

- 1, TITLE: Users: Can't Work With Them, Can't Work Without Them?  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532787>  
AUTHORS: Alistair Moffat  
HIGHLIGHT: If we could design the ideal IR "effectiveness" experiment (as distinct from an IR "efficiency" experiment), what would it look like?
- 2, TITLE: Few-shot Information Extraction is Here: Pre-train, Prompt and Entail  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532786>  
AUTHORS: Eneko Agirre  
HIGHLIGHT: Manually annotated entailment datasets covering multiple inference phenomena have been used to infuse inference capabilities to PLMs. This talk will review these recent developments, and will present an approach that combines prompts and PLMs fine-tuned for textual entailment that yields state-of-the-art results on Information Extraction (IE) using only a small fraction of the annotations.
- 3, TITLE: Searching for a New and Better Future of Work  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532088>  
AUTHORS: Jaime Teevan  
HIGHLIGHT: In this talk I will give an overview of what research tells us about emerging work practices, and explore how the SIGIR community can build on these findings to help create a new - and better - future of work.
- 4, TITLE: Intelligent Conversational Agents for Ambient Computing  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532087>  
AUTHORS: Ruhi Sarikaya  
HIGHLIGHT: In this talk, we present some early steps we are taking with Alexa, Amazon's Conversational AI system, to move from supervised learning to self-learning methods, where the AI relies on customer interactions for supervision in our journey to ambient intelligence.
- 5, TITLE: Can Clicks Be Both Labels and Features?: Unbiased Behavior Feature Collection and Uncertainty-aware Learning to Rank  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531948>  
AUTHORS: Tao Yang, Chen Luo, Hanqing Lu, Parth Gupta, Bing Yin, Qingyao Ai  
HIGHLIGHT: In this paper, we explore the possibility of incorporating user clicks as both training labels and ranking features for learning to rank.
- 6, TITLE: Implicit Feedback for Dense Passage Retrieval: A Counterfactual Approach  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531994>  
AUTHORS: Shengyao Zhuang, Hang Li, Guido Zuccon  
HIGHLIGHT: In this paper we study how to effectively exploit implicit feedback in Dense Retrievers (DRs).
- 7, TITLE: Bilateral Self-unbiased Learning from Biased Implicit Feedback  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531946>  
AUTHORS: Jae-woong Lee, Seongmin Park, Joonseok Lee, Jongwuk Lee  
HIGHLIGHT: In this paper, we propose a novel unbiased recommender learning model, namely Bilateral Self-unbiased Recommender (BISER), to eliminate the exposure bias of items caused by recommender models.
- 8, TITLE: Interpolative Distillation for Unifying Biased and Debiased Recommendation  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532002>  
AUTHORS: Sihao Ding, Fuli Feng, Xiangnan He, Jinqiu Jin, Wenjie Wang, Yong Liao, Yongdong Zhang  
HIGHLIGHT: In this work, we aim to develop a win-win recommendation method that is strong on both tests.
- 9, TITLE: Investigating Accuracy-Novelty Performance for Graph-based Collaborative Filtering  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532005>  
AUTHORS: Minghao Zhao, Le Wu, Yile Liang, Lei Chen, Jian Zhang, Qilin Deng, Kai Wang, Xudong Shen, Tangjie Lv, Runze Wu  
HIGHLIGHT: While conventional CF models are known for facing the challenges of the popularity bias that favors popular items, one may wonder "Whether the existing graph-based CF models alleviate or exacerbate the popularity bias of recommender systems?" To answer this question, we first investigate the two-fold performances w.r.t. accuracy and novelty for existing graph-based CF methods.
- 10, TITLE: Co-training Disentangled Domain Adaptation Network for Leveraging Popularity Bias in Recommenders  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531952>  
AUTHORS: Zhihong Chen, Jiawei Wu, Chenliang Li, Jingxu Chen, Rong Xiao, Binqiang Zhao  
HIGHLIGHT: To make better use of the popularity bias, we propose a co-training disentangled domain adaptation network (CDS<sup>2</sup>AN), which can co-train both biased and unbiased models.
- 11, TITLE: Hypergraph Contrastive Collaborative Filtering  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532058>  
AUTHORS: Lianghao Xia, Chao Huang, Yong Xu, Jiashu Zhao, Dawei Yin, Jimmy Huang  
HIGHLIGHT: However, two key challenges have not been well explored in existing solutions: i) The over-smoothing effect with deeper graph-based CF architecture, may cause the indistinguishable user representations and degradation of recommendation results. ii) The supervision signals (i.e., user-item interactions) are usually scarce and skewed distributed in reality, which limits the

representation power of CF paradigms. To tackle these challenges, we propose a new self-supervised recommendation framework Hypergraph Contrastive Collaborative Filtering (HCCF) to jointly capture local and global collaborative relations with a hypergraph-enhanced cross-view contrastive learning architecture.

12, TITLE: Geometric Disentangled Collaborative Filtering  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531982>  
AUTHORS: Yiding Zhang, Chaozhuo Li, Xing Xie, Xiao Wang, Chuan Shi, Yuming Liu, Hao Sun, Liangjie Zhang, Weiwei Deng, Qi Zhang  
HIGHLIGHT: The Euclidean-based models may be inadequate to fully uncover the intent factors beneath such hybrid-geometry interactions. To remedy this deficiency, in this paper, we study the novel problem of Geometric Disentangled Collaborative Filtering (GDGF), which aims to reveal and disentangle the latent intent factors across multiple geometric spaces.

13, TITLE: INMO: A Model-Agnostic and Scalable Module for Inductive Collaborative Filtering  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532000>  
AUTHORS: Yunfan Wu, Qi Cao, Huawei Shen, Shuchang Tao, Xueqi Cheng  
HIGHLIGHT: Besides, the number of model parameters heavily depends on the number of all users and items, restricting their scalability to real-world applications. To solve the above challenges, in this paper, we propose a novel model-agnostic and scalable Inductive Embedding Module for collaborative filtering, namely INMO.

14, TITLE: Improving Implicit Alternating Least Squares with Ring-based Regularization  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531995>  
AUTHORS: Rui Fan, Jin Chen, Jin Zhang, Defu Lian, Enhong Chen  
HIGHLIGHT: In this paper, we propose a novel ring-based regularization to penalize significant differences of each user's preferences between each item and some other items.

15, TITLE: Graph Trend Filtering Networks for Recommendation  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531985>  
AUTHORS: Wenqi Fan, Xiaorui Liu, Wei Jin, Xiangyu Zhao, Jiliang Tang, Qing Li  
HIGHLIGHT: In this paper, we investigate the drawbacks (e.g., non-adaptive propagation and non-robustness) of existing GNN-based recommendation methods.

16, TITLE: Learning to Denoise Unreliable Interactions for Graph Collaborative Filtering  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531889>  
AUTHORS: Changxin Tian, Yuexiang Xie, Yaliang Li, Nan Yang, Wayne Xin Zhao  
HIGHLIGHT: Although there have been several studies on data denoising in recommender systems, they either neglect direct intervention of noisy interaction in the message-propagation of GNN, or fail to preserve the diversity of recommendation when denoising. To tackle the above issues, this paper presents a novel GNN-based CF model, named Robust Graph Collaborative Filtering (RGCF), to denoise unreliable interactions for recommendation.

17, TITLE: Analyzing and Simulating User Utterance Reformulation in Conversational Recommender Systems  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531936>  
AUTHORS: Shuo Zhang, Mu-Chun Wang, Krisztian Balog  
HIGHLIGHT: However, building a human-like simulator is still an open challenge. In this work, we focus on how users reformulate their utterances when a conversational agent fails to understand them.

18, TITLE: Conversational Question Answering on Heterogeneous Sources  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531815>  
AUTHORS: Philipp Christmann, Rishiraj Saha Roy, Gerhard Weikum  
HIGHLIGHT: This paper addresses the novel issue of jointly tapping into all of these together, this way boosting answer coverage and confidence. We present CONVINSE, an end-to-end pipeline for ConvQA over heterogeneous sources, operating in three stages: i) learning an explicit structured representation of an incoming question and its conversational context, ii) harnessing this frame-like representation to uniformly capture relevant evidences from KB, text, and tables, and iii) running a fusion-in-decoder model to generate the answer.

19, TITLE: Structured and Natural Responses Co-generation for Conversational Search  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532063>  
AUTHORS: Chenchen Ye, Lizi Liao, Fuli Feng, Wei Ji, Tat-Seng Chua  
HIGHLIGHT: The latter emphasizes generating natural responses but fails to predict structured acts. Therefore, we propose a neural co-generation model that generates the two concurrently.

20, TITLE: Variational Reasoning about User Preferences for Conversational Recommendation  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532077>  
AUTHORS: Zhaochun Ren, Zhi Tian, Dongdong Li, Pengjie Ren, Liu Yang, Xin Xin, Huasheng Liang, Maarten de Rijke, Zhumin Chen  
HIGHLIGHT: In this paper, we address the problem of accurately recognizing and maintaining user preferences in CRSs.

21, TITLE: Curriculum Contrastive Context Denoising for Few-shot Conversational Dense Retrieval  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531961>  
AUTHORS: Kelong Mao, Zhicheng Dou, Hongjin Qian

**HIGHLIGHT:** In this paper, we reveal that not all historical conversational turns are necessary for understanding the intent of the current query.

22, **TITLE:** Unified Dialog Model Pre-training for Task-Oriented Dialog Understanding and Generation  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532069>

**AUTHORS:** Wanwei He, Yinpei Dai, Min Yang, Jian Sun, Fei Huang, Luo Si, Yongbin Li

**HIGHLIGHT:** In this paper, we propose SPACE, a novel unified pre-trained dialog model learning from large-scale dialog corpora with limited annotations, which can be effectively fine-tuned on a wide range of downstream dialog tasks.

23, **TITLE:** COSPLAY: Concept Set Guided Personalized Dialogue Generation Across Both Party Personas

<https://dl.acm.org/doi/abs/10.1145/3477495.3531957>

**AUTHORS:** Chen Xu, Piji Li, Wei Wang, Haoran Yang, Siyun Wang, Chuangbai Xiao

**HIGHLIGHT:** In this work, we propose COSPLAY(COncept Set guided PersonaLized dialogue generation Across both party personas) that considers both parties as a &quot;team&quot;; expressing self-persona while keeping curiosity toward the partner, leading responses around mutual personas, and finding the common ground.

24, **TITLE:** Interacting with Non-Cooperative User: A New Paradigm for Proactive Dialogue Policy

<https://dl.acm.org/doi/abs/10.1145/3477495.3532001>

**AUTHORS:** Wenqiang Lei, Yao Zhang, Feifan Song, Hongru Liang, Jiaxin Mao, Jiancheng Lv, Zhenglu Yang, Tat-Seng Chua

**HIGHLIGHT:** We argue that the targets of reaching the goal topic quickly and maintaining a high user satisfaction are not always converged, because the topics close to the goal and the topics user preferred may not be the same. Towards this issue, we propose a new solution named I-Pro that can learn Proactive policy in the Interactive setting.

25, **TITLE:** User-Centric Conversational Recommendation with Multi-Aspect User Modeling

<https://dl.acm.org/doi/abs/10.1145/3477495.3532074>

**AUTHORS:** Shuokai Li, Ruobing Xie, Yongchun Zhu, Xiang Ao, Fuzhen Zhuang, Qing He

**HIGHLIGHT:** To systematically model the multi-aspect information, we propose a User-Centric Conversational Recommendation (UCCR) model, which returns to the essence of user preference learning in CRS tasks.

26, **TITLE:** Generating Clarifying Questions with Web Search Results

<https://dl.acm.org/doi/abs/10.1145/3477495.3531981>

**AUTHORS:** Ziliang Zhao, Zhicheng Dou, Jiaxin Mao, Ji-Rong Wen

**HIGHLIGHT:** For such a query, it is unable to generate an informative question. To alleviate this problem, we propose leveraging top search results of the query to help generate better descriptions because we deem that the top retrieved documents contain rich and relevant contexts of the query.

27, **TITLE:** ADPL: Adversarial Prompt-based Domain Adaptation for Dialogue Summarization with Knowledge Disentanglement

<https://dl.acm.org/doi/abs/10.1145/3477495.3531933>

**AUTHORS:** Lulu Zhao, Fujia Zheng, Weihao Zeng, Keqing He, Ruotong Geng, Huixing Jiang, Wei Wu, Weiran Xu

**HIGHLIGHT:** Overall, our work introduces a prompt-based perspective to the zero-shot learning for dialogue summarization task and provides valuable findings and insights for future research.

28, **TITLE:** Learning to Infer User Implicit Preference in Conversational Recommendation

<https://dl.acm.org/doi/abs/10.1145/3477495.3531844>

**AUTHORS:** Chenhao Hu, Shuhua Huang, Yansen Zhang, Yubao Liu

**HIGHLIGHT:** To address the limitations of existing methods, we propose a new CRS framework called Conversational Recommender with Implicit Feedback (CRIF).

29, **TITLE:** DisenCDR: Learning Disentangled Representations for Cross-Domain Recommendation

<https://dl.acm.org/doi/abs/10.1145/3477495.3531967>

**AUTHORS:** Jiangxia Cao, Xixun Lin, Xin Cong, Jing Ya, Tingwen Liu, Bin Wang

**HIGHLIGHT:** Grounded in the information theory, we propose DisenCDR, a novel model to disentangle the domain-shared and domain-specific information.

30, **TITLE:** Structure-Aware Semantic-Aligned Network for Universal Cross-Domain Retrieval

<https://dl.acm.org/doi/abs/10.1145/3477495.3532061>

**AUTHORS:** Jialin Tian, Xing Xu, Kai Wang, Zuo Cao, Xunliang Cai, Heng Tao Shen

**HIGHLIGHT:** Compared to CDR, the UCDR task is more challenging due to (1) visually diverse data from multi-source domains, (2) the domain shift between seen and unseen domains, and (3) the semantic shift across seen and unseen categories. To tackle these problems, we propose a novel model termed Structure-Aware Semantic-Aligned Network (SASA) to align the heterogeneous representations of multi-source domains without loss of generalizability for the UCDR task.

31, **TITLE:** Dynamics-Aware Adaptation for Reinforcement Learning Based Cross-Domain Interactive Recommendation

<https://dl.acm.org/doi/abs/10.1145/3477495.3531969>

**AUTHORS:** Junda Wu, Zhihui Xie, Tong Yu, Handong Zhao, Ruiyi Zhang, Shuai Li

**HIGHLIGHT:** Few have explored how the temporally dynamic user-item interaction patterns transform across domains. Motivated by the above consideration, we propose DACIR, a novel Doubly-Adaptive deep RL-based framework for Cross-domain Interactive Recommendation.

- 32, TITLE: Exploring Modular Task Decomposition in Cross-domain Named Entity Recognition  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531976>  
AUTHORS: Xinghua Zhang, Bowen Yu, Yubin Wang, Tingwen Liu, Taoyu Su, Hongbo Xu  
HIGHLIGHT: In this paper, we aim to explore the task decomposition in cross-domain NER.
- 33, TITLE: Exploiting Variational Domain-Invariant User Embedding for Partially Overlapped Cross Domain Recommendation  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531975>  
AUTHORS: Weiming Liu, Xiaolin Zheng, Jiajie Su, Mengling Hu, Yanchao Tan, Chaochao Chen  
HIGHLIGHT: In this paper, we focus on the Partially Overlapped Cross-Domain Recommendation (POCDR) problem, that is, how to leverage the information of both the overlapped and non-overlapped users to improve recommendation performance.
- 34, TITLE: HIEN: Hierarchical Intention Embedding Network for Click-Through Rate Prediction  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531988>  
AUTHORS: Zuowu Zheng, Changwang Zhang, Xiaofeng Gao, Guihai Chen  
HIGHLIGHT: Based on this observation, in this paper, we propose a novel approach Hierarchical Intention Embedding Network (HIEN), which considers dependencies of attributes based on bottom-up tree aggregation in the constructed attribute graph.
- 35, TITLE: NAS-CTR: Efficient Neural Architecture Search for Click-Through Rate Prediction  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532030>  
AUTHORS: Guanghui Zhu, Feng Cheng, Defu Lian, Chunfeng Yuan, Yihua Huang  
HIGHLIGHT: Therefore, it is essential to explore a more efficient architecture search method. To achieve this goal, we propose NAS-CTR, a differentiable neural architecture search approach for CTR prediction.
- 36, TITLE: Enhancing CTR Prediction with Context-Aware Feature Representation Learning  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531970>  
AUTHORS: Fangye Wang, Yingxu Wang, Dongsheng Li, Hansu Gu, Tun Lu, Peng Zhang, Ning Gu  
HIGHLIGHT: In this paper, we propose a novel module named Feature Refinement Network (FRNet), which learns context-aware feature representations at bit-level for each feature in different contexts.
- 37, TITLE: Neighbour Interaction based Click-Through Rate Prediction via Graph-masked Transformer  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532031>  
AUTHORS: Erxue Min, Yu Rong, Tingyang Xu, Yatao Bian, Da Luo, Kangyi Lin, Junzhou Huang, Sophia Ananiadou, Peilin Zhao  
HIGHLIGHT: Although these methods have made great progress, they are often limited by the recommender system's direct exposure and inactive interactions, and thus fail to mine all potential user interests. To tackle these problems, we propose Neighbor-Interaction based CTR prediction (NI-CTR), which considers this task under a Heterogeneous Information Network (HIN) setting.
- 38, TITLE: ESCM2: Entire Space Counterfactual Multi-Task Model for Post-Click Conversion Rate Estimation  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531972>  
AUTHORS: Hao Wang, Tai-Wei Chang, Tianqiao Liu, Jianmin Huang, Zhichao Chen, Chao Yu, Ruopeng Li, Wei Chu  
HIGHLIGHT: In this paper, we theoretically demonstrate that ESMM suffers from the following two problems: (1) Inherent Estimation Bias (IEB) for CVR estimation, where the CVR estimate is inherently higher than the ground truth; (2) Potential Independence Priority (PIP) for CTCVR estimation, where ESMM might overlook the causality from click to conversion.
- 39, TITLE: Target-aware Abstractive Related Work Generation with Contrastive Learning  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532065>  
AUTHORS: Xiuying Chen, Hind Alamro, Mingzhe Li, Shen Gao, Rui Yan, Xin Gao, Xiangliang Zhang  
HIGHLIGHT: Hence, in this paper, we propose an abstractive target-aware related work generator (TAG), which can generate related work sections consisting of new sentences.
- 40, TITLE: A Study of Cross-Session Cross-Device Search Within an Academic Digital Library  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531929>  
AUTHORS: Sebastian Gomes, Miriam Boon, Orland Hoerber  
HIGHLIGHT: To support such searching, we have developed an academic digital library search interface that assists searchers in managing cross-session search tasks even when moving between mobile and desktop environments.
- 41, TITLE: DAWAR: Diversity-aware Web APIs Recommendation for Mashup Creation based on Correlation Graph  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531962>  
AUTHORS: Wenwen Gong, Xuyun Zhang, Yifei Chen, Qiang He, Amin Beheshti, Xiaolong Xu, Chao Yan, Lianyong Qi  
HIGHLIGHT: However, traditional keyword search methods for APIs often suffer from several critical issues such as functional compatibility and limited diversity in search results, which may lead to mashup creation failures and lower development productivity. To deal with these challenges, this paper designs DAWAR, a diversity-aware Web APIs recommendation approach that finds diversified and compatible APIs for mashup creation.
- 42, TITLE: Introducing Problem Schema with Hierarchical Exercise Graph for Knowledge Tracing  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532004>  
AUTHORS: Hanshuang Tong, Zhen Wang, Yun Zhou, Shiwei Tong, Wenyuan Han, Qi Liu

**HIGHLIGHT:** Besides, the existing diagnosis results of knowledge tracing are not convincing enough since they neglect hierarchical relations between exercises. To solve the above problems, we propose a hierarchical graph knowledge tracing model called HGKT to explore the latent complex relations between exercises.

43, **TITLE:** A Robust Computerized Adaptive Testing Approach in Educational Question Retrieval  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531928>

**AUTHORS:** Yan Zhuang, Qi Liu, Zhenya Huang, Zhi Li, Binbin Jin, Haoyang Bi, Enhong Chen, Shijin Wang  
**HIGHLIGHT:** Specifically, we present a generic optimization criterion Robust Adaptive Testing (RAT) for proficiency estimation via fusing multiple estimates at each step, which maintains a multi-facet description of student's potential proficiency.

44, **TITLE:** Assessing Student's Dynamic Knowledge State by Exploring the Question Difficulty Effect  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531939>

**AUTHORS:** Shuanghong Shen, Zhenya Huang, Qi Liu, Yu Su, Shijin Wang, Enhong Chen  
**HIGHLIGHT:** In this paper, we focus on exploring the question difficulty effect on learning to improve student's knowledge state assessment and propose the Difficulty Matching Knowledge Tracing (DIMKT) model.

45, **TITLE:** Incorporating Retrieval Information into the Truncation of Ranking Lists for Better Legal Search  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531998>

**AUTHORS:** Yixiao Ma, Qingyao Ai, Yueyue Wu, Yunqiu Shao, Yiqun Liu, Min Zhang, Shaoping Ma  
**HIGHLIGHT:** These existing efforts also treat result list truncation as an isolated task instead of a component in the entire ranking process, limiting the usage of truncation in practical systems. To tackle these limitations, we propose LeCut, a ranking list truncation model for legal case retrieval.

46, **TITLE:** MetaCare++: Meta-Learning with Hierarchical Subtyping for Cold-Start Diagnosis Prediction in Healthcare Data  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532020>

**AUTHORS:** Yanchao Tan, Carl Yang, Xiangyu Wei, Chaochao Chen, Weiming Liu, Longfei Li, Jun Zhou, Xiaolin Zheng  
**HIGHLIGHT:** To this end, we first propose a novel Meta-learning framework for cold-start diagnosis prediction in healthCare data (MetaCare). By explicitly encoding the effects of disease progress over time as a generalization prior, MetaCare dynamically predicts future diagnosis and timestamp for infrequent patients. Then, to model complicated relations among rare diseases, we propose to utilize domain knowledge of hierarchical relations among diseases, and further perform diagnosis subtyping to mine the latent syndromic relations among diseases.

47, **TITLE:** Interpreting Patient Descriptions using Distantly Supervised Similar Case Retrieval  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532003>

**AUTHORS:** Israa Alghanmi, Luis Espinosa-Anke, Steven Schockaert  
**HIGHLIGHT:** Moreover, retrieval augmented strategies have only had limited success, as it is rare to find sentences which express the exact type of knowledge that is needed for interpreting a given patient description. For this reason, rather than attempting to retrieve explicit medical knowledge, we instead propose to rely on a nearest neighbour strategy.

48, **TITLE:** Few-shot Node Classification on Attributed Networks with Graph Meta-learning  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531978>

**AUTHORS:** Yonghao Liu, Mengyu Li, Ximing Li, Fausto Giunchiglia, Xiaoyue Feng, Renchu Guan  
**HIGHLIGHT:** More specifically, we introduce an efficient method for learning expressive node representations even on heterophilic graphs and propose utilizing a prototype-based approach to initialize parameters in meta-learning.

49, **TITLE:** Personalized Fashion Compatibility Modeling via Metapath-guided Heterogeneous Graph Learning  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532038>

**AUTHORS:** Weili Guan, Fangkai Jiao, Xuemeng Song, Haokun Wen, Chung-Hsing Yeh, Xiaojun Chang  
**HIGHLIGHT:** Despite their significance, these PFCM methods mainly concentrate on the user and item entities, as well as their interactions, but ignore the attribute entities, which contain rich semantics. To address this problem, we propose to fully explore the related entities and their relations involved in PFCM to boost the PFCM performance.

50, **TITLE:** KETCH: Knowledge Graph Enhanced Thread Recommendation in Healthcare Forums  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532008>

**AUTHORS:** Limeng Cui, Dongwon Lee  
**HIGHLIGHT:** Therefore, it is critical to not only consider the connections between users and threads, but also the descriptions of users' symptoms and clinical conditions. In this paper, towards this problem of thread recommendation in online healthcare forums, we propose a knowledge graph enhanced Threads Recommendation (KETCH) model, which leverages graph neural networks to model the interactions among users and threads, and learn their representations.

51, **TITLE:** Recognizing Medical Search Query Intent by Few-shot Learning  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531789>

**AUTHORS:** Yaqing Wang, Song Wang, Yanyan Li, Dejing Dou  
**HIGHLIGHT:** In addition, many intents only have a few labeled data. To handle these problems, we propose a few-shot learning method for medical search query intent recognition called MEDIC.

