



NLPR: Call for Papers Special Issue “Information Extraction and NLP”

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Aims and Scope

With the growth of big data, we are confronted with the pressing needs of automated means to support the mining and sense-making of very large amount of data. One of the keys to unlocking values in such big data is the ability to interpret human natural language, extract information from unstructured text, and represent them in a machine understandable format. For these activities to be successful, Natural Language Processing (NLP) and Information Extraction (IE) methods need to be developed. They already power a wide range of technologies that we experience on a daily basis, such as search engines, knowledge graphs, and smart assistants. They are also crucial to a wide range of disciplines, for instance information retrieval, data fusion, and the Semantic Web.

For these reasons, in recent years, NLP and IE have seen fast-growing interest and unprecedented opportunities in both research and practice. Some of these highly recognised efforts include the IBM Watson Natural Language Understanding engine, the Never-Ending Language Learning (NELL) project led by the Carnegie Mellon University, the knowledge graph projects that power Google and Bing search engines, Baidu BROAD, Amazon Comprehend, and Google’s Bidirectional Encoder Representations from Transformers (BERT) model that marks a milestone in NLP. The significant advance in the NLP and IE fields has brought significant opportunities, but also opened up new challenges for research. Some of the questions that remain to be answered include: beyond the recent language models such as GPT-3 and those BERT-based, what are the directions for algorithmic research? How do such language models impact IE methods? How well do they adapt to domain-specific tasks and industry context? And generally, what are the lessons we have learned from the advances in research over the past decade and where should NLP and IE research go?

This special issue aims at addressing the aforementioned questions by inviting scholarly contributions covering recent advances in NLP and IE. Papers submitted to this special issue should discuss tasks that directly tackle, or have a clear link to, the extraction of structured information



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from natural human language texts (either structured or unstructured). We welcome original research articles reporting the development of novel methods and algorithms, as well as literature survey papers summarising a key subject area.

Main topics and quality control

This special issue welcomes submissions covering a wide range of topic areas such as those listed below.

- Named entity recognition and linking
- Relation extraction and classification
- Terminology extraction and classification
- Template filling (e.g., event extraction)
- Knowledge base/graph construction and alignment
- NLP/IE from semi-structured content, e.g., wrapper induction, table mining
- NLP/IE applications to problems in another subject field, e.g., Information Retrieval, Semantic Web, Social Media, information and knowledge integration
- NLP/IE applications to industry/domain specific context
- Interpretability and Analysis of Models for NLP/IE
- Machine Learning for NLP/IE
- Resources and Evaluation
- Semantics: Lexical, Sentence level, Textual Inference and Other areas
- Sentiment Analysis
- Disambiguation
- Argument Mining
- Summarization
- Representation learning for NLP/IE tasks
- (Information) Nutrition labels for the Web
- Negative results: what lessons can be learned to inform future research

Because of the wide scope of NLP and IE, it is possible that some important topics that fit the merit of this special issue are not listed above. Therefore, if you are unsure whether your work would fit, we encourage to get in touch with the corresponding editor, Ziqi Zhang, whose email address you will find at the top of the first page.

All papers must comply with the basic requirements of NLPR (see below) and will be subject to a rigorous peer-review process.

Important Dates

Submission of papers: 30 June 2021

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



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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.

Introduction of the guest editor(s)



Ziqi Zhang, <https://ziqizhang.github.io/>

Dr Ziqi Zhang is Lecturer in the Information School, the University of Sheffield. His research covers areas of Information Extraction, Web of data, semantic technologies and social media analytics. His current research investigates Information Extraction from semi-structured content on the Web, and the use of structured data (e.g. microdata, RDFs) by IE methods. He has published over 60 peer-reviewed articles at prestigious conferences and journals, such as ISWC, ESWC, ACL, EMLNP, K-CAP, Semantic Web Journal, International Journal of Public Health, ACM Transactions on Knowledge Discovery from Data, Online Information Review, etc. He served as area chair and senior program committee members in conferences such as ESWC and ECAI, as guest editor of Semantic Web Journal, and as program committee members and/or reviewers regularly at numerous conferences and journals such as ISWC, ESWC, EKAW, CIKM, CHIIR, TheWebConference (WWW), Semantic Web Journal, Web of Semantics, IEEE Access, Information Process & Management, PeerJ Computer Science, ACM Transactions on Intelligent Systems and Technology, Crime Science, etc.



