

# Ian Barnes — Curriculum Vitae

## *Personal information*

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*Full name:* Ian Stuart Barnes  
*Nationality:* British and Australian  
*Date of birth:* 1st April 1963 (46 years old)  
*Address:* Unit 325, 24 Station Square, Inverness IV1 1LD, Scotland  
*Email:* [ian@fullyhuman.co.uk](mailto:ian@fullyhuman.co.uk)  
*Telephone:* 07924 215 738 (temporary—from 18th January 2010)  
*Qualifications:* B.Sc. (Hons.) (ANU), Ph.D. (ANU), Grad. Dip. Couns. Psych. (JNI)

## *Employment history*

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### *Australian National Data Service (ANDS)*

(ANDS is a partnership between Monash University, The Australian National University and the Commonwealth Scientific and Industrial Research Organisation, funded by the Australian Federal Department of Innovation, with operational locations at Monash and ANU.)

December 2008 – January 2010

#### *Research Analyst*

- Presenting workshops in major centres around Australia for the ANDS Roadshow, covering the ANDS online services and the data management provisions in the 2007 Australian Code for the Responsible Conduct of Research
- Writing and editing training materials (ANDS Guides) for researchers across all disciplines, IT support staff, data centre and repository staff and policy makers
- Helping organise publication of these materials through the ANDS web site
- Communicating with researchers, programmers, administrators and policy people
- Research and analysis on data publishing and data citation

### *Fully Human Psychotherapy and Counselling Services*

February 2007 – Present

#### *Psychotherapist/Counsellor (part-time)*

- Seeing clients for individual sessions
- About 450 client hours, with regular clinical supervision
- Working in a humanistic way that takes into account recent developments in neuroscience

### *Australian National University, Division of Information*

2006 – 2008

*Lecturer on secondment*

- Work funded by the Australian Partnership for Sustainable Repositories (APSR)
- Worked on digital preservation and electronic publishing of text documents, particularly on automated conversion from word processing formats to archival and viewing formats
- Wrote two reports for APSR: *Preservation of word processing documents* and *Preservation of TeX/LaTeX documents* (see publication list)
- Created the prototype Digital Scholar's Workbench web application
- Collaborated with Peter Sefton of the University of Southern Queensland on the ICE system and on word processor microformats for embedding metadata in documents
- Worked towards developing an automated structure guesser and metadata extractor

*Australian National University, Department of Computer Science*

1999 – 2006

*Lecturer*

- Taught mostly first and second-year undergraduate programming, software engineering and software design subjects, also third year IT for e-Commerce
- Created the second year course Software Construction
- Supervised Honours students

*Macquarie University, Department of Mathematics*

1995 – 1998

*Postdoctoral Fellow and Lecturer*

- Taught across the mathematics curriculum, from first year calculus to fourth year honours and postgraduate measure theory and real analysis
- Did research on geometric evolution equations

*Australian National University, Department of Applied Mathematics*

1992 – 1994

*Australian Research Council Postdoctoral Fellow*

- Research on general geometric partitioning phenomena, following on from my PhD research, but moving more in the direction of pure mathematics

*University of Sydney, School of Mathematics*

1991

*Associate Lecturer*

- Gave lectures and tutorials in first-year applied mathematics

*Centre de Recherche Paul Pascal, CNRS, Bordeaux (France)*

1990

*Postdoctoral Fellow*

- Research following on from my PhD research on microstructure of self-assembling phases in surfactant-oil-water systems

## *Education*

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### *Jansen Newman Institute, Sydney*

2006 – 2007

- Graduate Diploma in counselling and psychotherapy.
- Theoretical studies in individual, family and relationship therapy.
- Practical skills development via peer skills practice and clinical internship.
- Group facilitation and personal development through two years of group therapy.
- Supervised work with clients (120 client sessions).

### *The University of Canberra*

2003 – 2004

- Took several courses towards a Graduate Diploma in Professional Writing (roughly half of the requirements for the diploma), with good results.
- Did all technical production for *First*, the annual anthology of student writing, using a system I developed that automatically converted submissions from Word to XML and then to LaTeX to produce high-quality typeset PDF.

### *The Australian National University*

1986 – 1990

- PhD in applied mathematics
- Thesis title *Microstructure of bicontinuous phases in surfactant systems*
- Theoretical work on applications of minimal surfaces and geometry in physical chemistry
- Experimental work on composition phase diagrams for surfactant-oil-water systems, small-angle x-ray and neutron scattering for determining structure
- Modelling and data analysis linking theory and experiment
- Bernhard Neumann Prize for best student talk at the Australian Mathematical Society annual conference in 1999.