52, **TITLE:** Single-shot Embedding Dimension Search in Recommender System  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532060>

**AUTHORS:** Liang Qu, Yonghong Ye, Ningzhi Tang, Lixin Zhang, Yuhui Shi, Hongzhi Yin

- HIGHLIGHT:** In this paper, we propose a Single-Shot Embedding Dimension Search method, called SSEDs, which can efficiently assign dimensions for each feature field via a single-shot embedding pruning operation while maintaining the recommendation accuracy of the model.
- 53, **TITLE:** Forest-based Deep Recommender  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531980>  
**AUTHORS:** Chao Feng, Defu Lian, Zheng Liu, Xing Xie, Le Wu, Enhong Chen  
**HIGHLIGHT:** To this end, we propose a Deep Forest-based Recommender (DeFoRec for short) for an efficient recommendation.
- 54, **TITLE:** Scalable Exploration for Neural Online Learning to Rank with Perturbed Feedback  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532057>  
**AUTHORS:** Yiling Jia, Hongning Wang  
**HIGHLIGHT:** In this work, we propose an efficient exploration strategy for online interactive neural ranker learning based on bootstrapping.
- 55, **TITLE:** On-Device Next-Item Recommendation with Self-Supervised Knowledge Distillation  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531775>  
**AUTHORS:** Xin Xia, Hongzhi Yin, Junliang Yu, Qinyong Wang, Guandong Xu, Quoc Viet Hung Nguyen  
**HIGHLIGHT:** In this paper, we explore ultra-compact models for next-item recommendation, by loosening the constraint of dimensionality consistency in tensor decomposition.
- 56, **TITLE:** IR Evaluation and Learning in the Presence of Forbidden Documents  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532006>  
**AUTHORS:** David Carmel, Nachshon Cohen, Amir Ingber, Elad Kravi  
**HIGHLIGHT:** In this work we propose nDCGf, a novel extension of the nDCGmin metric[14], which measures both ranking and filtering quality of the search results.
- 57, **TITLE:** Human Preferences as Dueling Bandits  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531991>  
**AUTHORS:** Xinyi Yan, Chengxi Luo, Charles L. A. Clarke, Nick Craswell, Ellen M. Voorhees, Pablo Castells  
**HIGHLIGHT:** We frame the problem of finding best items as a dueling bandits problem.
- 58, **TITLE:** A Flexible Framework for Offline Effectiveness Metrics  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531924>  
**AUTHORS:** Alistair Moffat, Joel Mackenzie, Paul Thomas, Leif Azzopardi  
**HIGHLIGHT:** Here we introduce a user behavior framework that extends the C/W/L family.
- 59, **TITLE:** Ranking Interruptus: When Truncated Rankings Are Better and How to Measure That  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532051>  
**AUTHORS:** Enrique Amigó, Stefano Mizzaro, Damiano Spina  
**HIGHLIGHT:** In this paper we provide both theoretical and experimental contributions. We first define formal properties to analyze how effectiveness metrics behave when evaluating truncated rankings.
- 60, **TITLE:** Offline Retrieval Evaluation Without Evaluation Metrics  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532033>  
**AUTHORS:** Fernando Diaz, Andres Ferraro  
**HIGHLIGHT:** We propose recall-paired preference (RPP), a metric-free evaluation method based on directly computing a preference between ranked lists.
- 61, **TITLE:** Information Need Awareness: An EEG Study  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531999>  
**AUTHORS:** Dominika Michalkova, Mario Parra-Rodriguez, Yashar Moshfeghi  
**HIGHLIGHT:** This paper aims to investigate this research question by inferring the variability of brain activity based on the contrast of a state of IN with the two other (no-IN) scenarios.
- 62, **TITLE:** Offline Evaluation of Ranked Lists using Parametric Estimation of Propensities  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532032>  
**AUTHORS:** Vishwa Vinay, Manoj Kilaru, David Arbour  
**HIGHLIGHT:** A majority of offline evaluation approaches invoke the well studied inverse propensity weighting to adjust for biases inherent in logged data. In this paper, we propose the use of parametric estimates for these propensities.
- 63, **TITLE:** Why Don't You Click: Understanding Non-Click Results in Web Search with Brain Signals  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532082>  
**AUTHORS:** Ziyi Ye, Xiaohui Xie, Yiqun Liu, Zhihong Wang, Xuancheng Li, Jiaji Li, Xuesong Chen, Min Zhang, Shaoping Ma  
**HIGHLIGHT:** To this end, we analyze the differences in brain signals between the examination of non-click search results in different usefulness levels.

- 64, TITLE: Post Processing Recommender Systems with Knowledge Graphs for Recency, Popularity, and Diversity of Explanations  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532041>  
AUTHORS: Giacomo Balloccu, Ludovico Boratto, Gianni Fenu, Mirko Marras  
HIGHLIGHT: In this paper, we conceptualized three novel properties that model the quality of the explanations (linking interaction recency, shared entity popularity, and explanation type diversity) and proposed re-ranking approaches able to optimize for these properties.
- 65, TITLE: Explainable Legal Case Matching via Inverse Optimal Transport-based Rationale Extraction  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531974>  
AUTHORS: Weijie Yu, Zhongxiang Sun, Jun Xu, Zhenhua Dong, Xu Chen, Hongteng Xu, Ji-Rong Wen  
HIGHLIGHT: This task has a high demand on the explainability of matching results because of its critical impacts on downstream applications --- the matched legal cases may provide supportive evidence for the judgments of target cases and thus influence the fairness and justice of legal decisions. Focusing on this challenging task, we propose a novel and explainable method, namely IOT-Match, with the help of computational optimal transport, which formulates the legal case matching problem as an inverse optimal transport (IOT) problem.
- 66, TITLE: Towards Explainable Search Results: A Listwise Explanation Generator  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532067>  
AUTHORS: Puxuan Yu, Razieh Rahimi, James Allan  
HIGHLIGHT: Furthermore, these models provide a single query aspect for each document, even though documents often cover multiple query aspects. To overcome these limitations, we propose LiEGe, an approach that jointly explains all documents in a search result list.
- 67, TITLE: Explainable Fairness in Recommendation  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531973>  
AUTHORS: Yingqiang Ge, Juntao Tan, Yan Zhu, Yinglong Xia, Jiebo Luo, Shuchang Liu, Zuohui Fu, Shijie Geng, Zelong Li, Yongfeng Zhang  
HIGHLIGHT: In this paper, we study the problem of explainable fairness, which helps to gain insights about why a system is fair or unfair, and guides the design of fair recommender systems with a more informed and unified methodology.
- 68, TITLE: PEVAE: A Hierarchical VAE for Personalized Explainable Recommendation.  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532039>  
AUTHORS: Zefeng Cai, Zerui Cai  
HIGHLIGHT: Thus, we aim to extend VAE to explainable recommendation.
- 69, TITLE: Joint Multisided Exposure Fairness for Recommendation  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532007>  
AUTHORS: Haolun Wu, Bhaskar Mitra, Chen Ma, Fernando Diaz, Xue Liu  
HIGHLIGHT: Specifically, we consider group attributes for both types of stakeholders to identify and mitigate fairness concerns that go beyond individual users and items towards more systemic biases in recommendation.
- 70, TITLE: Probabilistic Permutation Graph Search: Black-Box Optimization for Fairness in Ranking  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532045>  
AUTHORS: Ali Vardasbi, Fatemeh Sarvi, Maarten de Rijke  
HIGHLIGHT: In this paper, we present a novel way of representing permutation distributions, based on the notion of permutation graphs.
- 71, TITLE: Measuring Fairness in Ranked Results: An Analytical and Empirical Comparison  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532018>  
AUTHORS: Amifa Raj, Michael D. Ekstrand  
HIGHLIGHT: We aim to bridge the gap between theoretical and practical application of these metrics. In this paper we describe several fair ranking metrics from the existing literature in a common notation, enabling direct comparison of their approaches and assumptions, and empirically compare them on the same experimental setup and data sets in the context of three information access tasks.
- 72, TITLE: Optimizing Generalized Gini Indices for Fairness in Rankings  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532035>  
AUTHORS: Virginie Do, Nicolas Usunier  
HIGHLIGHT: Inspired by the domain of inequality measurement in economics, this paper explores the use of generalized Gini welfare functions (GGFs) as a means to specify the normative criterion that recommender systems should optimize for.
- 73, TITLE: Pareto-Optimal Fairness-Utility Amortizations in Rankings with a DBN Exposure Model  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532036>  
AUTHORS: Till Kletti, Jean-Michel Renders, Patrick Loiseau  
HIGHLIGHT: We lay out the structure of a new geometrical object (the DBN-exposedron), and propose for it a Carathéodory decomposition algorithm of complexity  $\mathcal{O}(n^3)$ , where  $n$  is the number of documents to rank.
- 74, TITLE: Fairness of Exposure in Light of Incomplete Exposure Estimation  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531977>

- AUTHORS: Maria Heuss, Fatemeh Sarvi, Maarten de Rijke  
HIGHLIGHT: In this work, we discuss how to approach fairness of exposure in cases where the policy contains rankings of which, due to inter-item dependencies, we cannot reliably estimate the exposure distribution.
- 75, TITLE: CPFair: Personalized Consumer and Producer Fairness Re-ranking for Recommender Systems  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531959>  
AUTHORS: Mohammadmehdi Naghiaci, Hossein A. Rahmani, Yashar Deldjoo  
HIGHLIGHT: In this work, we present an optimization-based re-ranking approach that seamlessly integrates fairness constraints from both the consumer and producer-side in a joint objective framework.
- 76, TITLE: Structure and Semantics Preserving Document Representations  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532062>  
AUTHORS: Natraj Raman, Sameena Shah, Manuela Veloso  
HIGHLIGHT: We propose here a holistic approach to learning document representations by integrating intra-document content with inter-document relations.
- 77, TITLE: Counterfactual Learning To Rank for Utility-Maximizing Query Autocompletion  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531958>  
AUTHORS: Adam Block, Rahul Kidambi, Daniel N. Hill, Thorsten Joachims, Inderjit S. Dhillon  
HIGHLIGHT: A shortcoming of this approach is that users often do not know which query will provide the best retrieval performance on the current information retrieval system, meaning that any query autocompletion methods trained to mimic user behavior can lead to suboptimal query suggestions. To overcome this limitation, we propose a new approach that explicitly optimizes the query suggestions for downstream retrieval performance.
- 78, TITLE: Risk-Sensitive Deep Neural Learning to Rank  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532056>  
AUTHORS: Pedro Henrique Silva Rodrigues, Daniel Xavier Sousa, Thierson Couto Rosa, Marcos Andr e Gonc¸alves  
HIGHLIGHT: However, the risk-sensitive measures described in the literature have a non-smooth behavior, making them difficult, if not impossible, to be optimized by DNNs. In this work we solve this difficult problem by proposing a family of new loss functions --  $riskloss$  -- that support a smooth risk-sensitive optimization.
- 79, TITLE: RankFlow: Joint Optimization of Multi-Stage Cascade Ranking Systems as Flows  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532050>  
AUTHORS: Jiarui Qin, Jiachen Zhu, Bo Chen, Zhirong Liu, Weiwen Liu, Ruiming Tang, Rui Zhang, Yong Yu, Weinan Zhang  
HIGHLIGHT: This paper provides an elaborate analysis of this commonly used solution to reveal its limitations. By studying the essence of cascade ranking, we propose a joint training framework named RankFlow to alleviate the SSB issue and exploit the interactions between the cascade rankers, which is the first systematic solution for this topic.
- 80, TITLE: LoL: A Comparative Regularization Loss over Query Reformulation Losses for Pseudo-Relevance Feedback  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532017>  
AUTHORS: Yunchang Zhu, Liang Pang, Yanyan Lan, Huawei Shen, Xueqi Cheng  
HIGHLIGHT: Ideally, if a PRF model can distinguish between irrelevant and relevant information in the feedback, the more feedback documents there are, the better the revised query will be. To bridge this gap, we propose the Loss-over-Loss (LoL) framework to compare the reformulation losses between different revisions of the same query during training.
- 81, TITLE: Few-Shot Stance Detection via Target-Aware Prompt Distillation  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531979>  
AUTHORS: Yan Jiang, Jinhua Gao, Huawei Shen, Xueqi Cheng  
HIGHLIGHT: In this paper, inspired by the potential capability of pre-trained language models (PLMs) serving as knowledge bases and few-shot learners, we propose to introduce prompt-based fine-tuning for stance detection.
- 82, TITLE: Pre-train a Discriminative Text Encoder for Dense Retrieval via Contrastive Span Prediction  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531772>  
AUTHORS: Xinyu Ma, Jiafeng Guo, Ruqing Zhang, Yixing Fan, Xueqi Cheng  
HIGHLIGHT: However, we argue that 1) it is not discriminative to decode all the input texts and, 2) even a weak decoder has the bypass effect on the encoder. Therefore, in this work, we introduce a novel contrastive span prediction task to pre-train the encoder alone, but still retain the bottleneck ability of the autoencoder.
- 83, TITLE: Co-clustering Interactions via Attentive Hypergraph Neural Network  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531868>  
AUTHORS: Tianchi Yang, Cheng Yang, Luhao Zhang, Chuan Shi, Maodi Hu, Huaijun Liu, Tao Li, Dong Wang  
HIGHLIGHT: However, they only model and leverage part of the information in real entire interactions, i.e., either decompose the entire interaction into several pair-wise sub-interactions for simplification, or only focus on clustering some specific types of objects, which limits the performance and explainability of clustering. To tackle this issue, we propose to Co-cluster the Interactions via Attentive Hypergraph neural network (CIAH).
- 84, TITLE: Adaptable Text Matching via Meta-Weight Regulator  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531932>



- AUTHORS: Bo Zhang, Chen Zhang, Fang Ma, Dawei Song  
HIGHLIGHT: However, adapting a model trained on the abundant source data to a few-shot target dataset or task is challenging. To tackle this challenge, we propose a Meta-Weight Regulator (MWR), which is a meta-learning approach that learns to assign weights to the source examples based on their relevance to the target loss.
- 85, TITLE: Incorporating Context Graph with Logical Reasoning for Inductive Relation Prediction  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531996>  
AUTHORS: Qika Lin, Jun Liu, Fangzhi Xu, Yudai Pan, Yifan Zhu, Lingling Zhang, Tianzhe Zhao  
HIGHLIGHT: However, it is challenging to precisely conduct inductive relation prediction as there exists requirements of entity-independent relation modeling and discrete logical reasoning for interoperability. To this end, we propose a novel model ConGLR to incorporate context graph with logical reasoning.
- 86, TITLE: Hybrid Transformer with Multi-level Fusion for Multimodal Knowledge Graph Completion  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531992>  
AUTHORS: Xiang Chen, Ningyu Zhang, Lei Li, Shumin Deng, Chuanqi Tan, Changliang Xu, Fei Huang, Luo Si, Huajun Chen  
HIGHLIGHT: In this paper, we propose a hybrid transformer with multi-level fusion to address those issues.
- 87, TITLE: Re-thinking Knowledge Graph Completion Evaluation from an Information Retrieval Perspective  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532052>  
AUTHORS: Ying Zhou, Xuanang Chen, Ben He, Zheng Ye, Le Sun  
HIGHLIGHT: Due to the incomplete nature of the large-scale knowledge bases, such an entity ranking setting is likely affected by unlabelled top-ranked positive examples, raising questions on whether the current evaluation protocol is sufficient to guarantee a fair comparison of KGC systems. To this end, this paper presents a systematic study on whether and how the label sparsity affects the current KGC evaluation with the popular micro metrics.
- 88, TITLE: Meta-Knowledge Transfer for Inductive Knowledge Graph Embedding  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531757>  
AUTHORS: Mingyang Chen, Wen Zhang, Yushan Zhu, Hongting Zhou, Zonggang Yuan, Changliang Xu, Huajun Chen  
HIGHLIGHT: In this paper, to achieve inductive knowledge graph embedding, we propose a model MorsE, which does not learn embeddings for entities but learns transferable meta-knowledge that can be used to produce entity embeddings.
- 89, TITLE: Multimodal Entity Linking with Gated Hierarchical Fusion and Contrastive Training  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531867>  
AUTHORS: Peng Wang, Jiangheng Wu, Xiaohang Chen  
HIGHLIGHT: Consequently, we conceive the idea of introducing valuable information of other modalities, and propose a novel multimodal entity linking method with gated hierarchical multimodal fusion and contrastive training (GHMFC).
- 90, TITLE: CRET: Cross-Modal Retrieval Transformer for Efficient Text-Video Retrieval  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531960>  
AUTHORS: Kaixiang Ji, Jiajia Liu, Weixiang Hong, Liheng Zhong, Jian Wang, Jingdong Chen, Wei Chu  
HIGHLIGHT: In this work, we propose a novel EDB method CRET (Cross-modal REtrieval Transformer), which not only demonstrates promising efficiency in retrieval tasks, but also achieves better accuracy than existing MDB methods.
- 91, TITLE: Multimodal Disentanglement Variational AutoEncoders for Zero-Shot Cross-Modal Retrieval  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532028>  
AUTHORS: Jialin Tian, Kai Wang, Xing Xu, Zuo Cao, Fumin Shen, Heng Tao Shen  
HIGHLIGHT: Generally, these methods largely rely on auxiliary semantic embeddings for knowledge transfer across classes and unconsciously neglect the effect of the data reconstruction manner in the adopted generative model. To address this issue, we propose a novel ZS-CMR model termed Multimodal Disentanglement Variational AutoEncoders (MDVAE), which consists of two coupled disentanglement variational autoencoders (DVAEs) and a fusion-exchange VAE (FVAE).
- 92, TITLE: CenterCLIP: Token Clustering for Efficient Text-Video Retrieval  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531950>  
AUTHORS: Shuai Zhao, Linchao Zhu, Xiaohan Wang, Yi Yang  
HIGHLIGHT: In this paper, to reduce the number of redundant video tokens, we design a multi-segment token clustering algorithm to find the most representative tokens and drop the non-essential ones.
- 93, TITLE: Bit-aware Semantic Transformer Hashing for Multi-modal Retrieval  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531947>  
AUTHORS: Wentao Tan, Lei Zhu, Weili Guan, Jingjing Li, Zhiyong Cheng  
HIGHLIGHT: For solving these problems, in this paper, we propose a Bit-aware Semantic Transformer Hashing (BSTH) framework to excavate bit-wise semantic concepts and simultaneously align the heterogeneous modalities for multi-modal hash learning on the concept-level.
- 94, TITLE: V2P: Vision-to-Prompt based Multi-Modal Product Summary Generation  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532076>  
AUTHORS: Xuemeng Song, Liqiang Jing, Dengtian Lin, Zhongzhou Zhao, Haiqing Chen, Liqiang Nie  
HIGHLIGHT: Although existing methods have achieved great success, they still suffer from three key limitations: 1) overlook the benefit of pre-training, 2) lack the representation-level supervision, and 3) ignore the diversity of the seller-generated data. To

address these limitations, in this work, we propose a Vision-to-Prompt based multi-modal product summary generation framework, dubbed as V2P, where a Generative Pre-trained Language Model (GPLM) is adopted as the backbone.

95, TITLE: Learn from Unlabeled Videos for Near-duplicate Video Retrieval  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532010>  
AUTHORS: Xiangteng He, Yulin Pan, Mingqian Tang, Yiliang Lv, Yuxin Peng  
HIGHLIGHT: In addition, most retrieval systems are based on frame-level features for video similarity searching, making it expensive both storage wise and search wise. To address the above issues, we propose a video representation learning (VRL) approach to effectively address the above shortcomings.

96, TITLE: Progressive Learning for Image Retrieval with Hybrid-Modality Queries  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532047>  
AUTHORS: Yida Zhao, Yuqing Song, Qin Jin  
HIGHLIGHT: In this paper, we decompose the CTI-IR task into a three-stage learning problem to progressively learn the complex knowledge for image retrieval with hybrid-modality queries.

97, TITLE: You Need to Read Again: Multi-granularity Perception Network for Moment Retrieval in Videos  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532083>  
AUTHORS: Xin Sun, Xuan Wang, Jialin Gao, Qiong Liu, Xi Zhou  
HIGHLIGHT: Previous methods tend to perform self-modal learning and cross-modal interaction in a coarse manner, which neglect fine-grained clues contained in video content, query context, and their alignment. To this end, we propose a novel Multi-Granularity Perception Network (MGPN) that perceives intra-modality and inter-modality information at a multi-granularity level.

98, TITLE: Video Moment Retrieval from Text Queries via Single Frame Annotation  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532078>  
AUTHORS: Ran Cui, Tianwen Qian, Pai Peng, Elena Daskalaki, Jingjing Chen, Xiaowei Guo, Huyang Sun, Yu-Gang Jiang  
HIGHLIGHT: In this paper, we look closer into the annotation process and propose a new paradigm called "glance annotation".

99, TITLE: HTKG: Deep Keyphrase Generation with Neural Hierarchical Topic Guidance  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531990>  
AUTHORS: Yuxiang Zhang, Tao Jiang, Tianyu Yang, Xiaoli Li, Suge Wang  
HIGHLIGHT: In this paper, we focus on how to effectively exploit the hierarchical topic to improve the keyphrase generation performance (HTKG).

100, TITLE: Logiformer: A Two-Branch Graph Transformer Network for Interpretable Logical Reasoning  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532016>  
AUTHORS: Fangzhi Xu, Jun Liu, Qika Lin, Yudai Pan, Lingling Zhang  
HIGHLIGHT: Also, it is demanding to uncover the logical structures of the text and further fuse the discrete logic to the continuous text embedding. To tackle the above issues, we propose an end-to-end model Logiformer which utilizes a two-branch graph transformer network for logical reasoning of text.

101, TITLE: Personalized Abstractive Opinion Tagging  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532037>  
AUTHORS: Mengxue Zhao, Yang Yang, Miao Li, Jingang Wang, Wei Wu, Pengjie Ren, Maarten de Rijke, Zhaochun Ren  
HIGHLIGHT: In this paper, we focus on the task of personalized abstractive opinion tagging.

102, TITLE: Contrastive Learning with Hard Negative Entities for Entity Set Expansion  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531954>  
AUTHORS: Yinghui Li, Yangning Li, Yuxin He, Tianyu Yu, Ying Shen, Hai-Tao Zheng  
HIGHLIGHT: Although previous ESE methods have achieved great progress, most of them still lack the ability to handle hard negative entities (i.e., entities that are difficult to distinguish from the target entities), since two entities may or may not belong to the same semantic class based on different granularity levels we analyze on. To address this challenge, we devise an entity-level masked language model with contrastive learning to refine the representation of entities.

103, TITLE: Unifying Cross-lingual Summarization and Machine Translation with Compression Rate  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532071>  
AUTHORS: Yu Bai, Heyan Huang, Kai Fan, Yang Gao, Yiming Zhu, Jiaao Zhan, Zewen Chi, Boxing Chen  
HIGHLIGHT: In this paper, we propose a novel task, Cross-lingual Summarization with Compression rate (CSC), to benefit Cross-Lingual Summarization by large-scale Machine Translation corpus.

104, TITLE: What Makes the Story Forward?: Inferring Commonsense Explanations as Prompts for Future Event Generation  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532080>  
AUTHORS: Li Lin, Yixin Cao, Lifu Huang, Shu'Ang Li, Xuming Hu, Lijie Wen, Jianmin Wang  
HIGHLIGHT: In this paper, we propose a novel explainable FEG framework, Coep.

105, TITLE: A Dual-Expert Framework for Event Argument Extraction  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531923>  
AUTHORS: Rui Li, Wenlin Zhao, Cheng Yang, Sen Su

**HIGHLIGHT:** Inspired by the Mixture of Experts (MOE), we propose a Routing-Balanced Dual Expert Framework (RBDEF), which divides all roles into &quot;head&quot; and &quot;tail&quot; two scopes and assigns the classifications of head and tail roles to two separate experts.

**106, TITLE:** CorED: Incorporating Type-level and Instance-level Correlations for Fine-grained Event Detection  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531956>  
**AUTHORS:** Jiawei Sheng, Rui Sun, Shu Guo, Shiyao Cui, Jiangxia Cao, Lihong Wang, Tingwen Liu, Hongbo Xu  
**HIGHLIGHT:** This paper simultaneously incorporates both the type-level and instance-level event correlations, and proposes a novel framework, termed as CorED.

