

Quality and Quantity: tackling real issues in an institutional research repository

CERN Workshop on Innovations in Scholarly Communication (OAI4)

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http://tardis.eprints.org http://eprints.soton.ac.uk





Jessie Hey

Southampton University Library and Intelligence, Agents, Multimedia Group, School of Electronics and Computer Science

Pauline Simpson

Southampton University Library and NERC Libraries University of Southampton, UK



Outline of a story of evolution – to the Southampton 'keystroke' policy



- Scaling up with the TARDis project
- The TARDis route map
- Balancing Quality
- Balancing Quantity
- Staying focused on the vision of Open Access meeting Institutional Repositories

University of Southampton – an established UK university







Research–led multidisciplinary university 20,000 students 5000 staff 3000 researchers



From esoteric knowledge to a real institutional research repository



From embarkation to escalation.....

11th anniversary of Stevan Harnad's 'Subversive Proposal' leading to the open access vision for scholarly material



- See also Harnad, S. and Hey, J. M. N. (1995) Esoteric Knowledge: the Scholar and Scholarly Publishing on the Net. In *Proceedings of Networking and the Future of Libraries 2: Managing the Intellectual Record, Proceedings of an International Conference, Bath, 19-21 April 1995*, 110-16. Dempsey, L., Law, D. and Mowlat, I., Eds.
- The vocabulary has moved on but some journals are still becoming more and more expensive

the work of researchers in our own institution is still often unavailable to usand we also get emails from across the world when we haven't yet got the full text.... but that's incentive to produce it

Requests this week for full text when we didn't have it



Request from Unit of Biomonitoring and Management, Department of Zoology, University of Madras for

Tankere, S.P.C., Muller, F.L.L., Burton, J.D., Statham, P.J., Guieu, C. and Martin, J-M. (2001) Trace metal distributions in shelf waters of the northwestern Black Sea. *Continental Shelf Research*, 21 (13/14), 1501-1532. (doi:10.1016/S0278-4343(01)00013-9) http://eprints.soton.ac.uk/8011/

Request from Community Drug Problem Service, Edinburgh for:

- Webster, B. and Sullivan, C. (2003) Substance Misuse, Education that will make A Difference. Association of Nurses in Substance Misuse. In, Annual Conference, Swansea, UK, 3 April, 2003. http://eprints.soton.ac.uk/9397
- An opportunity to show visibility and encourage deposit!

Southampton influences



- Original EPrints software created at Southampton to enable the vision - now used by around 160 institutions worldwide – also spawned other software choices
- Some Southampton (Soton) departments have culture of deposit (but not all were OAI compliant and searchable together)
- Electronics and Computer Science use the software for the school publications database – now a repository with daily deposits (will be incorporated into e-Prints Soton)
- For now can use ePrints UK or OAlster to search both
- National Oceanography Centre was keen to adopt

An Institutional Research Repository for Southampton



- Institutional Repository for Research set up (e-Prints Soton)
 http://eprints.soton.ac.uk with TARDis project to investigate issues for a new concept (within JISC funded FAIR programme)
- Southampton University Research e-Prints working closely with individual 'schools' – found that depends so much on publication culture and working practices
- TARDis project: Feeding back into EPrints software good citation and information management practice experimenting with best balance of assisted deposit
- has capacity for adding full text (e-Prints) if available
 - Electronic copies of any research output e.g. journal articles, book chapters, conference papers even multimedia
- TARDis: Targeting Academic Research for Deposit and Disclosure
- FAIR: Focus on Access to Institutional Resources

Exploring University practices and needs was crucial



Hey, Jessie M.N. (2004) An environmental assessment of research publication activity and related factors impacting the development of an Institutional e-Print Repository at the University of Southampton. Southampton, UK, University of Southampton, 19pp. (TARDis Project Report, D 3.1.2)

http://eprints.soton.ac.uk/archive/00006218/

See also TARDis article in Ariadne:

