I2S News

March/April 2014, #17

WELCOME

Dear I2S News subscribers,

We are just going to squeak in to get this I2S News out before the end of April. The reason we are running late is that we are working on an upgraded and redesigned website. In particular, we are re-organising how resources are presented, which is becoming increasingly important as the number of tools, cases, journals, and professional associations and networks we provide access to continues to grow. If all goes well the new website should be live by mid-year.

Gabriele Bammer and Peter Deane

CONTENTS

Featured Tool
- Trading zones and interactional expertise

Featured Toolkit
- Encyclopedia of Systems and Cybernetics

Featured Video
- Complexity Science in Action: Examples from Multiple Use Environments in Australian Coastal Zones (Beth Fulton)

Recent LinkedIn Group Posts and Discussions
- Discussions on a theoretical framework for research integration and on evaluating knowledge co-production
- Video case studies of system dynamics modelling to guide inner city revitalisation and about implementation of research evidence in tuberculosis control
- Alerts to work on cultural cognition, a review of knowledge governance for sustainability, a newspaper article on research impact, and to the International School on Research Impact Assessment.

Featured Journal
- Journal on Policy and Complex Systems

Featured Professional Association
- American Society for Cybernetics

Featured Conferences
- 5th Annual International Science of Team Science (SciTS) Conference and 5th Annual VIVO Conference
- 2nd Biennial Australian Implementation Conference (AIC): Solving Complex Implementation Problems
- Other Upcoming Conferences

About I2S News
- How to contribute, subscribe and un-subscribe

FEATURED TOOL

Trading Zones and Interactional Expertise

Gorman, M. E. (2013). Trading Zones and Interactional Expertise, digital poster #542, 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/542 (includes a video; viewed April 2014)).

The concepts of trading zones and interactional expertise provide useful ways of thinking about and improving collaborations across very different disciplinary communities, such as materials science, social psychology and ethics. The characteristics of trading zones include common language (which can range from jargon to pidgin to creole), 'goods' to be traded (such as time, resources, knowledge and skills), and boundary objects and systems. Interactional experts act as 'trade agents' and to achieve this are fluent in the language of two or more disciplines (although they can only do research in one of them).

FEATURED TOOLKIT

Encyclopedia of Systems and Cybernetics

The encyclopedia is a searchable online database of concepts that support the advancement of cybernetic and systems research and applications. Each concept is briefly explained and linked to other entries using the concept. There are more than 3,800 entries including on abstraction, complexity, decision hierarchy, emergence, feedback, gap analysis, hierarchy, interdependence, non-linear dynamics, path dependence, root definition, stakeholder analysis, and worldview. The encyclopedia is a joint project by the International Federation for Systems Research and the Institute for the Study of Coherence and Emergence.

Website: http://dev.systemspedia.org/ (viewed April 2014)

For more tools, such as
- SUPPORT Tools for Evidence-Informed Health Policymaking

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

FEATURED VIDEO

Complexity Science in Action: Examples from Multiple Use Environments in Australian Coastal Zones by Beth Fulton

Webcast from the *1st Global Conference on Research Integration and Implementation*, Canberra, Australia, online and at co-conferences in Germany, the Netherlands and 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).

Australian
National
University

The work underpinning this video was conducted with Fabio Boschetti, Randall Gray, Miriana Sporcic, Bec Gorton, Linda Thomas, Hector Lozano-Montes, Roger Scott, Jeff Dambacher and Tod Jones.

Resource managers deal with complex systems on a daily basis. The work by researchers such as Elinor Ostrom shows that it is possible to find means of sustainably exploiting natural systems and resources. Beth Fulton describes how a complexity science based toolbox, especially different types of modelling, is used in complex multiple use environments, such as the coastal zones of Australia, to examine different scenarios for sustainable fishing options. She starts by describing elements of complexity such as operating at scales from minute organisms up to areas the size of ocean basins, as well as understanding and responding appropriately to feedback. Beth describes the use of conceptual models, 'focused' models, 'toy' models, 'shuttle' models and full system models.

RECENT LINKEDIN GROUP POSTS AND DISCUSSIONS

Recent posts and discussions on the LinkedIn Group, Global Network for Research Integration and Implementation, include:

- A discussion started by Guisy Cardia on constructing a theoretical framework for research integration.
- An alert from Diego Fernandez Sevilla to work on cultural cognition.
- A discussion started by Robert Duiveman on evaluating knowledge co-production.
- Notification from Omar Sued about the International School on Research Impact Assessment.
- An alert from Lorrae van Kerkhoff about her new paper "Knowledge governance for sustainability: a review."
- An alert from Gabriele Bammer on her op ed "Developing a publication culture on research impact."
- A post from Lewis Atkinson on a video about the use of system dynamics modelling to guide inner city revitalisation in Cincinnati.
- A post from Omar Sued on a video about implementation of research evidence in tuberculosis control in Barcelona.

You do not have to be a LinkedIn member to read the discussions on LinkedIn. If you would like to contribute, but not join LinkedIn, send your comments to i2s@anu.edu.au and we'd be happy to post them for you.