**107, TITLE:** Hierarchical Multi-Task Graph Recurrent Network for Next POI Recommendation  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531989>  
**AUTHORS:** Nicholas Lim, Bryan Hooi, See-Kiong Ng, Yong Liang Goh, Renrong Weng, Rui Tan  
**HIGHLIGHT:** In this paper, we propose our Hierarchical Multi-Task Graph Recurrent Network (HMT-GRN) approach, which alleviates the data sparsity problem by learning different User-Region matrices of lower sparsities in a multi-task setting.

**108, TITLE:** GETNext: Trajectory Flow Map Enhanced Transformer for Next POI Recommendation  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531983>  
**AUTHORS:** Song Yang, Jiamou Liu, Kaiqi Zhao  
**HIGHLIGHT:** Instead, we propose a user-agnostic global trajectory flow map and a novel Graph Enhanced Transformer model (GETNext) to better exploit the extensive collaborative signals for a more accurate next POI prediction, and alleviate the cold start problem in the meantime.

**109, TITLE:** Learning Graph-based Disentangled Representations for Next POI Recommendation  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532012>  
**AUTHORS:** Zhaobo Wang, Yanmin Zhu, Haobing Liu, Chunyang Wang  
**HIGHLIGHT:** In this paper, we propose a novel Disentangled Representation-enhanced Attention Network (DRAN) for next POI recommendation, which leverages the disentangled representations to explicitly model different aspects and corresponding influence for representing a POI more precisely.

**110, TITLE:** ProFairRec: Provider Fairness-aware News Recommendation  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532046>  
**AUTHORS:** Tao Qi, Fangzhao Wu, Chuhan Wu, Peijie Sun, Le Wu, Xiting Wang, Yongfeng Huang, Xing Xie  
**HIGHLIGHT:** In this paper, we propose a provider fairness-aware news recommendation framework (named ProFairRec), which can learn news recommendation models fair for different news providers from biased user data.

**111, TITLE:** CAPTOR: A Crowd-Aware Pre-Travel Recommender System for Out-of-Town Users  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531949>  
**AUTHORS:** Haoran Xin, Xinjiang Lu, Nengjun Zhu, Tong Xu, Dejing Dou, Hui Xiong  
**HIGHLIGHT:** Besides, users' out-of-town travel behaviors are affected not only by their personalized preferences but heavily by others' travel behaviors. To this end, we propose a Crowd-Aware Pre-Travel Out-of-town Recommendation framework (CAPTOR) consisting of two major modules: spatial-affined conditional random field (SA-CRF) and crowd behavior memory network (CBMN).

**112, TITLE:** Positive, Negative and Neutral: Modeling Implicit Feedback in Session-based News Recommendation  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532040>  
**AUTHORS:** Shansan Gong, Kenny Q. Zhu  
**HIGHLIGHT:** Previous works tend to formulate session-based recommendation as a next item prediction task, while they neglect the implicit feedback from user behaviors, which indicates what users really like or dislike. Hence, we propose a comprehensive framework to model user behaviors through positive feedback (i.e., the articles they spend more time on) and negative feedback (i.e., the articles they choose to skip without clicking in).

**113, TITLE:** A Non-Factoid Question-Answering Taxonomy  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531926>  
**AUTHORS:** Valeriia Bolotova, Vladislav Blinov, Falk Scholer, W. Bruce Croft, Mark Sanderson  
**HIGHLIGHT:** This work presents the first comprehensive taxonomy of NFQ categories and the expected structure of answers.

**114, TITLE:** QUASER: Question Answering with Scalable Extractive Rationalization  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532049>  
**AUTHORS:** Asish Ghoshal, Srinivasan Iyer, Bhargavi Paranjape, Kushal Lakhota, Scott Wen-tau Yih, Yashar Mehdad  
**HIGHLIGHT:** In this paper, we introduce unsupervised generative models to extract dual-purpose rationales, which must not only be able to support a subsequent answer prediction, but also support a reproduction of the input query.

**115, TITLE:** PTAU: Prompt Tuning for Attributing Unanswerable Questions  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532048>  
**AUTHORS:** Jinzhi Liao, Xiang Zhao, Jianming Zheng, Xinyi Li, Fei Cai, Jiuyang Tang  
**HIGHLIGHT:** Thus, a capable model has to carefully appreciate the causes, and then, judiciously contrast the question with its context, in order to cast it into the right cause. In response to the challenges, we present PTAU, which refers to and implements a high-level human reading strategy such that one reads with anticipation.

**116, TITLE:** DGQAN: Dual Graph Question-Answer Attention Networks for Answer Selection

- <https://dl.acm.org/doi/abs/10.1145/3477495.3532084>  
AUTHORS: Haitian Yang, Xuan Zhao, Yan Wang, Min Li, Wei Chen, Weiqing Huang  
HIGHLIGHT: However, the redundancy and lengthiness issues of crowd-sourced answers limit the performance of answer selection, thus leading to difficulties in reading or even misunderstandings for community users. To solve these problems, we propose the dual graph question-answer attention networks (DGQAN) for answer selection task.
- 117, TITLE: ReCANet: A Repeat Consumption-Aware Neural Network for Next Basket Recommendation in Grocery Shopping  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531708>  
AUTHORS: Mozhddeh Ariannezhad, Sami Jullien, Ming Li, Min Fang, Sebastian Schelter, Maarten de Rijke  
HIGHLIGHT: In this paper, we first gain a data-driven understanding of users' repeat consumption behavior through an empirical study on six public and proprietary grocery shopping transaction datasets.
- 118, TITLE: User-controllable Recommendation Against Filter Bubbles  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532075>  
AUTHORS: Wenjie Wang, Fuli Feng, Liqiang Nie, Tat-Seng Chua  
HIGHLIGHT: This work proposes a new recommender prototype called User-Controllable Recommender System (UCRS), which enables users to actively control the mitigation of filter bubbles.
- 119, TITLE: Unify Local and Global Information for Top-N Recommendation  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532070>  
AUTHORS: Xiaoming Liu, Shaocong Wu, Zhaoan Zhang, Chao Shen  
HIGHLIGHT: To tackle this research gap, we propose a novel duet representation learning framework named KADM to fuse local information (user-item interaction data) and global information (external knowledge graph) for the top-N recommendation, which is composed of two separate sub-models.
- 120, TITLE: Less is More: Reweighting Important Spectral Graph Features for Recommendation  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532014>  
AUTHORS: Shaowen Peng, Kazunari Sugiyama, Tsunenori Mine  
HIGHLIGHT: Based on the two findings above, we propose a new GCN learning scheme for recommendation by replacing neighborhood aggregation with a simple yet effective Graph Denoising Encoder (GDE), which acts as a band pass filter to capture important graph features.
- 121, TITLE: A Review-aware Graph Contrastive Learning Framework for Recommendation  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531927>  
AUTHORS: Jie Shuai, Kun Zhang, Le Wu, Peijie Sun, Richang Hong, Meng Wang, Yong Li  
HIGHLIGHT: To this end, in this paper, we propose a novel Review-aware Graph Contrastive Learning (RGCL) framework for review-based recommendation.
- 122, TITLE: Are Graph Augmentations Necessary?: Simple Graph Contrastive Learning for Recommendation  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531937>  
AUTHORS: Junliang Yu, Hongzhi Yin, Xin Xia, Tong Chen, Lizhen Cui, Quoc Viet Hung Nguyen  
HIGHLIGHT: Meanwhile, we reveal that the graph augmentations, which used to be considered necessary, just play a trivial role. Based on this finding, we propose a simple CL method which discards the graph augmentations and instead adds uniform noises to the embedding space for creating contrastive views.
- 123, TITLE: AutoLossGen: Automatic Loss Function Generation for Recommender Systems  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531941>  
AUTHORS: Zelong Li, Jianchao Ji, Yingqiang Ge, Yongfeng Zhang  
HIGHLIGHT: In this paper, inspired by the recent development of automated machine learning, we propose an automatic loss function generation framework, AutoLossGen, which is able to generate loss functions directly constructed from basic mathematical operators without prior knowledge on loss structure.
- 124, TITLE: Locality-Sensitive State-Guided Experience Replay Optimization for Sparse Rewards in Online Recommendation  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532015>  
AUTHORS: Xiaocong Chen, Lina Yao, Julian McAuley, Weili Guan, Xiaojun Chang, Xianzhi Wang  
HIGHLIGHT: However, they adapt poorly to the complex environment of online recommender systems and are inefficient in learning an optimal strategy from past experience. As a step to filling this gap, we propose a novel state-aware experience replay model, in which the agent selectively discovers the most relevant and salient experiences and is guided to find the optimal policy for online recommendations.
- 125, TITLE: User-Aware Multi-Interest Learning for Candidate Matching in Recommenders  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532073>  
AUTHORS: Zheng Chai, Zhihong Chen, Chenliang Li, Rong Xiao, Houyi Li, Jiawei Wu, Jingxu Chen, Haihong Tang  
HIGHLIGHT: Hence, we are interested in exploiting the benefit of user profile in multi-interest learning to enhance candidate matching performance. To this end, a user-aware multi-interest learning framework (named UMI) is proposed in this paper to exploit both user profile and behavior information for candidate matching.
- 126, TITLE: Multi-Level Interaction Reranking with User Behavior History

<https://dl.acm.org/doi/abs/10.1145/3477495.3532026>

AUTHORS: Yunjia Xi, Weiwen Liu, Jieming Zhu, Xilong Zhao, Xinyi Dai, Ruiming Tang, Weinan Zhang, Rui Zhang, Yong Yu

HIGHLIGHT: Lastly, estimating the reranking score on the ordered initial list before reranking may lead to the early scoring problem, thereby yielding suboptimal reranking performance. To address the above issues, we propose a framework named Multi-level Interaction Reranking (MIR).

127, TITLE: Rethinking Reinforcement Learning for Recommendation: A Prompt Perspective

<https://dl.acm.org/doi/abs/10.1145/3477495.3531714>

AUTHORS: Xin Xin, Tiago Pimentel, Alexandros Karatzoglou, Pengjie Ren, Konstantina Christakopoulou, Zhaochun Ren

HIGHLIGHT: Here we propose a new learning paradigm---namely Prompt-Based Reinforcement Learning (PRL)---for the offline training of RL-based recommendation agents.

128, TITLE: Multi-level Cross-view Contrastive Learning for Knowledge-aware Recommender System

<https://dl.acm.org/doi/abs/10.1145/3477495.3532025>

AUTHORS: Ding Zou, Wei Wei, Xian-Ling Mao, Ziyang Wang, Minghui Qiu, Feida Zhu, Xin Cao

HIGHLIGHT: Inspired by the recent success of contrastive learning in mining supervised signals from data itself, in this paper, we focus on exploring the contrastive learning in KG-aware recommendation and propose a novel multi-level cross-view contrastive learning mechanism, named MCCLK.

129, TITLE: MGPolicy: Meta Graph Enhanced Off-policy Learning for Recommendations

<https://dl.acm.org/doi/abs/10.1145/3477495.3532021>

AUTHORS: Xiangmeng Wang, Qian Li, Dianer Yu, Zhichao Wang, Hongxu Chen, Guandong Xu

HIGHLIGHT: In this paper, we propose meta graph enhanced off-policy learning (MGPolicy), which is the first recommendation model for correcting the off-policy bias via contextual information.

130, TITLE: Privacy-Preserving Synthetic Data Generation for Recommendation Systems

<https://dl.acm.org/doi/abs/10.1145/3477495.3532044>

AUTHORS: Fan Liu, Zhiyong Cheng, Huilin Chen, Yinwei Wei, Liqiang Nie, Mohan Kankanhalli

HIGHLIGHT: The problem of privacy leakage still exists when directly sharing the private user interaction data with organizations or releasing them to the public. To address this problem, in this paper, we present a User Privacy Controllable Synthetic Data Generation model (short for UPC-SDG), which generates synthetic interaction data for users based on their privacy preferences.

131, TITLE: HAKG: Hierarchy-Aware Knowledge Gated Network for Recommendation

<https://dl.acm.org/doi/abs/10.1145/3477495.3531987>

AUTHORS: Yuntao Du, Xinjun Zhu, Lu Chen, Baihua Zheng, Yunjun Gao

HIGHLIGHT: In this paper, we propose a new model, called Hierarchy-Aware Knowledge Gated Network (HAKG), to tackle the aforementioned problems.

132, TITLE: Alleviating Spurious Correlations in Knowledge-aware Recommendations through Counterfactual Generator

<https://dl.acm.org/doi/abs/10.1145/3477495.3531934>

AUTHORS: Shanlei Mu, Yaliang Li, Wayne Xin Zhao, Jingyuan Wang, Bolin Ding, Ji-Rong Wen

HIGHLIGHT: It refers to a knowledge fact that appears causal to the user behaviors (inferred by the recommender) but is not in fact. For tackling this issue, we present a novel approach to discovering and alleviating the potential spurious correlations from a counterfactual perspective.

133, TITLE: Self-Guided Learning to Denoise for Robust Recommendation

<https://dl.acm.org/doi/abs/10.1145/3477495.3532059>

AUTHORS: Yunjun Gao, Yuntao Du, Yujia Hu, Lu Chen, Xinjun Zhu, Ziquan Fang, Baihua Zheng

HIGHLIGHT: In this paper, we thoroughly investigate the memorization effect of recommendation models, and propose a new denoising paradigm, i.e., Self-Guided Denoising Learning (SGDL), which is able to collect memorized interactions at the early stage of the training (i.e., "noise-resistant" period), and leverage those data as denoising signals to guide the following training (i.e., "noise-sensitive" period) of the model in a meta-learning manner.

134, TITLE: Deployable and Continuable Meta-learning-Based Recommender System with Fast User-Incremental Updates

<https://dl.acm.org/doi/abs/10.1145/3477495.3531964>

AUTHORS: Renchu Guan, Haoyu Pang, Fausto Giunchiglia, Ximing Li, Xuefeng Yang, Xiaoyue Feng

HIGHLIGHT: In this paper, we propose a deployable and continuable meta-learning-based recommendation (DCMR) approach, which can achieve fast user-incremental updating with task replay and first-order gradient descent.

135, TITLE: Knowledge Graph Contrastive Learning for Recommendation

<https://dl.acm.org/doi/abs/10.1145/3477495.3532009>

AUTHORS: Yuhao Yang, Chao Huang, Lianghao Xia, Chenliang Li

HIGHLIGHT: Specifically, we propose a knowledge graph augmentation schema to suppress KG noise in information aggregation, and derive more robust knowledge-aware representations for items.

136, TITLE: CharacterBERT and Self-Teaching for Improving the Robustness of Dense Retrievers on Queries with Typos

<https://dl.acm.org/doi/abs/10.1145/3477495.3531951>

AUTHORS: Shengyao Zhuang, Guido Zuccon

**HIGHLIGHT:** Current dense retrievers are not robust to out-of-domain and outlier queries, i.e. their effectiveness on these queries is much poorer than what one would expect. In this paper, we consider a specific instance of such queries: queries that contain typos.

137, **TITLE:** Entity-aware Transformers for Entity Search

<https://dl.acm.org/doi/abs/10.1145/3477495.3531971>

**AUTHORS:** Emma J. Gerritse, Faegheh Hasibi, Arjen P. de Vries

**HIGHLIGHT:** This paper investigates the following question: Do BERT-based entity retrieval models benefit from additional entity information stored in knowledge graphs? To address this research question, we map entity embeddings into the same input space as a pre-trained BERT model and inject these entity embeddings into the BERT model.

138, **TITLE:** BERT-ER: Query-specific BERT Entity Representations for Entity Ranking

<https://dl.acm.org/doi/abs/10.1145/3477495.3531944>

**AUTHORS:** Shubham Chatterjee, Laura Dietz

**HIGHLIGHT:** In this work, we present BERT Entity Representations (BERT-ER) which are query-specific vector representations of entities obtained from text that describes how an entity is relevant for a query.

139, **TITLE:** H-ERNIE: A Multi-Granularity Pre-Trained Language Model for Web Search

<https://dl.acm.org/doi/abs/10.1145/3477495.3531986>

**AUTHORS:** Xiaokai Chu, Jiashu Zhao, Lixin Zou, Dawei Yin

**HIGHLIGHT:** In particular, we propose a novel H-ERNIE framework, which includes a query-document analysis component and a hierarchical ranking component.

140, **TITLE:** Incorporating Explicit Knowledge in Pre-trained Language Models for Passage Re-ranking

<https://dl.acm.org/doi/abs/10.1145/3477495.3531997>

**AUTHORS:** Qian Dong, Yiding Liu, Suqi Cheng, Shuaiqiang Wang, Zhicong Cheng, Shuzi Niu, Dawei Yin

**HIGHLIGHT:** To leverage a reliable knowledge, we propose a novel knowledge graph distillation method and obtain a knowledge meta graph as the bridge between query and passage.

141, **TITLE:** Webformer: Pre-training with Web Pages for Information Retrieval

<https://dl.acm.org/doi/abs/10.1145/3477495.3532086>

**AUTHORS:** Yu Guo, Zhengyi Ma, Jiaxin Mao, Hongjin Qian, Xinyu Zhang, Hao Jiang, Zhao Cao, Zhicheng Dou

**HIGHLIGHT:** In this paper, we propose to leverage large-scale web pages and their DOM (Document Object Model) tree structures to pre-train models for information retrieval.

142, **TITLE:** Distill-VQ: Learning Retrieval Oriented Vector Quantization By Distilling Knowledge from Dense Embeddings

<https://dl.acm.org/doi/abs/10.1145/3477495.3531799>

**AUTHORS:** Shitao Xiao, Zheng Liu, Weihao Han, Jianjin Zhang, Defu Lian, Yeyun Gong, Qi Chen, Fan Yang, Hao Sun, Yingxia Shao, Xing Xie

**HIGHLIGHT:** In this paper, we propose Distill-VQ, which unifies the learning of IVF and PQ within a knowledge distillation framework.

143, **TITLE:** Axiomatically Regularized Pre-training for Ad hoc Search

<https://dl.acm.org/doi/abs/10.1145/3477495.3531943>

**AUTHORS:** Jia Chen, Yiqun Liu, Yan Fang, Jiaxin Mao, Hui Fang, Shenghao Yang, Xiaohui Xie, Min Zhang, Shaoping Ma

**HIGHLIGHT:** To shed light on this research question, we propose a novel pre-training method with \underline{A}xiomatic \underline{R}egularization for ad hoc \underline{S}earch (ARES).

144, **TITLE:** Automatic Expert Selection for Multi-Scenario and Multi-Task Search

<https://dl.acm.org/doi/abs/10.1145/3477495.3531942>

**AUTHORS:** Xinyu Zou, Zhi Hu, Yiming Zhao, Xuchu Ding, Zhongyi Liu, Chenliang Li, Aixin Sun

**HIGHLIGHT:** In this paper, we propose a novel Automatic Expert Selection framework for Multi-scenario and Multi-task search, named AESM2.

145, **TITLE:** Tag-assisted Multimodal Sentiment Analysis under Uncertain Missing Modalities

<https://dl.acm.org/doi/abs/10.1145/3477495.3532064>

**AUTHORS:** Jiandian Zeng, Tianyi Liu, Jiantao Zhou

**HIGHLIGHT:** To this end, in this paper, we propose a Tag-Assisted Transformer Encoder (TATE) network to handle the problem of missing uncertain modalities.

146, **TITLE:** Mutual Disentanglement Learning for Joint Fine-Grained Sentiment Classification and Controllable Text Generation

<https://dl.acm.org/doi/abs/10.1145/3477495.3532029>

**AUTHORS:** Hao Fei, Chenliang Li, Donghong Ji, Fei Li

**HIGHLIGHT:** Most of the existing work solves the FGSC and the FGSG tasks in isolation, while ignoring the complementary benefits in between. This paper combines FGSC and FGSG as a joint dual learning system, encouraging them to learn the advantages from each other.

147, **TITLE:** Graph Adaptive Semantic Transfer for Cross-domain Sentiment Classification

<https://dl.acm.org/doi/abs/10.1145/3477495.3531984>

**AUTHORS:** Kai Zhang, Qi Liu, Zhenya Huang, Mingyue Cheng, Kun Zhang, Mengdi Zhang, Wei Wu, Enhong Chen  
**HIGHLIGHT:** As an important aspect of exploring characteristics of language comprehension, adaptive graph representations have played an essential role in recent years. To this end, in the paper, we aim to explore the possibility of learning invariant semantic features from graph-like structures in CDSC.

148, **TITLE:** Aspect Feature Distillation and Enhancement Network for Aspect-based Sentiment Analysis  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531938>  
**AUTHORS:** Rui Liu, Jiahao Cao, Nannan Sun, Lei Jiang  
**HIGHLIGHT:** Moreover, the cross-entropy loss lacks discriminative learning of features, which makes it difficult to exploit the implicit information of intra-class compactness and inter-class separability. To overcome these challenges, we propose an Aspect Feature Distillation and Enhancement Network (AFDEN) for the ABSA task.

149, **TITLE:** IAOTP: An Interactive End-to-End Solution for Aspect-Opinion Term Pairs Extraction  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532085>  
**AUTHORS:** Ambreen Nazir, Yuan Rao  
**HIGHLIGHT:** Some existing studies heavily relied on the annotated aspect terms and/or opinion terms, or adopted external knowledge/resources to figure out the task. Therefore, in this study, we propose a novel end-to-end solution, called an Interactive AOTP (IAOTP) model, for exploring AOTP.

150, **TITLE:** Ada-Ranker: A Data Distribution Adaptive Ranking Paradigm for Sequential Recommendation  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531931>  
**AUTHORS:** Xinyan Fan, Jianxun Lian, Wayne Xin Zhao, Zheng Liu, Chaozhuo Li, Xing Xie  
**HIGHLIGHT:** In this paper, we propose a new training and inference paradigm, termed as Ada-Ranker, to address the challenges of dynamic online serving.

151, **TITLE:** Decoupled Side Information Fusion for Sequential Recommendation  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531963>  
**AUTHORS:** Yueqi Xie, Peilin Zhou, Sunghun Kim  
**HIGHLIGHT:** Also, it involves mixed correlations among the different heterogeneous information resources, which brings extra disturbance to attention calculation. Motivated by this, we propose Decoupled Side Information Fusion for Sequential Recommendation (DIF-SR), which moves the side information from the input to the attention layer and decouples the attention calculation of various side information and item representation.

152, **TITLE:** Multi-Agent RL-based Information Selection Model for Sequential Recommendation  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532022>  
**AUTHORS:** Kaiyuan Li, Pengfei Wang, Chenliang Li  
**HIGHLIGHT:** In this paper, we introduce a Multi-Agent RL-based Information Selection Model (named MARIS) to explore an effective collaboration between different kinds of auxiliary information and sequential signals in an automatic way.

153, **TITLE:** When Multi-Level Meets Multi-Interest: A Multi-Grained Neural Model for Sequential Recommendation  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532081>  
**AUTHORS:** Yu Tian, Jianxin Chang, Yanan Niu, Yang Song, Chenliang Li  
**HIGHLIGHT:** To this end, in this paper, we propose a unified multi-grained neural model (named MGNM) via a combination of multi-interest learning and graph convolutional aggregation.

154, **TITLE:** Multi-Behavior Sequential Transformer Recommender  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532023>  
**AUTHORS:** Enming Yuan, Wei Guo, Zhicheng He, Hui Feng Guo, Chengkai Liu, Ruiming Tang  
**HIGHLIGHT:** Despite the great successes, existing methods seem to have limitations on modelling heterogeneous item-level multi-behavior dependencies, capturing diverse multi-behavior sequential dynamics, or alleviating data sparsity problems. In this paper, we show it is possible to derive a framework to address all the above three limitations.

155, **TITLE:** Determinantal Point Process Likelihoods for Sequential Recommendation  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531965>  
**AUTHORS:** Yuli Liu, Christian Walder, Lexing Xie  
**HIGHLIGHT:** We argue that such objective functions suffer from two inherent drawbacks: i) the dependencies among elements of a sequence are overlooked in these loss formulations; ii) instead of balancing accuracy (quality) and diversity, only generating accurate results has been over emphasized. We therefore propose two new loss functions based on the Determinantal Point Process (DPP) likelihood, that can be adaptively applied to estimate the subsequent item or items.

156, **TITLE:** Thinking inside The Box: Learning Hypercube Representations for Group Recommendation  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532066>  
**AUTHORS:** Tong Chen, Hongzhi Yin, Jing Long, Quoc Viet Hung Nguyen, Yang Wang, Meng Wang  
**HIGHLIGHT:** In this paper, we propose a novel representation of groups via the notion of hypercubes, which are subspaces containing innumerable points in the vector space.

