal Direction of Data Collection Matters: Implications of Causal and Anticausal Learning for NLP

<https://www.aclweb.org/anthology/2021.emnlp-main.748>

AUTHORS: Zhijing Jin, Julius von K?gelgen, Jingwei Ni, Tejas Vaidhya, Ayush Kaushal, Mrinmaya Sachan, Bernhard Schoelkopf

HIGHLIGHT: In this work, we argue that the causal direction of the data collection process bears nontrivial implications that can explain a number of published NLP findings, such as differences in semi-supervised learning (SSL) and domain adaptation (DA) performance across different settings.

749, **TITLE:** Raise a Child in Large Language Model: Towards Effective and Generalizable Fine-tuning

<https://www.aclweb.org/anthology/2021.emnlp-main.749>

AUTHORS: Runxin Xu, Fuli Luo, Zhiyuan Zhang, Chuanqi Tan, Baobao Chang, Songfang Huang, Fei Huang

HIGHLIGHT: In this paper, we propose a straightforward yet effective fine-tuning technique, Child-Tuning, which updates a subset of parameters (called child network) of large pretrained models via strategically masking out the gradients of the non-child network during the backward process.

750, **TITLE:** Knowledge Graph Representation Learning using Ordinary Differential Equations

<https://www.aclweb.org/anthology/2021.emnlp-main.750>

AUTHORS: Mojtaba Nayyeri, Chengjin Xu, Franca Hoffmann, Mirza Mohtashim Alam, Jens Lehmann, Sahar Vahdati

HIGHLIGHT: To address this problem, we propose a neuro differential KGE that embeds nodes of a KG on the trajectories of Ordinary Differential Equations (ODEs).

751, **TITLE:** KnowMAN: Weakly Supervised Multinomial Adversarial Networks

<https://www.aclweb.org/anthology/2021.emnlp-main.751>

AUTHORS: Luisa M?rz, Ehsaneddin Asgari, Fabienne Braune, Franziska Zimmermann, Benjamin Roth

HIGHLIGHT: We propose KnowMAN, an adversarial scheme that enables to control influence of signals associated with specific labeling functions.

752, **TITLE:** ONION: A Simple and Effective Defense Against Textual Backdoor Attacks

<https://www.aclweb.org/anthology/2021.emnlp-main.752>

AUTHORS: Fanchao Qi, Yangyi Chen, Mukai Li, Yuan Yao, Zhiyuan Liu, Maosong Sun

HIGHLIGHT: In this paper, we propose a simple and effective textual backdoor defense named ONION, which is based on outlier word detection and, to the best of our knowledge, is the first method that can handle all the textual backdoor attack situations.

753, **TITLE:** Value-aware Approximate Attention

<https://www.aclweb.org/anthology/2021.emnlp-main.753>

AUTHORS: Ankit Gupta, Jonathan Berant

HIGHLIGHT: In this work, we argue that research efforts should be directed towards approximating the true output of the attention sub-layer, which includes the value vectors.

- 754, TITLE: Contrastive Domain Adaptation for Question Answering using Limited Text Corpora
<https://www.aclweb.org/anthology/2021.emnlp-main.754>
AUTHORS: Zhenrui Yue, Bernhard Kratzwald, Stefan Feuerriegel
HIGHLIGHT: In this paper, we propose a novel framework for domain adaptation called contrastive domain adaptation for QA (CAQA).
- 755, TITLE: Case-based Reasoning for Natural Language Queries over Knowledge Bases
<https://www.aclweb.org/anthology/2021.emnlp-main.755>
AUTHORS: Rajarshi Das, Manzil Zaheer, Dung Thai, Ameya Godbole, Ethan Perez, Jay Yoon Lee, Lizhen Tan, Lazaros Polymenakos, Andrew McCallum
HIGHLIGHT: We propose a neuro-symbolic CBR approach (CBR-KBQA) for question answering over large knowledge bases.
- 756, TITLE: Distantly-Supervised Dense Retrieval Enables Open-Domain Question Answering without Evidence Annotation
<https://www.aclweb.org/anthology/2021.emnlp-main.756>
AUTHORS: Chen Zhao, Chenyan Xiong, Jordan Boyd-Graber, Hal Daum? III
HIGHLIGHT: We introduce a novel approach (DistDR) that iteratively improves over a weak retriever by alternately finding evidence from the up-to-date model and encouraging the model to learn the most likely evidence.
- 757, TITLE: What's in a Name? Answer Equivalence For Open-Domain Question Answering
<https://www.aclweb.org/anthology/2021.emnlp-main.757>
AUTHORS: Chenglei Si, Chen Zhao, Jordan Boyd-Graber
HIGHLIGHT: This work explores mining alias entities from knowledge bases and using them as additional gold answers (i.e., equivalent answers).
- 758, TITLE: Evaluation Paradigms in Question Answering
<https://www.aclweb.org/anthology/2021.emnlp-main.758>
AUTHORS: Pedro Rodriguez, Jordan Boyd-Graber
HIGHLIGHT: Question answering (QA) primarily descends from two branches of research: (1) Alan Turing's investigation of machine intelligence at Manchester University and (2) Cyril Cleverdon's comparison of library card catalog indices at Cranfield University. This position paper names and distinguishes these paradigms.
- 759, TITLE: Numerical reasoning in machine reading comprehension tasks: are we there yet?
<https://www.aclweb.org/anthology/2021.emnlp-main.759>
AUTHORS: Hadeel Al-Negheimish, Pranava Madhyastha, Alessandra Russo
HIGHLIGHT: In this paper, we present a controlled study on some of the top-performing model architectures for the task of numerical reasoning.
- 760, TITLE: Set Generation Networks for End-to-End Knowledge Base Population
<https://www.aclweb.org/anthology/2021.emnlp-main.760>
AUTHORS: Dianbo Sui, Chenhao Wang, Yubo Chen, Kang Liu, Jun Zhao, Wei Bi
HIGHLIGHT: In this paper, we formulate end-to-end KBP as a direct set generation problem, avoiding considering the order of multiple facts.
- 761, TITLE: Knowing False Negatives: An Adversarial Training Method for Distantly Supervised Relation Extraction
<https://www.aclweb.org/anthology/2021.emnlp-main.761>
AUTHORS: Kailong Hao, Botao Yu, Wei Hu
HIGHLIGHT: First, it finds out possible FN samples by heuristically leveraging the memory mechanism of deep neural networks. Then, it aligns those unlabeled data with the training data into a unified feature space by adversarial training to assign pseudo labels and further utilize the information contained in them.
- 762, TITLE: Progressive Adversarial Learning for Bootstrapping: A Case Study on Entity Set Expansion
<https://www.aclweb.org/anthology/2021.emnlp-main.762>
AUTHORS: Lingyong Yan, Xianpei Han, Le Sun
HIGHLIGHT: In this paper, we propose BootstrapGAN, a new learning method for bootstrapping which jointly models the bootstrapping process and the boundary learning process in a GAN framework.
- 763, TITLE: Uncovering Main Causalities for Long-tailed Information Extraction
<https://www.aclweb.org/anthology/2021.emnlp-main.763>

