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Introduction

Welcome to the Workshop on Natural Language Processing in E-Commerce. We received 22 submissions, and due to a rigorous review process, we accepted 10 of them. We are grateful for the excellent contributions made from all the authors and reviewers.

Natural Language Processing (NLP) plays an irreplaceable role in modern e-commerce applications. The e-commerce setting presents exciting novel research opportunities in NLP space. The goal of our proposed work shop is to bridge the gap between researchers and practitioners to study the unique set of problems in the intersection of NLP and Ecommerce.

Since its early inception, Ecommerce has benefited significantly from research in NLP areas such as sentiment analysis, summarization, query understanding, entity extraction, machine translation etc. These problems have attracted continual attention from NLP researchers, and several high impact papers have been published in key ACL venues. Re cent advances in areas such as dialog systems, ma chine translation, image tagging etc. have already started influencing the industry. In fact, almost all key research areas in NLP have well matching Ecommerce applications.

The Ecommerce domain in turn has also presented researchers with challenging high impact problems. Selected examples include, aspect level sentiment analysis of product reviews, modeling the unique nature of e commerce queries and associated user behavior, improving search query performance through the rich set of user interactions in search logs, extraction of e-commerce entities and relations on novel document formats etc.

We hope all participants find the workshop helpful, either in academic applications or in industry applications. As ecommerce NLP is a relative new field in the literature, we look forward to learn and share with everyone of you.

Organizers:

Huasha Zhao, Microsoft
Parikshit Sondhi, Snap Inc.
Nguyen Bach, Alibaba Group
Sanjika Hewavitharana, eBay Inc.
Yifan He, Alibaba Group
Luo Si, Alibaba Group
Heng Ji, UIUC

Program Committee:

Markus Dreyer, Amazon
Josef van Genabith, German Research Center for AI
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Thien Huu Nguyen, University of Oregon
Sen Wu, Stanford University
Qiong Zhang, Alibaba
Shahram Khadivi, eBay Inc.
Selcuk Kopru, eBay Inc.
Xianjing Liu, eBay Inc.
Dingxian Wang, eBay Inc.

Invited Speaker:

Fei Huang, Alibaba Group

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Fei Huang

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16:15-16:30 *Distinctive Slogan Generation with Reconstruction*
Shotaro Misawa, Yasuhide Miura, Tomoki Taniguchi and Tomoko Ohkuma

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Bardia Rafieian and Marta R. Costa-jussà

16:45-17:00 *Multi-label classification of promotions in digital leaflets using textual and visual information*
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18:00-18:15 *BERT-based similarity learning for product matching*
Janusz Tracz, Piotr Iwo Wójcik, Kalina Jasinska-Kobus, Riccardo Belluzzo, Robert Mroczkowski and Ireneusz Gawlik

18:15-18:30 *Blending Search and Discovery: Tag-Based Query Refinement with Contextual Reinforcement Learning*
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