

CURRICULUM VITAE

Paul LONGLEY, B.Sc., Ph.D., D.Sc., FAcSS.

is Professor of Geographic Information Science at University College London, UK, where he also directs the ESRC Consumer Data Research Centre. He is a GIScientist and Quantitative Human Geographer with substantive interests in the geotemporal dynamics of urban systems. Published work includes three books (in multiple editions), 12 edited collections and more than 175 refereed journal articles and contributions to edited collections. He has supervised 60 intending Ph.D. students (40 Ph.D. and four Masters completions to date) and guided many of these junior scholars to academic positions worldwide. His research has been funded through 49 research grants (totalling over £20 million). He is a past Editor-in-Chief of **Computers, Environment and Urban Systems**, past Co-Editor of **Environment and Planning B**, and is an editorial board member of four international journals. He has made major contributions to teaching and learning in quantitative methods through writing, online resources, grant funded initiatives and visiting appointments to overseas universities, and makes frequent contributions to the public understanding of science.

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DoB: 26 February 1959

Citizenship: United Kingdom

1. PRESENT APPOINTMENT

2000- Professor of Geographic Information Science, UCL (seconded to ESRC Advanced Institute for Management Research Senior Fellowship, 2003-4; UCL Director, Consumer Data Research Centre, 2014-present).

2. PREVIOUS APPOINTMENTS

1983-84 Lecturer in Geography, University of Reading.
1984-92 Lecturer in Planning, University of Wales, Cardiff (UWIST prior to 1/9/88).
1992-94 Lecturer in Geography, University of Bristol.
1994-96 Reader in Geography, University of Bristol (including a period as an ESRC Research Fellow, 1994-95).
1996-2000 Professor of Geography, University of Bristol.

3. EDUCATION AND QUALIFICATIONS

(a) Education

1970-77 Southend High School for Boys, Southend-on-Sea.
1977-80 Department of Geography, University of Bristol.
1980-81 Geographisches Institut II, Universität Karlsruhe (TH), Germany.
1981-83 Department of Geography, University of Bristol.

(b) Qualifications

1975-77 10 GCE 'O' Levels (7 Grade A, 3 Grade B); 3 GCE 'A' levels (all Grade A).
1980 **B.Sc. First Class Honours (Geography)**, University of Bristol.

- 1981 Certificate of Competence (German Language) to study at Karlsruhe/Stuttgart Universities; Grundstufe II language examination (Grade 1).
1984 **Ph.D. (Urban Geography)**, University of Bristol.
1997 **D.Sc.**, University of Bristol.

4. SPECIAL AWARDS, HONOURS AND DISTINCTIONS

- 1975-77 Annual School Prizes.
1980 University of Bristol Miller-Barstow Prize for best undergraduate social science dissertation.
1980 Walter Scheel Scholarship (value 13,420 DM), funded by the Deutscher Akademischer Austauschdienst (DAAD), spent at Karlsruhe University (TH).
1981 Social Science Research Council Studentship (Thesis published by University Microfilms International No. 86-06821).
2002 Elected Registered Practitioner, the **Higher Education Academy** (previously the ILTHE).
2002 Elected Academician, **Academy of Social Sciences** (Academy of Learned Societies for the Social Sciences prior to 2007).
2006 Finalist '**Research Project of the Year**', Times Higher Education Supplement Annual Awards.
2007 Visiting Professor, Ritsumeikan University, Japan.
2008-11 Visiting Professor, University College Dublin.
2009 Visiting Professor, Ritsumeikan University, Japan.
2009 UCL Advances, award for best Knowledge Transfer Partnership.
2009 Visiting Professor, University of Tokyo, Japan (November-December).
2011 Visiting Professor, Ritsumeikan University, Japan.
2011 Demographic Users Group Award for services to knowledge exchange between the university and retail sectors.
2013 Visiting Professor, Ritsumeikan University, Japan.
2013 **Royal Geographical Society Victoria Medal.**
2017- Visiting Professor, Fuzhou University, China.
2018 Visiting Professor, Shanghai University of Finance and Economics, China.

5. RESEARCH AND SCHOLARSHIP

I am a geographic information scientist and quantitative human geographer with substantive interests in urban geography. My early work focused upon improved understanding of the form and function of cities using discrete choice models and concepts from fractal geometry. In recent years, the availability of new sources and forms of data has enabled me to bring greater analytical focus upon the geotemporal demographics of urban function, at high spatial granularity and at timescales from the diurnal to the inter-generational. Work has included: development of activity-based neighbourhood classifications; analysis of family name geographies and their correspondence with geographic variation in the make up of human DNA; inference of self-assigned ethnicity through naming conventions; and analysis of footfall and movement through retail areas. I have interests in the re-use of consumer data sources to further academic research, and the implications of new Big Data sources more generally for

the practice of social science.

It has been my privilege to supervise a very large number of Ph.D. students and junior researchers, many of whom are now established elsewhere in academia, or at senior levels in industry/government. Most all of these individuals have been funded by my applications for funding through collaborative studentships, research grants and knowledge exchange partnerships.

6. RESEARCH GRANTS

This section does not include research council or other external funding for postgraduate students, detailed under 'Postgraduate Supervision' in Section (7). Travel grant funding from the British Council, the British Academy, the European Science Foundation, the (U.S.) National Science Foundation, NATO and a number of other sources is detailed in Section (11) as 'Contributions to Professional Meetings'. British Council and U.S. National Science Foundation and other funding for visiting appointments is detailed in Section (11) as 'Visiting Appointments to Other Universities'.

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|---------|---|-----------------|
| 1. 1985 | Economic and Social Research Council: Survey Link Award (PI). | £1,363 |
| 2. 1987 | Economic and Social Research Council: trial phase of the ESRC Wales and South West Regional Research Laboratory (RRL) (co-I, with M. Batty, I. Bracken and N. Wrigley). | £24,500 |
| 3. 1987 | Welsh Development Agency: Institute of Welsh Affairs 'Project to Revive the South Wales Valleys' (PI). | £8,000 |
| 4. 1987 | Economic and Social Research Council: participation in the design and implementation of the 1987/88 General Household and Labour Force Surveys. | £1,200 |
| 5. 1988 | Cardiff Bay Development Corporation: preparation of a socio-economic profile of Cardiff Bay (co-I with M. Batty and J. Alden). | £4,650 |
| 6. 1988 | Welsh Development Agency/WINtech: feasibility study of a Centre of Excellence in Geographical Information Systems alongside the Wales and South West Regional Research Laboratory (co-I, with N. Wrigley). | £5,000 |
| 7. 1988 | Welsh Office, Statistics Division: a project to synthesise income data to enhance the 1986 Welsh House Condition Survey (PI). | £16,000 |
| 8. 1988 | Economic and Social Research Council: Main Phase of the Wales and South West Regional Research Laboratory (co-I, with M. Batty, I. Bracken and N. Wrigley). | £236,200 |
| 9. 1988 | Cardiff City Council: design and analysis of the Cardiff House Condition Survey (PI, with R. Smith). | £25,000 |

10. 1988 **Economic and Social Research Council:** equipment supplementation for the Wales and South West Regional Research Laboratory (co-I, with M. Batty, I. Bracken and N. Wrigley).
£29,000
11. 1989 **Cynon Valley Borough Council:** analysis of the Mountain Ash House Condition Survey (PI, with D. Martin).
£3,000
12. 1990 **Cardiff City Council:** staff training in the analysis of large-scale survey data (PI, with D. Martin).
£1,700
13. 1991 **Joseph Rowntree Foundation, Department of the Environment and Economic and Social Research Council:** a research register for housing (co-I, with P. Williams).
£57,246
14. 1992 **Welsh Office, Economic and Statistical Services Division:** design and analysis of the 1992/93 Welsh House Condition Survey (PI).
£23,000
15. 1993 **Welsh Office, Economic and Statistical Services Division:** matching 1992/93 Welsh House Condition Survey sample with the Council Tax Valuation List (PI).
£5,875
16. 1993 **Economic and Social Research Council:** a GIS-based analysis of the geographical implications of the council tax (PI, with D. Martin).
£29,600
17. 1994 **Economic and Social Research Council:** Visiting Fellowship: ‘Analysis of disaggregate and discrete-time event property values using multi-level models’. ESRC Analysis of Large and Complex Datasets Programme (PI).
£10,980
18. 1998 **Natural Environment Research Council:** Monitoring urban land-use and morphology using remote sensing and GIS (PI, with M. Barnsley, A. Luckman).
£202,172
19. 2001 **Engineering and Physical Sciences Research Council:** Integrated systems for retail company management strategy: a feasibility study of demand-led aspects (co-I, with M. Batty).
£45,697
20. 2002 **European Commission** (Fifth Framework Programme: Energy, Environment and Sustainable Development): SCATTER (Sprawling Cities And Transport: from Evaluation to Recommendations) (associated researcher, PI M. Batty).
€156,942 (£123,738)
21. 2002 **ESRC/EPSRC/NERC Transdisciplinary Seminar Series Competition:** Realising the potential of urban spatial data infrastructures (PI, with R. Harris)
£17,908
22. 2003 **Economic and Social Research Council:** Digital differentiation: consumption profiles of fracturing digital divides (PI, with M. Batty, R. Webber, A. Tapp: RES-335-25-0020).
£88,222
23. 2003 **The Groundwork Trust:** inter-departmental GIS requirements analysis (PI).
£3,000

24. 2003 **Camden Borough Police:** inter-departmental GIS requirements analysis (PI).
£3,500
25. 2003 **Department of Trade and Industry/UCAS Ltd.:** a Knowledge Transfer Partnership to develop a student placing service to support applications for admission to higher education institutions (PI: TCS4276).
£100,198
26. 2003 **Camden Borough Police:** sustainable GIS and data sharing infrastructure (PI).
£15,000
27. 2003 **Economic and Social Research Council:** Senior Fellowship: Geodemographics for managing local services (PI: RES-331-25-0001).
£125,168
28. 2003 **Economic and Social Research Council:** Surnames as a quantitative evidence resource for the social sciences (PI, with R. Webber: RES-000-22-0400).
£45,551
29. 2004 **Economic and Social Research Council/Camden Primary Care Trust:** a Knowledge Transfer Partnership to develop and utilise GIS for neighbourhood profiling and assist in targeting public health and health care delivery (PI: KTP000037).
£331,584
30. 2004 **Economic and Social Research Council/Southwark Primary Care Trust:** a Knowledge Transfer Partnership to develop systems to measure and monitor GP referrals and to target health promotion campaigns (PI: KTP000666).
£331,584
31. 2005 **Economic and Social Research Council:** GEOVUE: GEOgraphic Virtual Urban Environments (co-I, with M Batty and A Steed: RES-149-25-1023).
£420,091
32. 2006 **Economic and Social Research Council** (Knowledge Transfer Division): co-funding for conference at the Royal Geographical Society, February.
£5,000
33. 2007 **Cabinet Office/City of London Corporation:** Linking social deprivation and digital exclusion in England (PI).
£10,000
34. 2007 **Economic and Social Research Council:** Business solutions for web-based dissemination of the geography of genealogy (PI: RES-172-25-0019).
£49,950
35. 2007 **Economic and Social Research Council:** Business Engagement Award for NCESS (National Centre for E-Social Science) (co-I, with P Halfpenny: RES-185-31-0003)
£98,700
36. 2007 **Economic and Social Research Council:** The Genesis Project: GENERative E-Social Science (co-I, with M Batty, M Birkin, P A Longley, A Heppenstall, A Steed, M C Clarke, J Xu, A G Wilson: RES-149-25-1078).
£1,382,477
37. 2008 **Economic and Social Research Council:** Census Geographic Information Visualisation (CensusGIV) (co-I, with P Mateos, M Batty: RES-348-25-0015).
£81,744
38. 2009 **Economic and Social Research Council/Technology Strategy Board/The**

- Local Futures Group Ltd.:** a Knowledge Transfer Partnership to develop participatory mapping technologies (Lead academic: PI A D Singleton).
£154,004
39. 2009 **Wellcome Trust:** Genetics of the people of the British Isles and their faces (co-I: PI W F Bodmer, other co-Is P J Donnelly, T Spector, J Kittler: COLL - HDRHJGC).
£2,067,797
40. 2011 **Engineering and Physical Sciences Research Council:** The uncertainty of identity: linking spatiotemporal information between virtual and real worlds (PI: co-Is M Musolesi, R Muttukrishnan: EP/J005266/1).
£1,218,191
41. 2012 **Engineering and Physical Sciences Research Council:** Crime, policing and citizenship (CPC) - space-time interactions of dynamic networks (co-I: PI T Cheng, other co-Is J Shawe-Taylor, K Bowers: EP/J004197/1).
£1,400,235
42. 2013 **Economic and Social Research Council:** Using secondary data to measure, monitor and visualise spatio-temporal uncertainties in geodemographics (co-I: PI A D Singleton, other co-Is P Batey, C Brunson, P Williamson, P Brown: ES/K004719/1).
£145,918
43. 2013 **Economic and Social Research Council:** The e-resilience of British retail centres. (co-I: PI A Singleton: ES/L003546/1).
£127,991
44. 2013 **Economic and Social Research Council:** A strategic advisory team for data resources 2014-2016. (co-I: PI P Elias, other co-Is D De Roure, J Hobcraft, K Kiernan: ES/L003414/1).
£721,931
45. 2014 **Economic and Social Research Council:** Retail Business Datasafe (PI: co-Is M Batty, T Cheng, J Cheshire, T Fischer, C Lloyd, S. Mikhaylov, J Reynolds, A Singleton, P Williamson: ES/L011840/1).
£6,117,615
46. 2014 **Economic and Social Research Council:** The analysis of names from the 2011 Census of Population (PI: co-Is J Cheshire, A D Singleton: ES/L013800/1).
£136,503
47. 2015 **Engineering and Physical Sciences Research Council:** UK Regions Digital Research Facility (UK RDRF) (co-I: PI A Penn, other co-Is M Batty, P Treleven, A Wilson: EP/M023583/1)
£3,999,936
48. 2016 **Economic and Social Research Council:** Equipment supplementation for the Consumer Data Research Centre-led SmartStreetSensor industrial collaboration with the Local Data Company
£301,681
49. 2017 **Economic and Social Research Council:** Inclusive and healthy mobility: Understanding trends in concessionary travel in the West Midlands. (co-I: PI J Kandt: ES/P010741/1)
£126,324

Total of Itemised Research Grant Awards

£20,748,124

Additional Funding for Postgraduate and Undergraduate Teaching

50. 2005 **Higher Education Funding Council for England:** Splint: Spatial Literacy in Teaching (UCL lead in consortium with Leicester and Nottingham Universities)
£978,259

51. 2006 **Higher Education Funding Council for England:** Splint: Spatial Literacy in Teaching. Supplementary capital grant for UCL.
£60,000

52. 2013 **Nuffield Trust/Economic and Social Research Council/Higher Education Funding Council for England:** Quantitative Methods Programme (Co-I: PI/Centre Co-ordinator J vanHeerde-Hudson, other co-Is L Vinicius, G Hart, S Mikhaylov).
£1,340,000

Total

£ 23,126,383

7. POSTGRADUATE SUPERVISION

Under the UK system, a Ph.D. student typically has just two supervisors. This section includes details of career destinations of the Ph.D. students that I have supervised, and some of their contributions to academia and professional practice. To date, 40 students have submitted Ph.D. theses, four have been awarded Masters degrees and eight have not submitted theses.

