**Unsupervised Learning of Discourse Structures using a Tree Autoencoder**

**MASKER: Masked Keyword Regularization for Reliable Text Classification**

**LIREx: Augmenting Language Inference with Relevant Explanation**

**DialogXL: All-in-One XLNet for Multi-Party Conversation Emotion Recognition \***

Emotion Recognition in Conversation이 보다 좀 새로운 task이다

Regular documents와 달리 conversational utterances = different parties & hierarchical 구조 = PLM에 부적합한 형태 = 더 긴 히스토리를 저장하는 메모리와 멀티 파티 구조를 다룰 수 있는 self-attention

1. Recurrence 메커니즘을 세그먼트 레벨에서 utterance 레벨로 바꿈 = 대화형 데이터 더 잘 다룸
2. Dialog-aware self-attention = 기본 어텐션과 다름 = intra, inter 스피커 dependencies 다룸

**Exploring Transfer Learning For End-to-End Spoken Language Understanding**

**Keyword-Guided Neural Conversational Model**

**CARE: Commonsense-Aware Emotional Response Generation with Latent Concepts**

**Time to Transfer: Predicting and Evaluating Machine-Human Chatting Handoff**

**Reasoning in Dialog: Improving Response Generation by Context Reading Comprehension \*\*\***

Full form of sentences의 utterances를 못 얻음 = dialog context 이해가 떨어짐

Response를 모델의 능력을 따로 증가시켜서 좋은 방향으로 시킨다

어떻게? Reading comprehension question에 답을 하도록, dialog의 omitted info에 집중된 질문이다

이런 아이디어는 multi-task learning에서 왔으며 dialog와 QA를 joint 학습하는 것이다

즉, 같은 인코더를 통해 common and task-invariant 피처들을 뽑아내고 다른 디코더로 구체적인 피처를 학습한다

인코딩 부분에서 질문과 dialog history의 정보를 fusion하기 위해  
트랜스포머 아키텍쳐에 메모리 업데이터를 추가 = history dialog 정보를 선별적으로 저장하고 업데이트 한다(질문은 안하는 듯??) = support downstream tasks

Large-scale dialog reading comprehension dataset 사용

결과 = QA와 dialog 모두 향상

**Topic-Oriented Spoken Dialogue Summarization for Customer Service with Saliency-Aware Topic Modeling \*\***

**Unsupervised Summarization for Chat Logs with Topic-Oriented Ranking and Context-Aware Auto-Encoders \*\***

긴 채팅들을 요약해주는 task = 일반 docs와 chat logs는 특성이 다름 = fragment, evolving topics = 생략 & 질문 형태 질문도 많음

RankAE 역시 PLM 기법 = unsupervised = topic-oriented ranking 전략 = 토픽 문장을 centrality & diversity에 따라 고름

디노이징은 간단 명료 + context-informative 방법

Large-scale 데이터셋 모음

**Infusing Multi-Source Knowledge with Heterogeneous Graph Neural Network for Emotional Conversation Generation**

**DialogBERT: Discourse-Aware Response Generation via Learning to Recover and Rank Utterances \*\*\***

Dialogue context를 토큰들의 linear sequence로만 보고 토큰 레벨 self-attention을 통해 다음 단어 생성에만 집중했다

토큰 레벨 인코딩 = utterances 사이의 discourse-level coherence exploration에 집중 못함

DialogBERT를 제안 = 기존 BERT의 hierarchical 버전

Two training objectives 제안 = masked utterance regression & distributed utterance order ranking 뿐만 아니라 두 개 더?

BART와 DialoGPT와 비교

Coherent, informative, humanlike 하다

Coherent의 의미를 좀 더 알아야할 듯 = history와의 consistency 즉, relevance 같은 것을 의미하는 것인 거 같긴 한데

**Filling the Gap of Utterance-aware and Speaker-aware Representation for Multi-turn Dialogue \*\*\***

Utterance aware clue / speaker aware clue가 잘 포착돼야 한다(다화 다인 대화)

Dialogues를 너무 거칠게 represent 한다 = history와 candidate에 대하여 = hierarchical info가 utterance interrelation or speaker roles가 잘 안다뤄짐

1. Decouple contextualized word representation = masking mechanism =   
   making each word only focus on the words in current utterance, other utterances, two speaker roles (i.e., utterances of sender and utterances of receiver), respectively??

ELECTRA 이김

**Do Response Selection Models Really Know What's Next? Utterance Manipulation Strategies for Multi-turn Response Selection \*\*\***

Selecting optimal response given history in retrieval-based multi-turn system

이전 연구 = history와 candidates에만 의존 = 멀티턴 대화 자체의 본질에 집중하지 못함

Response selection task는 혼자서는 사실 대화하는데 있어서 부족하다 = utterances 사이의 dependencies를 배우는데 있어서

Utterance manipulation strategy를 제안 = UMS = dialog coherence 유지가 목표 (relevance? Coherence?)

또한 self-supervised methods임 = 데이터 annotation 추가적으로 필요하지 않는다

Dialog consistency

**Discovering and Categorising Language Biases in Reddit**

**FILTER: An Enhanced Fusion Method for Cross-lingual Language Understanding**

**Transfer Graph Neural Networks for Pandemic Forecasting**

**Semi-Supervised Learning with Variational Bayesian Inference and Maximum Uncertainty Regularization**

**Multilingual Transfer Learning for QA Using Translation as Data Augmentation**

**Comprehension and Knowledge**

**Unsupervised Summarization for Chat Logs with Topic-Oriented Ranking and Context-Aware Auto-Encoders**

**Topic-Oriented Spoken Dialogue Summarization for Customer Service with Saliency-Aware Topic Modeling**

**Time to Transfer: Predicting and Evaluating Machine-Human Chatting Handoff \*\***

**Copy that! Editing Sequences by Copying Spans**

**Segatron: Segment-Aware Transformer for Language Modeling and Understanding \***

**Knowledge-Driven Distractor Generation for Cloze-style Multiple Choice Questions**

**On the Importance of Word Order Information in Cross-lingual Sequence Labeling**

**Retrospective Reader for Machine Reading Comprehension**

**Guiding Non-Autoregressive Neural Machine Translation Decoding with Reordering Information**

**Learning to Retrieve Entity-Aware Knowledge and Generate Responses with Copy Mechanism for Task-Oriented Dialogue Systems**

**Deep Open Intent Classification with Adaptive Decision Boundary**

**Exploring Fluent Query Reformulations with Text-to-Text Transformers and Reinforcement Learning**

**Discovering New Intents with Deep Aligned Clustering**

**UBAR: Towards Fully End-to-End Task-Oriented Dialog Systems with GPT-2**

**SARG: A Novel Semi Autoregressive Generator for Multi-turn Incomplete Utterance Restoration \*\*\***