AACL-IJCNLP 2022

The 2nd Conference of the Asia-Pacific Chapter of the Association for Computational Linguistics and the 12th International Joint Conference on Natural Language Processing

Proceedings of the Conference (Volume 2: Short Papers)

November 20-23, 2022

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Preface by the General Chair

Welcome to AACL-IJCNLP 2022, the 2nd Conference of the Asia-Pacific Chapter of the Association for Computational Linguistics and the 12th International Joint Conference on Natural Language Processing! The conference will be held online on November 20-23, 2022.

AACL-IJCNLP 2022 was originally scheduled to take place in Taipei, Taiwan. We had a discussion with AACL executive board early this year whether to hold the conference entirely in the virtual mode due to the strict COVID quarantine rule imposed by the Taiwan government. We later decided to wait until the mid of June to re-evaluate the situation. In early June, the Central Epidemic Command Center in Taiwan announced that starting from 15 June 2022, the mandatory quarantine period for international arrivals in Taiwan would be reduced from 7 to 3 days. After a discussion with both the Program Chairs and the Local Organization Chair, we decided to wait further until August to see if we could have a hybrid conference in the hope that Taiwan will open its border fully in November. But we eventually made a difficult decision to hold the conference entirely online at mid of August as the quarantine rule and the travel ban imposed on foreign nationals were still in place in Taiwan. This was rather disappointed. Nevertheless, our Program Chairs have put together a very interesting conference program. I hope to see many of you joining our conference online.

AACL-IJCNLP 2022 adopted a dual paper submission system that authors can choose to submit their papers to the "ACL Rolling Review (ARR)" or submit to the softconf submission site in a conventional way. For the latter, authors had a chance to respond to reviewers' comments. One innovation our Program Chairs introduced is to allow authors to run additional experiments and upload revised papers during the rebuttal period to address reviewers' comments. This required additional efforts from our reviewers, area chairs and senior area chairs to check the revised submissions. But it gave authors better opportunities to address reviewers' criticism. Another innovation is to introduce poster lightning talks in the main conference. We hope these efforts will be followed in future conferences.

AACL-IJCNLP 2022 would not be possible without the contribution from a large number of volunteers who are willing to spend tremendous time and effort. These include the members of our organisation committee and various people from the ACL community. In particular, I would like to thank:

- the three Program Co-Chairs, Heng Ji, Sujian Li, and Yang Liu, who managed the whole conference paper submission and review process, and assembled the conference program with new initiatives such as a debate on "*Is there more to NLP than Deep Learning?*" and the "7 NLP Dissertation Topics for Next 7 Years";
- the Local Organisation Chair, Chia-Hui Chang, who was in charge of venue booking when we initially planned for a hybrid conference and coordinated the setup of a registration site. She was supported by a great local organisation team, including the Financial Chair, Lun-Wei Ku, the Local Arrangement Chair, Kuan-Yu (Menphis) Chen, the Online Conference Coordinator, Richard Tzong-Han Tsai, and the Registration Chair, Hsiu-Min Chuang;
- the Publication Co-Chairs, Min-Yuh Day, Hen-Hsen Huang, and Jheng-Long Wu, who prepared the instruction for proceedings compilation and coordinated with our workshop/tutorial/demo/student research workshop chairs to assemble all papers into our conference proceedings;
- the Workshop Co-chairs, Soujanya Poria and Chenghua Lin, who selected 5 workshops for the conference and ensured all the workshops could successfully run virtually;
- the Tutorial Co-Chairs, Miguel A. Alonso and Zhongyu Wei, who selected 6 tutorials to be presented at the conference and prepared the tutorial abstract proceedings;

