



NLPR: Call for Papers Special Issue “Multilingual Representations for NLP”

Guest Editors

Steffen Eger – Technische Universität Darmstadt, Germany

Li Dong - Microsoft Research, China

Chi-kiu Lo - National Research Council, Canada

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Johannes Bjerva - Aalborg University Copenhagen, Denmark

Pushpak Bhattacharyya - Indian Institute of Technology Bombay, India

Aims and Scope

Static and contextualized cross-lingual text representations have become extremely popular in natural language processing (NLP) in the last decade, since they enable text processing in multiple languages while having access to labeled data in only a single one. Inducing multilingual text representations also allows generalization of results beyond English, which is a prerequisite for deeper understanding of capabilities and limitations of NLP methodology – thus, multilingual representations serve as a better test bed for claims of universality of NLP techniques. Aside from engineering goals, cross-lingual representations are useful for research in linguistics, e.g. they may allow to quantify distances between languages, also from a historical perspective.

This special issue invites articles on all aspects of multi- and cross-lingual text representations in NLP. Beyond standard zero-shot cross-lingual text classification transfer, particular focus is on challenging application scenarios of cross-lingual representations such as using them as a basis for evaluation metrics in machine translation without human references (reference-free evaluation metrics) and scenarios involving (very) low-resource languages and highly distant language pairs. Analyses of cross-lingual representations and novel benchmarks are, furthermore, of high interest. Further main topics are listed below.

Original submissions as well as substantial extensions of submitted conference papers are welcome.

Main Topics and Quality Control

Main topics include, but are not limited to:

- Evaluation metrics for MT based on cross-lingual representations (“reference-free evaluation”)
- Evaluation of cross-lingual representations for low-resource languages and highly distant language pairs
- Explainability and interpretability of multi- and cross-lingual representations



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- Novel analyses of cross-lingual and multilingual representations
- Measuring language similarity from cross-lingual representations
- Predicting missing typological features from multilingual representations
- Extending representations to new languages and tasks with minimal supervision
- Self-supervised cross-lingual representation learning
- Zero-shot or few-shot cross-lingual transfer for language understanding and generation
- Automatic large-scale multilingual corpus mining
- Cost-effective annotation for multilingual applications
- Resources for training or evaluating cross-lingual representations
- Novel cross-lingual and multilingual benchmarks

Full papers will be subject to a strict review procedure for final selection to this special issue based on the following criteria:

1. Quality and originality in theory and methodology of the special issue.
2. Relevance to the topic of the special issue.
3. Application orientation which exhibits originality.
4. If there is an implementation, the details of the implementation must be provided.
5. Extended papers must contain at least 40% new material (qualitative) relative to the conference paper.

Important Dates

Submission of papers: 18 July 2021

Note: This special issue will build gradually, with articles being added to the contents list online as soon as they are ready.

Submit Your Paper

All papers have to be submitted via the Editorial Manager online submission and peer review system. Instructions will be provided on screen and you will be stepwise guided through the process of uploading all the relevant article details and files associated with your submission. All manuscripts must be in the English language.

To access the online submission site for the journal, please visit <https://www.editorialmanager.com/nlpr/default.aspx>. Note that if this is the first time that you submit to the Natural Language Processing Research, you need to register as a user of the system first.

NOTE : Before submitting your paper, please make sure to review the journal's [Author Guidelines](#) first.



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Introduction of the Guest Editors

Steffen Eger



Homepage: <https://steffeneger.github.io/>

Dr. Eger is Independent Research Group Leader at Technische Universität Darmstadt, Germany. He has broad interests in deep learning for NLP, in particular in deep learning for argument mining, as well as cross-lingual and cross-temporal approaches. His recent research interests further include evaluation of text representations and evaluation metrics for text generation systems. He has published more than 20 papers in the last 4 years in the lead NLP conferences EMNLP, ACL, NAACL, and COLING. He was Program Chair Assistant at ACL 2018, and serves as Area Chair for EACL 2021. He was an organizer of the 1st and 2nd Eval4NLP workshop in EMNLP 2020 and 2021, which deals (a.o.) with mono- and cross-lingual text representations in the context of evaluation metrics.

