1, TITLE: The Next Generation of Neural Networks
https://dl.acm.org/doi/abs/10.1145/3397271.3402425
AUTHORS: Geoffrey Hinton
HIGHLIGHT: I will describe a novel and effective way of dealing with this limitation.

2, TITLE: Proof by Experimentation? Towards Better IR Research
https://dl.acm.org/doi/abs/10.1145/3397271.3402426
AUTHORS: Norbert Fuhr
HIGHLIGHT: Proof by Experimentation? Towards Better IR Research

3, TITLE: Coopetition in IR Research
https://dl.acm.org/doi/abs/10.1145/3397271.3402427
AUTHORS: Ellen M. Voorhees
HIGHLIGHT: This talk will use TREC tracks as case studies to explore the benefits and disadvantages of different evaluation task designs.

4, TITLE: On Presuppositions of Machine Learning: A Meta Theory
https://dl.acm.org/doi/abs/10.1145/3397271.3402428
AUTHORS: Zongben Xu
HIGHLIGHT: We report, in this presentation, the effort and advances made by my group on how to break through these presuppositions of ML and drive ML development.

5, TITLE: How Deep Learning Works for Information Retrieval
https://dl.acm.org/doi/abs/10.1145/3397271.3402429
AUTHORS: Dacheng Tao
HIGHLIGHT: How Deep Learning Works for Information Retrieval

6, TITLE: From Information to Assistance
https://dl.acm.org/doi/abs/10.1145/3397271.3402430
AUTHORS: Elizabeth F. Churchill
HIGHLIGHT: In this talk, I will focus on how people find information, and how the tools we build aid in that finding.

7, TITLE: The New TREC Track on Podcast Search and Summarization
https://dl.acm.org/doi/abs/10.1145/3397271.3402431
AUTHORS: Rosie Jones
HIGHLIGHT: In this talk I will describe the task and dataset, outlining how the dataset is orders of magnitude larger than previous spoken document datasets, and how the tasks take us beyond previous shared tasks both in spoken document retrieval and NLP.

8, TITLE: Large-scale Multi-modal Search and QA at Alibaba
https://dl.acm.org/doi/abs/10.1145/3397271.3402432
AUTHORS: Rong Jin
HIGHLIGHT: In this talk, we will present ongoing efforts of Alibaba on large-scale multi-modal search ad question-answering, including image search, video search, cross lingual retrieval, and QA based on machine reading and comprehension (MRC).

9, TITLE: Training Effective Neural CLIR by Bridging the Translation Gap
https://dl.acm.org/doi/abs/10.1145/3397271.3401035
AUTHORS: Hamed Bonab, Sheikh Muhammad Sarwar, James Allan
HIGHLIGHT: We introduce Smart Shuffling, a cross-lingual embedding (CLE) method that draws from statistical word alignment approaches to leverage dictionaries, producing dense representations that are significantly more effective for cross-language information retrieval (CLIR) than prior CLE methods.

10, TITLE: A Quantum Interference Inspired Neural Matching Model for Ad-hoc Retrieval
https://dl.acm.org/doi/abs/10.1145/3397271.3401070
AUTHORS: Yongyu Jiang, Peng Zhang, Hui Gao, Dawei Song
HIGHLIGHT: In our work, we propose a Quantum Interference inspired Neural Matching model (QINM), which can apply the interference effects to guide the construction of additional evidence generated by the interaction between matching units in the retrieval process.

11, TITLE: A Deep Recurrent Survival Model for Unbiased Ranking
https://dl.acm.org/doi/abs/10.1145/3397271.3401073
AUTHORS: Jiarui Jin, Yuchen Fang, Weinan Zhang, Kan Ren, Guorui Zhou, Jian Xu, Yong Yu, Jun Wang, Xiaoqiang Zhu, Kun Gai
HIGHLIGHT: In this paper, we propose an end-to-end Deep Recurrent Survival Ranking (DRSR), a unified framework to jointly model user's various behaviors, to (i) consider the rich contextual information in the ranking list; and (ii) address the hidden issues underlying user behaviors, i.e., to mine observe pattern in queries without any click (non-click queries), and to model tracking logs which cannot truly reflect the user browsing intents (untrusted observation).

12, TITLE: ColBERT: Efficient and Effective Passage Search via Contextualized Late Interaction over BERT
https://dl.acm.org/doi/abs/10.1145/3397271.3401075
AUTHORS: Omar Khattab, Matei Zaharia
HIGHLIGHT: To tackle this, we present ColBERT, a novel ranking model that adapts deep LMs (in particular, BERT) for efficient retrieval.

13, TITLE: Efficient Document Re-Ranking for Transformers by Precomputing Term Representations
https://dl.acm.org/doi/abs/10.1145/3397271.3401093
AUTHORS: Sean MacAvaney, Franco Maria Nardini, Raffaele Perego, Nicola Tonellotto, Nazli Goharian, Ophir Frieder
HIGHLIGHT: Our proposed approach, called PreTTR (Precomputing Transformer Term Representations), considerably reduces the query-time latency of deep transformer networks (up to a 42x speedup on web document ranking) making these networks more practical to use in a real-time ranking scenario.

14, TITLE: A Reinforcement Learning Framework for Relevance Feedback
https://dl.acm.org/doi/abs/10.1145/3397271.3401099
AUTHORS: Ali Montazeralghaem, Hamed Zamani, James Allan
HIGHLIGHT: We present RML, the first known general reinforcement learning framework for relevance feedback that directly optimizes any desired retrieval metric, including precision-oriented, recall-oriented, and even diversity metrics: RML can be easily extended to directly optimize any arbitrary user satisfaction signal.

15, TITLE: Fairness-Aware Explainable Recommendation over Knowledge Graphs
https://dl.acm.org/doi/abs/10.1145/3397271.3401051
AUTHORS: Zuohui Fu, Yikun Xian, Ruoyuan Gao, Jieyu Zhao, Qiaoying Huang, Yingqiang Ge, Shuyuan Xu, Shijie Geng, Chirag Shah, Yongfeng Zhang, Gerard de Melo
HIGHLIGHT: In this paper, we analyze different groups of users according to their level of activity, and find that bias exists in recommendation performance between different groups.

16, TITLE: Attentional Graph Convolutional Networks for Knowledge Concept Recommendation in MOOCs in a Heterogeneous View
https://dl.acm.org/doi/abs/10.1145/3397271.3401057
AUTHORS: Jibing Gong, Shen Wang, Jinlong Wang, Wenzheng Feng, Hao Peng, Jie Tang, Philip S. Yu
HIGHLIGHT: To learn the parameters of the proposed model, we propose to utilize extended matrix factorization (MF).

17, TITLE: Sequential Recommendation with Self-Attentive Multi-Adversarial Network
https://dl.acm.org/doi/abs/10.1145/3397271.3401111
AUTHORS: Ruiyang Ren, Zhaoyang Liu, Yaliang Li, Wayne Xin Zhao, Hui Wang, Bolin Ding, Ji-Rong Wen
HIGHLIGHT: In this paper, we present a Multi-Factor Generative Adversarial Network (MFGAN) for explicitly modeling the effect of context information on sequential recommendation.

18, TITLE: MVIN: Learning Multiview Items for Recommendation
https://dl.acm.org/doi/abs/10.1145/3397271.3401126
AUTHORS: Chang-You Tai, Meng-Ru Wu, Yun-Wei Chu, Shao-Yu Chu, Lun-Wei Ku
HIGHLIGHT: To address these issues, we propose the multi-view item network (MVIN), a GNN-based recommendation model that provides superior recommendations by describing items from a unique mixed view from user and entity angles.

19, TITLE: Make It a Chorus: Knowledge- and Time-aware Item Modeling for Sequential Recommendation
https://dl.acm.org/doi/abs/10.1145/3397271.3401131
AUTHORS: Chenyang Wang, Min Zhang, Weizhi Ma, Yiqun Liu, Shaoping Ma
HIGHLIGHT: To model dynamic meanings of an item in different sequence contexts, a novel method Chorus is proposed to take both item relations and corresponding temporal dynamics into consideration.

20, TITLE: Evolutionary Product Description Generation: A Dynamic Fine-Tuning Approach Leveraging User Click Behavior
https://dl.acm.org/doi/abs/10.1145/3397271.3401140
AUTHORS: Yongzhen Wang, Jian Wang, Heng Huang, Hongsong Li, Xiaozhong Liu
HIGHLIGHT: In this paper, our goal is to generate product descriptions on e-commerce platforms, and we explore this classic task from a novel perspective that allows the optimal output text to vary with ever-changing user preference.

21, TITLE: Pairwise View Weighted Graph Network for View-based 3D Model Retrieval
https://dl.acm.org/doi/abs/10.1145/3397271.3401054
AUTHORS: Zan Gao, Yin-ming Li, Wei-li Guan, Wei-zhi Nie, Zhi-yong Cheng, An-an Liu
HIGHLIGHT: To obtain a more efficient feature descriptor for 3D model retrieval, in this work, we propose the pairwise view weighted graph network (abbreviated PVWGN) for view-based 3D model retrieval where non-local graph layers are embedded into the network architecture to automatically mine the intrinsic relationship among multiple views of a 3D model.

22, TITLE: Detecting User Community in Sparse Domain via Cross-Graph Pairwise Learning
https://dl.acm.org/doi/abs/10.1145/3397271.3401055
AUTHORS: Zheng Gao, Hongsong Li, Zhuoren Jiang, Xiaozhong Liu
HIGHLIGHT: In this paper, our model, Pairwise Cross-graph Community Detection (PCCD), is proposed to cope with the sparse graph problem by involving external graph knowledge to learn user pairwise community closeness instead of detecting direct communities.

23, TITLE: BiANE: Bipartite Attributed Network Embedding
https://dl.acm.org/doi/abs/10.1145/3397271.3401068
AUTHORS: Wentao Huang, Yuchen Li, Yuan Fang, Ju Fan, Hongxia Yang
HIGHLIGHT: In this paper, we propose a novel model called BiANE, short forBipartite Attributed Network Embedding.

24, TITLE: Hierarchical Fashion Graph Network for Personalized Outfit Recommendation
https://dl.acm.org/doi/abs/10.1145/3397271.3401080
AUTHORS: Xingchen Li, Xiang Wang, Xiangnan He, Long Chen, Jun Xiao, Tat-Seng Chua
HIGHLIGHT: In this work, we unify two tasks, fashion compatibility modeling and personalized outfit recommendation.

25, TITLE: Global Context Enhanced Graph Neural Networks for Session-based Recommendation
https://dl.acm.org/doi/abs/10.1145/3397271.3401142
AUTHORS: Ziyang Wang, Wei Wei, Gao Cong, Xiao-Li Li, Xian-Ling Mao, Minghui Qiu
HIGHLIGHT: This paper proposes a novel approach, called Global Context Enhanced Graph Neural Networks (GCE-GNN) to exploit item transitions over all sessions in a more subtle manner for better inferring the user preference of the current session.

26, TITLE: Interactive Recommender System via Knowledge Graph-enhanced Reinforcement Learning
https://dl.acm.org/doi/abs/10.1145/3397271.3401174
AUTHORS: Sijin Zhou, Xinyi Dai, Haokun Chen, Weinan Zhang, Kan Ren, Ruiming Tang, Xiuqiang He, Yong Yu
HIGHLIGHT: In this work, we investigate the potential of leveraging knowledge graph (KG) in dealing with these issues of RL methods for IRS, which provides rich side information for recommendation decision making.

27, TITLE: Jointly Non-Sampling Learning for Knowledge Graph Enhanced Recommendation
https://dl.acm.org/doi/abs/10.1145/3397271.3401040
AUTHORS: Chong Chen, Min Zhang, Weizhi Ma, Yiqun Liu, Shaoping Ma
HIGHLIGHT: In this paper, we propose a novel Jointly Non-Sampling learning model for Knowledge graph enhanced Recommendation (JNSKR).

28, TITLE: AutoGroup: Automatic Feature Grouping for Modelling Explicit High-Order Feature Interactions in CTR Prediction
https://dl.acm.org/doi/abs/10.1145/3397271.3401082
AUTHORS: Bin Liu, Niannan Xue, Huifeng Guo, Ruiming Tang, Stefanos Zafeiriou, Xiuqiang He, Zhenguo Li
HIGHLIGHT: In this work, we use AutoML to seek useful high-order feature interactions to train on without manual feature selection.

29, TITLE: KERL: A Knowledge-Guided Reinforcement Learning Model for Sequential Recommendation
https://dl.acm.org/doi/abs/10.1145/3397271.3401134
AUTHORS: Pengfei Wang, Yu Fan, Long Xia, Wayne Xin Zhao, Shaozhang Niu, Jimmy Huang
HIGHLIGHT: Inspired by the availability of knowledge graph (KG), we propose a novel Knowledge-guidEd Reinforcement Learning model (KERL for short) for fusing KG information into a RL framework for sequential recommendation.

30, TITLE: CKAN: Collaborative Knowledge-aware Attentive Network for Recommender Systems
https://dl.acm.org/doi/abs/10.1145/3397271.3401141
AUTHORS: Ze Wang, Guangyan Lin, Huobin Tan, Qinghong Chen, Xiyang Liu
HIGHLIGHT: In this paper, we propose a novel method named Collaborative Knowledge-aware Attentive Network (CKAN) which explicitly encodes the collaborative signals by collaboration propagation and proposes a natural way of combining collaborative signals with knowledge associations together.

31, TITLE: CATN: Cross-Domain Recommendation for Cold-Start Users via Aspect Transfer Network
https://dl.acm.org/doi/abs/10.1145/3397271.3401169
AUTHORS: Cheng Zhao, Chenliang Li, Rong Xiao, Hongbo Deng, Aixin Sun
HIGHLIGHT: Inspired by the advances made in review-based recommendation, we propose to model user preference transfer at aspect-level derived from reviews.

32, TITLE: Leveraging Demonstrations for Reinforcement Recommendation Reasoning over Knowledge Graphs
https://dl.acm.org/doi/abs/10.1145/3397271.3401171
AUTHORS: Kangzhi Zhao, Xiting Wang, Yuren Zhang, Li Zhao, Zheng Liu, Chunxiao Xing, Xing Xie
HIGHLIGHT: In this paper, we address these issues by better supervising the path finding process.

33, TITLE: Incorporating Scenario Knowledge into A Unified Fine-tuning Architecture for Event Representation
https://dl.acm.org/doi/abs/10.1145/3397271.3401173
AUTHORS: Jianming Zheng, Fei Cai, Honghui Chen
HIGHLIGHT: In this paper, we propose a unified fine-tuning architecture, incorporated with scenario knowledge for event representation, i.e., UniFA-S, which mainly consists of a unified fine-tuning architecture (UniFA) and a scenario-level variational auto-encoder (S-VAE).

34, TITLE: Ranking-Incentivized Quality Preserving Content Modification
https://dl.acm.org/doi/abs/10.1145/3397271.3401058
AUTHORS: Gregory Goren, Oren Kurland, Moshe Tennenholtz, Fiana Raiber
HIGHLIGHT: We present an automatic method for quality-preserving modification of document content --- i.e., maintaining content quality --- so that the document is ranked higher for a query by a non-disclosed ranking function whose rankings can be observed.

35, TITLE: On Understanding Data Worker Interaction Behaviors
https://dl.acm.org/doi/abs/10.1145/3397271.3401059
AUTHORS: Lei Han, Tianwa Chen, Gianluca Demartini, Marta Indulska, Shazia Sadiq
HIGHLIGHT: In this work, we aim at understanding the behaviors of data workers in discovering data quality issues, and how these behavioral observations relate to their performance.

36, TITLE: Creating a Children-Friendly Reading Environment via Joint Learning of Content and Human Attention
https://dl.acm.org/doi/abs/10.1145/3397271.3401062
AUTHORS: Guoxiu He, Yangyang Kang, Zhuoren Jiang, Jiawei Liu, Changlong Sun, Xiaozhong Liu, Wei Lu
HIGHLIGHT: In this study, we propose a novel framework, Joint Learning of Content and Human Attention (GoodMan), to identify indecent readings by augmenting natural language understanding models with large scale human reading behaviors (dwell time per page) on portable devices.

37, TITLE: Octopus: Comprehensive and Elastic User Representation for the Generation of Recommendation Candidates
https://dl.acm.org/doi/abs/10.1145/3397271.3401088
AUTHORS: Zheng Liu, Jianxun Lian, Junhan Yang, Defu Lian, Xing Xie
HIGHLIGHT: In this work, a novel personalized candidate generation paradigm, Octopus, is proposed, which is remarkable for its comprehensiveness and elasticity.

38, TITLE: The Cortical Activity of Graded Relevance
https://dl.acm.org/doi/abs/10.1145/3397271.3401106
AUTHORS: Zuzana Pinkosova, William J. McGeown, Yashar Moshfeghi
HIGHLIGHT: In this paper, we aim to investigate the brain activity associated with relevance when it is treated as a graded concept.

39, TITLE: Asymmetric Tri-training for Debiasing Missing-Not-At-Random Explicit Feedback
https://dl.acm.org/doi/abs/10.1145/3397271.3401114

AUTHORS: Yuta Saito
HIGHLIGHT: To overcome these limitations, we propose a model-agnostic meta-learning method inspired by the asymmetric tri-training framework for unsupervised domain adaptation.

40, TITLE: Beyond User Embedding Matrix: Learning to Hash for Modeling Large-Scale Users in Recommendation
https://dl.acm.org/doi/abs/10.1145/3397271.3401119
AUTHORS: Shaoyun Shi, Weizhi Ma, Min Zhang, Yongfeng Zhang, Xinxing Yu, Houzhi Shan, Yiqun Liu, Shaoping Ma
HIGHLIGHT: In this work, a novel user preference representation called Preference Hash (PreHash) is proposed to model large scale users, including rare-interaction ones.

41, TITLE: Measuring Recommendation Explanation Quality: The Conflicting Goals of Explanations
https://dl.acm.org/doi/abs/10.1145/3397271.3401032
AUTHORS: Krisztian Balog, Filip Radlinski
HIGHLIGHT: Specifically, this paper presents a first proposal of how to measure the quality of explanations along seven common goal dimensions catalogued in the literature.

42, TITLE: Bayesian Inferential Risk Evaluation On Multiple IR Systems
https://dl.acm.org/doi/abs/10.1145/3397271.3401033
AUTHORS: Rodger Benham, Ben Carterette, J. Shane Culpepper, Alistair Moffat
HIGHLIGHT: In this work, we propose a Bayesian approach where multiple challengers are compared to a single champion.

43, TITLE: How to Measure the Reproducibility of System-oriented IR Experiments
https://dl.acm.org/doi/abs/10.1145/3397271.3401036
AUTHORS: Timo Breuer, Nicola Ferro, Norbert Fuhr, Maria Maistro, Tetsuya Sakai, Philipp Schaer, Ian Soboroff
HIGHLIGHT: To address these issues, we compare several measures to objectively quantify to what extent we have replicated or reproduced a system-oriented IR experiment.

44, TITLE: Good Evaluation Measures based on Document Preferences
https://dl.acm.org/doi/abs/10.1145/3397271.3401115
AUTHORS: Tetsuya Sakai, Zhaohao Zeng
HIGHLIGHT: The present study addresses exactly this question, after formally defining two classes of preference-based measures called Pref measures and Î”-measures.

45, TITLE: Preference-based Evaluation Metrics for Web Image Search
https://dl.acm.org/doi/abs/10.1145/3397271.3401146
AUTHORS: Xiaohui Xie, Jiaxin Mao, Yiqun Liu, Maarten de Rijke, Haitian Chen, Min Zhang, Shaoping Ma
HIGHLIGHT: In this paper, we provide a thorough comparison of variants of preference judgments for web image search.

46, TITLE: Models Versus Satisfaction: Towards a Better Understanding of Evaluation Metrics
https://dl.acm.org/doi/abs/10.1145/3397271.3401162
AUTHORS: Fan Zhang, Jiaxin Mao, Yiqun Liu, Xiaohui Xie, Weizhi Ma, Min Zhang, Shaoping Ma
HIGHLIGHT: Specifically, we want to investigate whether the metrics that are well calibrated with user behavior data can perform as well in estimating user satisfaction.

47, TITLE: Cascade or Recency: Constructing Better Evaluation Metrics for Session Search
https://dl.acm.org/doi/abs/10.1145/3397271.3401163
AUTHORS: Fan Zhang, Jiaxin Mao, Yiqun Liu, Weizhi Ma, Min Zhang, Shaoping Ma
HIGHLIGHT: To take both the cascade hypothesis and the recency effect into the design of session search evaluation metrics, we propose Recency-aware Session-based Metrics (RSMs) to simultaneously characterize users' examination process with a browsing model and cognitive process with a utility accumulation model.