1. 1987-89 Simon Thompson. SERC award, principal supervisor. M.Sc awarded 1990. Subsequently senior manager with GENAMAP GIS and most recently Commercial Business Industry Solutions Manager, ESRI Inc., Redlands, CA.
2. 1990-93 Myles Gould. SERC award, principal supervisor. Ph.D. awarded 1996. Currently Senior Lecturer in Geography, University of Leeds.
3. 1991-94 Victor Mesev. SERC award, principal supervisor. Ph.D. awarded 1995. Subsequently ESRC Postdoctoral Research Fellow at University of Bristol. Currently Chair, University of Florida, Tallahassee.
4. 1993-6 Scott Orford. ESRC award, principal supervisor. Ph.D. awarded 1997. Subsequently Computer Officer, School of Geographical Sciences, University of Bristol, and currently Reader in Spatial Analysis and GIS, Cardiff University.
5. 1996-9 Richard Harris. ESRC award, principal supervisor. Ph.D. awarded 1999. Subsequently Research Assistant, University of Bristol. Currently Professor of Quantitative and Social Geography, University of Bristol.
6. 1998-9 Emma Roe. ESRC award, principal supervisor until 1999 and remained in

- Bristol after my move to UCL. Ph.D. awarded 2002. Currently Lecturer in Human Geography, University of Southampton.
7. 1998-2001 William Grey. NERC award, external supervisor. Ph.D. awarded 2002. Subsequently Research Fellow, Department of Geography, Swansea University.
 8. 2000-3 Carolina Tobon. UCL Teaching Assistantship, principal supervisor. Ph.D. awarded 2003. Subsequently GIS analyst for ESRI (UK) Ltd. and then software developer.
 9. 2000-3 Paul Torrens. ESRC competition award, second supervisor. Ph.D. awarded 2003. Subsequently Assistant Professor, University of Utah then Associate Professor in Geography, Arizona State University, then Professor, University of Maryland. Currently Professor of Urban Informatics, New York University.
 10. 2001-3 Mike de Smith. Self-funded, principal supervisor. Ph.D. awarded 2004. Subsequently self-employed consultant.
 11. 2001-4 Daryl Lloyd. ESRC CASE award, second supervisor. Ph.D. awarded 2005. Subsequently senior research analyst at ODPM and the Cabinet Office.
 12. 2001-3 Ian Greatbatch. Research grant funded, principal supervisor for part of study period only. M.Sc. awarded 2007. Currently Senior lecturer, School of Geography, Geology and the Environment, Kingston University.
 13. 2001-4 (Lily) Chao Li. ESRC competition award, principal supervisor. Ph.D. awarded 2005. Subsequently ESRC Postdoctoral Research Fellow, UCL.
 14. 2001-4 Torsten Schietzelt. ESRC CASE award, second supervisor. No thesis submitted. Subsequently ad hoc lecturer, the Bartlett School, UCL.
 15. 2001-4 Sarah Smith. Ordnance Survey funded, principal supervisor. Ph.D. awarded 2005. Subsequently research analyst, Ordnance Survey (Great Britain) and then Research Fellow in Civil Engineering and Geosciences, University of Newcastle-upon-Tyne.
 16. 2001-6 Nancy Chin. Research grant funded (part time), second supervisor. Ph.D. awarded 2006. Subsequently senior civil servant.
 17. 2001-5 Sinesio Alves Jnr. Brazilian Government Scholarship, second supervisor. No thesis submitted. Subsequently, inter alia, Computer Officer at UCL.
 18. 2002-5 Tessa Anderson. ESRC CASE award, principal supervisor. Ph.D. awarded 2006. Subsequently Lecturer in Geography, University of Canterbury, New Zealand, then University of Queensland, Hong Kong University and Technical University of Denmark.
 19. 2002-5 David Ashby. ESRC CASE award, principal supervisor. Ph.D. awarded 2006. Subsequently Business Development Manager, UCL Business Plc. Then Director of Informatics, Dr. Foster (Research) Ltd. Currently Team Leader, NHS England.
 20. 2002-5 Aidan Slingsby. ESRC CASE award, principal supervisor. Ph.D. awarded 2006. Subsequently Postdoctoral Research Fellow, then Lecturer in Visual and Analytical Computing, (London) City University
 21. 2002-5 John Ward. ESRC CASE award, second supervisor. Ph.D. awarded 2007. Subsequently Research Officer and Senior Research Fellow, the Bartlett School, UCL.
 22. 2002-4 Ozlem Sahbaz. Research grant funded (part time) second supervisor until inter-departmental transfer in 2004. No award.
 23. 2002-5 Joana Simoes. Portuguese Government scholarship, second supervisor. Ph.D. awarded 2006. Subsequently software developer, Brunel University.

24. 2002-7 Alex Singleton. Research grant funded (full/part time), principal supervisor. Ph.D. awarded 2007. Subsequently Research Officer, UCL and currently Professor of Geographic Information Science, University of Liverpool.
25. 2003-6 Andrew Crooks. ESRC CASE award, second supervisor. Ph.D. awarded 2007. Subsequently Research Scientist, Greater London Authority and then Assistant and then Associate Professor in Geography, George Mason University.
26. 2003-7 Christian Castle. Research grant funded/ESRC CASE award, principal supervisor. Ph.D. awarded 2007. Subsequently transport planning consultant.
27. 2004-7 Hanif Rahemtulla. ESRC competition award, principal supervisor. Ph.D. awarded 2008. Subsequently Research Officer, Université Laval. Currently Senior Research Officer, the World Bank.
28. 2004-7 Pablo Mateos. Research grant funded (full time), principal supervisor. Ph.D. awarded 2007. Subsequently ESRC Postdoctoral Research Fellow and then Lecturer in Geography, UCL. Currently Associate Professor, University of Guadalajara.
29. 2004-8 Kate Jones. Research grant funded (full time), principal supervisor. Ph.D. awarded 2008. Subsequently Research Associate, UCL, then Lecturer in Geography, Portsmouth University, then Senior Researcher, Université du Luxembourg.
30. 2005-14 Miles Davis. ESRC funded, second supervisor. No award.
31. 2005-8 Jakob Petersen. Research grant funded, principal supervisor. Ph.D. awarded 2008. Subsequently pharmaco-epidemiologist, National Health Service. Currently Research Data Manager, Institute for Economic and Social Research, University of Essex.
32. 2005-9 Catherine Lowe. ESRC competition award, principal supervisor. Ph.D. awarded 2010. Subsequently analyst, Aon Benfield Analytics.
33. 2006-8 Dr. Maurizio Gibin. Research grant funded, principal supervisor. (Refocused on research papers 2008, following appointment as Lecturer in Geography, University of London, Birkbeck College). Currently Scientific Officer, Joint Research Centre, European Commission Science Service.
34. 2007-14 Amon Boontore. Royal Thai Government Scholarship funded, second supervisor. Ph.D. awarded 2014. Subsequently Lecturer, King Mongkut's Institute of Technology Ladkrabang, Thailand.
35. 2007-14 Spencer Chainey. Academic staff part time registration, second supervisor. Ph.D. awarded 2014.
36. 2008-11 Muhammad Adnan. Research grant funded, principal supervisor. Ph.D. awarded 2011. Subsequently Research Analyst, LFG Ltd., and part time postdoctoral researcher, UCL, then Postdoctoral Research Fellow, UC, then Data Scientist for Shell Plc, then Senior Retail Analyst at Marks and Spencer Plc. Currently Senior Data Scientist, Roads and Transport Authority, Dubai, UAE.
37. 2008-11 James Cheshire. ESRC CASE award, principal supervisor. Ph.D. awarded 2011. Subsequently Lecturer then Senior Lecturer in Spatial Analysis, UCL
38. 2008-11 Daniel Lewis. ESRC CASE award, principal supervisor. Ph.D. awarded 2012. Subsequently postdoctoral research fellow, QMW and LSHTM London
39. 2008-12 Paul Richards. ESRC CASE award, principal supervisor. Ph.D. awarded 2013. Subsequently Lecturer in GIS, Kingston University. Currently Statistical Analyst, UK Office for National Statistics.
40. 2009-10 Nahid Mohajeri. Self-funded, principal supervisor. Transferred to new

- supervisor to pursue refocused research interests. Ph.D. awarded 2013.
41. 2010-14 Christopher Gale. UCL Impact Award, principal supervisor. Ph.D. awarded 2014. Subsequently Postdoctoral Researcher, UCL, then Senior Research Assistant, Southampton University. Currently GIS lead, Office for National Statistics.
 42. 2011-14 Kallum Dhillon. ESRC DTC Award, second supervisor. Ph.D. awarded 2015. Subsequently research analyst, Ministry of Defence.
 43. 2011-18 Melanie Bosredon. Research grant funded, second supervisor. No award.
 44. 2012-15 Jens Kandt. ESRC DTC Award, principal supervisor. Ph.D. awarded 2015. Subsequently postdoctoral researcher, and then lecturer, UCL.
 45. 2012-13 Matthew Pratt. ESRC DTC/collaborative award, principal supervisor. (Withdrawn 2013 for employment related to research topic)
 46. 2012-17 Alistair Leak, Defence Science and Technology Laboratory funded (4 year) award, principal supervisor. Ph.D. awarded 2017. Subsequently postdoctoral researcher, UCL.
 47. 2013-18 Kira Kempinska, EPSRC DTC award, second supervisor. (Thesis submitted August 2018.) Subsequently lecturer, UCL.
 48. 2013-14 Adrian Manning. Self-funded, part-time, principal supervisor. Withdrew for family reasons.
 49. 2014-18 Guy Lansley. Academic staff part time registration, principal supervisor. Ph.D. awarded 2018. Currently postdoctoral researcher, UCL.
 50. 2014-15 Syed Uddin, ESRC funded, principal supervisor. M.Res. awarded 2015.
 51. 2015-16 Chrysanthi Kollia, ESRC and industry funded, principal supervisor. M.Res awarded 2016.
 52. 2015-18 Anastasia Ushakova, ESRC and industry funded, principal supervisor. (Intending Ph.D. submission August 2018). Currently Postdoctoral Tutor in Statistics, University of Edinburgh.
 53. 2015- Tim Rains, research grant/industry funded, principal supervisor. (Intending Ph.D.)
 54. 2016- Balamurugan Soundararaj, ESRC and industry funded, second supervisor. (Intending Ph.D.)
 55. 2016- Karlo Lugomer, ESRC and industry funded, principal supervisor. (Intending Ph.D.)
 56. 2017- Ffion Carney, ESRC and industry funded, principal supervisor. (Intending Ph.D.)
 57. 2017- Markus Löning, ESRC and industry funded, principal supervisor. (Intending Ph.D.)
 58. 2017- Terje Trasberg, ESRC and industry funded, principal supervisor. (Intending Ph.D.)
 59. 2018- Alfred Long, ESRC and industry funded, principal supervisor. (Intending Ph.D.)
 60. 2018- James Todd, ESRC and industry funded, second supervisor. (Intending Ph.D.)

8. PUBLICATIONS

The names of postgraduate student and research assistant/officer co-authors appear in *italics* for c. 3 years post thesis submission or cessation of employment through my research grant awards.

(a) Authored Books

1. 1994 **Fractal Cities: a Geometry of Form and Function.** 394(+xxii) pp. plus 16 pp. colour plates. London and San Diego, Academic Press (M Batty, P A Longley). This major book presents an approach to measuring and simulating the form and function of towns and cities, using ideas from fractal geometry, urban modelling and computer graphics.
2. 2001 **Geographic Information Systems and Science.** 454(+xviii) pp. Chichester, Wiley (P A Longley, M F Goodchild, D J Maguire, D W Rhind). This researched textbook was conceived as a ‘student companion’ to the two volume GIS research compendium that I edited with the co-authors. It became the fastest selling title in the history of the subject, selling more than 25,000 copies in its first edition.
3. 2005 **Geographic Information Systems and Science (second edition).** 517(+xvii) pp. Chichester, Wiley (P A Longley, M F Goodchild, D J Maguire, D W Rhind). Translated into Polish (2006), Mandarin (2007) and Korean (2009).
4. 2007 **Geospatial analysis: a Comprehensive Guide to Principles, Techniques and Software Tools.** 394(+xiii) pp. Leicester, Troubador (*M J de Smith*, M F Goodchild, P A Longley). This is a hard copy version of an important technical website, www.spatialanalysisonline.com, which was associated with the Spatial Literacy in Teaching (Splint) Centre of Excellence in Teaching and Learning at UCL.
5. 2008 **Geospatial analysis: a Comprehensive Guide to Principles, Techniques and Software Tools (second edition).** 491(+xxi) pp. Leicester, Troubador (*M J de Smith*, M F Goodchild, P A Longley, with contributions by *C Castle*, A Crooks). Translated into Mandarin (2009).
6. 2009 **Geospatial analysis: a Comprehensive Guide to Principles, Techniques and Software Tools (third edition).** 560(+xxii) pp. Leicester, Troubador (*M J de Smith*, M F Goodchild, P A Longley, with contributions by *C Castle*, A Crooks).
7. 2013 **Geospatial analysis: a Comprehensive Guide to Principles, Techniques and Software Tools (fourth edition).** 760 pp. Leicester, Troubador (M J de Smith, M F Goodchild, P A Longley, with contributions by C Castle, A Crooks).
8. 2011 **Geographic Information Systems and Science (third edition).** 539(+xix) pp. Hoboken, NJ, Wiley (P A Longley, M F Goodchild, D J Maguire, D W Rhind). Translated into Portuguese (2013) and Czech (2014).
9. 2009 **Geospatial analysis: a Comprehensive Guide to Principles, Techniques and Software Tools (fifth edition).** 748 pp. Leicester, Troubador (M J de Smith, M F Goodchild, P A Longley, with contributions by C Castle, A Crooks).
10. 2015 **Geographic Information Science and Systems (fourth edition).** 477(+xvi) pp. Hoboken, NJ, Wiley (P A Longley, M F Goodchild, D J Maguire, D W Rhind). As of February 2017, the four English language editions of this book have sold c. 100,000 copies worldwide.
11. 2018 **Geospatial analysis: a Comprehensive Guide to Principles, Techniques and Software Tools (sixth edition).** 618 pp. Leicester, Troubador (M J de Smith, M F Goodchild, P A Longley, with contributions by associates C Castle, A Crooks, *G Lansley*).

