

WELCOME

Welcome to the September/October I2S News. The News provides a digest of resources recently added to the Integration and Implementation Sciences website (<http://i2s.anu.edu.au>).

We are starting to run out of new journals, as well as professional associations and networks, to feature. That is bound to happen at some stage, but if there are any that we have missed, we would be very pleased if you would let us know.

Gabriele Bammer and Peter Deane

CONTENTS

Featured Tools

- Implementing Research: Taking Stakeholder Restrictions into Account
- Knowledge Co-production: td-net Toolbox

Featured Approach

- Interdisciplinary Research: Short Guides

Featured Video

- Networking and Team Science for the 21st Century

Recent LinkedIn Group Posts and Discussions

- Starting a Venezuelan I2S Group
- Action Learning Workshops in Brisbane Oct 15-16
- Award to Sharon Zivkovic for Diagnostic Tool for Addressing Complex Problems

Featured Journal

- Negotiation and Conflict Management Research

Featured Network

- European Association for Decision Making

Upcoming Conferences

- Conference List

About I2S News

- Aims and how to contribute, subscribe and un-subscribe

FEATURED TOOLS

Implementing Research: Taking Stakeholder Restrictions into Account

Argues that the know-do gap arises because restrictions facing stakeholders are not taken into account. Identifies an iterative five-step heuristic for doing this:

1. Define options for the actors
2. Identify the network of direct and indirect actors

3. Develop a concept for analysing the conditions of action and their underlying functional logic
4. Conduct an empirical analysis of the conditions of action to identify the options (restricting and supporting factors) for step 1
5. Identify strategies to overcome restrictions by combining the empirical analysis and the underlying functional logic.

Restrictions can include lack of knowledge, lack of values, lack of norms and lack of possibilities. Overcoming restrictions requires willingness and capability. The focus is on sustainability, but the principles are more broadly relevant.

Hirsch Hadorn, G., Maier Begré, S., Tanner, C. and Wölfling Kast, S. (2013). Options and Restrictions: A Heuristic Tool for Effective Implementation of Policies, digital poster #574, 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/574>).

Knowledge Co-production: td-net Toolbox

The eight methods in the td-net toolbox for co-producing knowledge are useful for bringing together different perspectives on a problem, recognising that not only individuals but also social groups have different ways of thinking about issues. One method (soft systems methodology) covers the whole process, while the others cover specific aspects. The aim is to provide researchers with an array of methods from which they can choose those most appropriate for their particular research problem.

The methods in brief (and in approximate order of use in the process of co-producing knowledge):

- *Soft systems methodology* leads a heterogeneous group through the process of structuring a complex problem to deciding on the most desirable and feasible change while keeping worldviews explicit throughout.
- *Toolbox approach* allows disciplinary experts to understand how their own and other disciplines approach research.
- *Three types of knowledge* tool examines what is, what should be and how we come from where we are to where we should be thereby allowing explicit deliberation and decisions on the research question.
- *Actor constellation method* uncovers implicit assumptions that disciplinary experts and stakeholders have about each other's relevance for and potential contributions to addressing the research question.
- *Delphi method* allows a group of experts to anonymously develop a considered position demonstrating the substance and degree of consensus and dissent.
- *Emancipatory boundary critique* allows stakeholders to uncover normative assumptions underlying solutions to complex problems proposed by disciplinary experts.
- *Most significant change technique* provides a way for researchers and practitioners to compare values and priorities in monitoring and evaluating social change projects.
- *Storywall method* enables reflection on the process of co-producing knowledge with each participant explaining how they perceived and experienced the joint process.

The td-net toolbox for co-producing knowledge provides a description of each method and is collecting examples of their use. It is also continuing to add new methods having recently added give-and-take matrix and nomadic concepts.

- Website: http://www.naturalsciences.ch/topics/co-producing_knowledge

For these and more tools, such as

- Focussed Dialogue
- Encyclopedia of Systems and Cybernetics

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

FEATURED APPROACH

Interdisciplinary Research: Short Guides

Ten aspects of interdisciplinary research are covered, with the guides providing easy access to best practices for developing, reviewing, funding and evaluating proposals, supervising PhDs, as well as various aspects of research management.

- *Short Guide to Developing Interdisciplinary Research Proposals* by Joyce Tait and Catherine Lyall
 - *Short Guide to Reviewing Interdisciplinary Research Proposals* by Catherine Lyall, Ann Bruce, Joyce Tait and Laura Meagher
 - *Short Guide to Building and Managing Interdisciplinary Research Teams* by Catherine Lyall and Laura Meagher
 - *Short Guide to Supervising Interdisciplinary PhDs* by Catherine Lyall, Laura Meagher and Joyce Tait
 - *Short Guide to Troubleshooting Interdisciplinary Research Management Challenges* by Catherine Lyall and Laura Meagher
 - *Short Guide to Designing Interdisciplinary Research for Policy and Practice* by Catherine Lyall
 - *Short Guide to Developing Interdisciplinary Strategies for Research Groups* by Catherine Lyall, Robin Williams and Laura Meagher
 - *A Short Guide for Funders of Interdisciplinary Research* Wendy Marsden, by Catherine Lyall, Ann Bruce and Laura Meagher
 - *Short Guide to Evaluating Interdisciplinary Research* by Catherine Lyall, Joyce Tait, Laura Meagher, Ann Bruce and Wendy Marsden
 - *Short Guide to Leading Interdisciplinary Initiatives* Laura Meagher, Catherine Lyall, Ann Bruce and Wendy Marsden
- Website listing all the above with available PDFs:
<http://www.genomicsnetwork.ac.uk/innogen/publications/22380>