48, TITLE: Operationalizing the Legal Principle of Data Minimization for Personalization
https://dl.acm.org/doi/abs/10.1145/3397271.3401034
AUTHORS: Asia J. Biega, Peter Potash, Hal Daumé, Fernando Diaz, Michèle Finck
HIGHLIGHT: In this paper, we identify a lack of a homogeneous interpretation of the data minimization principle and explore two operational definitions applicable in the context of personalization.

49, TITLE: Learning Personalized Risk Preferences for Recommendation
https://dl.acm.org/doi/abs/10.1145/3397271.3401056
AUTHORS: Yingqiang Ge, Shuyuan Xu, Shuchang Liu, Zuohui Fu, Fei Sun, Yongfeng Zhang

HIGHLIGHT: In this paper, we propose a novel risk-aware recommendation framework that integrates machine learning and behavioral economics to uncover the risk mechanism behind users' purchasing behaviors.

50, TITLE: Certifiable Robustness to Discrete Adversarial Perturbations for Factorization Machines
https://dl.acm.org/doi/abs/10.1145/3397271.3401087
AUTHORS: Yang Liu, Xianzhuo Xia, Liang Chen, Xiangnan He, Carl Yang, Zibin Zheng
HIGHLIGHT: In our work, we propose the first method for the certifiable robustness of factorization machines with respect to the discrete perturbation on input features.

51, TITLE: Controlling Fairness and Bias in Dynamic Learning-to-Rank
https://dl.acm.org/doi/abs/10.1145/3397271.3401100
AUTHORS: Marco Morik, Ashudeep Singh, Jessica Hong, Thorsten Joachims
HIGHLIGHT: We, therefore, present a learning-to-rank approach for explicitly enforcing merit-based fairness guarantees to groups of items (e.g. articles by the same publisher, tracks by the same artist).

52, TITLE: Can The Crowd Identify Misinformation Objectively?: The Effects of Judgment Scale and Assessor's Background
https://dl.acm.org/doi/abs/10.1145/3397271.3401112
AUTHORS: Kevin Roitero, Michael Soprano, Shaoyang Fan, Damiano Spina, Stefano Mizzaro, Gianluca Demartini
HIGHLIGHT: In this paper, we follow a different approach and rely on (non-expert) crowd workers.

53, TITLE: Measuring and Mitigating Item Under-Recommendation Bias in Personalized Ranking Systems
https://dl.acm.org/doi/abs/10.1145/3397271.3401177
AUTHORS: Ziwei Zhu, Jianling Wang, James Caverlee
HIGHLIGHT: Concretely, we formalize the concepts of ranking-based statistical parity and equal opportunity as two measures of item under-recommendation bias. Then, we empirically show that one of the most widely adopted algorithms -- Bayesian Personalized Ranking -- produces biased recommendations, which motivates our effort to propose the novel debiased personalized ranking model.

54, TITLE: What Makes a Top-Performing Precision Medicine Search Engine?: Tracing Main System Features in a Systematic Way
https://dl.acm.org/doi/abs/10.1145/3397271.3401048
AUTHORS: Erik Faessler, Michel Oleynik, Udo Hahn
HIGHLIGHT: In order to overcome this explanatory gap, we first determined optimal feature configurations using the Sequential Model-based Algorithm Configuration (SMAC) program and applied its output to a BM25-based search engine.

55, TITLE: Accelerated Convergence for Counterfactual Learning to Rank
https://dl.acm.org/doi/abs/10.1145/3397271.3401069
AUTHORS: Rolf Jagerman, Maarten de Rijke
HIGHLIGHT: In this paper we show that the convergence rate of SGD approaches with IPS-weighted gradients suffers from the large variance introduced by the IPS weights: convergence is slow, especially when there are large IPS weights.

56, TITLE: DVGAN: A Minimax Game for Search Result Diversification Combining Explicit and Implicit Features
https://dl.acm.org/doi/abs/10.1145/3397271.3401084
AUTHORS: Jiongnan Liu, Zhicheng Dou, Xiaojie Wang, Shuqi Lu, Ji-Rong Wen
HIGHLIGHT: To tackle this problem, we propose a supervised diversification framework based on Generative Adversarial Network (GAN).

57, TITLE: Policy-Aware Unbiased Learning to Rank for Top-k Rankings
https://dl.acm.org/doi/abs/10.1145/3397271.3401102
AUTHORS: Harrie Oosterhuis, Maarten de Rijke
HIGHLIGHT: Together, our contributions introduce the first policy-aware unbiased LTR approach that learns from top-k feedback and optimizes top-k metrics.

58, TITLE: SetRank: Learning a Permutation-Invariant Ranking Model for Information Retrieval
https://dl.acm.org/doi/abs/10.1145/3397271.3401104
AUTHORS: Liang Pang, Jun Xu, Qingyao Ai, Yanyan Lan, Xueqi Cheng, Jirong Wen
HIGHLIGHT: In this paper, we propose a neural learning-to-rank model called SetRank which directly learns a permutation-invariant ranking model defined on document sets of any size.

59, TITLE: Reinforcement Learning to Rank with Pairwise Policy Gradient
https://dl.acm.org/doi/abs/10.1145/3397271.3401148
AUTHORS: Jun Xu, Zeng Wei, Long Xia, Yanyan Lan, Dawei Yin, Xueqi Cheng, Ji-Rong Wen
HIGHLIGHT: To deal with the issues, we propose a novel policy gradient algorithm in which the gradients are determined using pairwise comparisons of two document lists sampled within the same query.

60, TITLE: Humor Detection in Product Question Answering Systems
https://dl.acm.org/doi/abs/10.1145/3397271.3401077
AUTHORS: Yftah Ziser, Elad Kravi, David Carmel
HIGHLIGHT: In this study we present a deep-learning framework for detecting humorous questions in PQA systems.

61, TITLE: Training Curricula for Open Domain Answer Re-Ranking
https://dl.acm.org/doi/abs/10.1145/3397271.3401094
AUTHORS: Sean MacAvaney, Franco Maria Nardini, Raffaele Perego, Nicola Tonellotto, Nazli Goharian, Ophir Frieder
HIGHLIGHT: In this work, we apply this idea to the training of neural answer rankers using curriculum learning.

62, TITLE: Open-Retrieval Conversational Question Answering
https://dl.acm.org/doi/abs/10.1145/3397271.3401110
AUTHORS: Chen Qu, Liu Yang, Cen Chen, Minghui Qiu, W. Bruce Croft, Mohit Iyyer
HIGHLIGHT: To address this limitation, we introduce an open-retrieval conversational question answering (ORConvQA) setting, where we learn to retrieve evidence from a large collection before extracting answers, as a further step towards building functional conversational search systems.

63, TITLE: Learning to Ask Screening Questions for Job Postings
https://dl.acm.org/doi/abs/10.1145/3397271.3401118
AUTHORS: Baoxu Shi, Shan Li, Jaewon Yang, Mustafa Emre Kazdagli, Qi He
HIGHLIGHT: To add screening questions to all 20M active jobs at Linked In, we propose a new task that aims to automatically generate screening questions for a given job posting.

64, TITLE: Match²: A Matching over Matching Model for Similar Question Identification
https://dl.acm.org/doi/abs/10.1145/3397271.3401143
AUTHORS: Zizhen Wang, Yixing Fan, Jiafeng Guo, Liu Yang, Ruqing Zhang, Yanyan Lan, Xueqi Cheng, Hui Jiang, Xiaozhao Wang
HIGHLIGHT: In this work, we propose atwo-side usage, which leverages the answer as a bridge of the two questions.

65, TITLE: Answer Ranking for Product-Related Questions via Multiple Semantic Relations Modeling
https://dl.acm.org/doi/abs/10.1145/3397271.3401166
AUTHORS: Wenxuan Zhang, Yang Deng, Wai Lam
HIGHLIGHT: In this paper, we investigate the answer ranking problem for product-related questions, with the relevant reviews treated as auxiliary information that can be exploited for facilitating the ranking.

66, TITLE: ESAM: Discriminative Domain Adaptation with Non-Displayed Items to Improve Long-Tail Performance
https://dl.acm.org/doi/abs/10.1145/3397271.3401043
AUTHORS: Zhihong Chen, Rong Xiao, Chenliang Li, Gangfeng Ye, Haochuan Sun, Hongbo Deng
HIGHLIGHT: To this end, we propose an entire space adaptation model (ESAM) to address this problem from the perspective of domain adaptation (DA).

67, TITLE: Table Search Using a Deep Contextualized Language Model
https://dl.acm.org/doi/abs/10.1145/3397271.3401044
AUTHORS: Zhiyu Chen, Mohamed Trabelsi, Jeff Heflin, Yinan Xu, Brian D. Davison
HIGHLIGHT: In this paper, we use the deep contextualized language model BERT for the task of ad hoc table retrieval.

68, TITLE: Convolutional Embedding for Edit Distance
https://dl.acm.org/doi/abs/10.1145/3397271.3401045
AUTHORS: Xinyan DAI, Xiao Yan, Kaiwen Zhou, Yuxuan Wang, Han Yang, James Cheng
HIGHLIGHT: In this paper, we propose a deep learning pipeline (called CNN-ED) that embeds edit distance into Euclidean distance for fast approximate similarity search.

69, TITLE: ASiNE: Adversarial Signed Network Embedding
https://dl.acm.org/doi/abs/10.1145/3397271.3401079

AUTHORS: Yeon-Chang Lee, Nayoun Seo, Kyungsik Han, Sang-Wook Kim
HIGHLIGHT: Motivated by a success of generative adversarial networks (GAN) in various domains including information retrieval, we propose a novel signed network embedding framework, ASiNE, which represents each node of a given signed network as a low-dimensional vector based on the adversarial learning.

70, TITLE: Efficient Graph Query Processing over Geo-Distributed Datacenters
https://dl.acm.org/doi/abs/10.1145/3397271.3401157
AUTHORS: Ye Yuan, Delong Ma, Zhenyu Wen, Yuliang Ma, Guoren Wang, Lei Chen
HIGHLIGHT: In this paper, we propose GeoGraph --a universal framework to support efficient geo-distributed graph query processing based on clustering datacenters and meta-graph, while reducing the inter-datacenter communication.

71, TITLE: Spatio-Temporal Dual Graph Attention Network for Query-POI Matching
https://dl.acm.org/doi/abs/10.1145/3397271.3401159
AUTHORS: Zixuan Yuan, Hao Liu, Yanchi Liu, Denghui Zhang, Fei Yi, Nengjun Zhu, Hui Xiong
HIGHLIGHT: To this end, in this paper, we develop a spatio-temporal dual graph attention network ~(STDGAT), which can jointly model dynamic situational context and users' sequential behaviors for intelligent query-POI matching.

72, TITLE: LightGCN: Simplifying and Powering Graph Convolution Network for Recommendation
https://dl.acm.org/doi/abs/10.1145/3397271.3401063
AUTHORS: Xiangnan He, Kuan Deng, Xiang Wang, Yan Li, YongDong Zhang, Meng Wang
HIGHLIGHT: In this work, we aim to simplify the design of GCN to make it more concise and appropriate for recommendation.

73, TITLE: GAME: Learning Graphical and Attentive Multi-view Embeddings for Occasional Group Recommendation
https://dl.acm.org/doi/abs/10.1145/3397271.3401064
AUTHORS: Zhixiang He, Chi-Yin Chow, Jia-Dong Zhang
HIGHLIGHT: To this end, we propose a model, named GAME to learn the Graphical and Attentive Multi-view Embeddings (i.e., representations) for the groups, users and items from the independent view and counterpart views based on the interaction graph.

74, TITLE: Multi-behavior Recommendation with Graph Convolutional Networks
https://dl.acm.org/doi/abs/10.1145/3397271.3401072
AUTHORS: Bowen Jin, Chen Gao, Xiangnan He, Depeng Jin, Yong Li
HIGHLIGHT: In this work, we approach this problem by innovatively constructing a unified graph to represent multi-behavior data and proposing a new model named MBGCN (short for Multi-Behavior Graph Convolutional Network ).

75, TITLE: GAG: Global Attributed Graph Neural Network for Streaming Session-based Recommendation
https://dl.acm.org/doi/abs/10.1145/3397271.3401109
AUTHORS: Ruihong Qiu, Hongzhi Yin, Zi Huang, Tong Chen
HIGHLIGHT: In this paper, we propose a G lobal A ttributed G raph (GAG) neural network model with a Wasserstein reservoir for the SSR problem.

76, TITLE: Joint Item Recommendation and Attribute Inference: An Adaptive Graph Convolutional Network Approach
https://dl.acm.org/doi/abs/10.1145/3397271.3401144
AUTHORS: Le Wu, Yonghui Yang, Kun Zhang, Richang Hong, Yanjie Fu, Meng Wang
HIGHLIGHT: To this end, in this paper, we define these two tasks in an attributed user-item bipartite graph, and propose an Adaptive Graph Convolutional Network(AGCN) approach for joint item recommendation and attribute inference.

77, TITLE: GCN-Based User Representation Learning for Unifying Robust Recommendation and Fraudster Detection
https://dl.acm.org/doi/abs/10.1145/3397271.3401165
AUTHORS: Shijie Zhang, Hongzhi Yin, Tong Chen, Quoc Viet Nguyen Hung, Zi Huang, Lizhen Cui
HIGHLIGHT: In this paper, we propose GraphRfi - a GCN-based user representation learning framework to perform robust recommendation and fraudster detection in a unified way.

78, TITLE: Using Phoneme Representations to Build Predictive Models Robust to ASR Errors
https://dl.acm.org/doi/abs/10.1145/3397271.3401050
AUTHORS: Anjie Fang, Simone Filice, Nut Limsopatham, Oleg Rokhlenko
HIGHLIGHT: To make NLU models more robust to such errors, we propose novel phonetic-aware text representations.

79, TITLE: Knowledge Enhanced Personalized Search
https://dl.acm.org/doi/abs/10.1145/3397271.3401089

AUTHORS: Shuqi Lu, Zhicheng Dou, Chenyan Xiong, Xiaojie Wang, Ji-Rong Wen
HIGHLIGHT: This paper presents a knowledge graph enhanced personalized search model, KEPS.

80, TITLE: Streaming Graph Neural Networks
https://dl.acm.org/doi/abs/10.1145/3397271.3401092
AUTHORS: Yao Ma, Ziyi Guo, Zhaocun Ren, Jiliang Tang, Dawei Yin
HIGHLIGHT: Hence, in this paper, we propose DyGNN, a Dynamic Graph Neural Network model, which can model the dynamic information as the graph evolving.

81, TITLE: An Eye Tracking Study of Web Search by People With and Without Dyslexia
https://dl.acm.org/doi/abs/10.1145/3397271.3401103
AUTHORS: Srishti Palani, Adam Fourney, Shane Williams, Kevin Larson, Irina Spiridonova, Meredith Ringel Morris
HIGHLIGHT: In this paper, we collected and analyzed eye-tracking, search log, and self-report data from 27 participants (14 with dyslexia) to confirm that searchers with dyslexia struggle with all stages of the search process and have markedly different gaze patterns and search behavior that reflect the strategies used and challenges faced.

82, TITLE: DGL-KE: Training Knowledge Graph Embeddings at Scale
https://dl.acm.org/doi/abs/10.1145/3397271.3401172
AUTHORS: Da Zheng, Xiang Song, Chao Ma, Zeyuan Tan, Zihao Ye, Jin Dong, Hao Xiong, Zheng Zhang, George Karypis
HIGHLIGHT: This paper presents DGL-KE, an open-source package to efficiently compute knowledge graph embeddings.

83, TITLE: Neural Interactive Collaborative Filtering
https://dl.acm.org/doi/abs/10.1145/3397271.3401181
AUTHORS: Lixin Zou, Long Xia, Yulong Gu, Xiangyu Zhao, Weidong Liu, Jimmy Xiangji Huang, Dawei Yin
HIGHLIGHT: In this paper, we study collaborative filtering in an interactive setting, in which the recommender agents iterate between making recommendations and updating the user profile based on the interactive feedback.

84, TITLE: Fashion Compatibility Modeling through a Multi-modal Try-on-guided Scheme
https://dl.acm.org/doi/abs/10.1145/3397271.3401047
AUTHORS: Xue Dong, Jianlong Wu, Xuemeng Song, Hongjun Dai, Liqiang Nie
HIGHLIGHT: In light of this, we propose a multi-modal try-on-guided compatibility modeling scheme to jointly characterize the discrete interaction and try-on appearance of the outfit.

85, TITLE: Spatial Object Recommendation with Hints: When Spatial Granularity Matters
https://dl.acm.org/doi/abs/10.1145/3397271.3401090
AUTHORS: Hui Luo, Jingbo Zhou, Zhifeng Bao, Shuangli Li, J. Shane Culpepper, Haochao Ying, Hao Liu, Hui Xiong
HIGHLIGHT: In this paper, we study how to support top-k spatial object recommendations at varying levels of spatial granularity, enabling spatial objects at varying granularity, such as a city, suburb, or building, as a Point of Interest (POI).

86, TITLE: Product Bundle Identification using Semi-Supervised Learning
https://dl.acm.org/doi/abs/10.1145/3397271.3401128
AUTHORS: Hen Tzaban, Ido Guy, Asnat Greenstein-Messica, Arnon Dagan, Lior Rokach, Bracha Shapira
HIGHLIGHT: In this work, we present a comprehensive study of bundle identification on a large e-commerce website.

87, TITLE: Coding Electronic Health Records with Adversarial Reinforcement Path Generation
https://dl.acm.org/doi/abs/10.1145/3397271.3401135
AUTHORS: Shanshan Wang, Pengjie Ren, Zhumin Chen, Zhaochun Ren, Jian-Yun Nie, Jun Ma, Maarten de Rijke
HIGHLIGHT: We propose a coarse-to-fine ICD path generation framework, named Reinforcement Path Generation Network (RPGNet), that implements EHR coding with a Path Generator (PG) and a Path Discriminator (PD).

88, TITLE: Degree-Aware Alignment for Entities in Tail
https://dl.acm.org/doi/abs/10.1145/3397271.3401161
AUTHORS: Weixin Zeng, Xiang Zhao, Wei Wang, Jiuyang Tang, Zhen Tan
HIGHLIGHT: For pre-alignment, we propose to amplify long-tail entities, which are of relatively weak structural information, with entity name information that is generally available (but overlooked) in the form of concatenated power mean word embeddings.

89, TITLE: Regional Relation Modeling for Visual Place Recognition
https://dl.acm.org/doi/abs/10.1145/3397271.3401176
AUTHORS: Yingying Zhu, Biao Li, Jiong Wang, Zhou Zhao

HIGHLIGHT: In this paper, we propose a regional relation module which models the regional relationships and converts the convolutional feature maps to the relational feature maps.

90, TITLE: A General Knowledge Distillation Framework for Counterfactual Recommendation via Uniform Data
https://dl.acm.org/doi/abs/10.1145/3397271.3401083
AUTHORS: Dugang Liu, Pengxiang Cheng, Zhenhua Dong, Xiuqiang He, Weike Pan, Zhong Ming
HIGHLIGHT: In this paper, we focus on solving the bias problems in a recommender system via a uniform data.

91, TITLE: Agreement and Disagreement between True and False-Positive Metrics in Recommender Systems Evaluation
https://dl.acm.org/doi/abs/10.1145/3397271.3401096
AUTHORS: Elisa Mena-Maldonado, Rocío Cañamares, Pablo Castells, Yongli Ren, Mark Sanderson
HIGHLIGHT: In this paper we research the extent to which false-positive metrics agree or disagree with true-positive metrics in the offline evaluation of recommender systems.

92, TITLE: Leveraging Social Media for Medical Text Simplification
https://dl.acm.org/doi/abs/10.1145/3397271.3401105
AUTHORS: Nikhil Pattisapu, Nishant Prabhu, Smriti Bhati, Vasudeva Varma
HIGHLIGHT: To overcome these challenges, we propose a denoising autoencoder based neural model for this task which leverages the simplistic writing style of medical social media text.

93, TITLE: Sampler Design for Implicit Feedback Data by Noisy-label Robust Learning
https://dl.acm.org/doi/abs/10.1145/3397271.3401155
AUTHORS: Wenhui Yu, Zheng Qin
HIGHLIGHT: To address this gap, we design an adaptive sampler based on noisy-label robust learning for implicit feedback data.

