

WELCOME

Welcome to the May/June I2S News. There's quite a lot happening that may be of interest.

First, the free online course on Ignorance! developed by Mike Smithson and Gabriele Bammer goes live on June 23rd. Register at: <https://www.edx.org/course/ignorance-anux-igno101x>. Ignorance! provides a comprehensive framework for understanding how people think about unknowns, how they deal with them, and how certain kinds of ignorance are enshrined in cultures and social institutions. Over 5 weeks, you'll be taken on a tour through ignorance in all its varieties and guises.

Second, a post-doctoral opportunity at the US National Science Foundation-funded National Socio-Environmental Synthesis Center in Annapolis, Maryland, to work on "Team Science: Research on Practices in the Transdisciplinary Environmental Sciences". This will be affiliated with a series of projects for which Gabriele Bammer is the theme leader (see <http://i2s.anu.edu.au/sesync-project>). Applications close August 14. For more information on the postdoctoral opportunity see: <http://www.sesync.org/opportunities/postdoc-team-science>.

Third, I2S now has a presence on Twitter. Follow [@GabrieleBammer](https://twitter.com/GabrieleBammer) for news, tools, conferences and other resources relevant to research integration and implementation. Please also share relevant news and resources using the hashtag [#I2Sresources](https://twitter.com/hashtag/I2Sresources). Many I2S News items will now also be tweeted.

Finally, there have been some major additions to the I2S website. All the materials and webpages from the 2013 First Global Conference on Research Integration and Implementation are now available at <http://i2s.anu.edu.au/what-i2s/first-i2s-conference>. We'll be closing down the original conference website in September. In addition, we've now also developed a portal for "Enhancing socio-environmental research and education: Building resources for action-oriented team science through syntheses of practices and theories". This group of projects is funded by the US National Science Foundation-funded National Socio-Environmental Synthesis Center at the University of Maryland, with Gabriele Bammer as the theme leader. We're planning to build a global community around these projects. You can follow progress and get involved via: <http://i2s.anu.edu.au/sesync-project>.

We look forward to engaging with you through one or more of these avenues.

Gabriele Bammer and Peter Deane

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Recent LinkedIn Group Posts and Discussions

- The Business Council of Australia sees systems thinking as a way forward
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FEATURED APPROACHES

Interdisciplinary Research: Practical Guidance

This open-access book provides "practical guidance on how to conduct interdisciplinary research effectively with multi-member teams operating across departments and institutions." Chapters are:

1. Signposts for interdisciplinary travellers: introduction and some tips for reading this book
2. Departure point: our approach to interdisciplinarity
3. Planning the expedition: designing interdisciplinary research projects
4. Making the expedition a success: managing interdisciplinary projects and teams
5. Permit to travel: supporting the next generation of interdisciplinary researchers
6. Charting a course for an interdisciplinary career: establishing and sustaining interdisciplinary careers in and beyond universities
7. Assessing the route: evaluating interdisciplinary proposals, programmes and publications
8. Knowledge travels: getting interdisciplinary research into policy and practice
9. Navigating the interdisciplinary landscape: how to shape interdisciplinary futures
10. Appendix 1: the authors' own interdisciplinary research journeys
11. Appendix 2: shaping interdisciplinary research futures – questions for readers

Book details: Lyall, C., Bruce, A., Tait, J. and Meagher, L. (2011). *Interdisciplinary Research Journeys: Practical Strategies for Capturing Creativity*. Bloomsbury Academic: London, UK. The book is on open access at Bloomsbury:

<https://www.bloomsburycollections.com/book/interdisciplinary-research-journeys-practical-strategies-for-capturing-creativity/>

Lyll, C., Bruce, A., Tait, J. and Meagher, L. (2013). Interdisciplinary Research Journeys: Practical Strategies for Capturing Creativity, digital poster #582, from the *First Global Conference on Research Integration and Implementation* in Canberra, Australia, online and at co-conferences in Germany, the Netherlands and Uruguay, 8-11 September, 2013. (Online: <http://i2sconference.digitalposter.com.au/posters-list/582>).

Interdisciplinary Research: Facilitating and Constraining Factors

Reflections by 14 teams linking health and social scientists identified key attributes which help or hinder success relating to:

1. principal investigators,
2. shared starting point,
3. role of language, and
4. role of the institution.

These include factors internal to the team such as personal characteristics, serendipitous encounters, status and language differences, as well as factors external to the team such as funding, training programs, academic environment including promotion, priorities, relevant journals, and peer-review.