Hey, Jessie M. N. (2004) Targeting Academic Research with Southampton's Institutional Repository. *Ariadne* (40)

http://eprints.soton.ac.uk/8986/

Putting this into action -

Hey, J.M.N., Simpson, P. and Carr, L.A. (2005) The TARDis Route Map to Open Access: developing an Institutional Repository Model. In, ELPUB 2005: Proceedings of the 9th ICCC International Conference on Electronic Publishing, Leuven, June 2005, (eds. Dobreva, M. and Engelen, J.), Leuven, Belgium: Peeters Publishing, 179-182

http://eprints.soton.ac.uk/16262/

http://elpub.scix.net/cgi-bin/works/Show?232elpub2005

Working with disciplines and cultures for full representation



- Began with initial knowledge of some areas of a large organisation
- Advocacy/solutions most effective when you know the background and tailor to suit
- Key ingredient exploration of web sites and discussions/collaboration at all levels – top down and bottom up

Sampling of faculty websites – assessing current practice (2003)



Department	Total number of publications listed on Web	Full text on Web	Percentage of Publications with full text		
Faculty of Law, Arts and Socia	al Sciences				
Archaeology	252	2	1%		
English	243	3	1%		
Modern Languages	160	0	0%		
Music	280	5	2%		
Politics	138	6	4%		
Economics	357	89	25%		
Maths Education	170	34	20%		
Medicine Health Professions and Rehabilitation Sciences Nursing and Midwifery	1603 332 439	0	15% 0%		
Faculty of Engineering, Science		-	070		
Chemistry	1128	111	10%		
Electronics and Computer Science	7008	866	12%		
Mathematical Studies	849	310	37%		
Ocean Circulation and Climate Group, SOES	286	9	3%		
James Rennell Division, SOC	792	68	9%		

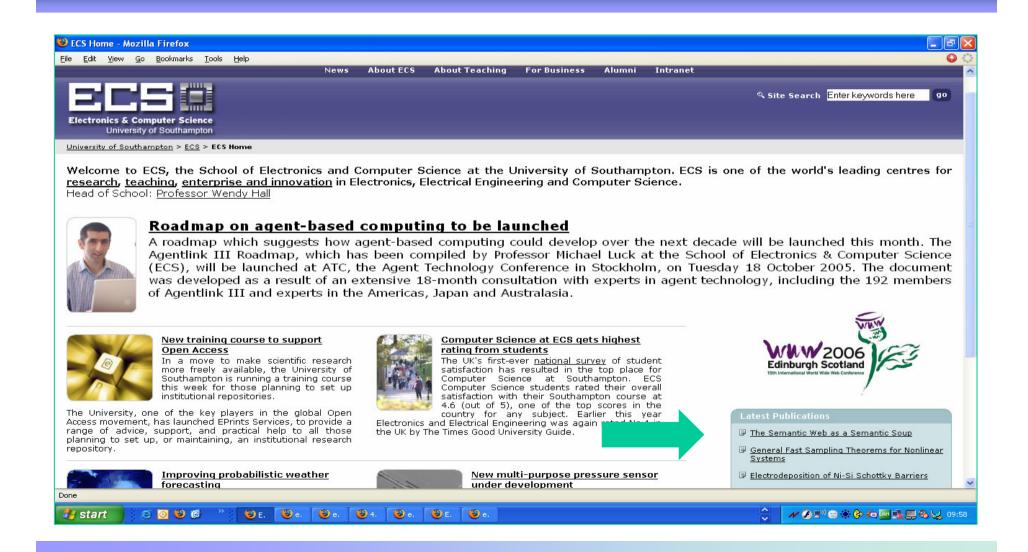
Electronics and Computer Science are improving!