AUTHORS: Guoshun Nan, Jiaqi Zeng, Rui Qiao, Zhijiang Guo, Wei Lu
HIGHLIGHT: This motivates us to propose counterfactual IE (CFIE), a novel framework that aims to uncover the main causalities behind data in the view of causal inference.

764, TITLE: Maximal Clique Based Non-Autoregressive Open Information Extraction
<https://www.aclweb.org/anthology/2021.emnlp-main.764>
AUTHORS: Bowen Yu, Yucheng Wang, Tingwen Liu, Hongsong Zhu, Limin Sun, Bin Wang
HIGHLIGHT: To break this bottleneck, we propose MacroIE, a novel non-autoregressive framework for OpenIE.

765, TITLE: A Relation-Oriented Clustering Method for Open Relation Extraction
<https://www.aclweb.org/anthology/2021.emnlp-main.765>
AUTHORS: Jun Zhao, Tao Gui, Qi Zhang, Yaqian Zhou
HIGHLIGHT: In this work, we propose a relation-oriented clustering model and use it to identify the novel relations in the unlabeled data.

766, TITLE: Exploring Methods for Generating Feedback Comments for Writing Learning
<https://www.aclweb.org/anthology/2021.emnlp-main.766>
AUTHORS: Kazuaki Hanawa, Ryo Nagata, Kentaro Inui
HIGHLIGHT: To shed light on these points, we investigate a wider range of methods for generating many feedback comments in this study.

767, TITLE: A Role-Selected Sharing Network for Joint Machine-Human Chatting Handoff and Service Satisfaction Analysis
<https://www.aclweb.org/anthology/2021.emnlp-main.767>
AUTHORS: Jiawei Liu, Kaisong Song, Yangyang Kang, Guoxiu He, Zhuoren Jiang, Changlong Sun, Wei Lu, Xiaozhong Liu
HIGHLIGHT: In this study, we propose a novel model, Role-Selected Sharing Network (RSSN), which integrates both dialogue satisfaction estimation and handoff prediction in one multi-task learning framework.

768, TITLE: Meta Distant Transfer Learning for Pre-trained Language Models
<https://www.aclweb.org/anthology/2021.emnlp-main.768>
AUTHORS: Chengyu Wang, Haojie Pan, Minghui Qiu, Jun Huang, Fei Yang, Yin Zhang
HIGHLIGHT: Inspired by meta-learning, we propose the Meta Distant Transfer Learning (Meta-DTL) framework to learn the cross-task knowledge for PLM-based methods.

769, TITLE: UniKER: A Unified Framework for Combining Embedding and Definite Horn Rule Reasoning for Knowledge Graph Inference
<https://www.aclweb.org/anthology/2021.emnlp-main.769>
AUTHORS: Kewei Cheng, Ziqing Yang, Ming Zhang, Yizhou Sun
HIGHLIGHT: In this paper, we propose a novel framework UniKER to address these challenges by restricting logical rules to be definite Horn rules, which can fully exploit the knowledge in logical rules and enable the mutual enhancement of logical rule-based reasoning and KGE in an extremely efficient way.

770, TITLE: Wasserstein Selective Transfer Learning for Cross-domain Text Mining
<https://www.aclweb.org/anthology/2021.emnlp-main.770>
AUTHORS: Lingyun Feng, Minghui Qiu, Yaliang Li, Haitao Zheng, Ying Shen
HIGHLIGHT: To alleviate this issue, we propose a Wasserstein Selective Transfer Learning (WSTL) method.

771, TITLE: Jointly Learning to Repair Code and Generate Commit Message
<https://www.aclweb.org/anthology/2021.emnlp-main.771>
AUTHORS: Jiaqi Bai, Long Zhou, Ambrosio Blanco, Shujie Liu, Furu Wei, Ming Zhou, Zhoujun Li
HIGHLIGHT: We propose a novel task of jointly repairing program codes and generating commit messages.

