

## WELCOME

Dear I2S News subscribers,

Welcome to the September/October I2S News. We're pleased to announce that Integration and Implementation Sciences (I2S) has a newly upgraded and updated website (<http://i2s.anu.edu.au>). We've completely revamped the home page and the resources pages, so that tools, case studies, relevant journals, and professional associations and networks are easier to scan and access. We'd love to receive your feedback and contributions. And, to remind you, each bi-monthly I2S News lets you know about the new resources added to the website.

Gabriele Bammer and Peter Deane

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## FEATURED TOOLS

### Unknowns: An Overview

Smithson, M. (2013). Integrating unknowns, digital poster #503 from the First Global Conference on Research Integration and Implementation held in Canberra, Australia, online and at three co-conferences (Lueneburg in Germany, The Hague in the Netherlands and Montevideo in Uruguay) 8-11 September, 2013. (Online: <http://i2sconference.digitalposter.com.au/posters-list/503> (viewed September 2014)).

This overview of unknowns provides a portal to many topics, including how different disciplines and domains perceive unknowns, the socially constructed nature of unknowns, the diversity of unknowns, distinguishing between unknowns, metaphors and unknowns, morals and unknowns, and managing unknowns. It is primarily a portal to the work of Michael Smithson, but references the research and thinking that he has drawn on over the last 25 years.

## Feedback Loops, Unexpected Events and Complex Systems

Fulton, B. (2013). Anticipating the unexpected, digital poster #687 from the First Global Conference on Research Integration and Implementation held in Canberra, Australia, online and at three co-conferences (Lueneburg in Germany, The Hague in the Netherlands and Montevideo in Uruguay) 8-11 September, 2013. (Online: <http://i2sconference.digitalposter.com.au/posters-list/607> (viewed September 2014)).

Describes the importance of feedback loops and how they can cause unexpected events in complex systems, using marine multiple use management as an example.

### For more methods, such as

- Policy Engagement Techniques

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

## FEATURED VIDEO

### Integration and Implementation Sciences (I2S): An Introduction by Gabriele Bammer

This is a webcast from the *1st Global Conference on Research Integration and Implementation*, held in Canberra, Australia, online and at three co-conferences (Lueneburg in Germany, The Hague in the Netherlands and Montevideo in Uruguay) 8-11 September, 2013.

- Access to this video can be obtained via the website of the First Global Conference on Research Integration and Implementation: <http://www.i2sconference.org/> (click the purple ON-DEMAND VIDEO button on the right menu - a simple sign-up is required to view the video material).

This video "Combining Forces A New Discipline to Underpin Diverse Approaches to Research Integration and Implementation" presented by Gabriele Bammer was the opening keynote address at the First Global Conference on Research Integration and Implementation on 8 September 2013.

Proposes that a new discipline – Integration and Implementation Sciences (I2S) – could provide a systematic way to allow people to effectively mix-and-match concepts and methods from systems thinking, inter- and trans-disciplinarity, implementation science, team science, complexity science and other approaches to more effectively deal with complex real-world problems? The three domains of I2S are described, namely synthesis of disciplinary and stakeholder knowledge, understanding and managing diverse unknowns and providing integrated research support for policy and practice change, along with a five question framework that enables all aspects of these domains to be considered systematically. The five questions cover aims and beneficiaries; approaches to each domain; methods for knowledge

synthesis, understanding and managing unknowns, and providing integrated research support; context; and outcomes.

## RECENT LINKEDIN GROUP POSTS AND DISCUSSIONS

Why common sense doesn't work for complex problems:

<https://www.youtube.com/watch?v=EF8tdXwa-AE#t=10> (viewed September 2014). This 2012 You Tube video by Duncan Watts is a talk given at the Santa Fe Institute about his book "Everything is obvious: how common sense fails us." He deals with the problems with common sense in detail, as well as how to improve responses to complex problems by optimising prediction using scenarios, and improved measurement and reaction. He shows how social scientists are capitalising on the power of the internet for improving understanding of prediction.