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Gong Cheng, <http://ws.nju.edu.cn/~gcheng>

Dr Gong Cheng is an associate professor at the State Key Laboratory for Novel Software Technology, Nanjing University. His research interests include semantic search, data summarization, and question answering. He has published at conferences such as WWW, WSDM, ISWC, AAI, IJCAI and in journals such as TKDE, TWEB, and JoWS. He served as a Posters and Demos co-chair at ISWC 2019, and as a SPC or PC member regularly at conferences such as WWW, CIKM, ISWC, and ESWC.



Ahmet Aker, <https://www.is.inf.uni-due.de/staff/aker.html>

Dr. Ahmet Aker is a postdoctoral research fellow at the University of Duisburg-Essen, Germany. He has co-organized one workshop at LREC 2014 as well the second and third editions of RDSM (CKIM and COLING) and the 3rd NewsIR workshop at SIGIR 2019. He also co-organized the ECIR 2019 conference. His main research area is multilingual argument mining and argument retrieval from social media. The retrieval of reliable arguments is an important factor and thus Dr Aker is also concerned with fake news as well as mis/disinformation spread in social media. He has published several papers on these topics as well as developed software solutions for tracking mis/disinformation in social media. Dr Aker is also aiming to transfer the idea of food nutrition labels to web documents to allow users to make a performed judgment. Dr Aker has published papers at ACL, EMNLP, CIKM, ECIR as well as journals such as ACM Computing Surveys, JASIST, LRE and PLoS ONE. He has more than 50 peer-reviewed publications. He is also acting as PC member for several topic relevant workshops and international conferences.



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Lu Xiao, <https://ischool.syr.edu/lu-xiao/>

Dr. Lu Xiao is an Associate Professor at the School of Information Studies, Syracuse University, and an affiliated member in the Department of Electrical Engineering & Computer Science at the university. Dr. Xiao is interested in developing intelligent social media features that “observe” complex social interactions happening in the media and “intervene” at appropriate points to enrich users’ experiences and improve the quality of the interactions. She has published her work at various journals and conferences, such as JASIST, Online Information Review, WWW, EMNLP, COLING, and Social Media & Society.



Zhuang Liu, <http://weibo.com/4liuzhuang>

Dr. Zhuang Liu is an assistant professor in the School of Applied Finance and Behavioural Science, Dongbei University of Finance and Economics. He received his Bachelor, Master and PhD. degrees in Computer Science from Dalian University of Technology, respectively. Dr. Liu’s research interests include Natural Language Processing (e.g., dialogue generation, knowledge base, question answering, sentiment analysis), Multimodal Learning (e.g. text-image retrieval, visual question answering), data mining in finance, blockchain, financial technology (FinTech). His research has appeared in many high-quality journals such as IEEE Transactions on Neural Networks and Learning Systems (TNNLS), ACM Transactions on Intelligent Systems and Technology (TIST), and leading international conferences on Artificial Intelligence and Natural Language Processing such as IJCAI, AAAI, ECAI, ACL, EMNLP, COLING and CIKM. He has served on the organization and program committees of several international conferences, such as ACL, EMNLP annual meetings, and served as reviewers regularly at several journals such as ACM TIST, IEEE TNNLS, IEEE Access, IEEE Signal Processing Letters, and IEICE Trans. He is a member of the CCF, the ACM and the IEEE.



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Xiabing Zhou

Dr Xiabing Zhou is Lecturer in the School of Computer Science and Technology, Soochow University. Her current research interests including natural language processing, sentiment/emotion analysis, and machine learning. She has published at prestigious NLP conferences and journals, such as EMNLP, JCST, Science China, Neurocomputing, etc. She served as program committee members and/or reviewers regularly at conferences and journal such as IJCAI, COLING and IEEE TASLP.