772, TITLE: Inflate and Shrink: Enriching and Reducing Interactions for Fast Text-Image Retrieval
<https://www.aclweb.org/anthology/2021.emnlp-main.772>
AUTHORS: Haoliang Liu, Tan Yu, Ping Li
HIGHLIGHT: In this work, we propose an inflating and shrinking approach to further boost the efficiency and accuracy of late-interaction methods.

773, TITLE: On Pursuit of Designing Multi-modal Transformer for Video Grounding

<https://www.aclweb.org/anthology/2021.emnlp-main.773>

AUTHORS: Meng Cao, Long Chen, Mike Zheng Shou, Can Zhang, Yuexian Zou
HIGHLIGHT: To this end, we reformulate video grounding as a set prediction task and propose a novel end-to-end multi-modal Transformer model, dubbed as GTR.

774, TITLE: COVR: A Test-Bed for Visually Grounded Compositional Generalization with Real Images

<https://www.aclweb.org/anthology/2021.emnlp-main.774>

AUTHORS: Ben Bogin, Shivanshu Gupta, Matt Gardner, Jonathan Berant
HIGHLIGHT: In this work, we propose COVR, a new test-bed for visually-grounded compositional generalization with real images.

775, TITLE: Vision-and-Language or Vision-for-Language? On Cross-Modal Influence in Multimodal Transformers

<https://www.aclweb.org/anthology/2021.emnlp-main.775>

AUTHORS: Stella Frank, Emanuele Bugliarello, Desmond Elliott
HIGHLIGHT: We propose a diagnostic method based on cross-modal input ablation to assess the extent to which these models actually integrate cross-modal information.

776, TITLE: HypMix: Hyperbolic Interpolative Data Augmentation

<https://www.aclweb.org/anthology/2021.emnlp-main.776>

AUTHORS: Ramit Sawhney, Megh Thakkar, Shivam Agarwal, Di Jin, Diyi Yang, Lucie Flek
HIGHLIGHT: We propose HypMix, a novel model-, data-, and modality-agnostic interpolative data augmentation technique operating in the hyperbolic space, which captures the complex geometry of input and hidden state hierarchies better than its contemporaries.

777, TITLE: Integrating Deep Event-Level and Script-Level Information for Script Event Prediction

<https://www.aclweb.org/anthology/2021.emnlp-main.777>

AUTHORS: Long Bai, Saiping Guan, Jiafeng Guo, Zixuan Li, Xiaolong Jin, Xueqi Cheng
HIGHLIGHT: In this paper, we propose a Transformer-based model, called MCPredictor, which integrates deep event-level and script-level information for script event prediction.

778, TITLE: QA-Align: Representing Cross-Text Content Overlap by Aligning Question-Answer Propositions

<https://www.aclweb.org/anthology/2021.emnlp-main.778>

AUTHORS: Daniela Brook Weiss, Paul Roit, Ayal Klein, Ori Ernst, Ido Dagan
HIGHLIGHT: We employ crowd-workers for constructing a dataset of QA-based alignments, and present a baseline QA alignment model trained over our dataset.

779, TITLE: PICARD: Parsing Incrementally for Constrained Auto-Regressive Decoding from Language Models

<https://www.aclweb.org/anthology/2021.emnlp-main.779>

AUTHORS: Torsten Scholak, Nathan Schucher, Dzmitry Bahdanau
HIGHLIGHT: We propose PICARD (code available at <https://github.com/ElementAI/picard>), a method for constraining auto-regressive decoders of language models through incremental parsing.

780, TITLE: Exploiting Twitter as Source of Large Corpora of Weakly Similar Pairs for Semantic Sentence Embeddings

<https://www.aclweb.org/anthology/2021.emnlp-main.780>

AUTHORS: Marco Di Giovanni, Marco Brambilla
HIGHLIGHT: We instead propose a language-independent approach to build large datasets of pairs of informal texts weakly similar, without manual human effort, exploiting Twitter's intrinsic powerful signals of relatedness: replies and quotes of tweets.

781, TITLE: Guilt by Association: Emotion Intensities in Lexical Representations

<https://www.aclweb.org/anthology/2021.emnlp-main.781>

AUTHORS: Shahab Raji, Gerard de Melo
HIGHLIGHT: In this study, we consider the task of estimating word-level emotion intensity scores for specific emotions, exploring unsupervised, supervised, and finally a self-supervised method of extracting emotional associations from pretrained vectors and models.

782, TITLE: Using Sociolinguistic Variables to Reveal Changing Attitudes Towards Sexuality and Gender

<https://www.aclweb.org/anthology/2021.emnlp-main.782>

AUTHORS: Sky CH-Wang, David Jurgens
HIGHLIGHT: Here, we develop computational methods to study word choice within a sociolinguistic lexical variable-alternate words used to express the same concept-in order to test for change in the United States towards sexuality and gender.

