# Reka Solymosi
## Lecturer in Quantitative Methods

**Curriculum Vitae**
August 2020

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## Education and Qualifications

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|---|---|---|
| 2012-2016 | **PhD in Crime and Security Science** University College London | |
| 2011-2012 | **MRes in Crime and Security Science** University College London | |
| 2010-2011 | **MRes Criminology & Socio-Legal Studies** University of Manchester | |
| 2005-2010 | **Bachelor of Arts: Major in Sociology & Spanish** University of British Columbia | |

## Present and previous appointments

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| Sep 2016-present | **Lecturer in Quantitative Methods** Department of Criminology, University of Manchester |
| Aug 2015-Aug 2016 | **Data Analyst** Transport Policing, Enforcement and On Street Operations, Transport for London |
| Oct 2010-May 2015 | **Teaching Assistant** Department of Geography, Department of Civil, Environmental, and Geomatic Engineering, University College London |
| Aug 2014-Oct 2014 | **Data Analyst** Transport and Street Planning Team, London Borough of Camden |
| Oct 2011-Aug 2014 | **Research Administrator: Pedestrian Accessibility and Movement Environment Laboratory** Department of Civil, Environmental, and Geomatic Engineering, University College London |
| Oct 2011-May 2014 | **Research Assistant on Community-based Open Mapping to Engage Travel project** Department of Civil, Environmental, and Geomatic Engineering, University College London |

## Visiting appointments and memberships

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| 2020-2020 | **Visiting Scholar: Griffith University** Spent my research leave visiting Griffith Criminology Institute to work on collaborative research |
| 2020-2020 | **Visiting Scholar: Queensland University of Technology** Spent my research leave visiting QUT Centre for Justice to work on collaborative research |
| 2020-present | **Carpentries Instructor: The Carpentries Global** Achieved certification as instructor for Data Carpentry |
| 2019-present | **Fellow: Higher Education Academy** Fellowship awarded to professionals who meet the criteria of Descriptor 2 of the UK Professional Standards Framework for teaching and supporting learning in higher education. |
| 2017-present | **Fellow: Software Sustainability Institute** Working to promote open research and credit for research software |
| 2017-present | **Board member: Economic and Social Research Council Business and Local Government Data Research Centre** Data Acquisition Board |
| 2016-present | **Honorary Lecturer: University College London** Research and teaching activities based in Department of Civil, Environmental, and Geomatic Engineering |

## Research and academic/professional standing

### Publications

My research areas include perception of crime and place, spatial crime analysis, environmental criminology, social data science, transport crime, crowdsourcing, and geographical information analysis.
ORCID: 0000-0001-8689-1526

### Peer reviewed publications

1. Solymosi, R, D Buil-Gil, L Vozmediano, and IS Guedes (2020). Towards a Place-based Measure of Fear of Crime: A Systematic Review of App-based and Crowdsourcing Approaches. *Environment and Behavior*, 0013916520947114.

2. Solymosi, R, O Petcu, and J Wilkinson (2020). Exploring public engagement with missing person appeals on Twitter. *Policing and Society* **0**(0), 1–24. eprint: https://doi.org/10.1080/10439463.2020.1782409.

3. Langton, SH and R Solymosi (2019). Cartograms, hexograms and regular grids: Minimising misrepresentation in spatial data visualisations. *Environment and Planning B: Urban Analytics and City Science*.

4. Solymosi, R (2019). Exploring Spatial Patterns of Guardianship Through Civic Technology Platforms. *Criminal Justice Review* **44**(1), 42–59.

5. Solymosi, R, K Cella, and A Newton (2018). Did they report it to stop it? A realist evaluation of the effect of an advertising campaign on victims' willingness to report unwanted sexual behaviour. *Security Journal* **31**(2), 570–590.

6. Solymosi, R and K Bowers (2018). "The role of innovative data collection methods in advancing criminological understanding". In: vol. 210. Oxford University Press, pp.210–237.

7. Solymosi, R, KJ Bowers, and T Fujiyama (2017). Crowdsourcing subjective perceptions of neighbourhood disorder: Interpreting bias in open data. *The British Journal of Criminology* **58**(4), 944–967.

8. Solymosi, R, K Bowers, and T Fujiyama (2015). Mapping fear of crime as a context-dependent everyday experience that varies in space and time. *Legal and Criminological Psychology* **20**(2), 193–211.

9. Solymosi, R, H Borrion, and T Fujiyama (2015). "Crowd Spatial Patterns at Bus Stops: Security Implications and Effects of Warning Messages". In: *Safety and Security in Transit Environments*. Springer, pp.156–178.