94, TITLE: MaHRL: Multi-goals Abstraction Based Deep Hierarchical Reinforcement Learning for Recommendations
https://dl.acm.org/doi/abs/10.1145/3397271.3401170
AUTHORS: Dongyang Zhao, Liang Zhang, Bo Zhang, Lizhou Zheng, Yongjun Bao, Weipeng Yan
HIGHLIGHT: To solve the inherent problem in hierarchical reinforcement learning, we propose a novel multi-goals abstraction based deep hierarchical reinforcement learning algorithm (MaHRL).

95, TITLE: Towards Question-based Recommender Systems
https://dl.acm.org/doi/abs/10.1145/3397271.3401180
AUTHORS: Jie Zou, Yifan Chen, Evangelos Kanoulas
HIGHLIGHT: In this work, we propose a novel Question-based recommendation method, Qrec, to assist users to find items interactively, by answering automatically constructed and algorithmically chosen questions.

96, TITLE: Try This Instead: Personalized and Interpretable Substitute Recommendation
https://dl.acm.org/doi/abs/10.1145/3397271.3401042
AUTHORS: Tong Chen, Hongzhi Yin, Guanhua Ye, Zi Huang, Yang Wang, Meng Wang
HIGHLIGHT: In this paper, we propose attribute-aware collaborative filtering (A2CF) to perform substitute recommendation by addressing issues from both personalization and interpretability perspectives.

97, TITLE: Towards Linking Camouflaged Descriptions to Implicit Products in E-commerce
https://dl.acm.org/doi/abs/10.1145/3397271.3401067
AUTHORS: Longtao Huang, Bo Yuan, Rong Zhang, Quan Lu
HIGHLIGHT: In this paper, we introduce three types of context that could help to infer implicit entity from camouflaged descriptions and propose an end-to-end contextual representation model to capture the effect of different context.

98, TITLE: Distributed Equivalent Substitution Training for Large-Scale Recommender Systems
https://dl.acm.org/doi/abs/10.1145/3397271.3401113
AUTHORS: Haidong Rong, Yangzihao Wang, Feihu Zhou, Junjie Zhai, Haiyang Wu, Rui Lan, Fan Li, Han Zhang, Yuekui Yang, Zhenyu Guo, Di Wang
HIGHLIGHT: We present Distributed Equivalent Substitution (DES) training, a novel distributed training framework for large-scale recommender systems with dynamic sparse features.

99, TITLE: Query Resolution for Conversational Search with Limited Supervision
https://dl.acm.org/doi/abs/10.1145/3397271.3401130
AUTHORS: Nikos Voskarides, Dan Li, Pengjie Ren, Evangelos Kanoulas, Maarten de Rijke

HIGHLIGHT: In this work we focus on multi-turn passage retrieval as a crucial component of conversational search.

100, TITLE: Self-Supervised Reinforcement Learning for Recommender Systems
https://dl.acm.org/doi/abs/10.1145/3397271.3401147
AUTHORS: Xin Xin, Alexandros Karatzoglou, Ioannis Arapakis, Joemon M. Jose
HIGHLIGHT: In this paper, we propose self-supervised reinforcement learning for sequential recommendation tasks.

101, TITLE: Generative Attribute Manipulation Scheme for Flexible Fashion Search
https://dl.acm.org/doi/abs/10.1145/3397271.3401150
AUTHORS: Xin Yang, Xuemeng Song, Xianjing Han, Haokun Wen, Jie Nie, Liqiang Nie
HIGHLIGHT: In this work, we aim to investigate the practical task of flexible fashion search with attribute manipulation, where users can retrieve the target fashion items by replacing the unwanted attributes of an available query image with the desired ones (e.g., changing the collar attribute from v-neck to round).

102, TITLE: How Dataset Characteristics Affect the Robustness of Collaborative Recommendation Models
https://dl.acm.org/doi/abs/10.1145/3397271.3401046
AUTHORS: Yashar Deldjoo, Tommaso Di Noia, Eugenio Di Sciascio, Felice Antonio Merra
HIGHLIGHT: Toward this goal, this work presents a systematic and in-depth study by using an analytical modeling approach built on a regression model to test the hypothesis of whether URM properties can impact the outcome of CF recommenders under a shilling attack.

103, TITLE: DPLCF: Differentially Private Local Collaborative Filtering
https://dl.acm.org/doi/abs/10.1145/3397271.3401053
AUTHORS: Chen Gao, Chao Huang, Dongsheng Lin, Depeng Jin, Yong Li
HIGHLIGHT: In this work, we propose a general framework named differentially private local collaborative filtering for recommendation.

104, TITLE: Content-aware Neural Hashing for Cold-start Recommendation
https://dl.acm.org/doi/abs/10.1145/3397271.3401060
AUTHORS: Casper Hansen, Christian Hansen, Jakob Grue Simonsen, Stephen Alstrup, Christina Lioma
HIGHLIGHT: We present a content-aware neural hashing-based collaborative filtering approach (NeuHash-CF), which generates binary hash codes for users and items, such that the highly efficient Hamming distance can be used for estimating user-item relevance.

105, TITLE: Meta Matrix Factorization for Federated Rating Predictions
https://dl.acm.org/doi/abs/10.1145/3397271.3401081
AUTHORS: Yujie Lin, Pengjie Ren, Zhumin Chen, Zhaochun Ren, Dongxiao Yu, Jun Ma, Maarten de Rijke, Xiuzhen Cheng
HIGHLIGHT: To this end, we introduce a novel federated matrix factorization (MF) framework, named meta matrix factorization (MetaMF), that is able to generate private item embeddings and RP models with a meta network.

106, TITLE: The Impact of More Transparent Interfaces on Behavior in Personalized Recommendation
https://dl.acm.org/doi/abs/10.1145/3397271.3401117
AUTHORS: Tobias Schnabel, Saleema Amershi, Paul N. Bennett, Peter Bailey, Thorsten Joachims
HIGHLIGHT: In this paper, we investigate how we can support a greater degree of user control in such systems by changing the way the system allows people to gauge the consequences of their feedback actions.

107, TITLE: Disentangled Graph Collaborative Filtering
https://dl.acm.org/doi/abs/10.1145/3397271.3401137
AUTHORS: Xiang Wang, Hongye Jin, An Zhang, Xiangnan He, Tong Xu, Tat-Seng Chua
HIGHLIGHT: In this work, we pay special attention to user-item relationships at the finer granularity of user intents.

108, TITLE: Domain-Adaptive Neural Automated Essay Scoring
https://dl.acm.org/doi/abs/10.1145/3397271.3401037
AUTHORS: Yue Cao, Hanqi Jin, Xiaojun Wan, Zhiwei Yu
HIGHLIGHT: In this paper, we propose a domain-adaptive framework to improve the domain adaptability of AES models.

109, TITLE: ADORE: Aspect Dependent Online REview Labeling for Review Generation
https://dl.acm.org/doi/abs/10.1145/3397271.3401074
AUTHORS: Parisa Kaghazgaran, Jianling Wang, Ruihong Huang, James Caverlee

HIGHLIGHT: Hence, toward enabling a writing assistant framework to help users post online reviews, this paper proposes a scalable labeling method for bootstrapping aspect and sentiment labels.Concretely, the proposed approach ?

110, TITLE: Finding the Best of Both Worlds: Faster and More Robust Top-k Document Retrieval
https://dl.acm.org/doi/abs/10.1145/3397271.3401076
AUTHORS: Omar Khattab, Mohammad Hammoud, Tamer Elsayed
HIGHLIGHT: In this paper, we conduct the first extensive comparison between ten effective strategies, many of which were never compared before to our knowledge, examining their efficiency under five representative ranking models.

111, TITLE: Recommending Podcasts for Cold-Start Users Based on Music Listening and Taste
https://dl.acm.org/doi/abs/10.1145/3397271.3401101
AUTHORS: Zahra Nazari, Christophe Charbuillet, Johan Pages, Martin Laurent, Denis Charrier, Briana Vecchione, Ben Carterette
HIGHLIGHT: We consider podcasting to be an emerging medium with rapid growth in adoption, and discuss challenges that arise when applying traditional recommendation approaches to address the cold-start problem.

112, TITLE: Learning with Weak Supervision for Email Intent Detection
https://dl.acm.org/doi/abs/10.1145/3397271.3401121
AUTHORS: Kai Shu, Subhabrata Mukherjee, Guoqing Zheng, Ahmed Hassan Awadallah, Milad Shokouhi, Susan Dumais
HIGHLIGHT: In this paper, we propose to leverage user actions as a source of weak supervision, in addition to a limited set of annotated examples, to detect intents in emails.

113, TITLE: 3D Self-Attention for Unsupervised Video Quantization
https://dl.acm.org/doi/abs/10.1145/3397271.3401122
AUTHORS: Jingkuan Song, Ruimin Lang, Xiaosu Zhu, Xing Xu, Lianli Gao, Heng Tao Shen
HIGHLIGHT: In this paper, we make a first attempt to combine quantization method with video retrieval called 3D-UVQ, which obtains high retrieval accuracy with low storage cost.

114, TITLE: Modeling Personalized Item Frequency Information for Next-basket Recommendation
https://dl.acm.org/doi/abs/10.1145/3397271.3401066
AUTHORS: Haoji Hu, Xiangnan He, Jinyang Gao, Zhi-Li Zhang
HIGHLIGHT: Given this inherent limitation of RNNs, we propose a simple item frequency based k-nearest neighbors (kNN) method to directly utilize these critical signals.

115, TITLE: Transfer Learning via Contextual Invariants for One-to-Many Cross-Domain Recommendation
https://dl.acm.org/doi/abs/10.1145/3397271.3401078
AUTHORS: Adit Krishnan, Mahashweta Das, Mangesh Bendre, Hao Yang, Hari Sundaram
HIGHLIGHT: This, combined with the increasing adoption of neural recommender architectures, motivates us to develop scalable neural layer-transfer approaches for cross-domain learning.

116, TITLE: Incorporating User Micro-behaviors and Item Knowledge into Multi-task Learning for Session-based Recommendation
https://dl.acm.org/doi/abs/10.1145/3397271.3401098
AUTHORS: Wenjing Meng, Deqing Yang, Yanghua Xiao
HIGHLIGHT: These insights motivate us to propose a novel SR model MKM-SR in this paper, which incorporates user Micro-behaviors and item Knowledge into Multi-task learning for Session-based Recommendation.

117, TITLE: Next-item Recommendation with Sequential Hypergraphs
https://dl.acm.org/doi/abs/10.1145/3397271.3401133
AUTHORS: Jianling Wang, Kaize Ding, Liangjie Hong, Huan Liu, James Caverlee
HIGHLIGHT: Thus, we are motivated to develop a novel next-item recommendation framework empowered by sequential hypergraphs.

118, TITLE: Encoding History with Context-aware Representation Learning for Personalized Search
https://dl.acm.org/doi/abs/10.1145/3397271.3401175
AUTHORS: Yujia Zhou, Zhicheng Dou, Ji-Rong Wen
HIGHLIGHT: In this paper, we propose to encode history with context-aware representation learning to enhance the representation of current query, which is a direct way to clarify the user's information need.

119, TITLE: Recommendation for New Users and New Items via Randomized Training and Mixture-of-Experts Transformation
https://dl.acm.org/doi/abs/10.1145/3397271.3401178
AUTHORS: Ziwei Zhu, Shahin Sefati, Parsa Saadatpanah, James Caverlee
HIGHLIGHT: Hence, this paper proposes a novel model designed to overcome these drawbacks while delivering strong cold start performance.

120, TITLE: Guided Transformer: Leveraging Multiple External Sources for Representation Learning in Conversational Search
https://dl.acm.org/doi/abs/10.1145/3397271.3401061
AUTHORS: Helia Hashemi, Hamed Zamani, W. Bruce Croft
HIGHLIGHT: In this paper, we enrich the representations learned by Transformer networks using a novel attention mechanism from external information sources that weights each term in the conversation.

121, TITLE: Investigating Reference Dependence Effects on User Search Interaction and Satisfaction: A Behavioral Economics Perspective
https://dl.acm.org/doi/abs/10.1145/3397271.3401085
AUTHORS: Jiqun Liu, Fangyuan Han
HIGHLIGHT: To address this gap, our work seeks to 1) understand the effects of reference points on search behavior and satisfaction at both query and session levels; 2) apply the knowledge of reference dependence in predicting users' search decisions and variations in level of satisfaction.

122, TITLE: DukeNet: A Dual Knowledge Interaction Network for Knowledge-Grounded Conversation
https://dl.acm.org/doi/abs/10.1145/3397271.3401097
AUTHORS: Chuan Meng, Pengjie Ren, Zhumin Chen, Weiwei Sun, Zhaochun Ren, Zhaopeng Tu, Maarten de Rijke
HIGHLIGHT: In this paper, we target the Knowledge Selection (KS) task, a key ingredient in KGC, that is aimed at selecting the appropriate knowledge to be used in the next response.

123, TITLE: What If Bots Feel Moods?
https://dl.acm.org/doi/abs/10.1145/3397271.3401108
AUTHORS: Lisong Qiu, Yingwai Shiu, Pingping Lin, Ruihua Song, Yue Liu, Dongyan Zhao, Rui Yan
HIGHLIGHT: In this paper, to implement a more empathetic retrieval-based conversation system, we incorporate emotional factors into context-response matching from two aspects: 1) On top of semantic matching, we propose an emotion-aware transition network to model the dynamic emotional flow and enhance context-response matching in retrieval-based dialogue systems with learnt intrinsic emotion features through a multi-task learning framework; 2) We design several flexible controlling mechanisms to customize social bots in terms of emotion.

124, TITLE: Expressions of Style in Information Seeking Conversation with an Agent
https://dl.acm.org/doi/abs/10.1145/3397271.3401127
AUTHORS: Paul Thomas, Daniel McDuff, Mary Czerwinski, Nick Craswell
HIGHLIGHT: We see that "style" can be measured in human-to-agent conversation, although it looks somewhat different to style in human-to-human conversation and does not correlate with self-reported preferences.

125, TITLE: Analyzing and Learning from User Interactions for Search Clarification
https://dl.acm.org/doi/abs/10.1145/3397271.3401160
AUTHORS: Hamed Zamani, Bhaskar Mitra, Everest Chen, Gord Lueck, Fernando Diaz, Paul N. Bennett, Nick Craswell, Susan T. Dumais
HIGHLIGHT: In this paper, we conduct a comprehensive study by analyzing large-scale user interactions with clarifying questions in a major web search engine.

126, TITLE: A Unified Dual-view Model for Review Summarization and Sentiment Classification with Inconsistency Loss
https://dl.acm.org/doi/abs/10.1145/3397271.3401039
AUTHORS: Hou Pong Chan, Wang Chen, Irwin King
HIGHLIGHT: To effectively leverage the shared sentiment information in both review summarization and sentiment classification tasks, we propose a novel dual-view model that jointly improves the performance of these two tasks.

127, TITLE: Enhancing Text Classification via Discovering Additional Semantic Clues from Logograms
https://dl.acm.org/doi/abs/10.1145/3397271.3401107
AUTHORS: Chen Qian, Fuli Feng, Lijie Wen, Li Lin, Tat-Seng Chua
HIGHLIGHT: In this paper, by using a phonographic labeled corpus and its machine-translated logographic corpus both, we devise a framework to explore the central theme of utilizing logograms as a "semantic detection assistant".

128, TITLE: Learning to Transfer Graph Embeddings for Inductive Graph based Recommendation
https://dl.acm.org/doi/abs/10.1145/3397271.3401145
AUTHORS: Le Wu, Yonghui Yang, Lei Chen, Defu Lian, Richang Hong, Meng Wang
HIGHLIGHT: In this paper, we study the problem of personalized video highlight recommendation with rich visual content.

129, TITLE: Web-to-Voice Transfer for Product Recommendation on Voice
https://dl.acm.org/doi/abs/10.1145/3397271.3401164
AUTHORS: Rongting Zhang, Jie Yang
HIGHLIGHT: This paper presents TransV, a novel Web-to-Voice neural transfer network that allows for effective transfer of customers' shopping patterns from the Web to Voice, while taking into account customers' distinct purchase patterns on Voice.

130, TITLE: Minimally Supervised Categorization of Text with Metadata
https://dl.acm.org/doi/abs/10.1145/3397271.3401168
AUTHORS: Yu Zhang, Yu Meng, Jiaxin Huang, Frank F. Xu, Xuan Wang, Jiawei Han
HIGHLIGHT: In recognition of these two challenges, we propose MetaCat, a minimally supervised framework to categorize text with metadata.

131, TITLE: Joint Aspect-Sentiment Analysis with Minimal User Guidance
https://dl.acm.org/doi/abs/10.1145/3397271.3401179
AUTHORS: Honglei Zhuang, Fang Guo, Chao Zhang, Liyuan Liu, Jiawei Han
HIGHLIGHT: We aim to build an aspect-based sentiment analysis model from an unlabeled corpus with minimal guidance from users, i.e., only a small set of seed words for each aspect class and each sentiment class.

132, TITLE: AR-CF: Augmenting Virtual Users and Items in Collaborative Filtering for Addressing Cold-Start Problems
https://dl.acm.org/doi/abs/10.1145/3397271.3401038
AUTHORS: Dong-Kyu Chae, Jihoo Kim, Duen Horng Chau, Sang-Wook Kim
HIGHLIGHT: Different from (and complementary to) data imputation, this paper presents AR-CF, which stands for Augmented Reality CF, a novel framework for addressing the cold-start problems by generating virtual, but plausible neighbors for cold-start users or items and augmenting them to the rating matrix as additional information for CF models.

133, TITLE: Studying Product Competition Using Representation Learning
https://dl.acm.org/doi/abs/10.1145/3397271.3401041
AUTHORS: Fanglin Chen, Xiao Liu, Davide Proserpio, Isamar Troncoso, Feiyu Xiong
HIGHLIGHT: We introduce Product2Vec, a method based on the representation learning algorithm Word2Vec, to study product-level competition, when the number of products is large.

134, TITLE: Deep Critiquing for VAE-based Recommender Systems
https://dl.acm.org/doi/abs/10.1145/3397271.3401091
AUTHORS: Kai Luo, Hojin Yang, Ga Wu, Scott Sanner
HIGHLIGHT: In this paper, we propose a Variational Autoencoder (VAE) based critiquing system to mitigate these issues and improve overall performance.

135, TITLE: GroupIM: A Mutual Information Maximization Framework for Neural Group Recommendation
https://dl.acm.org/doi/abs/10.1145/3397271.3401116
AUTHORS: Aravind Sankar, Yanhong Wu, Yuhang Wu, Wei Zhang, Hao Yang, Hari Sundaram
HIGHLIGHT: To overcome group interaction sparsity, we propose data-driven regularization strategies to exploit both the preference covariance amongst users who are in the same group, as well as the contextual relevance of users' individual preferences to each group.

136, TITLE: Neighbor Interaction Aware Graph Convolution Networks for Recommendation
https://dl.acm.org/doi/abs/10.1145/3397271.3401123
AUTHORS: Jianing Sun, Yingxue Zhang, Wei Guo, Huifeng Guo, Ruiming Tang, Xiuqiang He, Chen Ma, Mark Coates
HIGHLIGHT: To resolve the above limitations, in this paper, we propose a novel framework NIA-GCN, which can explicitly model the relational information between neighbor nodes and exploit the heterogeneous nature of the user-item bipartite graph.

137, TITLE: A Generic Network Compression Framework for Sequential Recommender Systems
https://dl.acm.org/doi/abs/10.1145/3397271.3401125
AUTHORS: Yang Sun, Fajie Yuan, Min Yang, Guoao Wei, Zhou Zhao, Duo Liu
HIGHLIGHT: To resolve the issues, we propose a compressed sequential recommendation framework, termed as CpRec, where two generic model shrinking techniques are employed.

138, TITLE: Learning Efficient Representations of Mouse Movements to Predict User Attention
https://dl.acm.org/doi/abs/10.1145/3397271.3401031
AUTHORS: Ioannis Arapakis, Luis A. Leiva
HIGHLIGHT: We investigate different representations of mouse cursor movements, including time series, heatmaps, and trajectory-based images, to build and contrast both recurrent and convolutional neural networks that can predict user attention to direct displays, such as SERP advertisements.