1981 – 1984

- Bachelor of Science with first class honours in pure mathematics
- Hanna Neuman Prizes for 3rd year and 4th year pure mathematics

## *Membership of Professional Associations*

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COSCA (Counselling in Scotland), Counsellor Member

BACP (British Association for Counselling and Psychotherapy)

CAPACAR (Counselling and Psychotherapy Association, Canberra and Region)

## *IT Skills*

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- *Programming languages:* Python, Java, Eiffel, C, Bash, Cocoon; some familiarity with Javascript, PHP, SQL
- *Web page design:* HTML, XHTML, CSS, XML, XSLT
- *Platforms:* Linux, Mac-OS X
- *Text processing:* Word, OpenOffice, TeX/LaTeX, Emacs

## *Other Skills*

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- *Written communication:* Excellent writing, editing and proofreading skills
- *Verbal communication:* Excellent verbal communication and presentation skills
- *Learning and Research:* Fast learner with excellent research skills
- *Languages:* French—almost fluent verbal and reading skills

## *Referees*

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1. *Annette Fisher*  
Clinical Supervisor  
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2. *Dr Adrian Burton*  
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4. *Dr Peter Raftos*  
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5. *Dr Peter Sefton*  
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Australian Digital Futures Institute  
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6. *Associate Professor Chris Johnson*  
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7. *Tom Worthington*  
Adjunct senior lecturer  
Department of Computer Science  
The Australian National University  
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## *Academic Publications*

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1. Thomas N. Zemb, Stephen T. Hyde, Paul-Joel Derian, Ian S. Barnes & Barry W. Ninham, "Microstructure from x-ray scattering: the disordered open connected model of microemulsions", *Journal of Physical Chemistry*, **91** (1987) pp. 3814-3820.  
[doi:10.1021/j100298a018](https://doi.org/10.1021/j100298a018) (Refereed journal article)
2. B. W. Ninham, I. S. Barnes, S. T. Hyde, P.-J. Derian & T. N. Zemb, "Random connected cylinders: a new structure in three-component microemulsions", *Europhysics Letters*, **4** (1987) pp. 561-568. [doi:10.1209/0295-5075/4/5/009](https://doi.org/10.1209/0295-5075/4/5/009) (Refereed journal article)
3. Ian S. Barnes, Stephen T. Hyde, Barry W. Ninham, Paul-Joel Derian, Maurice Drifford & Thomas N. Zemb, "Small-angle x-ray scattering from ternary microemulsions determines microstructure", *Journal of Physical Chemistry*, **92** (1988) pp. 2286-2293.  
[doi:10.1021/j100319a038](https://doi.org/10.1021/j100319a038) (Refereed journal article)
4. I. S. Barnes, S. T. Hyde, B. W. Ninham, P.-J. Derian, M. Drifford, G. G. Warr & T. N. Zemb, "The disordered open connected model of microemulsions", (Proceedings of the 2nd European Colloid Conference, Como, 1987) *Progress in Colloid and Polymer Science*, **76** (1988) pp. 90-95. [doi:10.1007/BFb0114175](https://doi.org/10.1007/BFb0114175) (Refereed conference paper)
5. I. S. Barnes & T. N. Zemb, "Calculation of small-angle scattering from models for surfactant systems", *Journal of Applied Crystallography*, **21** (1988) pp. 373-379.  
[doi:10.1107/S0021889888002651](https://doi.org/10.1107/S0021889888002651) (Refereed journal article)
6. D. J. Mitchell, I. S. Barnes & B. W. Ninham, "Statistical mechanics and small-angle scattering of one-dimensional aggregating fluids", *Journal of Physical Chemistry*, **93** (1989) pp. 4936-4940. [doi:10.1021/j100349a052](https://doi.org/10.1021/j100349a052) (Refereed journal article)
7. T. N. Zemb, I. S. Barnes, P.-J. Derian & B. W. Ninham, "Scattering as a critical test of microemulsion structural models", (Proceedings of the 3rd European Colloid Conference, Basel, 1989) *Progress in Colloid and Polymer Science*, **81** (1990) pp. 20-29.  
[doi:10.1007/BFb0115518](https://doi.org/10.1007/BFb0115518) (Refereed conference paper)
8. S. T. Hyde, I. S. Barnes & B. W. Ninham, "Curvature energy of surfactant interfaces confined to the plaquettes of a cubic lattice", *Langmuir*, **6** (1990) pp. 1055-1062.  
[doi:10.1021/la00096a005](https://doi.org/10.1021/la00096a005) (Refereed journal article)
9. I. S. Barnes, "A useful trigonometric approximation to periodic minimal surfaces?", *Australian Mathematical Society Gazette*, **17** (1990), pp. 99-105. (A written version of the talk I gave at the 1999 Australian Mathematical Society conference, for which I won the Bernhard Neumann prize for best student talk.)

