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WELCOME

The final ANU Integration Network meeting for 2009 will take place on Wednesday, 23 September 2009, from 4-5.30pm. The ANU Integration Network, the Centre for Policy Innovation and the Department of Applied Mathematics will co-host the first meeting of a new ANU Network on "Coping with Imprecise Probabilities, Immeasurable Risks and Rude Surprises". The meeting aims to draw together people across campus interested in complex issues associated with unknowns, uncertainties and risks. We hope you will be able to join us.

Gabriele Bammer and Caryn Anderson

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NEWS & EVENTS

23 September 2009, 4-5.30pm, The ANU Integration Network, the Centre for Policy Innovation and the Department of Applied Mathematics will co-host the first meeting of a new ANU Network on “Coping with Imprecise Probabilities, Immeasurable Risks and Rude Surprises”

Venue to be determined.

This meeting aims to draw together people across campus interested in complex issues associated with unknowns, uncertainties and risks. Attendees will be invited to briefly present their areas of interest, along with ideas for moving this agenda forward on campus. The meeting will be chaired by DVC Lawrence Cram. Come and join Linda Botterill (CASS), Michael Smithson (CMBE), Alan Hájek (CASS), Steve Dovers (CMBE), Mark Matthews (CASS) and others.

This will be the final ANU Integration Network meeting for 2009 and we hope you will be able to join us.

REPORT: 23 July 2009, 4-5.30pm, ANU Integration Network Meeting focused on “Education in Integrating Disciplinary and Stakeholder Knowledge”

This ANU Integration Network meeting provided an opportunity for faculty and students at the ANU to discuss a variety of different experiences related to teaching and learning about integrating disciplinary and stakeholder knowledge.

Liz Deane (PVC-Education) introduced the concept of “foundation degrees”, which the ANU is currently exploring. Based on a concept from the UK, the “foundation degrees” will be developed in partnership with industry to produce graduates with the integrated and practical skill sets necessary for modern commerce.

Lorrae van Kerkhoff (CMBE) described her experiences teaching ENV5 3036 Integrative Research Methods, offered by the Fenner School for Environment and Society. She discussed the benefits and challenges of project-based group work as a method for integrating theory and practice and for teaching new and abstract conceptual frameworks that cut across disciplines.

Shayne Flint (CECS) detailed the development of the project-based course for 4th year engineering students, which grew out of the need for engineers to understand the larger and complex contexts in which their work often sits. Shayne also discussed ideas for a cross-university, project-based course that would integrate students from multiple disciplines and colleges across campus.

Alison Wain (CASS) explained her experiences in her PhD work related to large technology heritage and the challenges of how to get physicists and conservationists to be able to work together effectively. She gave examples of how immersion in each other’s “worlds” went a long way towards facilitating understanding and communication.

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Catherine Summerhayes (CASS) discussed the redevelopment of the curriculum for the New Media Studies degree, focusing on the benefits and challenges of bringing diverse expertise to the program from law, art, commerce, computing, and other areas. She also described a proposal she is developing for a new course with a methodology that incorporates not only the practical aspects of filmmaking, but also issues of communication, research, ethics, finance, and distribution.

Richard Baker (CMBE) described the new ANU class Unravelling Complexity, the inaugural session of which had been opened by Deputy Vice-Chancellor Lawrence Cram that morning. The class explores a single concept from many different disciplinary angles throughout the semester and is currently focused on "collapse and resilience".

The group discussed a variety of common issues that emerged across these projects including the advantages and disadvantages of group work, the value of projects in helping to solidify understanding of theory, and the question of whether bringing diverse experts together on a project or training individuals in diverse areas provided better and more effectively integrated results.