157, **TITLE:** An Attribute-Driven Mirror Graph Network for Session-based Recommendation  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531935>  
**AUTHORS:** Siqi Lai, Erli Meng, Fan Zhang, Chenliang Li, Bin Wang, Aixin Sun

**HIGHLIGHT:** This paper proposes a novel mirror graph enhanced neural model for session-based recommendation (MGS), to exploit item attribute information over item embeddings for more accurate preference estimation.

158, **TITLE:** Price DOES Matter!: Modeling Price and Interest Preferences in Session-based Recommendation

<https://dl.acm.org/doi/abs/10.1145/3477495.3532043>

**AUTHORS:** Xiaokun Zhang, Bo Xu, Liang Yang, Chenliang Li, Fenglong Ma, Haifeng Liu, Hongfei Lin

**HIGHLIGHT:** Firstly, it is hard to handle heterogeneous information from various features of items to capture users' price preferences. Secondly, it is difficult to model the complex relations between price and interest preferences in determining user choices. To address the above challenges, we propose a novel method Co-guided Heterogeneous Hypergraph Network (CoHHN) for session-based recommendation.

159, **TITLE:** AutoGSR: Neural Architecture Search for Graph-based Session Recommendation

<https://dl.acm.org/doi/abs/10.1145/3477495.3531940>

**AUTHORS:** Jingfan Chen, Guanghui Zhu, Haojun Hou, Chunfeng Yuan, Yihua Huang

**HIGHLIGHT:** Nevertheless, due to the highly diverse types of potential information in sessions, existing GNNs-based methods perform differently on different session datasets, leading to the need for efficient design of neural networks adapted to various session recommendation scenarios. To address this problem, we propose Automated neural architecture search for Graph-based Session Recommendation, namely AutoGSR, a framework that provides a practical and general solution to automatically find the optimal GNNs-based session recommendation model.

160, **TITLE:** Multi-Faceted Global Item Relation Learning for Session-Based Recommendation

<https://dl.acm.org/doi/abs/10.1145/3477495.3532024>

**AUTHORS:** Qilong Han, Chi Zhang, Rui Chen, Riwei Lai, Hongtao Song, Li Li

**HIGHLIGHT:** In view of the limitations of pioneering studies that explore collaborative information from other sessions, in this paper we propose a new direction to enhance session representations by learning multi-faceted session-independent global item relations.

161, **TITLE:** Towards Suicide Ideation Detection Through Online Conversational Context

<https://dl.acm.org/doi/abs/10.1145/3477495.3532068>

**AUTHORS:** Ramit Sawhney, Shivam Agarwal, Atula Tejaswi Neerkaje, Nikolaos Aletras, Preslav Nakov, Lucie Flek

**HIGHLIGHT:** Moreover, psychological studies suggested that it is important to capture the fine-grained temporal irregularities in the release of vast volumes of comments, since suicidal users react quickly to online community support. Building on these limitations and psychological studies, we propose HCN, a Hyperbolic Conversation Network, which is a less user-intrusive method for suicide ideation detection.

162, **TITLE:** Unsupervised Belief Representation Learning with Information-Theoretic Variational Graph Auto-Encoders

<https://dl.acm.org/doi/abs/10.1145/3477495.3532072>

**AUTHORS:** Jinning Li, Huajie Shao, Dachun Sun, Ruijie Wang, Yuchen Yan, Jinyang Li, Shengzhong Liu, Hanghang Tong, Tarek Abdelzaher

**HIGHLIGHT:** Inspired by total correlation in information theory, we propose the Information-Theoretic Variational Graph Auto-Encoder (InfoVGAE) that learns to project both users and content items (e.g., posts that represent user views) into an appropriate disentangled latent space.

163, **TITLE:** A Multitask Framework for Sentiment, Emotion and Sarcasm aware Cyberbullying Detection from Multi-modal Code-Mixed Memes

<https://dl.acm.org/doi/abs/10.1145/3477495.3531925>

**AUTHORS:** Krishanu Maity, Prince Jha, Sripama Saha, Pushpak Bhattacharyya

**HIGHLIGHT:** The current work is the first attempt, to the best of our knowledge, in investigating the role of sentiment, emotion and sarcasm in identifying cyberbullying from multi-modal memes in a code-mixed language setting.

164, **TITLE:** Bias Mitigation for Toxicity Detection via Sequential Decisions

<https://dl.acm.org/doi/abs/10.1145/3477495.3531945>

**AUTHORS:** Lu Cheng, Ahmadreza Mosallanezhad, Yasin N. Silva, Deborah L. Hall, Huan Liu

**HIGHLIGHT:** In this work, we consider debiasing toxicity detection as a sequential decision-making process where different biases can be interdependent.

165, **TITLE:** A Weakly Supervised Propagation Model for Rumor Verification and Stance Detection with Multiple Instance Learning

<https://dl.acm.org/doi/abs/10.1145/3477495.3531930>

**AUTHORS:** Ruichao Yang, Jing Ma, Hongzhan Lin, Wei Gao

**HIGHLIGHT:** Enlightened by Multiple Instance Learning (MIL) scheme, we propose a novel weakly supervised joint learning framework for rumor verification and stance detection which only requires bag-level class labels concerning the rumor's veracity.

166, **TITLE:** On the Role of Relevance in Natural Language Processing Tasks

<https://dl.acm.org/doi/abs/10.1145/3477495.3532034>

**AUTHORS:** Artsiom Sauchuk, James Thorne, Alon Halevy, Nicola Tonello, Fabrizio Silvestri

**HIGHLIGHT:** This paper presents experimental results on two NLP tasks implemented as a two-stage cascading architecture.

167, **TITLE:** Learning to Enrich Query Representation with Pseudo-Relevance Feedback for Cross-lingual Retrieval

<https://dl.acm.org/doi/abs/10.1145/3477495.3532013>



**AUTHORS:** Ramraj Chandradevan, Eugene Yang, Mahsa Yarmohammadi, Eugene Agichtein  
**HIGHLIGHT:** Two of the challenges are incorporating feedback from long documents, and cross-language knowledge transfer. To address these challenges, we propose a novel neural CLIR architecture, NCLPRF, capable of incorporating PRF feedback from multiple potentially long documents, which enables improvements to query representation in the shared semantic space between query and document languages.

168, **TITLE:** CORE: Simple and Effective Session-based Recommendation within Consistent Representation Space  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531955>

**AUTHORS:** Yupeng Hou, Binbin Hu, Zhiqiang Zhang, Wayne Xin Zhao  
**HIGHLIGHT:** However, session embedding learned by a non-linear encoder is usually not in the same representation space as item embeddings, resulting in the inconsistent prediction issue while recommending items. To address this issue, we propose a simple and effective framework named CORE, which can unify the representation space for both the encoding and decoding processes.

169, **TITLE:** Learning Disentangled Representations for Counterfactual Regression via Mutual Information Minimization  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532011>

**AUTHORS:** Mingyuan Cheng, Xinru Liao, Quan Liu, Bin Ma, Jian Xu, Bo Zheng  
**HIGHLIGHT:** Specifically, previous methods fail to obtain independent disentangled factors, which is a necessary condition for identifying treatment effect. In this paper, we propose Disentangled Representations for Counterfactual Regression via Mutual Information Minimization (MIM-DRCFR), which uses a multi-task learning framework to share information when learning the latent factors and incorporates MI minimization learning criteria to ensure the independence of these factors.

170, **TITLE:** Multi-modal Graph Contrastive Learning for Micro-video Recommendation  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532027>

**AUTHORS:** Zixuan Yi, Xi Wang, Iadh Ounis, Craig Macdonald  
**HIGHLIGHT:** However, we argue that these approaches are not sufficient to encode item representations with multiple modalities, since the used methods cannot fully disentangle the users' tastes on different modalities. To tackle this problem, we propose a novel learning method named Multi-Modal Graph Contrastive Learning (MMGCL), which aims to explicitly enhance multi-modal representation learning in a self-supervised learning manner.

171, **TITLE:** RESETBERT4Rec: A Pre-training Model Integrating Time And User Historical Behavior for Sequential Recommendation

<https://dl.acm.org/doi/abs/10.1145/3477495.3532054>

**AUTHORS:** Qihang Zhao  
**HIGHLIGHT:** Specifically, we propose a new model called the RE arrange S equence prE -training and T ime embedding model via BERT for sequential R ecommendation (RESETBERT4Rec ) \footnoteThis work was completed during JD internship., it further captures the information of the user's whole click history by adding a rearrange sequence prediction task to the original BERT pre-training framework, while it integrates different views of time information.

172, **TITLE:** Item-Provider Co-learning for Sequential Recommendation

<https://dl.acm.org/doi/abs/10.1145/3477495.3531756>

**AUTHORS:** Lei Chen, Jingtao Ding, Min Yang, Chengming Li, Chonggang Song, Lingling Yi  
**HIGHLIGHT:** Specifically, we propose two representation learning methods (single-stream and cross-stream) to learn comprehensive item and user representations based on the user's historical item sequence and provider sequence.

173, **TITLE:** Re-weighting Negative Samples for Model-Agnostic Matching

<https://dl.acm.org/doi/abs/10.1145/3477495.3532053>

**AUTHORS:** Jiazhen Lou, Hong Wen, Fuyu Lv, Jing Zhang, Tengfei Yuan, Zhao Li  
**HIGHLIGHT:** In this paper, we find that the common practice that randomly sampling negative samples from the entire space and treating them equally is not an optimal choice, since the negative samples from different sub-spaces at different stages have different importance to a matching model. To address this issue, we propose a novel method named Unbiased Model-Agnostic Matching Approach (UMA2).

174, **TITLE:** Towards Event-level Causal Relation Identification

<https://dl.acm.org/doi/abs/10.1145/3477495.3531758>

**AUTHORS:** Chuang Fan, Daoxing Liu, Libo Qin, Yue Zhang, Ruifeng Xu  
**HIGHLIGHT:** As a result, they either suffer from conflicts among causal relations predicted separately or require a set of additional constraints to resolve such conflicts. We propose to study this task in a more realistic setting, where event-level causality identification can be made.

175, **TITLE:** Exploring Heterogeneous Data Lake based on Unified Canonical Graphs

<https://dl.acm.org/doi/abs/10.1145/3477495.3531759>

**AUTHORS:** Qin Yuan, Ye Yuan, Zhenyu Wen, He Wang, Chen Chen, Guoren Wang  
**HIGHLIGHT:** In this paper, we study a novel keyword search.

176, **TITLE:** Regulating Group Exposure for Item Providers in Recommendation

<https://dl.acm.org/doi/abs/10.1145/3477495.3531760>

**AUTHORS:** Mirko Marras, Ludovico Boratto, Guilherme Ramos, Gianni Fenu  
**HIGHLIGHT:** In this paper, we consider providers as grouped based on a common characteristic in settings in which certain provider groups have low representation of items in the catalog and, thus, in the user interactions.

- 177, TITLE: L3E-HD: A Framework Enabling Efficient Ensemble in High-Dimensional Space for Language Tasks  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531761>  
AUTHORS: Fangxin Liu, Haomin Li, Xiaokang Yang, Li Jiang  
HIGHLIGHT: In this paper, we proposed a novel ensemble framework for the language task, termed L3E-HD, which enables efficient HDC on low-power edge devices.
- 178, TITLE: Neural Statistics for Click-Through Rate Prediction  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531762>  
AUTHORS: Yanhua Huang, Hangyu Wang, Yiyun Miao, Ruiwen Xu, Lei Zhang, Weinan Zhang  
HIGHLIGHT: This paper introduces a novel embedding technique called neural statistics that instead learns explicit semantics of categorical features by incorporating feature engineering as an innate prior into the deep architecture in an end-to-end manner.
- 179, TITLE: Adversarial Graph Perturbations for Recommendations at Scale  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531763>  
AUTHORS: Huiyuan Chen, Kaixiong Zhou, Kwei-Herng Lai, Xia Hu, Fei Wang, Hao Yang  
HIGHLIGHT: However, perturbing graph structures has been far less studied in recommendations. To bridge this gap, we propose AdvGraph to model adversarial graph perturbations during the training of GNNs.
- 180, TITLE: Graph Capsule Network with a Dual Adaptive Mechanism  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531764>  
AUTHORS: Xiangping Zheng, Xun Liang, Bo Wu, Yuhui Guo, Xuan Zhang  
HIGHLIGHT: Furthermore, though many GCNs variants have been proposed and obtained state-of-the-art results, they face the situation that much early information may be lost during the graph convolution step. To this end, we innovatively present a Graph Capsule Network with a Dual Adaptive Mechanism (DA-GCN) to tackle the above challenges.
- 181, TITLE: Constrained Sequence-to-Tree Generation for Hierarchical Text Classification  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531765>  
AUTHORS: Chao Yu, Yi Shen, Yue Mao  
HIGHLIGHT: In this paper, we formulate HTC as a sequence generation task and introduce a sequence-to-tree framework (Seq2Tree) for modeling the hierarchical label structure.
- 182, TITLE: Relevance under the Iceberg: Reasonable Prediction for Extreme Multi-label Classification  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531767>  
AUTHORS: Jyun-Yu Jiang, Wei-Cheng Chang, Jiong Zhang, Cho-Jui Hsieh, Hsiang-Fu Yu  
HIGHLIGHT: In this paper, we aim to provide reasonable prediction for extreme multi-label classification with dynamic numbers of predicted labels.
- 183, TITLE: Training Entire-Space Models for Target-oriented Opinion Words Extraction  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531768>  
AUTHORS: Yuncong Li, Fang Wang, Sheng-Hua Zhong  
HIGHLIGHT: Training Entire-Space Models for Target-oriented Opinion Words Extraction
- 184, TITLE: Zero-shot Query Contextualization for Conversational Search  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531769>  
AUTHORS: Antonios Minas Krasakis, Andrew Yates, Evangelos Kanoulas  
HIGHLIGHT: While the proposed methods have proven effective, they still assume the availability of large-scale question resolution and conversational search datasets. To waive the dependency on the availability of such data, we adapt a pre-trained token-level dense retriever on ad-hoc search data to perform conversational search with no additional fine-tuning.
- 185, TITLE: EFLEC: Efficient Feature-LEakage Correction in GNN based Recommendation Systems  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531770>  
AUTHORS: Ishaan Kumar, Yaochen Hu, Yingxue Zhang  
HIGHLIGHT: We propose the accurate removal algorithm to generate the final embedding.
- 186, TITLE: Gating-adapted Wavelet Multiresolution Analysis for Exposure Sequence Modeling in CTR Prediction  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531771>  
AUTHORS: Xiaoxiao Xu, Zhiwei Fang, Qian Yu, Ruoran Huang, Chaosheng Fan, Yong Li, Yang He, Changping Peng, Zhangang Lin, Jingping Shao, Non Non  
HIGHLIGHT: In this paper, we propose to address the high latency and noise problems via Gating-adapted wavelet multiresolution analysis (Gama), which can effectively denoise the extremely long exposure sequence and adaptively capture the implied multi-dimension user interest with linear computational complexity.
- 187, TITLE: Enhancing Top-N Item Recommendations by Peer Collaboration  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531773>  
AUTHORS: Yang Sun, Fajie Yuan, Min Yang, Alexandros Karatzoglou, Li Shen, Xiaoyan Zhao  
HIGHLIGHT: However, this inevitably brings redundant neurons, a phenomenon referred to as over-parameterization. In this paper, we plan to exploit such redundancy phenomena for recommender systems (RS), and propose a top-N item recommendation framework called PCRec that leverages collaborative training of two recommender models of the same network structure, termed peer collaboration.

- 188, TITLE: Faster Learned Sparse Retrieval with Guided Traversal  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531774>  
AUTHORS: Antonio Mallia, Joel Mackenzie, Torsten Suel, Nicola Tonellotto  
HIGHLIGHT: In this work, we propose a novel indexing and query processing technique that exploits a traditional sparse model's "guidance" to efficiently traverse the index, allowing the more effective learned model to execute fewer scoring operations.
- 189, TITLE: Animating Images to Transfer CLIP for Video-Text Retrieval  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531776>  
AUTHORS: Yu Liu, Huai Chen, Lianghua Huang, Di Chen, Bin Wang, Pan Pan, Lisheng Wang  
HIGHLIGHT: In this paper, we propose a novel image animation strategy to transfer the image-text CLIP model to video-text retrieval effectively.
- 190, TITLE: IPR: Interaction-level Preference Ranking for Explicit feedback  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531777>  
AUTHORS: Shih-Yang Liu, Hsien Hao Chen, Chih-Ming Chen, Ming-Feng Tsai, Chuan-Ju Wang  
HIGHLIGHT: In this paper, we propose interaction-level preference ranking (IPR), a novel pairwise ranking embedding learning approach to better utilize explicit feedback for recommendation.
- 191, TITLE: News Recommendation with Candidate-aware User Modeling  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531778>  
AUTHORS: Tao Qi, Fangzhao Wu, Chuhan Wu, Yongfeng Huang  
HIGHLIGHT: In this paper, we present a candidate-aware user modeling method for personalized news recommendation, which can incorporate candidate news into user modeling for better matching between candidate news and user interest.
- 192, TITLE: PERD: Personalized Emoji Recommendation with Dynamic User Preference  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531779>  
AUTHORS: Xuanzhi Zheng, Guoshuai Zhao, Li Zhu, Xueming Qian  
HIGHLIGHT: In this paper, we propose a personalized emoji recommendation with dynamic user preference (PERD) which contains a text encoder and a personalized attention mechanism.
- 193, TITLE: Socially-aware Dual Contrastive Learning for Cold-Start Recommendation  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531780>  
AUTHORS: Jing Du, Zesheng Ye, Lina Yao, Bin Guo, Zhiwen Yu  
HIGHLIGHT: In this work, we propose socially-aware dual contrastive learning for cold-start recommendation, where cold users can be modeled in the same way as warm users.
- 194, TITLE: Hierarchical Task-aware Multi-Head Attention Network  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531781>  
AUTHORS: Jing Du, Lina Yao, Xianzhi Wang, Bin Guo, Zhiwen Yu  
HIGHLIGHT: While related research continues to break new ground, two major limitations still remain, including (i) poor generalization to scenarios where tasks are loosely correlated; and (ii) under-investigation on global commonality and local characteristics of tasks. Our aim is to bridge these gaps by presenting a neural multi-task learning model coined Hierarchical Task-aware Multi-headed Attention Network (HTMN).
- 195, TITLE: Image-Text Retrieval via Contrastive Learning with Auxiliary Generative Features and Support-set Regularization  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531783>  
AUTHORS: Lei Zhang, Min Yang, Chengming Li, Ruifeng Xu  
HIGHLIGHT: In this paper, we bridge the heterogeneity gap between different modalities and improve image-text retrieval by taking advantage of auxiliary image-to-text and text-to-image generative features with contrastive learning.
- 196, TITLE: Enhancing Event-Level Sentiment Analysis with Structured Arguments  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531784>  
AUTHORS: Qi Zhang, Jie Zhou, Qin Chen, Qingchun Bai, Liang He  
HIGHLIGHT: Previous studies about event-level sentiment analysis (SA) usually model the event as a topic, a category or target terms, while the structured arguments (e.g., subject, object, time and location) that have potential effects on the sentiment are not well studied. In this paper, we redefine the task as structured event-level SA and propose an End-to-End Event-level Sentiment Analysis (E3SA) approach to solve this issue.
- 197, TITLE: Denoising Time Cycle Modeling for Recommendation  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531785>  
AUTHORS: Sicong Xie, Qunwei Li, Weidi Xu, Kaiming Shen, Shaohu Chen, Wenliang Zhong  
HIGHLIGHT: In this paper, we propose Denoising Time Cycle Modeling (DiCycle), a novel approach to denoise user behaviors and select the subset of user behaviors that are highly related to the target item.
- 198, TITLE: P3 Ranker: Mitigating the Gaps between Pre-training and Ranking Fine-tuning with Prompt-based Learning and Pre-finetuning  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531786>  
AUTHORS: Xiaomeng Hu, Shi Yu, Chenyan Xiong, Zhenghao Liu, Zhiyuan Liu, Ge Yu

**HIGHLIGHT:** In this paper, we identify and study the two mismatches between pre-training and ranking fine-tuning: the training schema gap regarding the differences in training objectives and model architectures, and the task knowledge gap considering the discrepancy between the knowledge needed in ranking and that learned during pre-training.

199, **TITLE:** Towards Results-level Proportionality for Multi-objective Recommender Systems

<https://dl.acm.org/doi/abs/10.1145/3477495.3531787>

**AUTHORS:** Ladislav Peska, Patrik Dokoupil

**HIGHLIGHT:** If individual objectives are transformed to represent quality on the same scale, these result conditioning expressions may greatly contribute towards recommendations tuneability and explainability as well as user's control over recommendations. To achieve this task, we propose an iterative algorithm inspired by the mandates allocation problem in public elections.

200, **TITLE:** Adversarial Filtering Modeling on Long-term User Behavior Sequences for Click-Through Rate Prediction

<https://dl.acm.org/doi/abs/10.1145/3477495.3531788>

**AUTHORS:** Xiaochen Li, Jian Liang, Xialong Liu, Yu Zhang

**HIGHLIGHT:** To obtain better cost/performance trade-off, we propose a novel Adversarial Filtering Model (ADFM) to model long-term user behavior.

201, **TITLE:** FUM: Fine-grained and Fast User Modeling for News Recommendation

<https://dl.acm.org/doi/abs/10.1145/3477495.3531790>

**AUTHORS:** Tao Qi, Fangzhao Wu, Chuhan Wu, Yongfeng Huang

**HIGHLIGHT:** In this paper, we propose a fine-grained and fast user modeling framework (FUM) to model user interest from fine-grained behavior interactions for news recommendation.

202, **TITLE:** Curriculum Learning for Dense Retrieval Distillation

<https://dl.acm.org/doi/abs/10.1145/3477495.3531791>

**AUTHORS:** Hansi Zeng, Hamed Zamani, Vishwa Vinay

**HIGHLIGHT:** In this paper, we propose a generic curriculum learning based optimization framework called CL-DRD that controls the difficulty level of training data produced by the re-ranking (teacher) model.

203, **TITLE:** Evaluation of Herd Behavior Caused by Population-scale Concept Drift in Collaborative Filtering

<https://dl.acm.org/doi/abs/10.1145/3477495.3531792>

**AUTHORS:** Chenglong Ma, Yongli Ren, Pablo Castells, Mark Sanderson

**HIGHLIGHT:** We conduct a study on user behavior to detect the collaborative concept drifts among users.

204, **TITLE:** Detecting Frozen Phrases in Open-Domain Question Answering

<https://dl.acm.org/doi/abs/10.1145/3477495.3531793>

**AUTHORS:** Mostafa Yadegari, Ehsan Kamaloo, Davood Rafiei

**HIGHLIGHT:** In this paper, we study one particular structure, referred to as frozen phrases, that is highly expected to transfer as a whole from questions to answer passages.

205, **TITLE:** Enhancing Hypergraph Neural Networks with Intent Disentanglement for Session-based Recommendation

<https://dl.acm.org/doi/abs/10.1145/3477495.3531794>

**AUTHORS:** Yinfeng Li, Chen Gao, Hengliang Luo, Depeng Jin, Yong Li

**HIGHLIGHT:** To address them, in this paper, we propose a hypergraph-based solution, HIDE.

206, **TITLE:** Point Prompt Tuning for Temporally Language Grounding

<https://dl.acm.org/doi/abs/10.1145/3477495.3531795>

**AUTHORS:** Yawen Zeng

**HIGHLIGHT:** Therefore, how to perform TLG task efficiently and stably is a non-trivial work. Toward this end, we innovatively contribute a solution, Point Prompt Tuning (PPT), which formulates this task as a prompt-based multi-modal problem and integrates multiple sub-tasks to tuning performance.

207, **TITLE:** Value Penalized Q-Learning for Recommender Systems

<https://dl.acm.org/doi/abs/10.1145/3477495.3531796>

**AUTHORS:** Chengqian Gao, Ke Xu, Kuangqi Zhou, Lanqing Li, Xueqian Wang, Bo Yuan, Peilin Zhao

**HIGHLIGHT:** In this paper, we propose Value Penalized Q-learning (VPQ), a novel uncertainty-based offline RL algorithm that penalizes the unstable Q-values in the regression target using uncertainty-aware weights, achieving the conservative Q-function without the need of estimating the behavior policy, suitable for RS with a large number of items.