- e.g. Intelligence, Agents, Multimedia Group 51 out of 58 deposits are full text in last 3 months (87%)
- However, percentages can be distorted if a new lecturer puts in his legacy publications without full text

Latest publication today: The Semantic Web as a Semantic Soup



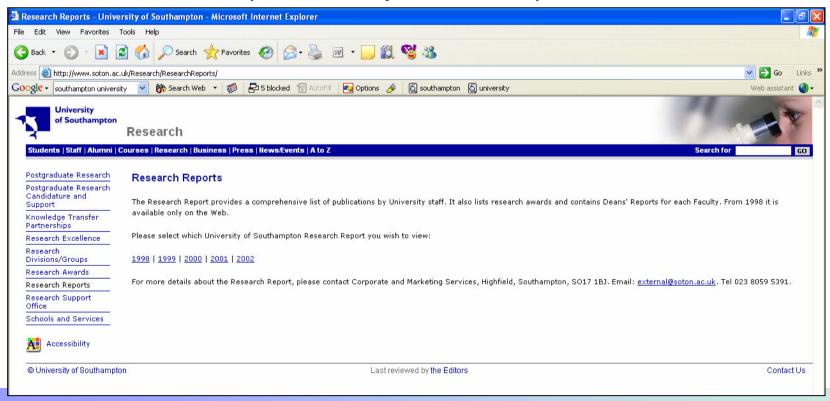


University central recording of research – reactive not proactive



Central recording mechanism via Corporate and Marketing Service – MS Word lists "the Research Report provides a comprehensive list of publications by University staff "

Progressed to pdfs - 1998 to 2002 on the web Need an easier, more proactive way with full text potential



From our feedback: perceived benefits to University, Schools and Researchers

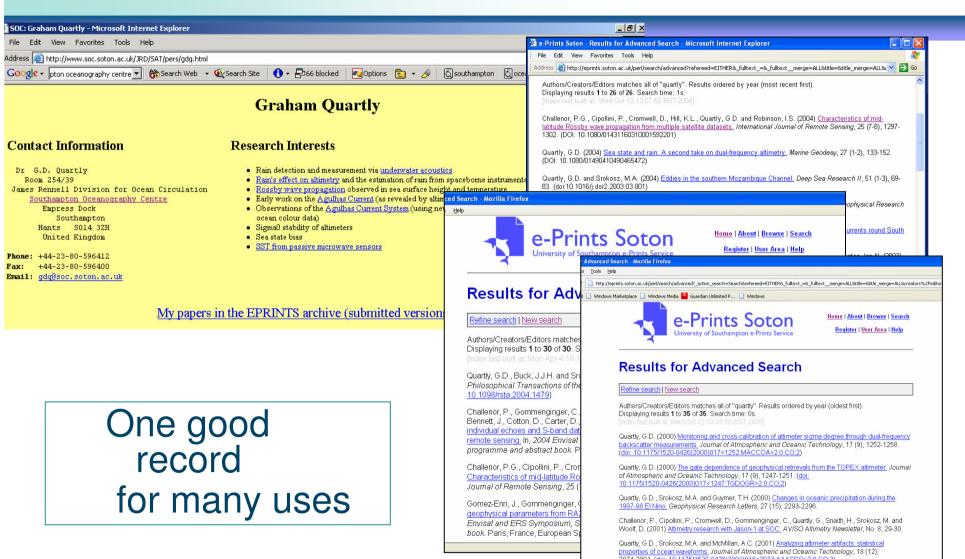


- University profile
- School and discipline visibility
- Researcher profile
- Full text content freely accessible
 - link to learning and teaching
- Increased citations

- Secure storage of publications
 - including also theses and dissertations, technical reports
- Links to projects and web pages
- Research reporting
- Interdisciplinary research

Future services eg adding a link to your web page by auto update





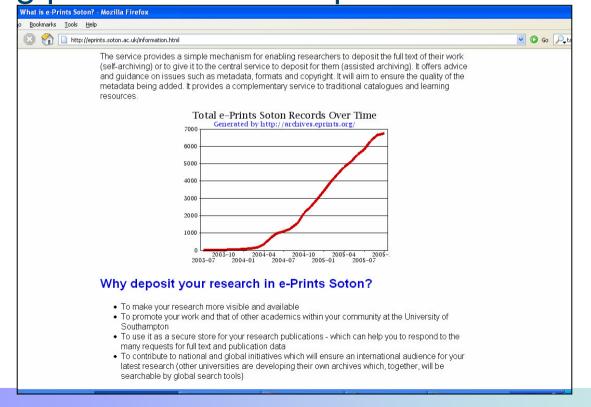
Quantity issues: developing at a rate which needs managing carefully by a core team