- 783, TITLE: Identifying Morality Frames in Political Tweets using Relational Learning
<https://www.aclweb.org/anthology/2021.emnlp-main.783>
AUTHORS: Shamik Roy, Maria Leonor Pacheco, Dan Goldwasser
HIGHLIGHT: In this paper, we introduce morality frames, a representation framework for organizing moral attitudes directed at different entities, and come up with a novel and high-quality annotated dataset of tweets written by US politicians.
- 784, TITLE: Measuring Sentence-Level and Aspect-Level (Un)certainty in Science Communications
<https://www.aclweb.org/anthology/2021.emnlp-main.784>
AUTHORS: Jiaxin Pei, David Jurgens
HIGHLIGHT: Here, we introduce a new study of certainty that models both the level and the aspects of certainty in scientific findings.
- 785, TITLE: Assessing the Reliability of Word Embedding Gender Bias Measures
<https://www.aclweb.org/anthology/2021.emnlp-main.785>
AUTHORS: Yupei Du, Qixiang Fang, Dong Nguyen
HIGHLIGHT: In this paper, we assess three types of reliability of word embedding gender bias measures, namely test-retest reliability, inter-rater consistency and internal consistency.
- 786, TITLE: Rumor Detection on Twitter with Claim-Guided Hierarchical Graph Attention Networks
<https://www.aclweb.org/anthology/2021.emnlp-main.786>
AUTHORS: Hongzhan Lin, Jing Ma, Mingfei Cheng, Zhiwei Yang, Liangliang Chen, Guang Chen
HIGHLIGHT: In this study, to substantially reinforces the interaction of user opinions while alleviating the negative impact imposed by irrelevant posts, we first represent the conversation thread as an undirected interaction graph. We then present a Claim-guided Hierarchical Graph Attention Network for rumor classification, which enhances the representation learning for responsive posts considering the entire social contexts and attends over the posts that can semantically infer the target claim.
- 787, TITLE: Learning Bill Similarity with Annotated and Augmented Corpora of Bills
<https://www.aclweb.org/anthology/2021.emnlp-main.787>
AUTHORS: Jiseon Kim, Elden Griggs, In Song Kim, Alice Oh
HIGHLIGHT: In this paper, we overcome these limitations by proposing a 5-class classification task that closely reflects the nature of the bill generation process.
- 788, TITLE: SWEAT: Scoring Polarization of Topics across Different Corpora
<https://www.aclweb.org/anthology/2021.emnlp-main.788>
AUTHORS: Federico Bianchi, Marco Marelli, Paolo Nicoli, Matteo Palmonari
HIGHLIGHT: In this paper, we propose the Sliced Word Embedding Association Test (SWEAT), a novel statistical measure to compute the relative polarization of a topical wordset across two distributional representations.
- 789, TITLE: "So You Think You're Funny?": Rating the Humour Quotient in Standup Comedy
<https://www.aclweb.org/anthology/2021.emnlp-main.789>
AUTHORS: Anirudh Mittal, Pranav Jeevan P, Prerak Gandhi, Diptesh Kanojia, Pushpak Bhattacharyya
HIGHLIGHT: In this work, we create a multi-modal humour-annotated dataset (~40 hours) using stand-up comedy clips.
- 790, TITLE: "Was it "stated" or was it "claimed"?: How linguistic bias affects generative language models
<https://www.aclweb.org/anthology/2021.emnlp-main.790>
AUTHORS: Roma Patel, Ellie Pavlick
HIGHLIGHT: In this paper, we test whether generative language models (including GPT-2 (CITATION)) are sensitive to these linguistic framing effects.
- 791, TITLE: PAUSE: Positive and Annealed Unlabeled Sentence Embedding
<https://www.aclweb.org/anthology/2021.emnlp-main.791>
AUTHORS: Lele Cao, Emil Larsson, Vilhelm von Ehrenheim, Dhiana Deva Cavalcanti Rocha, Anna Martin, Sonja Horn
HIGHLIGHT: To that end, we propose a generic and end-to-end approach - PAUSE (Positive and Annealed Unlabeled Sentence Embedding), capable of learning high-quality sentence embeddings from a partially labeled dataset.
- 792, TITLE: A Simple Geometric Method for Cross-Lingual Linguistic Transformations with Pre-trained Autoencoders
<https://www.aclweb.org/anthology/2021.emnlp-main.792>
AUTHORS: Maarten De Raedt, Fr?deric Godin, Pieter Buteneers, Chris Develder, Thomas Demeester
HIGHLIGHT: For efficient learning, we investigate the use of a geometric mapping in embedding space to transform linguistic properties, without any tuning of the pre-trained sentence encoder or decoder.