Kessel, F. and Rosenfield, P. (2013). Fostering Interdisciplinary Research: Facilitating and Constraining Factors, digital poster #708, from the *First Global Conference on Research Integration and Implementation* in Canberra, Australia, online and at co-conferences in Germany, the Netherlands and Uruguay, 8-11 September, 2013. (Online: <http://i2sconference.digitalposter.com.au/posters-list/708>).

Interdisciplinary Research: Role of Funding Agencies

Analysis of five large-scale case studies identified five key success factors, which all have implications for funding:

1. start building integration and coherence early,
2. identify level or levels at which integration will occur and link levels,
3. give weight to leadership capacity and integrative vision,
4. promote and support collaborative working and integration,
5. ensure learning is embedded in collective memory.

Lyll, C., Bruce, A., Marsden, W. and Meagher, L. (2013). The Role of Funding Agencies in Creating Interdisciplinary Knowledge, digital poster #601, from the *First Global Conference on Research Integration and Implementation* in Canberra, Australia, online and at co-conferences in Germany, the Netherlands and Uruguay, 8-11 September, 2013. (Online: <http://i2sconference.digitalposter.com.au/posters-list/601>).

For these and more approaches, such as

- Action research and the transformation of knowledge creation
- Applied Implementation Science: an overview

See: <http://i2s.anu.edu.au/resources/approaches>

FEATURED VIDEO

Knowledge System Transformation to Support Research Integration and Implementation by Jill Jaeger

Responding to the persistent problems of unsustainability and other global challenges needs a transformation of the knowledge system as a whole. As this 25 minute video describes, this includes a transformation in research funding and in education. For effective implementation-oriented research, stakeholders have to be involved both in the design of research programmes and in all phases of the research. This is a challenge for proposal and project evaluation. A great deal of flexibility, creativity and learning is required for implementation-oriented research, which suggests that funding of phases of research rather than for projects as a whole is more effective. Within the academic system, skills that are needed for designing and facilitating processes of engagement and learning have to receive significant attention and credit must be given for this work, so that career paths for the integration and implementation research community become established and promising.

Four cases of integrative, implementation-oriented, transformative research in which the knowledge system has been opened up and sustainability challenges have been tackled are briefly presented. They are:

- RESPONDER project which looked at knowledge integration using systems mapping as a tool for knowledge brokerage
- InContext project which examined the challenges of having an implementation orientation
- MATISSE project which used a systemic approach, including scoping and re-scoping
- Project Vision RD4SD which examined new evaluation criteria.

This video "Transforming the Knowledge System to Support Research Integration and Implementation" presented by Jill Jaeger was a plenary talk at the First Global Conference on Research Integration and Implementation held in Canberra, Australia, online and at co-conferences in Germany, the Netherlands and Uruguay, 8-11 September, 2013. Watch on YouTube at: <https://youtu.be/iESPbLXfvk>.

RECENT LINKEDIN GROUP POSTS AND DISCUSSIONS

The [LinkedIn Global Network for Research Integration and Implementation](#) has recently featured:

- Two posts by Lewis Atkinson. One alerts us to Catherine Livingstone's (Australian) National Press Club address illustrating that the Business Council of Australia sees systems thinking as a way forward. The other links to a YouTube video by Terry Huang on systems thinking for public health innovation.
- Two posts by Luis Ordoñez about the development of I2S teams in Latin America, including a link to his talk on knowledge mobilisation in Latin America.
- Two posts by Gabriele Bammer. One alerts us to a Massive Open Online Course on Framing developed by researchers at the University of Delft. The second is on Ignorance tweets she favoured, namely two on unconscious biases, one reviewing decision science theories of how people make decisions under uncertainty, and one which is a PhD student blog on the importance of stupidity in science.

Other LinkedIn discussion group items have been converted into resources and are provided elsewhere in this News.

FEATURED JOURNALS

Public Health Research and Practice

Public Health Research and Practice publishes articles about the "connection between research, policy and practice". Of particular interest to I2S is a focus on articles that "improve methods of research relevant to policy and practice or the understanding of these methods" and a range of population health case studies of research support for policy and practice change.

This online journal is open-access and is published quarterly by the Sax Institute in Australia. It was formerly known as *The NSW Public Health Bulletin*.

- Website: <http://www.phrp.com.au/>
- Impact factor: N/A

European Journal of Operational Research: Special Issue on Community Operational Research

The European Journal of Operational Research (EJOR) is planning a special issue on the subject of Community Operational Research and has issued a call for 1-2 page synopses from those who are interested in being invited to submit a paper. The synopses are due on 30 October 2015, with selected papers due in 2016.