 Southampton growing steadily – just been linked to ISS userids and passwords

Editing planned – will help with addition of full

text



e-Prints Soton evolution

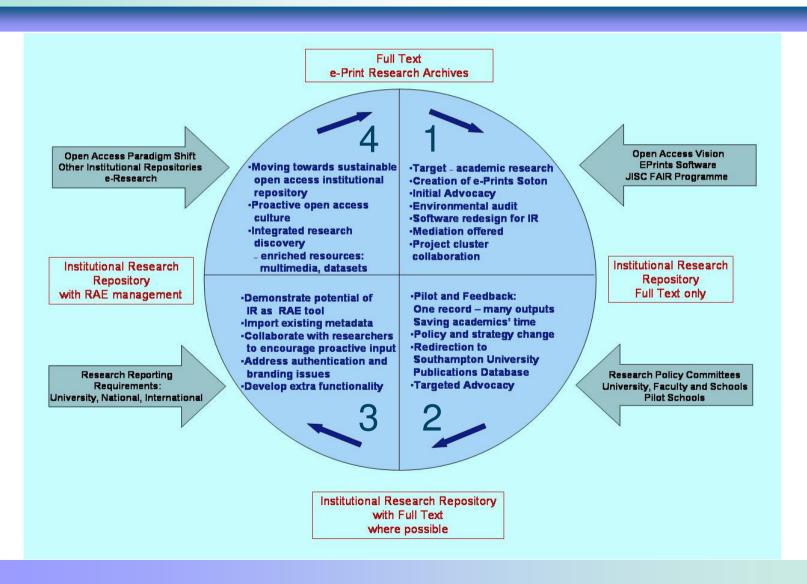


- Original intent to provide secure storage for the full text of Southampton research output (e-Print Archive including post refereed pre published versions of papers deposited by researchers)
- Feedback: maximum benefit if the exercise also assisted researchers with time consuming research reporting tasks: Research Assessment (RAE), University Research Report, web pages, research proposals, CVs etc
- Evolved to 'hybrid' publications database for all research output with full text where available

e-Prints Soton evolution: aiming for full moon at midnight -







Achieving a slower but more sustainable model – the TARDis route to achievable open access



- To achieve the original vision we are moving around the clock face
- Collaborating with academics to provide tailored valued services for different disciplines (needing extra functionality)
- Aided by a fast moving shared international movement

Developing archive for sustainability – the TARDis model



- Will be central to research recording and visibility for all disciplines
- Working to integrate as well as possible into the research recording workflow
- Working to incorporate UK research assessment data 2000-
- Initial support included for legacy import depending on availability of previous records
- Goal: author (or close academic group) self deposit (plus some assisted central support where needed) for new records with full text deposit where practicable
- Import where established practice dictates

External momentum also helps us: no. of UK IRs set to increase – Research Councils announcement soon



Guardian March 14, 2005: Scottish universities sign open access deal

The declaration commits each of its 16 university signatories to setting up online libraries of research findings and doctorate papers which all academics can access

Transition to University integrated service – shared ownership



Southampton University management (agreed Nov 2004) to support the next stage of a library managed repository for key role in research recording and visibility tasks

'Collaboration between services and academic groups has been the key element in the success of the project'

Collaboration with both Information Systems Services and School of Electronics and Computer Science will continue although TARDis is completing its transition to invisibility.



Southampton Press Release 15 Dec 2004



'We see our Institutional Repository as a key tool for the stewardship of the University's digital research assets,' said Professor Paul Curran, Deputy Vice-Chancellor of the University. 'It will provide greater access to our research, as well as offering a valuable mechanism for reporting and recording it.