New Conference Listings

- 9-12 November 2009, Australasia-Pacific Extension Network 5th International Conference, "Shaping Change in Communities - Dimensions of Excellence", Abbey Beach Resort, Busselton, Australia (<http://www.apen.org.au/default.asp?PageID=52>)
- 25-29 April 2010, Environmental Decisions: Risks and Uncertainties, Monte Verita, Switzerland (<http://www.ied.ethz.ch/CEDRU/index>)

Upcoming Conference Reminders

- 25-27 August 2009, Towards Knowledge Democracy - Experience the cutting edge of synergies between science, politics, society and the media, Leiden, The Netherlands (<http://www.knowledgedemocracy.nl>)
- 27-28 August 2009, ASNA 2009: Application of Social Network Analysis, Expanding networks: New reality or new perspective?, Zurich, Switzerland (<http://www.asna.ch/>)
- 10-12 September 2009, OR51, The OR Society (Operational Research), Warwick, UK ([http://www.orsoc.org.uk/orshop/\(rnjaeqrae3uyls455sewruj2\)/orcontent.aspx?inc=or51_main.htm](http://www.orsoc.org.uk/orshop/(rnjaeqrae3uyls455sewruj2)/orcontent.aspx?inc=or51_main.htm))
- 14-18 September 2009, 6th Conference of the European Social Simulation Association Conference, Univ. of Surrey, Guilford, UK (<http://cress.soc.surrey.ac.uk/essa2009>)
- 17-19 September 2009, Action Learning Action Research Association (ALARA) National Conference, Melbourne, Australia (<http://www.alara.net.au/ConferenceInformation>, http://www.alara.net.au/files/2009%20ALARA%20Conference%20Program%20V12_0.pdf)
- 28-29 September 2009, Workshop on Philosophy of Interdisciplinarity, Atlanta, Georgia, USA (http://www.transdisciplinarity.ch/e/td-info_a/Interdisciplinarity_workshop_GT_HDA_2009_Sept.pdf)
- 8 October 2009, Dealing With Uncertainties In Policing Serious Crime, Canberra, Australia (<http://nceph.anu.edu.au/News/UncertaintyConference/>)

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- 23 October 2009, Annual Meeting of the Commission for Research Partnerships with Development Countries (KFPE), "From Research to Development – Mutual Learning for Change", Lugano, Switzerland (<http://www.kfpe.ch/registrierung/>)
- 18-20 November 2009, 8th International Transformative Learning Conference, Bermuda (<http://transformativelearningbermuda.com/>)
- 19-21 November 2009, td-conference 2009: Integration in Inter- and Trans-disciplinary Research, Berne, Switzerland (<http://www.transdisciplinarity.ch/e/Conference/international/2009/>)
- 5-8 January 2010, 43rd Hawai'i International Conference on Systems Sciences, Koloa, Hawai'i, USA (http://www.hicss.hawaii.edu/hicss_43/apahome43.htm)

PROFESSIONAL DEVELOPMENT

Participatory Modelling for Development (short course), 28 September – 2 October 2009, The Australian National University

Participation is a key-concept supporting the Millennium Assessment Goals. The premise for participatory management or 'citizen development' lies in the fact that our modern societies interact with their environments in increasingly complex ways. Over the last decade, participatory modelling has attracted a growing number of practitioners and researchers working on environmental management and sustainable development. Participatory modelling uses 'models' as mediating tools to facilitate discussion and negotiations amongst stakeholders. Depending on the context, types of model in use range from role-playing games (or 'serious games') to interactive computer simulations. The objective of the course is to provide a clear understanding of the possibilities (and limits) offered by participatory modelling to enhance consensual and collective action. The course is structured around actual case studies and is equally divided between academic lectures and hands-on tutorials. Associate Professor Pascal Perez is a world leading expert in participatory modelling with more than 10 years experience in the field.

For more information, contact Associate Professor Pascal Perez (02 6125 8705; pascal.perez@anu.edu.au).

ANU INTEGRATION NETWORK MEMBER PUBLICATIONS

This new feature highlights publications by ANU Integration Network members. We encourage members to advise us of new publications (books, articles, book chapters, etc.) that may be of interest to other members. Please send citations and web URLs for further information to Caryn Anderson at caryn.anderson@anu.edu.au and we will highlight those publications most relevant to the ANU Integration Network community. We hope you will find this new feature interesting and useful.

Bammer, G. (2008). Enhancing research collaborations: Three key management challenges. *Research Policy*, 37.

This conceptual paper explores three areas of research collaboration: (a) effectively harnessing differences, (b) setting defensible boundaries and (c) gaining legitimate authorization. The focus is on their potential lessons for individuals leading and managing research collaborations, evaluation of

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research partnerships and areas for further investigation. Examples from three partnerships – building the atomic bomb, the Human Genome Project and the World Commission on Dams – are used to highlight key elements of the ideas presented. The paper provides a framework for systematically thinking about integration of different perspectives and other elements essential to any particular collaboration. It also sketches out ideas for (1) managing differences which may destroy partnerships, (2) deciding what the collaboration should encompass, (3) understanding and accommodating forces which may distort what the collaboration is able to achieve, and (4) enlisting necessary supporters while preserving research independence.