- Website: <http://www.journals.elsevier.com/european-journal-of-operational-research/call-for-papers/call-for-paper-community-operational-research-innovations-in/>

For these and more journals, such as

- Journal on Policy and Complex Systems
- International Journal of Decision Support System Technology

See: <http://i2s.anu.edu.au/resources/journals>

FEATURED PROFESSIONAL ASSOCIATION

Modelling and Simulation Society of Australia and New Zealand

The Modelling and Simulation Society of Australia and New Zealand (MSSANZ) aims to promote, develop and assist in the study of all areas of modelling and simulation. A primary mechanism through which it does this is through biennial congresses and the society has a global membership base from "a wide range of professional disciplines including hydrology, agricultural science, economics, engineering, atmospheric science, ecology and many others". MSSANZ runs a mailing list and a newsletter. The society can trace its roots back to 1974 and was incorporated in 1997. MSSANZ is affiliated with the International Association for Mathematics and Computers in Simulation (IMACS), and the Society for Computer Simulation (SCS).

- Website: <http://www.mssanz.org.au/>

For this and more professional associations & networks, such as

- Integrated Assessment Society
- International Association for Conflict Management

See: http://i2s.anu.edu.au/resources/associations_networks

FEATURED CONFERENCES

International Centre for Complex Project Management 6th Annual Conference: Building Capacity in Complex Environments

The *International Centre for Complex Project Management* conference is focusing on the "people and organisations that are managing complexity well, what they do, how they do it and why the results are so successful". The aim is to draw on those individuals who are providing outstanding results in terms of strategies, methodologies and concepts that underpin managing complex environments. The conference is structured to promote the "transfer of practical knowledge from these individuals to the delegates and their organisations...". There will be a mix of education activities, panels, presentations and workshops. Of particular note are three workshops that will cover issues dealing with uncertainty and risk: (1) Dealing with uncertainty; (2) Approaches to uncertainty and risk in complex environments; and (3) Risk policy masterclass.

The conference will be held in Canberra, Australia, 27-29 October 2015.

For further details, please see:

- Conference website: <http://www.iccpmconference.com/>

Global Implementation Conference: Digital Posters

The GIC in Dublin (May 26-28, 2015) featured digital posters, which can be viewed at: <http://gic2015.paperlessevent.com.au/>. These can also be accessed via <http://i2s.anu.edu.au/resources/digital-posters> and, over time, will be added to the I2S resources collection.

Other Upcoming Conferences

Conferences which have not been listed in previous newsletters are marked [**NEW**].

Interdisciplinarity, Transdisciplinarity and Action Research Methods

- 15-17 June 2015, Workshop on Investigating Interdisciplinary Practice: Methodological Challenges, Helsinki, Finland (http://www.helsinki.fi/tint/materials/CfP_ID-Workshop_TINT_UHelsinki_June2015_Poster-1.pdf)
- 8-10 September 2015, International Transdisciplinarity Conference: Sustainability and Health - Emerging Topics and New Challenges for Inter- and Transdisciplinary Research, Basel, Switzerland (<http://www.transdisciplinarity.ch/e/Network/international/2015/index.php>)
- 22-25 October 2015, 37th Association for Interdisciplinary Studies (AIS) Conference: Impact for the Common Good, North Andover, Massachusetts, United States of America (<http://www.merrimack.edu/academics/education/2015-ais-conference/index.php>)

- 4-7 November 2015, Action Learning, Acton Research Association (ALARA) World Congress 2015 - ALARA 9th Action Learning Action Research and 13th Participatory Action Research World Congress: Collaborative and Sustainable Learning for a fairer world: Rhetoric or Reality? Pretoria, South Africa (<http://alarassociation.org/pages/events/alara-world-congress-2015>)
- 6-8 November 2015, Collaborative Action Research Network (CARN) Conference 2015: Challenges for change and empowerment, Braga, Portugal (<http://www.carn2015.com/>)