139, TITLE: Query Reformulation in E-Commerce Search
https://dl.acm.org/doi/abs/10.1145/3397271.3401065
AUTHORS: Sharon Hirsch, Ido Guy, Alexander Nus, Arnon Dagan, Oren Kurland
HIGHLIGHT: We present the first large-scale and in-depth study of query reformulations performed by users of e-commerce search; the study is based on the query logs of eBay's search engine.

140, TITLE: Generating Images Instead of Retrieving Them: Relevance Feedback on Generative Adversarial Networks
https://dl.acm.org/doi/abs/10.1145/3397271.3401129
AUTHORS: Antti Ukkonen, Pyry Joona, Tuukka Ruotsalo
HIGHLIGHT: Here, we present a methodology for generating images matching the user intention instead of retrieving them.

141, TITLE: Tree-Augmented Cross-Modal Encoding for Complex-Query Video Retrieval
https://dl.acm.org/doi/abs/10.1145/3397271.3401151
AUTHORS: Xun Yang, Jianfeng Dong, Yixin Cao, Xun Wang, Meng Wang, Tat-Seng Chua
HIGHLIGHT: To facilitate video retrieval with complex queries, we propose a Tree-augmented Cross-modal Encoding method by jointly learning the linguistic structure of queries and the temporal representation of videos.

142, TITLE: Nonlinear Robust Discrete Hashing for Cross-Modal Retrieval
https://dl.acm.org/doi/abs/10.1145/3397271.3401152
AUTHORS: Zhan Yang, Jun Long, Lei Zhu, Wenti Huang
HIGHLIGHT: To solve this limitation, we propose a novel method termed Nonlinear Robust Discrete Hashing (NRDH), for cross-modal retrieval.

143, TITLE: Employing Personal Word Embeddings for Personalized Search
https://dl.acm.org/doi/abs/10.1145/3397271.3401153
AUTHORS: Jing Yao, Zhicheng Dou, Ji-Rong Wen
HIGHLIGHT: In this paper, we propose to solve the problem of personalized search in an alternative way.

144, TITLE: Query Rewriting for Voice Shopping Null Queries
https://dl.acm.org/doi/abs/10.1145/3397271.3401052
AUTHORS: Iftah Gamzu, Marina Haikin, Nissim Halabi
HIGHLIGHT: We present a new approach for pre-retrieval QR of voice shopping null queries.

145, TITLE: Joint-modal Distribution-based Similarity Hashing for Large-scale Unsupervised Deep Cross-modal Retrieval
https://dl.acm.org/doi/abs/10.1145/3397271.3401086
AUTHORS: Song Liu, Shengsheng Qian, Yang Guan, Jiawei Zhan, Long Ying
HIGHLIGHT: To overcome these limitations, we propose a novel unsupervised deep cross-modal hashing method called Joint-modal Distribution-based Similarity Hashing (JDSH) for large-scale cross-modal retrieval.

146, TITLE: Learning Colour Representations of Search Queries
https://dl.acm.org/doi/abs/10.1145/3397271.3401095
AUTHORS: Paridhi Maheshwari, Manoj Ghuhan, Vishwa Vinay
HIGHLIGHT: In this work, we consider the role of colour in this relevance matching process.

147, TITLE: Web Table Retrieval using Multimodal Deep Learning
https://dl.acm.org/doi/abs/10.1145/3397271.3401120
AUTHORS: Roee Shraga, Haggai Roitman, Guy Feigenblat, Mustafa Cannim
HIGHLIGHT: We address the web table retrieval task, aiming to retrieve and rank web tables as whole answers to a given information need.

148, TITLE: Online Collective Matrix Factorization Hashing for Large-Scale Cross-Media Retrieval

https://dl.acm.org/doi/abs/10.1145/3397271.3401132
AUTHORS: Di Wang, Quan Wang, Yaqiang An, Xinbo Gao, Yumin Tian
HIGHLIGHT: In this paper, we propose Online Collective Matrix Factorization Hashing (OCMFH) based on collective matrix factorization hashing (CMFH), which can adaptively update hash codes of old data according to dynamic changes of hash model without accessing to old data.

149, TITLE: Correlated Features Synthesis and Alignment for Zero-shot Cross-modal Retrieval
https://dl.acm.org/doi/abs/10.1145/3397271.3401149
AUTHORS: Xing Xu, Kaiyi Lin, Huimin Lu, Lianli Gao, Heng Tao Shen
HIGHLIGHT: To address these issues, we propose a novel Correlated Feature Synthesis and Alignment (CFSA) approach to integrate multimodal feature synthesis, common space learning and knowledge transfer for ZS-CMR.

150, TITLE: HME: A Hyperbolic Metric Embedding Approach for Next-POI Recommendation
https://dl.acm.org/doi/abs/10.1145/3397271.3401049
AUTHORS: Shanshan Feng, Lucas Vinh Tran, Gao Cong, Lisi Chen, Jing Li, Fan Li
HIGHLIGHT: Specifically, to solve the next-POI recommendation task, we propose a novel hyperbolic metric embedding (HME) model, which projects the check-in data into a hyperbolic space.

151, TITLE: Dual Sequential Network for Temporal Sets Prediction
https://dl.acm.org/doi/abs/10.1145/3397271.3401124
AUTHORS: Leilei Sun, Yansong Bai, Bowen Du, Chuanren Liu, Hui Xiong, Weifeng Lv
HIGHLIGHT: To address these issues, this paper provides a novel sets prediction method, called DSNTSP (Dual Sequential Network for Temporal Sets Prediction).

152, TITLE: Group-Aware Long- and Short-Term Graph Representation Learning for Sequential Group Recommendation
https://dl.acm.org/doi/abs/10.1145/3397271.3401136
AUTHORS: Wen Wang, Wei Zhang, Jun Rao, Zhijie Qiu, Bo Zhang, Leyu Lin, Hongyuan Zha
HIGHLIGHT: To address this, we devise a Group-aware Long- and Short-term Graph Representation Learning approach, namely GLS-GRL, for sequential group recommendation.

153, TITLE: Time Matters: Sequential Recommendation with Complex Temporal Information
https://dl.acm.org/doi/abs/10.1145/3397271.3401154
AUTHORS: Wenwen Ye, Shuaiqiang Wang, Xu Chen, Xuepeng Wang, Zheng Qin, Dawei Yin
HIGHLIGHT: This paper aims to systematically investigate the effects of the temporal information in sequential recommendations.

154, TITLE: Parameter-Efficient Transfer from Sequential Behaviors for User Modeling and Recommendation
https://dl.acm.org/doi/abs/10.1145/3397271.3401156
AUTHORS: Fajie Yuan, Xiangnan He, Alexandros Karatzoglou, Liguang Zhang
HIGHLIGHT: In this paper, we delve on the task of effectively learning a single user representation that can be applied to a diversity of tasks, from cross-domain recommendations to user profile predictions.

155, TITLE: How to Retrain Recommender System?: A Sequential Meta-Learning Method
https://dl.acm.org/doi/abs/10.1145/3397271.3401167
AUTHORS: Yang Zhang, Fuli Feng, Chenxu Wang, Xiangnan He, Meng Wang, Yan Li, Yongdong Zhang
HIGHLIGHT: In this work, we study the model retraining mechanism for recommender systems, a topic of high practical values but has been relatively little explored in the research community.

156, TITLE: Dynamic Clustering with Discrete Time Event Prediction
https://dl.acm.org/doi/abs/10.1145/3397271.3401182
AUTHORS: Karan Aggarwal, Georgios Theocharous, Anup B. Rao
HIGHLIGHT: We propose methods to perform a time-varying clustering along with event predictions in a unified domain agnostic framework.

157, TITLE: Leveraging Transitions of Emotions for Sarcasm Detection
https://dl.acm.org/doi/abs/10.1145/3397271.3401183
AUTHORS: Ameeta Agrawal, Aijun An, Manos Papagelis
HIGHLIGHT: In order to explore the role of transitions in affective states, we formulate the task of sarcasm detection as a sequence classification problem by leveraging the natural shifts in various emotions over the course of a piece of text.

158, TITLE: JointMap: Joint Query Intent Understanding For Modeling Intent Hierarchies in E-commerce Search
https://dl.acm.org/doi/abs/10.1145/3397271.3401184
AUTHORS: Ali Ahmadvand, Surya Kallumadi, Faizan Javed, Eugene Agichtein
HIGHLIGHT: In this paper, we introduce Joint Query Intent Understanding (JointMap), a deep learning model to simultaneously learn two different high-level user intent tasks: 1) identifying a query's commercial vs. non-commercial intent, and 2) associating a set of relevant product categories in taxonomy to a product query.

159, TITLE: Choppy: Cut Transformer for Ranked List Truncation
https://dl.acm.org/doi/abs/10.1145/3397271.3401188
AUTHORS: Dara Bahri, Yi Tay, Che Zheng, Donald Metzler, Andrew Tomkins
HIGHLIGHT: In this work, we propose Choppy, an assumption-free model based on the widely successful Transformer architecture, to the ranked list truncation problem.

160, TITLE: Studying Ransomware Attacks Using Web Search Logs
https://dl.acm.org/doi/abs/10.1145/3397271.3401189
AUTHORS: Chetan Bansal, Pantazis Deligiannis, Chandra Maddila, Nikitha Rao
HIGHLIGHT: We do the first study on mining insights about ransomware attacks by analyzing query logs from Bing web search engine.

161, TITLE: A Transformer-based Embedding Model for Personalized Product Search
https://dl.acm.org/doi/abs/10.1145/3397271.3401192
AUTHORS: Keping Bi, Qingyao Ai, W. Bruce Croft
HIGHLIGHT: Aware of these limitations, we propose a transformer-based embedding model (TEM) for personalized product search, which could dynamically control the influence of personalization by encoding the sequence of query and user's purchase history with a transformer architecture.

162, TITLE: Balancing Reinforcement Learning Training Experiences in Interactive Information Retrieval
https://dl.acm.org/doi/abs/10.1145/3397271.3401200
AUTHORS: Limin Chen, Zhiwen Tang, Grace Hui Yang
HIGHLIGHT: Our paper addresses this issue by using domain randomization to synthesize more relevant documents for the training.

163, TITLE: Metadata Matters in User Engagement Prediction
https://dl.acm.org/doi/abs/10.1145/3397271.3401201
AUTHORS: Xiang Chen, Saayan Mitra, Viswanathan Swaminathan
HIGHLIGHT: In this paper, we propose to include the metadata feature, which captures the visual appearance of the ad, in the user engagement prediction task.

164, TITLE: Context-Aware Term Weighting For First Stage Passage Retrieval
https://dl.acm.org/doi/abs/10.1145/3397271.3401204
AUTHORS: Zhuyun Dai, Jamie Callan
HIGHLIGHT: This paper proposes a Deep Contextualized Term Weighting framework (DeepCT) that maps the contextualized term representations from BERT to into context-aware term weights for passage retrieval.

165, TITLE: Summarizing and Exploring Tabular Data in Conversational Search
https://dl.acm.org/doi/abs/10.1145/3397271.3401205
AUTHORS: Shuo Zhang, Zhuyun Dai, Krisztian Balog, Jamie Callan
HIGHLIGHT: We propose to generate natural language summaries as answers to describe the complex information contained in a table.
Through crowdsourcing experiments, we build a new conversation-oriented, open-domain table summarization dataset.

166, TITLE: Leveraging Adversarial Training in Self-Learning for Cross-Lingual Text Classification
https://dl.acm.org/doi/abs/10.1145/3397271.3401209
AUTHORS: Xin Dong, Yaxin Zhu, Yupeng Zhang, Zuohui Fu, Dongkuan Xu, Sen Yang, Gerard de Melo
HIGHLIGHT: To address this, we present a semi- supervised adversarial training process that minimizes the maximal loss for label-preserving input perturbations.

167, TITLE: Response Quality in Human-Chatbot Collaborative Systems
https://dl.acm.org/doi/abs/10.1145/3397271.3401234
AUTHORS: Jiepu Jiang, Naman Ahuja

HIGHLIGHT: We report the results of a crowdsourcing user study for evaluating the effectiveness of human-chatbot collaborative conversation systems, which aim to extend the ability of a human user to answer another person's requests in a conversation using a chatbot.

168, TITLE: High-Precision Extraction of Emerging Concepts from Scientific Literature
https://dl.acm.org/doi/abs/10.1145/3397271.3401235
AUTHORS: Daniel King, Doug Downey, Daniel S. Weld
HIGHLIGHT: We present an unsupervised concept extraction method for scientific literature that achieves much higher precision than previous work.
To stimulate research in this area, we release our code and data.

169, TITLE: Video Recommendation with Multi-gate Mixture of Experts Soft Actor Critic
https://dl.acm.org/doi/abs/10.1145/3397271.3401238
AUTHORS: Dingcheng Li, Xu Li, Jun Wang, Ping Li
HIGHLIGHT: In this paper, we propose a reinforcement learning based large scale multi-objective ranking system for optimizing short-video recommendation on an industrial video sharing platform.

170, TITLE: Auto-annotation for Voice-enabled Entertainment Systems
https://dl.acm.org/doi/abs/10.1145/3397271.3401241
AUTHORS: Wenyan Li, Ferhan Ture
HIGHLIGHT: We present an auto-annotation system, which provides high quality training data without any hand-labeled audios by detecting speech recognition errors and providing possible fixes.

171, TITLE: Domain Adaptation with Reconstruction for Disaster Tweet Classification
https://dl.acm.org/doi/abs/10.1145/3397271.3401242
AUTHORS: Xukun Li, Doina Caragea
HIGHLIGHT: We propose to investigate the effectiveness of the Domain Reconstruction Classification Network (DRCN) approach on disaster tweets.

172, TITLE: Recipe Retrieval with Visual Query of Ingredients
https://dl.acm.org/doi/abs/10.1145/3397271.3401244
AUTHORS: Yen-Chieh Lien, Hamed Zamani, W. Bruce Croft
HIGHLIGHT: In this paper, we revisit the task of recipe retrieval by taking images of ingredients as input queries, and retrieving cuisine images by incorporating visual information of ingredients through a deep convolutional neural network.

173, TITLE: Alleviating the Inconsistency Problem of Applying Graph Neural Network to Fraud Detection
https://dl.acm.org/doi/abs/10.1145/3397271.3401253
AUTHORS: Zhiwei Liu, Yingtong Dou, Philip S. Yu, Yutong Deng, Hao Peng
HIGHLIGHT: In this paper, we introduce these inconsistencies and design a new GNN framework, GraphConsis, to tackle the inconsistency problem: (1) for the context inconsistency, we propose to combine the context embeddings with node features; (2) for the feature inconsistency, we design a consistency score to filter the inconsistent neighbors and generate corresponding sampling probability; (3) for the relation inconsistency, we learn the relation attention weights associated with the sampled nodes.

174, TITLE: Expansion via Prediction of Importance with Contextualization
https://dl.acm.org/doi/abs/10.1145/3397271.3401262
AUTHORS: Sean MacAvaney, Franco Maria Nardini, Raffaele Perego, Nicola Tonellotto, Nazli Goharian, Ophir Frieder
HIGHLIGHT: We address this problem with a representation-based ranking approach that: (1) explicitly models the importance of each term using a contextualized language model; (2) performs passage expansion by propagating the importance to similar terms; and (3) grounds the representations in the lexicon, making them interpretable.

175, TITLE: Reranking for Efficient Transformer-based Answer Selection
https://dl.acm.org/doi/abs/10.1145/3397271.3401266
AUTHORS: Yoshitomo Matsubara, Thuy Vu, Alessandro Moschitti
HIGHLIGHT: In this paper, we show that standard and efficient neural rerankers can be used to reduce the amount of sentence candidates fed to Transformer models without hurting Accuracy, thus improving efficiency up to four times.

176, TITLE: Combining Contextualized and Non-contextualized Query Translations to Improve CLIR
https://dl.acm.org/doi/abs/10.1145/3397271.3401270
AUTHORS: Suraj Nair, Petra Galuscakova, Douglas W. Oard

HIGHLIGHT: This paper presents evidence that combining such context-dependent translation probabilities with context-independent translation probabilities learned from the same parallel corpus can yield improvements in the effectiveness of cross-language ranked retrieval.

177, TITLE: Proactive Suggestion Generation: Data and Methods for Stepwise Task Assistance
https://dl.acm.org/doi/abs/10.1145/3397271.3401272
AUTHORS: Elnaz Nouri, Robert Sim, Adam Fourney, Ryen W. White
HIGHLIGHT: We propose two types of stepwise suggestions: multiple-choice response generation and text generation.

178, TITLE: Contextual Re-Ranking with Behavior Aware Transformers
https://dl.acm.org/doi/abs/10.1145/3397271.3401276
AUTHORS: Chen Qu, Chenyan Xiong, Yizhe Zhang, Corby Rosset, W. Bruce Croft, Paul Bennett
HIGHLIGHT: In this work, we focus on the contextual document ranking task, which deals with the challenge of user interaction modeling for conversational search.

179, TITLE: Towards Explainable Retrieval Models for Precision Medicine Literature Search
https://dl.acm.org/doi/abs/10.1145/3397271.3401277
AUTHORS: Jiaming Qu, Jaime Arguello, Yue Wang
HIGHLIGHT: Using structured relevance judgment data from the TREC Precision Medicine track, we propose novel retrieval models that emulate how medical experts make structured relevance judgments.

180, TITLE: Search Result Explanations Improve Efficiency and Trust
https://dl.acm.org/doi/abs/10.1145/3397271.3401279
AUTHORS: Jerome Ramos, Carsten Eickhoff
HIGHLIGHT: This paper presents an investigation of system quality when different degrees of explanation are provided on search engine result pages.

181, TITLE: Query by Example for Cross-Lingual Event Retrieval
https://dl.acm.org/doi/abs/10.1145/3397271.3401283
AUTHORS: Sheikh Muhammad Sarwar, James Allan
HIGHLIGHT: We propose a Query by Example (QBE) setting for cross-lingual event retrieval.
To evaluate our approach we construct an event retrieval dataset from ACE which is an existing event detection dataset.

182, TITLE: A Test Collection for Relevance and Sensitivity
https://dl.acm.org/doi/abs/10.1145/3397271.3401284
AUTHORS: Mahmoud F. Sayed, William Cox, Jonah Lynn Rivera, Caitlin Christian-Lamb, Modassir Iqbal, Douglas W. Oard, Katie Shilton
HIGHLIGHT: This paper describes the development of such a test collection that is based on the Avocado Research Email Collection.

183, TITLE: A Study of Methods for the Generation of Domain-Aware Word Embeddings
https://dl.acm.org/doi/abs/10.1145/3397271.3401287
AUTHORS: Dominic Seyler, ChengXiang Zhai
HIGHLIGHT: In this paper, we study three methods for creating domain-aware word embeddings based on both general and domain-specific text corpora, including concatenation of embedding vectors, weighted fusion of text data, and interpolation of aligned embedding vectors.

184, TITLE: Predicting Entity Popularity to Improve Spoken Entity Recognition by Virtual Assistants
https://dl.acm.org/doi/abs/10.1145/3397271.3401298
AUTHORS: Christophe Van Gysel, Manos Tsagkias, Ernest Pusateri, Ilya Oparin
HIGHLIGHT: We introduce a method that uses historical user interactions to forecast which entities will gain in popularity and become trending, and it subsequently integrates the predictions within the Automated Speech Recognition (ASR) component of the VA.

185, TITLE: Data Poisoning Attacks against Differentially Private Recommender Systems
https://dl.acm.org/doi/abs/10.1145/3397271.3401301
AUTHORS: Soumya Wadhwa, Saurabh Agrawal, Harsh Chaudhari, Deepthi Sharma, Kannan Achan
HIGHLIGHT: In this paper, we study the effectiveness of differential privacy against such attacks on matrix factorization based collaborative filtering systems.

186, TITLE: Immersive Search: Using Virtual Reality to Examine How a Third Dimension Impacts the Searching Process
https://dl.acm.org/doi/abs/10.1145/3397271.3401303
AUTHORS: Austin R. Ward, Rob Capra
HIGHLIGHT: In this paper, we present results from an exploratory study to investigate users' behaviors and preferences for three different styles of search results presentation in a virtual reality (VR) head-mounted display (HMD).

187, TITLE: Having Your Cake and Eating it Too: Training Neural Retrieval for Language Inference without Losing Lexical Match
https://dl.acm.org/doi/abs/10.1145/3397271.3401311
AUTHORS: Vikas Yadav, Steven Bethard, Mihai Surdeanu
HIGHLIGHT: To mitigate this limitation, we introduce a supervised RoBERTa QA method that is trained to mimic the behavior of BM25 and the soft-matching idea behind embedding-based alignment methods.

