

Patrick Gildersleve

Department of Methodology, London School of Economics, Houghton St, London WC2A 2AE

☎ +44 7969 456327 • ✉ p.gildersleve@lse.ac.uk

Current Position

LSE Fellow in Computational Social Science

Department of Methodology

London School of Economics

September 2021–Present

- Post-doctoral research and teaching role, including supervision of MSc dissertations.
- Primarily focused on refining DPhil thesis work for publications, as well as developing new projects and collaborations.

Education

DPhil in Information, Communication and the Social Sciences

EPSRC Funded at the Oxford Internet Institute

Supervisors: Prof Taha Yasseri, Prof Renaud Lambiotte

University of Oxford

2016–2021

DPhil Thesis: *'The Wikipedia News Network: Understanding Collective Response to Current Events Through the Internet's Encyclopaedia'*

- I study how information on current events is represented and accessed on Wikipedia, an influential independent online record and barometer of collective behaviour. I develop and employ various methods across the three constituent studies, notably; temporal community detection, unsupervised clustering, as well as time series analysis and forecasting. I use these studies to examine core theories of collective attention, news values, and newsworthiness—looking to answer why events become news.

Master of Physics

First Class

University of Oxford

2012–2016

Master's Project: *'A Data De-anonymization Approach to Node Re-identification in Labor Flow Networks'*

Supervisors: Dr Omar Guerrero, Dr Eduardo Lopez

- Applying network data de-anonymization techniques in an interdisciplinary econophysics project to re-identify firms that fraudulently change business ID between years, catching behaviour indicative of tax evasion.

3rd Year Mini-Project – 90%: *'Search for Mesons containing b-Quarks'*

- Using ROOT/C++ to search for and analyse properties, directly and indirectly, of tens of millions of subatomic particles produced in collisions from Tevatron data.

Publications & Preprints

Between News and History: Identifying Networked Topics of Collective Attention on Wikipedia 2022

P Gildersleve, T Yasseri, R Lambiotte

Under Review. arXiv:2211.07616

Collective Memory in the Digital Age 2022

T Yasseri, P Gildersleve, L David

In S. M. O'Mara (Ed.), *Collective memory* (Vol. 274, pp. 203-226). Elsevier. DOI:10.1016/bs.pbr.2022.07.001

Computational Courtship: Understanding the Evolution of Online Dating through Large-scale Data Analysis 2021

R Dinh, P Gildersleve, C Blex, T Yasseri

Journal of Computational Social Science, 5(1) (pp. 401-426). DOI:10.1007/s42001-021-00132-w

Modeling Collective Anticipation and Response on Wikipedia 2021

R Kobayashi, P Gildersleve, T Uno, R Lambiotte

Proceedings of the International AAAI Conference on Web and Social Media (Vol. 15, pp. 315-326)

Inspiration, Captivation, and Misdirection: Emergent Properties in Networks of Online Navigation 2018

P Gildersleve, T Yasseri

International Workshop on Complex Networks (pp. 271-282). Springer, Cham. DOI:10.1007/978-3-319-73198-8_23

Teaching Positions

Introduction to Computational Social Science with Python

Co-convenor: Dr Milena Tsvetkova

Week-long intense course for graduate students and professionals.

GESIS Fall Seminar, Mannheim

September 2022

MY470: Computer Programming

Course Convenor: Dr Milena Tsvetkova

MSc and PhD level course

London School of Economics

2021-22

MY472: Data for Data Scientists

Course Convenor: Dr Friedrich Geiecke

MSc and PhD level course

London School of Economics

2021-22

MY461: Social Network Analysis

Course Convenor: Dr Eleanor Power & Dr Milena Tsvetkova

MSc and PhD level course

London School of Economics

2021-22

MY452: Applied Regression Analysis

Course Convenor: Dr Daniele Fanelli

MSc and PhD level course

London School of Economics

2021-22

- o Designed class materials and assessments, held weekly seminars, marked and provided feedback for assignments across these four courses.
- o Conducted course administration through Moodle and GitHub platforms.

Teaching Assistant – Online Social Networks

Course Convenor: Dr Bernie Hogan

MSc and PhD level course

Oxford Internet Institute

January–March 2018 & 2019

Teaching Assistant – Python for Social Data Science

Course Convenor: Dr Bernie Hogan

MSc Social Data Science, DPhil Information, Communication and the Social Sciences

Oxford Internet Institute

October–November 2018

Teaching Assistant – Scripting for Social Scientists (Python)

Course Convenor: Dr Bernie Hogan

MSc Social Science of the Internet, DPhil Information, Communication and the Social Sciences

Oxford Internet Institute

October–December 2017

- o Assisted in the design of class materials, running of hands-on labs, marking and providing feedback for assignments across these three courses.
- o Conducted course administration through Canvas and GitHub platforms.

Teaching Assistant – Social Network Analysis

Course Convenor: Prof Taha Yasseri

Oxford Summer School in Economic Networks

June 2017

- o Assisted in the provision of hands-on labs for researchers from a wide range of disciplines & career stages.

Research Positions

Research Assistant – Computational Romance Project

Principal Investigator: Dr Taha Yasseri

Oxford Internet Institute

June–September 2018

- o A three month position studying the dating preferences of more than 100,000 users of eHarmony.com over 10 years.

Intern – Central Laser Facility

Supervisors: Prof Peter Norreys, Prof David Neely

Rutherford Appleton Laboratory, Harwell

August–September 2014

- o Thermodynamic modelling for the lifetime optimisation of ultra-thin cryogenic hydrogen targets used in ion acceleration experiments with the PetaWatt VULCAN laser, with the results used to make experimental alterations.