Systems, Modelling and Simulation

- 12-15 June 2015, 27th European Conference on Operational Research, Glasgow, United Kingdom (<http://www.euro2015.org/>)
- 14-17 June 2015, Joint International Meeting Canadian Operational Research Society and Institute for Operations Research and the Management Sciences, Montreal, Canada (<http://meetings2.informs.org/montreal2015/>)
- 26-29 June 2014, 8th Chaotic Modeling and Simulation International Conference (CHAOS), Paris, France (<http://www.cmsim.org/>)
- 28 June - 3 July 2015, 13th International Conference of Sociocybernetics: Sociocybernetics Facing Turbulent Times: Media, Politics and Societies, Zaragoza, Spain (<https://sociocybernetics.wordpress.com/conferences/13th-international-conference-of-sociocybernetics/>)
- 29 June - 3 July 2015, 23rd Conference on User Modeling, Adaptation and Personalization: Contextualizing the World, Dublin, Ireland (<http://umap2015.com/>)
- 19-23 July 2015, 33rd International Conference of the System Dynamics Society, Cambridge, Massachusetts, United States of America (<http://conference.systemdynamics.org/>)
- 3-7 August 2015, 59th Meeting of the International Society for the Systems Sciences: Governing the Anthropocene - the greatest challenge for systems thinking in practice? Berlin, Germany (<http://iss.org/world/node/608>)
- 7-8 September 2015, UK Systems Society 19th Annual Conference – Delivering 'Goals'? Bristol, United Kingdom (<http://www.ukss.org.uk/sites/ukss.org.uk/files/docs/UKSS%20Conference%202015%20First%20Call.pdf>)
- 9-11 September 2015, Nostradamus - Conference on Prediction, Modeling and Analysis of Complex System Dynamics, Paris, France (<http://nostradamus-conference.org/Home.html>)
- 14-18 September 2015, The 11th Conference of the European Social Simulation Association, Groningen, The Netherlands (<http://www.essa.eu.org/>)
- 22-24 September 2015, YoungOR (Operational Research) 19 Biennial Conference, Birmingham, United Kingdom (<http://www.theorsociety.com/Pages/Conferences/YOR19/YOR19.aspx>)
- 28 September - 2 October 2015, European Conference on Complex Systems (CCS'15), Tempe, Arizona (<http://www.ccs2015.org/>)
- [NEW] 16-17 October 2015, World Complexity Science Academy VI Conference: Systemic Actions in Complex Scenarios, Amsterdam, The Netherlands (<http://www.wcsaglobal.org/inventing-the-future-in-an-age-of-contingency/>)
- 20-15 October 2015, Systems Thinking in Action Conference, Washington DC, United States of America (<http://conference.stiatemenos.com/stia2015/>)
- [NEW] 26-28 October 2015, 29th European Simulation and Modelling Conference (ESM'2015), Leicester, United Kingdom (<http://www.eurosis.org/cms/?q=node/3114>)

- 23-25 November 2015, 6th International Conference on Complex Systems Design & Management (CSD&M), Paris, France (<http://www.csdm2015.csdm.fr/-Scientific-Mission-.html>)
- 29 November - 4 December 2015, Modelling and Simulation Society of Australia and New Zealand Congress, Brisbane, Australia (<http://www.mssanz.org.au/modsim2015/index.html>)
- 6-9 December 2015, Winter Simulation Conference: Social and Behavioural Simulation, Huntington Beach, United States of America (<http://wintersim.org/2015/>)
- [NEW] 18-19 January 2016, 7th International Conference on Computer Modelling and Simulation, Brisbane, Australia (<http://www.iccms.org/>)
- 5-8 January 2016, 49th Hawaii International Conference on System Sciences (HICSS 48), Kauai, Hawaii, United States of America (<http://www.hicss.org/>)

Team Science and Project Management

- 23-25 July 2015, 10th Annual INGRoup Conference, Pittsburgh, United States of America (<http://www.ingroup.net/conference.html>)
- [NEW] 27-29 October 2015, International Centre for Complex Project Management 6th Annual Conference: Building Capacity in Complex Environments, Canberra, Australia (<http://www.iccpmconference.com/>)

Uncertainty, Risk and Decision Making

- 13-17 June 2015, World Meeting of the International Society for Bayesian Analysis, Sardinia, Italy (<http://bayesian.org/content/isba-2016-world-meeting>)
- 15-17 June 2015, 24th Annual Conference of the Society for Risk Analysis Europe, Maastricht, The Netherlands (<http://www.sraeurope.org/#bl3530>)
- 19-23 July 2015, World Congress on Risk: Risk Analysis for Sustainable Innovation, Singapore (<http://www.sra.org/worldcongress2015>)
- 16-18 September 2015, 9th International Conference on Scalable Uncertainty Management (SUM 2015), Quebec, Canada (http://www.fernuni-hagen.de/wbs/sum2015_draft/)
- 15-17 October 2015, 4th International Symposium on Integrated Uncertainty in Knowledge Modelling and Decision Making (IUKM), Nha Trang, Vietnam (<http://www.jaist.ac.jp/IUKM/IUKM2015/>)
- 5-7 November 2015, 1st International Conference on Anticipation, Trento, Italy (http://www.projectanticipation.org/index.php?option=com_content&view=article&id=47&Itemid=546)
- 6-9 December 2015, Society for Risk Analysis Annual Meeting, Washington DC, United States of America (<http://www.sra.org/events/sra-2015-annual-meeting>)