Gabriele Bammer is a professor at the National Centre for Epidemiology and Population Health.

Dray A., Perez P., LePage C., D'Aquino P., and White I. (2007). Who wants to terminate the Game? The role of vested interests and meta-players in the AtollGame experience. *Simulation and Gaming*, 38(4).

Low coral islands are heavily dependent on groundwater for freshwater supplies. The declaration by the government of Kiribati of water reserves over privately owned land has led to conflicts, illegal settlements, and vandalism. Also, the water consumption tends to increase toward Western-like standards, and human pollution has already contaminated most freshwater lenses. This project aims to provide relevant information to local stakeholders to facilitate dialogue and devise sustainable water management practices. A computer-assisted role-playing game is implemented to fulfill this aim. The following three-stage methodology is applied: collecting local and expert knowledge, blending the different viewpoints into a game-based model, and playing the game with the different stakeholders to explore different scenarios. Although game sessions delivered successful outcomes, the final stage of the project is characterized by the upheaval of contradictory government stands that undermine the whole process. It is argued that heterogeneous viewpoints may be handled in a satisfactory manner during the gaming sessions but that longterm hidden agendas may override the outcomes. Beyond the inherent question of legitimacy attached to such approaches, some players clearly must deal with constraints that are often genuinely considered external to the ongoing negotiation process.

Pascal Perez is an associate professor in the Research School for Pacific and Asian Studies.

Hueneke H and Baker R. (2009). Tourist behaviour, local values, and interpretation at Uluru: 'The sacred deed at Australia's mighty heart'. *GeoJournal*, 74(5).

This paper explores issues relating to effective communication across knowledge systems in the context of tourism at Uluru - Kata Tjuta National Park (UKTNP). The best known feature of this park is a massive monolith named in 1873 by the European surveyor William Gosse as Ayers Rock. To the local Aboriginal people, the Anangu, this rock is Uluru, a complex of places with great spiritual and economic importance UKTNP is jointly managed by Anangu and the Australian Government agency Parks Australia. Visitors to Uluru arrive with a complex set of expectations about what they will experience at this place, what being there will mean to them, and how they should behave. Their expectations, and subsequent behaviour, are shaped by contested meanings of Uluru. In the National Park, Aboriginal, nationalist, colonial, and neospiritual knowledge systems and ways of engaging with the landscape collide. We argue that a combination of marketing, Anglo-Australian tourist traditions, and the location of infrastructure such as roads, encourage people to climb Uluru, in contravention of Anangu stated preferences, at the expense of participating in other activities that would enable more effective communication across knowledge systems.

Richard Baker is an associate professor at the Fenner School of Environment & Society.

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JOURNAL PROFILE

Frontiers in Ecology and the Environment

"*Frontiers in Ecology and the Environment* is the members' journal of the Ecological Society of America. International in scope and interdisciplinary in approach, *Frontiers* focuses on current ecological issues and environmental challenges. *Frontiers* is aimed at professional ecologists and scientists working in related disciplines. With content that is timely, interesting, and accessible, even to those reading outside their area of expertise, it has a broad, interdisciplinary appeal and is relevant to all users of ecological science, including policy makers, resource managers, and educators. *Frontiers* covers all aspects of ecology, the environment, and related subjects. You'll read about global issues, broadly impacting research, cross-disciplinary or multi-country endeavors, new techniques and technologies, new approaches to old problems, and practical applications of ecological science."

* Website: <http://www.esajournals.org/loi/fron>

* Impact Factor: 5.065 (2008)

ABOUT ANU INTEGRATION NEWS

This newsletter aims to share updates on events, visitors, activities, opportunities and resources among ANU staff and students with an interest in research integration (or inter- or trans-disciplinarity). Back issues are available at www.anu.edu.au/iisn. To contribute material or to subscribe or unsubscribe from the newsletter, please contact Caryn Anderson at caryn.anderson@anu.edu.au.