Proceedings of the Computational Humanities Research Conference 2022: Preface

Alie Lassche[1], Kristoffer Nielbo[2]

[1]Leiden University, Institute of History, Doelensteeg 16, 2311 VL Leiden, The Netherlands
[2]Center for Humanities Computing Aarhus, Jens Chr. Skous Vej 4, Building 1483, DK-8000 Aarhus C, Denmark

CHR #3: The Third Time is a Charm

From the contemporary observer's perspective, uncertainty seems to have become the rule rather than the exception. Pandemic disaster management, global energy crisis, and geopolitical and financial instability are all indicators that societal entropy – in the Shannonian sense – continues to rise. For the Computational Humanities Research (CHR) community and conference, the state of uncertainty has been a given since the first workshop in 2020 which coincided with the emergence of the global pandemic of the coronavirus disease. COVID-19 forced the conference into a virtual mode of meeting, which (almost) became a tradition with the 2021 online CHR conference. As a community that prides itself on being computationally literate, we were well-prepared for a virtual mode, yet the possibility of a physical conference has surfaced on many occasions. With the third iteration of CHR, we transition into a predominantly physical mode of being – with an online option – when we will assemble on December 12-14, 2022, at the beautiful Monastery of the Grauwzusters in Antwerp, Belgium, under the auspices of the University of Antwerp.

The physical conference is when taken together with the quality and quantity of submissions, a testament to CHR's status as a valuable and resilient contribution to sociocultural and historical research. With the 2022 edition, we consolidate our community of Humanities researchers with an orientation toward formal and computational approaches. Here the city of Antwerp can serve as an 'aspirational anchor' because just as it serves as the starting point of one of the greatest monuments of road cycling, the *Ronde van Vlaanderen*, we can aspire to become a monument of Humanities research that enables research talent to solve arduous and formidable problems.

As already indicated, we are exceedingly happy with the quality and quantity of conference submissions. Each of the 49 submitted papers was carefully peer-reviewed by a minimum of two researchers drawing on the domain expertise of 77 Program Committee members. We were pleased to be able to accept 29 papers, which were nicely balanced across 15 short and 14 long papers. This year's acceptance rate of 59.2% was similar to the one of last year. The

CHR 2022: Computational Humanities Research Conference, November 12–14, 2022, Antwerp, Belgium
a.w.lassche@hum.leidenuniv.nl (A. Lassche); kln@cas.au.dk (K. Nielbo)
0000-0002-7607-0174 (A. Lassche); 0000-0002-5116-5070 (K. Nielbo)
© 2022 Copyright for this paper by its authors.
Use permitted under Creative Commons License Attribution 4.0 International (CC BY 4.0).
CEUR Workshop Proceedings (CEUR-WS.org)

call for papers was this year extended with the option to submit a poster, which resulted in the acceptance of 4 posters out of the 6 submitted. As in the previous editions of CHR, many more high-quality papers were submitted than could ultimately be accommodated. It attests to the continued popularity of and enthusiasm for the conference. With regard to demographic parity, we must admit that we are not quite there yet. To attain gender parity in particular still requires some effort on our side with only 31% of the accepted papers being first-authored by women. On the other hand, many papers are written by graduate students and early career researchers, which shows the inclusivity and openness of our community.

In terms of content, the published papers cover a range of topics and approaches. Problems originating in historical research areas are prevalent as is the reliance on linguistic data and learning-based approaches to structuring natural language. Temporal change in sociocultural systems and the role of dynamics in formal modeling are also becoming recurrent themes, and we continue to see theoretic commitments to information theory and Bayesian statistics. This year two keynotes speakers – Nina Tahmasebi (University of Gothenburg and currently PI of *Change is Key!*) and Peter Turchin (Emeritus Professor at UConn and founder of *Cliodynamics*) – reflect these deep interests in understanding change as a fundamental condition of historical and contemporary sociocultural phenomena. The program included below will give a sense of many diverse approaches to this and related problems in the field of computational humanities research.