For these and more approaches, such as

- Systems thinking: three short introductory videos
- Applied Implementation Science

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

FEATURED VIDEO

Networking and team science for the 21st Century

Recent technological advances provide comprehensive digital traces of social actions, interactions, and transactions and are described in this video. These data provide an unprecedented exploratorium to model the socio-technical motivations for creating, maintaining, dissolving, and reconstituting into teams. This presentation uses examples from research on scientific collaboration and massively multiplayer online games to argue that Network Science serves as the foundation for the development of social network theories and methods to help advance our ability to understand the emergence of effective teams. More importantly, these insights will also enable effective teams by building a new generation of recommender systems that leverage our research insights on the socio-technical motivations for creating ties.

This video "Some Assembly Required: Networking and Team Science for the 21st Century" presented by Noshir Contractor 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/l_hWcfBnMOE.

RECENT LINKEDIN GROUP POSTS AND DISCUSSIONS

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

- Luis Ordonez, about starting a Venezuelan I2S group. The idea is to develop knowledge mobilization interactions between university and communities through the "Servicio Comunitario", a mandatory requirement for community service by those seeking to graduate from college. If you are interested we are happy to put you in touch with Luis.
- Bob Dick, about action learning workshops in Brisbane on October 15 and 16, see <http://www.aral.com.au/wshops/wsal.html>.
- Sharon Zivkovic advising that she has been awarded the Pank/University of South Australia Prize for Entrepreneurship to develop a software application based on the diagnostic tool for addressing complex problems that she presented via a digital poster at First Global Conference on Research Integration and Implementation (for the digital poster see <http://i2sconference.digitalposter.com.au/posters-list/588>). Find out more at the venture website: <http://www.wickedlab.com.au>.

FEATURED JOURNAL

Negotiation and Conflict Management Research

Negotiation and Conflict Management Research (NCMR) "publishes articles that develop theory and report research on negotiation and conflict management across levels, including interpersonal conflict, intergroup conflict, organizational conflict, and cross-cultural conflict, across a range of domains including environmental conflict, crisis negotiations, and political conflict, as well as across a variety of approaches, including formal and informal third party intervention, mediation and arbitration." Some of the articles provide useful insights into negotiation and conflict management in research on complex real-world problems and can help in understanding, for example, team

dynamics and different perceptions of knowledge.

Negotiation and Conflict Management Research is the journal of the International Association for Conflict Management.

- Website: [http://onlinelibrary.wiley.com/journal/10.1111/\(ISSN\)1750-4716](http://onlinelibrary.wiley.com/journal/10.1111/(ISSN)1750-4716)
- Impact factor: 0.25 (2014)

For these and more journals, such as

- Global Environmental Change
- New Water Policy and Practice Journal

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

FEATURED NETWORK

European Association for Decision Making

"The *European Association for Decision Making* (EADM) is an interdisciplinary organisation dedicated to the study of normative, descriptive, and prescriptive theories of decision making. The purpose of the association is the advancement and diffusion of knowledge about human judgement and decision making and providing support for the exchange of information relating to this subject between the members and other associations throughout the world, as well as between members and other interested institutions and/or individuals". The Association was founded in August 1993.

"EADM supports"

- a biannual conference on Subjective Probability, Utility and Decision Making (SPUDM)
- a bi-annual Summer-school on judgment and decision-making
- an electronic mailing list for EADM members
- the open access scientific journal Judgment and Decision Making".

EADM also sponsors various awards for those working in the field of decision making.

