

WELCOME

Dear I2S News subscribers,

As 2014 draws to an end, we are pleased to send you a bumper issue of I2S News with more featured tools and journals than usual.

We are also delighted to report that I2S now has a YouTube channel (<https://www.youtube.com/user/i2sTalks>) which features the videos from the 2013 First Global Conference on Research Integration and Implementation. We feature one (sometimes two) of these videos in each I2S News and, correspondingly, on the I2S website (<http://i2s.anu.edu.au/>) homepage.

Gabriele Bammer and Peter Deane

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FEATURED TOOLS

Collaboration and Team Science: A Field Guide

Bennett, L. M., Levine-Finley, S. and Gadlin, H. (2013). Collaboration and team science: a field guide, digital poster #613, from the First Global Conference on Research Integration and Implementation 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/613> (viewed November 2014)).

This field guide covers "things the team leader(s) and participants can actively do to tend to the needs of the team." Topics covered include dealing with threats to individual power, autonomy and status that collaborations introduce; building trust; putting together a team; creating a shared vision; setting expectations; getting and sharing credit; "productive collision"; conflict management; team dynamics; taking a pre-emptive approach; and fun.

Collaboration = Harnessing and Managing Difference

Bammer, G. (2013). Collaboration = harnessing and managing difference, digital poster #502, from the First Global Conference on Research Integration and Implementation 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/502> (viewed November 2014)).

The point of collaboration is to combine different skills and attributes. But collaborators do not just come with desirable differences to be harnessed. Some differences get in the way of collaboration and must be managed for the research to proceed. Whether a difference is useful or problematic depends on the particulars of the collaboration.

There are existing methods that can be drawn on to both harness and manage differences. In particular, differences must first be understood and there are methods for describing differences in personality, cultural norms, mental models, emotional intelligence, team role skills and epistemologies, which need to be compiled into useful toolkits applicable to collaborations. Dialogue methods may also be useful for harnessing and managing differences.

Collaboration Across "HASS" and "STEM" Sectors in Water Research

Sofoulis, Z. (2013). Sharing tips on cross-disciplinary collaborations in the water sector, digital poster #781, from the First Global Conference on Research Integration and Implementation 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/781> (viewed November 2014)).

Shares tips for collaboration between HASS (Humanities, Arts and Social Science) and STEM (Science, Technology, Engineering and Medicine/Mathematics) sectors based on experience undertaking research on water-related issues. Provides an analogy with marriage-like relationships, starting with "blind to the faults, keen on the charms", moving on to dealing with differences and

conflicts, accepting each other's imperfections and, finally, maintaining commitment to the relationship and its co-creations/outcomes. A range of tips, especially to help HASS researchers create a more equal partnership, are provided.

Collaboration: Tools for Pre-empting Discord

Gadlin, H. and L. M. Bennett (2013). Tools for pre-empting discord, digital poster #628, from the First Global Conference on Research Integration and Implementation 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/628> (viewed November 2014)).

There are four major areas where complications arise in collaborative research: expectations, assumptions, standards and values, and work habits. Topics covered include:

- communicate early and often to pre-empt conflict
- develop agreements - collaborative research agreements or prenuptials, offer letters and pre-tenure agreements, "welcome to my team" letters
- communicating
- encouraging others to speak up
- active listening
- developing a shared vision.

Collaboration: Individual Competencies for Interdisciplinary Research

Holt, V. (2013). Graduate education to facilitate interdisciplinary research collaboration: identifying individual competencies and developmental learning activities, digital poster #759, from the First Global Conference on Research Integration and Implementation 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/759> (viewed November 2014)).

Individual competencies for research collaboration were identified using a Delphi method which drew on expert opinion. Twenty-four competencies were identified in the following five clusters:

- intrapersonal, including broad intellectual curiosity and an open mind
- disciplinary awareness and exchange, including assumptions, limitations and contributions of own and other disciplines
- processes of integration, including integration of concepts and methods from multiple disciplines and developing interdisciplinary frameworks
- teamwork, management and leadership, including building trust and managing conflict
- "competencies of fruition", including presenting and publishing with scholars from other disciplines.

Scenarios Plus Improved Measurement and Reaction are Better than Common Sense for Dealing with Complex Problems

This 75 minute video describes the problems with relying on common sense to deal with complex problems, as well as how to improve responses by optimising prediction using scenarios, and improved measurement and reaction. It also shows how social scientists are capitalising on the power of the internet for improving understanding of prediction.