**Publications accepted or under review (pre-prints available).**

OSF profile: osf.io/3nzk2.

1. Solymosi, R, J Jackson, K Pósch, J Yesberg, B Bradford, and A Kyprianides (2020). Functional and Dysfunctional Fear of COVID-19: A Classification Scheme.

2. Buil-Gil, D, R Solymosi, and A Moretti (2019). Non-parametric bootstrap and small area estimation to mitigate bias in crowdsourced data. Simulation study and application to perceived safety. *Accepted in Big Data Meets Survey Science. Hill, C. A., Biemer, P. P., Buskirk, T., Japec, L., Kirchner, A. and Lyberg, L. E. (eds.). Wiley. Retrieved from osf: https://osf.io/preprints/socarxiv/8hgjt/*.

3. Solymosi, R, M Ashby, T Cohen, and A Sidebottom (2017). Alternative denominators in transport crime rates. *Accepted in European Journal on Criminal Policy and Research. Retrieved from osf: io/preprints/socarxiv/neaxh*.

**Forthcoming publications pending submission.**

1. Buil-Gil, D and R Solymosi (forthcoming). Using Crowdsourced Data to Study Crime and Place. *In "The Study of Crime and Place: A Methods Handbook" Eds: Elisabeth Groff and Corey Haberman. Temple University Press*.

2. Langton, S and R Solymosi (forthcoming). Open Data. *In "The Study of Crime and Place: A Methods Handbook" Eds: Elisabeth Groff and Corey Haberman. Temple University Press*.

3. Enghoff, O and R Solymosi (forthcoming). Making sense of crowdsourced text data using different analytical approaches: a case study of self-reports of sexual harassment. *Under review in Methodological Innovation*.

4. Solymosi, R, M Natarajan, and D Babu (forthcoming). Mapping Sexual Harassment in Public Places: A Contextual Analysis of Crowdsourced Data. *To be submitted in Journal of Research in Crime and Delinquency*.

5. Solymosi, R and A Jordanoska (forthcoming). Companies in Trouble': Exploring Debt, Insolvency and Corporate Non-compliance in the UK. *To be submitted in Journal of Empirical Legal Studies*.

6. Solymosi, R, N Teixeira, IS Guedes, and L Vozmediano (forthcoming). Towards Understanding Situational Experiences Of Insecurity: A Feasibility Study of Capturing Real-time Physiological and Self-report Measures. *To be submitted in Journal of Experimental Criminology*.

7. Solymosi, R, IS Guedes, and L Vozmediano (forthcoming). Using mobile applications and physiological sensing to measure perception of security in built environments. *To be submitted in Handbook of Security, Third Edition*.

**Media and other outputs**

1. Solymosi, R and M Chataway (2019). Using mobile applications for social science research. *LSE Impact Blog. Available: https://blogs.lse.ac.uk/impactofsocialsciences/2019/08/14/using-mobile-applications-for-social-science-research/*.

2. Solymosi, R (2019). How to get a DOI for your teaching materials with Zenodo. *Sage Ocean Publications Blog. Available: https://ocean.sagepub.com/blog/how-to-get-a-doi-for-your-teaching-materials-with-zenodo*.

3. Solymosi, R and M Chataway (2019). Webinar: Using app-based and sensing methods for social science research. *UK Data Service. Available: https://www.ukdataservice.ac.uk/news-and-events/eventsitem/?id=5461*.

4. Solymosi, R (2018). Women in Data Science: mentoring and applying app-based and sensing methods to cognitive and decision sciences. *Software Sustainability Institute Blog. Available: https://www.software.ac.uk/blog/2019-08-13-women-data-science-mentoring-and-applying-app-based-and-sensing-methods-cognitive*.

5.  Solymosi, R (2018). Northwest Universities R Day event. *Software Sustainability Institute Blog. Available:* *https://www.software.ac.uk/blog/2019-01-23-northwest-universities-r-day-event*.

6.  Solymosi, R (2018). Safe Places Through Technological Innovation. *Software Sustainability Institute Blog. Available:* *https://www.software.ac.uk/blog/2018-11-01-safe-places-through-technological-innovation*.

7.  Solymosi, R (2018). TICTeC 2018 – An Introduction to the World of Civic Technologies. *Software Sustainability Institute Blog. Available: https://www.software.ac.uk/blog/2018-07-17-tictec-2018-introduction-world-civic-technologies*.

8.  Solymosi, R (2018). Brexit Data Challenge part 2: presentation at GISRUK. *Software Sustainability Institute Blog. Available: https://www.software.ac.uk/blog/2018-06-21-brexit-data-challenge-part-2-presentation-gisruk*.