188, TITLE: Neural Concept Map Generation for Effective Document Classification with Interpretable Structured Summarization
https://dl.acm.org/doi/abs/10.1145/3397271.3401312
AUTHORS: Carl Yang, Jieyu Zhang, Haonan Wang, Bangzheng Li, Jiawei Han
HIGHLIGHT: In this work, we bridge the gap between concept map construction and neural network models, by designing doc2graph, a novel weakly-supervised text-to-graph neural network, which generates concept maps in the middle and is trained towards document-level tasks like document classification.

189, TITLE: A Case Study of Multi-class Classification with Diversified Precision Recall Requirements for Query Disambiguation
https://dl.acm.org/doi/abs/10.1145/3397271.3401315
AUTHORS: Yingrui Yang, Christopher Miller, Peng Jiang, Azadeh Moghtaderi
HIGHLIGHT: We introduce a new metric for measuring the performance of multi-class classifiers.

190, TITLE: A Study of Neural Matching Models for Cross-lingual IR
https://dl.acm.org/doi/abs/10.1145/3397271.3401322
AUTHORS: Puxuan Yu, James Allan
HIGHLIGHT: In this study, we investigate interaction-based neural matching models for ad-hoc cross-lingual information retrieval (CLIR) using cross-lingual word embeddings (CLWEs).

191, TITLE: Social Media User Geolocation via Hybrid Attention
https://dl.acm.org/doi/abs/10.1145/3397271.3401329
AUTHORS: Cheng Zheng, Jyun-Yu Jiang, Yichao Zhou, Sean D. Young, Wei Wang
HIGHLIGHT: To address this challenge, we propose a novel end-to-end framework, Hybrid-attentive User Geolocation (HUG), to jointly model post texts and user interactions in social media.

192, TITLE: Personalized Query Suggestions
https://dl.acm.org/doi/abs/10.1145/3397271.3401331
AUTHORS: Jianling Zhong, Weiwei Guo, Huiji Gao, Bo Long
HIGHLIGHT: Here, we present a sequence-to-sequence-model--based query suggestion framework that is capable of modeling structured, personalized features and unstructured query texts naturally.

193, TITLE: Feature Transformation for Neural Ranking Models
https://dl.acm.org/doi/abs/10.1145/3397271.3401333
AUTHORS: Honglei Zhuang, Xuanhui Wang, Michael Bendersky, Marc Najork
HIGHLIGHT: In this paper, we aim to answer this question by providing empirical evidence for learning-to-rank tasks.

194, TITLE: MetaGen: An academic Meta-review Generation system
https://dl.acm.org/doi/abs/10.1145/3397271.3401190
AUTHORS: Chaitanya Bhatia, Tribikram Pradhan, Sukomal Pal
HIGHLIGHT: In this paper, we present MetaGen, a novel meta-review generation system which takes the peer reviews as input and produces an assistive meta-review.

195, TITLE: Hier-SPCNet: A Legal Statute Hierarchy-based Heterogeneous Network for Computing Legal Case Document Similarity
https://dl.acm.org/doi/abs/10.1145/3397271.3401191
AUTHORS: Paheli Bhattacharya, Kripabandhu Ghosh, Arindam Pal, Saptarshi Ghosh

HIGHLIGHT: We propose to augment the PCNet with the hierarchy of legal statutes, to form a heterogeneous network Hier-SPCNet.

196, TITLE: DCDIR: A Deep Cross-Domain Recommendation System for Cold Start Users in Insurance Domain
https://dl.acm.org/doi/abs/10.1145/3397271.3401193
AUTHORS: Ye Bi, Liqiang Song, Mengqiu Yao, Zhenyu Wu, Jianming Wang, Jing Xiao
HIGHLIGHT: In this paper, we propose a Deep Cross-Domain Insurance Recommendation System (DCDIR) for cold start users.

197, TITLE: A Pairwise Probe for Understanding BERT Fine-Tuning on Machine Reading Comprehension
https://dl.acm.org/doi/abs/10.1145/3397271.3401195
AUTHORS: Jie Cai, Zhengzhou Zhu, Ping Nie, Qian Liu
HIGHLIGHT: In this paper, inspired by the observation that most probing tasks involve identifying matched pairs of phrases (e.g. coreference requires matching an entity and a pronoun), we propose a pairwise probe to understand BERT fine-tuning on the machine reading comprehension (MRC) task.

198, TITLE: Adversarial Attacks and Detection on Reinforcement Learning-Based Interactive Recommender Systems
https://dl.acm.org/doi/abs/10.1145/3397271.3401196
AUTHORS: Yuanjiang Cao, Xiaocong Chen, Lina Yao, Xianzhi Wang, Wei Emma Zhang
HIGHLIGHT: We propose attack-agnostic detection on reinforcement learning-based interactive recommendation systems.

199, TITLE: Bundle Recommendation with Graph Convolutional Networks
https://dl.acm.org/doi/abs/10.1145/3397271.3401198
AUTHORS: Jianxin Chang, Chen Gao, Xiangnan He, Depeng Jin, Yong Li
HIGHLIGHT: In this work, we propose a graph neural network model named BGCN (short forBundle Graph Convolutional Network ) for bundle recommendation.

200, TITLE: Re-ranking Answer Selection with Similarity Aggregation
https://dl.acm.org/doi/abs/10.1145/3397271.3401199
AUTHORS: Dong Chen, Shaoliang Peng, Kenli Li, Ying Xu, Jinling Zhang, Xiaolan Xie
HIGHLIGHT: In this paper, we propose a similarity aggregation method to rerank the results produced by different baseline neural networks.

201, TITLE: JIT2R: A Joint Framework for Item Tagging and Tag-based Recommendation
https://dl.acm.org/doi/abs/10.1145/3397271.3401202
AUTHORS: Xu Chen, Changying Du, Xiuqiang He, Jun Wang
HIGHLIGHT: In order to take the advantages of such mutually influential signals, we propose to integrate item tagging and tag-based recommendation into a unified model.

202, TITLE: Attending to Inter-sentential Features in Neural Text Classification
https://dl.acm.org/doi/abs/10.1145/3397271.3401203
AUTHORS: Billy Chiu, Sunil Kumar Sahu, Neha Sengupta, Derek Thomas, Mohammady Mahdy
HIGHLIGHT: We investigate graph-level extensions to such models and propose a novel architecture for combining alternative text features.

203, TITLE: Retrieving Potential Causes from a Query Event
https://dl.acm.org/doi/abs/10.1145/3397271.3401207
AUTHORS: Suchana Datta, Debasis Ganguly, Dwaipayan Roy, Francesca Bonin, Charles Jochim, Mandar Mitra
HIGHLIGHT: To address this, we propose a feedback model to estimate a distribution of terms which are relatively infrequent but associated with high weights in the topically relevant distribution, leading to potential causal relevance.

204, TITLE: Bridging Hierarchical and Sequential Context Modeling for Question-driven Extractive Answer Summarization
https://dl.acm.org/doi/abs/10.1145/3397271.3401208
AUTHORS: Yang Deng, Wenxuan Zhang, Yaliang Li, Min Yang, Wai Lam, Ying Shen
HIGHLIGHT: In this paper, we propose a unified model to bridge hierarchical and sequential context modeling for question-driven extractive answer summarization.

205, TITLE: MGNN: A Multimodal Graph Neural Network for Predicting the Survival of Cancer Patients
https://dl.acm.org/doi/abs/10.1145/3397271.3401214
AUTHORS: Jianliang Gao, Tengfei Lyu, Fan Xiong, Jianxin Wang, Weimao Ke, Zhao Li

HIGHLIGHT: In this study, we propose a novel framework for cancer survival prediction named Multimodal Graph Neural Network (MGNN), which explores the features of real-world multimodual data such as gene expression, copy number alteration and clinical data in a unified framework.

206, TITLE: Deep Neural Matching Models for Graph Retrieval
https://dl.acm.org/doi/abs/10.1145/3397271.3401216
AUTHORS: Kunal Goyal, Utkarsh Gupta, Abir De, Soumen Chakrabarti
HIGHLIGHT: In this paper, we present an effective, feature and structure-aware, end-to-end trainable neural match scoring system for graphs.

207, TITLE: Session-based Recommendation with Hierarchical Leaping Networks
https://dl.acm.org/doi/abs/10.1145/3397271.3401217
AUTHORS: Cheng Guo, Mengfei Zhang, Jinyun Fang, Jiaqi Jin, Mao Pan
HIGHLIGHT: In this paper, we propose a Hierarchical Leaping Network (HLN) to explicitly model the users' multiple preferences by grouping items that share some relationships.

208, TITLE: Multi-Branch Convolutional Network for Context-Aware Recommendation
https://dl.acm.org/doi/abs/10.1145/3397271.3401218
AUTHORS: Wei Guo, Can Zhang, Huifeng Guo, Ruiming Tang, Xiuqiang He
HIGHLIGHT: To deal with aforementioned problems, this paper proposes a Multi-Branch Convolutional Network (MBCN) which includes three branches: the standard convolutional layer, the dilated convolutional layer and the bias layer.

209, TITLE: Predicting Session Length for Product Search on E-commerce Platform
https://dl.acm.org/doi/abs/10.1145/3397271.3401219
AUTHORS: Shashank Gupta, Subhadeep Maji
HIGHLIGHT: In this work, we try to early predict the user's session length, which will enable the control on explore v/s exploit of the search results.

210, TITLE: Dynamic Link Prediction by Integrating Node Vector Evolution and Local Neighborhood Representation
https://dl.acm.org/doi/abs/10.1145/3397271.3401222
AUTHORS: Xiaorong Hao, Tao Lian, Li Wang
HIGHLIGHT: In this paper, we devise a flexible framework for link prediction on dynamic networks regularly archived as different snapshots.

211, TITLE: Nonintrusive-Sensing and Reinforcement-Learning Based Adaptive Personalized Music Recommendation
https://dl.acm.org/doi/abs/10.1145/3397271.3401225
AUTHORS: Daocheng Hong, Yang Li, Qiwen Dong
HIGHLIGHT: Therefore, this paper proposes a novel policy for music recommendation NRRS (Nonintrusive-Sensing and Reinforcement-Learning based Recommender Systems) by integrating prior research streams.

212, TITLE: Residual-Duet Network with Tree Dependency Representation for Chinese Question-Answering Sentiment Analysis
https://dl.acm.org/doi/abs/10.1145/3397271.3401226
AUTHORS: Guangyi Hu, Chongyang Shi, Shufeng Hao, Yu Bai
HIGHLIGHT: In this work, we propose a Residual-Duet Network leveraging textual and tree dependency information for Chinese question-answering sentiment analysis.

213, TITLE: Neural Mathematical Solver with Enhanced Formula Structure
https://dl.acm.org/doi/abs/10.1145/3397271.3401227
AUTHORS: Zhenya Huang, Qi Liu, Weibo Gao, Jinze Wu, Yu Yin, Hao Wang, Enhong Chen
HIGHLIGHT: To this end, in this paper, we propose a novel Neural Mathematical Solver (NMS) with enhanced formula structures.

214, TITLE: Detecting Concept Drift In Medical Triage
https://dl.acm.org/doi/abs/10.1145/3397271.3401228
AUTHORS: Hamish Huggard, Yun Sing Koh, Gillian Dobbie, Edmond Zhang
HIGHLIGHT: We introduce a new concept drift detection algorithm for this domain called calibrated drift detection method (CDDM).

215, TITLE: Evidence Weighted Tree Ensembles for Text Classification

https://dl.acm.org/doi/abs/10.1145/3397271.3401229
AUTHORS: Md Zahidul Islam, Jixue Liu, Jiuyong Li, Lin Liu, Wei Kang
HIGHLIGHT: In this work, we propose to improve the comprehensibility and accuracy of ensemble models by distinguishing word presence and absence.

216, TITLE: Graph Regularization for Multi-lingual Topic Models
https://dl.acm.org/doi/abs/10.1145/3397271.3401231
AUTHORS: Arnav Kumar Jain, Gundeep Arora, Rahul Agrawal
HIGHLIGHT: In this work, we present a novel strategy of creating a pseudo-parallel dataset followed by training topic models for sponsored search retrieval, that also mitigates the short text challenge.

217, TITLE: Multi-Modal Summary Generation using Multi-Objective Optimization
https://dl.acm.org/doi/abs/10.1145/3397271.3401232
AUTHORS: Anubhav Jangra, Sriparna Saha, Adam Jatowt, Mohammad Hasanuzzaman
HIGHLIGHT: In this paper, we propose a novel extractive multi-objective optimization based model to produce a multi-modal summary containing text, images, and videos.

218, TITLE: A Re-visit of the Popularity Baseline in Recommender Systems
https://dl.acm.org/doi/abs/10.1145/3397271.3401233
AUTHORS: Yitong Ji, Aixin Sun, Jie Zhang, Chenliang Li
HIGHLIGHT: On the widely used MovieLens dataset, we show that the performance of popularity could be significantly improved by 70% or more, if we consider the popular itemsat the time point when a user interacts with the system.

219, TITLE: Training Mixed-Objective Pointing Decoders for Block-Level Optimization in Search Recommendation
https://dl.acm.org/doi/abs/10.1145/3397271.3401236
AUTHORS: Harsh Kohli
HIGHLIGHT: We propose an architecture that takes all candidate suggestions associated with a given query and outputs a suggestion block.

220, TITLE: Reinforcement Learning based Recommendation with Graph Convolutional Q-network
https://dl.acm.org/doi/abs/10.1145/3397271.3401237
AUTHORS: Yu Lei, Hongbin Pei, Hanqi Yan, Wenjie Li
HIGHLIGHT: To address this limitation, we propose a novel way that builds high-quality graph-structured states/actions according to the user-item bipartite graph.

221, TITLE: Crowdsourced Text Sequence Aggregation based on Hybrid Reliability and Representation
https://dl.acm.org/doi/abs/10.1145/3397271.3401239
AUTHORS: Jiyi Li
HIGHLIGHT: We thus propose a crowdsourced text sequence aggregation method which can capture the hybrid reliability information, i.e., the local question-wise reliability of text answers and global dataset-wise reliability of crowd workers.

222, TITLE: MRIF: Multi-resolution Interest Fusion for Recommendation
https://dl.acm.org/doi/abs/10.1145/3397271.3401240
AUTHORS: Shihao Li, Dekun Yang, Bufeng Zhang
HIGHLIGHT: This paper presents a multi-resolution interest fusion model (MRIF) that takes both properties of users' interests into consideration.

223, TITLE: Joint Training Capsule Network for Cold Start Recommendation
https://dl.acm.org/doi/abs/10.1145/3397271.3401243
AUTHORS: Tingting Liang, Congying Xia, Yuyu Yin, Philip S. Yu
HIGHLIGHT: This paper proposes a novel neural network, joint training capsule network (JTCN), for the cold start recommendation task.

224, TITLE: Copula Guided Neural Topic Modelling for Short Texts
https://dl.acm.org/doi/abs/10.1145/3397271.3401245
AUTHORS: Lihui Lin, Hongyu Jiang, Yanghui Rao
HIGHLIGHT: In this paper, we focus on adapting the popular Auto-Encoding Variational Bayes based neural topic models to short texts, by exploring the Archimedean copulas to guide the estimated topic distributions derived from linear projected samples of re-parameterized posterior distributions.

225, TITLE: Soft Kernel-based Ranking on a Statistical Manifold
https://dl.acm.org/doi/abs/10.1145/3397271.3401246
AUTHORS: Xinshi Lin, Wai Lam
HIGHLIGHT: We propose a kernel-based neural ranking model based on a statistical manifold.

226, TITLE: Multi-Level Multimodal Transformer Network for Multimodal Recipe Comprehension
https://dl.acm.org/doi/abs/10.1145/3397271.3401247
AUTHORS: Ao Liu, Shuai Yuan, Chenbin Zhang, Congjian Luo, Yaqing Liao, Kun Bai, Zenglin Xu
HIGHLIGHT: To address this challenge, we propose a Multi-Level Multi-Modal Transformer (MLMM-Trans) framework to integrate and understand multiple textual instructions and multiple images.

227, TITLE: Chinese Document Classification with Bi-directional Convolutional Language Model
https://dl.acm.org/doi/abs/10.1145/3397271.3401248
AUTHORS: Bin Liu, Guosheng Yin
HIGHLIGHT: We propose to conduct text classification with such glyph features using bi-directional convolution.

228, TITLE: Neural Unified Review Recommendation with Cross Attention
https://dl.acm.org/doi/abs/10.1145/3397271.3401249
AUTHORS: Hongtao Liu, Wenjun Wang, Hongyan Xu, Qiyao Peng, Pengfei Jiao
HIGHLIGHT: Hence, we propose a unified framework to jointly learn document- and review-level representations of users/items.

229, TITLE: GoChat: Goal-oriented Chatbots with Hierarchical Reinforcement Learning
https://dl.acm.org/doi/abs/10.1145/3397271.3401250
AUTHORS: Jianfeng Liu, Feiyang Pan, Ling Luo
HIGHLIGHT: In this paper, we propose Goal-oriented Chatbots (GoChat), a framework for end-to-end training the chatbot to maximize the long-term return from offline multi-turn dialogue datasets.

230, TITLE: CapableOf Reasoning: A Step Towards Commonsense Oracle
https://dl.acm.org/doi/abs/10.1145/3397271.3401251
AUTHORS: Jingping Liu, Yanghua Xiao, Ao Wang, Liang He, Bin Shao
HIGHLIGHT: In this paper, we propose an online commonsense oracle to achieve knowledge reasoning.

231, TITLE: Interactive Entity Linking Using Entity-Word Representations
https://dl.acm.org/doi/abs/10.1145/3397271.3401254
AUTHORS: Pei-Chi Lo, Ee-Peng Lim
HIGHLIGHT: In this paper, we leverage on human intelligence for embedding-based interactive entity linking.

232, TITLE: Improving Contextual Language Models for Response Retrieval in Multi-Turn Conversation
https://dl.acm.org/doi/abs/10.1145/3397271.3401255
AUTHORS: Junyu Lu, Xiancong Ren, Yazhou Ren, Ao Liu, Zenglin Xu
HIGHLIGHT: In this paper, we propose two approaches to adapt contextual language models in dialogue response selection task.

233, TITLE: Differentially Private Knowledge Distillation for Mobile Analytics
https://dl.acm.org/doi/abs/10.1145/3397271.3401259
AUTHORS: Lingjuan Lyu, Chi-Hua Chen
HIGHLIGHT: To address these problems, we develop a Differentially Private Knowledge Distillation (DPKD) framework to enable on-device deep learning as well as preserve training data privacy.

234, TITLE: Towards Differentially Private Text Representations
https://dl.acm.org/doi/abs/10.1145/3397271.3401260
AUTHORS: Lingjuan Lyu, Yitong Li, Xuanli He, Tong Xiao
HIGHLIGHT: For the randomization module, we propose a novel local differentially private (LDP) protocol to reduce the impact of privacy parameter Îµ on accuracy, and provide enhanced flexibility in choosing randomization probabilities for LDP.

235, TITLE: Large-scale Image Retrieval with Sparse Binary Projections
https://dl.acm.org/doi/abs/10.1145/3397271.3401261
AUTHORS: Changyi Ma, Chonglin Gu, Wenye Li, Shuguang Cui

HIGHLIGHT: Following the work along this line, this paper designed a new algorithm which obtains a high-quality sparse binary projection matrix through unsupervised training.

236, TITLE: Efficiency Implications of Term Weighting for Passage Retrieval
https://dl.acm.org/doi/abs/10.1145/3397271.3401263
AUTHORS: Joel Mackenzie, Zhuyun Dai, Luke Gallagher, Jamie Callan
HIGHLIGHT: In this work, we conduct an investigation of query processing efficiency over DeepCT indexes.

237, TITLE: Read what you need: Controllable Aspect-based Opinion Summarization of Tourist Reviews
https://dl.acm.org/doi/abs/10.1145/3397271.3401269
AUTHORS: Rajdeep Mukherjee, Hari Chandana Peruri, Uppada Vishnu, Pawan Goyal, Sourangshu Bhattacharya, Niloy Ganguly
HIGHLIGHT: In this work, we argue the need and propose a solution for generating personalized aspect-based opinion summaries from large collections of online tourist reviews.