- the Demonstration Co-Chairs, Wray Buntine and Maria Liakata, who manged the demo paper submission and review process;
- the Special Theme Co-Chairs, Monab Diab and Isabelle Augenstein, who handled paper submissions to the Special Theme on Fairness in Natural Language Processing;
- the Student Research Workshop (SRW) Co-Chairs, Hanqi Yan and Zonghan Yang, who organised the student workshop under the guidance our our SRW Faculty Co-Advisors, Sebastian Ruder and Xiaojun Wan;
- the Publicity Co-chairs, Pengfei Liu, Gabriele Pergola, and Ruifeng Xu, who communicated the information about the conference to the community using various social media channels;
- the Website Chair, Miguel Arana Catania and Yung-Chun Chang, who ensured that the AACL-IJCNLP 2022 website contains all up-to-date information;
- the Diversity & Inclusion (D&I) Chairs, Ruihong Huang and Jing Li, who have worked tirelessly to make AACL-IJCNLP 2022 as welcoming and inclusive as possible for all participants. They were supported by the D&I committee members, Yuji Zhang, Yuanyuan Lei, and Ayesha Qamar;
- the Sponsorship Coordinators, Hiroya Takamura, Wen-Hsiang Lu, and Deyi Xiong, who reached out institutions and corporations to collect funds to support our conference;
- the Communication Chairs, Zheng Fang, Jiazheng Li, and Xingwei Tan, who stepped in with a short notice to help Program Co-Chairs deal with a large number of email enquires;
- Priscilla Rasmussen, who stayed as a consultant for ACL, and Jennifer Rachford, the ACL Business Manager, for helping with various conference matters;
- the Chair of the AACL, Keh-Yih Su, and all the AACL executive board members, that have provided guidance regarding various decisions;
- the ACL executive board including the President, Tim Baldwin, for linking us with the right support; the ACL Sponsorship Director, Chris Callison-Burch, for providing guidance to our Sponsorship Chairs; and the ACL Treasurer, David Yarowsky, who negotiated a contract with Underline for supporting our virtual conference;
- Rich Gerber from Softconf, who set up the AACL-IJCNLP conference submission site, has always been responsive to our queries.

I would also like to express gratitude to our sponsors, whose generous support has been invaluable in building up AACL-IJCNLP to what it is now. These include our Diamond-level sponsors - GTCOM, LivePerson, Tourism Bureau, the Ministry of Science and Technology, the Ministry of Education and National Central University in Taiwan; our Platinum-level sponsor - Baidu; our Gold-level sponsors - Bloomberg; and our Bronze-level sponsors - Adobe.

Finally, I would like to thank all authors, senior area chairs, area chairs, reviewers, invited speakers and panelists, the volunteers organizing and chairing various sessions in the conference, and all attendees, for making this hopefully another successful NLP conference!

Hope you all enjoy AACL-IJCNLP 2022!

AACL-IJCNLP 2022 General Chair Yulan He, King's College London, UK

Preface by the Program Committee Co-Chairs

We welcome you to AACL-IJCNLP 2022, the 2nd Conference of the Asia-Pacific Chapter of the Association for Computational Linguistics (AACL) and the 12th International Joint Conference on Natural Language Processing (IJCNLP)! Due to the strict COVID quarantine rule imposed by the local government, AACL-IJCNLP 2022 has to be held fully virtual. However, conference organizers have worked very hard to simulate an in-person meeting setting, thanks to the relatively mature virtual conference infrastructures that have been built by our community.

AACL-IJCNLP 2022 has utilized two submission platforms SoftConf and ACL Rolling Review (ARR)-OpenReview, and received 554 submissions in total (518 from SoftConf and 36 from ARR) for the main conference. We have accepted 147 papers (87 long and 60 short) for the main conference and 44 papers for the Findings. The submissions came from all over the world. Among the 191 accepted papers, according to the information of the main contact, 84 were from the Asia-Pacific region (23 from China mainland, 18 from India, 16 from Japan, 7 from South Korea, 5 from Australia, 3 from Singapore, 3 from Taiwan, 3 from Bangladesh, 2 from New Zealand, 1 from Sri Lanka, 1 from Nepal, 1 from Malaysia, and 1 from HongKong), 42 were from the America (36 from the USA, 5 from Canada, 1 from Chile), and 65 from Europe and the Middle East (18 from the UK, 12 from Germany, 9 from France, 5 from Netherlands, 4 from Switzerland, 4 from Italy, 3 from Norway, 2 from Egypt, 2 from Spain, 1 from Estonia, 1 from Denmark, 1 from Finland, 1 from Iron, 1 from Bulgaria and 1 from Czech).

We have developed the following new attempts this year for paper submission:

- We created a new special theme "Fairness in Natural Language Processing".
- We added a new function during paper rebuttal to allow authors to upload their revised papers so that some responses can be more clearly presented and elaborated.