Talk titled "The Myth of Common Sense: Why Everything that Seems Obvious Isn't" by Duncan Watts, given at the Santa Fe Institute in 2012 about his book "Everything is Obvious: How

Common Sense Fails Us." Watch on YouTube at: <http://youtu.be/EF8tdXwa-AE> (viewed November 2014)

For these and more methods, such as

- Mapping Political Context: A Toolkit for Civil Society Organisations

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

FEATURED VIDEO

Expert Judgment in Risk Analysis by Mark Burgman

This presentation outlines the fundamentals of risk perception and their implications for assessing and making decisions under uncertainty. It describes experiments that evaluate the relationship between an expert's status and their ability to estimate uncertain facts. It describes procedures that improve the accuracy and conditioning of expert estimates of facts. Finally, it outlines the results of a four year experiment organised by Intelligence Advanced Research Projects Activity (IARPA) in which participants predicted the outcome of various geopolitical events. The results highlight the benefits of structured question formats and structured group interactions for getting relatively high quality judgements out of experts.

This 30 minute video "Expert Judgment in Risk Analysis" presented by Mark Burgman was a plenary talk at the First Global Conference on Research Integration and Implementation on 8 September 2013. Watch on YouTube at: <http://youtu.be/RpcsYWlxbOU> (viewed November 2014).

RECENT LINKEDIN GROUP POSTS AND DISCUSSIONS

The LinkedIn Global Network for Research Integration and Implementation has recently featured:

- Information about two free webinars on "Simulation as a Tool to Inform Health Policy". The focus is on models to enhance decision making. Although the webinar dates have passed, archived versions will be made available. The first ("Introduction to Health Systems Simulation for Policy") is already online at: <http://www.academyhealth.org/Training/ResourceDetail.cfm?ItemNumber=14458> (viewed November 2014).
- Lewe Atkinson pointed to his blog about 12 common mistakes in strategic execution and also advertised a workshop series "Reinventing Strategic Planning to Strategic Management - The Systems Thinking Approach to Effective Strategic Planning", which has also now passed.
- Bob Dick advertised the recently passed 2014 ALARA (Action Learning Action Research Association) conference.

FEATURED JOURNALS

Journal of Public Deliberation

The *Journal of Public Deliberation* aims to "synthesize the research, opinion, projects, experiments and experiences of academics and practitioners in the emerging multi-disciplinary field of deliberative democracy ... to help improve future research endeavors in this field and aid in the

transformation of modern representative democracy into a more citizen friendly form." It publishes some papers relevant to I2S, especially on dialogue. For example relevant papers published in 2013 covered: stakeholder and citizen roles, dialogue moderation and employment of boundary objects.

- Website: <http://www.publicdeliberation.net/jpd/> (viewed November 2014)
- Impact factor: N/A

New Water Policy and Practice Journal

New Water Policy and Practice Journal (NWPP) is a "platform for the world's emerging water leaders and thinkers". Launched in 2014 it is committed to dealing with methodological as well as substantive issues. The inaugural issue had an invited opinion piece on "the importance of documenting and communicating methods used in interdisciplinary research and in research implementation." This is a free online journal.

- Website: <http://www.ipsonet.org/publications/open-access/water-policy-main> (viewed November 2014).
- Impact factor: N/A

Interdisciplinary Science Reviews - Special Issue on Transdisciplinary Environmental Science: Problem-oriented Projects and Strategic Research Programs

This special issue showcases how a program-oriented research organisation does transdisciplinary research. The organisation is the Helmholtz Centre of Environmental Research — UFZ in Germany. This centre has a mix of natural and social scientific research projects that provide a range of case examples of transdisciplinary research and interdisciplinary collaboration, both successful and unsuccessful, which are discussed in the special edition. "Issues and themes discussed range from the assessment of major research programs dealing with contaminated site management, the governance of large transdisciplinary environmental research projects, challenges for classical nature conservation and biodiversity research, urban and regional perspectives on sustainability issues, alternative energy systems, collaborative processes in integrated water resources management research, as well as climate change."

The Helmholtz Association, of which the Helmholtz Centre of Environmental Research is a part, is Germany's largest scientific research organization with a mission focused on the grand challenges of society and science as directed through problem-oriented strategic programs.

- Interdisciplinary Science Reviews special issue details (Volume 39, Issue 4: December 2014):
 - <http://www.maneyonline.com/toc/isr/39/4> (viewed November 2014)
- Journal homepage:
 - <http://www.maneyonline.com/loi/isr> (viewed November 2014)

For these and more journals, such as

- Frontiers in Ecology and Environment
- International Journal of Social Research Methodology

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

FEATURED NETWORK

Australasian Implementation Network

Australasian Implementation Network aims to engage participants in the health, education and social services sectors in supporting the growth of implementation science. The AIN has a focus on:

- "Sharing practice and research knowledge about implementation science
- Promoting broader awareness and understanding of implementation science
- Linking implementation expertise across networks, regions and sectors locally and internationally
- Offering opportunities to generate knowledge (research) about implementation".