Bridging the Gap from Research to Policy and Practice

- 25-26 September 2015, 3rd Biennial Society for Implementation Research Collaboration (SIRC): Advancing Efficient Methodologies through Community Partnerships and Team Science, Seattle, Washington, United States of America (<http://www.implementationnetwork.com/conferences/sirc-3rd-biennial-conference>)
- [NEW] 5-6 October 2016, 3rd Biennial Australian Implementation Conference, Melbourne, Australia (<http://www.ausimplementationconference.net.au/>)

Other (including Sustainability Science)

- 11-12 June 2015, 17th International Futures Conference (World Conference of Futures Research) - Futures Studies Tackling Wicked Problems: Where Futures Research, Education and Action Meet, Turku, Finland (<https://futuresconference2015.wordpress.com/>)

- 11-14 June 2015, 10th International Conference on Interdisciplinary Social Sciences: Interdisciplinary Approaches to Contemporary Social Change, Split, Croatia (<http://thesocialsciences.com/the-conference/>)
- 29 June - July 2 2015, 8th World Environmental Education Congress: Planet and People - How Can They Develop Together? Hobart, Australia (<http://aaee2014.com.au/>)
- 30 June - 3 July 2015, 11th International Conference of the European Society for Ecological Economics: Transformations, Leeds, United Kingdom (<http://www.esee2015.org/>)
- 20-22 July 2015, 12th International Conference of Engaged Scholars and Practitioners - Changing Times: Changing Agenda's, Sydney, Australia (<http://www.engagementaustralia.org.au/conference>)
- 24-26 July 2015, World Future 2015: Make the Future! San Francisco, California, United States of America (<http://www.wfs.org/worldfuture-2015>)
- 12-14 August 2015, 6th Annual VIVO 2015 Conference, Cambridge, Massachusetts, United States of America (<http://vivoconference.org/>)
- 1-2 October 2015, 7th International Conference on Science in Society: Educating Science, Chicago, Illinois, United States of America (<http://science-society.com/the-conference>)
- 1-4 October 2015, Asia-Pacific Science, Technology and Society Network 2015 Biennial Conference Disasters, Controversies and Public Engagement, Kaohsiung, Taiwan (<http://apstsn.org/2015-biennial-conference/>)
- 14-16 December 2015, Science and Governance theme at the 6th Annual Conference on Earth System Governance: Democracy and Resilience in the Anthropocene, Canberra, Australia (<http://www.earthsystemgovernance.org/canberra2015/>)
- [NEW] 12-15 October 2016, XXI International Conference of the Society for Human Ecology: Shaping a Liveable Future: Research – Education – Policy, Santa Ana, California, United States of America (<http://societyforhumanecology.org/call-for-participation/>)

ABOUT I2S NEWS

The aim of this newsletter is to provide regular (bi-monthly) updates about new resources added to the Integration and Implementation Sciences website (<http://i2s.anu.edu.au/resources>). These resources are useful for researchers interested in Integration and Implementation Sciences (I2S), which underpins the investigation and tackling of complex real world problems, by:

- Synthesizing knowledge from different disciplines and stakeholders,
- Understanding and managing diverse unknowns, and
- Providing integrated research support for policy and practice change.

In general, each issue features tools (concepts and methods), case studies and/or approaches relevant to I2S - either a useful compilation or one or more examples of note. We also provide information about journals, professional associations & networks, professional development courses and conferences where researchers can learn from others, report their findings and interact with like-minded peers. The newsletter also reports on discussions in the LinkedIn group "Global Network for Research Integration and Implementation": <http://www.linkedin.com/groups/Global-Network-Research-Integration-Implementation-4888295>.

I2S News is archived at: <http://i2s.anu.edu.au/what-i2s/i2s-publications/i2s-news>.

Useful links:

- I2S website: <http://i2s.anu.edu.au>
- I2S on YouTube: <https://www.youtube.com/user/i2sTalks>
- LinkedIn group "Global Network for Research Integration and Implementation": <http://www.linkedin.com/groups/Global-Network-Research-Integration-Implementation-4888295>

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