Gözde Gül Şahin



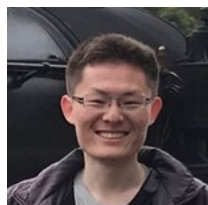
Homepage: <https://gozdesahin.github.io/>

Dr. Gözde Gül Şahin is a postdoctoral researcher in the Ubiquitous Knowledge Processing (UKP) Lab in the Department of Computer Science, Technische Universität Darmstadt, Germany. Her research spans over the fields of natural language processing and machine learning. In particular, her research interests include computational semantics and deep learning for multilingual and low-resource settings. She has completed her PhD on semantic analysis of morphologically rich languages in Istanbul Technical University (İTÜ) Computer Engineering Department. During her PhD studies, she has visited the Institute for Language, Cognition and Computation (ILCC) of University of Edinburgh. She has published in top-tier NLP and AI conferences and journals (e.g., ACL, EMNLP, AACL, NAACL, CL). She is the co-organizer of 1st Workshop on Multilingual Representation Learning at EMNLP 2021, that has a focus on advancing generalization in low-resource NLP.



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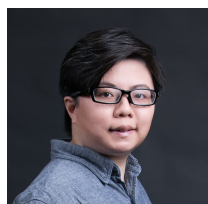
Li Dong



Homepage: <http://dong.li/>

Dr. Li Dong is a Senior Researcher in Natural Language Computing Group at Microsoft Research, where he works on large-scale language model pre-training. Prior to joining Microsoft, Li studied at the University of Edinburgh, and Beihang University. Li served as Area Chair for EMNLP-19, EMNLP-20, NAACL-21, ACL-21, and Senior PC for IJCAI-21. Li received the ACL-18 Best Paper Honourable Mention Award and was honoured as a runner-up in the 2019 AAAI/ACM SIGAI Doctoral Dissertation Award.

Chi-kiu Lo



Homepage: <http://chikiu-jackie-lo.org/home/>

Dr. Lo is a Research Officer in the Multilingual Text Processing team of the Digital Technologies Research Centre at the National Research Council Canada. Her research interest is multilingual natural language processing with particular focus on semantics in machine translation (MT), its quality evaluation and estimation. She designed a unified MT quality evaluation and estimation metric, YiSi, that correlated the best or statistically tied for the best with humans in 34 of 36 evaluation sets at the Fourth Conference on Machine Translation (WMT-19) metrics shared task. Lo was an organizer of the Inuktitut-English news translation shared task at the WMT-20. She also served as the co-chair for the diversity and inclusion committee in EMNLP-19 and the area co-chair for machine translation and multilinguality in ACL-20.



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Johannes Bjerva



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Dr. Johannes Bjerva is a tenure-track assistant professor affiliated with the Department of Computer Science, Aalborg University (Campus Copenhagen), Denmark. He has served as area chair for EACL-21 and has published in top-tier NLP / AI conferences and journals (e.g. ACL, EMNLP, EACL, AACL, NAACL, CL). His research generally deals with under-resourced languages, by combining linguistic typology with parameter sharing via multilingual and multitask learning. For the past few years, he has investigated computational typology and answering typological research questions. Most recently, he organised a shared task on the prediction of typological features in WALS, hosted by SIGTYP.

Pushpak Bhattacharyya



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Prof. Bhattacharyya is Professor of Computer Science and Engineering Department IIT Bombay. Prof. Bhattacharyya's research areas are Natural Language Processing, Machine Learning and AI (NLP-ML-AI). Prof. Bhattacharyya has published more than 350 research papers in various areas of NLP. Author of the textbook 'Machine Translation', Prof. Bhattacharyya has shed light on all paradigms of machine translation with abundant examples from Indian Languages. Two recent monographs co-authored by him called 'Investigations in Computational Sarcasm' and 'Cognitively Inspired Natural Language Processing- An Investigation Based on Eye Tracking' describe cutting-edge research in NLP and ML. Prof. Bhattacharyya is Fellow of Indian National Academy of Engineering (FNAE) and Abdul Kalam National Fellow. For sustained contribution to technology he received the Manthan Award of the Ministry of IT, P.K. Patwardhan Award of IIT Bombay and VNMM Award of IIT Roorkey. He is also a Distinguished Alumnus of IIT Kharagpur.