FEATURED JOURNAL

Journal on Policy and Complex Systems

The *Journal on Policy and Complex Systems* is a new, open-access, peer-reviewed journal in which "researchers, policy makers, experts in relevant disciplines, and modelers can join together to offer scientifically valid and societally appropriate solutions to challenging problems facing the world today, from the perspective of systems and complexity science."

The aims of this journal are to:
- "Promote professional and public understanding of the relationship between policy studies and complex systems thinking, evolving greater understanding and engagement.
- Establish a venue for reporting results of exploring, developing, and evaluating policies using cutting edge computational approaches to policy research, including complexity theory, agent-based modeling/simulation, chaos theory, fractals, dynamical systems, and the science of networks.
- Establish a repository of data and systems developed through research efforts reported in the journal.
- Bring together a community of multi-disciplinary and inter-disciplinary scholars to address common societal concerns; including social scientists, natural scientists, computational scientists, humanists, policy analysts, public administrators, and policy makers".

Journal Number 1, Volume 1 was published in March 2014.

- Website: http://www.ipsonet.org/publications/open-access/policy-and-complex-systems (viewed: April 2014).
- Impact factor: N/A

For more journals, such as
- Translational Behavioral Medicine: Practice, Policy, Research
- Interdisciplinary Science Reviews

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

FEATURED PROFESSIONAL ASSOCIATION

American Society for Cybernetics

Founded in 1964, The American Society for Cybernetics (ASC) is focused on:
- "The advancement of cybernetics as a science, a discipline, a meta-discipline, and a practice by:
  - Systematically accreting, evaluating and disseminating knowledge about cybernetics and its applications, unconstrained by disciplinary and other boundaries.
  - Developing and refining cybernetics' concepts, ethics, models, research methods and other techniques of inquiry.
  - Applying these means to improve systems in the manner cybernetics advocates (e.g., better reflexivity, balance, autonomy, manageability and design).
  - Informing the public, educating students, sustaining practitioners, and accrediting cybernetics curricula and graduates."

The ASC holds regular conferences and provides a set of online resources and networking opportunities via their website. Membership is open to anyone interested in cybernetics.

- Website: http://www.asc-cybernetics.org/index.htm (viewed: April 2014).

For more professional associations & networks, such as
- Society for the Policy Sciences

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

FEATURED CONFERENCES

5th Annual International Science of Team Science (SciTS) Conference and 5th Annual VIVO Conference

Science of Team Science (SciTS) and VIVO are holding co-located conferences in 2014. "This collaboration provides attendees with a unique opportunity to expand and integrate their knowledge of the latest advances across these two complimentary areas of innovation in scientific research... While VIVO and SciTS will offer two primarily distinct conference programs, attendees will only pay one price to have access to all that both conferences offer".

"The Annual International Science of Team Science (SciTS) Conference is a forum to enhance our understanding of how best to engage in Team Science to meet society's needs. The SciTS Conference serves: as a point of convergence for investigators studying Science teams and Team Science leaders/practitioners; to engage funding agencies to provide guidance on developing and managing Team Science initiatives; and to afford data providers and analytics developers insight into collaboration tracking and analysis needs. In this way, the SciTS Conference acts as a bridge between the Science and the praxis of Team Science, serving as an important conduit for translating empirical findings about Team Science into evidence-based effective practices for scientific teams and funders of Team Science".

"VIVO is an open source semantic web application originally developed and implemented at Cornell. When installed and populated with researcher interests, activities, and accomplishments [at an institution], it enables the discovery of research and scholarship across disciplines at that institution and beyond... The VIVO conference is an excellent opportunity to meet with VIVO team members from participating institutions, and offers an open and collaborative environment to share ideas and discuss topics related to adoption and implementation of VIVO, VIVO-based tools and the opportunities created by advancing data sharing and team science".

The co-located conferences will be held in Austin, Texas, United States of America on 6-8 August 2014.

For further details, please see:
- SciTS website: http://www.scienceofteamscience.org/ (viewed: April 2014)
- VIVO conference website: http://vivoconference.org/ (viewed: April 2014)
- VIVO home website: http://www.vivoweb.org (viewed: April 2014)

2nd Biennial Australian Implementation Conference (AIC): Solving Complex Implementation Problems

The 2nd Biennial Australian Implementation Conference provides an "...opportunity for researchers, policymakers, practitioners, and community and organisational leaders working in the health, education and human services sectors to come together to share their knowledge, insights and practical experiences on how policies, programs and practices can best be implemented so as to most effectively make a real, positive and enduring impact on people's lives.

The aim of Conference is to:
- promote a shared understanding across sectors and disciplines of the principles and processes of effective implementation to enable policy, program and practice initiatives to achieve their goals
- integrate knowledge across disciplines and professions towards developing a common language, frameworks and measures to guide and support implementation across research, policy and practice sectors
- provide a forum for sharing the latest research in implementation science and for exchanging practical strategies and frameworks that will best support effective implementation
- increase knowledge and build capacity in the application of the principles and processes of effective implementation
- build networks and strengthen collaboration across disciplines and professions in advancing the science of implementation
- strengthen the evidence base for better translation of evidence and its effective implementation in Australia."

