

# Reka Solymosi

Lecturer in Quantitative Methods

## Curriculum Vitae

October 2019

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## Employment

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

Aug 2014–Oct 2014 **Data Analyst**  
Transport and Street Planning Team, London Borough of Camden

## Education

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

## Publications

ORCID: 0000-0001-8689-1526

### Peer reviewed publications

1. 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*, 2399808319873923.
2. Solymosi, R (2019). Exploring Spatial Patterns of Guardianship Through Civic Technology Platforms. *Criminal Justice Review* 44(1), 42–59.
3. 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.
4. 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.
5. 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.
6. 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.
7. Solymosi, R, H Borrión, 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.

### Forthcoming: publications under review for which pre-prints are available.

OSF profile: [osf.io/3nzk2](https://osf.io/3nzk2).

1. 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. Retrieved from osf: <https://osf.io/preprints/socarxiv/8hgjt/>.
2. Solymosi, R, D Buil-Gil, L Vozmediano, and IS Guedes (2019). A place-based approach to fear of crime: A systematic review of app-based and crowdsourced measures. Retrieved from osf: <https://osf.io/preprints/socarxiv/h3n9w/>.
3. Solymosi, R, M Ashby, T Cohen, and A Sidebottom (2017). Alternative denominators in transport crime rates. Retrieved from osf: [io/preprints/socarxiv/neaxh](https://osf.io/preprints/socarxiv/neaxh).

### 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 and M Chataway (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 GISRUUK. *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>.

## Funding

### Funding awarded as Principal Investigator

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

### Funding awarded as Co Investigator

2019–2020	<b>Civic Innovation in Community: safety, policing and trust with young people</b> £30,000 funding from EPSRC Network+: Social Justice through the Digital Economy
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## Teaching

### University of Manchester Graduate Level Courses

2018–2019	<b>LAWS70542: Evaluating Policy and Practice</b> Lecturer on mandatory module for all Masters streams introducing evaluation research beyond academia
2016–present	<b>LAWS70311: Designing Criminological Research</b> Course director and primary lecturer on compulsory research methods module for all Masters streams
2016–2019	<b>LAWS70821: Data Analysis with R &amp; R Studio</b> 2016: Course director and sole lecturer, 2018 onwards: ad-hoc lecturer on introductory statistics for MRes students using R

## 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.

## Other teaching, short courses, and guest lecturing

- 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.
- 2017–present **methods@manchester: Getting Started in R: introduction to data analysis & visualisation**  
Weeklong 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: Transport Safety and Security**  
Guest lecture for graduate module, UCL Department of Civil, Environmental, and Geomatic Engineering

## Invited talks

2019

### Mapping and spatial modelling in R for crime prevention and conservation

Sheffield R User Group, UK

### The role of innovative data collection methods in advancing understanding, and the importance of considering the biases within

Women in Data Science: Zurich, Switzerland

### Keynote: Data-driven insights in law: opportunities and cautions

Berlin Legal Tech Conference 2019, Germany

### The role of innovative data collection methods in advancing behavioural understanding

Cognitive and Decision Sciences, University of Basel, Switzerland

### The role of innovative data collection methods in advancing criminological understanding

Manchester Metropolitan University Big Data Centre Seminar Series, UK

2018

### Crowdsourcing subjective perceptions of neighbourhood disorder: interpreting bias in Open Data

TicTec 2018, Lisbon, Portugal

### Interdisciplinary Alchemy: Data Science + Social Science

Data Kind UK

### Everybody Lies but Not Everybody Tweets: Making Sense of the Bias in Your Data

Advances in Data Science conference, Manchester, UK

2017

### Reproducible Crime Analysis using R

Intelligence Innovation Working Group hosted by West Midlands Police

### Building Interactive Data Visualizations

Manchester Methods Fair, UK

### Using open data in the social sciences

Her+Data Meetup, Manchester, UK

### What is Crowdsourced Data?

Methods@Manchester seminar on research methods in social sciences, Manchester, UK

### Eyes and Apps on the Street

Stockholm Royal Institute of Technology (KTH), Sweden

### Keynote: Making Sense of Data using Methods

Methods North West Launch Conference, Manchester, UK

**Using R for Crime Analysis**

Greater Manchester Police, Force HQ, Manchester, UK

**Mapping fear of crime as a context-dependent everyday experience that varies in space and time**

Horizon 2020 Project MARGIN conference, Budapest, Hungary

**Using open data to evaluate current approaches to cabs tasking**

11th International Crime Science Conference, London, UK

**Fighting Crime (and other bad things) on the transport network**

Manchester R User Group meetup

2016

**Practitioner-Academic Seminar on Confidence in Policing**

Transport for London, UK

**Policing and Public Confidence - Confidence at TfL and the challenges of a transport environment**

Public Confidence in the Police - University of Warwick, UK

2015

**Scheduling student-led learning by enquiry into the curriculum**

Teaching and Learning Conference 2015, UCL, London, UK

**Alternative Denominators in Transport Crime Rates**

Transport Statistics User Group Meeting, London, UK

**Using a smartphone app to measure fear of crime on route 25**

Transport for London Route 25 Joint Transport Action Group (JTAG) meeting, London, UK

2014

**Streets, Crime, and Transport**

EPSRC Impact Award Seminar, London, UK

**A new approach to mapping perceptions of crime along the door-to-door journey**

Transport Geography Research Group Workshop, Leeds, UK

**Fear of crime on transport**

PopFest, annual Population Studies conference for PhD students, London, UK

**Using a smartphone app to report fear of hate crime**

Trans London Meetup, London, UK

2013

**Crowd spatial patterns at bus stops**

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

## Memberships

- **Curriculum Advisory Board Member** Data Carpentry Social Sciences Curriculum
- **Fellow** Software Sustainability Institute
- **Associate Fellow** Higher Education Academy
- **Board Member** ESRC Business and Local Government Data Research Centre Data Acquisition Board
- **Member** Environmental Criminology and Crime Analysis Symposium
- **Member** Transport Crime Research Network