238, TITLE: DC-BERT: Decoupling Question and Document for Efficient Contextual Encoding
https://dl.acm.org/doi/abs/10.1145/3397271.3401271
AUTHORS: Ping Nie, Yuyu Zhang, Xiubo Geng, Arun Ramamurthy, Le Song, Daxin Jiang
HIGHLIGHT: To address the efficiency problem, we propose DC-BERT, a decoupled contextual encoding framework that has dual BERT models: an online BERT which encodes the question only once, and an offline BERT which pre-encodes all the documents and caches their encodings.

239, TITLE: An Intent-guided Collaborative Machine for Session-based Recommendation
https://dl.acm.org/doi/abs/10.1145/3397271.3401273
AUTHORS: Zhiqiang Pan, Fei Cai, Yanxiang Ling, Maarten de Rijke
HIGHLIGHT: In this paper, we introduce an Intent-guided Collaborative Machine for Session-based Recommendation (ICM-SR).

240, TITLE: Rethinking Item Importance in Session-based Recommendation
https://dl.acm.org/doi/abs/10.1145/3397271.3401274
AUTHORS: Zhiqiang Pan, Fei Cai, Yanxiang Ling, Maarten de Rijke
HIGHLIGHT: In this paper, we propose a Session-based Recommendation approach with an Importance Extraction Module, i.e., SR-IEM, that considers both a user's long-term and recent behavior in an ongoing session.

241, TITLE: MHM: Multi-modal Clinical Data based Hierarchical Multi-label Diagnosis Prediction
https://dl.acm.org/doi/abs/10.1145/3397271.3401275
AUTHORS: Zhi Qiao, Zhen Zhang, Xian Wu, Shen Ge, Wei Fan
HIGHLIGHT: In this paper, we propose Multi-modal Clinical Data based Hierarchical Multi-label model (MHM) to integrate discrete medical codes, structural information and time series data into the same framework for diagnosis prediction task.

242, TITLE: How Useful are Reviews for Recommendation? A Critical Review and Potential Improvements
https://dl.acm.org/doi/abs/10.1145/3397271.3401281
AUTHORS: Noveen Sachdeva, Julian McAuley
HIGHLIGHT: Through this work, we aim to evaluate the direction in which the field is progressing and encourage robust empirical evaluation.

243, TITLE: Dual Learning Algorithm for Delayed Conversions
https://dl.acm.org/doi/abs/10.1145/3397271.3401282
AUTHORS: Yuta Saito, Gota Morisihta, Shota Yasui
HIGHLIGHT: To overcome these challenges, we propose two unbiased estimators: one for CVR prediction and the other for bias estimation. Subsequently, we propose a dual learning algorithm in which a CVR predictor and a bias estimator are trained in alternating fashion using only observable conversions.

244, TITLE: Evaluation of Cross Domain Text Summarization
https://dl.acm.org/doi/abs/10.1145/3397271.3401285
AUTHORS: Liam Scanlon, Shiwei Zhang, Xiuzhen Zhang, Mark Sanderson
HIGHLIGHT: We examined two state-of-the-art hybrid summarization algorithms from three novel perspectives: we applied them to a form of headline generation not previously tried, we evaluated the generalization of the algorithms by testing them both within and across news domains; and we compared the automatic assessment of the algorithms to human comparative judgments.

245, TITLE: Convolutional Knowledge Tracing: Modeling Individualization in Student Learning Process
https://dl.acm.org/doi/abs/10.1145/3397271.3401288
AUTHORS: Shuanghong Shen, Qi Liu, Enhong Chen, Han Wu, Zhenya Huang, Weihao Zhao, Yu Su, Haiping Ma, Shijin Wang
HIGHLIGHT: To this end, in this paper, we propose a novel Convolutional Knowledge Tracing (CKT) method to model individualization in KT.

246, TITLE: G2T: Generating Fluent Descriptions for Knowledge Graph
https://dl.acm.org/doi/abs/10.1145/3397271.3401289
AUTHORS: Yunzhou Shi, Zhiling Luo, Pengcheng Zhu, Feng Ji, Wei Zhou, Haiqing Chen, Yujiu Yang
HIGHLIGHT: In this paper, we propose a novel end-to-end generation model named G2T, which integrates a novel Graph Structure Enhanced Mechanism (GSEM) and a Copy Coverage Loss (CCL).

247, TITLE: Improving Matching Models with Hierarchical Contextualized Representations for Multi-turn Response Selection
https://dl.acm.org/doi/abs/10.1145/3397271.3401290
AUTHORS: Chongyang Tao, Wei Wu, Yansong Feng, Dongyan Zhao, Rui Yan
HIGHLIGHT: In this paper, we study context-response matching with pre-trained contextualized representations for multi-turn response selection in retrieval-based chatbots.

248, TITLE: Visual Intents vs. Clicks, Likes, and Purchases in E-commerce
https://dl.acm.org/doi/abs/10.1145/3397271.3401293
AUTHORS: Riku Togashi, Tetsuya Sakai
HIGHLIGHT: The present study investigates the relationship between the users' visual intents (in terms of colour, texture and material, and design) and the amount of user feedback (namely, clicks, likes, and purchases) using real product data and crowdsourcing.

249, TITLE: MVL: Multi-View Learning for News Recommendation
https://dl.acm.org/doi/abs/10.1145/3397271.3401294
AUTHORS: T.Y.S.S Santosh, Avirup Saha, Niloy Ganguly
HIGHLIGHT: In this paper, we propose a Multi-View Learning (MVL) framework for news recommendation which uses both the content view and the user-news interaction graph view.

250, TITLE: Query/Task Satisfaction and Grid-based Evaluation Metrics Under Different Image Search Intents
https://dl.acm.org/doi/abs/10.1145/3397271.3401295
AUTHORS: Kosetsu Tsukuda, Masataka Goto
HIGHLIGHT: In this paper, we investigate this influence by using a publicly available one-month field study dataset.

251, TITLE: Learning Discriminative Joint Embeddings for Efficient Face and Voice Association
https://dl.acm.org/doi/abs/10.1145/3397271.3401302
AUTHORS: Rui Wang, Xin Liu, Yiu-ming Cheung, Kai Cheng, Nannan Wang, Wentao Fan
HIGHLIGHT: In this paper, we present to learn discriminative joint embedding for face-voice association, which can seamlessly train the face subnetwork and voice subnetwork to learn their high-level semantic features, while correlating them to be compared directly and efficiently.

252, TITLE: TFNet: Multi-Semantic Feature Interaction for CTR Prediction
https://dl.acm.org/doi/abs/10.1145/3397271.3401304
AUTHORS: Shu Wu, Feng Yu, Xueli Yu, Qiang Liu, Liang Wang, Tieniu Tan, Jie Shao, Fan Huang
HIGHLIGHT: In this paper, we propose a novel Tensor-based Feature interaction Network (TFNet) model, which introduces an operating tensor to elaborate feature interactions via multi-slice matrices in multiple semantic spaces.

253, TITLE: Investigating Reading Behavior in Fine-grained Relevance Judgment
https://dl.acm.org/doi/abs/10.1145/3397271.3401305
AUTHORS: Zhijing Wu, Jiaxin Mao, Yiqun Liu, Min Zhang, Shaoping Ma
HIGHLIGHT: To shed light on this research question, we investigate how users allocate their attention to passages of a document during the relevance judgment process.

254, TITLE: Neural Hierarchical Factorization Machines for User's Event Sequence Analysis
https://dl.acm.org/doi/abs/10.1145/3397271.3401307
AUTHORS: Dongbo Xi, Fuzhen Zhuang, Bowen Song, Yongchun Zhu, Shuai Chen, Dan Hong, Tao Chen, Xi Gu, Qing He

HIGHLIGHT: In this paper, we consider a two-level structure for capturing the hierarchical information over user's event sequence: 1) learning effective feature interactions based event representation; 2) modeling the sequence representation of user's historical events.

255, TITLE: Label-Consistency based Graph Neural Networks for Semi-supervised Node Classification
https://dl.acm.org/doi/abs/10.1145/3397271.3401308
AUTHORS: Bingbing Xu, Junjie Huang, Liang Hou, Huawei Shen, Jinhua Gao, Xueqi Cheng
HIGHLIGHT: In this paper, we propose label-consistency based graph neural network (LC-GNN), leveraging node pairs unconnected but with the same labels to enlarge the receptive field of nodes in GNNs.

256, TITLE: Symmetric Regularization based BERT for Pair-wise Semantic Reasoning
https://dl.acm.org/doi/abs/10.1145/3397271.3401309
AUTHORS: Weidi Xu, Xingyi Cheng, Kunlong Chen, Taifeng Wang
HIGHLIGHT: To remedy this, we propose to augment the NSP task to a multi-class categorization task, which includes previous sentence prediction (PSP).

257, TITLE: Deep Interest with Hierarchical Attention Network for Click-Through Rate Prediction
https://dl.acm.org/doi/abs/10.1145/3397271.3401310
AUTHORS: Weinan Xu, Hengxu He, Minshi Tan, Yunming Li, Jun Lang, Dongbai Guo
HIGHLIGHT: We therefore propose an improvement over DIN to model arbitrary interest hierarchy: Deep Interest with Hierarchical Attention Network (DHAN).

258, TITLE: A Knowledge-Enhanced Recommendation Model with Attribute-Level Co-Attention
https://dl.acm.org/doi/abs/10.1145/3397271.3401313
AUTHORS: Deqing Yang, Zengchun Song, Lvxin Xue, Yanghua Xiao
HIGHLIGHT: In this paper, we propose a knowledge-enhanced recommendation model ACAM, which incorporates item attributes distilled from knowledge graphs (KGs) as side information, and is built with a co-attention mechanism on attribute-level to achieve performance gains.

259, TITLE: Multi-source Domain Adaptation for Sentiment Classification with Granger Causal Inference
https://dl.acm.org/doi/abs/10.1145/3397271.3401314
AUTHORS: Min Yang, Ying Shen, Xiaojun Chen, Chengming Li
HIGHLIGHT: In this paper, we propose a multi-source domain adaptation method with a Granger-causal objective (MDA-GC) for cross-domain sentiment classification.

260, TITLE: TADS: Learning Time-Aware Scheduling Policy with Dyna-Style Planning for Spaced Repetition
https://dl.acm.org/doi/abs/10.1145/3397271.3401316
AUTHORS: Zhengyu Yang, Jian Shen, Yunfei Liu, Yang Yang, Weinan Zhang, Yong Yu
HIGHLIGHT: In this paper, we aim to learn a scheduling policy that fully exploits the varying time interval information with high sample efficiency.

261, TITLE: TAGNN: Target Attentive Graph Neural Networks for Session-based Recommendation
https://dl.acm.org/doi/abs/10.1145/3397271.3401319
AUTHORS: Feng Yu, Yanqiao Zhu, Qiang Liu, Shu Wu, Liang Wang, Tieniu Tan
HIGHLIGHT: In this paper, we propose a novel target attentive graph neural network (TAGNN) model for session-based recommendation.

262, TITLE: Query Classification with Multi-objective Backoff Optimization
https://dl.acm.org/doi/abs/10.1145/3397271.3401320
AUTHORS: Hang Yu, Lester Litchfield
HIGHLIGHT: To fill up the research gap, we propose the Query Classification with Multi-objective Backoff (QCMB).

263, TITLE: Influence Function for Unbiased Recommendation
https://dl.acm.org/doi/abs/10.1145/3397271.3401321
AUTHORS: Jiangxing Yu, Hong Zhu, Chih-Yao Chang, Xinhua Feng, Bowen Yuan, Xiuqiang He, Zhenhua Dong
HIGHLIGHT: Inspired by the sample reweight work for robust deep learning, we propose a novel influence function based method for recommendation modeling, and analyze how the influence function corrects the bias.

264, TITLE: Few-Shot Generative Conversational Query Rewriting
https://dl.acm.org/doi/abs/10.1145/3397271.3401323

AUTHORS: Shi Yu, Jiahua Liu, Jingqin Yang, Chenyan Xiong, Paul Bennett, Jianfeng Gao, Zhiyuan Liu
HIGHLIGHT: This paper presents a few-shot generative approach to conversational query rewriting.

265, TITLE: User-Inspired Posterior Network for Recommendation Reason Generation
https://dl.acm.org/doi/abs/10.1145/3397271.3401324
AUTHORS: Haolan Zhan, Hainan Zhang, Hongshen Chen, Lei Shen, Yanyan Lan, Zhuoye Ding, Dawei Yin
HIGHLIGHT: Therefore, in this paper, we consider generating the recommendation reason by taking into account not only the product attributes but also the customer-generated product QA discussions.

266, TITLE: An Analysis of BERT in Document Ranking
https://dl.acm.org/doi/abs/10.1145/3397271.3401325
AUTHORS: Jingtao Zhan, Jiaxin Mao, Yiqun Liu, Min Zhang, Shaoping Ma
HIGHLIGHT: To increase the explainability of the ranking process performed by BERT, we investigate a state-of-the-art BERT-based ranking model with focus on its attention mechanism and interaction behavior.

267, TITLE: Read, Attend, and Exclude: Multi-Choice Reading Comprehension by Mimicking Human Reasoning Process
https://dl.acm.org/doi/abs/10.1145/3397271.3401326
AUTHORS: Chenbin Zhang, Congjian Luo, Junyu Lu, Ao Liu, Bing Bai, Kun Bai, Zenglin Xu
HIGHLIGHT: To effectively comprehend the context and select the correct answer from different perspectives, we propose the Read-Attend-Exclude (RAE) model which is motivated by what human readers do for MCRC in multi-rounds reasoning process.

268, TITLE: SummPip: Unsupervised Multi-Document Summarization with Sentence Graph Compression
https://dl.acm.org/doi/abs/10.1145/3397271.3401327
AUTHORS: Jinming Zhao, Ming Liu, Longxiang Gao, Yuan Jin, Lan Du, He Zhao, He Zhang, Gholamreza Haffari
HIGHLIGHT: In this paper, we propose SummPip: an unsupervised method for multi-document summarization, in which we convert the original documents to a sentence graph, taking both linguistic and deep representation into account, then apply spectral clustering to obtain multiple clusters of sentences, and finally compress each cluster to generate the final summary.

269, TITLE: Improving Neural Chinese Word Segmentation with Lexicon-enhanced Adaptive Attention
https://dl.acm.org/doi/abs/10.1145/3397271.3401328
AUTHORS: Xiaoyan Zhao, Min Yang, Qiang Qu, Yang Sun
HIGHLIGHT: In this paper, we propose a lexicon-enhanced adaptive attention network (LAAN), which takes full advantage of external lexicons to deal with the rare or ambiguous words.

270, TITLE: Sentiment-guided Sequential Recommendation
https://dl.acm.org/doi/abs/10.1145/3397271.3401330
AUTHORS: Lin Zheng, Naicheng Guo, Weihao Chen, Jin Yu, Dazhi Jiang
HIGHLIGHT: To investigate the influence of temporal sentiments on user preferences, we propose generating preferences by guiding user behavior through sequential sentiments.

271, TITLE: L2R²: Leveraging Ranking for Abductive Reasoning
https://dl.acm.org/doi/abs/10.1145/3397271.3401332
AUTHORS: Yunchang Zhu, Liang Pang, Yanyan Lan, Xueqi Cheng
HIGHLIGHT: With this new perspective, a novel L2R2 approach is proposed under the learning-to-rank framework.

272, TITLE: Automatic Generation of Topic Labels
https://dl.acm.org/doi/abs/10.1145/3397271.3401185
AUTHORS: Areej Alokaili, Nikolaos Aletras, Mark Stevenson
HIGHLIGHT: This paper proposes using a sequence-to-sequence neural-based approach to generate labels that does not suffer from this limitation.

273, TITLE: Extractive Snippet Generation for Arguments
https://dl.acm.org/doi/abs/10.1145/3397271.3401186
AUTHORS: Milad Alshomary, Nick Düsterhus, Henning Wachsmuth
HIGHLIGHT: In this paper, we introduce the task of generating a snippet that represents the main claim and reason of an argument.

274, TITLE: Proposal and Comparison of Health Specific Features for the Automatic Assessment of Readability
https://dl.acm.org/doi/abs/10.1145/3397271.3401187
AUTHORS: Hélder Antunes, Carla Teixeira Lopes

HIGHLIGHT: In this work, we explore methods to assess the readability of health content automatically.

275, TITLE: MarkedBERT: Integrating Traditional IR Cues in Pre-trained Language Models for Passage Retrieval
https://dl.acm.org/doi/abs/10.1145/3397271.3401194
AUTHORS: Lila Boualili, Jose G. Moreno, Mohand Boughanem
HIGHLIGHT: To study the effectiveness of this assumption, we propose MarkedBERT a modified version of one of the most popular pre-trained models via language modeling tasks, BERT.

276, TITLE: Relevance Models for Multi-Contextual Appropriateness in Point-of-Interest Recommendation
https://dl.acm.org/doi/abs/10.1145/3397271.3401197
AUTHORS: Anirban Chakraborty, Debasis Ganguly, Owen Conlan
HIGHLIGHT: We propose to use a small set of manually compiled knowledge resource to predict the associations between the review texts in a user profile and the likely trip contexts.

277, TITLE: CAsT-19: A Dataset for Conversational Information Seeking
https://dl.acm.org/doi/abs/10.1145/3397271.3401206
AUTHORS: Jeffrey Dalton, Chenyan Xiong, Vaibhav Kumar, Jamie Callan
HIGHLIGHT: CAsT-19 is a new dataset that supports research on conversational information seeking.

278, TITLE: Predicting Perceptual Speed from Search Behaviour
https://dl.acm.org/doi/abs/10.1145/3397271.3401210
AUTHORS: Olivia Foulds, Alessandro Suglia, Leif Azzopardi, Martin Halvey
HIGHLIGHT: Consequently, this paper evaluated whether PS can be automatically classified from search behaviour using several machine learning models trained on features extracted from TREC Common Core search task logs.

279, TITLE: Learning Term Discrimination
https://dl.acm.org/doi/abs/10.1145/3397271.3401211
AUTHORS: Jibril Frej, Philippe Mulhem, Didier Schwab, Jean-Pierre Chevallet
HIGHLIGHT: In this work, we propose to learn TDVs for document indexing with shallow neural networks that approximate traditional IR ranking functions such as TF-IDF and BM25.

280, TITLE: Sampling Bias Due to Near-Duplicates in Learning to Rank
https://dl.acm.org/doi/abs/10.1145/3397271.3401212
AUTHORS: Maik Fröbe, Janek Bevendorff, Jan Heinrich Reimer, Martin Potthast, Matthias Hagen
HIGHLIGHT: We investigate for the first time the effect of a sampling bias on LTR~models due to the potential presence of near-duplicate web pages in the training data, and how (in)consistent relevance feedback of duplicates influences an LTR~model's decisions.

281, TITLE: Enhancing Recommendation Diversity using Determinantal Point Processes on Knowledge Graphs
https://dl.acm.org/doi/abs/10.1145/3397271.3401213
AUTHORS: Lu Gan, Diana Nurbakova, Léa Laporte, Sylvie Calabretto
HIGHLIGHT: In this paper, we focus on enhancing diversity of top-N recommendation, while ensuring the trade-off between accuracy and diversity.

282, TITLE: Relevance Transformer: Generating Concise Code Snippets with Relevance Feedback
https://dl.acm.org/doi/abs/10.1145/3397271.3401215
AUTHORS: Carlos Gemmell, Federico Rossetto, Jeffrey Dalton
HIGHLIGHT: In this work we introduce and study modern Transformer architectures for this task.

283, TITLE: Unsupervised Semantic Hashing with Pairwise Reconstruction
https://dl.acm.org/doi/abs/10.1145/3397271.3401220
AUTHORS: Casper Hansen, Christian Hansen, Jakob Grue Simonsen, Stephen Alstrup, Christina Lioma
HIGHLIGHT: Inspired by this, we present Semantic Hashing with Pairwise Reconstruction (PairRec), which is a discrete variational autoencoder based hashing model.

284, TITLE: Factuality Checking in News Headlines with Eye Tracking
https://dl.acm.org/doi/abs/10.1145/3397271.3401221
AUTHORS: Christian Hansen, Casper Hansen, Jakob Grue Simonsen, Birger Larsen, Stephen Alstrup, Christina Lioma
HIGHLIGHT: We study whether it is possible to infer if a news headline is true or false using only the movement of the human eyes when reading news headlines.