## FEATURED JOURNAL

### Action Research

*Action Research* is "a forum for the development of the theory and practice of action research" and publishes "accounts of action research projects, explorations in the philosophy and methodology of action research, and considerations of the nature of quality in action research practice." The journal's purpose is "to offer a forum for participative, action oriented inquiry into questions that matter – questions relevant to people in the conduct of their lives, that enable them to flourish in their organizations and communities, and that evince a deep concern for the wider ecology."

- Website: <http://arj.sagepub.com/> (viewed: September 2014).
- Impact factor (2013): 0.422

### For more journals, such as

- Group Dynamics
- Kybernetes

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

## FEATURED ASSOCIATION

### Project Management Institute

Project Management Institute (PMI) is a "professional membership association for the project, program and portfolio management profession." It focuses on "global advocacy, collaboration, education and research" and aims to mature "the profession of project management through its globally recognized standards, certifications, resources, tools, academic research, publications, professional development courses, and networking opportunities. As part of the PMI family, Human Systems International (HSI) provides organizational assessment and benchmarking services to ... businesses and government, while ProjectManagement.com and ProjectsAtWork.com create online global communities that deliver more resources, better tools, larger networks and broader perspectives."

The association provides a variety of resources (some only for members), an extensive networking platform, a certification process, and a variety of publications and professional development opportunities. The association was founded in 1969 and has offices which cover the Americas; Europe, Middle East and Africa; Asia-Pacific; India and China.

- Website: <http://www.pmi.org/> (viewed: September 2014).

#### **For more professional associations & networks, such as**

- Theory of Change

See: [http://i2s.anu.edu.au/resources/associations\\_networks](http://i2s.anu.edu.au/resources/associations_networks)

## **FEATURED CONFERENCES**

### **5<sup>th</sup> World Congress on Social Simulation (WCSS 2014)**

WCSS 2014... "aims to bring together researchers and practitioners from diverse fields with an interest in social simulations, either in theoretical, experimental, practical or technical context, and to present the results of recent research in the area. Focusing on a better understanding of complex social problems, and gathering scholars from various fields such as computing, social sciences, economics, social psychology, among others, the topics discussed at the event include issues related to the act of modeling a variety of research scenarios related to social simulations, in particular emerging phenomena. The main objective of [the Congress], which occurs in Brazil and South America for the first time, is integrating researchers and students [and to promote] the activities of the various research groups in Brazil, enabling the exchange of knowledge and experiences".

The conference will be held in Sao Paulo, Brazil, over 4-7 November 2014.

For further details, please see:

- Conference website: <http://www.wcss2014.pcs.usp.br/> (viewed: September 2014)

### **Society for Risk Analysis 2014 Annual Meeting**

"The theme of the meeting is *Risk Analysis: The Common Denominator*, using the risk analysis framework and risk-related tools to evaluate and solve complex or divisive environmental and public health issues, such as hydraulic fracturing, legalized marijuana use, and natural disasters (like the recent Colorado floods). Special emphasis will also be placed on the better integration of environmental, community, and occupational risk assessment methods and approaches".

The conference will be held in Denver, Colorado, United States of America, over 7-10 December 2014.

For further details, please see:

- Conference website: <http://www.sra.org/events/sra-2014-annual-meeting> (viewed: September 2014)

## Other Upcoming Conferences

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

### **Interdisciplinarity, Transdisciplinarity and Action Research Methodologies**

- 15-19 October 2014, Association for Interdisciplinary Studies (AIS) Conference: Interdisciplinary Public Problems, the Global Community, and Diversity, East Lansing, United States of America (<http://lbc.msu.edu/aisconference2014/>)
- 31 October – 1 November 2014, Collaborative Action Research Network (CARN) Annual Conference: Connecting Researchers, Connecting Communities - Engaging with Action Research approaches in different settings, Gateshead, United Kingdom (<http://www.esri.mmu.ac.uk/carn-conference/>)
- 8-12 November 2014, Action Learning, Action Research Association (ALARA) Australasian Conference, Lake George, Australia (<http://www.alarassociation.org/pages/events/alara-2014-australasian-conference-announcement>)
- 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**] 23-25 July 2015, 10<sup>th</sup> Annual INGRoup Conference, Pittsburgh, United States of America (<http://www.ingroup.net/conference.html>)