AACL-IJCNLP2022 does have a great program, thanks to all of you! We have put up a very exciting program with many new plenary sessions:

- We have invited four wonderful keynote speakers this year: Chris Callison-Burch (University of Pennsylvania), Eduard Hovy (University of Melbourne and Carnegie Mellon University), Juanzi Li (Tsinghua University), and Prem Natarajan (Amazon Alexa AI).
- A promised-to-be-heated debate: "Is there more to NLP than Deep Learning?" between "Yes" team: Eduard Hovy (Team Lead), Kathleen McKeown, Dan Roth, Eric Xing and "No" team: Kyunghyun Cho (Team Lead), Danqi Chen, Manling Li, Graham Neubig, to be moderated by Rada Mihalcea.
- "7 NLP Dissertation Topics for Next 7 Years" by Kevin Duh, Fei Huang, Smaranda Muresan, Preslav Nakov, Nanyun Peng, Joel Tetreault and Lu Wang.
- A panel on the special theme "Fairness in Natural Language Processing", moderated by our special theme chairs Mona Diab and Isabelle Augenstein.
- A Global Women in NLP session "Finding Your Purpose, Findign Your Voice Professional Growth in the Age of Deep AI" led by Pascale Fung.

We are very grateful for all of these speakers and panelists on accepting our invitations! We will also have a special best paper award session and a lighting talk session for posters, following the successes of previous ACL and NAACL conferences. The excellence of the overall AACL-IJCNLP2022 program is

thanks to all the chairs and organizers. We especially thank the 47 Senior Area Chairs, 84 Area Chairs and reviewers for their hard work. We are grateful to Amanda Stent, Goran Glavaš, Graham Neubig, and Harold Rubio for their invaluable support in the commitment of papers reviewed by ARR to AACL-IJCNLP 2022. We appreciate Rich Gerber's prompt responses and support whenever we request any fix or adding new functions. It has been an enormous privilege for us to see the scientific advances that will be presented at this conference. Congratulations to all authors!

We hope you will enjoy AACL-IJCNLP 2022, and look forward to seeing many of you online!

AACL-IJCNLP 2020 Program Committee Co-Chairs Heng Ji (University of Illinois Urbana-Champaign and Amazon Scholar) Yang Liu (Tsinghua University) Sujian Li (Peking University)

Preface by the Local Chair

Since winning the bid for organising AACL-IJCNLP 2022 conference in Taiwan, the local team has worked hard to get subsidies from Ministry of Science and Technology, Ministry of Education, Bureau of Foreign Trade, and National Central University, Taiwan. We also planned to co-host AACL-IJCNLP 2022 with ROCLING 2022, the annual meeting of the Association for Computational Linguistics of Chinese Language Processing in Taiwan. We, Yung-Chun Chang, Kuan-Yu (Menphis) Chen and I, envisioned that even if only half the registrants can come to Taiwan due to COVID-19, the conference will still be lively with ROCLING participants.

Even at the end of June, we remained optimistic that a hybrid conference would be possible. However, Taiwan's border control were not lifted and passengers entering Taiwan still needed to be quarantined for three plus four days after August, which will deter most international participants. Thus, we had to adopt a purely online mode at last.

It was a great experience to co-host the AACL-IJCNLP 2022 conference with the international team. On behalf of the local organising team: Yung-Chun Chang, Kuan-Yu (Menphis) Chen, Hsiu-Min Chuang, Min-Yuh Day, Hen-Hsen Huang, Lun-Wei Ku, Wen-Hsiang Lu, Tzong-Han Tsai, and Jheng-Long Wu, we would like to thank our general chair, Yulan He, program co-chairs, Heng Ji, Yang Liu, Sujian Li, and the international team. Yulan's leadership and the international team made the conference go smoothly. Without you, it would be impossible to accomplish so many tasks. I also learned a lot from it. Hope we can meet physically in the near future.