208, **TITLE:** Transform Cold-Start Users into Warm via Fused Behaviors in Large-Scale Recommendation

<https://dl.acm.org/doi/abs/10.1145/3477495.3531797>

**AUTHORS:** Pengyang Li, Rong Chen, Quan Liu, Jian Xu, Bo Zheng

**HIGHLIGHT:** (1) Cold-start users may have a quite different distribution of features from existing users. (2) The few behaviors of cold-start users are hard to be exploited. In this paper, we propose a recommender system called Cold-Transformer to alleviate these problems.

209, **TITLE:** Understanding User Satisfaction with Task-oriented Dialogue Systems

<https://dl.acm.org/doi/abs/10.1145/3477495.3531798>

**AUTHORS:** Clemencia Siro, Mohammad Aliannejadi, Maarten de Rijke

- HIGHLIGHT:** We introduce a comprehensive set of user experience aspects derived from the annotators' open comments that can influence users' overall impression.
- 210, **TITLE:** Distilling Knowledge on Text Graph for Social Media Attribute Inference  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531968>  
**AUTHORS:** Quan Li, Xiaoting Li, Lingwei Chen, Dinghao Wu  
**HIGHLIGHT:** However, these text graphs are constructed on words, suffering from high memory consumption and ineffectiveness on few labeled texts. To address this challenge, we design a text-graph-based few-shot learning model for social media attribute inferences.
- 211, **TITLE:** Progressive Self-Attention Network with Unsymmetrical Positional Encoding for Sequential Recommendation  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531800>  
**AUTHORS:** Yuehua Zhu, Bo Huang, Shaohua Jiang, Muli Yang, Yanhua Yang, Wenliang Zhong  
**HIGHLIGHT:** In this paper, we propose a novel interpretable convolutional self-attention, which efficiently captures both short- and long-term patterns with a progressive attention distribution.
- 212, **TITLE:** Empowering Next POI Recommendation with Multi-Relational Modeling  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531801>  
**AUTHORS:** Zheng Huang, Jing Ma, Yushun Dong, Natasha Zhang Foutz, Jundong Li  
**HIGHLIGHT:** However, most existing methods either focus on merely the user-POI visits, or handle different relations based on over-simplified assumptions while neglecting relational heterogeneities. To fill these critical voids, we propose a novel framework, MEMO, which effectively utilizes the heterogeneous relations with a multi-network representation learning module, and explicitly incorporates the inter-temporal user-POI mutual influence with the coupled recurrent neural networks.
- 213, **TITLE:** What Makes a Good Podcast Summary?  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531802>  
**AUTHORS:** Rezvaneh Rezapour, Sravana Reddy, Rosie Jones, Ian Soboroff  
**HIGHLIGHT:** Using a collection of podcast summaries produced by different algorithms alongside human judgments of summary quality obtained from the TREC 2020 Podcasts Track, we study the correlations between various automatic evaluation metrics and human judgments, as well as the linguistic aspects of summaries that result in strong evaluations.
- 214, **TITLE:** A Simple Meta-learning Paradigm for Zero-shot Intent Classification with Mixture Attention Mechanism  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531803>  
**AUTHORS:** Han Liu, Siyang Zhao, Xiaotong Zhang, Feng Zhang, Junjie Sun, Hong Yu, Xianchao Zhang  
**HIGHLIGHT:** In this paper, we propose a simple yet effective meta-learning paradigm for zero-shot intent classification.
- 215, **TITLE:** BSAL: A Framework of Bi-component Structure and Attribute Learning for Link Prediction  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531804>  
**AUTHORS:** Bisheng Li, Min Zhou, Shengzhong Zhang, Menglin Yang, Defu Lian, Zengfeng Huang  
**HIGHLIGHT:** To bridge the gap, we propose a bicomponent structural and attribute learning framework (BSAL) that is designed to adaptively leverage information from topology and feature spaces.
- 216, **TITLE:** Analyzing the Support Level for Tips Extracted from Product Reviews  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531805>  
**AUTHORS:** Miriam Farber, David Carmel, Lital Kuchy, Avihai Mejer  
**HIGHLIGHT:** In this work we argue that extracted tips should be examined based on the amount of support and opposition they receive from all product reviews.
- 217, **TITLE:** Why do Semantically Unrelated Categories Appear in the Same Session?: A Demand-aware Method  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531806>  
**AUTHORS:** Liqi Yang, Linhao Luo, Xiaofeng Zhang, Fengxin Li, Xinni Zhang, Zelin Jiang, Shuai Tang  
**HIGHLIGHT:** To tackle the aforementioned issue, this paper proposes a novel demand-aware graph neural network model.
- 218, **TITLE:** Enhancing Zero-Shot Stance Detection via Targeted Background Knowledge  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531807>  
**AUTHORS:** Qinglin Zhu, Bin Liang, Jingyi Sun, Jiachen Du, Lanjun Zhou, Ruifeng Xu  
**HIGHLIGHT:** For human beings, we generally tend to reason the stance of a new target by linking it with the related knowledge learned from the known ones. Therefore, in this paper, to better generalize the target-related stance features learned from the known targets to the unseen ones, we incorporate the targeted background knowledge from Wikipedia into the model.
- 219, **TITLE:** Translation-Based Implicit Annotation Projection for Zero-Shot Cross-Lingual Event Argument Extraction  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531808>  
**AUTHORS:** Chenwei Lou, Jun Gao, Changlong Yu, Wei Wang, Huan Zhao, Weiwei Tu, Ruifeng Xu  
**HIGHLIGHT:** This paper investigates a translation-based method to implicitly project annotations from the source language to the target language.
- 220, **TITLE:** Coarse-to-Fine Sparse Sequential Recommendation  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531732>  
**AUTHORS:** Jiacheng Li, Tong Zhao, Jin Li, Jim Chan, Christos Faloutsos, George Karypis, Soo-Min Pantel, Julian McAuley

- HIGHLIGHT:** We propose to model user dynamics from shopping intents and interacted items simultaneously.
- 221, **TITLE:** UserBERT: Pre-training User Model with Contrastive Self-supervision  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531810>  
**AUTHORS:** Chuhan Wu, Fangzhao Wu, Tao Qi, Yongfeng Huang  
**HIGHLIGHT:** In this paper, we propose a user model pre-training method named UserBERT to learn universal user models on unlabeled user behavior data with two contrastive self-supervision tasks.
- 222, **TITLE:** Understanding Long Programming Languages with Structure-Aware Sparse Attention  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531811>  
**AUTHORS:** Tingting Liu, Chengyu Wang, Cen Chen, Ming Gao, Aoying Zhou  
**HIGHLIGHT:** However, codes in real-world applications are generally long, such as code searches, which cannot be processed efficiently by existing PPLMs. To solve this problem, in this paper, we present SASA, a Structure-Aware Sparse Attention mechanism, which reduces the complexity and improves performance for long code understanding tasks.
- 223, **TITLE:** Learning Trustworthy Web Sources to Derive Correct Answers and Reduce Health Misinformation in Search  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531812>  
**AUTHORS:** Dake Zhang, Amir Vakili Tahami, Mustafa Abualsaud, Mark D. Smucker  
**HIGHLIGHT:** By using an existing set of health questions and their known answers, we show it is possible to learn which web hosts are trustworthy, from which we can predict the correct answers to the 2021 health questions with an accuracy of 76%.
- 224, **TITLE:** MP2: A Momentum Contrast Approach for Recommendation with Pointwise and Pairwise Learning  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531813>  
**AUTHORS:** Menghan Wang, Yuchen Guo, Zhenqi Zhao, Guangzheng Hu, Yuming Shen, Mingming Gong, Philip Torr  
**HIGHLIGHT:** To solve this issue, we find the soft-labeling property of pairwise labels could be utilized to alleviate the bias of pointwise labels. To this end, we propose a momentum contrast framework (method) that combines pointwise and pairwise learning for recommendation.
- 225, **TITLE:** MetaCVR: Conversion Rate Prediction via Meta Learning in Small-Scale Recommendation Scenarios  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531733>  
**AUTHORS:** Xiaofeng Pan, Ming Li, Jing Zhang, Keren Yu, Hong Wen, Luping Wang, Chengjun Mao, Bo Cao  
**HIGHLIGHT:** In this work, we propose a novel CVR method named MetaCVR from a perspective of meta learning to address the DDF issue.
- 226, **TITLE:** A Multi-Task Based Neural Model to Simulate Users in Goal Oriented Dialogue Systems  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531814>  
**AUTHORS:** To Eun Kim, Aldo Lipani  
**HIGHLIGHT:** In this paper, we propose a deep learning-based user simulator that predicts users' satisfaction scores and actions while also jointly generating users' utterances in a multi-task manner.
- 227, **TITLE:** Generalizing to the Future: Mitigating Entity Bias in Fake News Detection  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531816>  
**AUTHORS:** Yongchun Zhu, Qiang Sheng, Juan Cao, Shuokai Li, Danding Wang, Fuzhen Zhuang  
**HIGHLIGHT:** In this paper, we propose an entity debiasing framework (ENDEF) which generalizes fake news detection models to the future data by mitigating entity bias from a cause-effect perspective.
- 228, **TITLE:** Dialogue Topic Segmentation via Parallel Extraction Network with Neighbor Smoothing  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531817>  
**AUTHORS:** Jinxiong Xia, Cao Liu, Jiansong Chen, Yuchen Li, Fan Yang, Xunliang Cai, Guanglu Wan, Houfeng Wang  
**HIGHLIGHT:** Besides, the ambiguity and labeling noise in dialogue segment bounds bring further challenges to existing models. In this work, we propose the Parallel Extraction Network with Neighbor Smoothing (PEN-NS) to address the above issues.
- 229, **TITLE:** Analysing the Robustness of Dual Encoders for Dense Retrieval Against Misspellings  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531818>  
**AUTHORS:** Georgios Sidiropoulos, Evangelos Kanoulas  
**HIGHLIGHT:** In this work, we study the robustness of dense retrievers against typos in the user question.
- 230, **TITLE:** From Cluster Ranking to Document Ranking  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531819>  
**AUTHORS:** Egor Markovskiy, Fiana Raiber, Shoham Sabach, Oren Kurland  
**HIGHLIGHT:** We present a novel supervised approach to transform cluster ranking to document ranking.
- 231, **TITLE:** Unlearning Protected User Attributes in Recommendations with Adversarial Training  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531820>  
**AUTHORS:** Christian Ganher, David Penz, Navid Rekabsaz, Oleg Lesota, Markus Schedl  
**HIGHLIGHT:** In this work, we investigate the possibility and challenges of removing specific protected information of users from the learned interaction representations of a RS algorithm, while maintaining its effectiveness.
- 232, **TITLE:** A 'Pointwise-Query, Listwise-Documents' based Query Performance Prediction Approach  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531821>

- AUTHORS: Suchana Datta, Sean MacAvaney, Debasis Ganguly, Derek Greene  
HIGHLIGHT: In this paper, we propose a novel end-to-end neural cross-encoder-based approach that is trained pointwise on individual queries, but listwise over the top ranked documents (split into chunks).
- 233, TITLE: How Does Feedback Signal Quality Impact Effectiveness of Pseudo Relevance Feedback for Passage Retrieval  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531822>  
AUTHORS: Hang Li, Ahmed Mourad, Bevan Koopman, Guido Zuccon  
HIGHLIGHT: In this paper we control the quality of the feedback signal and measure its impact on a range of PRF methods, including traditional bag-of-words methods (Rocchio), and dense vector-based methods (learned and not learned).
- 234, TITLE: Improving Contrastive Learning of Sentence Embeddings with Case-Augmented Positives and Retrieved Negatives  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531823>  
AUTHORS: Wei Wang, Liangzhu Ge, Jingqiao Zhang, Cheng Yang  
HIGHLIGHT: Specifically, for positive samples, we propose switch-case augmentation to flip the case of the first letter of randomly selected words in a sentence.
- 235, TITLE: Expression Syntax Information Bottleneck for Math Word Problems  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531824>  
AUTHORS: Jing Xiong, Chengming Li, Min Yang, Xiping Hu, Bin Hu  
HIGHLIGHT: In this paper, we turn our attention in the opposite direction, and work on how to discard redundant features containing spurious correlations for MWP.
- 236, TITLE: Masking and Generation: An Unsupervised Method for Sarcasm Detection  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531825>  
AUTHORS: Rui Wang, Qianlong Wang, Bin Liang, Yi Chen, Zhiyuan Wen, Bing Qin, Ruifeng Xu  
HIGHLIGHT: In the real world scenario, however, the abundant labeled data or extra information requires high labor cost, not to mention that sufficient annotated data is unavailable in many low-resource conditions. To alleviate this dilemma, we investigate sarcasm detection from an unsupervised perspective, in which we explore a masking and generation paradigm in the context to extract the context incongruities for learning sarcastic expression.
- 237, TITLE: Cross-Probe BERT for Fast Cross-Modal Search  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531826>  
AUTHORS: Tan Yu, Hongliang Fei, Ping Li  
HIGHLIGHT: To address the inefficiency issue in exiting text-vision BERT models, in this work, we develop a novel architecture, cross-probe BERT.
- 238, TITLE: GERE: Generative Evidence Retrieval for Fact Verification  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531827>  
AUTHORS: Jianguo Chen, Ruqing Zhang, Jiafeng Guo, Yixing Fan, Xueqi Cheng  
HIGHLIGHT: In this work, we propose GERE, the first system that retrieves evidences in a generative fashion, i.e., generating the document titles as well as evidence sentence identifiers.
- 239, TITLE: DH-HGCN: Dual Homogeneity Hypergraph Convolutional Network for Multiple Social Recommendations  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531828>  
AUTHORS: Jiadi Han, Qian Tao, Yufei Tang, Yuhua Xia  
HIGHLIGHT: Specifically, we use sentiment analysis to extract comment relation and use the k-means clustering to construct item-item correlations, and we then optimize those heterogeneous graphs in a unified framework.
- 240, TITLE: Clustering based Behavior Sampling with Long Sequential Data for CTR Prediction  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531829>  
AUTHORS: Yuren Zhang, Enhong Chen, Binbin Jin, Hao Wang, Min Hou, Wei Huang, Runlong Yu  
HIGHLIGHT: First, there is a lot of noise in such long histories, which can seriously hurt the prediction performance. Second, feeding the long behavior sequence directly results in infeasible inference time and storage cost. In order to tackle these challenges, in this paper we propose a novel framework, which we name as User Behavior Clustering Sampling (UBCS).
- 241, TITLE: Conversational Recommendation via Hierarchical Information Modeling  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531830>  
AUTHORS: Quan Tu, Shen Gao, Yanran Li, Jianwei Cui, Bin Wang, Rui Yan  
HIGHLIGHT: In this paper, we propose Hierarchical Information-aware Conversational Recommender (HICR) to model the two types of hierarchical information to boost the performance of CRS.
- 242, TITLE: Relation-Guided Few-Shot Relational Triple Extraction  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531831>  
AUTHORS: Xin Cong, Jiawei Sheng, Shiyao Cui, Bowen Yu, Tingwen Liu, Bin Wang  
HIGHLIGHT: To address it, we propose a novel task decomposition strategy, Relation-then-Entity, for FS-RTE.
- 243, TITLE: On Survivorship Bias in MS MARCO  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531832>  
AUTHORS: Prashansa Gupta, Sean MacAvaney

**HIGHLIGHT:** We observe that this bias could be present in the popular MS MARCO dataset, given that annotators could not find answers to 38--45% of the queries, leading to these queries being discarded in training and evaluation processes.

244, **TITLE:** An Efficiency Study for SPLADE Models

<https://dl.acm.org/doi/abs/10.1145/3477495.3531833>

**AUTHORS:** Carlos Lassance, Stéphane Clinchant

**HIGHLIGHT:** In this paper, we focus on improving the efficiency of the SPLADE model since it has achieved state-of-the-art zero-shot performance and competitive results on TREC collections.

245, **TITLE:** Tensor-based Graph Modularity for Text Data Clustering

<https://dl.acm.org/doi/abs/10.1145/3477495.3531834>

**AUTHORS:** Rafika Boutalbi, Mira Ait-Saada, Anastasiia Iurshina, Steffen Staab, Mohamed Nadif

**HIGHLIGHT:** To this end, we rely on the modularity metric, which effectively evaluates graph clustering in such circumstances. Therefore, we present a novel approach for text clustering based on both a sparse tensor representation and graph modularity.

246, **TITLE:** Learned Token Pruning in Contextualized Late Interaction over BERT (ColBERT)

<https://dl.acm.org/doi/abs/10.1145/3477495.3531835>

**AUTHORS:** Carlos Lassance, Maroua Maachou, Joohee Park, Stéphane Clinchant

**HIGHLIGHT:** However, the late-interaction mechanism leads to large index size, as one needs to save a representation for each token of every document. In this work, we focus on token pruning techniques in order to mitigate this problem.

247, **TITLE:** AHP: Learning to Negative Sample for Hyperedge Prediction

<https://dl.acm.org/doi/abs/10.1145/3477495.3531836>

**AUTHORS:** Hyunjin Hwang, Seungwoo Lee, Chanyoung Park, Kijung Shin

**HIGHLIGHT:** In this paper, we propose AHP, an adversarial training-based hyperedge-prediction method.

248, **TITLE:** GraFN: Semi-Supervised Node Classification on Graph with Few Labels via Non-Parametric Distribution Assignment

<https://dl.acm.org/doi/abs/10.1145/3477495.3531838>

**AUTHORS:** Junseok Lee, Yunhak Oh, Yeonjun In, Namkyeong Lee, Dongmin Hyun, Chanyoung Park

**HIGHLIGHT:** To this end, we propose a novel semi-supervised method for graphs, GraFN, that leverages few labeled nodes to ensure nodes that belong to the same class to be grouped together, thereby achieving the best of both worlds of semi-supervised and self-supervised methods.

249, **TITLE:** Item Similarity Mining for Multi-Market Recommendation

<https://dl.acm.org/doi/abs/10.1145/3477495.3531839>

**AUTHORS:** Jiangxia Cao, Xin Cong, Tingwen Liu, Bin Wang

**HIGHLIGHT:** In this paper, we explore multi-market recommendation (MMR), and propose a novel model called  $M\$\wedge^3\$\text{Rec}$  to improve all markets recommendation simultaneously.

250, **TITLE:** ILMART: Interpretable Ranking with Constrained LambdaMART

<https://dl.acm.org/doi/abs/10.1145/3477495.3531840>

**AUTHORS:** Claudio Lucchese, Franco Maria Nardini, Salvatore Orlando, Raffaele Perego, Alberto Veneri

**HIGHLIGHT:** While most of the previous research efforts focus on creating post-hoc explanations, in this paper we investigate how to train effective and intrinsically-interpretable ranking models.

251, **TITLE:** Modern Baselines for SPARQL Semantic Parsing

<https://dl.acm.org/doi/abs/10.1145/3477495.3531841>

**AUTHORS:** Debayan Banerjee, Pranav Ajit Nair, Jivat Neet Kaur, Ricardo Usbeck, Chris Biemann

**HIGHLIGHT:** In this work, we focus on the task of generating SPARQL queries from natural language questions, which can then be executed on Knowledge Graphs (KGs).

252, **TITLE:** Learning-to-Rank at the Speed of Sampling: Plackett-Luce Gradient Estimation with Minimal Computational Complexity

<https://dl.acm.org/doi/abs/10.1145/3477495.3531842>

**AUTHORS:** Harrie Oosterhuis

**HIGHLIGHT:** In this paper, we introduce the novel PL-Rank-3 algorithm that performs unbiased gradient estimation with a computational complexity comparable to the best sorting algorithms.

253, **TITLE:** CTnoCVR: A Novelty Auxiliary Task Making the Lower-CTR-Higher-CVR Upper

<https://dl.acm.org/doi/abs/10.1145/3477495.3531843>

**AUTHORS:** Dandan Zhang, Haotian Wu, Guanqi Zeng, Yao Yang, Weijiang Qiu, Yujie Chen, Haoyuan Hu

**HIGHLIGHT:** In this paper, we introduce a novelty auxiliary task called CTnoCVR, which aims to predict the probability of events with click but no-conversion, in various state-of-the-art multi-task models of recommender systems to promote samples with high CVR but low CTR.

254, **TITLE:** Deep Multi-Representational Item Network for CTR Prediction

<https://dl.acm.org/doi/abs/10.1145/3477495.3531845>

**AUTHORS:** Jihai Zhang, Fangquan Lin, Cheng Yang, Wei Wang



**HIGHLIGHT:** Furthermore, most existing works regard the candidate item as one fixed embedding and ignore the multi-representational characteristics of the item. To handle the above issues, we propose a Deep multi-Representational Item Network (DRINK) for CTR prediction.

255, **TITLE:** A New Sequential Prediction Framework with Spatial-temporal Embedding  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531846>

**AUTHORS:** Jihai Zhang, Fangquan Lin, Cheng Yang, Wei Jiang

**HIGHLIGHT:** In addition, we find that user behavior varies greatly at different time, and most existing models fail to characterize the rich temporal information. To address the above problems, we propose a transformer-based spatial-temporal recommendation framework (STEM).

256, **TITLE:** Rethinking Correlation-based Item-Item Similarities for Recommender Systems  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532055>

**AUTHORS:** Katsuhiko Hayashi

**HIGHLIGHT:** The purpose of this paper is to re-investigate the effectiveness of correlation-based nearest neighbor methods on several benchmark datasets that have been used for recommendation evaluation in recent years.

257, **TITLE:** Deep Page-Level Interest Network in Reinforcement Learning for Ads Allocation  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531847>

**AUTHORS:** Guogang Liao, Xiaowen Shi, Ze Wang, Xiaoxu Wu, Chuheng Zhang, Yongkang Wang, Xingxing Wang, Dong Wang

**HIGHLIGHT:** Most previous works only model point-level positive feedback (i.e., click), which neglect the page-level information of feedback and other types of feedback. To this end, we propose Deep Page-level Interest Network (DPIN) to model the page-level user preference and exploit multiple types of feedback.

258, **TITLE:** GraphAD: A Graph Neural Network for Entity-Wise Multivariate Time-Series Anomaly Detection  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531848>

**AUTHORS:** Xu Chen, Qiu Qiu, Changshan Li, Kunqing Xie

**HIGHLIGHT:** In this paper, we pose an entity-wise multivariate time-series anomaly detection problem that considers the time-series of each unique entity.

259, **TITLE:** On Optimizing Top-K Metrics for Neural Ranking Models  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531849>

**AUTHORS:** Rolf Jagerman, Zhen Qin, Xuanhui Wang, Michael Bendersky, Marc Najork

**HIGHLIGHT:** In this paper, we follow the LambdaLoss framework and design novel and theoretically sound losses for NDCG@K metrics, while the original LambdaLoss paper can only do so using an unsound heuristic.

260, **TITLE:** Bias Mitigation for Evidence-aware Fake News Detection by Causal Intervention  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531850>

**AUTHORS:** Junfei Wu, Qiang Liu, Weizhi Xu, Shu Wu

**HIGHLIGHT:** Inspired by the success of causal inference, we propose a novel framework for debiasing evidence-based fake news detection/footnoteCode available at <https://github.com/CRIPAC-DIG/CF-FEND> by causal intervention.

261, **TITLE:** DisenCTR: Dynamic Graph-based Disentangled Representation for Click-Through Rate Prediction  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531851>

**AUTHORS:** Yifan Wang, Yifang Qin, Fang Sun, Bo Zhang, Xuyang Hou, Ke Hu, Jia Cheng, Jun Lei, Ming Zhang

**HIGHLIGHT:** In this paper, we propose DisenCTR, a novel dynamic graph-based disentangled representation framework for CTR prediction.

262, **TITLE:** Improving Conversational Recommender Systems via Transformer-based Sequential Modelling  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531852>

**AUTHORS:** Jie Zou, Evangelos Kanoulas, Pengjie Ren, Zhaochun Ren, Aixin Sun, Cheng Long

**HIGHLIGHT:** In this paper, we propose a Transformer-based sequential conversational recommendation method, named TSCR, which models the sequential dependencies in the conversations to improve CRS.

263, **TITLE:** Neural Query Synthesis and Domain-Specific Ranking Templates for Multi-Stage Clinical Trial Matching  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531853>

**AUTHORS:** Ronak Pradeep, Yilin Li, Yuetong Wang, Jimmy Lin

**HIGHLIGHT:** In this work, we propose an effective multi-stage neural ranking system for the clinical trial matching problem.

