

Ramona Roller

Quantitative social scientist

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About me -

Social scientist with a strong quantitative background. Fascinated by complex systems and their mathematical descriptions. Currently working on reconstruction methods for historical letter correspondence networks. Future aim: Develop spatio-temporal null models for historical letter correspondence networks.

Python Social network analysis Socio-historical data analysis Data visualisation Agent-based modeling (*)[The skill scale is from 0 (Fundamental Aware-ness) to 5 (Expert).]	Conference attendances and research visits	
	09/2019	 European Conference on Social Network Analysis (EUSN) Talk: 'Statistical inference for letter network of Reformation'. Access talk at https://www.sg.ethz.ch/media/talk_slides/EUSN2019.pdf
	07/2019	 International Conference on Computational Social Science (IC²S²) Amsterdam, NL Talk: 'Network regression reveals factors driving the letter correspondence of 16th century reformers'. Access talk at https://www.sg.ethz.ch/media/talk_slides/Amsterdam2019.pdf
	06/2019	Research visit at Austrian Centre for Digital Humanities Vienna, AU

Austrian Centre for Digital HumanitiesVienna, AU• Enlarged skills on vectorisation of raster maps and management of spatial data.

- Talk: 'A workflow for automated vectorisation of raster maps'.
- Access talk at https://www.sg.ethz.ch/media/talk_ slides/Vienna2019.pdf

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since 01/2018

09/2018

Ph.D. candidate in data-driven modeling of social systems

of social systems ETH Zurich, CH • Develop quantitative statistical methods to analyse sociohistorical data.

• Construct and visualise temporal network models.

Participant at EPFL's Reproducibility in Computational Science Summer School Magliaso, CH • Acquired profound skills in writing reproducible research papers and data management. Specific tools include Git, R Shiny, and Renga. M.Sc. Computational Science University of Amsterdam. NL • Thesis: Ontimising Resource Allocation in Socio-economic Sys-

• Thesis: Optimising Resource Allocation in Socio-economic Systems with the Minority Game: A Case Study on Electric Cars in Amsterdam.

Participant at SFI's Complex Systems Summer School Santa Fe Institute, USA

• Passed highly competitive world-wide application process.

• Deepened numerical and computational methods for the analysis of complex systems.

10/2011 - 07/2014

09/2015 - 12/2017

06/2017 - 07/2017

B.Sc. Psychology with Cognitive Science University of Sussex, UK • Thesis: Differences between conscious and unconscious learning of social rules.

Research and Work Experience

 11/2014 - 06/2015 Intern at Netherlands Organisation for Applied Scientific Research (TNO) Soesterberg, NL
 Developed a Linked Data model to cope with power cuts caused by flooding.
 Applied qGIS to visualise power stations and water levels.
 06/2013 - 06/2014 Junior research associate at Department of Informatics University of Sussex, UK
 Developed a novel method to quantify and visualise cognitive

• Developed a novel method to quantify and visualise cognitive chunks based on the sequences of participants' drawings of electrical circuit diagrams.

Organisation of scientific events

since 07/2019	 Co-organiser of the workshop 'Opportunities in computerised analyses of historical letter correspondences' Heidelberg, GER Teamed-up with project 'Theologenbriefwechsel im Südwesten des Reichs in der Frühen Neuzeit (1550-1620) led by Prof. Strohm in Heidelberg. Organised talks, discussion groups and accomodations for 30 participants. Speakers include international researchers from the humani- ties, computer- and data sciences. Planned date: September 2020
06/2018	 Co-organiser and participant at Big Data in the Field Weekend Seminar Berlin, GER Organised talks, workshops, discussion rounds, and accommo- dation for 50 participants and 6 speakers. Speakers included German Data Science professors and repre- sentatives of German companies that apply Big Data-based tech- nologies.
Awards	
01/2020	Travel grant for DHd conference (Digital Humanities im
02/2012 - 12/2017 07/2014	deutschsprachigen Raum) Member of German National Academic Foundation Stuart Sutherland Prize for an outstanding undergraduate sertation in psychology at the University of Sussex