AIN membership is free. The AIN was established in 2014.

- Website: <http://implementationaustralasia.net/> (viewed November 2014)

For this and more professional associations & networks, such as

- Society for Human Ecology

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

FEATURED COURSE

Global Environmental Policy Programme: Executive Summer School (ESS) on Global Environmental Policy

"The main objective of the Executive Summer School is to provide professionals with a broad training programme in order to bridge the common gap between scientific knowledge and professional expertise related to core environmental themes. The modules provide an intensive immersion in the latest political and scientific issues on the global environmental agenda. They link the scientific knowledge and practical negotiation techniques relevant to the development and implementation of both legal and voluntary international agreements. Beyond enlarging each participant's knowledge base, the ESS is designed to enhance concrete decision-making, problem-solving and negotiation skills."

- Date: 30 August - 11 September 2015 in Geneva, Switzerland (deadline for applications is 30 April 2015)
- Website: <http://www.unige.ch/gepp/index.html> (viewed November 2014)
- Brochure: <http://www.unige.ch/formcont/GEPP-school/GEPP-2015.pdf> (viewed November 2014)

FEATURED CONFERENCES AND WORKSHOPS

Global Implementation Conference: Implementation for Impact

"The 3rd Biennial Global Implementation Conference will focus on the role of implementation for Large Scale Social Impact.

After having focused on the “What” of implementation – what it is, who is involved, what needs to be done etc., at the GIC 2011, and on the “How?” of implementation – how it is done, what tools can be used to support it etc., at the GIC 2013, the core of the interest for the 2015 Dublin Conference is the impact of implementation.

The goal of the GIC 2015 is to bring key stakeholders together around a common agenda focused on building the implementation capacity of organizations and systems to create collective and social impact. Achieving collective and social impact will require a systematic approach to: 1) develop shared objectives for creating contexts hospitable to evidence-based programs and innovations; and 2) build the capacity of key stakeholder groups to develop and institutionalize the infrastructure needed for the full and effective use of innovations. Both transformative and incremental changes will need to be made by key stakeholder groups – funders, policy-makers, program developers, researchers, and service providers – in order to coproduce the visible infrastructure needed to support effective implementation of evidence-based programs and innovations.

The conference is aimed at: implementation practitioners, organizational leaders, administrators, researchers, policy developers, consultants in intermediary roles and others with an interest in implementation research and science”.

The focus of the conference is on the following areas:

- “Scaling and Capacity Development for Social Impact
- Shared Measurement Systems and Rapid Results
- Working together to develop the Implementation Infrastructure
- Communication and Knowledge Capture
- Regional, National, and Global Implementation Collaboration”.

The conference will be held in Dublin, Ireland, over 26-28 May 2015.

For further details, please see:

- Conference website: <http://globalimplementation.org/> (viewed November 2014)

Workshop on Investigating Interdisciplinary Practice: Methodological Challenges

This workshop will focus upon discussing methodological and conceptual resources required to understand interdisciplinary research in action. “The Workshop will bring together scholars from the broad range of humanities and social sciences studying scientific practice and culture [and contributions are sought that cover] distinct methodological perspectives – both empirical and theoretical – on interdisciplinarity in science. Examples are analytic, ethnographic, social epistemological, scientometric, discourse analytic, and historical perspectives.

The central objectives of the workshop are:

- To create an awareness for affordances and limitations of the respective approaches.
- To explore opportunities for combining approaches toward developing a more comprehensive understanding of interdisciplinary practice in its different configurations and characteristics”.

The workshop will be held in Helsinki, Finland, over 15-17 June 2015.

For further details, please see:

- Flyer: http://www.helsinki.fi/tint/materials/CfP_ID-Workshop_TINT_UHelsinki_June2015_Poster-1.pdf (viewed November 2014)
- Deadline for submissions (from the above PDF): 15th January 2015
 - Submissions portal: <https://easychair.org/conferences/?conf=idworkshop2015> (viewed November 2014)

Podcasts available from the 2014 2nd Biennial Australian Implementation Conference

Video, audio and slides are now available from the 2014 2nd Biennial Australian Implementation Conference (AIC) held in Sydney, Australia on 16-18 September 2014. There are 7 conference opening, keynote and closing podcasts, 58 general session podcasts and 27 poster presentation podcasts available to browse through via the Mediavisionz website at:

<http://www.mediavisionz.com.au/aracy/2014/aic/> (viewed November 2014).