9.  Solymosi, R (2018). Brexit Data Challenge event. *Software Sustainability Institute Blog. Available:* *https://www.software.ac.uk/blog/2018-04-27-brexit-data-challenge-event*.

10. Solymosi, R (2016). Confidence in transport and policing. *Available: https://www.ucl.ac.uk/transport-institute/pdfs/ConfidenceWorkshop.pdf*.

11. Solymosi, R (2014). Mapping fear of crime dynamically on everyday transport. *JDiBrief Series. London: UCL Jill Dando Institute of Security and Crime Science. ISSN: 2050-4853. Available: http://www.ucl.ac.uk/jdibrief/analysis/Mapping-fear-of-crime-dynamically-on-everyday-transport*.

12. Solymosi, R (2014). Transport Streets and Crime. *Available: https://www.ucl.ac.uk/transport-institute/pdfs/transport-streets-crime*.

## Research Grants

### Funding awarded as Principal Investigator

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|---|---|
| 2019-2019 | **Identifying features that affect public engagement with appeals for information about missing persons on Twitter**<br>GBP 5,000 funding from Manchester Statistical Society Campion Grant |
| 2018-2019 | **Using Bayesian Surprise maps to explore debt and insolvency across the UK**<br>GBP 10,000 funding from Consumer Data Research Centre, Economic and Social Research Council |
| 2017-2020 | **Measuring fear of crime using app-based and sensing methodologies**<br>GBP 10,000 funding from British Academy and Leverhulme Small Grants |
| 2017-2017 | **Building Tools and Training for Crime Analysts using R**<br>GBP 3,000 funding from N8 Policing Research Partnership |
| 2017-2017 | **Data Visualisation in Criminal Courts**<br>GBP 1,000 funding from Economic Social Research Council, Festival of Social Sciences |

### Funding awarded as Co Investigator

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| 2019-2020 | **Civic InnovatioN in CommunITY: safety, policing and trust with young people**<br>GBP 60,000 funding from EPSRC Network+: Social Justice through the Digital Economy |

## Supervision of Research Students

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| 2019-2023 | **Nathan Khadaroo: Citizen Data Science for Public Good**<br>Funded by Data Analytics and Society Centre for Doctoral Training, University of Manchester |
| 2019-2023 | **Mohammed Patel: Health-related behaviour and working conditions**<br>Funded by Data Analytics and Society Centre for Doctoral Training, University of Manchester |
| 2018-2021 | **Sebastian Acevedo: Unequal Distribution of Access to Public Safety: The Case of Local Governments in Chile**<br>Funded by Capital Humano Avanzado Conicyt - Becas Chile |
| 2018-2022 | **Daniel Hammocks: Innovation in Police Intelligence Practice: Horizon Scanning Tools and Processes for Finding Signals within the Noise.**<br>Funded by the Dawes Centre for Future Crimes (and based in University College London) |
| 2017-2020 | **Oskar Enghoff: Consumer culture in an illicit digital economy: the production of demand, risk perceptions and trust among digital consumers of illicit drugs**<br>Funded by Engineering and Physical Research Council |