(b) Edited Books

1. 1995 **GIS for Business and Service Planning.** 316 (+xvi) pp. plus 8 pp. colour plates. Cambridge, Pearson Professional (P Longley, G Clarke).
2. 1996 **Spatial Analysis: Modelling in a GIS Environment.** 392 (+viii) pp. Cambridge, Pearson Professional (P Longley, M Batty).
3. 1998 **Geocomputation: a Primer.** 278 (+xii) pp. Chichester, Wiley (P A Longley, S M Brooks, R McDonnell, W. Macmillan).
4. 1999 **Geographical Information Systems: Principles, Techniques, Management and Applications** (Second Edition). 1101 (+xciii) pp. New York, Wiley (P A Longley, M F Goodchild, D J Maguire, D W Rhind). (The editors were also responsible for writing the 13 linking sections in this major reference work.) Translated into Chinese (2004).
5. 2001 **Remote Sensing and Urban Analysis.** 268 (+xxvi) pp. London, Taylor and Francis (J-P Donnay, M J Barnsley, P A Longley).
6. 2003 **Advanced Spatial Analysis.** 464 (+viii) pp. Redlands CA, ESRI Press (P A Longley, M Batty).
7. 2005 **Geographical Information Systems: Principles, Techniques, Management and Applications** (Abridged Edition). 358 (+xlv) pp. Hoboken, Wiley (P A Longley, M F Goodchild, D J Maguire, D W Rhind).
8. 2012 **Environment and Planning Volume B: Planning and Design.** 512 (+xxvi) pp. London, Sage (M Batty and P A Longley).
9. 2012 **Environment and Planning Volume E: Foundations.** 539 (+xv) pp. London, Sage (S Elden, N Thrift, T J Barnes, J Peck, M Batty, P A Longley, R J Bennett).
10. 2013 **Geoinformatics for City Transformations.** (Proceedings, GIS Ostrava 2013, Tenth International Symposium), 298pp., VSB, Technical University of Ostrava (I Ivan, P Longley, J Horak, Fritsch, J Cheshire, T Inspektor).
11. 2014 **Spatial Analysis and Geocomputation**, Section 7 of **Handbook of Regional Science** (M M Fischer, P Nijkamp, eds.). Berlin, Springer (Section 7, pp1104-1273, Editor P A Longley).
12. 2018 **Consumer Data Research.** 191pp. London, UCL Press. (P A Longley, J A Cheshire and A D Singleton).

(c) Editorships and Editorial Board Memberships of Journals

1. 1990-2012 **Co-editor** (1/4) of **Environment and Planning B** with responsibility for reviews.
2. 1995-8 Technical Editor and Editorial Board member, **GIS Europe.**
3. 1997-2007 **Editor-in-Chief** (1/1), **Computers, Environment and Urban Systems.**
4. 1998- Editorial Board member, **Journal of Geographical Systems.**
5. 1999-2013 Editorial Board member, **Papers in Regional Science.**
6. 1999-2001 Editorial Board member, **GeoEurope.**
7. 2000-3 Editorial Board member, **Networks and Spatial Economics.**
8. 2000-10 Editorial Board member, **URISA Journal.**
9. 2003-10 Series Editor, **Mastering GIS: Technology, Applications and Management** book series, John Wiley & Sons Limited.
10. 2007-13 Editorial Board member, **Applied Geography.**
11. 2007- Editorial Board member, **Computers, Environment and Urban Systems.**
12. 2009-12 Editorial Board member, **International Regional Science Review.**
13. 2011- Editorial Board member, **Journal of Geospatial Information Science.**

- 14. 2012-13 Co-editor (1/3), **Environment and Planning B**.
- 15. 2014- Editorial Board member, **Environment and Planning B**.

(d) Short Works

- 1. 1983 Nominale und Ordinale Datenanalyse: ein Experiment über die Innerstädtische Bevorzugung von Wohnstandorten. **Karlsruher Manuskripte zur Mathematischen und Theoretischen Wirtschafts- und Socialgeographie**. Heft 63. Universität Karlsruhe 30pp. (written in German by the author).

(e) Refereed Publications: Academic Journals

- 1. 1983 A discrete choice formulation of housing choice and mobility decisions: the British case. **Modeling and Simulation** 14: 733-7.
- 2. 1984 Scaling residential preferences: a methodological note. **Tijdschrift voor Economische en Sociale Geografie** 75: 292-9 (P Longley, N Wrigley).
- 3. 1984 Comparing discrete choice models: some housing market examples. In D Pitfield (ed.) **London Papers in Regional Science** Vol. 14 Chapter 6 163-180: London, Pion.
- 4. 1984 Diagnostic testing of housing choice models. **Modelling and Simulation** 15: 215-9 (P Longley, N Wrigley, R Dunn).
- 5. 1986 The fractal simulation of urban structure. **Environment and Planning A** 18: 1143-79 (M Batty, P Longley).
- 6. 1987 Graphical procedures for identifying functional form in binary discrete choice models - a case study of revealed tenure choice. **Regional Science and Urban Economics** 17: 151-71 (R Dunn, P Longley, N Wrigley).
- 7. 1987 Fractal-based description of urban form. **Environment and Planning B** 14: 123-34 (M Batty, P Longley).
- 8. 1987 Using fractal geometry to measure maps and simulate cities. **Computer Education** 56: 15-19 (P Longley, M Batty).
- 9. 1987 Urban shapes as fractals. **Area** 19: 215-21 (M Batty, P Longley). Reprinted in A Reggiani, K Button, P Nijkamp (2006: eds.) **Classics in Planning: Planning Models**. Cheltenham, Elgar.
- 10. 1988 Graphical assessment of housing market models. **Urban Studies** 25: 21-33 (P Longley, R Dunn).
- 11. 1988 The morphology of urban land use. **Environment and Planning B** 15: 461-88 (M Batty, P Longley).
- 12. 1988 Research and teaching functions in undergraduate project work. **The Journal of Geography in Higher Education** 12: 187-94 (L Moore, P Longley).
- 13. 1988 An economic and social profile of the Cardiff Bay area. **Cambria** 61-87 (J Alden, M Batty, S Batty, P Longley).
- 14. 1989 Fractal measurement and line generalisation. **Computers and Geosciences** 15: 167-83 (P Longley, M Batty).
- 15. 1989 On the fractal measurement of geographical boundaries. **Geographical Analysis** 21: 47-67 (P Longley, M Batty).
- 16. 1989 Urban growth and form: scaling fractal geometry and diffusion-limited aggregation. **Environment and Planning A** 21: 1447-72 (M Batty, P Longley, S Fotheringham).
- 17. 1989 Microanalysis and simulation of housing careers: subsidy and accumulation in the UK housing market. **Papers of the Regional Science Association** 66: 105-

- 22 (M Clarke, P Longley, H Williams).
18. 1989 Diffusion-limited aggregation and the fractal nature of urban growth. **Papers of the Regional Science Association** 67: 55-69 (S Fotheringham, M Batty, P Longley).
 19. 1991 Housing careers asset accumulation and subsidies to owner occupiers: a microsimulation. **Housing Studies** 6: 57-69 (P Longley, M Clarke, H Williams).
 20. 1991 The size shape and dimension of urban settlements. **Transactions, Institute of British Geographers** NS 16: 75-94 (P Longley, M Batty, J Shepherd). Reissued as part of special 'virtual issue' on Geographical Information Science in 2012.
 21. 1992 Do green belts change the shape of urban areas? A preliminary analysis of the settlement geography of South East England. **Regional Studies** 26: 437-52 (P Longley, M Batty, J Shepherd, G Sadler).
 22. 1992 The geographical incidence of local government revenues: an intra-urban case study. **Environment and Planning C** 10: 253-65 (D Martin, P Longley, G Higgs).
 23. 1993 Models of trading behaviour and accumulation in stratified housing markets. **Environment and Planning B** 20: 67-81 (P Longley, H Williams).
 24. 1993 The geographical implications of changing local taxation regimes. **Transactions, Institute of British Geographers** NS 18: 86-101 (P Longley, D Martin, G Higgs).
 25. 1993 A GIS-based appraisal of council tax valuations. **The Journal of Property Valuation and Investment** 11: 375-83 (P Longley, G Higgs, D Martin).
 26. 1994 The predictive use of GIS to model property valuations. **International Journal of Geographical Information Systems** 8: 217-35 (P Longley, G Higgs, D Martin).
 27. 1994 The use of GIS in the analysis of diverse urban databases. **Computers, Environment and Urban Systems** 18: 55-66 (D Martin, P Longley, G Higgs).
 28. 1995 Morphology from imagery: detecting and measuring the density of urban land use **Environment and Planning A** 27: 759-80 (T V Mesev, P Longley, M Batty, Y Xie).
 29. 1996 The rates revisited? A geographical reassignment of property valuations and local tax burdens under the council tax. **Environment and Planning C** 14: 101-20 (P Longley, G Higgs, D Martin).
 30. 1997 The use of diverse RS-GIS sources to measure and model urban morphology. **Geographical Systems** 4: 5-18 (P Longley, V Mesev).
 31. 1997 Beyond analogue models: space filling and density measurement of an urban settlement. **Papers in Regional Science** 76: 409-27 (P Longley, V Mesev).
 32. 1997 The fractal city. **Architectural Design** Profile 129: 74-83 (M Batty, P Longley).
 33. 1999 Towards a new digital data infrastructure for urban analysis and modelling. **Environment and Planning B** 26: 855-78 (P A Longley, R J Harris).
 34. 2000 The academic success of GIS in geography: problems and prospects. **Journal of Geographical Systems** 2: 37-42.
 35. 2000 GIS and spatial analysis in the new millennium. **Annals of the Association of American Geographers**, 90: 157-65.
 36. 2000 On the measurement and generalisation of urban form. **Environment and Planning A** 32: 473-88 (P A Longley, T V Mesev).
 37. 2000 New data and approaches for urban analysis: models of residential densities.

- Transactions in GIS** 4: 217-34 (*R J Harris, P A Longley*).
38. 2002 Will developments in urban remote sensing and GIS lead to 'better' urban geography? **Progress in Human Geography**, 26: 231-9.
39. 2002 Measurement of density gradients and space-filling in urban systems. **Papers in Regional Science**, 81: 1-28 (*P A Longley, T V Mesev*).
40. 2002 Creating small area measures of urban deprivation. **Environment and Planning A**, 34: 1073-93 (*R J Harris, P A Longley*).
41. 2003 Developments in socio-economic data infrastructures. **Progress in Human Geography**, 27: 114-21.
42. 2004 Spatial dependence and heterogeneity in patterns of hardship: an intra-urban analysis. **Annals of the Association of American Geographers** 94: 503-19 (*P A Longley, C Tobón*).
43. 2004 On modelling and representation. **Progress in Human Geography**, 28: 108-16
44. 2005 Geocomputation, geodemographics and resource allocation for local policing. **Transactions in GIS** 9: 53-72 (*D I Ashby, P A Longley*).
45. 2005 The emergence of geoportals and their role in spatial data infrastructures. **Computers, Environment and Urban Systems** 29: 3-14 (*D J Maguire, P A Longley*).
46. 2005 Geographic information portals – a UK perspective. **Computers, Environment and Urban Systems** 29: 49-69 (*P Beaumont, P A Longley, D J Maguire*).
47. 2005 A renaissance of geodemographics for public service delivery. **Progress in Human Geography**, 29: 57-63.
48. 2005 Quantifying interpolation errors in urban airborne laser scanning models. **Geographical Analysis** 37, 200-24 (*S L Smith, D Holland, P A Longley*).
49. 2005 Assessing the usefulness of store card data in direct sales of financial services. **Journal of Retailing and Consumer Services**, 12, 407-17 (*S J Berry, P A Longley*).
50. 2006 A test environment for location-based services applications. **Transactions in GIS** 10: 43-61 (*C Li, P A Longley*).
51. 2006 The quantitative analysis of family names: historic migration and the present day neighbourhood structure of Middlesbrough, United Kingdom. **Annals of the Association of American Geographers** 96: 31-48 (*P A Longley, R Webber, D Lloyd*).
52. 2006 Geodemographic classifications, the digital divide and understanding customer take-up of new technologies. **BT Technology Journal** 24: 67-74 (*P A Longley, D I Ashby, R Webber, C Li*).
53. 2006 Police reform and the new public management paradigm: matching technology to the rhetoric. **Environment and Planning C** 24: 159-175 (*D I Ashby, B Irving, P A Longley*).
54. 2008 The UK geography of the E-Society: a national classification. **Environment and Planning A** 40: 360-82 (*P A Longley, R Webber, C Li*).
55. 2008 An exploratory cartographic visualisation of London through the Google Maps API, **Applied Spatial Analysis and Planning**, 1: 85-97 (*M Gibin, A Singleton, R Milton, P Mateos, P A Longley*).
56. 2008 A mobile spatial messaging service for a grassroots environmental network, **Journal of Location Based Services**, 2: 122-52 (*H A Rahemtulla, M Haklay, P A Longley*).
57. 2009 Geodemographics, visualization, and social networks in applied geography.

- Applied Geography**, 29: 289-98 (A D Singleton, P A Longley).
58. 2009 Teenage pregnancy - new tools to support local health campaigns. **Health and Place**, 15: 300-7 (J Petersen, P Atkinson, S Petrie, M Gibin, D Ashby, P A Longley).
59. 2009 Linking social deprivation and digital exclusion in England. **Urban Studies**, 46: 1275-98 (P A Longley, A D Singleton).
60. 2009 Classification through consultation: public views of the geography of the E-Society. **International Journal of Geographical Information Science** 23: 737-63 (P A Longley, A Singleton).
61. 2009 Creating open source geodemographics - refining a national classification of Census Output Areas for applications in higher education. **Papers in Regional Science**, 88: 643-66 (A Singleton, P A Longley).
62. 2009 Uncertainty in the analysis of ethnicity classifications: issues of extent and aggregation of ethnic groups. **Journal of Ethnic and Migration Studies**, 35: 1437-60 (P Mateos, A D Singleton, P A Longley).
63. 2010 Lost in translation. Cross-cultural experiences in teaching geo-genealogy. **Journal of Geography in Higher Education**, 34: 21-38 (P A Longley, A D Singleton, K Yano, T Nakaya).
64. 2010 Grid-enabling geographically weighted regression: a case study of participation in higher education in England. **Transactions in GIS**, 14: 43-61 (R Harris, D Grose, A D Singleton, C Brunson, P A Longley).
65. 2010 The surname regions of Great Britain. **Journal of Maps**, v2010, 401-409. 10.4113/jom.2010.1103. (J A Cheshire, P A Longley, A D Singleton).
66. 2010 Towards real-time geodemographics: clustering algorithm performance for large multidimensional spatial databases. **Transactions in GIS**, 14: 283-97 (M Adnan, P A Longley, A D Singleton, C Brunson).
67. 2011 Predicting participation in higher education: a comparative evaluation of the performance of geodemographic classifications. **Journal of the Royal Statistical Society A**, 174: 17-30 (C Brunson, P A Longley, A D Singleton, D Ashby).
68. 2011 Geodemographics as a tool for targeting neighbourhoods in public health campaigns. **Journal of Geographical Systems**, 13: 173-92 (J Petersen, M Gibin, P A Longley, P Mateos, P Atkinson, D I Ashby).
69. 2011 Names-based classification of accident and emergency department users. **Health and Place**, 17: 1162-9 (J Petersen, P Longley, M Gibin, P Mateos, P Atkinson).
70. 2011 Estimating secondary school catchment areas and the spatial equity of access. **Computers, Environment and Urban Systems**, 35: 241-9 (A D Singleton, P A Longley, R Allen, O O'Brien).
71. 2011 City shape and the fractality of street patterns. **Quaestiones Geographicae** 31 (2) 29-37 (doi 10.2478/v10117-012-0016-6) (N Mohajeri, P A Longley, M Batty).
72. 2011 Creating a regional geography of Britain through the spatial analysis of surnames. **Geoforum**, 42: 506-16 (P A Longley, J A Cheshire, P Mateos).
73. 2011 Ethnicity and population structure in personal naming networks. **PLoS ONE (Public Library of Science)**, 6(9) e22943, 1-12 (P Mateos, P A Longley, D O'Sullivan).
74. 2011 Spatial concentrations of surnames in Great Britain. **Procedia - Social and**

