ECONLP 2021 – 3ʳᵈ Workshop on Economics and Natural Language Processing

Description:

After the successful launch of the *Economics and Natural Language Processing* (ECONLP) workshop at ACL 2018 in Melbourne, Australia (https://www.aclweb.org/anthology/W18-31.pdf) and the follow-up event at EMNLP-IJCNLP 2019 in Hong Kong, China (https://www.aclweb.org/anthology/D19-5100.pdf), we intend to run the third edition of ECONLP in 2021 again at one of the top-tier ACL conferences.

ECONLP addresses the increasing relevance of NLP for regional, national and international economy, both in terms of already operational language technology products and systems, and newly emerging methodologies and techniques reflecting the requirements at the intersection of economics and NLP. The focus of the workshop will be on how NLP influences business relations and procedures, economic transactions, and the roles of human and computational actors involved in commercial activities. Papers submitted to this workshop should address:

- NLP-based (stock) market analytics, e.g., prediction of economic performance indicators (trend prediction, performance forecasting, etc.), by analyzing verbal statements of enterprises, businesses, companies, and associated legal or administrative actors
- NLP-based product analytics, e.g., based on social and mass media monitoring, summarizing reviews, classifying and mining complaint messages and other (non)verbal types of customer reactions to products or services
- NLP-based customer analytics, e.g., client profiling, tracking product/company preferences, screening customer reviews or complaints, identifying high-influentials in economy-related communication networks
- NLP-based organization/enterprise analytics (e.g., tracing and pro-actively altering social images of organizational actors, risk prediction, fraud analysis, predictive analysis of annual business, sustainability and auditing reports)
- NLP-based analysis of macro-economic phenomena in which national economies and the (inter)national banking system (IMF, Fed, PBoC, ECB) play an influential role
- Market sentiments and emotions as evident from consumers' and enterprises' verbal behavior and their communication strategies about products and services
- Competitive intelligence services based on NLP tooling
- Relationship and interaction between quantitative (structured) economic data (e.g., contained sales databases and associated time series data) and qualitative (unstructured verbal) economic data (press releases, newswire streams, social media contents, etc.)
- Information management based on the content-based organization, packaging and archiving of verbal communication streams of organizations and enterprises (emails, meeting minutes, business letters, internal reporting, etc.)
- Credibility and trust models for business agents involved in the economic process (e.g., as traders, sellers, advertisers) extracted from text/opinion mining their communication behavior (including historic legacy data)
- Deceptive or fake information recognition related to economic objects (such as products, advertisements, etc.) or economic actors (such as industries, companies, etc.), including opinion spam targeting or emanating from economic actors and processes
- Verbally fluent software agents (chatbots for sales and marketing) as virtual actors in economic processes serving business interests, e.g., embodying models of persuasion, information biases, fair trading
- Enterprise search engines (e-commerce, e-marketing)
- Consumer search engines, market monitors, product/service recommender systems
- Client-supplier interaction platforms (e.g., portals, helps desks, newsgroups) and transaction support systems based on written or spoken natural language communication

- Multi-media and multi-modality interaction platforms, including written/spoken language channels, supporting economic processes
- Specialized modes of information extraction and text mining in economic domains, e.g., temporal event or transaction mining
- Information aggregation from single sources (e.g., review summaries, automatic threading)
- Text generation in economic domains, e.g., review generation, complaint response generation
- Ontologies and knowledge graphs for economics and adaptation of general-domain lexicons for economic NLP
- Corpora and annotations policies (guidelines, metadata schemata, etc.) for economic NLP
- Economy-specific text genres (business reports, sustainability reports, auditing documents, product reviews, economic newswire, business letters, etc.) and their usage for NLP (e.g., classification, filtering, etc.)

List of invited speakers (negotiations pending):

- William Mayhew   The Fuqua School of Business, Duke University, Durham, NC, USA
    - https://sites.duke.edu/mayew/
- LiangJie Hong   AI @ LinkedIn Corporation, Sunnyvale, CA, USA
    - https://www.hongliangjie.com/

First speaker funded by Bloomberg LP, second speaker self-funded by LinkedIn

Efforts made to ensure demographic diversity of the organizers and speakers:

- Gender variety: 2 female organizers (VH, AS), 1 male (UH)
- Geographic variety: 2 organizers from Europe (UH, VH), 1 from the US (AS)
- Educational & professional variety: 3 organizers from NLP (UH, VH, AS), two from academia (UH, VH), one from industry (AS)
- First speaker from academia (WM), second from industry (LH)

Estimated number of attendees: 30-50 attendees

Efforts in case of virtual event: ACL-style – pre-recorded talks, online chats per workshop slot (about three presentations each), reuse of ACL online conference technology

Shared Task: negotiations will be made @ ECONLP 2021 with people who have already signaled interest in organizing a ST

Technical Needs: Standard requirements: projection & audio devices (speaker and room microphones)

Preferred venues:

(1) ACL-IJCNLP 2021
(2) EMNLP 2021
(3) NAACL 2021

Previous ECONLP workshops:

1st ECONLP 2018 Workshop @ ACL 2018, Melbourne, Australia
(https://www.aclweb.org/anthology/W18-31.pdf)
   a. Submissions received: 16
   b. Papers accepted: 8 [2 long, 6 short]
   c. Number of attendees: 40

2nd ECONLP 2019 Workshop @ EMNLP-IJCNLP 2019, Hong Kong, China
(https://www.aclweb.org/anthology/D19-5100.pdf)

  a. Submissions received: 17
  b. Papers accepted: 8 [5 long, 3 short]
  c. Number of attendees: 50

Organizers:

- Udo Hahn   Friedrich-Schiller-Universität Jena, Germany udo.hahn@uni-jena.de
- Véronique Hoste Ghent University, Belgium veronique.hoste@ugent.be
- Amanda Stent   Bloomberg LP, New York City, NY, USA astent@bloomberg.net

Organizers' Research Interests, Areas of Expertise, and Experience in Organizing Workshops:

- **Udo Hahn** – Jena University Language & Information Engineering (JULIE) Lab, Friedrich-Schiller-Universität Jena, Germany (chair)
https://julielab.de/Staff/Hahn

Udo Hahn is a full professor for Computational Linguistics at FSU Jena (Germany) where he heads the Jena University Language & Information Engineering (JULIE) Lab (www.julielab.de). He holds a PhD from the Information Science Department at the University of Konstanz (Germany). His research interests focus on NLP applications for the life and natural sciences, mainly information extraction and text mining, emotion analysis, knowledge integration and aggregation from structured and unstructured data (incl. text summarization), annotation science, ontology and multilingual terminology engineering, as well as software engineering for NLP. He already co-organized 11 workshops in total. Among them five workshops for ACL (the 1st ECONLP workshop @ ACL 2018 and 2nd ECONLP workshop @ EMNLP-IJCNLP 2019, workshops on Automatic Summarization @ ANLP-NAACL 2000 and ACL 2002, and the BioNLP 2002 workshop @ ACL 2002), and the "UIMA for NLP" workshops @ LREC 2008 and LREC 2010.

- **Véronique Hoste** – LT3 Language and Translation Technology Group, Ghent University, Belgium
https://research.flw.ugent.be/en/veronique.hoste

Prof. Veronique Hoste is Full Professor of Computational Linguistics and director of the LT3 Language and Translation Technology Team at Ghent University (www.lt3.ugent.be). She holds a PhD in computational linguistics from the University of Antwerp on optimization issues in machine learning of coreference resolution (2005). She has a strong expertise in machine learning of natural language, and more specifically in coreference resolution, word sense disambiguation, terminology extraction, text classification, classifier optimization, readability prediction, sentiment mining, economic event extraction and (implicit) sentiment analysis. She co-organized different workshops, including the 1st ECONLP workshop @ ACL 2018 and 2nd ECONLP workshop @ EMNLP-IJCNLP 2019, as well as shared tasks on coreference resolution (2010), cross-lingual word sense disambiguation (2010 and 2013), L2 writing (2014), and multilingual aspect-based sentiment analysis (2016).

- **Amanda Stent** – Bloomberg LP, New York City, NY, USA
https://cra.org/cra-wp/amanda-stent/

Amanda Stent is a Natural Language Processing (NLP) architect at Bloomberg LP. Previously, she was a director of research and principal research scientist at Yahoo Labs, a principal member of technical staff at AT&T Labs - Research, and an associate professor in the Computer Science Department at Stony Brook University. Her research interests center on natural language processing and its applications, in particular topics related to text analytics,

discourse, dialog and natural language generation. She holds a PhD in computer science from the University of Rochester. She has authored over 100 papers on natural language processing and is co-inventor on over 25 patents and patent applications. She is one of the rotating editors of the journal Dialogue & Discourse, and served as program co-chair for NAACL-HLT 2018, along with helping to organize many other NLP-related workshops and conferences.

Program Committee (invited: 28 accepted: 25 (= 89%); pending: 3 (= 11%))

- Sven Büchel — Friedrich-Schiller-Universität Jena, Jena, Germany
- Hsin-Hsi Chen — National Taiwan University, Taipei City, Taiwan
- Paulo Cortez — University of Minho, Guimarães, Portugal
- Sanjiv Ranjan Das — Santa Clara University, Santa Clara, CA, USA
- Brian Davis — School of Computing, Dublin City University, Ireland
- Flavius Frasincar — Erasmus University, Rotterdam, Netherlands
- Petr Hájek — University of Pardubice, Pardubice, Czech Republic
- Allan Hanbury — Technische Universität Wien, Wien, Austria
- Yulan He — University of Warwick, UK
- Qing Li — Southwestern University of Finance and Economics, Sichuan, Chengdu, China
- Xiaodong Li — Hohai University, Nanjing, China
- Pekka Malo — Aalto University, Aalto , Finland
- Gideon Mann — Bloomberg LP, New York City, NY, USA
- Igor Mozetič — Jožef Stefan Institute, Ljubljana, Slovenia
- Viktor Pekar — Aston University, Birmingham, UK
- Nicolas Pröllochs — Universität Gießen, Gießen, Germany (pending)
- Samuel Rönnqvist — University of Turku, Turku, Finland
- Jean David Ruvini — eBay Research Labs, San Jose, CA, USA (pending)
- Kazuhiro Seki — University of Kobe, Japan
- Sameena Shah — S&P Global Ratings, New York City, NY, USA
- Kiyoaki Shirai — Japan Advanced Institute of Science and Technology (JAIST), Nomi, Japan
- Padmini Srinivasan — University of Iowa, Iowa City, IA, USA
- Heiner Stuckenschmidt — Universität Mannheim, Mannheim, Germany
- Mengting Wan — Microsoft, Redmond, WA, USA
- Chuan-Ju Wang — Academia Sinica, Taipei City, Taiwan
- Wlodek W. Zadrozny — University of North Carolina at Charlotte, Charlotte, NC, USA
- Wayne Xin Zhao — Renmin University of China, China (pending)
- Ming Zhou — Microsoft Asia Research, Beijing, China

Estimated number of submissions: 30 papers

Advertisement Statement: ECONLP focuses on emerging NLP methodologies and techniques at the intersection of economics, businesses and language technology

Accessible @ https://julielab.de/econlp/2021/ECONLP-2021-Proposal.pdf