AACL-IJCNLP 2022 Local Chair Chia-Hui Chang (National Central University)

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Chen Qian, Lianhui Qin, Xinying Qiu, Long Qiu, Xipeng Qiu, Chen Qu

Alexandre Rademaker, Sunny Rai, Taraka Rama, Lakshmi Ramachandran, Shihao Ran, Surangika Ranathunga, Peter A. Rankel, Sudha Rao, Ari Rappoport, Traian Rebedea, Hanumant Redkar, Navid Rekabsaz, Yuqi Ren, Corentin Ribeyre, Tharathorn Rimchala, Annette Rios, Anthony Rios, Paul Rodrigues, Lina M. Rojas Barahona, Andrew Rosenberg, Sophie Rosset, Bryan Routledge, Irene Russo

Fatiha Sadat, Sylvie Saget, Monjoy Saha, Saurav Sahay, Sunil Kumar Sahu, Hassan Sajjad, Sakriani Sakti, Elizabeth Salesky, Jonne Saleva, Avneesh Saluja, Germán Sanchis-Trilles, Hugo Sanjurjo-González, Ananth Sankar, Diana Santos, Bishal Santra, Soumya Sanyal, Naomi Saphra, Kamal Sarkar, Anoop Sarkar, Shota Sasaki, Felix Sasaki, Ryohei Sasano, Asad Sayeed, Shigehiko Schamoni, Helmut Schmid, William Schuler, Lane Schwartz, Nasredine Semmar, Gregory Senay, Minjoon Seo, Lei Sha, Swair Shah, Cory Shain, Mingyue Shang, Yunfan Shao, Soumya Sharma, Ravi Shekhar, Tianxiao Shen, Bowen Shen, Tianhao Shen, Yuming Shen, Aili Shen, Michael Sheng, Tian Shi, Yangyang Shi, xiaodong shi, Tomohide Shibata, Yutaro Shigeto, Takahiro Shinozaki, Raphael Shu, Chenglei Si, Maryam Siahbani, Avi Sil, Carina Silberer, Diego Silva, Stefano Silvestri, Patrick Simianer, Dan Simonson, Edwin Simpson, Keshav Singh, Sahib Singh, Amando Jr. Singun, Olivier Siohan, Kevin Small, Luca Soldaini, Saleh Soltan, Xingyi Song, Yan Song, Dongjin Song, Siqi Song, Yan Song, Anna Sotnikova, Marlo Souza, Felix Stahlberg, Efstathios Stamatatos, Shane Steinert-Threlkeld, Pontus Stenetorp, Kristina Striegnitz, Keh-Yih Su, Aparna Subramanian, Katsuhito Sudoh, Yoshi Suhara, Derwin Suhartono, Ming Sun, Shichao Sun, Kai Sun

Zeerak Talat, George Tambouratzis, Akihiro Tamura, Fei Tan, Bowen Tan, Chenhao Tan, Yuka Tateisi, Marta Tatu, Tatiane Tavares, Selma Tekir, Irina Temnikova, Zhiyang Teng, Joel Tetreault, Krishnaprasad Thirunarayan, Yufei Tian, Erik Tjong Kim Sang, Takenobu Tokunaga, Marwan Torki, Samia Touileb, Trang Tran, Aashka Trivedi, Yuen-Hsien Tseng, Kewei Tu

Kiyotaka Uchimoto, L. Alfonso Ureña-López, Masao Utiyama

Rob van der Goot, Oskar van der Wal, Clara Vania, Shikhar Vashishth, Rakesh Verma, Karin Verspoor, David Vilar, Jesús Vilares, Martin Villalba, Serena Villata, Esau Villatoro-Tello, Elena Voita, Thuy Vu, Henning Wachsmuth

Xinhao Wang, Han Wang, Junfeng Wang, Haoyu Wang, Hongfei Wang, Qian Wang, Xin Wang, Yanshan Wang, Ping Wang, Hsin-Min Wang, Lei Wang, zili Wang, Rui Wang, Hao Wang, Tong Wang, Weiyue Wang, Wei Wang, Wei Wang, Jin Wang, Xintong Wang, Yufei Wang, Zhaowei Wang, Xiaojie WANG, Guangtao Wang, Jianzong Wang, Xuezhi Wang, Hao Wang, Wenqi Wang, William Yang Wang, Shuai Wang, Yi-Chia Wang, Yi-Chia Wang, Xiang Wang, Xin Wang, Boxin Wang, Mingxuan Wang, Shuo Wang, Xiting Wang, Koichiro Watanabe, Taro Watanabe, Shinji Watanabe, Roger Wattenhofer, Kellie Webster, Feng Wei, Xiangpeng Wei, Charles Welch, Simon Wells, Derry Tanti Wijaya, Gijs Wijnholds, Rodrigo Wilkens, Adina Williams, Jennifer Williams, Tak-sum Wong, Kam-Fai Wong, Alina Wróblewska, Zhiyong Wu, Xianchao Wu, Chien-Sheng Wu, Fangzhao Wu, Stephen Wu, Ji Wu, Mengyue Wu, Wenhao Wu