- Behavioral Sciences** 21: 279-86 (*J A Cheshire, P A Longley*).
75. 2011 Delineating Europe's cultural regions: population structure and surname clustering. **Human Biology**, 81: 573-98 (*J A Cheshire, P Mateos, P A Longley*) DOI: 10.1353/hub.2011.0038.
76. 2012 People of the British Isles: preliminary analysis of genotypes and surnames in a UK control population. **European Journal of Human Genetics** 20: 203-10 (B Winney, W Bodmer and 29 others).
77. 2012 Identifying spatial concentrations of surnames. **International Journal of Geographic Information Science** 26: 309-25 (*J A Cheshire, P A Longley*). DOI: 10.1080/13658816.2011.591291.
78. 2012 Patterns of patient registration with primary healthcare in the UK National Health Service. **Annals of the Association of American Geographers**, 102: 1135-45 (*D J Lewis, P A Longley*). DOI: 10.1080/00045608.2012.657500.
79. 2012 The family name as socio-cultural feature and genetic metaphor: from concepts to methods. **Human Biology** 84(2): 169-214 (P Darlu, G Bloothoof, A Boattini, L Brouwer, M Brouwer, G Brunet, P Chareille, J A Cheshire, R Coates, P A Longley, K Dräger, B Desjardins, P Hanks, K Mandemakers, P Mateos, D Pettener, A Useli, F Manni).
80. 2012 Geodemographics and the practices of geographic information science. **International Journal of Geographic Information Science** 26: 2227-37. DOI: 10.1080/13658816.2012.719623.
81. 2013 Temporal uncertainty in a small area open geodemographic classification. **Transactions in GIS** 17: 563-88 (*C Gale, P A Longley*). DOI 2-s2.0-84878007456.
82. 2013 OACoder: postcode coding tool. **Journal of Open Research Software** 1(2) September. (M Adnan, A D Singleton, P A Longley). DOI: 10.5334/511ba2c94d661.
83. 2013 Geographical connections: Royal Geographical Society (with IBG) Medals and Awards ceremony 2013. **The Geographical Journal** 197(3): 283-290. (J Rees, M Palin, K Richards, K Jones, P Longley, S Page). DOI: 10.1111/geoj.12049.
84. 2013 Exploring geo-genealogy using Internet surname search histories. **Journal of Maps** 9(4) 281-6 (Y Zhang, M Adnan, R Maciejewski, P A Longley). DOI: 10.1080/17445647.2013.824391.
85. 2014 Japanese surname regions. **Papers in Regional Science** 93: 539-55 (J A Cheshire, P A Longley, K Yano, T Nakaya). DOI:10.1111/pirs.12002.
86. 2014 A geocomputational analysis of Twitter activity around different world cities. **Geo-spatial Information Science** 17(3) 145-52 (*M Adnan, A Leak, P A Longley*). DOI: 10.1080/10095020.2014.941316.
87. 2015 The geotemporal demographics of Twitter usage. **Environment and Planning A** 45:465-84 (+iv supplementary material) (P A Longley, M Adnan, G Lansley). DOI: 10.1068/a130122p.
88. 2015 The internal structure of Greater London: a comparison of national and regional geodemographic models. **Geo: Geography and Environment** 2(1): 69-87 (A D Singleton, P A Longley). DOI: 10.1002/geo2.7.
89. 2016 Geo-temporal Twitter demographics. **International Journal of Geographical Information Science** 30(2): 369-89 (P A Longley, M Adnan). DOI:10.1080/13658816.2015.1089441.

90. 2016 Measuring the spatial vulnerability of retail centres to online consumption through a framework of e-resilience. **Geoforum** 69: 5-18 (A D Singleton, L Dolega, D Riddlesden, P A Longley) DOI:10.1016/j.geoforum.2015.11.013.
91. 2016 The stability of geodemographic cluster assignments over an inter-censal period. **Journal of Geographical Systems** 18: 97-123 (A D Singleton, M Pavlis, P A Longley) DOI: 10.1007/s10109-016-0226-x.
92. 2016 Deriving age and gender from forenames for consumer analytics. **Journal of Retailing and Consumer Services**, 30:271-8 (G Lansley, P A Longley) DOI: 10.1016/j.jretconser.2016.02.007.
93. 2016 The geography of Twitter topics in London. **Computers, Environment and Urban Systems**,58: 85-96 (G Lansley, P A Longley) DOI:10.1016/j.compenvurbsys.2016.04.002.
94. 2016 Creating the 2011 Area Classification for Output Areas (2011 OAC). **Journal of Spatial Information Science**, 21:1-27 (C G Gale, A D Singleton, A G Bates, P A Longley) DOI:10.5311/JOSIS.2016.12.232.
95. 2016 Regional surnames and genetic structure in Great Britain. **Transactions, Institute of British Geographers**, 41: 554-69 (J Kandt, J A Cheshire, P A Longley) DOI: 10.1111/tran.12131.
96. 2016 A Classification of multidimensional Open Data of urban morphology. **Built Environment**, 42: 382-95 (A Alexiou, A D Singleton, P A Longley) DOI: 10.2148/benv.42.3.382.
97. 2017 More bark than bytes? Reflections on 21+ years of geocomputation. **Environment and Planning B (Urban Analytics and City Science)** 44: 598-617 (R Harris, D O'Sullivan, DM Gahegan, M Charlton, L Comber, P Longley, A Singleton) DOI:10.1177/2399808317710132.
98. 2017 Interactional regions in cities: making sense of flows across networked systems. **International Journal of Geographic Information Science**, 20pp.. (K Kempinska, J Shawe-Taylor, P A Longley) DOI: 10.1080/13658816.2017.1418878.
99. 2018 Ethnicity estimation using family naming practices. **PLoS ONE (Public Library of Science)** 12, <https://doi.org/10.1371/journal.pone.0201774> (J Kandt, P A Longley).

(f) Refereed Publications: Contributions to Edited Collections

1. 1984 Discrete choice modelling in urban analysis. In D T Herbert, R J Johnston (eds.) **Geography and the Urban Environment: Progress in Research and Applications**. Vol. 6. Chichester, Wiley: 45-94 (N Wrigley, P Longley).
2. 1984 Discrete choice modelling and complex spatial choice: an overview. In G Bahrenberg, M M Fischer, P Nijkamp (eds.) **Recent Developments in Spatial Data Analysis: Methodology, Measurement, Models**. Aldershot, Gower: 375-91.
3. 1988 Some recent developments in the specification estimation and testing of discrete choice models. In RG Golledge, H Timmermans (eds.) **Behavioural Modelling in Geography and Planning**. London, Croom Helm: 96-123 (N Wrigley, P Longley, R Dunn).
4. 1989 Measuring and simulating the structure and form of cartographic lines. In J Hauer, H Timmermans, N Wrigley (eds.) **Urban Dynamics and Spatial**

- Choice Behaviour.** Dordrecht, Kluwer: 269-92 (P Longley, M Batty).
5. 1991 The geometry of urban form and the fractal nature of urban growth. In D Pumain (ed.) **Spatial Analysis and Population Dynamics.** Montrouge, John Libbey: 175-86 (P Longley, S Fotheringham, M Batty).
 6. 1992 A street-based geographical information system for local government revenue monitoring. In J Cadoux-Hudson, D I Heywood (eds.) **Geographic Information 1992/3: The Yearbook of the Association for Geographic Information.** London, Taylor and Francis and the AGI: 491-500 (*G Higgs, D Martin, P Longley*).
 7. 1993 The council tax for Great Britain: a GIS-based sensitivity analysis of capital valuations. In S Fotheringham, P Rogerson (eds.) **Spatial Analysis and GIS.** New York, Taylor and Francis: 261-76 (P Longley, *G Higgs, D Martin*).
 8. 1993 Fractal geometry and urban morphology. In NS Lam, L DeCola (eds.) **Fractals in Geography.** New Jersey, Prentice-Hall: 228-46 (M Batty, S Fotheringham, P Longley).
 9. 1993 Speculations on fractal geometry in spatial dynamics. In P Nijkamp, A Reggiani (eds.) **Nonlinear Evolution of Spatial Economic Systems.** Berlin, Springer: 203-22 (P Longley, M Batty).
 10. 1994 GIS and monitoring local taxation: progress and prospects. In D Bond, G Robinson (eds.) **The Regional Research Laboratories Network 1994.** University of Ulster: 22-7 (P Longley, *G Higgs, D Martin*).
 11. 1995 Applied geographical information systems: developments and prospects. In P Longley, G Clarke (eds.) **GIS for Business and Service Planning.** Cambridge, Pearson Professional: 3-9 (P Longley, G Clarke).
 12. 1995 Data sources and their geographical integration. In P Longley, G Clarke (eds.) **GIS for Business and Service Planning.** Cambridge, Pearson Professional: 15-32 (D Martin, P Longley).
 13. 1995 Spreading the word: location and space in business administration. In P Longley, G Clarke (eds.) **GIS for Business and Service Planning.** Cambridge, Pearson Professional: 271-83 (G Clarke, P Longley, I Masser).
 14. 1995 Fractal measurement of a classified image: the case of Bristol England. In M M Fischer, S T Tamás, B László (eds.) **Recent Developments in Spatial Information Modelling and Processing.** Budapest, Geomarket Co.: 107-22 (*T V Mesev, P A Longley, M Batty, Y Xie*).
 15. 1996 Analysis, modelling, forecasting and GIS technology. In P Longley, M Batty (eds.) **Spatial Analysis: Modelling in a GIS Environment** Cambridge, Pearson Professional: 1-15 (P Longley, M Batty).
 16. 1996 RS-GIS: spatial distributions from remote imagery. In P Longley, M Batty (eds.) **Spatial Analysis: Modelling in a GIS Environment.** Cambridge, Pearson Professional: 123-48 (*V Mesev, P Longley, M Batty*).
 17. 1996 Analytical GIS: the future. In P Longley, M Batty (eds.) **Spatial Analysis: Modelling in a GIS Environment.** Cambridge, Pearson Professional: 345-52 (M Batty, P Longley).
 18. 1996 Fractal models of urban structure. In E Besussi, A Cecchini (eds.) **Artificial Worlds and Urban Studies.** Venice, DAEST: 207-16 (P Longley, M Batty).
 19. 1998 Remote sensing and regional density gradients. In S Carver (ed.) **Innovations in GIS 5: Integrated Information.** London, Taylor and Francis: 226-37 (*V Mesev, P Longley*).

20. 1998 Foundations. In P A Longley, S M Brooks, W Macmillan, R McDonnell (eds.) **Geocomputation: a Primer**. Chichester, Wiley: 3-15.
21. 1999 Introduction. In P A Longley M F Goodchild D J Maguire D W Rhind (eds.) **Geographical Information Systems: Principles, Techniques, Management and Applications**. New York, Wiley: 1-20 (P A Longley, M F Goodchild, D J Maguire, D W Rhind: plus co-authored introductions to the Parts of the book pp. 23-7; 175-6; 235-7; 307-8; 371-2; 425-6; 477-9; 583-6; 587-8; 653; 707-8; 745-6; 791-5; 797-9; and 909-911).
22. 1999 The future of GIS and spatial analysis. In P A Longley, M F Goodchild, D J Maguire, D W Rhind (eds.) **Geographical Information Systems: Principles, Techniques, Management and Applications** New York, Wiley: 567-580 (M F Goodchild, P A Longley).
23. 1999 Epilogue: seeking out the future. In P A Longley, M F Goodchild, D J Maguire, D W Rhind (eds.) **Geographical Information Systems: Principles, Techniques, Management and Applications**. New York, Wiley: 1009-1021 (P A Longley, M F Goodchild, D J Maguire, D W Rhind).
24. 1999 The role of classified imagery in urban spatial analysis. In P Atkinson, N Tate (eds.) **Advances in Remote Sensing and GIS Analysis**. Chichester, Wiley: 185-206 (*V Mesev*, P A Longley).
25. 1999 Computer simulation and modelling of urban structure and development. In M Pacione (ed.) **Applied Geography: Principles and Practice**. London, Routledge: 605-19.
26. 1999 Modern geographic information systems and model linking. In A Stein, F. W. T. Penning de Vries (eds.) **Data and Models in Action: Methodological Issues in Production Ecology** (Current Issues in Production Ecology Vol. 5). Dordrecht, Kluwer: 103-118 (P A Longley, M Goodchild).
27. 2000 Geocomputation. Entry in R J Johnston, D Gregory, G Pratt, M Watts (eds.) **Dictionary of Human Geography (Fourth Edition)**. Oxford, Blackwell: 296-7.
28. 2000 Fractal analysis of digital spatial data. Chapter 12 in S Openshaw, R Abrahart (eds.) **GeoComputation**. London, Taylor and Francis: 293-312.
29. 2001 Remote sensing and urban analysis. Chapter 1 in J-P Donnay, M Barnsley, P A Longley (eds.) **Remote Sensing and Urban Analysis**. London, Taylor and Francis: 3-18 (J-P Donnay, M Barnsley, P A Longley).
30. 2001 Modified maximum-likelihood classification algorithms and their application to urban remote sensing. Chapter 5 in J-P Donnay, M Barnsley, P A Longley (eds.) **Remote Sensing and Urban Analysis**. London, Taylor and Francis: 71-94 (*V Mesev*, B Gorte, P A Longley).
31. 2001 Measuring urban morphology using remotely-sensed imagery. Chapter 9 in J-P Donnay, M Barnsley, P A Longley (eds.) **Remote Sensing and Urban Analysis**. London, Taylor and Francis: 163-83 (P A Longley, *V Mesev*).
32. 2001 Remote sensing and urban analysis: a research agenda. Chapter 13 in J-P Donnay, M Barnsley, P A Longley (eds.) **Remote Sensing and Urban Analysis**. London, Taylor and Francis: 245-58 (P A Longley, M Barnsley, J-P Donnay).
33. 2001 Measuring the 'urban': measuring and modelling in a regional settlement hierarchy. In Tate N J, Atkinson P M (eds.) **Modelling Scale in Geographical Information Science**. Chichester, Wiley, 53-67 (*V Mesev*, P A Longley).