Acknowledgements

If the first two editions of CHR weren't such a success, CHR2022 would never have seen the light of day. We are therefore indebted to the organizers of the previous editions for their work and commitment. We wish to address very special thanks to Folgert Karsdorp, Melvin Wevers, and Mike Kestemont, since their experience in organizing earlier editions of CHR and their help in organizing this year's conference has been invaluable and indispensable.

Furthermore, we are very grateful to the members of the program committee for their time and efforts in reviewing the submitted papers and helping build the program. We also thank the maintainers of the EasyChair conference system for providing a platform that handles the submission and review process, as well as the CEUR-WS.org team for offering a free open access publication service. We are thankful to all authors who submitted to the conference for contributing their scientific involvement. We would like to thank our keynote speakers in advance for what will undoubtedly be an inspiring intellectual exchange, to which we all are very much looking forward. Thanks and welcome to all!

November 2022

Alie Lassche & Kristoffer Nielbo

Program and contributions

CHR2022 was a three-day conference held in Antwerp, Belgium, on December 12 to 14, 2022. Contributions were organized into 7 sessions, as follows:

Session 1 - Images and scans

- *Ground-truth Free Evaluation of HTR on Old French and Latin Medieval Literary Manuscripts*
  Thibault Clérice
- *Automatic identification and classification of portraits in a corpus of historical photographs*
  Taylor Arnold, Lauren Tilton and Justin Wigard
- *Page Layout Analysis of Text-heavy Historical Documents: a Comparison of Textual and Visual Approaches*
  Sven Najem-Meyer and Matteo Romanello
- *The Computational Memorability of Iconic Images*
  Lisa Saleh and Nanne van Noord

Session 2 - Language

- *The Roots of Doubt. Fine-tuning a BERT Model to Explore a Stylistic Phenomenon*
  Margherita Parigini and Mike Kestemont
- *Linguistic value construction in 18th-century London auction advertisements: a quantitative approach*
  Alessandra De Mulder, Lauren Fonteyn and Mike Kestemont
- *Introducing functional diversity: a novel approach to lexical diversity in (historical) corpora*
  Folgert Karsdorp, Enrique Manjavacas and Lauren Fonteyn
- *Detecting Formulaic Language Use in Historical Administrative Corpora*
  Marijn Koolen and Rik Hoekstra

Session 3 - Social media

- *Right-wing Mnemonics*
  Phillip Stenmann Baun and Kristoffer Nielbo
- *Emodynamics: Detecting and Characterizing Pandemic Sentiment Change Points on Danish Twitter*
  Rebekah Baglini, Kristoffer Nielbo, Sara Møller Østergaard and Stine Nyhus Larsen
- *Differentiating Social Media Texts via Clustering*
  Hannah J. Seemann and Tatjana Scheffler

Session 4 - Historical dynamics

- *What shall we do with the unseen sailor? Estimating the size of the Dutch East India Company using an unseen species model*
  Melvin Wevers, Folgert Karsdorp and Jelle van Lottum
- *Lost Manuscripts and Extinct Texts: A Dynamic Model of Cultural Transmission*
  Jean-Baptiste Camps and Julien Randon-Furling
- *Chronicling Crises: Event Detection in Early Modern Chronicles from the Low Countries*
  Alie Lassche, Jan Kostkan and Kristoffer Nielbo
- *Measuring Rhythm Regularity in Verse: Entropy of Inter-Stress Intervals*
  Artjoms Šeļa and Mikhail Gronas
- *Detecting Sequential Genre Change in Eighteenth-Century Texts*
  Jinbin Zhang, Yann Ryan, Iiro Rastas, Filip Ginter, Mikko Tolonen and Rohit Babbar