## Lectures and Conference Activity

### Invited talks

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| 2020 | **Understanding people's experiences and perceptions of place, crime, and victimisation using crowd-sourced data**<br>Monash University, Melbourne, Australia<br>**Exploring the role of crowdsourced data in criminal justice research**<br>Queensland University of Technology, Melbourne, Australia |
| 2019 | **Mapping and spatial modelling in R for crime prevention and conservation**<br>Sheffield R User Group, UK |
| | **The role of innovative data collection methods in advancing understanding, and the importance of considering the biases within**<br>Women in Data Science: Zurich, Switzerland<br>**Keynote: Data-driven insights in law: opportunities and cautions**<br>Berlin Legal Tech Conference 2019, Germany |
| | **The role of innovative data collection methods in advancing behavioural understanding**<br>Cognitive and Decision Sciences, University of Basel, Switzerland |
| | **The role of innovative data collection methods in advancing criminological understanding**<br>Manchester Metropolitan University Big Data Centre Seminar Series, UK |
| 2018 | **Crowdsourcing subjective perceptions of neighbourhood disorder: interpreting bias in Open Data**<br>TicTec 2018, Lisbon, Portugal |
| | **Interdisciplinary Alchemy: Data Science + Social Science**<br>Data Kind UK |
| | **Everybody Lies but Not Everybody Tweets: Making Sense of the Bias in Your Data**<br>Advances in Data Science conference, Manchester, UK |
| 2017 | **Reproducible Crime Analysis using R**<br>Intelligence Innovation Working Group hosted by West Midlands Police |
| | **Building Interactive Data Visualizations**<br>Manchester Methods Fair, UK |
| | **Using open data in the social sciences**<br>Her+Data Meetup, Manchester, UK |
| | **What is Crowdsourced Data?**<br>Methods@Manchester seminar on research methods in social sciences, Manchester,UK |
| | **Eyes and Apps on the Street**<br>Stockholm Royal Institute of Technology (KTH), Sweden |
| | **Keynote: Making Sense of Data using Methods**<br>Methods North West Launch Conference, Manchester, UK |
| | **Using R for Crime Analysis**<br>Greater Manchester Police, Force HQ, Manchester, UK |
| | **Mapping fear of crime as a context-dependent everyday experience that varies in space and time**<br>Horizon 2020 Project MARGIN conference, Budapest, Hungary |
| | **Using open data to evaluate current approaches to cabs tasking**<br>11th International Crime Science Conference, London, UK |
| | **Fighting Crime (and other bad things) on the transport network**<br>Manchester R User Group meetup |
| 2016 | **Practitioner-Academic Seminar on Confidence in Policing**<br>Transport for London, UK |
| | **Policing and Public Confidence - Confidence at TfL and the challenges of a transport environment**<br>Public Confidence in the Police - University of Warwick, UK |
| 2015 | **Scheduling student-led learning by enquiry into the curriculum**<br>Teaching and Learning Conference 2015, UCL, London, UK |
| | **Alternative Denominators in Transport Crime Rates**<br>Transport Statistics User Group Meeting, London, UK |
| | **Using a smartphone app to measure fear of crime on route 25**<br>Transport for London Route 25 Joint Transport Action Group (JTAG) meeting, London, UK |
| 2014 | **Streets, Crime, and Transport**<br>EPSRC Impact Award Seminar, London, UK |
| | **A new approach to mapping perceptions of crime along the door-to-door journey**<br>Transport Geography Research Group Workshop, Leeds, UK |
| | **Fear of crime on transport**<br>PopFest, annual Population Studies conference for PhD students, London, UK |
| | **Using a smartphone app to report fear of hate crime**<br>Trans London Meetup, London, UK |
| 2013 | **Crowd spatial patterns at bus stops**<br>Stockholm Royal Institute of Technology (KTH), Sweden |

## Conference presentations

2019      **Linking app-based and physiological measures of fear of crime**
Environmental Criminology and Crime Analysis Symposium, Gungzhou China

     **Mapping Sexual Harassment in Public Places: Open Source Data Driven Contextual Analysis**
Environmental Criminology and Crime Analysis Symposium, Gungzhou China

2018      **Victimization and perceived safety among college students: Focus on women's transit safety in London, UK**
Crime and fear in public places: KTH Royal Institute of Technology, Stockholm, Sweden
**Measuring fear of crime through app-based and sensing methodologies**
Crime and fear in public places: KTH Royal Institute of Technology, Stockholm, Sweden

2017      **Using open data to evaluate current approaches to cabs tasking**
American Society of Criminology Conference, Philadelphia, USA

     **Using open data to evaluate current approaches to cabs tasking**
Environmental Criminology and Crime Analysis Symposium, El Salvador

     **Active Participant**
R Open Science Unconference, Los Angeles, USA

2015      **Using open crowdsourced data to map signal crimes in place and time**
Environmental Criminology and Crime Analysis Symposium, New Zealand

     **Alternative Denominators in Transport Crime Rate**
Stockholm Symposium for Criminology, Sweden

2014      **Mapping Fear of Crime Dynamically in Place and Time: Case study of Revenue Protection Inspectors on a London Bus Route**
American Society of Criminology, San Francisco, USA

2013      **Participatory mapping of fear of crime using a mobile phone application**
Urban Data Management Symposium, London, UK

## Poster presentations

2016      **Mapping Fear of crime on the London Bus Network**
Environmental Criminology and Crime Analysis Symposium, Munster, Germany

2015      **Mapping fear of crime hotspots as they vary with place, time, and individual characteristics using amobile phone app**
Home Office International Crime and Policing Conference, London, UK

2013      **Mapping Fear of Crime**
European Society of Criminology Conference, Budapest, Hungary

2012      **Mapping fear of crime as a dynamic event**
Crime Science Conference, London, UK

# Teaching and Learning

My teaching areas include, research methods, quantitative data analysis/ statistical methods, spatial data analysis and GIS, and environmental criminology.