34. 2001 Data-rich models of the urban environment: RS, GIS and 'lifestyles'. In P Halls (ed.) **Innovations in GIS 8: Spatial Information and the Environment**. London, Taylor and Francis: 53-76 (R J Harris, P A Longley).
35. 2001 Geographic information systems. In M K Tolba (ed.: T. Munn, editor in chief) **Encyclopedia of Global Environmental Change: Volume 4, Responding to Global Environmental Change**. Chichester, Wiley: 222-6.
36. 2003 Geographic information systems. In J Feather and P Sturges (eds.) **International Encyclopedia of Information and Library Science (2nd Edition)**. London, Routledge: 207-9.
37. 2003 Advanced spatial analysis: extending GIS. In P A Longley and M Batty (eds.) **Advanced Spatial Analysis**. Redlands CA, ESRI Press: 1-17 (P A Longley, M Batty).
38. 2003 Strategies for integrated retail management using GIS. In P A Longley and M Batty (eds.) **Advanced Spatial Analysis**. Redlands CA, ESRI Press: 211-31 (P A Longley, C Boulton, I Greatbatch, M Batty).
39. 2003 Geodemographic analysis of similarity and proximity: their roles in the understanding of the geography of need. In P A Longley and M Batty (eds.) **Advanced Spatial Analysis**. Redlands CA, ESRI Press: 233-66 (R Webber, P A Longley).
40. 2003 Researching the future of GIScience. In P A Longley and M Batty (eds.) **Advanced Spatial Analysis**. Redlands CA, ESRI Press: 427-35 (M Batty, P A Longley).
41. 2004 The impact and penetration of location-based services. In H Karimi and A Hammad (eds.) **Telegeoinformatics: Location-Based Computing and Services**. Boca Raton, CRC Press: 349-66 (N Shiode, C Li, M Batty, P A Longley, D J Maguire).
42. 2004 Targeting clusters of deprivation within cities. In G Clarke and J Stillwell (eds.) **Applied GIS and Spatial Analysis**. Chichester, John Wiley: 89-110 (R Harris, P A Longley).
43. 2004 Geographical information systems. In A Kuper and J Kuper (eds.) **The Social Science Encyclopedia (third edition)**. London, Routledge: 416-7.
44. 2004 The potential of remote sensing and geographical information systems. In J A Matthews and D T Herbert (eds.) **Common Heritage, Shared Future: Perspectives on the Unity of Geography**. London, Routledge: 62-80 (P A Longley, M J Barnsley).
45. 2005 Urban studies. In K Kempf-Leonard (ed.) **Encyclopaedia of Social Measurement**. Elsevier, San Diego: 921-6.
46. 2005 GeoDynamics: an introduction. In P Atkinson, G Foody, S Darby, F Wu (eds.) **GeoDynamics**. Boca Raton, CRC Press: 21-24.
47. 2005 New developments in geographical information systems: principles, techniques, management and applications. In P A Longley, M F Goodchild, D J Maguire, D W Rhind (eds.) **Geographical Information Systems: Principles, Techniques, Management and Applications (Abridged Edition)**. New York, Wiley: (ix)-(xxxii) (P A Longley, M F Goodchild, D J Maguire, D W Rhind).
48. 2005 A GIS-based spatial decision support system for emergency services: London's King's Cross St. Pancras Underground Station. In van Oosterom P, Zlatanova S, Fendel E M (eds.) **Geo-Information for Disaster Management**.

- Berlin, Springer: 867-81 (*C J E Castle, P A Longley*).
49. 2006 Fractal. Geographic information systems. 2 entries in B Warf, D Dydia, L Knopp, D Sui, D Wilson, A J Cravey (eds.) **Encyclopedia of Human Geography**. Thousand Oaks, CA., Sage: 171-2; 189-93.
50. 2007 A new framework for feature-based digital mapping in three-dimensional space. In Lovett A, Appleton K (eds.) **Innovations in GIS 12**. Boca Raton, FL, CRC Press: 29-57 (*A D Slingsby, P A Longley, C Parker*).
51. 2008 Fractals. In Kemp K K (ed.) **International Encyclopedia of Geographic Information Science**, Los Angeles, Sage: 147-9.
52. 2008 Geographic information systems (GIS). In Kemp K K (ed.) **International Encyclopedia of Geographic Information Science**, Los Angeles, Sage: 190-4.
53. 2008 From crime analysis to homeland security: a role for neighbourhood profiling? Chapter 4 in Sui D (ed.) **Geospatial Technologies and Homeland Security: Research Frontiers and Challenges**. Berlin, Springer: 65-81 (*D I Ashby, S Chainey, P A Longley*).
54. 2008 Building evacuation in emergencies: a review and interpretation of software for simulating pedestrian egress. Chapter 10 in Sui D (ed.) **Geospatial Technologies and Homeland Security: Research Frontiers and Challenges**. Berlin, Springer: 209-28 (*C J E Castle, P A Longley*).
55. 2008 The use of geodemographics to improve public service delivery. Chapter 9 in Hartley J, Donaldson C, Skelcher C, Wallace M (eds.) **Managing to Improve Public Services**. Cambridge, Cambridge University Press: 176-94 (*P A Longley, M F Goodchild*).
56. 2009 Geographical information science. In M. Madden (ed.) **The Manual of GIS**. Bethesda MD, ASPRS (The Imaging and Geospatial Information Society): Chapter 4, 19-24 (*P A Longley, M F Goodchild, D J Maguire, D W Rhind*).
57. 2009 Spatial analysis and modelling. In M. Madden (ed.) **The Manual of GIS**. Bethesda MD, ASPRS (The Imaging and Geospatial Information Society): Chapter 30, 587-590.
58. 2010 'Spatial analysis' and 'Michael Batty'. In Warf B. (ed.) **Encyclopaedia of Geography**. Thousand Oaks, CA, Sage. Vol. 5: 2603-7 and Vol. 1: 187 respectively.
59. 2010 The structure and form of urban settlements. In T Rashed, C Jürgens (eds.) **Remote sensing of urban and suburban areas (Remote Sensing and Digital Image Processing 10)**. Berlin, Springer: 13-31 (*E Besussi, N Chin, M Batty, P A Longley*).
60. 2012 Introduction: 'Environment and Planning B' – perspectives on the development of an idea. In Batty M and Longley P A (eds.) **Environment and Planning Volume B: Planning and Design**. London, Sage: (vii)-(xxvi) (*M Batty, P A Longley*).
61. 2012 Introduction: foundations. In Elden S, Thrift N, Barnes T J, Peck J, Batty M, Longley P A, Bennett R J (eds.) **Environment and Planning Volume E: Foundations**. London, Sage: (vii)-(xv) (*S Elden, N Thrift, T J Barnes, J Peck, M Batty, P A Longley, R J Bennett*).
62. 2014 The practice of geographic information science. Chapter 56 in Fischer M M, Nijkamp P (eds.) **Handbook of Regional Science Volume 3**. Heidelberg: Springer: 1107-22 (*M F Goodchild, P A Longley*).

63. 2014 Modelling spatial morphologies: fractal patterns from cellular automata. Chapter 2 in Abraham R J, See L M (eds.) **GeoComputation (Second Edition)**. Baton Rouge, FL, CRC Press: 23-48 (M Batty, P A Longley).
64. 2014 Parallel computing in Geography. Chapter 3 in Abraham R J and See L (eds.) **GeoComputation (Second Edition)**, Boca Raton, FL: CRC Press: 49-67 (M Adnan, P A Longley, A D Singleton, I Turton).
65. 2015 Epilogue. In M Helbich, J J Arsanjani, and M Leitner (eds.) **Computational Approaches for Urban Environments**. Heidelberg, Springer: 389-92.
66. 2015 Analysis using geographic information systems. Chapter 5 in Karlsson C, Andersson M, Norman T (eds.) **Handbook of Research Methods and Applications in Economic Geography**. Cheltenham, Elgar: 119-34
67. 2017 The Modifiable Areal Unit Problem. In Richardson D et al (eds.) **The International Encyclopedia of Geography: People, the Earth, Environment, and Technology**. Hoboken NJ: Wiley.
68. 2017 Geodemographic profiling. In Richardson D et al (eds.) **The International Encyclopedia of Geography: People, the Earth, Environment, and Technology**. Hoboken NJ: Wiley.
69. 2017 Creating a new open geodemographic classification of the UK using 2011 Census data. Chapter 17 in Stillwell, J. (Eds.), **The Routledge Handbook of Census Resources, Methods and Applications**. London, Routledge: 213-29 (C Gale, A D Singleton, P A Longley).
70. 2017 Opportunities for retail data and their geographic integration in social science. Chapter 2 in Schintlet L and Chen Z (eds.) **Big Data for Regional Science**. London, Routledge: 11-21 (G Lansley, P A Longley).
71. 2018 Geographical information Systems. Ch. 17 in A Kent and P Vujakovic (eds.) **The Routledge Handbook of Mapping and Geography**. London: Routledge: 251-8 (P A Longley and J A Cheshire).
72. 2018 Consumer Data Research – An Overview. Introduction in Longley P, Cheshire J, and Singleton A (eds.) **Consumer Data Research**. London, UCL Press: 8-11 (Paul Longley, James Cheshire and Alex Singleton).
73. 2018 Given and Family Names as Global Spatial Data Infrastructure. Ch. 4 in Longley P, Cheshire J, and Singleton A (eds.) **Consumer Data Research**. London, UCL Press: 53-67 (Oliver O'Brien and Paul Longley).
74. 2018 Ethnicity and Residential Segregation. Ch. 5 in Longley P, Cheshire J, and Singleton A (eds.) **Consumer Data Research**. London, UCL Press: 71-83 (Tian Lan, Jens Kandt and Paul Longley).
75. 2018 Researching Consumer Data. Epilogue in Longley P, Cheshire J, and Singleton A (eds.) **Consumer Data Research**. London, UCL Press: 190-191 (Paul Longley, James Cheshire and Alex Singleton).
76. 2018 Geocomputation and GIScience. Chapter 56 in Fischer M M, Nijkamp P (eds.) **Handbook of Regional Science, Volume 3, Second Edition**. Heidelberg, Springer: 1107-22 (M F Goodchild, P A Longley).
77. 2019 CyberGIS for Analyzing Urban Data. Ch. 3 in Wang S, Goodchild M (eds.) **CyberGIS for Geospatial Discovery and Innovation**. Springer, Dordrecht: 33-52 (James Cheshire, Mike Batty, Jonathan Reades, Paul Longley, Ed Manley, Richard Milton).

A detailed and extensive list of editorials and commentaries in academic journals, professional journal papers, papers in conference proceedings, technical reports, working papers, official reports and reviews of academic books is available upon request.

9. TEACHING AND LEARNING

(a) Postgraduate teaching support, Bristol 1981-83

1. Statistical methods/geographical techniques (demonstrator: B.SocSci./B.Sc.1), 1981-3.
2. Computer programming (demonstrator: B.SocSci./B.Sc.2), 1981-3.
3. Statistics (demonstrator, occasional lecturing: B.SocSci./B.Sc.2), 1981-3.

(b) Part-time lecturing, Bristol Polytechnic, 1981

4. Urban and Industrial Geography (B.A.2/B.A.3), October-December 1981.

(c) Teaching and learning in Reading, 1983-84

5. British Uneven Development (B.A.2/B.Sc.2), 1983-4.
6. Transport (B.A.3/B.Sc.3/M.Sc/M.Phil.), 1983-4.
7. Undergraduate field course (B.A.1/B.Sc.1), 1984.

(d) Teaching and learning in Cardiff, 1984-92

8. Planning Methods (B.Sc.2), 1984-8.
9. Analytical Methods Project (B.Sc.2), 1984-5.
10. Computing Practicals (B.Sc.2), 1984-5.
11. Research Methods (B.Sc.2/M.Sc.1), 1985-92.
12. Undergraduate field course (B.Sc.3), 1985-8.
13. Statistical Modelling (B.Sc.2), 1988-92.
14. Housing Research (Postgraduate Diploma in Housing), 1988-92.
15. Undergraduate field course (B.Sc.2), 1988-91.
16. Housing Markets, Processes and Problems (Dip.2/M.Sc.2), 1989-92.
17. Geographical Information Systems (Dip.2/M.Sc.2), 1991-92.

(e) ESRC Postgraduate research training courses, 1983-86

18. Computer Packages for Categorical Data Analysis (Year 1 Ph.D. research), 1982-6 (SSRC/ESRC course on 'Data Collection and Analysis for Geographical Research', Bristol).

(f) Teaching under British Council-funded link arrangements

19. Computer modelling: Institut Teknologi MARA, Malaysia, under **British Council-funded link arrangement**, March-April 1987 and February-March 1989.

(g) Teaching and learning in Bristol, 1992-2000

20. Spatial Development in Contemporary Britain (Year 1AC undergraduate, 10x 1 hour lectures, 90 students), 1992-2000.
21. Geographical Information Systems (Year 2A/B/C/D/JG undergraduate: 10x 1 hour lectures, 80 students and 30x 2 hour laboratory practicals, 27 students each), 1992-2000.
22. Research Design and Analysis (Year 2C undergraduate, 12x 1 hour lectures, c.30

- students), 1992-2000.
23. Geographical Information Systems (Year 3A/B/C undergraduate, 8x 1 hour lectures, 70 students), 1992-4.
 24. Spatial Analysis and Quantitative Methods (M.Sc Society and Space, 2x 2.5 hour sessions, 15 students), 1992-4.
 25. Census Analysis (Year 1A undergraduate, 3x 3 hour practicals, 70 students), 1994-1999
 26. Mallorca Field Trip (Year 2A/B undergraduate, one week), 1994-6.
 27. Locational Analysis: Modelling in a GIS Environment (Year 3AC undergraduate (3C only 1995-6), 10x 1 hour lectures, c.60 students (c. 30 1995-6)), 1995-2000.
 28. Locational Analysis and GIS (Year 4AC M.Sci.), 4x3 hour sessions, 8 students, 1998-99.
 29. Environmental Issues (Year 1 option, 3x 1 hour lectures, 25 students), 1998-99.
 30. Abergavenny Field Trip (Year 1 undergraduate, one week: coordinator), 1999.

(h) Teaching and learning in UCL, 2000-

31. Introduction to GIS (M.Sc. Geographic Information Science) 2x 3 hour sessions, 30 students, 2000.
32. Spatial Data Analysis (M.Sc. Geographic Information Science), 1x 2 hour session, 30 students, 2000-1.
33. South Devon Field Trip (Year 1 undergraduate), one week, 80 students, 2000-1.
34. Social Science Methodologies (M.Sc/Ph.D. training), 3x 3 hour sessions, 2000.
35. Introduction to GIS (M.Sc. Geographic Information Science), 7x 3 hour sessions, 30 students (reduced to 5 sessions from 2007 onwards as 'Principles of GIScience'), 2001-13.
36. Spatial Data Acquisition (M.Sc. Geographic Information Science), 2x 3 hour sessions, 30 students, 2001-3.
37. Geographic Information Systems and Science/ Geographic Information Science and Geodemographics (Year 2 undergraduate), 12x 2 hour sessions, 24 students, 2001-13
38. Ideas in Geography (Year 1 undergraduate), 2x 1 hour session, 80+ students, 2002-4, 2x 1 hour sessions 2005-18.
39. Research methods (ESRC 1+3 research training course), 4x 3 hour sessions, 40 students, 2001-2; 2005-10.
40. **Site Director, Centre of Excellence in Teaching and Learning (CETL).** The focus of this Centre was upon **Spatial Literacy in Teaching**, and I had responsibilities for interdisciplinary outreach and continuing professional development.
41. **Co-applicant** and Advisory Board member, Nuffield/ESRC/HEFCE Quantitative Methods programme. This major UK initiative is developed to strengthen teaching of quantitative methods in UK social science. 2013-2017

(i) Co-authorship of online learning resources

42. **Co-author, 'Turning data into information', six module course on the ESRI Virtual Campus** (with M F Goodchild, D J Maguire, D W Rhind and ESRI Inc.) 2006.
43. Co-author, 'Turning data into information with ArcGIS 9.0', updated six module course on the ESRI Virtual Campus (with M F Goodchild, D J Maguire, D W Rhind and ESRI Inc.). 2007. (Subsequently upgraded to ArcGIS 10 release.)
44. **Co-author, 'Geospatial analysis: a comprehensive guide to principles, techniques and software tools'.** This extensive teaching and learning resource is available at www.spatialanalysisonline.com. The website and associated print book is central to the

U.S. GIScience and Technology Body of Knowledge (with M J de Smith and M F Goodchild). 2007 with updates through 2018.