### **Systems, Modelling and Simulation**

- 22-24 October 2014, 28<sup>th</sup> European Simulation and Modelling Conference (ESM'2014), Porto, Portugal (<http://www.eurosis.org/cms/?q=node/2852>)
- 4-7 November 2014, 5<sup>th</sup> World Congress on Social Simulation (WCSS 2014), Sao Paulo, Brazil (<http://www.wcss2014.pcs.usp.br/>)
- 12-14 November 2014, Complex Systems Design and Management (CSD&M), Paris, France (<http://www.csdm2014.csdm.fr/>)
- 13-14 November 2014, Systems and Complexity Sciences for Healthcare, Washington DC, United States of America, (<http://complexityandhealth.georgetown.edu/>)
- 13-15 November 2014, Systems Thinking in Action Conference, Washington DC, United States of America (<http://conference.stiatemenos.com/stia2014washington-dc/>)
- 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, 48<sup>th</sup> Hawaii International Conference on System Sciences (HICSS 48), Kauai Island, United States of America (<http://kholden7.wix.com/hicss>)
- 12-13 February 2015, 6<sup>th</sup> 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, 29<sup>th</sup> European Conference on Modelling and Simulation (ECMS 2015), Varna, Bulgaria (<http://www.scs-europe.net/conf/ecms2015/aims.html>)
- [**NEW**] 19-23 July 2015, 33<sup>rd</sup> International Conference of the System Dynamics Society, Cambridge, Massachusetts, United States of America (<http://conference.systemdynamics.org/>)

- [NEW] 3-7 August 2015, 59<sup>th</sup> 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>)
- 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**

- 23-25 October 2014, European Association of Work and Organizational Psychology (EAWOP) Small Group Meeting: Dynamics of Team Cognition and Team Adaptation, Lisbon, Portugal (<http://eawop.org/news/eawop-small-group-meeting-on-dynamics-of-team-cognition-and-team-adaptation>)

### **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>)
- 19-23 July 2015, World Congress on Risk: Risk Analysis for Sustainable Innovation, Singapore (<http://www.sra.org/worldcongress2015>)

### **Bridging the Gap from Research to Policy and Practice**

- 8-9 December 2014, 7<sup>th</sup> 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/>)

### **Other (including Sustainability Science)**

- 9-12 October 2014, 28<sup>th</sup> Annual Conference for the Society for Literature, Science and the Arts: Fluid, Dallas, Texas (<http://litsciarts.org/slsa14/>)
- 10-11 October 2014, 6<sup>th</sup> International Conference on Science in Society: The Identities of Science, Vancouver, Canada (<http://science-society.com/the-conference>)
- 22-25 October 2014, XX International Conference of the Society for Human Ecology: Ecological Responsibility and Human Imagination - Saving the Past~Shaping the Future, Bar Harbor, United States of America (<http://www.sustainability.sk/aim-topics/>)
- 23-26 October 2014, 11<sup>th</sup> International Conference for Transformative Learning: Spaces of Transformation and Transformation of Space, New York, United States of America (<http://transformativelearning.ning.com/page/about-the-conference/>)
- 25-29 October 2014, Environment Institute of Australia and New Zealand (EIANZ) Annual Conference 2014, Hobart, Australia (<http://www.eianz.org/conference/eianz-3013-conference>)
- 31 October – 4 November 2014, 77th Association for Information Science and Technology (ASIS&T) Annual Meeting: Connecting Collections, Cultures and Communities, Seattle, United States of America (<http://www.asis.org/asist2014/>)
- 10-12 November 2014, Association for Qualitative Research (AQR) with Discourse, Power, Resistance (DPR) Collaborative International Conference - Fugitive Knowledges / Practices, Toowoomba, Australia (<http://aqr.org.au/conference-2014/>)
- 27-28 November 2014, 5<sup>th</sup> 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, 11<sup>th</sup> 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, 7<sup>th</sup> 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, 8<sup>th</sup> World Environmental Education Congress: Planet and People - How Can They Develop Together? Hobart, Australia (<http://aaee2014.com.au/>)

## ABOUT I2S NEWS

The aim of this newsletter is to provide regular (bi-monthly) updates about resources 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 concepts, methods and case studies relevant to I2S - either a useful compilation or a single example of note. We also provide information about journals, professional associations & networks, 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>.

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