- 793, TITLE: An Information-Theoretic Characterization of Morphological Fusion
<https://www.aclweb.org/anthology/2021.emnlp-main.793>
AUTHORS: Neil Rathi, Michael Hahn, Richard Futrell
HIGHLIGHT: We present an information-theoretic measure, called informational fusion, to quantify the degree of fusion of a given set of morphological features in a surface form, which naturally provides such a graded scale.
- 794, TITLE: The Effect of Efficient Messaging and Input Variability on Neural-Agent Iterated Language Learning
<https://www.aclweb.org/anthology/2021.emnlp-main.794>
AUTHORS: Yuchen Lian, Arianna Bisazza, Tessa Verhoef
HIGHLIGHT: Our simulations show that neural agents mainly strive to maintain the utterance type distribution observed during learning, instead of developing a more efficient or systematic language.
- 795, TITLE: On Classifying whether Two Texts are on the Same Side of an Argument
<https://www.aclweb.org/anthology/2021.emnlp-main.795>
AUTHORS: Erik K?rner, Gregor Wiedemann, Ahmad Dawar Hakimi, Gerhard Heyer, Martin Potthast
HIGHLIGHT: Our evaluation shows that current state-of-the-art approaches cannot determine same side stance by considering only domain-independent linguistic similarity features, but appear to require domain knowledge and semantic inference, too.
- 796, TITLE: Chinese Opinion Role Labeling with Corpus Translation: A Pivot Study
<https://www.aclweb.org/anthology/2021.emnlp-main.796>
AUTHORS: Ranran Zhen, Rui Wang, Guohong Fu, Chengguo Lv, Meishan Zhang
HIGHLIGHT: Unlike most of the previous works focusing on the English language, in this paper, we present the first work of Chinese ORL.
- 797, TITLE: MassiveSumm: a very large-scale, very multilingual, news summarisation dataset
<https://www.aclweb.org/anthology/2021.emnlp-main.797>
AUTHORS: Daniel Varab, Natalie Schluter
HIGHLIGHT: In this paper, we present a large-scale multilingual summarisation dataset containing articles in 92 languages, spread across 28.8 million articles, in more than 35 writing scripts.
- 798, TITLE: AUTOSUMM: Automatic Model Creation for Text Summarization
<https://www.aclweb.org/anthology/2021.emnlp-main.798>
AUTHORS: Sharmila Reddy Nangi, Atharv Tyagi, Jay Mundra, Sagnik Mukherjee, Raj Snehal, Niyati Chhaya, Aparna Garimella
HIGHLIGHT: In this paper, we propose methods to automatically create deep learning models for the tasks of extractive and abstractive text summarization.
- 799, TITLE: Investigating the Helpfulness of Word-Level Quality Estimation for Post-Editing Machine Translation Output
<https://www.aclweb.org/anthology/2021.emnlp-main.799>
AUTHORS: Raksha Shenoy, Nico Herbig, Antonio Kr?ger, Josef van Genabith
HIGHLIGHT: In this paper, we address both research questions with real and simulated word-level QE, visualizations, and user studies, where time, subjective ratings, and quality of the final translations are assessed.
- 800, TITLE: UNKs Everywhere: Adapting Multilingual Language Models to New Scripts
<https://www.aclweb.org/anthology/2021.emnlp-main.800>
AUTHORS: Jonas Pfeiffer, Ivan Vulic, Iryna Gurevych, Sebastian Ruder
HIGHLIGHT: In this work, we propose a series of novel data-efficient methods that enable quick and effective adaptation of pretrained multilingual models to such low-resource languages and unseen scripts.
- 801, TITLE: Neural Machine Translation Quality and Post-Editing Performance
<https://www.aclweb.org/anthology/2021.emnlp-main.801>
AUTHORS: Vil?m Zouhar, Martin Popel, Ondrej Bojar, Ale? Tamchyna
HIGHLIGHT: Across all models, we found that better MT systems indeed lead to fewer changes in the sentences in this industry setting.
- 802, TITLE: XTREME-R: Towards More Challenging and Nuanced Multilingual Evaluation
<https://www.aclweb.org/anthology/2021.emnlp-main.802>
AUTHORS: Sebastian Ruder, Noah Constant, Jan Botha, Aditya Siddhant, Orhan Firat, Jinlan Fu, Pengfei Liu, Junjie Hu, Dan Garrette, Graham Neubig, Melvin Johnson

HIGHLIGHT: In order to catalyze meaningful progress, we extend XTREME to XTREME-R, which consists of an improved set of ten natural language understanding tasks, including challenging language-agnostic retrieval tasks, and covers 50 typologically diverse languages.

803, TITLE: Contrastive Conditioning for Assessing Disambiguation in MT: A Case Study of Distilled Bias
<https://www.aclweb.org/anthology/2021.emnlp-main.803>
AUTHORS: Jannis Vamvas, Rico Sennrich
HIGHLIGHT: We propose contrastive conditioning as a reference-free black-box method for detecting disambiguation errors.

804, TITLE: Measuring Association Between Labels and Free-Text Rationales
<https://www.aclweb.org/anthology/2021.emnlp-main.804>
AUTHORS: Sarah Wiegrefe, Ana Marasovic, Noah A. Smith
HIGHLIGHT: We investigate the extent to which the labels and rationales predicted by these models are associated, a necessary property of faithful explanation.

805, TITLE: Discretized Integrated Gradients for Explaining Language Models
<https://www.aclweb.org/anthology/2021.emnlp-main.805>
AUTHORS: Soumya Sanyal, Xiang Ren
HIGHLIGHT: Here we propose Discretized Integrated Gradients (DIG), which allows effective attribution along non-linear interpolation paths.

806, TITLE: Putting Words in BERT's Mouth: Navigating Contextualized Vector Spaces with Pseudowords
<https://www.aclweb.org/anthology/2021.emnlp-main.806>
AUTHORS: Taelin Karidi, Yichu Zhou, Nathan Schneider, Omri Abend, Vivek Srikumar
HIGHLIGHT: We present a method for exploring regions around individual points in a contextualized vector space (particularly, BERT space), as a way to investigate how these regions correspond to word senses.

807, TITLE: Rationales for Sequential Predictions
<https://www.aclweb.org/anthology/2021.emnlp-main.807>
AUTHORS: Keyon Vafa, Yuntian Deng, David Blei, Alexander Rush
HIGHLIGHT: Enumerating all subsets is intractable, so we propose an efficient greedy algorithm to approximate this objective.

808, TITLE: FastIF: Scalable Influence Functions for Efficient Model Interpretation and Debugging
<https://www.aclweb.org/anthology/2021.emnlp-main.808>
AUTHORS: Han Guo, Nazneen Rajani, Peter Hase, Mohit Bansal, Caiming Xiong
HIGHLIGHT: We present FastIF, a set of simple modifications to influence functions that significantly improves their runtime.

809, TITLE: Studying word order through iterative shuffling
<https://www.aclweb.org/anthology/2021.emnlp-main.809>
AUTHORS: Nikolay Malkin, Sameera Lanka, Pranav Goel, Nebojsa Jojic
HIGHLIGHT: This view rests upon a hypothesis that has not yet been empirically tested: that word order encodes meaning essential to performing these tasks. We refute this hypothesis in many cases: in the GLUE suite and in various genres of English text, the words in a sentence or phrase can rarely be permuted to form a phrase carrying substantially different information.