(j) Teaching and learning in visiting professor roles

45. Intensive course, **GIS and geodemographic data infrastructures**, Ritsumeikan University, May 2007. Similar courses taught in 2009, 2011 and 2013.
46. Seminar, Urban Institute Ireland, University College Dublin, September 2008.
47. Summer School on Big Data Analytics in the Social Sciences, Fuzhou University, China, 2015, 2018.
48. Summer School on Consumer Data Research, Shanghai University of Finance and Economics, 2018.

I have had extensive tutorial and pastoral responsibilities in all of my lecturing jobs. These responsibilities have also entailed supervision of research projects and dissertations at the undergraduate and postgraduate levels and, at Cardiff, supervision of sandwich students during their office placements. I have been excused teaching duties under the terms of research fellowships and grants held at various points in my career, although I have usually maintained presence in teaching programmes on a voluntary basis.

10. CONTRIBUTIONS TO UNIVERSITY ADMINISTRATION

(a) Reading, 1983-84

1. 1983-84 Convenor, Development Module.
2. 1983-84 Member, Staff-Student Panel.

(b) Cardiff, 1984-92

3. 1984-87 Research Seminar Series Co-ordinator.
4. 1985-87 Departmental Computer Officer.
5. 1984-88 Member, Staff-Student Panel.
6. 1985-86 Course Convenor, M.Sc Information Technology and Planning.
7. 1987-90 Member, Departmental Research Committee (Cardiff).
8. 1988-91 Executive Director, Wales and South West Regional Research Laboratory. See Section (8) for details of this major ESRC-funded initiative.
9. 1987-92 Undergraduate Admissions Officer.
10. 1987-90 Organiser of at least one (week-long duration) field visit per year.

(c) Bristol, 1992-2000

11. 1992-7 Year 1 Coordinator, B.SocSci/B.Sc. Geography.
12. 1992-9 Member, Departmental Teaching Committee (apart from 1998).
13. 1992-9 Member, Departmental Library Committee.
14. 1993-7 Social Science Faculty Information Officer.
15. 1993-4 Course director, M.Sc Society and Space.
16. 1996-9 School Alumni Officer.
17. 1998-2000 University Alumni Foundation Committee.
18. 1998 Social Science Undergraduate Admissions Officer.
19. 1999-2000 Course Director, M.Sci.
20. 1999-2000 Lay member/observer Project Review Panel.

21. 1999-2000 Elected Professorial Staff Representative (Faculty of Science), Senate.

(d) University College London 2000-

22. 2000-10 **Deputy Director**, Centre for Advanced Spatial Analysis.
23. 2000-1 Department Undergraduate Admissions Sub-Committee.
24. 2001-2 Department Computer Users' Committee.
25. 2003-5 **Director, UCL Chorley Institute**. This major interdisciplinary initiative was selected from strong internal competition for Strategic Research Investment Fund investment.
26. 2005-9 **Site Director, Centre of Excellence in Teaching and Learning (CETL)**. This was a major (c. £4.5m) HEFCE-funded centre with a focus upon 'Spatial Literacy in Teaching', and was a three way collaboration between the universities at Leicester, Nottingham and UCL. I wrote the UCL part of the bid: the spend allocated specifically to UCL was just over £1 million and I assumed strategic and day-to-day management of the Centre under a 20% FEC buyout.
27. 2007 Member, Social and Historical Sciences Faculty Teaching Committee.
28. 2007 Convenor, week long course on 'GIS and geodemographic data infrastructures' whilst Visiting Professor, Ritsumeikan University, Japan.
29. 2012-4 Member, Faculty Enterprise Board, UCL.
30. 2012-3 Member, Faculty ESRC Doctoral Training Centre Committee, with special responsibility for co-funding initiatives.
31. 2011-6 Member, Departmental Research Strategy Committee.
32. 2013- **Director, UCL Consumer Data Research Centre**. This is a major (£6.1m) research centre, funded under Phase 2 of the ESRC Big Data Initiative. The grant application was led by me, and is in partnership with the Universities of Oxford and Liverpool.
33. 2014- Member UCL e-Research Domain Committee.
34. 2014- Member, UCL Q-Step Advisory Board. This is a major (£1.3m) initiative for teaching in quantitative methods, funded by the Nuffield Foundation and ESRC. I am also a co-applicant for the grant.
35. 2014- Member of Bloomsbury ESRC UBEL Doctoral Training Partnership Board with responsibility for co-funded studentships.

11. PROFESSIONAL ACTIVITIES OUTSIDE THE UNIVERSITY

(a) Major Enabling Roles

1. 1983-91 Elected Committee Member, then Secretary/Treasurer, then Chair, Institute of British Geographers Quantitative Methods Study Group Committee.
2. 1991-96 Elected **European Organising Secretary** of the **Regional Science Association International (RSAI)**. In this capacity I had responsibility for co-ordinating the programme for the major (typically 200+ participants) annual European Congresses of the RSAI, as well as day-to-day management of the Association's affairs.
3. 1991-92 Member of Board of Directors of ESRC's 'Post Main Phase' Regional Research Laboratory Network.
4. 1992-6 Secretary, **European Regional Science Association Council**.
5. 1992-6 Member, **European Organising Committee**, Regional Science Association

- International.
6. 1983- Reviewer of research grant proposals, U.S. **National Science Foundation**.
 7. 1986- Reviewer of research grant proposals, **Economic and Social Research Council**.
 8. 1988- Reviewer of research grant proposals, **Natural Environment Research Council**.
 9. 1993 Reviewer of research grant proposals, **International Science Foundation**.
 10. 1998-9 Review panel member, **ESRC Data Archive**.
 11. 1998 Advisor, Review Committee on GIS and Remote Sensing, Cambridge University.
 12. 1998-2003 Expert Advisor, GIS and Remote Sensing, John Wiley & Sons Limited.
 13. 1999 Member, DTI Foresight Retail and Distribution Panel.
 14. 1999- Reviewer of research proposals, **Engineering and Physical Sciences Research Council**.
 15. 2001- Reviewer of research grant proposals, **Swiss National Science Foundation**.
 16. 2004-5 Member, Ordnance Survey (GB) Research and Innovation Advisory Board.
 17. 2005- Reviewer of research grant proposals, **Science Foundation Ireland**.
 18. 2007 Lead academic reviewer, ESRC Knowledge Transfer Division ('Impact' grant applications), April/May.
 19. 2007 Member, **Research Assessment Committee**, Dutch Field of Urban and Regional Research.
 20. 2007 Panel member, ESRC National Centre for Research Methods Nodes, September/October.
 21. 2008 Lead academic reviewer, ESRC Knowledge Transfer Division ('Impact' grant applications), January/February.
 22. 2009 Reviewer, ESRC Knowledge Transfer Division 'Follow on' funding), March.
 23. 2009 Reviewer of research proposals, **Czech Science Foundation**.
 24. 2010 Reviewer, ESRC Knowledge Transfer Division 'Follow on' funding), March.
 25. 2011 Reviewer, ERC Starting Grants SH3 (Environment, Space and Society).
 26. 2011-4 Member, UK Central Government Advisory Panel on Public Sector Information.
 27. 2011- Advisory Board Member, International Collaborative Center for Geo-computation Studies (ICCGS), Wuhan University, (initial meeting December 17-20).
 28. 2011-2 ESRC Retail Research and Data Navigator.
 29. 2012 Member, External Expert Panel (EEP), EU COST (European Cooperation in Science and Technology) evaluations, 3-4 September.
 30. 2012-4 Member, UK Data Service Governing Board (ESRC representative).
 31. 2012 Member, ESRC Google Data Analytics Social Science Research Panel, November/December.
 32. 2013 Member, External Evaluation of Centre for Spatial Information Science, University of Tokyo, 17 May.
 33. 2013-16 **ESRC Strategic Advisor for Data Resources**, with special responsibility for business data.
 34. 2015-16 Member, Scientific Advisory Board, University of Zurich Research Priority Programme (Language and Space), 3-4 February 2015 and 14-15 September 2016.
 35. 2015 **European Commission, Advanced Research Grant Commissioning Panel**

(SH3: Environment, space and population: sustainability science, demography, geography, regional studies and planning), January and March.

36. 2015 Research proposal reviewer, Shota Rustaveli National Science Foundation (SRNSF: Georgia).
37. 2015 Research proposal reviewer, Hong Kong Research Grants Council.
38. 2016 Research proposal reviewer, Hong Kong Research Grants Council.
39. 2016 Member, Department Review, Land Survey and Geo-Informatics, Hong Kong Polytechnic University, 15-17 March.
40. 2016 Member, ESRC New forms of Data Centre for Doctoral Training Commissioning Panel, June-July.
41. 2016 Co-Chair, EU JTC Scientific Evaluation Panel – FLAG-ERA Flagship Programme, June.
42. 2016-7 **European Commission, Advanced Research Grant Commissioning Panel SH2: SH2–Institutions, Values, Environment and Space), November 2016 and February 2017.**
43. 2018- Member **UKRI e-Infrastructure Expert Group** charged with developing an e-infrastructure roadmap for the physical, engineering and social sciences.

(b) Visiting Appointments to Overseas Universities

1. 1987 Institut Teknologi MARA, Malaysia, under **British Council**-funded link arrangement, March-April.
2. 1989 Institut Teknologi MARA, Malaysia, under **British Council**-funded link arrangement, February-March.
3. 1991 National Center for Geographic Information and Analysis/Department of Geography, State University of New York at Buffalo, under **National Science Foundation** Scholarly Exchange Agreement, September-December.
4. 1992 Indian Institute of Technology, Bombay, under **British Council**-funded link arrangement, April-May.
5. 1994-5 University of Southampton, UK, under **Economic and Social Research Council**-funded Analysis of Large and Complex Datasets Programme.
6. 2001 Guangzhou and Hong Kong Universities under the evaluation of a **Department of Foreign Investment and Development** programme: January.
7. 2007 Visiting Professor, Ritsumeikan University, Japan, May.
8. 2008-12 Visiting Professor, University College Dublin.
9. 2009 Visiting Professor, Ritsumeikan University, Japan, April.
10. 2009 Visiting Professor, Tokyo University, November-December.
11. 2011 Visiting Professor, Ritsumeikan University, Japan, September.
12. 2013 Visiting Professor, Ritsumeikan University, Japan, August.
13. 2017- Visiting Professor, Fuzhou University, China.

(c) External Examining and Assessment

(i) Courses

1. University of Cambridge: M.Phil. GIS and Remote Sensing, 1995-8.
2. Kingston University: B.Sc. Geographical Information Systems, 1998-2002.
3. Edinburgh University: M.Sc/Postgraduate Diploma Geographical Information Science, 2000-2003.
4. University of East Anglia: B.Sc. Environmental Science 2001-2004.

5. University of London, Birkbeck College: M.Sc. Geographic Information Science by distance learning 2001-2004.
6. UCW Swansea, Level 3 Course Review, 2006.
7. University of Leicester, M.Sc. course review, 2009.
8. Liverpool, M.Sc. course review, 2011.
9. Hong Kong Polytechnic University, Land Surveying and Geo-informatics, departmental review, 2016.

(ii) Higher degrees

1. University of Leeds, M.A., 1994.
2. London School of Economics, Ph.D., 1995.
3. University of East Anglia, Ph.D., 1995, 1998.
4. Eindhoven University of Technology, Ph.D., 1999.
5. University of Queensland, Ph.D., 2000, 2001, 2015.
6. University of Wales, Cardiff, Ph.D., 2001.
7. University of Leeds, Ph.D., 2002, 2005, 2013.
8. University of London, Birkbeck College, Ph.D., 2004.
9. Queensland University of Technology, Ph.D., 2007.
10. University College London, Ph.D., 2008, 2009 (twice), 2011, 2012.
11. University of Manchester, Ph.D., 2008.
12. University of Newcastle-upon-Tyne, Ph.D., 2010.
13. Southampton University, Ph.D., 2013.
14. Institute of Education (London), Ph.D., 2014.
15. Delft University, Ph.D., 2017.

(iii) University Promotions and Chair Appointments

Various, including: Auckland (2007); Belfast (1997); Berkeley (2013); SUNY Buffalo (2018); Cardiff (1996; 1997; 1998; 2001; 2012); Dublin (2008); East Anglia (2005; 2007); Edinburgh (2017), Kings College London (2014), Leeds (2016); Leicester (2005; 2007); Leuven (2018); London (1996); New South Wales (2010; 2011); New York (NYU: 2016); Southampton (1999; 2002); Swansea (1999); Texas A&M (2001), United Arab Emirates (2017), Universiti Sains Malaysia (USM: 2011), Utah (2001).

(d) Reviewer Duties

I am a regular referee of proposals, articles and texts for the following international journals, academic book publishers and research foundations:

Academic Press

American Anthropologist

Area

Ashgate

Austrian Academy of Sciences

Cambridge University Press

Cartography and Geographic Information Science

Chapman and Hall

Chief Scientist Office, Scottish Government

Concepts and Techniques in Modern Geography (CATMOG)

Educational Research Journal

Elsevier Science

Environment and Planning A
Environment and Planning B (Planning and Design)
Environment and Planning C (Government and Policy)
Ethics, Place and Environment
European Journal of Spatial Development
European Planning Studies
European Research in Regional Science
Geoforum
Geographical Analysis
Geographical Systems
GeoInformation International/Pearson Professional
IEEE Computer Graphics and Applications
International Journal of Digital Earth
International Journal of Geographical Information Systems
International Planning Studies
International Review of Retail, Distribution and Consumer Research
John Wiley and Sons, Ltd.
Journal of Economic Geography
Journal of Geography in Higher Education
Journal of Retailing and Consumer Services
Journal of Sustainable Tourism
Journal of Theoretical Biology
Leverhulme Trust, The
Longman Scientific and Technical
Networks and Spatial Economics
Papers in Regional Science
Photogrammetric Engineering and Remote Sensing
PLoS One
Polity Press
Proceedings of the Royal Society Series A
Progress in Human Geography
Professional Geographer
Research Grants Council of Hong Kong
Sage
Scandinavian Housing and Planning Research
Sistemi Urbani
Springer Verlag GmbH and Co.
Taylor and Francis
The Professional Geographer
Tijdschrift voor Economische en Sociale Geografie
Transactions of the Institute of British Geographers
Transactions in GIS
Transport Reviews
Urban Geography
Urban Morphology: the Journal of the International Seminar on Urban Form
Urban Studies
URISA Journal