## University of Manchester Undergraduate Level Courses

2018-present      **LAWS31152: Crime Mapping: An introduction to GIS and spatial analysis**
Basics of spatial data visualisation and analysis for 3rd year undergraduate and all graduate students.

2017-present      **LAWS20452 : Modelling Criminological Data**
Inferential statistics course for 2nd year undergraduates.

2017-present      **LAWS30620: Short Dissertation**
Lectures and supervision of students on secondary data analysis pathway for their final year dissertation.

2016-present      **LAWS20441: Making Sense of Criminological Data**
Introduction to quantitative research for 2nd year undergraduates.

## University of Manchester Graduate Level Courses

2018-2019      **LAWS70542: Evaluating Policy and Practice**
Lecturer on mandatory module for all Masters streams introducing evaluation research beyond academia

2016-present      **LAWS70311: Designing Criminological Research**
Course director and primary lecturer on compulsory research methods module for all Masters streams

2016-2019      **LAWS70821: Data Analysis with R & R Studio**
2016: Course director and sole lecturer, 2018 onwards: ad-hoc lecturer on introductory statistics for MRes students using R

## Other teaching, short courses, and guest lecturing

2020-2020 **Monash University, AUS: A gentle introduction to data analysis for social scientists using R**
half-day introduction to data analysis for graduate students in social sciences using R.

2019-2019 **Research IT: Data analysis using R**
One-day introduction to R, part of University of Manchester's Research IT series of courses for staff and PhD students.

2018-2018 **University of Amsterdam: Crowdsourced data and a crime science approach to perception of crime and place**
Crime Science module for masters level students.

2017-present **methods@manchester: Getting Started in R: introduction to data analysis & visualisation**
Week-long intensive course introducing students to using R and R Studio for data analysis. Open to all, usually attended by professionals and academics.

2017-present **Q-Step internship preparation: Introduction to mapping data with QGIS**
Afternoon short introduction to mapping spatial data for Q-step internship students.

2017-2017 **Stockholm Royal Institute of Technology (KTH): Spatial Data Analysis in Practice**
One-day introduction to mapping with QGIS and data collection from APIs as part of weeklong summer school for PhD students.

2012-2017 **University College London MSc Transport Studies: Trasport Safety and Security**
Guest lecture for graduate module, UCL Department of Civil, Environmental, and Geomatic Engineering.

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# Academic Enterprise and Knowledge Transfer

2020 **Open Data Manchester**
I am actively collaborating with Open Data Manchester, a Community Interest Company interested in open data and promoting data literacy and suporting data analysis for good. We have a joint PhD student (see Nathan Khadaroo in research students).

2020 **Wirral Hospitals' School**
One-hour career oriented session about data analysis for students enrolled in a community school, introducing them to crime analysis.

2019 **Greater Manchester Police**
Co-supervision of PhD student with Greater Manchester Police's Force Intelligence Bureau and colleagues in University College London working to improve horizon scanning processes within the organisation and wider in policing.

2018 **N8 Analyst Training**
Training workshop on data visualisation and GIS as part of the N8 Policing Research Partnership training course for police analysts from across northern police forces.

**Representation of women in data roles**
I consistently give talks and participate in data-related meetups including ones which emphasise representation of women in data roles, such as R-ladies and Her+Data meetups.

**TicTec2018**
The NGO 'MySociety' invited me to present the work I did using their fix my street platform at the international civic technology conference for researchers, practitioners, and all those with an interest in how technology is changing the way we engage with society. TICTeC is known for its unique focus on the impacts of Civic Technologies where funders mix with practitioners, activists converse with researchers, small NGOs get as much attention as the big players. Since then, I have been working with their research team, who have replicated findings in two of my papers, and are in the process of further joint working.

# Service and Leadership

2017-present **Department of Criminology: Programme Director for Postgraduate Taught Programmes (Masters degrees)**
Strategic oversight of programme direction teaching curriculum for all Masters' streams, alongside day-to-day administrative and pastoral responsibilities.

2016-2019 **University of Manchester: Coordinator of the University of Manchester R User Group**
Direction and organisation of user group activities such as monthly meetings, hackathons, and preparation of joint research outputs.

2016-Present **Data Carpentry Social Sciences Curriculum: Curriculum Advisory Board Member**
Involvement in oversight and development of the social sciences curriculum within the Carpentries programme.

2016-present **University of Manchester: Ad hoc administrative duties**
Undergraduate Open Day, Postgraduate Research (PhD) Open Day, and similar roles assisting colleagues and promoting the university

2016-present **University of Manchester: Academic Advising**
Pastoral care and academic advising for undergraduate and postgraduate students enrolled in Criminology degrees.