Heming Xia, Rui Xia, Ruicheng Xian, Min Xiao, Yuqing Xie, Yiqing Xie, Jun Xie, Yujie Xing, Zhenchang Xing, Chao Xiong, Deyi Xiong, Chejian Xu, Benfeng Xu, Yueshen Xu, Song Xu, Canwen Xu, Qiongkai Xu, Hongfei Xu, Ruifeng Xu, Dongkuan Xu, Tong Xu

Shuntaro Yada, Ming Yan, Xu Yan, Muqiao Yang, Longfei Yang, Haiqin Yang, Eugene Yang, Wei Yang, Ze Yang, Erguang Yang, Ziqing Yang, Zichao Yang, Roman Yangarber, Tae Yano, Wenlin Yao, Kaisheng Yao, Wen-tau Yih, Lang Yin, Seunghyun Yoon, Masaharu Yoshioka, Liang-Chih Yu, Heng Yu, Dian Yu, Mo Yu, Zhaoquan Yuan, Ruifeng Yuan, Chuan Yue, Frances Yung

Fadi Zaraket, Zhiyuan Zeng, Xingshan Zeng, Qingcheng Zeng, Torsten Zesch, Deniz Zeyrek, Shuang (Sophie) Zhai, Yuxiang Zhang, Zeyu Zhang, Zizheng Zhang, Xiaohan Zhang, Chengzhi Zhang, Jingsen Zhang, Ningyu Zhang, Guangwei Zhang, Dongyu Zhang, Zhuosheng Zhang, Ke Zhang, Biao Zhang, Jinnian Zhang, Chenwei Zhang, Shuai Zhang, Jiajun Zhang, Wei-Nan Zhang, Meishan Zhang, Hanwang Zhang, tianzhu zhang, Hai Zhao, Chao Zhao, Jieyu Zhao, Xiaobing Zhao, Dongyan Zhao, Lin Zhao, Sendong Zhao, Han Zhao, Rui Zheng, Xiaoqing Zheng, Wenxuan Zhou, Qiang Zhou, Jingbo Zhou, Lina Zhou, Su Zhu, Junnan Zhu, Shaolin Zhu, Chenguang Zhu, Caleb Ziems, Michael Zock, Bowei Zou, Vilém Zouhar, Arkaitz Zubiaga, Ingrid Zukerman

Table of Contents

Transfer Learning for Humor Detection by Twin Masked Yellow MuppetsAseem Arora, Gaël Dias, Adam Jatowt and Asif Ekbal1
A Unified Model for Reverse Dictionary and Definition Modelling Pinzhen Chen and Zheng Zhao
Benchmarking the Covariate Shift Robustness of Open-world Intent Classification Approaches Sopan Khosla and Rashmi Gangadharaiah14
Number Theory Meets Linguistics: Modelling Noun Pluralisation Across 1497 Languages Using 2-adic Metrics
Gregory Baker and Diego Molla24
CLIP4IDC: CLIP for Image Difference Captioning Zixin Guo, Tzu-Jui Wang and Jorma Laaksonen
<i>Towards Modeling Role-Aware Centrality for Dialogue Summarization</i> Xinnian Liang, Chao Bian, Shuangzhi Wu and Zhoujun Li
Robust Hate Speech Detection via Mitigating Spurious CorrelationsKshitiz Tiwari, Shuhan Yuan and Lu Zhang51
FAD-X: Fusing Adapters for Cross-lingual Transfer to Low-Resource LanguagesJaeseong Lee, Seung-won Hwang and Taesup Kim57
Combining Argumentation Structure and Language Model for Generating Natural Argumentative Dia- logue
Koh Mitsuda, Ryuichiro Higashinaka and Kuniko Saito65
<i>Every word counts: A multilingual analysis of individual human alignment with model attention</i> Stephanie Brandl and Nora Hollenstein
Analyzing Biases to Spurious Correlations in Text Classification Tasks Adian Liusie, Vatsal Raina, Vyas Raina and Mark Gales
<i>BERTSeg: BERT Based Unsupervised Subword Segmentation for Neural Machine Translation</i> Haiyue Song, Raj Dabre, Zhuoyuan Mao, Chenhui Chu and Sadao Kurohashi
NERDz: A Preliminary Dataset of Named Entities for Algerian Samia Touileb
An Effective Post-training Embedding Binarization Approach for Fast Online Top-K Passage Matching Yankai Chen, Yifei Zhang, Huifeng Guo, Ruiming Tang and Irwin King 102
Addressing Segmentation Ambiguity in Neural Linguistic Steganography Jumon Nozaki and Yugo Murawaki
Parsing linearizations appreciate PoS tags - but some are fussy about errors Alberto Muñoz-Ortiz, Mark Anderson, David Vilares and Carlos Gómez-Rodríguez117
<i>EmoNoBa: A Dataset for Analyzing Fine-Grained Emotions on Noisy Bangla Texts</i> Khondoker Ittehadul Islam, Tanvir Yuvraz, Md Saiful Islam and Enamul Hassan