10. Ian S. Barnes, Paul-Joël Derian, Stephen T. Hyde, Barry W. Ninham & Thomas N. Zemb, “A disordered lamellar structure in the isotropic phase of a ternary double-chain surfactant system”, *Journal de Physique*, **51**, 22 (1990) pp. 2605-2628.  
[doi:10.1051/jphys:0199000510220260500](https://doi.org/10.1051/jphys:0199000510220260500) (Refereed journal article)
11. I. S. Barnes, S. T. Hyde & B. W. Ninham, “The caesium chloride zero potential surface is not the Schwarz P-surface”, *Journal de Physique Colloques*, **51** (1990) pp. 19-24. (Proceedings of the International Workshop on Geometry and Interfaces, Aussois, 1990.)  
[doi:10.1051/jphyscol:1990702](https://doi.org/10.1051/jphyscol:1990702) (Refereed conference paper)
12. I. S. Barnes, M. Corti, V. Degiorgio & T. N. Zemb, “X-ray and neutron-scattering measurements on concentrated non-ionic amphiphile solutions”, (Proceedings of the 6th European Colloid and Interface Society conference, Graz, 1992) *Progress in Colloid and Polymer Science*, **93** (1993) pp. 205-206. [doi:10.1007/BFb0118515](https://doi.org/10.1007/BFb0118515) (Refereed conference poster presentation)
13. Ian Barnes & Kewei Zhang, “Instability of the eikonal equation and shape from shading”, *Mathematical Modelling and Numerical Analysis*, **34** (2000) pp. 127-138.  
[doi:10.1051/m2an:2000134](https://doi.org/10.1051/m2an:2000134) (Refereed journal article)
14. C. W. Johnson & I. Barnes, “Redesigning the intermediate course in software design”, (Proceedings of the 7th Australasian Computing Education Conference (ACE2005), Newcastle, 2005) *Conferences in Research and Practice in Information Technology*, **42** (2005) pp. 249-258. <http://crpit.com/abstracts/CRPITV42Johnson.html> (Refereed conference paper. Also available via [hdl:1885/42612](https://hdl.handle.net/1885/42612))
15. Ian Barnes, *Preservation of word processing documents*, Australian Partnership for Sustainable Repositories (2006). [hdl:1885/46440](https://hdl.handle.net/1885/46440) (Unrefereed research report)
16. Ian Barnes, *Preservation of TeX/LaTeX documents*, Australian Partnership for Sustainable Repositories (2006). [hdl:1885/46441](https://hdl.handle.net/1885/46441) (Unrefereed research report)
17. Ian Barnes & Scott Yeadon, “One click DSpace ingestion with the Digital Scholar’s Workbench”, Proceedings of the Open Repositories 2006 Conference, Sydney, 2006.  
[hdl:1885/46958](https://hdl.handle.net/1885/46958) (Non-refereed conference paper)
18. Ian Barnes, “Integrating the repository with academic workflow”, Proceedings of the Open Repositories 2006 Conference. [hdl:1885/46970](https://hdl.handle.net/1885/46970) (Non-refereed conference paper)
19. Ian Barnes, “The Digital Scholar’s Workbench”, Proceedings of the 11th International Conference on Electronic Publishing (EIPub2007), Vienna, 2007, pp. 285-296.  
urn:nbn:se:elpub-159\_elpub2007 (Refereed conference paper. Available via [hdl:1885/46750](https://hdl.handle.net/1885/46750))
20. Peter Sefton, Ian Barnes, Ron Ward & Jim Downing, “Embedding metadata and other semantics in word-processing documents”, Proceedings of the 4th International Digital Curation Conference, Edinburgh, 2008. *The International Journal of Digital Curation*, **2** (2009), pp. 93-106. <http://www.ijdc.net/index.php/ijdc/article/view/121> (Refereed conference paper)

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