(Prof. Curran is now Vice-Chancellor of Bournemouth University)

Quality emphasis

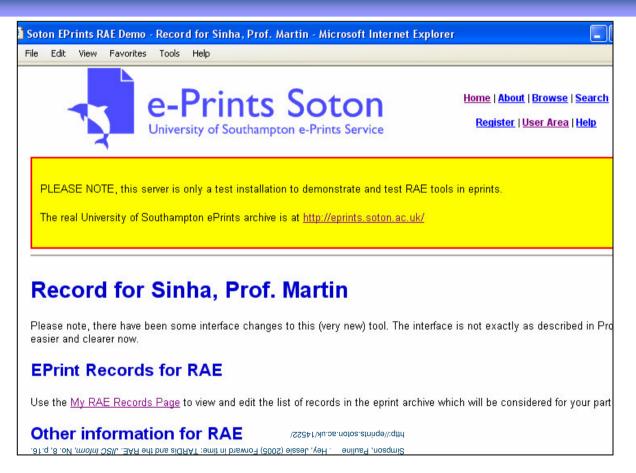


- Latest update yesterday of Research Assessment Exercise module to Research and Planning Heads
- Agreed a phased role out
- In parallel with EPrints and DSpace JISC funded project at UK level



Access to your own records to choose your papers for consideration (early prototype)





Simpson, Pauline and Hey, Jessie (2005) Forward in time: TARDis and the RAE. *JISC Inform*, No. 8, p.16. http://eprints.soton.ac.uk/14522/

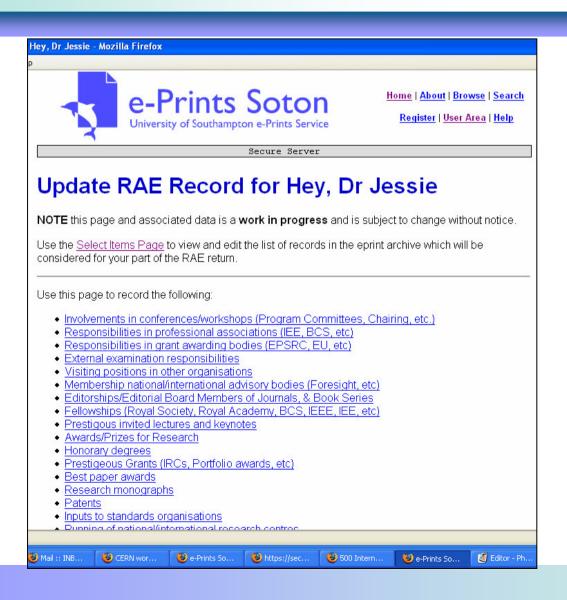
Simply select or remove your choices as you build up your record





Measures of esteem thought important for marketing as well as the RAE





Information then available for Head of Group/School





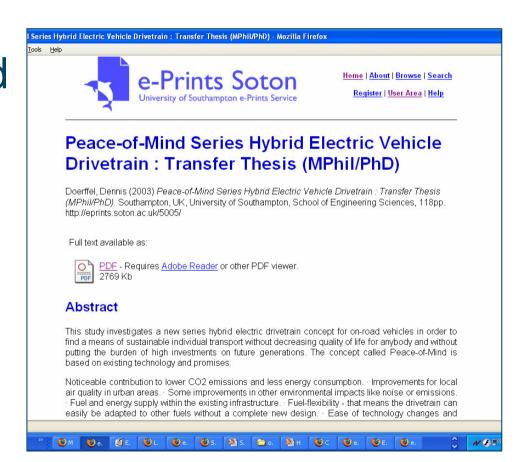
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But we still emphasise all research output



