

SHORT CURRICULUM VITAE: Christopher Bernard Jones

Present post (since 2000): Professor of GIS,
School of Computer Science, Cardiff University, UK

Date of birth: 6 June 1951

Educational qualifications:

1977 : PhD University of Newcastle upon Tyne (Dept. of Geophysics and Planetary Physics)

1972 : BSc, Geology, University of Bristol

Previous employment:

1994-2000 : Professor of Geographical Information Systems, University of Glamorgan.

1993-1994 : University Lecturer in GIS, Department of Geography, University of Cambridge.

Fellow and Director of Studies for Geography, Fitzwilliam College, Cambridge

1983-1992 : Reader (from 1990), Computer Studies, University of Glamorgan

1981-1983 : Earth Scientist (Computing), BP Exploration, London

1976-1981 : Analyst/Programmer, British Geological Survey, Edinburgh and Nottingham

Research interests

My main research interests are in geographical information systems (GIS), computer cartography and the retrieval of geographically-specific information on the web. For several years I have worked on the representation of digital map features at multiple levels of detail, resulting in the development of multi-scale spatial databases and of operators and optimisation techniques for map generalisation. Recent research on geographically-aware web search engines has been concerned with spatial indexing of web documents and with designing ontologies that represent knowledge about the terminology and form of geographical places. I have also worked on environmental change detection, map labelling, data integration and 3D modelling of terrain and of fossils.

Selected Examples of Research Grant Funding:

EC Framework 6: TRIPOD (web-based image search). 3 years 2007-2009;

Ordnance Survey : Gazetteer research, 3 years 2007-2009;

EC Framework 5: Spatially-Aware Information Retrieval on the Internet (SPIRIT). 2002-2005.

EPSRC Multi-Agent Systems for Active Maps, 2001-2004.

EPSRC : Multiscale spatial databases and map generalisation, 1998-2001;

ESRI Research Contract on Automated map generalisation 1998-2003;

NERC : Environmental change detection 1996-1998;

HEFCW QW funding for research in GIS 1994-1996;

ESRC : Logic databases for geographical information systems 1992 1995;

EPSRC : Deductive database for spatial information systems 1990-1994.

Postgraduate research supervision and examining:

Supervised 16 completed PhDs (I.M. Abraham, A.C. Cook, D.B. Kidner, J.M. Ware, G.L. Bundy, C. Taylor, M. Lewis, L. Bonde, M. Herbert, H. Alani, A. Sparkes, M. Dorey, M. LeBlanc, A. Morris, T.M. Davies, B. El-Geresy). Currently supervising 4 PhD students.

External PhD examiner: Universities of Kent, Reading, Nottingham, Aberystwyth, London (Birkbeck), Glamorgan, Berlin (Freie Universität), Lund (Sweden), Manchester, Royal Institute of Technology (KTH) Stockholm, Sweden.

Prize:

1997: British Computer Society IT Medallist, on behalf of University of Glamorgan and ESRI, for the Maplex software for automated cartographic name placement.

Selected Recent Research Publications:

- Arampatzis, M. van Kreveld., I. Reinbacher, C.B. Jones, S. Vaid, P.D. Clough, H. Joho, and M. Sanderson** (2006) Web-based delineation of imprecise regions, *Computers, Environment and Urban Systems (CEUS)*, 30(4), pp. 436-459.
- Leblanc, M. J., Leduc, C., Stagnitti, F., van Oevelen, P. J., Jones, C.B., Mofor, L. A., Razack, M., Favreau, G.,** (2006). Evidence for Megalake Chad, north-central Africa, during the late Quaternary from satellite data. *Palaeogeography, Palaeoclimatology, Palaeoecology*, 230 (3-4), 230-242.
- Abdelmoty A.I., P. D. Smart, C. B. Jones, Gaihua Fu & D. Finch,** (2005) A Critical Evaluation of Ontology Languages for Geographical Information Retrieval, *Jrnl Vis Languages and Computing*, 16(4), 331-358.
- Fu, G., C.B. Jones, and A.I. Abdelmoty** (2005). 'Ontology-Based Spatial Query Expansion in Information Retrieval'. In *ODBASE 2005, LNCS 3761*, 1466-1482.
- Fu G., Christopher B. Jones, Alia I. Abdelmoty** (2005) 'Building a Geographical Ontology for Intelligent Spatial Search on the Web'. *Databases and Applications 2005*: 167-172.
- Vaid S., Christopher B. Jones, Hideo Joho, Mark Sanderson** (2005) Spatio-textual Indexing for Geographical Search on the Web. *SSTD 2005, Lecture Notes in Computer Science 3633*, 218-235.
- Morris A.J., A.I. Abdelmoty, B.A. El-Geresy, C.B. Jones** (2004) A Filter Flow Visual Querying Language and Interface for Spatial Databases. *GeoInformatica*, 8(2), pp. 107-141.
- C.B. Jones, A.I. Abdelmoty, D. Finch, G. Fu and S. Vaid** (2004) The SPIRIT Spatial Search Engine: Architecture, Ontologies and Spatial Indexing. *GIScience 2004, LNCS 3234*, 125-139.
- Ware J.M., C. B. Jones and N. Thomas** (2003) 'Automated Cartographic Map Generalization With Multiple Operators: A Simulated Annealing Approach'. *Int. Journal of Geographical Information Science* 17 (8), 743-769
- Jones C.B., A.I. Abdelmoty and G. Fu** (2003) 'Maintaining ontologies for geographical information retrieval on the web', *ODBASE'03, LNCS 2888*, 934-951
- Zhou S and C.B. Jones** (2003) 'A multirepresentation spatial data model'. *SSTD 2003, Lecture Notes in Computer Science, 2750*, , 394-411
- van der Poorten P.M. and C.B. Jones** (2002). 'Characterisation and generalisation of cartographic lines using Delaunay triangulation'. *Int J of Geographical Inf. Sci.* 16(8), 773-794.
- Li M., S. Zhou, C.B. Jones** (2002). 'Multi-agent Systems for Web-Based Map Information Retrieval'. *GIScience 2002*., *Lecture Notes in Computer Science 2478*, Springer, 161-180.
- Jones C.B., H. Alani and D. Tudhope** (2001). 'Geographical information retrieval with ontologies of place', *COSIT 2001, Lecture Notes in Computer Science 2205*, Springer, 323-335.
- Alani H., C.B. Jones and D.S. Tudhope** (2001) 'Voronoi-Based Region Approximation for Geographical Information Retrieval with Online Gazetteers'. *International Journal of Geographical Information Science*, 15(4), 287-306.