Other Upcoming Conferences

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

Interdisciplinarity, Transdisciplinarity and Action Research Methodologies

- 27-29 November 2014, From Interdisciplinarity to Transdisciplinarity: Rethinking Research Today in Social Sciences and the Humanities, Paris, France (<http://www.eaas.eu/conferences/other-conferences/from-interdisciplinarity-to-transdisciplinarity-rethinking-research-today-in-social-sciences-and-the-humanities>)
- [**NEW**] 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)

Systems, Modelling and Simulation

- 7-10 December 2014, Winter Simulation Conference: Exploring Big Data Through Simulation, Savannah, United States of America (<http://wintersim.org/2014/>)
- 5-8 January 2015, 48th Hawaii International Conference on System Sciences (HICSS 48), Kauai Island, United States of America (<http://kholden7.wix.com/hicss>)
- 12-13 February 2015, 6th International Conference on Computer Modelling and Simulation, Amsterdam, The Netherlands (<http://www.iccms.org/>)
- 27-29 April 2015, Systems Engineering and Test and Evaluation Conference (SETE 2015), Canberra, Australia (<http://www.sete2015.com.au/>)
- 10-13 May 2015, International Choice Modelling Conference, Austin, United States of America (<http://www.icmconference.org.uk/index.php/icmc/icmc2015>)
- 26-29 May 2015, 29th European Conference on Modelling and Simulation (ECMS 2015), Varna, Bulgaria (<http://www.scs-europe.net/conf/ecms2015/aims.html>)
- [**NEW**] 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/>)
- 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>)

- [NEW] 20-15 October 2015, Systems Thinking in Action Conference, Washington DC, United States of America (<http://conference.stiatemenos.com/stia2015/>)
- 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>)

Team Science and Project Management

- [NEW] 11-13 May 2015, Project Management Institute (PMI) Global Congress 2015, London, United Kingdom (<http://www.pmi.org/Learning/professional-development/Congress-PMI-Global-Congresses/EMEA-2015.aspx>)
- 23-25 July 2015, 10th Annual INGRoup Conference, Pittsburgh, United States of America (<http://www.ingroup.net/conference.html>)

Uncertainty, Risk and Decision Making

- 7-10 December 2014, Society for Risk Analysis 2014 Annual Meeting, Denver, United States of America (<http://www.sra.org/events/sra-2014-annual-meeting>)
- [NEW] 8-10 April 2015, European Sociological Association's (ESA) Risk and Uncertainty Research Network 22 - mid-term conference: Risk, Uncertainty and Transition, Stuttgart, Germany (<http://www.sraeurope.org/filehandler.ashx?file=13565>)
- [NEW] 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>)
- [NEW] 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

- 8-9 December 2014, 7th Annual Conference on the Science of Dissemination and Implementation: Transforming Health Systems to Optimize Individual and Population Health, North Bethesda, United States of America, (<http://sites.nursing.duke.edu/research/2014/06/09/7th-annual-dissemination-and-implementation-conference/>)
- [NEW] 26-28 May 2015, Global Implementation Conference: Implementation for Impact, Dublin, Ireland (<http://globalimplementation.org/>)

Other (including Sustainability Science)

- 27-28 November 2014, 5th International Conference on Future-Oriented Technology Analysis, Brussels, Belgium (<https://ec.europa.eu/jrc/en/event/conference/engage-today-shape-tomorrow>)
- 3-5 December 2014, Australian and New Zealand Academy of Management (ANZAM) Conference: Reshaping Management for Impact, Sydney Australia (<http://www.anzam.org/events/anzam-2014-conference-uts-sydney/>)
- 23-24 February 2015, 11th International Conference on Technology, Knowledge, and Society: Big Data and the Politics of Participation in a Digital Age, Berkeley, United States of America (<http://techandsoc.com/the-conference/call-for-papers>)
- 27-30 May 2015, 7th International Conference for the Humanities, Arts, Science, and Technology Alliance and Collaboratory (HASTAC): Art and Science of Digital Humanities, East Lansing, United States of America (<http://www.hastac2015.org/>)
- 29 June - July 2 2015, 8th World Environmental Education Congress: Planet and People - How Can They Develop Together? Hobart, Australia (<http://aaee2014.com.au/>)

- [NEW] 30 June - 3 July 2015, 11th International Conference of the European Society for Ecological Economics: Transformations, Leeds, United Kingdom (<http://www.esee2015.org/>)

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) or case studies 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 methodological 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>.

Other useful links:

- I2S website: <http://i2s.anu.edu.au>
- I2S on YouTube: <https://www.youtube.com/user/i2sTalks>

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