264, **TITLE:** On Extractive Summarization for Profile-centric Neural Expert Search in Academia  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531713>

**AUTHORS:** Rennan C. Lima, Rodrygo L. T. Santos

**HIGHLIGHT:** Despite offering a complete picture of each candidate's scientific output, such lengthy profiles make it inefficient to leverage state-of-the-art neural architectures for inferring expertise. To overcome this limitation, we investigate the suitability of extractive summarization as a mechanism to reduce candidate profiles for semantic encoding using Transformers.

265, **TITLE:** Hybrid CNN Based Attention with Category Prior for User Image Behavior Modeling  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531854>

**AUTHORS:** Xin Chen, Qingtao Tang, Ke Hu, Yue Xu, Shihang Qiu, Jia Cheng, Jun Lei

**HIGHLIGHT:** To address the two issues, we propose a hybrid CNN based attention module, unifying user's image behaviors and category prior, for CTR prediction.

266, **TITLE:** Joint Optimization of Ad Ranking and Creative Selection  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531855>

**AUTHORS:** Kaiyi Lin, Xiang Zhang, Feng Li, Pengjie Wang, Qingqing Long, Hongbo Deng, Jian Xu, Bo Zheng  
**HIGHLIGHT:** However, the existing common practices in the industry usually place the creative selection after the ad ranking stage, and thus the optimal creative fails to reflect the influence on the ad ranking stage. To address these issues, we propose a novel Cascade Architecture of Creative Selection (CACS), which is built before the ranking stage to joint optimization of intra-ad creative selection and inter-ad ranking.

267, **TITLE:** BERT-based Dense Intra-ranking and Contextualized Late Interaction via Multi-task Learning for Long Document Retrieval

<https://dl.acm.org/doi/abs/10.1145/3477495.3531856>

**AUTHORS:** Minghan Li, Eric Gaussier

**HIGHLIGHT:** In this paper, we propose a cascaded late interaction approach using a single model for long document retrieval.

268, **TITLE:** From Distillation to Hard Negative Sampling: Making Sparse Neural IR Models More Effective

<https://dl.acm.org/doi/abs/10.1145/3477495.3531857>

**AUTHORS:** Thibault Formal, Carlos Lassance, Benjamin Piwowarski, Stéphane Clinchant

**HIGHLIGHT:** In this work, we build on SPLADE -- a sparse expansion-based retriever -- and show to which extent it is able to benefit from the same training improvements as dense models, by studying the effect of distillation, hard-negative mining as well as the Pre-trained Language Model initialization.

269, **TITLE:** Which Discriminator for Cooperative Text Generation?

<https://dl.acm.org/doi/abs/10.1145/3477495.3531858>

**AUTHORS:** Antoine Chaffin, Thomas Scialom, Sylvain Lamprier, Jacopo Staiano, Benjamin Piwowarski, Ewa Kijak, Vincent Claveau

**HIGHLIGHT:** A solution is to use a classifier at each generation step, resulting in a cooperative environment where the classifier guides the decoding of the language model distribution towards relevant texts for the task at hand. In this paper, we examine three families of (transformer-based) discriminators for this specific task of cooperative decoding: bidirectional, left-to-right and generative ones.

270, **TITLE:** When Online Meets Offline: Exploring Periodicity for Travel Destination Prediction

<https://dl.acm.org/doi/abs/10.1145/3477495.3531859>

**AUTHORS:** Wanjie Tao, Liangyue Li, Chen Chen, Zulong Chen, Hong Wen

**HIGHLIGHT:** In this paper, we propose an online-offline periodicity-aware information gain network, OOPIN, for travel destination prediction on OTPs.

271, **TITLE:** Long Document Re-ranking with Modular Re-ranker

<https://dl.acm.org/doi/abs/10.1145/3477495.3531860>

**AUTHORS:** Luyu Gao, Jamie Callan

**HIGHLIGHT:** In this paper, we propose instead to model full query-to-document interaction, leveraging the attention operation and modular Transformer re-ranker framework.

272, **TITLE:** Improving Micro-video Recommendation via Contrastive Multiple Interests

<https://dl.acm.org/doi/abs/10.1145/3477495.3531861>

**AUTHORS:** Beibei Li, Beihong Jin, Jiageng Song, Yisong Yu, Yiyuan Zheng, Wei Zhou

**HIGHLIGHT:** Recently, contrastive learning provides a new opportunity for refining the existing recommendation techniques. Therefore, in this paper, we propose to extract contrastive multi-interests and devise a micro-video recommendation model CMI.

273, **TITLE:** Is News Recommendation a Sequential Recommendation Task?

<https://dl.acm.org/doi/abs/10.1145/3477495.3531862>

**AUTHORS:** Chuhan Wu, Fangzhao Wu, Tao Qi, Chenliang Li, Yongfeng Huang

**HIGHLIGHT:** In this paper, we study whether news recommendation can be regarded as a standard sequential recommendation problem.

274, **TITLE:** InPars: Unsupervised Dataset Generation for Information Retrieval

<https://dl.acm.org/doi/abs/10.1145/3477495.3531863>

**AUTHORS:** Luiz Bonifacio, Hugo Abonizio, Marzieh Fadaee, Rodrigo Nogueira

**HIGHLIGHT:** In this work, we harness the few-shot capabilities of large pretrained language models as synthetic data generators for IR tasks.

275, **TITLE:** Identifying Argumentative Questions in Web Search Logs

<https://dl.acm.org/doi/abs/10.1145/3477495.3531864>

**AUTHORS:** Yamen Ajjour, Pavel Braslavski, Alexander Bondarenko, Benno Stein

**HIGHLIGHT:** We present an approach to identify argumentative questions among web search queries.

276, **TITLE:** Smooth-AUC: Smoothing the Path Towards Rank-based CTR Prediction

<https://dl.acm.org/doi/abs/10.1145/3477495.3531865>

- AUTHORS: Shuang Tang, Fangyuan Luo, Jun Wu  
HIGHLIGHT: It is noteworthy that directly optimizing AUC by gradient-descent methods is difficult due to the non-differentiable Heaviside function built-in AUC. To this end, we propose a smooth approximation of AUC, called smooth-AUC (SAUC), towards the rank-based CTR prediction.
- 277, TITLE: Diversity Vs Relevance: A Practical Multi-objective Study in Luxury Fashion Recommendations  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531866>  
AUTHORS: Joˆˆo Sˆˆo, Vanessa Queiroz Marinho, Ana Rita Magalhˆˆes, Tiago Lacerda, Diogo Goncalves  
HIGHLIGHT: In this work, we explored a handful of diversification strategies to rerank the output of a relevance-focused recommender system.
- 278, TITLE: Revisiting Two-tower Models for Unbiased Learning to Rank  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531837>  
AUTHORS: Le Yan, Zhen Qin, Honglei Zhuang, Xuanhui Wang, Michael Bendersky, Marc Najork  
HIGHLIGHT: In this work, we revisit two-tower models for ULTR.
- 279, TITLE: Answering Count Queries with Explanatory Evidence  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531870>  
AUTHORS: Shrestha Ghosh, Simon Razniewski, Gerhard Weikum  
HIGHLIGHT: This paper proposes a methodology for answering count queries with inference, contextualization and explanatory evidence.
- 280, TITLE: Interactive Query Clarification and Refinement via User Simulation  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531871>  
AUTHORS: Pierre Erbacher, Ludovic Denoyer, Laure Soulier  
HIGHLIGHT: In this paper, we propose and evaluate a fully simulated query clarification framework allowing multi-turn interactions between IR systems and user agents.
- 281, TITLE: Summarizing Legal Regulatory Documents using Transformers  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531872>  
AUTHORS: Svea Klaus, Ria Van Hecke, Kaweh Djafari Naini, Ismail Sengor Altıngövd, Juan Bernabˆˆe-Moreno, Enrique Herrera-Viedma  
HIGHLIGHT: This paper aims at applying advanced extractive summarization to democratize the understanding of regulations, so that non-jurists can decide which regulations deserve further follow-up.
- 282, TITLE: An MLP-based Algorithm for Efficient Contrastive Graph Recommendations  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531874>  
AUTHORS: Siwei Liu, Iadh Ounis, Craig Macdonald  
HIGHLIGHT: Motivated by the emerging contrastive learning technique, we design a simple neighbourhood construction method in conjunction with the contrastive objective function to simulate the neighbourhood information processing of GNN.
- 283, TITLE: Modeling User Behavior With Interaction Networks for Spam Detection  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531875>  
AUTHORS: Prabhat Agarwal, Manisha Srivastava, Vishwakarma Singh, Charles Rosenberg  
HIGHLIGHT: In this paper, we propose SEINE (Spam DETection using Interaction NETworks), a spam detection model over a novel graph framework.
- 284, TITLE: Relation Extraction as Open-book Examination: Retrieval-enhanced Prompt Tuning  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531746>  
AUTHORS: Xiang Chen, Lei Li, Ningyu Zhang, Chuanqi Tan, Fei Huang, Luo Si, Huajun Chen  
HIGHLIGHT: Those long-tailed or hard patterns can hardly be memorized in parameters given few-shot instances. To this end, we regard RE as an open-book examination and propose a new semiparametric paradigm of retrieval-enhanced prompt tuning for relation extraction.
- 285, TITLE: End-to-end Distantly Supervised Information Extraction with Retrieval Augmentation  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531876>  
AUTHORS: Yue Zhang, Hongliang Fei, Ping Li  
HIGHLIGHT: We propose a general paradigm (Dasiera) to resolve issues in KB-based DS.
- 286, TITLE: DeSCoVeR: Debaised Semantic Context Prior for Venue Recommendation  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531877>  
AUTHORS: Sailaja Rajanala, Arghya Pal, Manish Singh, Raphaˆˆl C.-W. Phan, KokSheik Wong  
HIGHLIGHT: We present a novel semantic context prior-based venue recommendation system that uses only the title and the abstract of a paper.
- 287, TITLE: Entity-Conditioned Question Generation for Robust Attention Distribution in Neural Information Retrieval  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531878>  
AUTHORS: Revanth Gangi Reddy, Md Arafat Sultan, Martin Franz, Avirup Sil, Heng Ji

**HIGHLIGHT:** We show that supervised neural information retrieval (IR) models are prone to learning sparse attention patterns over passage tokens, which can result in key phrases including named entities receiving low attention weights, eventually leading to model under-performance.

288, **TITLE:** Assessing Scientific Research Papers with Knowledge Graphs

<https://dl.acm.org/doi/abs/10.1145/3477495.3531879>

**AUTHORS:** Kexuan Sun, Zhiqiang Qiu, Abel Salinas, Yuzhong Huang, Dong-Ho Lee, Daniel Benjamin, Fred Morstatter, Xiang Ren, Kristina Lerman, Jay Pujara

**HIGHLIGHT:** In this paper, we propose a novel approach towards automatically assessing scientific publications by constructing a knowledge graph (KG) that captures a holistic view of the research contributions.

289, **TITLE:** Matching Search Result Diversity with User Diversity Acceptance in Web Search Sessions

<https://dl.acm.org/doi/abs/10.1145/3477495.3531880>

**AUTHORS:** Jiqun Liu, Fangyuan Han

**HIGHLIGHT:** To address this gap between offline evaluations and users' expectations, we proposed an intuitive diversity acceptance measure and ran experiments for diversity acceptance prediction and diversity-aware re-ranking based on datasets from both controlled lab and naturalistic settings.

290, **TITLE:** Topological Analysis of Contradictions in Text

<https://dl.acm.org/doi/abs/10.1145/3477495.3531881>

**AUTHORS:** Xiangcheng Wu, Xi Niu, Ruhani Rahman

**HIGHLIGHT:** This study presents a topological approach to enhancing deep learning models in detecting contradictions in text.

291, **TITLE:** Addressing Gender-related Performance Disparities in Neural Rankers

<https://dl.acm.org/doi/abs/10.1145/3477495.3531882>

**AUTHORS:** Shirin Seyedsalehi, Amin Bigdeli, Negar Arabzadeh, Morteza Zihayat, Ebrahim Bagheri

**HIGHLIGHT:** In this paper, we investigate whether neural rankers introduce retrieval effectiveness (performance) disparities over queries related to different genders.

292, **TITLE:** Alignment Rationale for Query-Document Relevance

<https://dl.acm.org/doi/abs/10.1145/3477495.3531883>

**AUTHORS:** Youngwoo Kim, Razieh Rahimi, James Allan

**HIGHLIGHT:** In this paper, we study how the input perturbations can be used to infer or evaluate alignments between the query and document spans, which best explain the black-box ranker's relevance prediction.

293, **TITLE:** To Interpolate or not to Interpolate: PRF, Dense and Sparse Retrievers

<https://dl.acm.org/doi/abs/10.1145/3477495.3531884>

**AUTHORS:** Hang Li, Shuai Wang, Shengyao Zhuang, Ahmed Mourad, Xueguang Ma, Jimmy Lin, Guido Zuccon

**HIGHLIGHT:** In this paper we consider the problem of combining the relevance signals from sparse and dense retrievers in the context of Pseudo Relevance Feedback (PRF).

294, **TITLE:** A Content Recommendation Policy for Gaining Subscribers

<https://dl.acm.org/doi/abs/10.1145/3477495.3531885>

**AUTHORS:** Konstantinos Theocharidis, Manolis Terrovitis, Spiros Skiadopoulos, Panagiotis Karras

**HIGHLIGHT:** In this paper, we propose a novel content recommendation policy to a brand agent for Gaining Subscribers by Messaging (GSM) over many rounds.

295, **TITLE:** C3: Continued Pretraining with Contrastive Weak Supervision for Cross Language Ad-Hoc Retrieval

<https://dl.acm.org/doi/abs/10.1145/3477495.3531886>

**AUTHORS:** Eugene Yang, Suraj Nair, Ramraj Chandradevan, Rebecca Iglesias-Flores, Douglas W. Oard

**HIGHLIGHT:** Unlike monolingual retrieval, designing an appropriate auxiliary task for cross-language mappings is challenging. To address this challenge, we use comparable Wikipedia articles in different languages to further pretrain off-the-shelf multilingual pretrained models before fine-tuning on the retrieval task.

296, **TITLE:** Dual Pseudo Supervision for Semi-Supervised Text Classification with a Reliable Teacher

<https://dl.acm.org/doi/abs/10.1145/3477495.3531887>

**AUTHORS:** Shujie Li, Min Yang, Chengming Li, Rui Feng Xu

**HIGHLIGHT:** In this paper, we study the semi-supervised text classification (SSTC) by exploring both labeled and extra unlabeled data.

297, **TITLE:** Learning to Rank Knowledge Subgraph Nodes for Entity Retrieval

<https://dl.acm.org/doi/abs/10.1145/3477495.3531888>

**AUTHORS:** Parastoo Jafarzadeh, Zahra Amirmahani, Faezeh Ensan

**HIGHLIGHT:** In this paper, we propose a novel entity retrieval method that addresses the important challenge that revolves around the need to effectively represent and model context in which entities relate to each other.

298, **TITLE:** Mitigating the Filter Bubble While Maintaining Relevance: Targeted Diversification with VAE-based Recommender Systems

<https://dl.acm.org/doi/abs/10.1145/3477495.3531890>

- AUTHORS:** Zhaolin Gao, Tianshu Shen, Zheda Mai, Mohamed Reda Bouadjenek, Isaac Waller, Ashton Anderson, Ron Bodkin, Scott Sanner  
**HIGHLIGHT:** Historically, Maximal Marginal Relevance (MMR) has been used to diversify result lists and even mitigate filter bubbles, but suffers from three key drawbacks: (1)~MMR directly sacrifices relevance for diversity, (2)~MMR typically diversifies across all content and not just targeted dimensions (e.g., political polarization), and (3)~MMR is inefficient in practice due to the need to compute pairwise similarities between recommended items. To simultaneously address these limitations, we propose a novel methodology that trains Concept Activation Vectors (CAVs) for targeted topical dimensions (e.g., political polarization).
- 299, **TITLE:** Mitigating Bias in Search Results Through Contextual Document Reranking and Neutrality Regularization  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531891>  
**AUTHORS:** George Zerveas, Navid Rekasaz, Daniel Cohen, Carsten Eickhoff  
**HIGHLIGHT:** Recent research has therefore focused on developing methods for quantifying and mitigating bias in search results and applied them to contemporary retrieval systems that leverage transformer-based language models. In the present work, we expand this direction of research by considering bias mitigation within a framework for contextual document embedding reranking.
- 300, **TITLE:** A Meta-learning Approach to Fair Ranking  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531892>  
**AUTHORS:** Yuan Wang, Zhiqiang Tao, Yi Fang  
**HIGHLIGHT:** For example, the collected imbalance dataset on the subject of the expert search usually leads to systematic discrimination on the specific demographic groups such as race, gender, etc, which further reduces the exposure for the minority group. To solve this problem, we propose a Meta-learning based Fair Ranking (MFR) model that could alleviate the data bias for protected groups through an automatically-weighted loss.
- 301, **TITLE:** Can Users Predict Relative Query Effectiveness?  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531893>  
**AUTHORS:** Oleg Zendel, Melika P. Ebrahim, J. Shane Culpepper, Alistair Moffat, Falk Scholer  
**HIGHLIGHT:** Can they anticipate the effectiveness of alternative queries for the same retrieval need? To explore that question we designed and carried out a crowd-sourced user study in which we asked subjects to consider an information need statement expressed as a backstory, and then provide their opinions as to the relative usefulness of a set of queries ostensibly addressing that objective.
- 302, **TITLE:** ELECRec: Training Sequential Recommenders as Discriminators  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531894>  
**AUTHORS:** Yongjun Chen, Jia Li, Caiming Xiong  
**HIGHLIGHT:** In this work, we propose to train the sequential recommenders as discriminators rather than generators.
- 303, **TITLE:** Explainable Session-based Recommendation with Meta-path Guided Instances and Self-Attention Mechanism  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531895>  
**AUTHORS:** Jiayin Zheng, Juanyun Mai, Yanlong Wen  
**HIGHLIGHT:** However, the majority of current SR models are unexplainable and even those that claim to be interpretable cannot provide clear and convincing explanations of users' intentions and how they influence the models' decisions. To solve this problem, in this research, we propose a meta-path guided model which uses path instances to capture item dependencies, explicitly reveal the underlying motives, and illustrate the entire reasoning process.
- 304, **TITLE:** MM-Rec: Visiolinguistic Model Empowered Multimodal News Recommendation  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531896>  
**AUTHORS:** Chuhan Wu, Fangzhao Wu, Tao Qi, Chao Zhang, Yongfeng Huang, Tong Xu  
**HIGHLIGHT:** In this paper, we propose a multimodal news recommendation method that can incorporate both textual and visual information of news to learn multimodal news representations.
- 305, **TITLE:** Generative Adversarial Framework for Cold-Start Item Recommendation  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531897>  
**AUTHORS:** Hao Chen, Zefan Wang, Feiran Huang, Xiao Huang, Yue Xu, Yishi Lin, Peng He, Zhoujun Li  
**HIGHLIGHT:** To this end, we propose a general framework named Generative Adversarial Recommendation (GAR).
- 306, **TITLE:** Inconsistent Ranking Assumptions in Medical Search and Their Downstream Consequences  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531898>  
**AUTHORS:** Daniel Cohen, Kevin Du, Bhaskar Mitra, Laura Mercurio, Navid Rekasaz, Carsten Eickhoff  
**HIGHLIGHT:** This paper presents the use of this uncertainty information as an indicator of how well downstream methods will function over a ranklist.
- 307, **TITLE:** Modality-Balanced Embedding for Video Retrieval  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531899>  
**AUTHORS:** Xun Wang, Bingqing Ke, Xuanping Li, Fangyu Liu, Mingyu Zhang, Xiao Liang, Qiushi Xiao  
**HIGHLIGHT:** We propose \modelname (short for Modality Balanced Video Retrieval) with two key components: manually generated modality-shuffled (MS) samples and a dynamic margin (DM) based on visual relevance.
- 308, **TITLE:** An Efficient Fusion Mechanism for Multimodal Low-resource Setting  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531900>  
**AUTHORS:** Dushyant Singh Chauhan, Asif Ekbal, Pushpak Bhattacharyya

**HIGHLIGHT:** The fusion of different modalities could even be more challenging under the low-resource setting, where we have fewer samples for training. This paper proposes a multi-representative fusion mechanism that generates diverse fusions with multiple modalities and then chooses the best fusion among them.

309, **TITLE:** QSG Transformer: Transformer with Query-Attentive Semantic Graph for Query-Focused Summarization  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531901>

**AUTHORS:** Choongwon Park, Youngjoong Ko

**HIGHLIGHT:** However, the simple Transformer architecture cannot utilize the relationships between distant words and information from a query directly. In this study, we propose the QSG Transformer, a novel QFS model that leverages structure information on Query-attentive Semantic Graph (QSG) to address these issues.

310, **TITLE:** Improving Item Cold-start Recommendation via Model-agnostic Conditional Variational Autoencoder  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531902>

**AUTHORS:** Xu Zhao, Yi Ren, Ying Du, Shenzheng Zhang, Nian Wang

**HIGHLIGHT:** To address these problems, we propose a model-agnostic Conditional Variational Autoencoder based Recommendation(CVAR) framework with some advantages including compatibility on various backbones, no extra requirements for data, utilization of both historical data and recent emerging interactions.

311, **TITLE:** PST: Measuring Skill Proficiency in Programming Exercise Process via Programming Skill Tracing

<https://dl.acm.org/doi/abs/10.1145/3477495.3531903>

**AUTHORS:** Ruixin Li, Yu Yin, Le Dai, Shuanghong Shen, Xin Lin, Yu Su, Enhong Chen

**HIGHLIGHT:** Most of existing studies on learner capability portrait only made use of the exercise results, while the rich behavioral information contained in programming exercise process remains unused. Therefore, we propose a model that measures skill proficiency in programming exercise process named Programming Skill Tracing (PST).

312, **TITLE:** Towards Validating Long-Term User Feedbacks in Interactive Recommendation Systems

<https://dl.acm.org/doi/abs/10.1145/3477495.3531869>

**AUTHORS:** Hojoon Lee, Dongyoon Hwang, Kyushik Min, Jaegul Choo

**HIGHLIGHT:** In this work, we revisited experiments on IRS with review datasets and compared RL-based models with a simple reward model that greedily recommends the item with the highest one-step reward.

313, **TITLE:** Next Point-of-Interest Recommendation with Auto-Correlation Enhanced Multi-Modal Transformer Network

<https://dl.acm.org/doi/abs/10.1145/3477495.3531905>

**AUTHORS:** Yanjun Qin, Yuchen Fang, Haiyong Luo, Fang Zhao, Chenxing Wang

**HIGHLIGHT:** While many recent efforts show the effectiveness of recurrent neural network-based next POI recommendation algorithms, several important challenges have not been well addressed yet: (i) The majority of previous models only consider the dependence of consecutive visits, while ignoring the intricate dependencies of POIs in traces; (ii) The nature of hierarchical and the matching of sub-sequence in POI sequences are hardly model in prior methods; (iii) Most of the existing solutions neglect the interactions between two modals of POI and the density category. To tackle the above challenges, we propose an auto-correlation enhanced multi-modal Transformer network (AutoMTN) for the next POI recommendation.

314, **TITLE:** MuchSUM: Multi-channel Graph Neural Network for Extractive Summarization

<https://dl.acm.org/doi/abs/10.1145/3477495.3531906>

**AUTHORS:** Qianren Mao, Hongdong Zhu, Junnan Liu, Cheng Ji, Hao Peng, Jianxin Li, Lihong Wang, Zheng Wang

**HIGHLIGHT:** This paper presents MuchSUM, a better approach for extractive text summarization.

315, **TITLE:** Neutralizing Popularity Bias in Recommendation Models

<https://dl.acm.org/doi/abs/10.1145/3477495.3531907>

**AUTHORS:** Guipeng Xv, Chen Lin, Hui Li, Jinsong Su, Weiyao Ye, Yewang Chen

**HIGHLIGHT:** Item embeddings inherit popularity bias from the data, which leads to biased recommendations. We use this observation to design two simple and effective strategies, which can be flexibly plugged into different backbone recommendation models, to learn popularity neutral item representations.