Exploring Universal Sentence Encoders for Zero-shot Text ClassificationSouvika Sarkar, Dongji Feng and Shubhra Kanti Karmaker Santu135
The Effects of Language Token Prefixing for Multilingual Machine Translation Rachel Wicks and Kevin Duh 148
<i>How Relevant is Selective Memory Population in Lifelong Language Learning?</i> Vladimir Araujo, Helena Balabin, Julio Hurtado, Alvaro Soto and Marie-Francine Moens154
An Improved Baseline for Sentence-level Relation Extraction Wenxuan Zhou and Muhao Chen
Multi-Type Conversational Question-Answer Generation with Closed-ended and Unanswerable Ques- tions Seonjeong Hwang, Yunsu Kim and Gary Geunbae Lee
Seonjeong Hwang, Tunsu Kim and Gary Geundae Lee
<i>Improving Chinese Story Generation via Awareness of Syntactic Dependencies and Semantics</i> Henglin Huang, Chen Tang, Tyler Loakman, Frank Guerin and Chenghua Lin
<i>NGEP: A Graph-based Event Planning Framework for Story Generation</i> Chen Tang, Zhihao Zhang, Tyler Loakman, Chenghua Lin and Frank Guerin
A Simple Yet Effective Hybrid Pre-trained Language Model for Unsupervised Sentence Acceptability Prediction
Yang Zhao and Issei Yoshida 194
Post-Training with Interrogative Sentences for Enhancing BART-based Korean Question Generator Gyu-Min Park, Seong-Eun Hong and Seong-Bae Park
<i>Do ever larger octopi still amplify reporting biases? Evidence from judgments of typical colour</i> Fangyu Liu, Julian Eisenschlos, Jeremy Cole and Nigel Collier
Adversarially Improving NMT Robustness to ASR Errors with Confusion Sets Shuaibo Wang, Yufeng Chen, Songming Zhang, Deyi Xiong and Jinan Xu
Improving Graph-Based Text Representations with Character and Word Level N-grams Wenzhe Li and Nikolaos Aletras 228
Risk-graded Safety for Handling Medical Queries in Conversational AI Gavin Abercrombie and Verena Rieser
Performance-Efficiency Trade-Offs in Adapting Language Models to Text Classification Tasks Laura Aina, Nikos Voskarides and Roi Blanco
Seeking Diverse Reasoning Logic: Controlled Equation Expression Generation for Solving Math Word Problems
Yibin Shen, Qianying Liu, Zhuoyuan Mao, Zhen Wan, Fei Cheng and Sadao Kurohashi 254
BanglaParaphrase: A High-Quality Bangla Paraphrase Dataset Ajwad Akil, Najrin Sultana, Abhik Bhattacharjee and Rifat Shahriyar
NepBERTa: Nepali Language Model Trained in a Large CorpusSulav Timilsina, Milan Gautam and Binod Bhattarai273
Local Structure Matters Most in Most Languages Louis Clouatre, Prasanna Parthasarathi, Amal Zouaq and Sarath Chandar