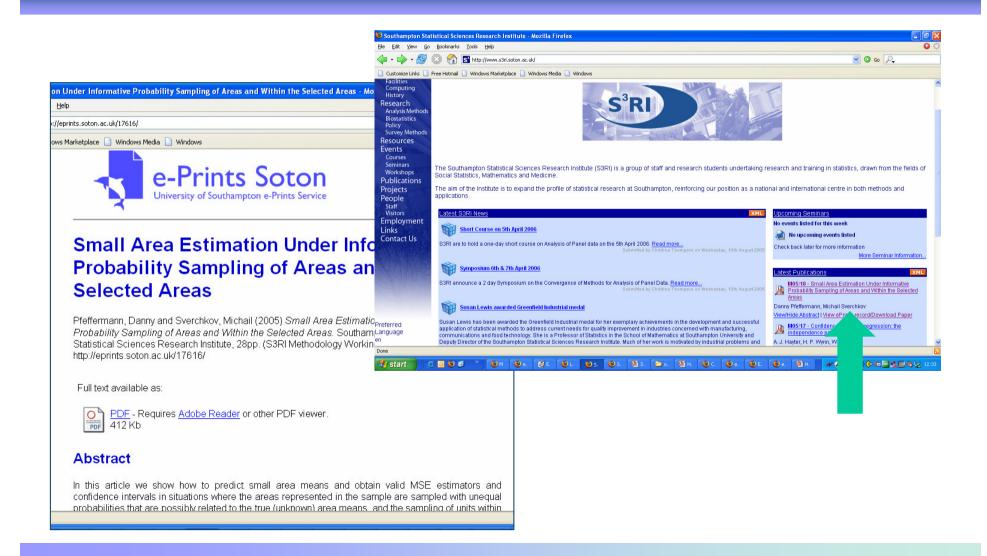
A popular download is a transfer thesis on hybrid electric vehicles

Keynote talks are also important to some



Working papers entered by institute and exported to them





Promoting research





The brilliant dazzle of butterflies' wings could hold the key to a new type of optical material, called photonic crystals. Over the past 15 years, photonic crystals have attracted the attention of a vast international community, as scientists have begun to realise their potential applications in the field of optoelectronics and telecommunications.

According to Dr Luca Plattner, who undertook research in the School of Electronics and Computer Science at the University of Southampton, our understanding of the way that light is reflected from the wings of butterflies could lead to the fabrication of new photonic crystals.

Dr Plattner investigated the optical properties of a periodic nanostructure found on the wings of a tropical butterfly, Morpho rhetenor. Several decades of scientific investigation had shown that understanding the source of the butterfly's dazzling blue coloration required the use of the most advanced techniques employed in optical engineering.



Morpho Rhetenor butterfly

Dr Plattner's study explored the remarkable properties of the nanostructures and the physical mechanisms that produce them, both experimentally through optical measurements which complemented those reported by other scientists, and theoretically via cutting-edge simulation techniques developed for photonics. This enabled him to fabricate optical structures inspired by the butterfly microstructure using silicon-based materials and processes that are common in microelectronics. The work was carried out under the supervision of Professor Greg Parker.

'The reason for studying the structure on the wings of that particular butterfly was that it has strong similarities to the photonic crystals already fabricated in the ECS Microelectronics Research Group,' said Luca Plattner. 'I was able to explore a biomimetic process, one in which we can learn new lessons from nature which are beneficial to both engineers and entomologists.'

Dr Plattner's work will be published in the first print issue of the Royal Society's Interface magazine, due out on 22 November.



Posted by Joyce Lewis on 04 Nov 2004.

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e-Print promoted via the link: his other work gets read too





Becoming part of the infrastructure....



So we're getting closer to demonstrating all our research in innovative ways and satisfying both internal and external researchers Always conscious of managing

An elite research institution

quantity and quality

Farewell to the TARDis: talk now of the University of Southampton Research Repository



The institutional repository is meshing with Open Access so keep the faith!

thank you:

Jessie Hey (<u>imnh@ecs.soton.ac.uk</u>)
Pauline Simpson (<u>ps@noc.soton.ac.uk</u>)

TARDis Project leading to Southampton University Research Repository (e-Prints Soton) http://eprints.soton.ac.uk

Many thanks especially to Natasha Lucas (metadata administrator)

embedding by collaboration with:

Leslie Carr (lac@ecs.soton.ac.uk)

EPrints software http://software.eprints.org

Chris Gutteridge (EPrints developer) and Tim Brody (IR developer)

Pete Hancock (information Systems Services)