285, TITLE: ArTest: The First Test Collection for Arabic Web Search with Relevance Rationales
https://dl.acm.org/doi/abs/10.1145/3397271.3401223
AUTHORS: Maram Hasanain, Yassmine Barkallah, Reem Suwaileh, Mucahid Kutlu, Tamer Elsayed
HIGHLIGHT: In this work, we present ArTest, the first large-scale test collection designed for the evaluation of ad-hoc search over the Arabic Web.

286, TITLE: Local Self-Attention over Long Text for Efficient Document Retrieval
https://dl.acm.org/doi/abs/10.1145/3397271.3401224
AUTHORS: Sebastian Hofstätter, Hamed Zamani, Bhaskar Mitra, Nick Craswell, Allan Hanbury
HIGHLIGHT: In this work, we propose a local self-attention which considers a moving window over the document terms and for each term attends only to other terms in the same window.

287, TITLE: Using Exploration to Alleviate Closed Loop Effects in Recommender Systems
https://dl.acm.org/doi/abs/10.1145/3397271.3401230
AUTHORS: Amir H. Jadidinejad, Craig Macdonald, Iadh Ounis
HIGHLIGHT: In this paper, we first introduce the closed loop feedback and then investigate the effect of closed loop feedback in both the training and offline evaluation of recommendation models, in contrast to a further exploration of the users' preferences (obtained from the randomly presented items).

288, TITLE: A Heterogeneous Graph Neural Model for Cold-start Recommendation
https://dl.acm.org/doi/abs/10.1145/3397271.3401252
AUTHORS: Siwei Liu, Iadh Ounis, Craig Macdonald, Zaiqiao Meng
HIGHLIGHT: In this paper, we propose a new recommendation model, named Heterogeneous Graph Neural Recommender (HGNR), to tackle the cold-start problem while ensuring effective recommendations for all users.

289, TITLE: Query-level Early Exit for Additive Learning-to-Rank Ensembles
https://dl.acm.org/doi/abs/10.1145/3397271.3401256
AUTHORS: Claudio Lucchese, Franco Maria Nardini, Salvatore Orlando, Raffaele Perego, Salvatore Trani
HIGHLIGHT: In this paper, we investigate the novel problem of query-level early exiting, aimed at deciding the profitability of early stopping the traversal of the ranking ensemble for all the candidate documents to be scored for a query, by simply returning a ranking based on the additive scores computed by a limited portion of the ensemble.

290, TITLE: Segmenting Search Query Logs by Learning to Detect Search Task Boundaries
https://dl.acm.org/doi/abs/10.1145/3397271.3401257
AUTHORS: Luis Lugo, Jose G. Moreno, Gilles Hubert
HIGHLIGHT: Therefore, we propose a model for sequential search log segmentation.

291, TITLE: A Multilingual Approach for Unsupervised Search Task Identification
https://dl.acm.org/doi/abs/10.1145/3397271.3401258
AUTHORS: Luis Lugo, Jose G. Moreno, Gilles Hubert
HIGHLIGHT: Hence, we propose an unsupervised multilingual approach for search task identification.

292, TITLE: Sequential-based Adversarial Optimisation for Personalised Top-N Item Recommendation
https://dl.acm.org/doi/abs/10.1145/3397271.3401264
AUTHORS: Jarana Manotumruksa, Emine Yilmaz
HIGHLIGHT: To address this challenge, we propose a Sequential-based Adversarial Optimisation (SAO) framework that effectively enhances the generalisation of sequential-based factorised approaches.

293, TITLE: CrossBERT: A Triplet Neural Architecture for Ranking Entity Properties
https://dl.acm.org/doi/abs/10.1145/3397271.3401265
AUTHORS: Jarana Manotumruksa, Jeff Dalton, Edgar Meij, Emine Yilmaz
HIGHLIGHT: In this work we tackle the task of automatically constructing actionable knowledge graphs in response to a user query in order to support a wider variety of increasingly complex assistant tasks.

294, TITLE: Active Learning Stopping Strategies for Technology-Assisted Sensitivity Review
https://dl.acm.org/doi/abs/10.1145/3397271.3401267
AUTHORS: Graham McDonald, Craig Macdonald, Iadh Ounis
HIGHLIGHT: In this work, we propose two active learning stopping strategies for technology-assisted sensitivity review.

295, TITLE: Topic Propagation in Conversational Search
https://dl.acm.org/doi/abs/10.1145/3397271.3401268
AUTHORS: Ida Mele, Cristina Ioana Muntean, Franco Maria Nardini, Raffaele Perego, Nicola Tonellotto, Ophir Frieder
HIGHLIGHT: We present a comprehensive experimental evaluation of the architecture assessed in terms of traditional IR metrics at small cutoffs.

296, TITLE: Reputation (In)dependence in Ranking Systems: Demographics Influence Over Output Disparities
https://dl.acm.org/doi/abs/10.1145/3397271.3401278
AUTHORS: Guilherme Ramos, Ludovico Boratto
HIGHLIGHT: In this paper, we formulate the concept of disparate reputation (DR) and study if users characterized by sensitive attributes systematically get a lower reputation, leading to a final ranking that reflects less their preferences.

297, TITLE: Do Neural Ranking Models Intensify Gender Bias?
https://dl.acm.org/doi/abs/10.1145/3397271.3401280
AUTHORS: Navid Rekabsaz, Markus Schedl
HIGHLIGHT: In this work, we examine various recent IR models from the perspective of the degree of gender bias in their retrieval results.

298, TITLE: The Curious Case of IR Explainability: Explaining Document Scores within and across Ranking Models
https://dl.acm.org/doi/abs/10.1145/3397271.3401286
AUTHORS: Procheta Sen, Debasis Ganguly, Manisha Verma, Gareth J.F. Jones
HIGHLIGHT: We propose a general methodology of approximating an IR model as the coefficients of a linear function of these three fundamental aspects (and an additional aspect of semantic similarity between terms for neural models), which potentially can help IR practitioners to optimize the relative importance of each aspect on specific document collection and types of queries.

299, TITLE: Fair Classification with Counterfactual Learning
https://dl.acm.org/doi/abs/10.1145/3397271.3401291
AUTHORS: Maryam Tavakol
HIGHLIGHT: In this paper, we design a counterfactual framework to model fairness-aware learning which benefits from counterfactual reasoning to achieve more fair decision support systems.

300, TITLE: Multi-grouping Robust Fair Ranking
https://dl.acm.org/doi/abs/10.1145/3397271.3401292
AUTHORS: Thibaut Thonet, Jean-Michel Renders
HIGHLIGHT: Therefore, in this paper, we study the problem of designing fair ranking algorithms without knowing in advance the groupings that will be used later to assess their fairness.

301, TITLE: Distilling Knowledge for Fast Retrieval-based Chat-bots
https://dl.acm.org/doi/abs/10.1145/3397271.3401296
AUTHORS: Amir Vakili Tahami, Kamyar Ghajar, Azadeh Shakery
HIGHLIGHT: In this paper, we propose a new cross-encoder architecture and transfer knowledge from this model to a bi-encoder model using distillation.

302, TITLE: An Analysis of Mixed Initiative and Collaboration in Information-Seeking Dialogues
https://dl.acm.org/doi/abs/10.1145/3397271.3401297
AUTHORS: Svitlana Vakulenko, Evangelos Kanoulas, Maarten de Rijke
HIGHLIGHT: We propose a set of unsupervised metrics, termed ConversationShape, that highlights the role each of the conversation participants plays by comparing the distribution of vocabulary and utterance types.

303, TITLE: Cascade Model-based Propensity Estimation for Counterfactual Learning to Rank
https://dl.acm.org/doi/abs/10.1145/3397271.3401299
AUTHORS: Ali Vardasbi, Maarten de Rijke, Ilya Markov
HIGHLIGHT: In this paper, we propose a propensity estimation method for the cascade scenario, called cascade model-based inverse propensity scoring (CM-IPS).

304, TITLE: Studying Ranking-Incentivized Web Dynamics
https://dl.acm.org/doi/abs/10.1145/3397271.3401300
AUTHORS: Ziv Vasilisky, Moshe Tennenholtz, Oren Kurland
HIGHLIGHT: We present an initial such dataset that is based on TREC's ClueWeb09 dataset.

305, TITLE: How UMass-FSD Inadvertently Leverages Temporal Bias
https://dl.acm.org/doi/abs/10.1145/3397271.3401306
AUTHORS: Dominik Wurzer, Yumeng Qin
HIGHLIGHT: Our analysis reveals an increased contribution of temporally distant documents, resulting from an unusual way of handling incremental term statistics.

306, TITLE: On the Reliability of Test Collections for Evaluating Systems of Different Types
https://dl.acm.org/doi/abs/10.1145/3397271.3401317
AUTHORS: Emine Yilmaz, Nick Craswell, Bhaskar Mitra, Daniel Campos
HIGHLIGHT: This paper uses simulated pooling to test the fairness and reusability of test collections, showing that especially when shallow pools (e.g. depth-10 pools) are used, pooling based on traditional systems only may lead to biased evaluation of deep learning systems.

307, TITLE: KLOOS: KL Divergence-based Out-of-Scope Intent Detection in Human-to-Machine Conversations
https://dl.acm.org/doi/abs/10.1145/3397271.3401318
AUTHORS: Eyup Halit Yilmaz, Cagri Toraman
HIGHLIGHT: We propose an out-of-scope intent detection method, called KLOOS, based on a novel feature extraction mechanism that incorporates the information accumulation of sequential word processing.

308, TITLE: DEXA: Supporting Non-Expert Annotators with Dynamic Examples from Experts
https://dl.acm.org/doi/abs/10.1145/3397271.3401334
AUTHORS: Markus Zlabinger, Marta Sabou, Sebastian Hofstätter, Mete Sertkan, Allan Hanbury
HIGHLIGHT: To overcome these limitations, we propose to support workers in addition to task-level examples, also with "task-instance level" examples that are semantically similar to the currently annotated data sample (referred to as Dynamic Examples for Annotation, DEXA).

309, TITLE: A Lightweight Environment for Learning Experimental IR Research Practices
https://dl.acm.org/doi/abs/10.1145/3397271.3401395
AUTHORS: Zeynep Akkalyoncu Yilmaz, Charles L. A. Clarke, Jimmy Lin
HIGHLIGHT: As an initial attempt to address these issues, we describe materials that we have developed for the "Introduction to IR" session at the ACM SIGIR/SIGKDD Africa Summer School on Machine Learning for Data Mining and Search (AFIRM 2020), which builds on three components: the open-source Lucene search library, cloud-based notebooks, and the MS MARCO dataset.

310, TITLE: BRENDA: Browser Extension for Fake News Detection
https://dl.acm.org/doi/abs/10.1145/3397271.3401396
AUTHORS: Bjarte Botnevik, Eirik Sakariassen, Vinay Setty
HIGHLIGHT: In this demonstration, we propose BRENDA a browser extension which can be used to automate the entire process of credibility assessments of false claims.

311, TITLE: Agent Dialogue: A Platform for Conversational Information Seeking Experimentation
https://dl.acm.org/doi/abs/10.1145/3397271.3401397
AUTHORS: Adam Czyzewski, Jeffrey Dalton, Anton Leuski
HIGHLIGHT: In this demo we present the Agent Dialogue (AD) platform, an open-source system developed for researchers to perform Wizard-of-Oz CIS experiments.

312, TITLE: DataMirror: Reflecting on One's Data Self: A Tool for Social Media Users to Explore Their Digital Footprints
https://dl.acm.org/doi/abs/10.1145/3397271.3401398
AUTHORS: Amal Htait, Leif Azzopardi, Emma Nicol, Wendy Moncur
HIGHLIGHT: In this paper, we present DataMirror, an initial prototype tool, that enables social network users to aggregate their online data so that they can search, browse and visualise what they have put online.

313, TITLE: Conversational Question Answering over Passages by Leveraging Word Proximity Networks
https://dl.acm.org/doi/abs/10.1145/3397271.3401399
AUTHORS: Magdalena Kaiser, Rishiraj Saha Roy, Gerhard Weikum
HIGHLIGHT: In this work, we demonstrate CROWN (Conversational passage ranking by Reasoning Over Word Networks): an unsupervised yet effective system for conversational QA with passage responses, that supports several modes of context propagation over multiple turns.

314, TITLE: FigExplorer: A System for Retrieval and Exploration of Figures from Collections of Research Articles

https://dl.acm.org/doi/abs/10.1145/3397271.3401400
AUTHORS: Saar Kuzi, ChengXiang Zhai, Yin Tian, Haichuan Tang
HIGHLIGHT: In this paper, we present FigExplorer, a novel general system that supports the retrieval and exploration of research article figures.

315, TITLE: APS: An Active PubMed Search System for Technology Assisted Reviews
https://dl.acm.org/doi/abs/10.1145/3397271.3401401
AUTHORS: Dan Li, Panagiotis Zafeiriadis, Evangelos Kanoulas
HIGHLIGHT: In this work, we built an online active search system for systematic reviews, named APS, by applying an state-of-the-art TAR approach -- Continuous Active Learning.

316, TITLE: Systematic Review Automation Tools for End-to-End Query Formulation
https://dl.acm.org/doi/abs/10.1145/3397271.3401402
AUTHORS: Hang Li, Harrisen Scells, Guido Zuccon
HIGHLIGHT: In this paper, we present a novel end-to-end set of advanced tools for information specialists.

317, TITLE: Deep Job Understanding at LinkedIn
https://dl.acm.org/doi/abs/10.1145/3397271.3401403
AUTHORS: Shan Li, Baoxu Shi, Jaewon Yang, Ji Yan, Shuai Wang, Fei Chen, Qi He
HIGHLIGHT: In this demonstration, we present LinkedIn's job posting flow and demonstrate how the integrated deep job understanding work improves job posters' satisfaction and provides significant metric lifts in LinkedIn's job recommendation system.

318, TITLE: Supporting Interoperability Between Open-Source Search Engines with the Common Index File Format
https://dl.acm.org/doi/abs/10.1145/3397271.3401404
AUTHORS: Jimmy Lin, Joel Mackenzie, Chris Kamphuis, Craig Macdonald, Antonio Mallia, MichaÅ, Siedlaczek, Andrew Trotman, Arjen de Vries
HIGHLIGHT: Overall, we recommend CIFF as a low-effort approach to support independent innovation while enabling the types of fair evaluations that are critical for driving the field forward.

319, TITLE: Web of Scholars: A Scholar Knowledge Graph
https://dl.acm.org/doi/abs/10.1145/3397271.3401405
AUTHORS: Jiaying Liu, Jing Ren, Wenqing Zheng, Lianhua Chi, Ivan Lee, Feng Xia
HIGHLIGHT: In this work, we demonstrate a novel system, namely Web of Scholars, which integrates state-of-the-art mining techniques to search, mine, and visualize complex networks behind scholars in the field of Computer Science.

320, TITLE: SPot: A Tool for Identifying Operating Segments in Financial Tables
https://dl.acm.org/doi/abs/10.1145/3397271.3401406
AUTHORS: Zhiqiang Ma, Steven Pomerville, Mingyang Di, Armineh Nourbakhsh
HIGHLIGHT: In this paper we present SPot, an automated tool for detecting operating segments and their related performance indicators from earnings reports.

321, TITLE: Receptor: A Platform for Exploring Latent Relations in Sensitive Documents
https://dl.acm.org/doi/abs/10.1145/3397271.3401407
AUTHORS: Hitarth Narvala, Graham McDonald, Iadh Ounis
HIGHLIGHT: The system provides novel scalable graph search and exploration functionalities as well as interactive visualisations of the latent relations between related entities, events, and documents to enable users to identify hidden patterns of sensitivity.

322, TITLE: FactCatch: Incremental Pay-as-You-Go Fact Checking with Minimal User Effort
https://dl.acm.org/doi/abs/10.1145/3397271.3401408
AUTHORS: Thanh Tam Nguyen, Matthias Weidlich, Hongzhi Yin, Bolong Zheng, Quang Huy Nguyen, Quoc Viet Hung Nguyen
HIGHLIGHT: This paper presents FactCatch, a human-in-the-loop system to guide users in fact checking that aims at minimisation of the invested effort.

323, TITLE: WIRE: An Automated Report Generation System using Topical and Temporal Summarization
https://dl.acm.org/doi/abs/10.1145/3397271.3401409
AUTHORS: Yunseok Noh, Yongmin Shin, Junmo Park, A-Yeong Kim, Su Jeong Choi, Hyun-Je Song, Seong-Bae Park, Seyoung Park
HIGHLIGHT: To fulfill such demand, we introduce an automated report generation system that generates a well-summarized human-readable report for emerging topics.

324, TITLE: Experimaestro and Datamaestro: Experiment and Dataset Managers (for IR)
https://dl.acm.org/doi/abs/10.1145/3397271.3401410
AUTHORS: Benjamin Piwowarski
HIGHLIGHT: In this demo paper, we present two managers, Experimaestro and Datamaestro, and their add-ons for IR, designed to help to define and run experimental plans.

325, TITLE: QuAChIE: Question Answering based Chinese Information Extraction System
https://dl.acm.org/doi/abs/10.1145/3397271.3401411
AUTHORS: Dongyu Ru, Zhenghui Wang, Lin Qiu, Hao Zhou, Lei Li, Weinan Zhang, Yong Yu
HIGHLIGHT: In this paper, we present the design of QuAChIE, a Question Answering based Chinese Information Extraction system.
For the training and evaluation of each model in the system, we build a large-scale information extraction dataset using Wikidata and Wikipedia pages by distant supervision.

326, TITLE: Vis-Trec: A System for the In-depth Analysis of trec_eval Results
https://dl.acm.org/doi/abs/10.1145/3397271.3401412
AUTHORS: Mahtab Tamannaee, Negar Arabzadeh, Ebrahim Bagheri
HIGHLIGHT: We introduce Vis-Trec, an open-source cross-platform system, which provides the capability to perform in-depth analysis of the results obtained from trec-style evaluation campaigns.

327, TITLE: JASSjr: The Minimalistic BM25 Search Engine for Teaching and Learning Information Retrieval
https://dl.acm.org/doi/abs/10.1145/3397271.3401413
AUTHORS: Andrew Trotman, Kat Lilly
HIGHLIGHT: We present JASSjr, a minimalistic trec_eval compatible BM25-ranking search engine that can index small TREC data sets such as the Wall Street Journal collection.

328, TITLE: ServiceGroup: A Human-Machine Cooperation Solution for Group Chat Customer Service
https://dl.acm.org/doi/abs/10.1145/3397271.3401414
AUTHORS: Minghui Yang, Hengbin Cui, Shaosheng Cao, Yafang Wang, Xiaolong Li
HIGHLIGHT: To improve efficiency, we propose a human-machine cooperation solution called ServiceGroup, where relevant agents and customers are invited into the same group, and the system can provide a series of intelligent functions, including question notification, question recommendation and knowledge extraction.

329, TITLE: Macaw: An Extensible Conversational Information Seeking Platform
https://dl.acm.org/doi/abs/10.1145/3397271.3401415
AUTHORS: Hamed Zamani, Nick Craswell
HIGHLIGHT: This paper introduces Macaw, an open-source framework with a modular architecture for CIS research.

330, TITLE: REL: An Entity Linker Standing on the Shoulders of Giants
https://dl.acm.org/doi/abs/10.1145/3397271.3401416
AUTHORS: Johannes M. van Hulst, Faegheh Hasibi, Koen Dercksen, Krisztian Balog, Arjen P. de Vries
HIGHLIGHT: The REL system presented in this paper aims to fill that gap.

331, TITLE: GMCM: Graph-based Micro-behavior Conversion Model for Post-click Conversion Rate Estimation
https://dl.acm.org/doi/abs/10.1145/3397271.3401425
AUTHORS: Wentian Bao, Hong Wen, Sha Li, Xiao-Yang Liu, Quan Lin, Keping Yang
HIGHLIGHT: We propose a novel CVR model, namely, Graph-based Micro-behavior Conversion Model (GMCM), that utilizes Graph Convolutional networks (GCN) to enhance the conventional CVR modeling.

332, TITLE: A Heterogeneous Information Network based Cross Domain Insurance Recommendation System for Cold Start Users
https://dl.acm.org/doi/abs/10.1145/3397271.3401426
AUTHORS: Ye Bi, Liqiang Song, Mengqiu Yao, Zhenyu Wu, Jianming Wang, Jing Xiao
HIGHLIGHT: In this paper, we propose a novel framework called a Heterogeneous information network based Cross Domain Insurance Recommendation (HCDIR) system for cold start users.