(e) **Contributions to Professional Meetings**

(i) Conference Organisation

1. Between 1993 and 1996 in my role as **European Organising Secretary** of the **Regional Science Association International**, I was responsible for coordinating and organising the programme for four consecutive **European Regional Science Association Congresses**. The congresses were held in **Moscow, CIS** (1993), **Groningen, The Netherlands** (1994), **Odense, Denmark** (1995) and **Zürich, Switzerland** (1996). The number of participants at each of these meetings was typically in the range 200-280.
2. Co-organiser of conference on ‘GIS for Business and Service Planning’, 6-7 April 1993 (sponsored by the **Economic and Social Research Council** and the **Association for Geographic Information**).
3. Co-organiser of conference on ‘GIS and Spatial Modelling’, 7-8 June 1994 (sponsored by the **Economic and Social Research Council** and the **Association for Geographic Information**).
4. Co-organiser of conference on ‘GIS and Land Use Analysis’, 17 June 1994 (sponsored by the **Economic and Social Research Council** and the **Association for Geographic Information**).
5. Co-organiser of **Third International Conference on Geocomputation**, 17-19 September 1998 (c. 150 delegates: eight sponsoring organisations).
6. Steering group member, Workshop on **Status and Trends in Spatial Analysis**, Santa Barbara, USA, 10-12 December 1998 (sponsored by the **US National Science Foundation**).
7. Organiser, seminar on **Spatial data infrastructures: uncertainty in retail centre definition**, 30 May 2002 (sponsored by the **Economic and Social Research Council**).
8. Organiser, seminar on **New technology and GIS: GI portals**, UCL, 18-19 September 2003 (sponsored by the **Economic and Social Research Council** and **ESRI Inc.**).
9. Organiser, seminar on **New representations: the use of geodemographic classifications in research and public service delivery**, UCL, 18-19 February 2004 (sponsored by the **Economic and Social Research Council**).
10. Co-organiser of seminar on **The quantitative analysis of surnames**, UCL, 26-27 April 2004 (sponsored by the **Economic and Social Research Council**).
11. Scientific Board member, **Third International Conference on GIScience**, Maryland, 20-23 October 2004.
12. Scientific Board member, **GIS Planet 2005**, Estoril (Lisbon), May 30- June 2 2005.
13. Scientific Board Member, **8th International Conference on Design & Decision Support Systems in Architecture and Urban Planning**, Eindhoven, 4-7 July 2006.
14. Scientific Board member, **Fourth International Conference on GIScience**, Münster, 20-23 September 2006.
15. Organiser, **Spatial Literacy in Teaching: Communicating GIScience**, London, 24 February 2006, plus subsequent outreach seminar programme.
16. Scientific Board member, **Sixth International Conference on GIScience**, Zürich, 14-17 September 2010.
17. Local Organising Committee Member, **Eleventh International Conference on Geocomputation**, UCL, 20-22 July 2011.
18. Scientific Board member, **Seventh International Conference on GIScience**, Columbus, 18-21 September 2012.
19. Scientific Board member, **Twelfth International Conference on Geocomputation**,

- Wuhan, 23-5 May 2013.
20. Organising committee and co-applicant, **Spatial Boundaries and Transitions in Language and Interaction: Perspectives from Linguistics and Geography**, Monte Verità, Ascona, 23-8 May 2017.

(ii) Overseas and International Conferences

This list includes funding sources up until 2013: subsequent keynotes were usually funded by the conference organisers.

1. 1982 Invited participant: Advanced Studies Institute (ASI) on 'Evolving Geographical Structures', San Miniato, Italy, 18-30 July. Attendance funded by NATO Scientific Affairs Division.
2. 1982 Invited contributor: Third European Colloquium on Theoretical and Quantitative Geography, Augsburg, West Germany, 17-21 September. Attendance funded by the Institute of British Geographers (QMSG).
3. 1983 Invited discussant: Conference on 'The Analysis of Qualitative Spatial Data', Free University, Amsterdam, The Netherlands, 28 March-1 April. Attendance funded by NATO Scientific Affairs Division.
4. 1983 Invited contributor: 14th Annual Pittsburgh Conference on Modelling and Simulation, Pittsburgh, USA, 21-22 April. Attendance funded by the Social Science Research Council.
5. 1983 Contributor: 79 Annual Meeting of the Association of American Geographers, Denver, USA, 24-27 April. Attendance funded by the Social Science Research Council.
6. 1984 Invited contributor: 15th Annual Pittsburgh Conference on Modelling and Simulation, Pittsburgh, USA, 19-20 April. Attendance funded by the British Academy.
7. 1984 Contributor: 80th Annual Meeting of the Association of American Geographers, Washington DC, USA, 22-25 April. Attendance funded by the British Academy.
8. 1984 Invited contributor: IGU Working Group on Systems Analysis and Mathematical Models, Besançon, France, 21-23 August. Attendance funded by University of Reading Research Board.
9. 1985 Invited participant: Advanced Studies Institute on 'Transformations through Space and Time', Hanstholm, Denmark, 3-14 August. Attendance funded by NATO Scientific Affairs Division.
10. 1985 Invited keynote speaker: Fourth European Colloquium on Theoretical and Quantitative Geography, Veldhoven, The Netherlands, 9-13 September. Attendance funded by the British Council.
11. 1986 Invited contributor: IGU Working Group on Systems Analysis and Mathematical Models, Madrid, Spain, 26-28 August. Attendance funded by the British Academy.
12. 1987 Invited distinguished research scholar: 83rd Annual Meeting of the Association of American Geographers, Portland, USA, 21-26 April. Attendance funded by the British Council/Association of American Geographers (QMMMSG).
13. 1987 Invited keynote speaker: Fifth European Colloquium on Theoretical and Quantitative Geography, Bardonecchia, Italy, 9-12 September. Attendance funded by the British Council.
14. 1988 Invited keynote speaker: Secondo Colloquio di Stratema: "Continuità e

- Discontinuita nell' Analisi Territoriale", Venice, Italy, 13 April. Attendance funded by STRATEMA (Research and Experimentation Laboratory on Communicative and Urban Strategies) and DAEST (Department of Economic and Social Land Use Study, University of Venice).
15. 1988 Contributor: Conference on 'Housing, Policy and Urban Innovation', Amsterdam, The Netherlands, 27 June-1 July.
 16. 1988 Contributor: 35th North American Meeting of the Regional Science Association, Toronto, Canada, 11-13 November.
 17. 1989 Invited speaker and panellist: 85th Annual Meeting of the Association of American Geographers, Baltimore, USA, 19-22 March. Attendance funded by the Economic and Social Research Council.
 18. 1989 Invited contributor: Sixth European Colloquium on Theoretical and Quantitative Geography, Chantilly, France, 6-9 September. Attendance funded by the British Council.
 19. 1990 Invited keynote speaker: Computer Applications for Town Planning, Penang, Malaysia, 20-21 March. Attendance funded by Malaysian Airlines Systems and Universiti Sains Malaysia.
 20. 1990 Invited distinguished research scholar: 86th Annual Meeting of the Association of American Geographers, Toronto, Canada, 18-21 April. Attendance part funded by the Association of American Geographers (QMMMSG).
 21. 1990 Contributor: Conference on 'Housing Debates: Urban Challenges', Paris, France, 3-6 July.
 22. 1990 Contributor: 30th European Regional Science Association Congress, Istanbul, Turkey, 27-31 August.
 23. 1991 Invited distinguished research scholar: 87th Annual Meeting of the Association of American Geographers, Miami, USA, 13-17 April. Attendance part funded by the Association of American Geographers (QMMMSG).
 24. 1991 Contributor: 31st European Regional Science Association Congress, Lisbon, Portugal, 27-30 August.
 25. 1991 Invited contributor: IGU Microsimulation Symposium, Stockholm, Sweden, 2-4 September.
 26. 1991 Invited contributor and national coordinator: Seventh European Colloquium on Theoretical and Quantitative Geography, Stockholm, Sweden, 5-8 September.
 27. 1991 Contributor: 38th North American Meeting of the Regional Science Association, New Orleans, USA, 7-10 November. Attendance financed by the U.S. National Science Foundation.
 28. 1992 Invited contributor: National Center for Geographic Information and Analysis (NCGIA) Initiative 14 (GIS and Spatial Analysis) meeting, San Diego, USA, 16-18 April. Attendance financed by the U.S. National Science Foundation.
 29. 1992 Invited distinguished research scholar: 88th Annual Meeting of the Association of American Geographers, San Diego, USA, 18-21 April. Attendance part funded by the Association of American Geographers (GISSG).
 30. 1992 Invited contributor: Workshop on 'Non Linear Evolution of Spatial Economic Systems', Wassenaar, The Netherlands, 19-21 June. Attendance financed by the Royal Netherlands Academy of Arts and Sciences.
 31. 1992 Contributor: 32nd European Regional Science Association Congress, Louvain-la-Neuve, Belgium, 25-28 August. Attendance part funded by the European Regional Science Association.

32. 1992 Invited keynote speaker: 'Groupe de Contact F.N.R.S. en Géographie Théorique et Quantitative', Université Catholique de Louvain, Belgium, 18 November. Attendance funded by the Belgian 'Fonds National de la Recherche Scientifique'.
33. 1993 Contributor: 33rd European Regional Science Association Congress, Moscow, CIS, 23-27 August. Attendance funded by the European Regional Science Association.
34. 1993 Invited speaker: Eighth European Colloquium on Theoretical and Quantitative Geography, Budapest, Hungary, 5-9 September.
35. 1994 Invited keynote speaker: Workshop on 'Urban Dynamics and Policies', Milan, Italy, 11 February. Attendance funded by the 'Laboratorio dinamiche e politiche urbane', Politecnico Milano.
36. 1994 Contributor: 90th Annual Meeting of the Association of American Geographers, San Francisco, USA, 29 March-2 April. Attendance funded by the Economic and Social Research Council.
37. 1994 Contributor: 34th European Regional Science Association Congress, Groningen, The Netherlands, 22-26 August. Attendance funded by the European Regional Science Association.
38. 1994 Invited keynote speaker: Laboratorio sulla simulazione STRATEMA: "Artificial Worlds", Venice, Italy, 2-5 November. Attendance funded by STRATEMA (Research and Experimentation Laboratory on Communicative and Urban Strategies) and DAEST (Department of Economic and Social Land Use Study, University of Venice).
39. 1995 Invited participant: GISDATA Conference on "Remote Sensing and Urban Analysis", Strasbourg, France 8-10 June. Attendance funded by European Science Foundation Scientific Programme.
40. 1995 Contributor: 35th European Regional Science Association Congress, Odense, Denmark, 21-25 August. Attendance funded by the European Regional Science Association.
41. 1995 Invited speaker: Ninth European Colloquium on Theoretical and Quantitative Geography, Spa, Belgium, 9-13 September.
42. 1996 Invited speaker: Fifth World Congress of the Regional Science Association International, Tokyo, Japan, 2-6 May. Attendance funded by the Japanese Local Organising Committee.
43. 1996 Invited speaker: Pacific Regional Science Congress (PRSCO), Tsukuba, Japan, 6-8 May. Attendance funded by the Japanese Local Organising Committee.
44. 1996 Contributor: 36th European Regional Science Association Congress, Zürich, Switzerland, 26-30 August. Attendance funded by the European Regional Science Association.
45. 1997 Invited keynote speaker: Joint European Conference and Exhibition on Geographical Information, Vienna, Austria, 16-18 April. Attendance funded by Joint European Conference Organising Committee.
46. 1997 Invited speaker: Tenth European Colloquium on Theoretical and Quantitative Geography, Rostock, Germany, 6-10 September. Attendance funded by Elsevier Science.
47. 1998 Panellist: 94th Annual Meeting of the Association of American Geographers, Boston, USA, 26-29 March. Attendance funded by Pearson Professional.
48. 1998 Invited keynote speaker: Colloquium on "Nouvelles frontières de la

- géographie”, Louvain-la-Neuve, Belgium, 11-12 September. Attendance funded by Université de Louvain-la-Neuve.
49. 1998 Invited keynote speaker: First Middle East GIS Conference, Bahrain, 19-21 October. Attendance funded by the British Council.
50. 1998 Invited participant/steering group member: Workshop on “Status and trends in spatial analysis”, Santa Barbara, USA, 10-12 December. Attendance funded by the US National Science Foundation.
51. 1999 Invited keynote speaker: Research conference on “Socio-economic impacts of new geographic information handling technologies”, Espinho, Portugal, 22-27 May. Attendance funded by the European Science Foundation.
52. 1999 Invited keynote speaker: Sixth International Conference on Computers in Urban Planning and Urban Management, Venice, 8-11 September. Attendance funded by Local Organising Committee.
53. 2000 Panellist/poster: First International Conference on Geographic Information Science, Savannah, USA, 28-31 October. Attendance funded by Elsevier Science.
54. 2001 Invited panellist: 21st ESRI User Conference, San Diego, USA, 8-13 July. Attendance funded by ESRI Inc.
55. 2002 Invited keynote speaker: Spatial Information and Social Processes, Thessalonica, Greece, 27-28 June. Attendance funded by Local Organising Committee.
56. 2002 Invited speaker: 42nd European Regional Science Association Congress, Dortmund, 27-31 August.
57. 2003 Invited keynote speaker: 8th International Seminar on GIS, Seoul, 20-21 November. Attendance funded by Korea Research Institute for Human Settlements
58. 2004 Invited keynote speaker: Connecting Communities and Spatial Data Visualization, Austin, Texas, 30-31 January. Attendance funded by the Landscape Architecture Foundation.
59. 2004 Invited keynote speaker: Spatial Indicators and GIS in Human Geography, Newcastle, Australia, 17 November. Attendance funded by the Institute of Australian Geographers.
60. 2005 Invited workshop leader: GIS Planet 2005, Estoril, Portugal, 30 May-2 June. Attendance funded by John Wiley & Sons Ltd/ESRI Inc.
61. 2005 Invited panellist: 25th ESRI User Conference, San Diego, USA, 25-29 July. Attendance funded by John Wiley & Sons Ltd/ESRI Inc.
62. 2005 Invited participant: National Land Cover Change Modeling Workshop, Pingree Park, Colorado, 19-21 September. Attendance funded by US Geological Survey.
63. 2006 Invited participant, International Conference on Geocomputation, University of Michigan, 6-8 September.
64. 2007 Invited participant: NSF/ESRC Agenda Setting Workshop on Agent-Based Modelling of Complex Spatial Systems, Santa Barbara, USA, 14-16 April. Attendance funded by ESRC/NSF.
65. 2007 Invited public lecture: Ritsumeikan University, Japan, 6 May. Attendance funded by Ritsumeikan University.
66. 2008 Invited Presidential Lecture speaker, 104th Annual Conference, Association of American Geographers (AAG), 15-19 April. Funding offered by AAG.