Session 5 and 6 - Literature

- *Gender and Power in Japanese Light Novels*
  Xiaoyun Gong, Yuxi Lin, Ye Ding and Lauren Klein
- *A quantitative study of fictional things*
  Andrew Piper and Sunyam Bagga
- *Reviewer Preferences and Gender Disparities in Aesthetic Judgments*
  Ida Marie S. Lassen, Yuri Bizzoni, Telma Peura, Mads Rosendahl Thomsen and Kristoffer Nielbo
- *One Graph to Rule them All: Using NLP and Graph Neural Networks to analyse Tolkien's Legendarium*
  Vincenzo Perri, Lisi Qarkaxhija, Albin Zehe, Andreas Hotho and Ingo Scholtes
- *Modeling Plots of Narrative Texts as Temporal Graph Networks*
  Leonard Konle and Fotis Jannidis
- *The process of imitatio through stylometric analysis: the case of Terence's Eunuchus*
  Andrea Peverelli, Marieke van Erp and Jan Bloemendal
- *Determining author or reader: A statistical analysis of textual features in children's and adult literature*
  Lindsey Geybels
- *'Entrez!' she called: Evaluating Language Identification Tools in English Literary Texts*
  Erik Ketzan and Nicolas Werner
- *Correlations between GoodReads Appreciation and the Sentiment Arc Fractality of the Grimm brothers' Fairy Tales*
  Yuri Bizzoni and Kristoffer Nielbo

Session 7 - Text classification

- *Boosting word frequencies in authorship attribution*
  Maciej Eder
- *What Do We Talk About When We Talk About Topic?*
  Joris van Zundert, Marijn Koolen, Julia Neugarten, Peter Boot, Willem van Hage and Ole Mussmann
- *Peeking Inside the DH Toolbox – Detection and Classification of Software Tools in DH Publications*
  Nicolas Ruth, Andreas Niekler and Manuel Burghardt
- *Good Omens: the nice and accurate stylometric analysis*
  Leonardo Grotti, Mona Allaert and Patrick Quick

People

Programme Chairs

- Kristoffer Nielbo, *Aarhus University*
- Alie Lassche, *Leiden University*

Organizers

- Folgert Karsdorp, *KNAW Meertens Institute* (general organisation, conference program, proceedings)
- Mike Kestemont, *University of Antwerp* (local organisation)
- Alie Lassche, *Leiden University* (general organisation, conference program, communication, proceedings)
- Kristoffer Nielbo, *Aarhus University* (general organisation, conference program, proceedings)
- Line Ejby Sørensen, *Aarhus University* (communication)
- Melvin Wevers, *University of Amsterdam* (general organisation, conference program, communication)

Local Organization

- Mona Allaert, *University of Antwerp*
- Nooshin Shahidzadeh Asadi, *University of Antwerp*
- Josip Batinic, *University of Antwerp*
- Lamyk Bekius, *University of Antwerp*
- Paavo van der Eecken, *University of Antwerp*
- Wouter Haverals, *University of Antwerp*
- Mike Kestemont, *University of Antwerp*
- Lith Lefranc, *University of Antwerp*
- Sofie Moors, *University of Antwerp*
- Thomas Smits, *University of Antwerp*
- Lorren Verreyen, *University of Antwerp*

Best Paper Committee

- Maud Ehrmann, *École Polytechnique Fédérale de Lausanne*
- Margherita Fantoli, *KU Leuven*
- Folgert Karsdorp, *KNAW Meertens Institute*