Transformer-based Localization from Embodied Dialog with Large-scale Pre-training Meera Hahn and James M. Rehg 295
CSS: Combining Self-training and Self-supervised Learning for Few-shot Dialogue State Tracking Haoning Zhang, Junwei Bao, Haipeng Sun, Huaishao Luo, Wenye Li and Shuguang Cui302
<i>Demographic-Aware Language Model Fine-tuning as a Bias Mitigation Technique</i> Aparna Garimella, Rada Mihalcea and Akhash Amarnath
<i>Towards Simple and Efficient Task-Adaptive Pre-training for Text Classification</i> Arnav Ladkat, Aamir Miyajiwala, Samiksha Jagadale, Rekha A. Kulkarni and Raviraj Joshi320
 Extractive Entity-Centric Summarization as Sentence Selection using Bi-Encoders Ella Hofmann-Coyle, Mayank Kulkarni, Lingjue Xie, Mounica Maddela and Daniel Preotiuc-Pietro 326
<i>Towards Unsupervised Morphological Analysis of Polysynthetic Languages</i> Sujay Khandagale, Yoann Léveillé, Samuel Miller, Derek Pham, Ramy Eskander, Cass Lowry, Richard Compton, Judith Klavans, Maria Polinsky and Smaranda Muresan
Self-Repetition in Abstractive Neural SummarizersNikita Salkar, Thomas Trikalinos, Byron Wallace and Ani Nenkova341
<i>Domain Specific Sub-network for Multi-Domain Neural Machine Translation</i> Amr Hendy, Mohamed Abdelghaffar, Mohamed Afify and Ahmed Y. Tawfik
Modeling Document-level Temporal Structures for Building Temporal Dependency Graphs Prafulla Kumar Choubey and Ruihong Huang 357
Evaluating Pre-Trained Sentence-BERT with Class Embeddings in Active Learning for Multi-Label Text Classification Lukas Wertz, Jasmina Bogojeska, Katsiaryna Mirylenka and Jonas Kuhn
MiQA: A Benchmark for Inference on Metaphorical Questions Iulia Comșa, Julian Eisenschlos and Srini Narayanan
GCDT: A Chinese RST Treebank for Multigenre and Multilingual Discourse Parsing Siyao Peng, Yang Janet Liu and Amir Zeldes
Assessing Combinational Generalization of Language Models in Biased Scenarios Yanbo Fang, Zuohui Fu, Xin Dong, Yongfeng Zhang and Gerard de Melo
<i>Controllable Text Simplification with Deep Reinforcement Learning</i> Daiki Yanamoto, Tomoki Ikawa, Tomoyuki Kajiwara, Takashi Ninomiya, Satoru Uchida and Yuki Arase
<i>Vector Space Interpolation for Query Expansion</i> Deepanway Ghosal, Somak Aditya, Sandipan Dandapat and Monojit Choudhury405
SchAman: Spell-Checking Resources and Benchmark for Endangered Languages from Amazonia Arturo Oncevay, Gerardo Cardoso, Carlo Alva, César Lara Ávila, Jovita Vásquez Balarezo, Saúl Escobar Rodríguez, Delio Siticonatzi Camaiteri, Esaú Zumaeta Rojas, Didier López Francis, Juan López Bautista, Nimia Acho Rios, Remigio Zapata Cesareo, Héctor Erasmo Gómez Montoya and Roberto Zariquiey

CoFE: A New Dataset of Intra-Multilingual Multi-target Stance Classification from an Online European Participatory Democracy Platform Valentin Barriere, Guillaume Guillaume Jacquet and Leo Hemamou	
Exploring the Effects of Negation and Grammatical Tense on Bias Probes Samia Touileb 42.	3
Promoting Pre-trained LM with Linguistic Features on Automatic Readability Assessment Shudi Hou, Simin Rao, Yu Xia and Sujian Li	0
An Empirical Study of Pipeline vs. Joint approaches to Entity and Relation Extraction Zhaohui Yan, Zixia Jia and Kewei Tu	7
CLASP: Few-Shot Cross-Lingual Data Augmentation for Semantic Parsing Andy Rosenbaum, Saleh Soltan, Wael Hamza, Marco Damonte, Isabel Groves and Amir Saffari444	4
Plug and Play Knowledge Distillation for kNN-LM with External LogitsXuyang Jin, Tao Ge and Furu Wei462	3
<i>How Well Do Multi-hop Reading Comprehension Models Understand Date Information?</i> Xanh Ho, Saku Sugawara and Akiko Aizawa	0
<i>Dodging the Data Bottleneck: Automatic Subtitling with Automatically Segmented ST Corpora</i> Sara Papi, Alina Karakanta, Matteo Negri and Marco Turchi	0
How to tackle an emerging topic? Combining strong and weak labels for Covid news NER Aleksander Ficek, Fangyu Liu and Nigel Collier	8