333, TITLE: Knowledge Graph-based Event Embedding Framework for Financial Quantitative Investments
https://dl.acm.org/doi/abs/10.1145/3397271.3401427
AUTHORS: Dawei Cheng, Fangzhou Yang, Xiaoyang Wang, Ying Zhang, Liqing Zhang

HIGHLIGHT: Therefore, in this paper, we present a knowledge graph-based event embedding framework for quantitative investments.

334, TITLE: ATBRG: Adaptive Target-Behavior Relational Graph Network for Effective Recommendation
https://dl.acm.org/doi/abs/10.1145/3397271.3401428
AUTHORS: Yufei Feng, Binbin Hu, Fuyu Lv, Qingwen Liu, Zhiqiang Zhang, Wenwu Ou
HIGHLIGHT: In this work, we propose a new framework named Adaptive Target-Behavior Relational Graph network (ATBRG for short) to effectively capture structural relations of target user-item pairs over KG.

335, TITLE: Be Aware of the Hot Zone: A Warning System of Hazard Area Prediction to Intervene Novel Coronavirus COVID-19 Outbreak
https://dl.acm.org/doi/abs/10.1145/3397271.3401429
AUTHORS: Zhenxin Fu, Yu Wu, Hailei Zhang, Yichuan Hu, Dongyan Zhao, Rui Yan
HIGHLIGHT: In this paper, we aim at drawing lessons from the COVID-19 outbreak process in China and using the experiences to help the interventions against the coronavirus wherever in need.

336, TITLE: FashionBERT: Text and Image Matching with Adaptive Loss for Cross-modal Retrieval
https://dl.acm.org/doi/abs/10.1145/3397271.3401430
AUTHORS: Dehong Gao, Linbo Jin, Ben Chen, Minghui Qiu, Peng Li, Yi Wei, Yi Hu, Hao Wang
HIGHLIGHT: In this paper, we address the text and image matching in cross-modal retrieval of the fashion industry.

337, TITLE: Understanding Echo Chambers in E-commerce Recommender Systems
https://dl.acm.org/doi/abs/10.1145/3397271.3401431
AUTHORS: Yingqiang Ge, Shuya Zhao, Honglu Zhou, Changhua Pei, Fei Sun, Wenwu Ou, Yongfeng Zhang
HIGHLIGHT: In this paper, we aim to analyze the echo chamber phenomenon in Alibaba Taobao --- one of the largest e-commerce platforms in the world.

338, TITLE: Efficient and Effective Query Auto-Completion
https://dl.acm.org/doi/abs/10.1145/3397271.3401432
AUTHORS: Simon Gog, Giulio Ermanno Pibiri, Rossano Venturini
HIGHLIGHT: In this work we describe the implementation that empowers a new QAC system at eBay, and discuss its efficiency/effectiveness in relation to other approaches at the state-of-the-art.

339, TITLE: Efficient Image Gallery Representations at Scale Through Multi-Task Learning
https://dl.acm.org/doi/abs/10.1145/3397271.3401433
AUTHORS: Benjamin Gutelman, Pavel Levin
HIGHLIGHT: We study the problem of building a universal image gallery encoder through multi-task learning (MTL) approach and demonstrate that it is indeed a practical way to achieve generalizability of learned representations to new downstream tasks.

340, TITLE: A Counterfactual Framework for Seller-Side A/B Testing on Marketplaces
https://dl.acm.org/doi/abs/10.1145/3397271.3401434
AUTHORS: Viet Ha-Thuc, Avishek Dutta, Ren Mao, Matthew Wood, Yunli Liu
HIGHLIGHT: To overcome this challenge, we propose a counterfactual framework for seller-side A/B testing.

341, TITLE: Think Beyond the Word: Understanding the Implied Textual Meaning by Digesting Context, Local, and Noise
https://dl.acm.org/doi/abs/10.1145/3397271.3401435
AUTHORS: Guoxiu He, Zhe Gao, Zhuoren Jiang, Yangyang Kang, Changlong Sun, Xiaozhong Liu, Wei Lu
HIGHLIGHT: In this study, inspired by human reading comprehension, we propose a novel, simple, and effective deep neural framework, called Skim and Intensive Reading Model (SIRM), for figuring out implied textual meaning.

342, TITLE: Automated Embedding Size Search in Deep Recommender Systems
https://dl.acm.org/doi/abs/10.1145/3397271.3401436
AUTHORS: Haochen Liu, Xiangyu Zhao, Chong Wang, Xiaobing Liu, Jiliang Tang
HIGHLIGHT: In this paper, we propose to dynamically search the embedding sizes for different users and items and introduce a novel embedding size adjustment policy network (ESAPN).

343, TITLE: Network On Network for Tabular Data Classification in Real-world Applications
https://dl.acm.org/doi/abs/10.1145/3397271.3401437
AUTHORS: Yuanfei Luo, Hao Zhou, Wei-Wei Tu, Yuqiang Chen, Wenyuan Dai, Qiang Yang

HIGHLIGHT: In this paper, we present Network On Network (NON), a practical tabular data classification model based on deep neural network to provide accurate predictions.

344, TITLE: Item Tagging for Information Retrieval: A Tripartite Graph Neural Network based Approach
https://dl.acm.org/doi/abs/10.1145/3397271.3401438
AUTHORS: Kelong Mao, Xi Xiao, Jieming Zhu, Biao Lu, Ruiming Tang, Xiuqiang He
HIGHLIGHT: In this work, we propose to formulate item tagging as a link prediction problem between item nodes and tag nodes.

345, TITLE: Large Scale Abstractive Multi-Review Summarization (LSARS) via Aspect Alignment
https://dl.acm.org/doi/abs/10.1145/3397271.3401439
AUTHORS: Haojie Pan, Rongqin Yang, Xin Zhou, Rui Wang, Deng Cai, Xiaozhong Liu
HIGHLIGHT: We propose the first large-scale abstractive multi-review summarization dataset that leverages more than 17.9 billion raw reviews and uses novel aspect-alignment techniques based on aspect annotations.

346, TITLE: User Behavior Retrieval for Click-Through Rate Prediction
https://dl.acm.org/doi/abs/10.1145/3397271.3401440
AUTHORS: Jiarui Qin, Weinan Zhang, Xin Wu, Jiarui Jin, Yuchen Fang, Yong Yu
HIGHLIGHT: To tackle these issues, in this paper we consider it from the data perspective instead of just designing more sophisticated yet complicated models and propose User Behavior Retrieval for CTR prediction (UBR4CTR) framework.

347, TITLE: Identifying Tasks from Mobile App Usage Patterns
https://dl.acm.org/doi/abs/10.1145/3397271.3401441
AUTHORS: Yuan Tian, Ke Zhou, Mounia Lalmas, Dan Pelleg
HIGHLIGHT: We focus on two problems: (i) given a sequential pair of app usage logs, identify if there exists a task boundary, and (ii) given any pair of two app usage logs, identify if they belong to the same task.

348, TITLE: Robust Layout-aware IE for Visually Rich Documents with Pre-trained Language Models
https://dl.acm.org/doi/abs/10.1145/3397271.3401442
AUTHORS: Mengxi Wei, YIfan He, Qiong Zhang
HIGHLIGHT: We study the problem of information extraction from visually rich documents (VRDs) and present a model that combines the power of large pre-trained language models and graph neural networks to efficiently encode both textual and visual information in business documents.

349, TITLE: Entire Space Multi-Task Modeling via Post-Click Behavior Decomposition for Conversion Rate Prediction
https://dl.acm.org/doi/abs/10.1145/3397271.3401443
AUTHORS: Hong Wen, Jing Zhang, Yuan Wang, Fuyu Lv, Wentian Bao, Quan Lin, Keping Yang
HIGHLIGHT: Observing that users always take several purchase-related actions after clicking, we propose a novel idea of post-click behavior decomposition.

350, TITLE: How Airbnb Tells You Will Enjoy Sunset Sailing in Barcelona? Recommendation in a Two-Sided Travel Marketplace
https://dl.acm.org/doi/abs/10.1145/3397271.3401444
AUTHORS: Liang Wu, Mihajlo Grbovic
HIGHLIGHT: In this work, we present our efforts on building a recommender system for Airbnb Experiences, a two-sided online marketplace for tours and activities.

351, TITLE: Multiplex Behavioral Relation Learning for Recommendation via Memory Augmented Transformer Network
https://dl.acm.org/doi/abs/10.1145/3397271.3401445
AUTHORS: Lianghao Xia, Chao Huang, Yong Xu, Peng Dai, Bo Zhang, Liefeng Bo
HIGHLIGHT: To tackle the above challenge, this work proposes a Memory-Augmented Transformer Networks (MATN), to enable the recommendation with multiplex behavioral relational information, and joint modeling of type-specific behavioral context and type-wise behavior inter-dependencies, in a fully automatic manner.

352, TITLE: Towards Personalized and Semantic Retrieval: An End-to-End Solution for E-commerce Search via Embedding Learning
https://dl.acm.org/doi/abs/10.1145/3397271.3401446
AUTHORS: Han Zhang, Songlin Wang, Kang Zhang, Zhiling Tang, Yunjiang Jiang, Yun Xiao, Weipeng Yan, Wen-Yun Yang
HIGHLIGHT: In this paper, we present a novel approach called DPSR, which stands for Deep Personalized and Semantic Retrieval, to tackle this problem.

353, TITLE: Searching the Web for Cross-lingual Parallel Data
https://dl.acm.org/doi/abs/10.1145/3397271.3401417
AUTHORS: Ahmed El-Kishky, Philipp Koehn, Holger Schwenk
HIGHLIGHT: We introduce techniques for searching for cross-lingual parallel data based on language, content, and other metadata.

354, TITLE: Recent Advances in Conversational Information Retrieval
https://dl.acm.org/doi/abs/10.1145/3397271.3401418
AUTHORS: Jianfeng Gao, Chenyan Xiong, Paul Bennett
HIGHLIGHT: This tutorial presents recent advances in CIR, focusing mainly on neural approaches and new applications developed in the past five years.

355, TITLE: Conversational Recommendation: Formulation, Methods, and Evaluation
https://dl.acm.org/doi/abs/10.1145/3397271.3401419
AUTHORS: Wenqiang Lei, Xiangnan He, Maarten de Rijke, Tat-Seng Chua
HIGHLIGHT: This tutorial covers these four directions, providing a review of existing approaches and progress on the topic.

356, TITLE: Reciprocal Recommendation: Matching Users with the Right Users
https://dl.acm.org/doi/abs/10.1145/3397271.3401420
AUTHORS: Iván Palomares
HIGHLIGHT: This tutorial introduces the emerging and novel topic of reciprocal recommender systems, by analyzing their information retrieval, data-driven preference modelling and integration mechanisms for predicting suitable user matches.

357, TITLE: Question Answering over Curated and Open Web Sources
https://dl.acm.org/doi/abs/10.1145/3397271.3401421
AUTHORS: Rishiraj Saha Roy, Avishek Anand
HIGHLIGHT: This tutorial would cover the highlights of this really active period of growth for QA to give the audience a grasp over the families of algorithms that are currently being used.

358, TITLE: Tutorial on Task-Based Search and Assistance
https://dl.acm.org/doi/abs/10.1145/3397271.3401422
AUTHORS: Chirag Shah, Ryen W. White
HIGHLIGHT: This tutorial will introduce the attendees to the issues of detecting, understanding, and using task and task-related information in an information episode (with or without active searching).

359, TITLE: Modeling User Behavior for Vertical Search: Images, Apps and Products
https://dl.acm.org/doi/abs/10.1145/3397271.3401423
AUTHORS: Xiaohui Xie, Jiaxin Mao, Yiqun Liu, Maarten de Rijke
HIGHLIGHT: This tutorial will introduce the research and applications of user behavior modeling for vertical search.

360, TITLE: Interactive Information Retrieval: Models, Algorithms, and Evaluation
https://dl.acm.org/doi/abs/10.1145/3397271.3401424
AUTHORS: ChengXiang Zhai
HIGHLIGHT: This tutorial systematically reviews the progress of research in IIR with an emphasis on the most recent progress in the development of models, algorithms, and evaluation strategies for IIR.

361, TITLE: AIIS: The SIGIR 2020 Workshop on Applied Interactive Information Systems
https://dl.acm.org/doi/abs/10.1145/3397271.3401461
AUTHORS: Hongshen Chen, Zhaochun Ren, Pengjie Ren, Dawei Yin, Xiaodong He
HIGHLIGHT: We aim to discuss the issues of applying interactive information models to production systems, as well as to shed some light on the fundamental characteristics, i.e., interactivity and applicability, of different interactive tasks.

362, TITLE: FinIR 2020: The First Workshop on Information Retrieval in Finance
https://dl.acm.org/doi/abs/10.1145/3397271.3401462
AUTHORS: Fuli Feng, Cheng Luo, Xiangnan He, Yiqun Liu, Tat-Seng Chua
HIGHLIGHT: The workshop aims to bring together a diverse set of researchers and practitioners interested in investigating relevant topics.

363, TITLE: BIRDS - Bridging the Gap between Information Science, Information Retrieval and Data Science
https://dl.acm.org/doi/abs/10.1145/3397271.3401463
AUTHORS: Ingo Frommholz, Haiming Liu, Massimo Melucci
HIGHLIGHT: The BIRDS workshop aimed to foster the cross-fertilization of Information Science (IS), Information Retrieval (IR) and Data Science (DS).

364, TITLE: ECOM'20: The SIGIR 2020 Workshop on eCommerce
https://dl.acm.org/doi/abs/10.1145/3397271.3401464
AUTHORS: Dietmar Jannach, Surya Kallumadi, Tracy Holloway King, Weihua Luo, Shervin Malmasi
HIGHLIGHT: This workshop (1) brings together researchers and practitioners of eCommerce IR to discuss topics unique to it, (2) determines how to use eCommerce's unique combination of free text, structured data, and customer behavioral data to improve search relevance, and (3) examines how to build data sets and evaluate algorithms in this domain.

365, TITLE: Deep Natural Language Processing for Search and Recommendation
https://dl.acm.org/doi/abs/10.1145/3397271.3401465
AUTHORS: Bo Long, Jieping Ye, Zang Li, Huiji Gao, Sandeep Kumar Jha
HIGHLIGHT: In this workshop, we propose to discuss deep neural network based NLP technologies and their applications in search and recommendation, with the goal of understanding (1) Why deep NLP is helpful; (2) What are the challenges to develop and productionize it; (3) How to overcome the challenges; (4) Where deep NLP models produce the largest impact.

366, TITLE: Legal Intelligence: Algorithmic, Data, and Social Challenges
https://dl.acm.org/doi/abs/10.1145/3397271.3401466
AUTHORS: Changlong Sun, Yating Zhang, Xiaozhong Liu, Fei Wu
HIGHLIGHT: The objective of this workshop is to aggregate studies/applications of text mining/retrieval and NLP automation in the context of classical/novel legal tasks, which address algorithmic, data and social challenges of legal intelligence.

367, TITLE: Deep Reinforcement Learning for Information Retrieval: Fundamentals and Advances
https://dl.acm.org/doi/abs/10.1145/3397271.3401467
AUTHORS: Weinan Zhang, Xiangyu Zhao, Li Zhao, Dawei Yin, Grace Hui Yang, Alex Beutel
HIGHLIGHT: Our workshop aims to provide a venue, which can bring together academia researchers and industry practitioners (i) to discuss the principles, limitations and applications of DRL for information retrieval, and (ii) to foster research on innovative algorithms, novel techniques, and new applications of DRL to information retrieval.

368, TITLE: EARS 2020: The 3rd International Workshop on ExplainAble Recommendation and Search
https://dl.acm.org/doi/abs/10.1145/3397271.3401468
AUTHORS: Yongfeng Zhang, Xu Chen, Yi Zhang, Min Zhang, Chirag Shah
HIGHLIGHT: The workshop focuses on the research and application of explainable recommendation, search, and a broader scope of IR tasks.

369, TITLE: Language Agnostic Hate Speech Detection
https://dl.acm.org/doi/abs/10.1145/3397271.3401447
AUTHORS: Aymé Arango
HIGHLIGHT: The main research proposal of this thesis is to characterize hate speech and other forms of online harassment from different perspectives and use this characterizations to create novel models for online hate speech detection across different languages and domains.

370, TITLE: Legal Data Analytics: Developing Assistive Tools for Legal Practitioners
https://dl.acm.org/doi/abs/10.1145/3397271.3401448
AUTHORS: Paheli Bhattacharya
HIGHLIGHT: We outline the challenges and some initial progress made on each of them.

371, TITLE: Multi-Document Answer Generation for Non-Factoid Questions
https://dl.acm.org/doi/abs/10.1145/3397271.3401449
AUTHORS: Valeriia Baranova-Bolotova
HIGHLIGHT: The current research will be devoted to the challenging and under-investigated task of multi-source answer generation for complex non-factoid questions.

372, TITLE: Spatio-temporal Conditioned Language Models
https://dl.acm.org/doi/abs/10.1145/3397271.3401450
AUTHORS: Juglar Diaz

HIGHLIGHT: We aim to develop neural network models for language modeling conditioned on spatio-temporal variables with the ability to capture properties such as: neighborhood, periodicity and hierarchy.

373, TITLE: Explaining Recommendations in Heterogeneous Networks
https://dl.acm.org/doi/abs/10.1145/3397271.3401451
AUTHORS: Azin Ghazimatin
HIGHLIGHT: Explaining Recommendations in Heterogeneous Networks

374, TITLE: When the Human is in the Loop: Cost, Effort and Behavior
https://dl.acm.org/doi/abs/10.1145/3397271.3401452
AUTHORS: Lei Han
HIGHLIGHT: The aim of this research is to study how these tasks are completed, to help reduce non-essential data collection costs, and to support workers in efficient task completion.

375, TITLE: End-to-End Contextualized Document Indexing and Retrieval with Neural Networks
https://dl.acm.org/doi/abs/10.1145/3397271.3401453
AUTHORS: Sebastian Hofstätter
HIGHLIGHT: End-to-End Contextualized Document Indexing and Retrieval with Neural Networks

376, TITLE: Incorporating User Feedback in Conversational Question Answering over Heterogeneous Web Sources
https://dl.acm.org/doi/abs/10.1145/3397271.3401454
AUTHORS: Magdalena Kaiser
HIGHLIGHT: This PhD thesis will explore conversational question answering with a special emphasis on incorporating user feedback.

377, TITLE: User Modeling Towards Stateful Learning to Rank
https://dl.acm.org/doi/abs/10.1145/3397271.3401455
AUTHORS: Yanpeng Lin
HIGHLIGHT: In this research proposal, we focus on product search in E-commerce.

378, TITLE: Enhancing Graph Neural Networks for Recommender Systems
https://dl.acm.org/doi/abs/10.1145/3397271.3401456
AUTHORS: Siwei Liu
HIGHLIGHT: In this work, we propose to enhance the performance of the GBRS approaches along several research directions, namely leveraging additional items and users' side information, extending the existing undirected graphs to account for social influence among users, and enhancing their underlying optimisation criterion.

379, TITLE: Towards Legal Case Retrieval
https://dl.acm.org/doi/abs/10.1145/3397271.3401457
AUTHORS: Yunqiu Shao
HIGHLIGHT: As a primary attempt, we propose to develop a retrieval model to tackle these challenges based on the benchmarks in this task.

380, TITLE: Biomedical Information Retrieval incorporating Knowledge Graph for Explainable Precision Medicine
https://dl.acm.org/doi/abs/10.1145/3397271.3401458
AUTHORS: Zuoxi Yang
HIGHLIGHT: In this work, we propose a neural-based biomedical information retrieval model to address the semantic gap problem and fully investigate the utility of KG for the explainable biomedical information retrieval systems.

381, TITLE: Towards Evaluating Veracity of Textual Statements on the Web
https://dl.acm.org/doi/abs/10.1145/3397271.3401459
AUTHORS: Qiang Zhang
HIGHLIGHT: The major contributions to this growing area of research will be made from the following aspects: (1) improve stance detection and incorporate it to misinformation detection; (2) effectively utilize noisy, unstructured user engagements on social media platforms; (3) design a general framework for the early misinformation detection.

382, TITLE: Bridging East and West: An Integration of TCM and Western Medicine in Medical Text Mining
https://dl.acm.org/doi/abs/10.1145/3397271.3401460
AUTHORS: Runjie Zhu

HIGHLIGHT: The proposed dissertation research aims to bridge eastern and western medical philosophies by applying named entity recognition (NER) and information retrieval (IR) models supported by medical and cross lingual knowledge graphs, to enhance the retrieval performance as well as to increase the model explainability.