- Enrique Manjavacas, *Leiden University*
- Iza Romanowska, *Aarhus University*

Program Committee

- Alberto Acerbi, *University of Bristol*
- Maristella Agosti, *University of Padua*
- Tara Andrews, *University of Vienna*
- Adrien Barbaresi, *BBAW*
- Andreas Baumann, *University of Vienna*
- Kaspar Beelen, *The Alan Turing Institute*
- Yuri Bizzoni, *Aarhus University*
- Elli Bleeker, *KNAW Huygens Institute*
- Federica Bologna, *Università di Bologna*
- Emanuela Boros, *Université de La Rochelle*
- Estelle Bunout, *Université du Luxembourg*
- Manuel Burghardt, *Computational Humanities, University of Leipzig*
- Frédéric Clavert, *Université du Luxembourg*
- Simon Clematide, *University of Zurich*
- Andreas van Cranenburgh, *University of Groningen*
- Thierry Declerck, *DFKI GmbH*
- Antoine Doucet, *Université de La Rochelle*
- Marten Düring, *Université du Luxembourg*
- Maud Ehrmann, *École Polytechnique Fédérale de Lausanne*
- Marieke van Erp, *KNAW Humanities Cluster*
- Elena Fernández Fernández, *University of Zurich*
- Lauren Fonteyn, *Leiden University*
- Katrin Glinka, *Freie Universität Berlin*
- Koraljka Golub, *Linnaeus University*
- Ahmed Hamdi, *Université de La Rochelle, L3i*
- Tobias Hodel, *Digital Humanities/Walter Benjamin Kolleg/Universität Bern*
- Yuerong Hu, *University of Illinois at Urbana-Champaign*
- Fotis Jannidis, *Julius-Maximilans-Universität Würzburg*
- Lars Johnsen, *National Library of Norway*

- Anne Kandler, *Max Planck Institute for Evolutionary Anthropology*
- Folgert Karsdorp, *KNAW Meertens Institute*
- Mike Kestemont, *University of Antwerp*
- Kristian Gade Kjelmann, *Aalborg University*
- Lauren Klein, *Emory Unversity*
- Ross Kristensen-McLachlan, *Aarhus University*
- Alie Lassche, *Leiden University*
- Cynthia Liem, *Delft University of Technology*
- Cerstin Mahlow, *ZHAW Zurich University of Applied Sciences*
- Eetu Mäkelä, *University of Helsinki*
- Enrique Manjavacas, *Leiden University*
- Barbara McGillivray, *King's College London*
- George Mikros, *National and Kapodistrian University of Athens*
- David Mimno, *Cornell University*
- Jean-Philippe Moreux, *Bibliothèque nationale de France*
- Coline Métrailler, *UNIL*
- Clemens Neudecker, *Berlin State Library*
- Kristoffer Nielbo, *Aarhus University*
- Damien Nouvel, *INaLCO*
- Marco Passarotti, *Catholic University of the Sacred Heart*
- Michael Piotrowski, *University of Lausanne*
- Andrew Piper, *McGill University*
- Thierry Poibeau, *LaTTiCe-CNRS*
- Nils Reiter, *Institute of Natural Language Processing, Stuttgart University*
- Allen Riddell, *Indiana University Bloomington*
- Ramona Roller, *ETH Zurich*
- Matteo Romanello, *Ecole Polytechnique Fédérale de Lausanne*
- Iza Romanowska, *Aarhus University*
- Laurent Romary, *INRIA & HUB-ISDL*
- Yann Ryan, *University of Helsinki*
- Artjoms Šeļa, *Institute of Polish Language, Polish Academy of Sciences (Krakow)*
- Christof Schoech, *University of Würzburg*
- Marijn Schraagen, *Utrecht University*

- Stefen Schweter, *Bayerische Staatsbibliothek München, Munich Digital Library*
- Roel Smeets, *Radboud University*
- Oleg Sobchuk, *Max Planck Institute for the Science of Human History*
- Rachele Sprugnoli, *Università degli Studi di Parma*
- Nikki Stevens, *Arizona State University*
- Zachary Stine, *University of Central Arkansas*
- Nina Tahmasebi, *University of Gothenburg*
- Tim Tangherlini, *Berkeley*
- Mikko Tolonen, *University of Helsinki*
- Inna Uglanova, *Technical University of Darmstadt*
- Ted Underwood, *University of Illinois at Urbana-Champaign*
- Melvin Wevers, *University of Amsterdam*
- Bruna Wundervald, *Maynooth University*
- Joris van Zundert, *KNAW Huygens Institute*