316, **TITLE:** Lightweight Meta-Learning for Low-Resource Abstractive Summarization

<https://dl.acm.org/doi/abs/10.1145/3477495.3531908>

**AUTHORS:** Taehun Huh, Youngjoong Ko

**HIGHLIGHT:** Furthermore, the need for low-resource abstractive summarization task is emerging but existing methods for the task such as transfer learning still have domain shifting and overfitting problems. To address these problems, we propose a new framework for low-resource abstractive summarization using a meta-learning algorithm that can quickly adapt to a new domain using small data.

317, **TITLE:** Towards Personalized Bundle Creative Generation with Contrastive Non-Autoregressive Decoding

<https://dl.acm.org/doi/abs/10.1145/3477495.3531909>

**AUTHORS:** Penghui Wei, Shaoguo Liu, Xuanhua Yang, Liang Wang, Bo Zheng

**HIGHLIGHT:** To take both quality and efficiency into account, we propose a contrastive non-autoregressive model that captures user preferences with ingenious decoding objective.

318, **TITLE:** Exploiting Session Information in BERT-based Session-aware Sequential Recommendation

<https://dl.acm.org/doi/abs/10.1145/3477495.3531910>

**AUTHORS:** Jinseok Jamie Seol, Youngrok Ko, Sang-goo Lee

- HIGHLIGHT:** In this paper, we propose three methods to improve recommendation performance by exploiting session information while minimizing additional parameters in a BERT-based sequential recommendation model: using session tokens, adding session segment embeddings, and a time-aware self-attention.
- 319, **TITLE:** Posterior Probability Matters: Doubly-Adaptive Calibration for Neural Predictions in Online Advertising  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531911>  
**AUTHORS:** Penghui Wei, Weimin Zhang, Ruijie Hou, Jinquan Liu, Shaoguo Liu, Liang Wang, Bo Zheng  
**HIGHLIGHT:** In this paper we propose a doubly-adaptive approach AdaCalib.
- 320, **TITLE:** Towards Motivational and Empathetic Response Generation in Online Mental Health Support  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531912>  
**AUTHORS:** Tulika Saha, Vaibhav Gakhreja, Anindya Sundar Das, Souhitya Chakraborty, Sriparna Saha  
**HIGHLIGHT:** In this paper, we develop a Virtual Assistant (VA) that serves as a first point of contact for users who are depressed or disheartened.
- 321, **TITLE:** Selective Fairness in Recommendation via Prompts  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531913>  
**AUTHORS:** Yiqing Wu, Ruobing Xie, Yongchun Zhu, Fuzhen Zhuang, Ao Xiang, Xu Zhang, Leyu Lin, Qing He  
**HIGHLIGHT:** In this work, we define the selective fairness task, where users can flexibly choose which sensitive attributes should the recommendation model be bias-free.
- 322, **TITLE:** Multi-label Masked Language Modeling on Zero-shot Code-switched Sentiment Analysis  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531914>  
**AUTHORS:** Zhi Li, Xing Gao, Ji Zhang, Yin Zhang  
**HIGHLIGHT:** In this paper, we consider zero-shot setting and improve model performance on code-switched tasks via monolingual language datasets, unlabeled code-switched datasets, and semantic dictionaries.
- 323, **TITLE:** Expanded Lattice Embeddings for Spoken Document Retrieval on Informal Meetings  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531921>  
**AUTHORS:** Esa&uacute; Villatoro-Tello, Srikanth Madikeri, Petr Motlicek, Aravind Ganapathiraju, Alexei V. Ivanov  
**HIGHLIGHT:** In this paper, we evaluate different alternatives to process richer forms of Automatic Speech Recognition (ASR) output based on lattice expansion algorithms for Spoken Document Retrieval (SDR).
- 324, **TITLE:** Extractive Elementary Discourse Units for Improving Abstractive Summarization  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531916>  
**AUTHORS:** Ye Xiong, Teeradaj Racharak, Minh Le Nguyen  
**HIGHLIGHT:** In this paper, we apply elementary discourse unit (EDU) as textual unit of content selection.
- 325, **TITLE:** LightSGCN: Powering Signed Graph Convolution Network for Link Sign Prediction with Simplified Architecture Design  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531917>  
**AUTHORS:** Haoxin Liu  
**HIGHLIGHT:** In this work, we aim to simplify the architecture of signed GNNs to make it more concise and appropriate for link sign prediction.
- 326, **TITLE:** Dual Contrastive Network for Sequential Recommendation  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531918>  
**AUTHORS:** Guanyu Lin, Chen Gao, Yinfeng Li, Yu Zheng, Zhiheng Li, Depeng Jin, Yong Li  
**HIGHLIGHT:** In this paper, we propose Dual Contrastive Network (DCN) to boost sequential recommendation, from a new perspective of integrating auxiliary user-sequence for items.
- 327, **TITLE:** ReLoop: A Self-Correction Continual Learning Loop for Recommender Systems  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531922>  
**AUTHORS:** Guohao Cai, Jieming Zhu, Quanyu Dai, Zhenhua Dong, Xiuqiang He, Ruiming Tang, Rui Zhang  
**HIGHLIGHT:** Inspired by the intuition that humans usually reflect and learn from mistakes, in this paper, we attempt to build a self-correction continual learning loop (dubbed ReLoop) for recommender systems.
- 328, **TITLE:** Task-Oriented Dialogue System as Natural Language Generation  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531920>  
**AUTHORS:** Weizhi Wang, Zhirui Zhang, Junliang Guo, Yinpei Dai, Boxing Chen, Weihua Luo  
**HIGHLIGHT:** In this paper, we propose to formulate the task-oriented dialogue system as the purely natural language generation task, so as to fully leverage the large-scale pre-trained models like GPT-2 and simplify complicated delexicalization preprocessing.
- 329, **TITLE:** Preference Enhanced Social Influence Modeling for Network-Aware Cascade Prediction  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532042>  
**AUTHORS:** Likang Wu, Hao Wang, Enhong Chen, Zhi Li, Hongke Zhao, Jianhui Ma  
**HIGHLIGHT:** To that end, we propose a novel framework to promote cascade size prediction by enhancing the user preference modeling according to three stages, i.e., preference topics generation, preference shift modeling, and social influence activation.

- 330, TITLE: Constructing Better Evaluation Metrics by Incorporating the Anchoring Effect into the User Model  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531953>  
AUTHORS: Nuo Chen, Fan Zhang, Tetsuya Sakai  
HIGHLIGHT: In this paper, we challenge the rational user assumption and introduce the anchoring effect into user models.
- 331, TITLE: Where Does the Performance Improvement Come From?: - A Reproducibility Concern about Image-Text Retrieval  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531715>  
AUTHORS: Jun Rao, Fei Wang, Liang Ding, Shuhan Qi, Yibing Zhan, Weifeng Liu, Dacheng Tao  
HIGHLIGHT: This article aims to provide the information retrieval community with some reflections on recent advances in retrieval learning by analyzing the reproducibility of image-text retrieval models.
- 332, TITLE: State Encoders in Reinforcement Learning for Recommendation: A Reproducibility Study  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531716>  
AUTHORS: Jin Huang, Harrie Oosterhuis, Bunyamin Cetinkaya, Thijs Rood, Maarten de Rijke  
HIGHLIGHT: However, this finding is limited to the actor-critic method, four state encoders, and evaluation-simulators that do not debias logged user data. In response to these shortcomings, we reproduce and expand on the existing comparison of attention-based state encoders (1) in the publicly available debiased RL4Rec SOFA simulator with (2) a different RL method, (3) more state encoders, and (4) a different dataset.
- 333, TITLE: Another Look at Information Retrieval as Statistical Translation  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531717>  
AUTHORS: Yuqi Liu, Chengcheng Hu, Jimmy Lin  
HIGHLIGHT: In this paper, we ask the simple question: What if Berger and Lafferty had access to datasets such as the MS MARCO passage ranking dataset that we take for granted today?
- 334, TITLE: Experiments on Generalizability of User-Oriented Fairness in Recommender Systems  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531718>  
AUTHORS: Hossein A. Rahmani, Mohammadmehdi Naghiaei, Mahdi Dehghan, Mohammad Aliannejadi  
HIGHLIGHT: In this paper, we re-produce a user-oriented fairness study and provide extensive experiments to analyze the dependency of their proposed method on various fairness and recommendation aspects, including the recommendation domain, nature of the base ranking model, and user grouping method.
- 335, TITLE: Users and Contemporary SERPs: A (Re-)Investigation  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531719>  
AUTHORS: Nirmal Roy, David Maxwell, Claudia Hauff  
HIGHLIGHT: In this paper, we reproduce the user studies conducted in prior works---specifically those of [Targuello et al. \(2012\)](#) and [Tetsuya et al. \(2014\)](#)---to explore to what extent the findings from research conducted five to ten years ago still hold today as the average web user has become accustomed to SERPs with ever-increasing presentational complexity.
- 336, TITLE: Space4HGNN: A Novel, Modularized and Reproducible Platform to Evaluate Heterogeneous Graph Neural Network  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531720>  
AUTHORS: Tianyu Zhao, Cheng Yang, Yibo Li, Quan Gan, Zhenyi Wang, Fengqi Liang, Huan Zhao, Yingxia Shao, Xiao Wang, Chuan Shi  
HIGHLIGHT: To mitigate these issues, we first propose a unified framework covering most HGNNs, consisting of three components: heterogeneous linear transformation, heterogeneous graph transformation, and heterogeneous message passing layer. Then we build a platform Space4HGNN by defining a design space for HGNNs based on the unified framework, which offers modularized components, reproducible implementations, and standardized evaluation for HGNNs.
- 337, TITLE: An Inspection of the Reproducibility and Replicability of TCT-ColBERT  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531721>  
AUTHORS: Xiao Wang, Sean MacAvaney, Craig Macdonald, Iadh Ounis  
HIGHLIGHT: Among the most prominent of these approaches is TCT-ColBERT, which trains a light-weight "student" model from a more expensive "teacher" model. In this work, we take a closer look into TCT-ColBERT concerning its reproducibility and replicability.
- 338, TITLE: Is Non-IID Data a Threat in Federated Online Learning to Rank?  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531709>  
AUTHORS: Shuyi Wang, Guido Zuccon  
HIGHLIGHT: In this perspective paper we study the effect of non independent and identically distributed (non-IID) data on federated online learning to rank (FOLTR) and chart directions for future work in this new and largely unexplored research area of Information Retrieval.
- 339, TITLE: Towards Feature Selection for Ranking and Classification Exploiting Quantum Annealers  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531755>  
AUTHORS: Maurizio Ferrari Dacrema, Fabio Moroni, Riccardo Nembrini, Nicola Ferro, Guglielmo Faggioli, Paolo Cremonesi  
HIGHLIGHT: This paper aims to explore the feasibility of using currently available quantum computing architectures to solve some quadratic feature selection algorithms for both ranking and classification.



- 340, TITLE: Reduce, Reuse, Recycle: Green Information Retrieval Research  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531766>  
AUTHORS: Harrison Scells, Shengyao Zhuang, Guido Zuccon  
HIGHLIGHT: Therefore, within the Information Retrieval community, the consequences of non-Green (in other words, Red) research should at least be considered and acknowledged. As such, the aims of this perspective paper are fourfold: (1) to review the Green literature not only for Information Retrieval but also for related domains in order to identify transferable Green techniques; (2) to provide measures for quantifying the power usage and emissions of Information Retrieval research; (3) to report the power usage and emission impacts for various current IR methods; and (4) to provide a framework to guide Green Information Retrieval research, taking inspiration from 'reduce, reuse, recycle' waste management campaigns, including salient examples from the literature that implement these concepts.
- 341, TITLE: Competitive Search  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532771>  
AUTHORS: Oren Kurland, Moshe Tennenholtz  
HIGHLIGHT: We provide a broad perspective on recent work on competitive retrieval settings, argue that this work is the tip of the iceberg, and pose a suite of novel research directions; for example, a general game theoretic framework for competitive search, methods of learning-to-rank that account for post-ranking effects, approaches to automatic document manipulation, addressing societal aspects and evaluation.
- 342, TITLE: Where Do Queries Come From?  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531711>  
AUTHORS: Marwah Alaofi, Luke Gallagher, Dana Mckay, Lauren L. Saling, Mark Sanderson, Falk Scholer, Damiano Spina, Ryen W. White  
HIGHLIGHT: In this paper we draw on a variety of literatures (including information seeking, psychology, and misinformation), and report some small experiments to describe what is known about where queries come from, and demonstrate a clear literature gap around the source of query variations in IR.
- 343, TITLE: On Natural Language User Profiles for Transparent and Scrutable Recommendation  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531873>  
AUTHORS: Filip Radlinski, Krisztian Balog, Fernando Diaz, Lucas Dixon, Ben Wedin  
HIGHLIGHT: Natural interaction with recommendation and personalized search systems has received tremendous attention in recent years. We focus on the challenge of supporting people's understanding and control of these systems and explore a fundamentally new way of thinking about representation of knowledge in recommendation and personalization systems.
- 344, TITLE: Retrieval-Enhanced Machine Learning  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531722>  
AUTHORS: Hamed Zamani, Fernando Diaz, Mostafa Dehghani, Donald Metzler, Michael Bendersky  
HIGHLIGHT: We describe a generic retrieval-enhanced machine learning (REML) framework, which includes a number of existing models as special cases.
- 345, TITLE: MET-Meme: A Multimodal Meme Dataset Rich in Metaphors  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532019>  
AUTHORS: Bo Xu, Tingting Li, Junzhe Zheng, Mehdi Naseriparsa, Zhehuan Zhao, Hongfei Lin, Feng Xia  
HIGHLIGHT: However, the existing researches ignore this key feature. Therefore, to incorporate informative metaphors into the meme analysis, we introduce a novel multimodal meme dataset called MET-Meme, which is rich in metaphorical features.
- 346, TITLE: Revisiting Bundle Recommendation: Datasets, Tasks, Challenges and Opportunities for Intent-aware Product Bundling  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531904>  
AUTHORS: Zhu Sun, Jie Yang, Kaidong Feng, Hui Fang, Xinghua Qu, Yew Soon Ong  
HIGHLIGHT: In this paper, we propose to take a step back and consider the process of bundle recommendation from a holistic user experience perspective.
- 347, TITLE: BARS: Towards Open Benchmarking for Recommender Systems  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531723>  
AUTHORS: Jieming Zhu, Quanyu Dai, Liangcai Su, Rong Ma, Jinyang Liu, Guohao Cai, Xi Xiao, Rui Zhang  
HIGHLIGHT: This largely limits the credibility and practical value of research results in this field. To tackle these issues, we present an initiative project aimed for open benchmarking for recommender systems.
- 348, TITLE: OVQA: A Clinically Generated Visual Question Answering Dataset  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531724>  
AUTHORS: Yefan Huang, Xiaoli Wang, Feiyan Liu, Guofeng Huang  
HIGHLIGHT: To address the challenge, we present a new dataset, denoted by OVQA, which is generated from electronic medical records.
- 349, TITLE: Fostering Cooperation While Plugging Leaks: The Design and Implementation of the MS MARCO Leaderboards  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531725>  
AUTHORS: Jimmy Lin, Daniel Campos, Nick Craswell, Bhaskar Mitra, Emine Yilmaz

**HIGHLIGHT:** These “leaks”, accumulated over long periods of time, threaten the validity of the insights that can be derived from the leaderboards. In this paper, we share our experiences grappling with this issue over the past few years and how our considerations are operationalized into a coherent submission policy.

350, **TITLE:** Monant Medical Misinformation Dataset: Mapping Articles to Fact-Checked Claims  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531726>

**AUTHORS:** Ivan Srba, Branislav Pecher, Matus Tomlein, Robert Moro, Elena Stefancova, Jakub Simko, Maria Bielikova  
**HIGHLIGHT:** Especially in the current COVID-19 era, we witness an unprecedented growth of medical misinformation. To help tackle this problem with machine learning approaches, we are publishing a feature-rich dataset of approx. 317k medical news articles/blogs and 3.5k fact-checked claims.

351, **TITLE:** A Dataset for Sentence Retrieval for Open-Ended Dialogues  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531727>

**AUTHORS:** Itay Harel, Hagai Taitelbaum, Idan Szpektor, Oren Kurland  
**HIGHLIGHT:** To adapt neural models to the types of dialogues in the dataset, we explored an approach to induce a large-scale weakly supervised training data from Reddit.

352, **TITLE:** Too Many Relevant: Whither Cranfield Test Collections?

<https://dl.acm.org/doi/abs/10.1145/3477495.3531728>

**AUTHORS:** Ellen M. Voorhees, Nick Craswell, Jimmy Lin  
**HIGHLIGHT:** This paper presents the lessons regarding the construction and use of large Cranfield-style test collections learned from the TREC 2021 Deep Learning track.

353, **TITLE:** ACORDAR: A Test Collection for Ad Hoc Content-Based (RDF) Dataset Retrieval

<https://dl.acm.org/doi/abs/10.1145/3477495.3531729>

**AUTHORS:** Tengting Lin, Qiaosheng Chen, Gong Cheng, Ahmet Soylu, Basil Ell, Ruoqi Zhao, Qing Shi, Xiaxia Wang, Yu Gu, Evgeny Kharlamov

**HIGHLIGHT:** In this paper, we build and release the first test collection for ad hoc content-based dataset retrieval, where content-oriented dataset queries and content-based relevance judgments are annotated by human experts who are assisted with a dashboard designed specifically for comprehensively and conveniently browsing both the metadata and data of a dataset.

354, **TITLE:** RELISON: A Framework for Link Recommendation in Social Networks

<https://dl.acm.org/doi/abs/10.1145/3477495.3531730>

**AUTHORS:** Javier Sanz-Cruzado, Pablo Castells  
**HIGHLIGHT:** We present RELISON, an extensible framework for running link recommendation experiments.

355, **TITLE:** Wikimarks: Harvesting Relevance Benchmarks from Wikipedia

<https://dl.acm.org/doi/abs/10.1145/3477495.3531731>

**AUTHORS:** Laura Dietz, Shubham Chatterjee, Connor Lennox, Sumanta Kashyapi, Pooja Oza, Ben Gamari  
**HIGHLIGHT:** We provide a resource for automatically harvesting relevance benchmarks from Wikipedia -- which we refer to as “Wikimarks”, to differentiate them from manually created benchmarks.

356, **TITLE:** ReMeDi: Resources for Multi-domain, Multi-service, Medical Dialogues

<https://dl.acm.org/doi/abs/10.1145/3477495.3531809>

**AUTHORS:** Guojun Yan, Jiahuan Pei, Pengjie Ren, Zhaochun Ren, Xin Xin, Huasheng Liang, Maarten de Rijke, Zhumin Chen  
**HIGHLIGHT:** In this paper, we present ReMeDi, a set of ReMeDi (Resource for Multi-domain, Multi-service, Medical Dialogues).

357, **TITLE:** ArchivalQA: A Large-scale Benchmark Dataset for Open-Domain Question Answering over Historical News Collections

<https://dl.acm.org/doi/abs/10.1145/3477495.3531734>

**AUTHORS:** Jiexin Wang, Adam Jatowt, Masatoshi Yoshikawa  
**HIGHLIGHT:** To foster the research in the field of ODQA on such historical collections, we present ArchivalQA, a large question answering dataset consisting of 532,444 question-answer pairs which is designed for temporal news QA.

358, **TITLE:** SoChainDB: A Database for Storing and Retrieving Blockchain-Powered Social Network Data

<https://dl.acm.org/doi/abs/10.1145/3477495.3531735>

**AUTHORS:** Hoang H. Nguyen, Dmytro Bozhkov, Zahra Ahmadi, Nhat-Minh Nguyen, Thanh-Nam Doan  
**HIGHLIGHT:** However, accessing and collecting data from these social networks is not easy because it requires strong blockchain knowledge, which is not the main focus of computer science and social science researchers. Hence, our work proposes the SoChainDB framework that facilitates obtaining data from these new social networks.

359, **TITLE:** Multi-CPR: A Multi Domain Chinese Dataset for Passage Retrieval

<https://dl.acm.org/doi/abs/10.1145/3477495.3531736>

**AUTHORS:** Dingkun Long, Qiong Gao, Kuan Zou, Guangwei Xu, Pengjun Xie, Ruijie Guo, Jian Xu, Guanjun Jiang, Luxi Xing, Ping Yang  
**HIGHLIGHT:** However, in the Chinese field, especially for specific domains, passage retrieval systems are still immature due to quality-annotated dataset being limited by scale. Therefore, in this paper, we present a novel multi-domain Chinese dataset for passage retrieval (Multi-CPR).

- 360, TITLE: ORCAS-I: Queries Annotated with Intent using Weak Supervision  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531737>  
AUTHORS: Daria Alexander, Wojciech Kusa, Arjen P. de Vries  
HIGHLIGHT: In this work, we introduce a revised taxonomy of user intent.
- 361, TITLE: CODEC: Complex Document and Entity Collection  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531712>  
AUTHORS: Iain Mackie, Paul Owoicho, Carlos Gemmell, Sophie Fischer, Sean MacAvaney, Jeffrey Dalton  
HIGHLIGHT: We target essay-style information needs of social science researchers, i.e. "How has the UK's Open Banking Regulation benefited Challenger Banks";
- 362, TITLE: ir\_metadata: An Extensible Metadata Schema for IR Experiments  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531738>  
AUTHORS: Timo Breuer, Juri Keller, Philipp Schaer  
HIGHLIGHT: In this work, we introduce ir\_metadata - an extensible metadata schema for TREC run files based on the PRIMAD model.
- 363, TITLE: Would You Ask it that Way?: Measuring and Improving Question Naturalness for Knowledge Graph Question Answering  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531739>  
AUTHORS: Trond Linjordet, Krisztian Balog  
HIGHLIGHT: However, the resulting datasets often fall short of representing genuinely natural and fluent language. In the present work, we investigate ways to characterize and remedy these shortcomings.
- 364, TITLE: The Istella22 Dataset: Bridging Traditional and Neural Learning to Rank Evaluation  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531740>  
AUTHORS: Domenico Dato, Sean MacAvaney, Franco Maria Nardini, Raffaele Perego, Nicola Tonello  
HIGHLIGHT: On the other hand, the benchmarks often used for evaluating neural models, e.g., MS MARCO, TREC Robust, etc., provide text but do not provide query-document feature vectors. In this paper, we present Istella22, a new dataset that enables such comparisons by providing both query/document text and strong query-document feature vectors used by an industrial search engine.
- 365, TITLE: ViQuAE, a Dataset for Knowledge-based Visual Question Answering about Named Entities  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531753>  
AUTHORS: Paul Lerner, Olivier Ferret, Camille Guinaudeau, Hervé Le Borgne, Romaric Besançon, Jose G. Moreno, Jesús Lovón Melgarejo  
HIGHLIGHT: In this context, we are interested in answering questions about named entities grounded in a visual context using a Knowledge Base (KB).
- 366, TITLE: Biographical Semi-Supervised Relation Extraction Dataset  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531742>  
AUTHORS: Alistair Plum, Tharindu Ranasinghe, Spencer Jones, Constantin Orasan, Ruslan Mitkov  
HIGHLIGHT: The dataset, which is aimed towards digital humanities (DH) and historical research, is automatically compiled by aligning sentences from Wikipedia articles with matching structured data from sources including Pantheon and Wikidata.
- 367, TITLE: Axiomatic Retrieval Experimentation with ir\_axioms  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531743>  
AUTHORS: Alexander Bondarenko, Maik Fröbe, Jan Heinrich Reimer, Benno Stein, Michael Völkske, Matthias Hagen  
HIGHLIGHT: However, recent open-source retrieval frameworks like PyTerrier and Pyserini, which made it easy to experiment with sparse and dense retrieval models, have not included any retrieval axiom support so far. To fill this gap, we propose ir\_axioms, an open-source Python framework that integrates retrieval axioms with common retrieval frameworks.
- 368, TITLE: MuMiN: A Large-Scale Multilingual Multimodal Fact-Checked Misinformation Social Network Dataset  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531744>  
AUTHORS: Dan S. Nielsen, Ryan McConville  
HIGHLIGHT: However, datasets in the field of automatic misinformation detection are predominantly monolingual, include a limited amount of modalities and are not of sufficient scale and quality. Addressing this, we develop a data collection and linking system (MuMiN-trawl), to build a public misinformation graph dataset (MuMiN), containing rich social media data (tweets, replies, users, images, articles, hashtags) spanning 21 million tweets belonging to 26 thousand Twitter threads, each of which have been semantically linked to 13 thousand fact-checked claims across dozens of topics, events and domains, in 41 different languages, spanning more than a decade.
- 369, TITLE: CAVES: A Dataset to facilitate Explainable Classification and Summarization of Concerns towards COVID Vaccines  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531745>  
AUTHORS: Soham Poddar, Azlaan Mustafa Samad, Rajdeep Mukherjee, Niloy Ganguly, Saptarshi Ghosh  
HIGHLIGHT: In this paper, we have curated CAVES, the first large-scale dataset containing about 10k COVID-19 anti-vaccine tweets labelled into various specific anti-vaccine concerns in a multi-label setting.