- Website: <http://eadm.eu/>

For this and more professional associations & networks, such as

- Action Learning, Action Research Association
- Project Management Institute

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

UPCOMING CONFERENCES

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

Interdisciplinarity, Transdisciplinarity and Action Research Methods

- 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

- 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/>)
- 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/>)
- 5-8 January 2016, 49th Hawaii International Conference on System Sciences (HICSS 48), Kauai, Hawaii, United States of America (<http://www.hicss.org/>)
- 18-19 January 2016, 7th International Conference on Computer Modelling and Simulation, Brisbane, Australia (<http://www.iccms.org/>)
- 3-6 April 2016, Symposium on Theory of Modeling and Simulation (within the 2016 Spring Simulation Multi-conference), Pasadena, California, United States of America (<http://tms-devs.org/>)
- [NEW] 19-20 May 2016, 21st Coalition Theory Network Workshop, Venice, Italy (<http://www.coalitiontheory.net/section-annual-workshop>)
- [NEW] 22-26 May 2016, 9th Chaotic Modeling and Simulation International Conference (CHAOS), London, United Kingdom (<http://www.cmsim.org/chaos2016.html>)
- [NEW] 31 May - 3 June 2016, 30th European Conference on Modelling and Simulation (ECMS 2016), Regensburg, Germany (<http://www.scs-europe.net/conf/ecms2016/>)
- [NEW] 3-6 June 2016, 28th European Conference on Operational Research, Poznań, Poland (<http://www.euro2016.poznan.pl/>)
- 12-16 June 2016, 11th International Conference on Systems of Systems Engineering (SoSE): SoSE and Cyber Physical Systems, from Academia to Application and Back, Kongsberg, Norway (<http://2016.sosengineering.org/>)
- [NEW] 14-15 June 2016, Innovations in Collaborative Modeling: Addressing Complex Social and Environmental Problems through Systems Modeling Techniques, East Lansing, Michigan, United States of America (<http://modeling.outreach.msu.edu/>)
- 28 June – 1 July 2016, 9th International Conference on Social Computing, Behavioral-Cultural Modeling, & Prediction (SBP16), Washington DC, United States of America (<http://sbp-conference.org/sbp2016/about/>)

- [NEW] 10-14 July 2016, Session on *Sociocybernetics, Simulation and Anticipation: Paradigms and Challenges*, in the 3rd ISA Forum of Sociology (RC51 Sociocybernetics), Vienna, Austria (<https://isaconf.confex.com/isaconf/forum2016/webprogrampreliminary/Session6970.html>)
- [NEW] 13-17 July 2016, 24th Conference on User Modeling, Adaptation and Personalization, Halifax, Canada (<http://www.um.org/umap2016/>)
- [NEW] 17-21 July 2016, 34th International Conference of the System Dynamics Society: Black Swans and Black Lies: System Dynamics in the Context of Randomness and Political Power-play, Delft, The Netherlands (<http://conference.systemdynamics.org/>)
- [NEW] 24-29 July 2016, 60th Meeting of the International Society for the Systems Sciences: Unity in Diversity - Humanity in Technology, Boulder, Colorado, United States of America (<http://iss.org/world/node/625>)

Team Science and Project Management

- 11-13 October 2015, Project Management Institute (PMI) Global Congress 2015, Orlando, Florida, North America (<http://congresses.pmi.org/northamerica2015/home>)
- 27-29 October 2015, International Centre for Complex Project Management 6th Annual Conference: Building Capacity in Complex Environments, Canberra, Australia (<http://www.iccpconference.com/>)
- [NEW] 9-11 May 2016, Project Management Institute (PMI) Global Congress 2016, Barcelona, Spain (<http://www.pmi.org/events/emea-2016.aspx>)
- [NEW] 14-16 July 2016, 11th Annual INGRoup Conference, Helsinki, Finland (<http://www.ingroup.net/conference.html>)

Uncertainty, Risk and Decision Making

- 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>)
- [NEW] 10-14 July 2016, Session on *Epistemic Uncertainty and Complexity Theories*, in the 3rd ISA Forum of Sociology (RC51 Sociocybernetics), Vienna, Austria (<https://isaconf.confex.com/isaconf/forum2016/webprogrampreliminary/Session6650.html>)
- 10-14 September 2016, Thematic Group on Sociology of Risk and Uncertainty (TG04) at the 3rd International Sociological Association (ISA) Forum of Sociology, Vienna, Austria (<http://www.isa-sociology.org/forum-2016/tg/tg.php?n=TG04>)

Bridging the Gap from Research to Policy and Practice

- 11-13 November 2015, Annual Institute of the Society of Policy Scientists: Integrative Development for Human Dignity, Washington D.C., USA (<http://policysciences.org/institute.php>)
- 14-15 December 2015, 8th Annual Conference on the Science of Dissemination and Implementation, Washington D.C., United States of America (<http://www.academyhealth.org/Events/events.cfm?ItemNumber=13518>)
- 5-6 October 2016, 3rd Biennial Australian Implementation Conference, Melbourne, Australia (<http://www.ausimplementationconference.net.au/>)

Other (including Sustainability Science)

- 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] 11-15 May 2016, 8th International Conference for the Humanities, Arts, Science, and Technology Alliance and Collaboratory (HASTAC): Impact, Variation, Innovation, Action, Tempe, Arizona, United States of America (<http://www.hastac2016.org/>)
- 26-29 June 2016, Society for Ecological Economics (ISEE) 2016 Conference: Transforming the Economy - Sustaining Food, Water, Energy and Justice (<http://www.isecoeco.org/isee-2016-conference/>)
- [NEW] 2-4 August 2016, 11th International Conference on Interdisciplinary Social Sciences: An Age and its Ends: Social Science in the Era of the Anthropocene, London, United Kingdom (<http://thesocialsciences.com/2016-conference/>)
- 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>

To subscribe or unsubscribe to the newsletter go to "I2S News" at <http://i2s.anu.edu.au> or contact Peter Deane at peter.deane@anu.edu.au. To contribute material please contact Peter Deane at peter.deane@anu.edu.au.