Patrick Gildersleve

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Current Position

LSE Fellow in Computational Social Science **London School of Economics**
Department of Methodology *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 **University of Oxford**
EPSRC Funded at the Oxford Internet Institute *2016–2021*
Supervisors: Prof Taha Yasseri, Prof Renaud Lambiotte

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 **University of Oxford**
First Class *2012–2016*
Master's Project: *'A Data Deanonymization 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.

Publications & Preprints

depths of wikipedia: Understanding Cross-Platform Online Attention, Content Creation, and Success 2023
P Gildersleve
Working Paper. Extended abstract.

Between News and History: Identifying Networked Topics of Collective Attention on Wikipedia 2023
P Gildersleve, T Yasseri, R Lambiotte
Journal of Computational Social Science, 1-31 DOI:10.1007/s42001-023-00215-w

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   **GESIS Fall Seminar, Mannheim**
Co-convenor: Dr Milena Tsvetkova   *September 2022, 2023*
Week-long intense course for graduate students and professionals.

MY470: Computer Programming   **London School of Economics**
Course Convenor: Dr Milena Tsvetkova   *2021-23*
MSc and PhD level course

MY461: Social Network Analysis   **London School of Economics**
Course Convenors: Dr Eleanor Power & Dr Milena Tsvetkova   *2021-23*
MSc and PhD level course

MY472: Data for Data Scientists   **London School of Economics**
Course Convenor: Dr Friedrich Geiecke   *2021-22*
MSc and PhD level course

MY452: Applied Regression Analysis   **London School of Economics**
Course Convenor: Dr Daniele Fanelli   *2021-22*
MSc and PhD level course

- Designed and delivered lecture content, class materials, and assessments. Held weekly seminars, marked and provided feedback for assignments and exams across these four courses.
- Conducted course administration through Moodle and GitHub platforms.

Teaching Assistant – Online Social Networks   **Oxford Internet Institute**
Course Convenor: Dr Bernie Hogan   *January–March 2018 & 2019*
MSc and PhD level course

Teaching Assistant – Python for Social Data Science   **Oxford Internet Institute**
Course Convenor: Dr Bernie Hogan   *October–November 2018*
MSc Social Data Science, DPhil Information, Communication and the Social Sciences

Teaching Assistant – Scripting for Social Scientists (Python)   **Oxford Internet Institute**
Course Convenor: Dr Bernie Hogan   *October–December 2017*
MSc Social Science of the Internet, DPhil Information, Communication and the Social Sciences

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

Teaching Assistant – Social Network Analysis   **Oxford Summer School in Economic Networks**
Course Convenor: Prof Taha Yasseri   *June 2017*

- 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   **Oxford Internet Institute**
Principal Investigator: Dr Taha Yasseri   *June–September 2018*

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

Intern – Central Laser Facility   **Rutherford Appleton Laboratory, Harwell**
Supervisors: Prof Peter Norreys, Prof David Neely   *August–September 2014*

- 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   **Cardiff University**
Supervisor: Prof Paul Roche   *July–August 2010*

- 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

Journal Reviewer – EPJ Data Science, EPJ B
Editors in Chief, respectively; Prof Markus Strohmaier, Prof Wenhui Duan

Programme Committee – ACM Hypertext **Rome**
Organizing Committee: Dr Alessio Antonini, Dr Francesca Benatti *September 2023*

Conference Reviewer – International AAAI Conference on Web and Social Media **Limassol**
Organizing Committee: Prof Meeyoung Cha, Prof Yuru Lin, and Prof Daniele Quercia *June 2023*

Programme Committee – Wiki Workshop 2023 **Online**
Organization: Wikimedia Foundation *May 2023*

Programme Committee – NetSciX **Santiago**
Organizing Committee: Dr Bruno Gonçalves, Prof Leo Ferres, Dr Javier Bustos-Jiménez *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.

Conference Presentations

International Conference on Computational Social Science 2023 **Copenhagen**
Oral Presentation *July 2023*
'depths of wikipedia: Understanding Cross-Platform Online Attention, Content Creation, and Success'

Wiki Workshop 2023 **Online - recorded**
Oral Presentation *May 2023*
'depths of wikipedia: Understanding Cross-Platform Online Attention, Content Creation, and Success'

NetSciX 2020 **Waseda University, Tokyo**
Oral Presentation *January 2020*
'Navigating Historical Events through Wikipedia's Link Structure: A Comparative Analysis of Article Networks in 6 Language Editions'

NetSciX 2020 **Waseda University, Tokyo**
Poster Presentation *January 2020*
'Bridging the Floating Gap: How News Events Build Networks of Collective Memory on Wikipedia'

Conference on Complex Systems 2018 **Aristotle University of Thessaloniki**
Oral Presentation *September 2018*
'The Interplay of Internal and External Traffic on Online Networks in the Prediction of Collective Attention'

Computational Social Science Satellite @ CCS2018 **Aristotle University of Thessaloniki**
Oral Presentation *September 2018*
'Computational Romance: What Matters for Personal and Public Perceptions of Attractiveness in Online Dating?'

International Conference on Complex Networks **Northeastern University**
Oral Presentation & Publication *March 2018*
'Inspiration, Captivation, and Misdirection: Emergent Properties in Networks of Online Navigation'

International Conference on Computational Social Science **GESIS, Cologne**
Poster Presentation *July 2017*
'Order in User Navigational Structures on Wikipedia'

Data Natives **City University of London**
Oral Presentation *May 2017*
'Order in User Navigational Structures on Wikipedia'

Awards and Grants

Excellence in Education Award   **London School of Economics and Political Science**
£1000   *2022*

TORCH PastNet Bursary   **University of Oxford**
£200   *2020*

Green Templeton College Competitive Conference and Fieldwork Funding   **University of Oxford**
£430   *2020*

Oxford Internet Institute Academic Scholarship   **University of Oxford**
£1464   *2019*

Green Templeton College Competitive Conference and Fieldwork Funding   **University of Oxford**
£400   *2018*

DPhil Studentship   **EPSRC**
£14,500 annually   *2016*

Worcester College Academic Scholarship   **University of Oxford**
                                                                                        2015

Invited Talks

Wikimedia Research Showcase   **Wikimedia YouTube Stream**
Invited Talk   *August 2020*
'What matters to us most and why? Studying popularity and attention dynamics via Wikipedia navigation data.'

External Seminar Series   **National Institute of Informatics, Tokyo**
Invited Talk   *January 2020*
'How Does News Become History? Using Wikipedia, Network Science, and Time Series Analysis to Understand the Chronicling of Collective Memory'

TORCH PastNet Hackathon   **University of Oxford**
Invited Talk   *May 2019*
'Using Wikipedia and Networks to Study the Recording of History'

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 CLI.
- **Software Experience:** Comfortable with: MS Windows, Mac OS, 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.