810, TITLE: Distantly-Supervised Named Entity Recognition with Noise-Robust Learning and Language Model Augmented Self-Training
<https://www.aclweb.org/anthology/2021.emnlp-main.810>
AUTHORS: Yu Meng, Yunyi Zhang, Jiaxin Huang, Xuan Wang, Yu Zhang, Heng Ji, Jiawei Han
HIGHLIGHT: In this paper, we propose (1) a noise-robust learning scheme comprised of a new loss function and a noisy label removal step, for training NER models on distantly-labeled data, and (2) a self-training method that uses contextualized augmentations created by pre-trained language models to improve the generalization ability of the NER model.

811, TITLE: Open Knowledge Graphs Canonicalization using Variational Autoencoders
<https://www.aclweb.org/anthology/2021.emnlp-main.811>
AUTHORS: Sarthak Dash, Gaetano Rossiello, Nandana Mihindukulasooriya, Sugato Bagchi, Alfio Gliozzo
HIGHLIGHT: In this work, we propose Canonicalizing Using Variational AutoEncoders and Side Information (CUVA), a joint model to learn both embeddings and cluster assignments in an end-to-end approach, which leads to a better vector representation for the noun and relation phrases.

- 812, TITLE: HittER: Hierarchical Transformers for Knowledge Graph Embeddings
<https://www.aclweb.org/anthology/2021.emnlp-main.812>
AUTHORS: Sanxing Chen, Xiaodong Liu, Jianfeng Gao, Jian Jiao, Ruofei Zhang, Yangfeng Ji
HIGHLIGHT: We propose HittER, a Hierarchical Transformer model to jointly learn Entity-relation composition and Relational contextualization based on a source entity's neighborhood.
- 813, TITLE: Few-Shot Named Entity Recognition: An Empirical Baseline Study
<https://www.aclweb.org/anthology/2021.emnlp-main.813>
AUTHORS: Jiaxin Huang, Chunyuan Li, Krishan Subudhi, Damien Jose, Shobana Balakrishnan, Weizhu Chen, Baolin Peng, Jianfeng Gao, Jiawei Han
HIGHLIGHT: This paper presents an empirical study to efficiently build named entity recognition (NER) systems when a small amount of in-domain labeled data is available.
- 814, TITLE: XLEnt: Mining a Large Cross-lingual Entity Dataset with Lexical-Semantic-Phonetic Word Alignment
<https://www.aclweb.org/anthology/2021.emnlp-main.814>
AUTHORS: Ahmed El-Kishky, Adithya Renduchintala, James Cross, Francisco Guzmán, Philipp Koehn
HIGHLIGHT: To address this, we propose Lexical-Semantic-Phonetic Align (LSP-Align), a technique to automatically mine cross-lingual entity lexica from mined web data.
- 815, TITLE: Utilizing Relative Event Time to Enhance Event-Event Temporal Relation Extraction
<https://www.aclweb.org/anthology/2021.emnlp-main.815>
AUTHORS: Haoyang Wen, Heng Ji
HIGHLIGHT: In this paper, we propose a joint model for event-event temporal relation classification and an auxiliary task, relative event time prediction, which predicts the event time as real numbers.
- 816, TITLE: Separating Retention from Extraction in the Evaluation of End-to-end Relation Extraction
<https://www.aclweb.org/anthology/2021.emnlp-main.816>
AUTHORS: Bruno Taill?, Vincent Guigue, Geoffrey Scuttheeten, Patrick Gallinari
HIGHLIGHT: In this paper we propose two experiments confirming that retention of known facts is a key factor of performance on standard benchmarks.
- 817, TITLE: Automatic Text Evaluation through the Lens of Wasserstein Barycenters
<https://www.aclweb.org/anthology/2021.emnlp-main.817>
AUTHORS: Pierre Colombo, Guillaume Staerman, Chloé Clavel, Pablo Piantanida
HIGHLIGHT: A new metric BaryScore to evaluate text generation based on deep contextualized embeddings (e.g., BERT, Roberta, ELMo) is introduced.
- 818, TITLE: Visually Grounded Reasoning across Languages and Cultures
<https://www.aclweb.org/anthology/2021.emnlp-main.818>
AUTHORS: Fangyu Liu, Emanuele Bugliareello, Edoardo Maria Ponti, Siva Reddy, Nigel Collier, Desmond Elliott
HIGHLIGHT: In particular, we let the selection of both concepts and images be entirely driven by native speakers, rather than scraping them automatically.
- 819, TITLE: Back to Square One: Artifact Detection, Training and Commonsense Disentanglement in the Winograd Schema
<https://www.aclweb.org/anthology/2021.emnlp-main.819>
AUTHORS: Yanai Elazar, Hongming Zhang, Yoav Goldberg, Dan Roth
HIGHLIGHT: This paper suggests that the apparent progress on WS may not necessarily reflect progress in commonsense reasoning.
- 820, TITLE: Robustness Evaluation of Entity Disambiguation Using Prior Probes: the Case of Entity Overshadowing
<https://www.aclweb.org/anthology/2021.emnlp-main.820>
AUTHORS: Vera Provatorova, Samarth Bhargav, Svitlana Vakulenko, Evangelos Kanoulas
HIGHLIGHT: To provide a more adequate evaluation benchmark, we introduce the ShadowLink dataset, which includes 16K short text snippets annotated with entity mentions.
- 821, TITLE: IndoNLI: A Natural Language Inference Dataset for Indonesian
<https://www.aclweb.org/anthology/2021.emnlp-main.821>
AUTHORS: Rahmad Mahendra, Alham Fikri Aji, Samuel Louvan, Fahrurrozi Rahman, Clara Vania
HIGHLIGHT: We present IndoNLI, the first human-elicited NLI dataset for Indonesian.