67. 2008 Invited keynote speaker: Conference on 'The Future of GIS', National University of Ireland, Maynooth, 1 May.
68. 2008 Invited keynote speaker: Geoinformatics 2008, Guangzhou, China, 27-29 June. Attendance funded by Chinese National Science Foundation/local organizing committee.
69. 2008 Invited keynote speaker: 5th International Conference on Geographic Information Systems (IC-GIS 2008), Istanbul, 2-5 July. Attendance funded by local organizing committee.
70. 2008 Invited keynote speaker: 5th International Conference on Geographic Information Science, Park City, USA, 23-26 September. Attendance part funded by Taylor and Francis/Routledge Ltd.
71. 2008 Invited speaker: Conference on 'Digital Spatial Data and Analysis', Dublin, 29 September. Attendance funded by University College Dublin.
72. 2008 Invited participant: Conference on 'Spatial Concepts in GIS and Design', Santa Barbara, 15-16 December. Sponsored by ESRI Inc.
73. 2009 Invited public lecture: Ritsumeikan University, Japan, 9 April. Attendance funded by Ritsumeikan University.
74. 2009 Invited keynote speaker: Annual Miller Lecture, Penn State University, 24 April. Attendance funded by Miller Lecture Committee/PSU.
75. 2009 Invited keynote speaker: International Workshop on GIS for Transportation, 2-6 December. Attendance funded by Local Organising Committee.
76. 2011 Invited public lecture: Ritsumeikan University, Japan, 6 September. Attendance funded by Ritsumeikan University.
77. 2011 Invited discussant/chair: Conference on 'Spatial thinking and GIS', Tokyo University, 14-16 September. Attendance funded by University of Tokyo.
78. 2011 Invited keynote speaker: State Key Laboratory of Information Engineering and Surveying ICCGS meeting, 18-19 December. Attendance funded by Wuhan University.
79. 2012 Invited keynote speaker: HellasGI biannual conference, National Technical University of Athens, 17 April. Attendance funded by local organising committee.
80. 2013 Invited keynote speaker, GIS Ostrava 2013 (Geoinformatics for City Transformations), January 21-3. Attendance part funded by Local Organising Committee.
81. 2013 Invited keynote speaker, Twelfth International Conference on Geocomputation, Wuhan, 23-5 May. Attendance part funded by Wuhan University.
82. 2013 Invited speaker, International Geographical Union Regional Conference, Kyoto, August 4-9.
83. 2013 Invited keynote speaker, GIScience Symposium 2013, Salzburg, 20-21 September.
84. 2013 Invited keynote speaker, Geospatial Scientific Summit, Dr. Sultan Al-Qassimi Centre for Gulf Studies, Sharjah, UAE, 27-28 November.
85. 2014 Invited speaker and session convenor, Association of American Geographers Annual Conference, Tampa, 7-11 April.
86. 2015 Invited panellist and presenter, Association of American Geographers Annual Conference, Chicago, 21-26 April.
87. 2015 Invited keynote speaker, VII Annual Conference IGOT (Geography Institute and Spatial Planning), University of Lisbon, 21 May.

88. 2015 Invited keynote speaker: Second IEEE International Conference on Spatial Data Mining and Geographical Knowledge Services, Fuzhou, China, 8-10 July.
89. 2015 Invited keynote speaker: First International Symposium on Spatiotemporal Computing, Washington DC, 13-15 July.
90. 2015 Invited keynote speaker: Fourth International Conference on Data Management Technologies and Applications, Colmar, France, 20-22 July.
91. 2015 Invited speaker: Nineteenth European Colloquium on Theoretical and Quantitative Geography, Bari, Italy, 3-7 September.
92. 2015 Invited keynote: Second Crowd Analyser Workshop, GIScience Research Group, Heidelberg University, 27 November.
93. 2016 Invited keynote speaker: New Trends in Geodemographics Research, Ritsumeikan University, 23 February and Experian, Tokyo 25 February.
94. 2016 Invited panellist and presenter, and session convenor: Association of American Geographers Annual Conference, San Francisco, 29 March-2 April.
95. 2016 Invited opening keynote speaker: Smart Geospatial Expo, Seoul, 31 August – 2 September.
96. 2016 Invited opening keynote speaker: International Conference on Geospatial Information Science, Seoul, 2 September.
97. 2016 Invited opening keynote speaker: European Commission DG REGIO Workshop: ‘How can Regional Policy Benefit from Big Data?’, Louvain-la-Neuve, 22 November.
98. 2017 Invited keynote, the Cambridge Conference (of the global surveying and mapping community), Cambridge, 4-6 July.
99. 2017 Invited keynote speaker: Estonian EU Presidency opening conference on ‘The Digital Single Market and the Free Movement of Data’, Tallinn, 17 July.
100. 2017 Invited keynote, BIT’s 4th Annual Global Conference of Knowledge Economy, Qingdao, China, 19-21 September.
101. 2017 Invited keynote, ISPRS Geospatial Week 2017, Wuhan, China, 18-22 September.
102. 2017 Invited keynote, Deutscher Kongress für Geographie, Tübingen, 30 September-5 October.
103. 2018 Invited keynote, Cities4People: Smart Cities and Data Analytics, ’s-Hertogenbosch, The Netherlands, 18-20 April.
104. 2018 Invited keynote, International Conference on Geoinformatics and Data Analysis, Prague, Czech Republic, 20-22 April.
105. 2018 Invited keynote, XVIII Congreso Nacional de Tecnologías de la Información Geográfica, Valencia, Spain, 20-22 June.
106. 2018 Invited keynote, China City and Region Lab (CCRL), Urban and Regional Science: Theories, Data and Methods, Shanghai University of Finance and Economics, China, 6 July.
107. 2018 Invited keynote, Geographical Big Data Analysis and Applications International Summer School, National Research Centre of Geospatial Information Technology, Fuzhou University, China, 10 July.
108. 2018 Invited keynote, International Conference on Spatial Analysis and Modeling, University of Tokyo, Japan, 8-9 September.

(iii) UK Conference Contributions

I regularly give talks at external meetings, though often omit to add them to this CV. The

following is a representative selection of the organisations that I have interacted with.

1. Annual Research Conference of the Royal Geographical Society/Institute of British Geographers (Durham, 4-7 January 1984; Reading, 6-9 January 1986; Portsmouth, 6-9 January 1987; Glasgow 3-6 January 1990; London 5-8 January 1993; Nottingham 4-7 January 1994; Exeter 7-10 January 1997; Leicester 5-7 January 1999; London August 26 2007; London August 29 2008).
2. GIS Research UK (Durham 1-3 April 2009; Leeds, 9-11 April 1997; 15-17 April 2015; Lancaster 11-13 April 2012; Liverpool 3-5 April 2015 (keynote); London 9-11 April 2003; April 2010; Norwich 28-30 April 2004; Nottingham 5-7 April 2006 (keynote); Portsmouth 27-29 April 2011; Southampton 14-16 April 1999; York 5-7 April 2000).
3. British/British and Irish Section of the Regional Science Association (Bath 6-8 September 2000; Cambridge, 29 August-1 September 1989; Dundee, 16-18 September 1992; Harrogate, 22-24 August 2017; Leeds, 7-9 September 1983; Manchester, 4-6 September 1985).
4. International Conference on Geocomputation (Bristol, 17-19 September 1998; Greenwich 24-25 August 2000; Leeds, 16-19 September 1996; Southampton 8-10 September 2003).
5. Demographics User Group Annual Conference (London, October 2005, 2007, and annually since 2011. Renamed the Data Analysts User Group in 2016).
6. European Colloquium on Theoretical and Quantitative Geography (Durham 5-8 September 1999; York 8-9 September 2017).
7. Market Research Society Census Interest Group (London, 27 May 1998; London 28 November 2000).
8. Association for Geographic Information (GeoCom: Warwick, keynote 24-25 November 2015; Edinburgh Science Festival panellist 3 April 2018).
9. National Mapping Organisations' 'Cambridge Conference' (3 July 2017, keynote) and various contributions to Ordnance Survey (GB)'s staff and research conferences.
10. Spatial Socio-Cultural Knowledge Workshop, UK Defence Intelligence Group and US Army Engineer Research and Development Center (London, 27-28 March 2008).
11. The British Computer Society (Bristol, 10 September 1986; Ipswich, 3 November 1987).

(iv) Selected Invited Research Seminars (Universities unless stated otherwise)

Aalto University, Finland (2013).

Adelaide, Australia (2004).

Arizona State University (2008, 2014).

Auckland, New Zealand (2005).

Australian National University (2004).

California, Los Angeles (1983).

California, Santa Barbara (1983; 2004, 2006).

Cape Town (1996: Department of Regional and Land Affairs, Office of Surveyor General).

Cardiff (1984, 2012).

Durham, University College (1990, 2011).

Edinburgh (2006).

Environmental Systems Research Institute, Redlands, USA (2002).

Florida, Gainesville (1987).

Groningen, the Netherlands (2013).

Guangzhou (2015).
Harvard (2006).
Hong Kong Polytechnic University (2011; 2016).
Institut Teknologi MARA, Malaysia (3 times, 1987; once 1989. ITM is a higher education institute).
Kingston (2001; 2002).
Konkuk University, South Korea (2016).
Leeds (1995).
Université Catholique de Louvain, Belgium (2016).
Maynooth, Ireland (2005).
McMaster, Canada (1988).
Macquarie, Australia (1987).
Massachusetts Institute of Technology (1998).
Melbourne, Australia (2004: Melbourne University, RMIT University and State of Victoria Department of Primary Industries).
Nanjing Normal University (2010).
Newcastle-upon-Tyne (1993).
New South Wales (1987; 2004).
New York, Buffalo (1983; 1991).
Nottingham (2002).
Open University (1990).
Ordnance Survey (GB, Britain's national mapping agency: 2003).
Université Paris 1/CNRS (2006).
Penn State (2009).
Queensland, Australia (2004).
Qingdao (Ocean University of China: 2017).
Reading (1985).
Seoul National University (2003, 2016).
Shenzhen (2015).
Southampton (1994; 1995; 2000).
Swansea (2005).
Syracuse (1991).
Texas A&M University (2004).
Tokyo (2009).
Toronto (1991).
Vienna University of Economics and Business (2013).
Western Ontario (1988).
Zurich (2011).

(f) Public Understanding of Science

1. 2006 Licensors, kiosk exhibit, '**Origins of Anglo-Saxon Surnames**', Centre for Life, Newcastle-upon-Tyne.
2. 2007 Licensors, kiosk exhibit, local ethnicity profiling, 'Explore-At-Bristol' museum, Bristol. Part of '**Inside DNA**' exhibit: Explore-At-Bristol (December 2007 – August 2008), Centre for Life (Newcastle-upon-Tyne: September 2008-February 2009); Glasgow Science Centre (March – September 2009); National Museums Liverpool (September 2010 – February 2011).
3. 2010 Licensors, kiosk exhibit, London Science Museum '**Who am I?**' exhibition (five

- year term).
4. 2012 Exhibitor, '**Genetic Maps**', Royal Society Summer Science Exhibition, 1-8 July (sse.royalsociety.org/2012/exhibits/genetic-maps/).
 5. 2012 Licensor, kiosk exhibit, Glasgow Science Centre '**BodyWorks: Health & Wellbeing in the 21st Century**' exhibition.
 6. 2013 Exhibitor, Big Bang Science Fair, EdExcel, London, 15-17 March.

(g) Media Reports

(i) Local taxation

1. 1992 'Rich "will gain most from the council tax"', **The Independent**, 17 August, p.2.
2. 1992 **Radio Wales** current affairs news programme interview, 18 August.
3. 1993 'Homes "undervalued" for council tax', **The Financial Times**, 6 January, p.5.
4. 1993 'Homes "undervalued in council tax survey"', **The Independent**, 6 January, p.6.
5. 1993 'Mass undervaluing for Cardiff council tax', **The Times** 6 January, p.5.
6. 1993 **Radio Surrey** ('Drive Time') interview, 5 January.
7. 1993 **Radio Bristol** ('Newshour'), 6 January.
8. 1994 **The Guardian**, 5 January, p.4.

(ii) Geodemographics

9. 2005 'Team find sickly postcodes', **Camden New Journal** 17 July, p.17.
10. 2009 'Using "geodemographics" in public service delivery' **Britain in 2009** (the ESRC outreach magazine), p.28.
11. 2009 'A multicultural atlas of London' **Britain in 2009** (the ESRC outreach magazine), p.100.
12. 2011 Where are you now? The what, where and how of GIS. **The Sunday Times of Malta**, Tech Sunday, April 24, p.4.

(iii) Family names

The first website associated with this research (now gbnames.publicprofiler.org) logged over 523,000 users and 31 million hits during January 2006.

13. 2006 'Mr Smith? From Lerwick, I presume', **The Observer**, 15 January.
14. 2006 'New database puts names on the map', **Sunday Herald**, 15 January.
15. 2006 **Channel 4 News**, 16 January.
16. 2006 BBC News Online, 17 January ('front page' <http://news.bbc.co.uk/1/hi/magazine/4620786.stm>).
17. 2006 'Where do you think you are?', **Eastern Daily Press**, 17 January.
18. 2006 'So where did your name come from?', **Express and Star**, 18 January.
19. 2006 'Why Cerys should be a Cornish military worker . . .', **Western Mail**, 18 January.
20. 2006 'Website reveals where's in a name', **PCPro**, **MacUser**, **Computer Shopper** and **Computer Buyer**, 18 January.
21. 2006 **Radio Scotland**, 19 January.
22. 2006 'My, you've come a long way – without even leaving home', **The Times**, 21 January.
23. 2006 **The Daily Mail**, 21 January.
24. 2006 **Radio 2**, ('Website of the Day'), 25 January.
25. 2006 **Radio 5**, 27 January.

26. 2006 Various other regional newspapers and other media, including the **Blackpool Gazette, Lincoln Echo, Nottingham Post, Romford Recorder, Swindon Advertiser, Scunthorpe Telegraph, BBC Midlands**, week commencing 23 January.
27. 2006 **Radio Nottingham**, 3 February.
28. 2007 ‘What’s in your name?’, **The Observer**, 15 April, p.3.
The second website associated with this work logged over 1 million unique users during August/September 2008.
29. 2008 Various national newspapers and other media reports, commencing August 30, and including: BBC Online [[link](#)]; BBC Radio 4; BBC World Service; The Independent; Channel4 news; The Daily Telegraph [[link](#)]; The Scotsman [[link](#)]; New Zealand Herald [[link](#)]; SG.HU (Hungary) [[link](#)]; ZDNet.de (Germany)[[link](#)]; Telekom Presse (Austria); Presstext (Germany); Globo (Brazil); Yahoo News Hong Kong [[link](#)]; Saigon Giai Phong Online (Vietnam) [[link](#)]; News.com.au (Australia); Mbl.is (Iceland) [[link](#)]; Computerwoche.de (Germany) [[link](#)]; WebUser [[link](#)]; Worthing Herald; Portugal Diario [[link](#)]; and The Dominion Post [[link](#)].
30. 2009 ‘Tracing family histories goes global’. **Britain in 2009** (the ESRC outreach magazine), p.111.
31. 2011 ‘What’s in a surname? A new view of the United States based on the distribution of common last names.’ **National Geographic**, February, p.20-21 and online.
32. 2013 ‘Twickenham warms to Billy Twelvetrees - a name we'll remember.’ **Daily Telegraph**, 5 February p.21 and www.telegraph.co.uk/sport/rugbyunion/international/england/9847653/Twicke-nham-warms-to-Billy-Twelvetrees-a-name-well-remember.html.
33. 2016-17 Various UK regional newspapers (Birmingham Mail, Bournemouth Daily Echo, Chester Chronicle, City Lab, Liverpool Echo, Manchester Evening News, Northwich Guardian, Wales Online).

(iv) Consumer Data

34. 2018 ‘[How do companies use my loyalty card data?](#)’, **BBC News**, 21 March.

(h) Professional Societies

Fellow of the Academy of Social Sciences (previously the Academy of Learned Societies for the Social Sciences (2002-).
Member, Association of American Geographers (1996-).
Member, Regional Science Association (British and Irish Section) (1984-).
Member, Regional Science Association International (1984-).
Fellow, Royal Geographical Society (with Institute of British Geographers) (1980-).
Registered Practitioner, The Higher Education Academy (previously the ILTHE: since 2002).

August 2018