- 370, TITLE: iRec: An Interactive Recommendation Framework  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531754>  
AUTHORS: Thiago Silva, collas Silva, Heitor Werneck, Carlos Mito, Adriano C.M. Pereira, Leonardo Rocha  
HIGHLIGHT: Thus, this work proposes an interactive RS framework named iRec.
- 371, TITLE: From Little Things Big Things Grow: A Collection with Seed Studies for Medical Systematic Review Literature Search  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531748>  
AUTHORS: Shuai Wang, Harrison Scells, Justin Clark, Bevan Koopman, Guido Zuccon  
HIGHLIGHT: To support our collection, we provide an analysis, previously not possible, on how seed studies impact retrieval and perform several experiments using seed study based methods to compare the effectiveness of using seed studies versus pseudo seed studies.
- 372, TITLE: Document Expansion Baselines and Learned Sparse Lexical Representations for MS MARCO V1 and V2  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531749>  
AUTHORS: Xueguang Ma, Ronak Pradeep, Rodrigo Nogueira, Jimmy Lin  
HIGHLIGHT: This work describes a number of resources that support competitive, reproducible baselines for both the MS MARCO V1 and V2 test collections using our Anserini and Pyserini IR toolkits.
- 373, TITLE: MIMICS-Duo: Offline & Online Evaluation of Search Clarification  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531750>  
AUTHORS: Leila Tavakoli, Johanne R. Trippas, Hamed Zamani, Falk Scholer, Mark Sanderson  
HIGHLIGHT: Asking clarification questions is an active area of research; however, resources for training and evaluating search clarification methods are not sufficient. To address this issue, we describe MIMICS-Duo, a new freely available dataset of 306 search queries with multiple clarifications (a total of 1,034 query-clarification pairs).
- 374, TITLE: Knowledge Graph Question Answering Datasets and Their Generalizability: Are They Enough for Future Research?  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531751>  
AUTHORS: Longquan Jiang, Ricardo Usbeck  
HIGHLIGHT: In this work, we propose a mitigation method for re-splitting available KGQA datasets to enable their applicability to evaluate generalization, without any cost and manual effort.
- 375, TITLE: SparCAssist: A Model Risk Assessment Assistant Based on Sparse Generated Counterfactuals  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531677>  
AUTHORS: Zijian Zhang, Vinay Setty, Avishek Anand  
HIGHLIGHT: We introduce SparCAssist, a general-purpose risk assessment tool for the machine learning models trained for language tasks.
- 376, TITLE: RecDelta: An Interactive Dashboard on Top-k Recommendation for Cross-model Evaluation  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531674>  
AUTHORS: Yi-Shyuan Chiang, Yu-Ze Liu, Chen-Feng Tsai, Jing-Kai Lou, Ming-Feng Tsai, Chuan-Ju Wang  
HIGHLIGHT: In this demonstration, we present RecDelta, an interactive tool for the cross-model evaluation of top-k recommendation.
- 377, TITLE: A Common Framework for Exploring Document-at-a-Time and Score-at-a-Time Retrieval Methods  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531657>  
AUTHORS: Andrew Trotman, Joel Mackenzie, Pradeesh Parameswaran, Jimmy Lin  
HIGHLIGHT: Our contribution is a framework that enables future research comparing DaaT and SaaT methods in the context of modern neural retrieval models.
- 378, TITLE: Asyncval: A Toolkit for Asynchronously Validating Dense Retriever Checkpoints During Training  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531658>  
AUTHORS: Shengyao Zhuang, Guido Zuccon  
HIGHLIGHT: Thus, a naive use of validation loops during training will significantly increase training time. To address this issue, we propose Asyncval: a Python-based toolkit for efficiently validating DR checkpoints during training.
- 379, TITLE: TaskMAD: A Platform for Multimodal Task-Centric Knowledge-Grounded Conversational Experimentation  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531679>  
AUTHORS: Alessandro Speggiorin, Jeffrey Dalton, Anton Leuski  
HIGHLIGHT: In this demo, we introduce Task-oriented Multimodal Agent Dialogue (TaskMAD), a new platform that supports the creation of interactive multimodal and task-centric datasets in a Wizard-of-Oz experimental setup.
- 380, TITLE: Golden Retriever: A Real-Time Multi-Modal Text-Image Retrieval System with the Ability to Focus  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531666>  
AUTHORS: Florian Schneider, Chris Biemann  
HIGHLIGHT: In this work, we present the Golden Retriever, a system leveraging state-of-the-art visio-linguistic models (VLMs) for real-time text-image retrieval.
- 381, TITLE: BiTe-REx: An Explainable Bilingual Text Retrieval System in the Automotive Domain

- <https://dl.acm.org/doi/abs/10.1145/3477495.3531665>  
AUTHORS: Viju Sudhi, Sabine Wehnert, Norbert Michael Homner, Sebastian Ernst, Mark Gonter, Andreas Krug, Ernesto William De Luca  
HIGHLIGHT: This work presents the first-of-its-kind Bilingual Text Retrieval Explanations (BiTe-REx) aimed at users performing competitor or wage analysis in the automotive domain.
- 382, TITLE: TARexp: A Python Framework for Technology-Assisted Review Experiments  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531663>  
AUTHORS: Eugene Yang, David D. Lewis  
HIGHLIGHT: Drawing on past open source TAR efforts, as well as design patterns from the IR and ML open source software, we present an open source Python framework for conducting experiments on TAR algorithms.
- 383, TITLE: ZeroMatcher: A Cost-Off Entity Matching System  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531661>  
AUTHORS: Congcong Ge, Xiaocan Zeng, Lu Chen, Yunjun Gao  
HIGHLIGHT: The existing EM techniques can be either costly or tailored for a specific data type. We present ZeroMatcher, a cost-off entity matching system, which supports (i) handling EM tasks with different data types, including relational tables and knowledge graphs; (ii) keeping its EM performance always competitive by enabling the sub-modules to be updated in a lightweight manner, thus reducing development costs; and (iii) performing EM without human annotations to further slash the labor costs.
- 384, TITLE: Table Enrichment System for Machine Learning  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531678>  
AUTHORS: Yuyang Dong, Masafumi Oyamada  
HIGHLIGHT: We propose a table enrichment system that enriches a query table by adding external attributes (columns) from data lakes and improves the accuracy of machine learning predictive models.
- 385, TITLE: QFinder: A Framework for Quantity-centric Ranking  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531672>  
AUTHORS: Satya Almasian, Milena Bruseva, Michael Gertz  
HIGHLIGHT: In this work, we demonstrate QFinder, our quantity-centric framework for ranking search results for queries with quantity constraints.
- 386, TITLE: ROGUE: A System for Exploratory Search of GANs  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531675>  
AUTHORS: Yang Liu, Alan Medlar, Dorota Glowacka  
HIGHLIGHT: In this article, we present ROGUE, a system to support exploratory search of images generated from GANs.
- 387, TITLE: CHERCHE: A New Tool to Rapidly Implement Pipelines in Information Retrieval  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531695>  
AUTHORS: Raphaël Sourty, Jose G. Moreno, Lynda Tamine, Francois-Paul Servant  
HIGHLIGHT: In this demo paper, we present a new open-source python module for building information retrieval pipelines with transformers namely CHERCHE.
- 388, TITLE: Online DATEing: A Web Interface for Temporal Annotations  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531670>  
AUTHORS: Dennis Aumiller, Satya Almasian, David Pohl, Michael Gertz  
HIGHLIGHT: In this work, we aim to increase the accessibility of temporal tagging systems by presenting an intuitive web interface, called "Online DATEing", which simplifies the interaction with existing temporal annotation frameworks.
- 389, TITLE: Are Taylor's Posts Risky? Evaluating Cumulative Revelations in Online Personal Data: A persona-based tool for evaluating awareness of online risks and harms  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531659>  
AUTHORS: Leif Azzopardi, Jo Briggs, Melissa Duheric, Callum Nash, Emma Nicol, Wendy Moncur, Burkhard Schafer  
HIGHLIGHT: In this demonstration paper, we present a tool designed to investigate how people assess and judge the relevance and potential risks of small, apparently innocuous pieces of information associated with fictitious personas, such as Taylor Addison, when searching and browsing online profiles and social media.
- 390, TITLE: LawNet-Viz: A Web-based System to Visually Explore Networks of Law Article References  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531668>  
AUTHORS: Lucio La Cava, Andrea Simeri, Andrea Tagarelli  
HIGHLIGHT: We present LawNet-Viz, a web-based tool for the modeling, analysis and visualization of law reference networks extracted from a statute law corpus.
- 391, TITLE: SpaceQA: Answering Questions about the Design of Space Missions and Space Craft Concepts  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531697>  
AUTHORS: Andres Garcia-Silva, Cristian Berrio, Jose Manuel Gomez-Perez, Jose Antonio Martınez-Heras, Alessandro Donati, Ilaria Roma  
HIGHLIGHT: We present SpaceQA, to the best of our knowledge the first open-domain QA system in Space mission design.
- 392, TITLE: DIANES: A DEI Audit Toolkit for News Sources

- <https://dl.acm.org/doi/abs/10.1145/3477495.3531660>  
AUTHORS: Xiaoxiao Shang, Zhiyuan Peng, Qiming Yuan, Sabiq Khan, Lauren Xie, Yi Fang, Subramaniam Vincent  
HIGHLIGHT: In this paper, we present DIANES, a DEI Audit Toolkit for News Sources.
- 393, TITLE: A2A-API: A Prototype for Biomedical Information Retrieval Research and Benchmarking  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531667>  
AUTHORS: Maciej Rybinski, Liam Watts, Sarvnaz Karimi  
HIGHLIGHT: Finally, many of the existing baselines and systems are difficult to reproduce. We aim to alleviate all three of these bottlenecks with the launch of A2A-API.
- 394, TITLE: NeuralKG: An Open Source Library for Diverse Representation Learning of Knowledge Graphs  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531669>  
AUTHORS: Wen Zhang, Xiangnan Chen, Zhen Yao, Mingyang Chen, Yushan Zhu, Hongtao Yu, Yufeng Huang, Yajing Xu, Ningyu Zhang, Zezhong Xu, Zonggang Yuan, Feiyu Xiong, Huajun Chen  
HIGHLIGHT: NeuralKG is an open-source Python-based library for diverse representation learning of knowledge graphs.
- 395, TITLE: IRVILAB: Gamified Searching on Multilingual Wikipedia  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531662>  
AUTHORS: Paavo Arvola, Tuulikki Alameddine  
HIGHLIGHT: This paper introduces a learning environment based on gamification of query construction for document retrieval, called IRVILAB (Information Retrieval Virtual Lab).
- 396, TITLE: PKG: A Personal Knowledge Graph for Recommendation  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531671>  
AUTHORS: Yu Yang, Jiangxu Lin, Xiaolian Zhang, Meng Wang  
HIGHLIGHT: In this paper, we demonstrate a novel system for integrating the data of a user from different sources into a Personal Knowledge Graph, i.e., PKG.
- 397, TITLE: A Python Interface to PISA!  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531656>  
AUTHORS: Sean MacAvaney, Craig Macdonald  
HIGHLIGHT: In this work, we demonstrate a new tool that provides a native Python wrapper around PISA.
- 398, TITLE: Arm: Efficient Learning of Neural Retrieval Models with Desired Accuracy by Automatic Knowledge Amalgamation  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531664>  
AUTHORS: Linzhu Yu, Dawei Jiang, Ke Chen, Lidan Shou  
HIGHLIGHT: This paper will demonstrate the major workflow of Arm and present the produced student models to users.
- 399, TITLE: Quote Erat Demonstrandum: A Web Interface for Exploring the Quotebank Corpus  
<https://dl.acm.org/doi/abs/10.1145/3477495.3531696>  
AUTHORS: Vukobratović, Akhil Arora, Huan-Cheng Chang, Andreas Spitz, Robert West  
HIGHLIGHT: Here, we present an adaptive web interface for searching Quotebank, a massive collection of quotes from the news, which we make available at <https://quotebank.dlab.tools>.
- 400, TITLE: DDEN: A Heterogeneous Learning-to-Rank Approach with Deep Debiasing Experts Network  
<https://dl.acm.org/doi/abs/10.1145/3477495.3536320>  
AUTHORS: Wenchao Xiu, Yiran Wang, Taofeng Xue, Kai Zhang, Qin Zhang, Zhonghuo Wu, Yifan Yang, Gong Zhang  
HIGHLIGHT: New challenges are faced when conducting heterogeneous ranking, including inconsistent feature space and more serious position bias caused by distinct representation spaces. Therefore, we propose Deep Debiasing Experts Network (DDEN), a novel heterogeneous LTR approach based on Mixture-of-Experts architecture and gating network, to deal with the inconsistent feature space of documents in ranking system.
- 401, TITLE: ClueWeb22: 10 Billion Web Documents with Rich Information  
<https://dl.acm.org/doi/abs/10.1145/3477495.3536321>  
AUTHORS: Arnold Overwijk, Chenyan Xiong, Jamie Callan  
HIGHLIGHT: Several aspects of ClueWeb22 are available to the research community for the first time at this scale, for example, visual representations of rendered web pages, parsed structured information from the HTML document, and the alignment of document distributions (domains, languages, and topics) to commercial web search. This talk shares the design and construction of ClueWeb22, and discusses its new features.
- 402, TITLE: An Auto Encoder-based Dimensionality Reduction Technique for Efficient Entity Linking in Business Phone Conversations  
<https://dl.acm.org/doi/abs/10.1145/3477495.3536322>  
AUTHORS: Md Tahmid Rahman Laskar, Cheng Chen, Jonathan Johnston, Xue-Yong Fu, Shashi Bhushan TN, Simon Corston-Oliver  
HIGHLIGHT: In this work, we present an entity linking system that leverages a transformer-based BERT encoder (the BLINK model) to connect the product and organization type entities in business phone conversations to their corresponding Wikipedia entries.
- 403, TITLE: An Intelligent Advertisement Short Video Production System via Multi-Modal Retrieval

- <https://dl.acm.org/doi/abs/10.1145/3477495.3536323>  
AUTHORS: Yanheng Wei, Lianghua Huang, Yanhao Zhang, Yun Zheng, Pan Pan  
HIGHLIGHT: paper proposes an intelligent advertising video production system driven by multi-modal retrieval, which only requires the input of descriptive copy.
- 404, TITLE: Applications and Future of Dense Retrieval in Industry  
<https://dl.acm.org/doi/abs/10.1145/3477495.3536324>  
AUTHORS: Yubin Kim  
HIGHLIGHT: In this panel, we bring together experts in dense retrieval across multiple industry applications, including web search, enterprise and personal search, e-commerce, and out-of-domain retrieval.
- 405, TITLE: Scalable User Interface Optimization Using Combinatorial Bandits  
<https://dl.acm.org/doi/abs/10.1145/3477495.3536325>  
AUTHORS: Ioannis Kangas, Maud Schwoerer, Lucas Bernardi  
HIGHLIGHT: In this work, we demonstrate how we deal with these issues using Combinatorial Bandits, an extension of Multi-Armed Bandits (MAB) where the agent selects not only one but multiple arms at the same time.
- 406, TITLE: Flipping the Script: Inverse Information Seeking Dialogues for Market Research  
<https://dl.acm.org/doi/abs/10.1145/3477495.3536326>  
AUTHORS: Josh Seltzer, Kathy Cheng, Shi Zong, Jimmy Lin  
HIGHLIGHT: In this work, we introduce and provide a formal definition of an inverse information seeking agent, outline some of its unique challenges, and propose our novel framework to tackle this problem based on techniques from natural language processing (NLP) and IIR.
- 407, TITLE: Information Ecosystem Threats in Minoritized Communities: Challenges, Open Problems and Research Directions  
<https://dl.acm.org/doi/abs/10.1145/3477495.3536327>  
AUTHORS: Shiri Dori-Hacohen, Scott A. Hale  
HIGHLIGHT: In this panel, we will present and discuss the challenges and open problems facing such communities and the researchers hoping to serve them.
- 408, TITLE: Extractive Search for Analysis of Biomedical Texts  
<https://dl.acm.org/doi/abs/10.1145/3477495.3536328>  
AUTHORS: Daniel Clothiaux, Ravi Starzl  
HIGHLIGHT: We present a two-stage system targeted towards biomedical texts.
- 409, TITLE: Organizing Portuguese Legal Documents through Topic Discovery  
<https://dl.acm.org/doi/abs/10.1145/3477495.3536329>  
AUTHORS: Daniela Vianna, Edleno Silva de Moura  
HIGHLIGHT: Using a dataset partially curated by the Jusbrasil legal team, we explore topic modeling solutions using state of the art language models, trained with legal Portuguese documents, to automatically organize and summarize this complex collection of documents.
- 410, TITLE: Query Facet Mapping and its Applications in Streaming Services: The Netflix Case Study  
<https://dl.acm.org/doi/abs/10.1145/3477495.3536330>  
AUTHORS: Sudeep Das, Ivan Provalov, Vickie Zhang, Weidong Zhang  
HIGHLIGHT: In this paper, we present a high level overview of a Query Facet Mapping system that we have developed at Netflix, describe its main components, provide evaluation results with real-world data, and outline several potential applications.
- 411, TITLE: A Low-Cost, Controllable and Interpretable Task-Oriented Chatbot: With Real-World After-Sale Services as Example  
<https://dl.acm.org/doi/abs/10.1145/3477495.3536331>  
AUTHORS: Xiangyu Xi, Chenxu Lv, Yuncheng Hua, Wei Ye, Chaobo Sun, ShuaiPeng Liu, Fan Yang, Guanglu Wan  
HIGHLIGHT: A framework is presented to automatically construct TaskFlow from large-scale dialogues and deploy online.
- 412, TITLE: An Industrial Framework for Cold-Start Recommendation in Zero-Shot Scenarios  
<https://dl.acm.org/doi/abs/10.1145/3477495.3536332>  
AUTHORS: Zhaoxin Huan, Gongduo Zhang, Xiaolu Zhang, Jun Zhou, Qintong Wu, Lihong Gu, Jinjie Gu, Yong He, Yue Zhu, Linjian Mo  
HIGHLIGHT: In this applied paper, we present an industrial framework recently deployed on Alipay to address the item cold-start problem in zero-shot scenarios.
- 413, TITLE: Unsupervised Product Offering Title Quality Scores  
<https://dl.acm.org/doi/abs/10.1145/3477495.3536333>  
AUTHORS: Henry S. Vieira  
HIGHLIGHT: The focus of this work is to show how it is possible to assign a score that indicates the descriptive quality of product offers in an e-commerce marketplace environment using unsupervised methods.
- 414, TITLE: Learning to Rank Instant Search Results with Multiple Indices: A Case Study in Search Aggregation for Entertainment

<https://dl.acm.org/doi/abs/10.1145/3477495.3536334>  
AUTHORS: Scott Rome, Sardar Hamidian, Richard Walsh, Kevin Foley, Ferhan Ture  
HIGHLIGHT: Since results can be based on lexical matches, semantic matches, item-to-item similarity matches, or a variety of business logic driven sources, a key challenge is how to combine results into a single list. To accomplish this, we propose merging the lists via a Learning to Rank (LTR) neural model which takes into account the search query.

415, TITLE: Recent Advances in Retrieval-Augmented Text Generation  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532682>  
AUTHORS: Deng Cai, Yan Wang, Lemao Liu, Shuming Shi  
HIGHLIGHT: Recently retrieval-augmented text generation has achieved state-of-the-art performance in many NLP tasks and has attracted increasing attention of the NLP and IR community, this tutorial thereby aims to present recent advances in retrieval-augmented text generation comprehensively and comparatively.

416, TITLE: Retrieval and Recommendation Systems at the Crossroads of Artificial Intelligence, Ethics, and Regulation  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532683>  
AUTHORS: Markus Schedl, Emilia G&ocaron;mez, Elisabeth Lex  
HIGHLIGHT: Retrieval and Recommendation Systems at the Crossroads of Artificial Intelligence, Ethics, and Regulation

417, TITLE: Sequential/Session-based Recommendations: Challenges, Approaches, Applications and Opportunities  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532685>  
AUTHORS: Shoujin Wang, Qi Zhang, Liang Hu, Xiuzhen Zhang, Yan Wang, Charu Aggarwal  
HIGHLIGHT: There is a lack of work to provide a comprehensive and systematic demonstration of the data characteristics, key challenges, most representative and state-of-the-art approaches, typical real-world applications and important future research directions in the area. This work aims to fill in these gaps so as to facilitate further research in this exciting and vibrant area.

418, TITLE: Continual Learning Dialogue Systems - Learning during Conversation  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532677>  
AUTHORS: Sahisnu Mazumder, Bing Liu  
HIGHLIGHT: In this tutorial, we introduce and discuss methods to give chatbots the ability to continuously and interactively learn new knowledge during conversation, i.e. "on-the-job" by themselves so that as the systems chat more and more with users, they become more and more knowledgeable and improve their performance over time.

419, TITLE: Improving Efficiency and Robustness of Transformer-based Information Retrieval Systems  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532681>  
AUTHORS: Edmon Begoli, Sudarshan Srinivasan, Maria Mahbub  
HIGHLIGHT: This tutorial focuses on both theoretical and practical aspects of improving the efficiency and robustness of transformer-based approaches, so that these can be effectively used in practical, high-scale, and high-volume information retrieval (IR) scenarios.

420, TITLE: Gender Fairness in Information Retrieval Systems  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532680>  
AUTHORS: Amin Bigdeli, Negar Arabzadeh, Shirin SeyedSalehi, Morteza Zihayat, Ebrahim Bagheri  
HIGHLIGHT: In this tutorial, we inform the audience of various studies that have systematically reported the presence of stereotypical gender biases in Information Retrieval (IR) systems.

421, TITLE: Self-Supervised Learning for Recommender System  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532684>  
AUTHORS: Chao Huang, Xiang Wang, Xiangnan He, Dawei Yin  
HIGHLIGHT: In this tutorial, we aim to provide a systemic review of existing self-supervised learning frameworks and analyze the corresponding challenges for various recommendation scenarios, such as general collaborative filtering paradigm, social recommendation, sequential recommendation, and multi-behavior recommendation.

422, TITLE: What the Actual...Examining User Behaviour in Information Retrieval  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532687>  
AUTHORS: George Buchanan, Dana McKay  
HIGHLIGHT: In this tutorial we will address the main strategic and tactical choices for engaging with, designing and executing user studies, considering both evaluation and formative investigation.

423, TITLE: Beyond Opinion Mining: Summarizing Opinions of Customer Reviews  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532676>  
AUTHORS: Reinald Kim Amplayo, Arthur Brazinskas, Yoshi Suhara, Xiaolan Wang, Bing Liu  
HIGHLIGHT: In this tutorial, we present various aspects of opinion summarization that are useful for researchers and practitioners.

424, TITLE: Deep Knowledge Graph Representation Learning for Completion, Alignment, and Question Answering  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532679>  
AUTHORS: Soumen Chakrabarti  
HIGHLIGHT: The goal of this tutorial is to give IR researchers a thorough update on the best practices of neural KG representation and inference from AI, ML and NLP communities, and then explore how KG representation research in the IR community can be better driven by the needs of search, passage retrieval, and QA.



425, TITLE: Conversational Information Seeking: Theory and Application  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532678>  
AUTHORS: Jeffrey Dalton, Sophie Fischer, Paul Owoicho, Filip Radlinski, Federico Rossetto, Johanne R. Trippas, Hamed Zamani  
HIGHLIGHT: This tutorial follows the content of the recent Conversational Information Seeking book authored by several of the tutorial presenters.

426, TITLE: Towards Reproducible Machine Learning Research in Information Retrieval  
<https://dl.acm.org/doi/abs/10.1145/3477495.3532686>  
AUTHORS: Ana Lucic, Maurits Bleeker, Maarten de Rijke, Koustuv Sinha, Sami Jullien, Robert Stojnic  
HIGHLIGHT: We propose this tutorial as a gentle introduction to help ensure reproducible research in IR, with a specific emphasis on ML aspects of IR research.