- 822, TITLE: Agreeing to Disagree: Annotating Offensive Language Datasets with Annotators' Disagreement
<https://www.aclweb.org/anthology/2021.emnlp-main.822>
AUTHORS: Elisa Leonardelli, Stefano Menini, Alessio Palmero Aprosio, Marco Guerini, Sara Tonelli
HIGHLIGHT: Following a trend that has emerged recently, we focus on the level of agreement among annotators while selecting data to create offensive language datasets, a task involving a high level of subjectivity.
- 823, TITLE: A Root of a Problem: Optimizing Single-Root Dependency Parsing
<https://www.aclweb.org/anthology/2021.emnlp-main.823>
AUTHORS: Miloš Stanojević, Shay B. Cohen
HIGHLIGHT: We describe two approaches to single-root dependency parsing that yield significant speed ups in such parsing.
- 824, TITLE: Efficient Sampling of Dependency Structure
<https://www.aclweb.org/anthology/2021.emnlp-main.824>
AUTHORS: Ran Zmigrod, Tim Vieira, Ryan Cotterell
HIGHLIGHT: In this paper, we adapt two spanning tree sampling algorithms to faithfully sample dependency trees from a graph subject to the root constraint.
- 825, TITLE: Reducing Discontinuous to Continuous Parsing with Pointer Network Reordering
<https://www.aclweb.org/anthology/2021.emnlp-main.825>
AUTHORS: Daniel Fernandez-Gonzalez, Carlos Gomez-Rodriguez
HIGHLIGHT: Based on that, we propose to reduce discontinuous parsing to a continuous problem, which can then be directly solved by any off-the-shelf continuous parser.
- 826, TITLE: A New Representation for Span-based CCG Parsing
<https://www.aclweb.org/anthology/2021.emnlp-main.826>
AUTHORS: Yoshihide Kato, Shigeki Matushara
HIGHLIGHT: This paper proposes a new representation for CCG derivations.
- 827, TITLE: What to Pre-Train on? Efficient Intermediate Task Selection
<https://www.aclweb.org/anthology/2021.emnlp-main.827>
AUTHORS: Clifton Poth, Jonas Pfeiffer, Andreas Ruckl, Iryna Gurevych
HIGHLIGHT: In this work, we provide a comprehensive comparison of different methods for efficiently identifying beneficial tasks for intermediate transfer learning.
- 828, TITLE: PermuteFormer: Efficient Relative Position Encoding for Long Sequences
<https://www.aclweb.org/anthology/2021.emnlp-main.828>
AUTHORS: Peng Chen
HIGHLIGHT: In this paper, we discuss possible ways to add relative position encoding to Performer.
- 829, TITLE: Block Pruning For Faster Transformers
<https://www.aclweb.org/anthology/2021.emnlp-main.829>
AUTHORS: François Lagunas, Ella Charlaix, Victor Sanh, Alexander Rush
HIGHLIGHT: We introduce a block pruning approach targeting both small and fast models.
- 830, TITLE: Finetuning Pretrained Transformers into RNNs
<https://www.aclweb.org/anthology/2021.emnlp-main.830>
AUTHORS: Jungo Kasai, Hao Peng, Yizhe Zhang, Dani Yogatama, Gabriel Ilharco, Nikolaos Pappas, Yi Mao, Weizhu Chen, Noah A. Smith
HIGHLIGHT: As many models for natural language tasks are increasingly dependent on large-scale pretrained transformers, this work presents a viable approach to improving inference efficiency without repeating the expensive pretraining process.
- 831, TITLE: How to Train BERT with an Academic Budget
<https://www.aclweb.org/anthology/2021.emnlp-main.831>
AUTHORS: Peter Izsak, Moshe Berchansky, Omer Levy
HIGHLIGHT: We present a recipe for pretraining a masked language model in 24 hours using a single low-end deep learning server.
- 832, TITLE: Beyond Preserved Accuracy: Evaluating Loyalty and Robustness of BERT Compression
<https://www.aclweb.org/anthology/2021.emnlp-main.832>

AUTHORS: Canwen Xu, Wangchunshu Zhou, Tao Ge, Ke Xu, Julian McAuley, Furu Wei
HIGHLIGHT: In this paper, we propose two new metrics, label loyalty and probability loyalty that measure how closely a compressed model (i.e., student) mimics the original model (i.e., teacher).

833, TITLE: IndoBERTweet: A Pretrained Language Model for Indonesian Twitter with Effective Domain-Specific Vocabulary Initialization
<https://www.aclweb.org/anthology/2021.emnlp-main.833>
AUTHORS: Fajri Koto, Jey Han Lau, Timothy Baldwin
HIGHLIGHT: We present IndoBERTweet, the first large-scale pretrained model for Indonesian Twitter that is trained by extending a monolingually-trained Indonesian BERT model with additive domain-specific vocabulary.

834, TITLE: Pushing on Text Readability Assessment: A Transformer Meets Handcrafted Linguistic Features
<https://www.aclweb.org/anthology/2021.emnlp-main.834>
AUTHORS: Bruce W. Lee, Yoo Sung Jang, Jason Lee
HIGHLIGHT: We report two essential improvements in readability assessment: 1. three novel features in advanced semantics and 2. the timely evidence that traditional ML models (e.g. Random Forest, using handcrafted features) can combine with transformers (e.g. RoBERTa) to augment model performance.