Intern – Department of Physics and Astronomy

Supervisor: Prof Paul Roche

Cardiff University

July–August 2010

- o Awarded a six week Nuffield Science Bursary searching for and classifying variable stars using Fourier analysis. My work was presented by the research group at the 2011 Royal Astronomical Society National Astronomy Meeting.

Academic Responsibilities

Reviewer – EPJ Data Science, EPJ B

Editors in Chief, respectively; Prof Markus Strohmaier, Prof Wenhui Duan

Programme Committee – International AAAI Conference on Web and Social Media

Organizing Committee: Prof Meeyoung Cha, Prof Yuru Lin, and Prof Daniele Quercia

Limassol

June 2023

Programme Committee – NetSciX

Organizing Committee: Dr Bruno Gonçalves, Prof Leo Ferres, Dr Javier Bustos-Jiménez

Santiago

January 2019

Assistant Interviewer

Somerville College, University of Oxford

BA, MMath in Mathematics, Mathematics & Statistics, Mathematics & Computer Science *December 2018, 2019*

- I assisted in developing interview questions, interviewing undergraduate applicants, note-taking in interviews, and assessing candidates based on interview performance, application quality, and sociodemographic factors.

Chair

Oxford Internet Institute

Graduate Joint Consultative Committee

October 2018–2019

- Elected to act as a prime point of communication between staff and students for all education related matters.

Student Representative

Oxford Internet Institute

Research Committee, Graduate Studies Committee

November 2017–November 2018, February 2018–June 2019

- Representing student matters in shaping the department's research strategy, leading up to the UK's REF 2021.
- Relaying results of key discussions at GJCC meetings to the departmental Graduate Studies Committee.

Awards and Grants

Excellence in Education Award

£1000

London School of Economics and Political Science

2022

TORCH PastNet Bursary

£200

University of Oxford

2020

Green Templeton College Competitive Conference and Fieldwork Funding

£430

University of Oxford

2020

Oxford Internet Institute Academic Scholarship

£1464

University of Oxford

2019

Green Templeton College Competitive Conference and Fieldwork Funding

£400

University of Oxford

2018

DPhil Studentship

£14,500 annually

EPSRC

2016

Worcester College Academic Scholarship

University of Oxford

2015

Conference Presentations

NetSciX 2020

Oral Presentation

Waseda University, Tokyo

January 2020

'Navigating Historical Events through Wikipedia's Link Structure: A Comparative Analysis of Article Networks in 6 Language Editions'

NetSciX 2020

Poster Presentation

Waseda University, Tokyo

January 2020

'Bridging the Floating Gap: How News Events Build Networks of Collective Memory on Wikipedia'

Conference on Complex Systems 2018

Oral Presentation

Aristotle University of Thessaloniki

September 2018

'The Interplay of Internal and External Traffic on Online Networks in the Prediction of Collective Attention'

Computational Social Science Satellite @ CCS2018

Oral Presentation

Aristotle University of Thessaloniki

September 2018

'Computational Romance: What Matters for Personal and Public Perceptions of Attractiveness in Online Dating?'

International Conference on Complex Networks*Oral Presentation & Publication**'Inspiration, Captivation, and Misdirection: Emergent Properties in Networks of Online Navigation'***Northeastern University***March 2018***International Conference on Computational Social Science***Poster Presentation**'Order in User Navigational Structures on Wikipedia'***GESIS, Cologne***July 2017***Data Natives***Oral Presentation**'Order in User Navigational Structures on Wikipedia'***City University of London***May 2017*

Invited Talks

Wikimedia Research Showcase*Invited Talk**'What matters to us most and why? Studying popularity and attention dynamics via Wikipedia navigation data.'***Wikimedia YouTube Stream***August 2020***External Seminar Series***Invited Talk**'How Does News Become History? Using Wikipedia, Network Science, and Time Series Analysis to Understand the Chronicling of Collective Memory'***National Institute of Informatics, Tokyo***January 2020***TORCH PastNet Hackathon***Invited Talk**'Using Wikipedia and Networks to Study the Recording of History'***University of Oxford***May 2019*

Media Appearances

Oxford Sparks Big Questions Podcast*Can data find me a date?**February 2020***BBC News***Hot or not: Does rating yourself highly get you more dates?**October 2018*

Research Skills

- **Programming Languages:** Comfortable with: Python, R. Working knowledge of: MATLAB, C, C++, SQL, HTML, UNIX commands.
- **Software Experience:** Comfortable with: MS Windows, Mac OS X, Linux, iOS, Android, Computing through AWS, MS Office, web design, photo, video, and music editing. Very technically literate and able to pick up new skills.
- **Communication and Presentation skills:** Attended and presented at various conferences and seminars both internal and external to department and university. Built on guidance for personal and professional development from DPhil seminars and subsequent courses. Comfortable performing to crowds through additional teaching and musical stage experience.

Other Experience & Interests

Intermediate level French**Winning team member, Royal Statistical Society Christmas Quiz***2020***Oxford University Blues Ski Team member***2014–2018*

- Awarded a Half Blue and have competed three times for the University of Oxford in the Varsity Races.

Interski*Ski Instructor***Aosta Valley, Italy***December 2013, March 2014*

- Qualified BASI level 2 Ski instructor, following a season in Val d'Isere, France.

Captain of two college football teams, Worcester College Oxford*2012–2020*

- Heavily involved in the organisation of the club and its record appearance maker with over 140 caps. A committed and experienced leader on the pitch and socially active off it.