835, TITLE: Types of Out-of-Distribution Texts and How to Detect Them
<https://www.aclweb.org/anthology/2021.emnlp-main.835>
AUTHORS: Udit Arora, William Huang, He He
HIGHLIGHT: We categorize these examples as exhibiting a background shift or semantic shift, and find that the two major approaches to OOD detection, calibration and density estimation (language modeling for text), have distinct behavior on these types of OOD data.

836, TITLE: Self-training with Few-shot Rationalization
<https://www.aclweb.org/anthology/2021.emnlp-main.836>
AUTHORS: Meghana Moorthy Bhat, Alessandro Sordani, Subhabrata Mukherjee
HIGHLIGHT: To this end, we develop a multi-task teacher-student framework based on self-training pre-trained language models with limited task-specific labels and rationales and judicious sample selection to learn from informative pseudo-labeled examples.

837, TITLE: MTAdam: Automatic Balancing of Multiple Training Loss Terms
<https://www.aclweb.org/anthology/2021.emnlp-main.837>
AUTHORS: Itzik Malkiel, Lior Wolf
HIGHLIGHT: In this work, we generalize the Adam optimization algorithm to handle multiple loss terms.

838, TITLE: Softmax Tree: An Accurate, Fast Classifier When the Number of Classes Is Large
<https://www.aclweb.org/anthology/2021.emnlp-main.838>
AUTHORS: Arman Zharmagambetov, Magzhan Gabidolla, Miguel A. Carreira-Perpinan
HIGHLIGHT: We propose the "softmax tree", consisting of a binary tree having sparse hyperplanes at the decision nodes (which make hard, not soft, decisions) and small softmax classifiers at the leaves.

839, TITLE: Improving Distantly-Supervised Named Entity Recognition with Self-Collaborative Denoising Learning
<https://www.aclweb.org/anthology/2021.emnlp-main.839>
AUTHORS: Xinghua Zhang, Bowen Yu, Tingwen Liu, Zhenyu Zhang, Jiawei Sheng, Xue Mengge, Hongbo Xu
HIGHLIGHT: To address this issue, we propose a robust learning paradigm named Self-Collaborative Denoising Learning (SCDL), which jointly trains two teacher-student networks in a mutually-beneficial manner to iteratively perform noisy label refinery.

840, TITLE: Multivalent Entailment Graphs for Question Answering
<https://www.aclweb.org/anthology/2021.emnlp-main.840>
AUTHORS: Nick McKenna, Liane Guillou, Mohammad Javad Hosseini, Sander Bijl de Vroe, Mark Johnson, Mark Steedman
HIGHLIGHT: We make three contributions: (1) we reinterpret the Distributional Inclusion Hypothesis to model entailment between predicates of different valencies, like DEFEAT(Biden, Trump) entails WIN(Biden); (2) we actualize this theory by learning unsupervised Multivalent Entailment Graphs of open-domain predicates; and (3) we demonstrate the capabilities of these graphs on a novel question answering task.

841, TITLE: Is Everything in Order? A Simple Way to Order Sentences
<https://www.aclweb.org/anthology/2021.emnlp-main.841>
AUTHORS: Somnath Basu Roy Chowdhury, Faeze Brahman, Snigdha Chaturvedi

HIGHLIGHT: We present Reorder-BART (Re-BART) that leverages a pre-trained Transformer-based model to identify a coherent order for a given set of shuffled sentences.

842, **TITLE:** VeeAlign: Multifaceted Context Representation Using Dual Attention for Ontology Alignment

<https://www.aclweb.org/anthology/2021.emnlp-main.842>

AUTHORS: Vivek Iyer, Arvind Agarwal, Harshit Kumar

HIGHLIGHT: In this work, we propose VeeAlign, a Deep Learning based model that uses a novel dual-attention mechanism to compute the contextualized representation of a concept which, in turn, is used to discover alignments.

843, **TITLE:** Finding needles in a haystack: Sampling Structurally-diverse Training Sets from Synthetic Data for Compositional Generalization

<https://www.aclweb.org/anthology/2021.emnlp-main.843>

AUTHORS: Inbar Oren, Jonathan Herzig, Jonathan Berant

HIGHLIGHT: In this work, we investigate automatic generation of synthetic utterance-program pairs for improving compositional generalization in semantic parsing.

844, **TITLE:** GeneSis: A Generative Approach to Substitutes in Context

<https://www.aclweb.org/anthology/2021.emnlp-main.844>

AUTHORS: Caterina Lacerra, Rocco Tripodi, Roberto Navigli

HIGHLIGHT: To assess these issues, we proposed GeneSis (Generating Substitutes in contexts), the first generative approach to lexical substitution.

845, **TITLE:** Semi-Supervised Exaggeration Detection of Health Science Press Releases

<https://www.aclweb.org/anthology/2021.emnlp-main.845>

AUTHORS: Dustin Wright, Isabelle Augenstein

HIGHLIGHT: Given this, we present a formalization of and study into the problem of exaggeration detection in science communication.

846, **TITLE:** Phrase-BERT: Improved Phrase Embeddings from BERT with an Application to Corpus Exploration

<https://www.aclweb.org/anthology/2021.emnlp-main.846>

AUTHORS: Shufan Wang, Laure Thompson, Mohit Iyyer

HIGHLIGHT: In this paper, we propose a contrastive fine-tuning objective that enables BERT to produce more powerful phrase embeddings.

847, **TITLE:** Detecting Contact-Induced Semantic Shifts: What Can Embedding-Based Methods Do in Practice?

<https://www.aclweb.org/anthology/2021.emnlp-main.847>

AUTHORS: Filip Miletic, Anne Przewozny-Desriaux, Ludovic Tanguy

HIGHLIGHT: We introduce a new 80-item test set and conduct both quantitative and qualitative evaluations.