The conference will be held in Sydney, Australia on 17-18 September 2014, with workshops on 16 September.

For further details, please see:
- Website: http://www.ausimplementationconference.net.au/ (viewed: April 2014)
- Important dates:
    o May 4, 2014: abstract deadline

Other Upcoming Conferences

Because of our time constraints new conferences have not been added in this I2S News.

Interdisciplinarity, Transdisciplinarity and Action Research Methodologies
- 15-17 July 2014, Transfusion and Transformation: the Creative Potential of Interdisciplinary Knowledge Exchange, Durham, United Kingdom, (https://www.dur.ac.uk/ias/2014conference/)
- 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)

Systems, Modelling and Simulation
- 27-30 May 2014, 28th European Conference on Modelling and Simulation (ECMS 2014), Cancun, Mexico (http://www.scs-europe.net/conf/ecms2014/index.html)
- 27-30 May 2014, Conference of the American Society for Cybernetics: Living in Change, Washington D.C., United States of America (http://asc-cybernetics.org/2014/)
- 7-10 June 2014, 7th Chaotic Modeling and Simulation International Conference, Lisbon, Portugal (http://www.cmsim.org/chaos2014.html)
- 9-13 June 2014, 9th Annual Systems of Systems Engineering Conference: The Socio-technical Perspective, Adelaide, Australia (http://sosengineering.org/2014/)
- 23-25 June 2014, Nostradamus 2014: International Conference on Prediction, Modeling and Analysis of Complex Systems, Ostrava, Czech Republic (http://nostradamus-conference.org/Home.html)

- 30 June - 3 July 2014, International Council on Systems Engineering (INCOSE) International Symposium, Las Vegas, United States of America (http://www.incose.org/symp2014/)
- 7-11 July 2014, 22nd Conference on User Modeling, Adaptation and Personalization, Aalborg, Denmark (http://www.um.org/umap2014/)
- 20-24 July 2014, 32nd International Conference of the System Dynamics Society: Good Governance in a Complex World, Delft, The Netherlands (http://conference.systemdynamics.org/)
- 27 July-1 August 2014, 58th Meeting of the International Society for the Systems Sciences: Learning Across Boundaries: Exploring the Variety of Systemic Theory and Practice, New York, United States of America (http://isss.org/world/isss-2014-announcement)
- 1-5 September 2014, 10th Conference of the European Social Simulation Association, Barcelona, Spain (http://www.essa2014.org/)

Team Science and Project Management
- 5-7 May 2014, Project Management Institute (PMI) Global Congress, Dubai, United Arab Emirates (http://www.pmi.org/Professional-Development/Congress-PMI-Global-Congresses/EMEA-2014.aspx)
- 4-7 July 2014, International Association for Conflict Management 2014 Conference, Leiden, The Netherlands (http://www.iacm-conflict.org/)
- 17-19 July 2014, 9th Annual INGRoup Conference, Raleigh, United States of America (http://www.ingroup.net/conference.html)
- 27-29 July 2014, Project Management Institute (PMI) Research and Education Conference: Standing on the Shoulders of Giants - In Search of Theory and Evidence, Portland, United States of America (http://www.pmi.org/Knowledge-Center/Academic-Research/research-conference.aspx)
- 6-8 August 2014, Joint 5th Annual International Science of Team Science (SciTS) Conference and 5th Annual VIVO Conference, Austin, United States of America (http://www.scienceofteamscience.org/)

Uncertainty, Risk and Decision Making
- 16-18 June 2014, 23rd Annual Conference of the Society for Risk Analysis Europe: Analysis and Governance of Risks Beyond Boundaries, Istanbul, Turkey (http://www.sraeurope.org/home.aspx?pag=1252)
- 13-19 July 2014, Thematic Group on Sociology of Risk and Uncertainty (TG04) at the XVIII International Sociological Association (ISA) World Congress of Sociology: Facing an Unequal World - Challenges for Global Sociology, Yokohama, Japan (http://www.isa-sociology.org/congress2014/tg/tg.php?n=TG04)
- 14-18 July 2014, 12th World Meeting of the International Society for Bayesian Analysis, Cancun, Mexico (http://isba2014.eventos.cimat.mx/)
- 15-19 July 2014, 15th International Conference on Information Processing and Management of Uncertainty in Knowledge-Based Systems, Montpellier, France (http://www.ipmu2014.univ-montp2.fr/)
- 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)

Bridging the Gap from Research to Policy and Practice
- 17-18 September 2014, 2nd Biennial Australian Implementation Conference: Solving Complex Implementation Problems, Sydney, Australia (http://www.ausimplementationconference.net.au/)

Other (including Sustainability Science)

- 4-8 May 2014, 3rd International Science and Policy Conference on the Resilience of Social and Ecological Systems, Montpellier, France, (http://www.resilience2014.org/)
- 5-6 May 2014, Science and Technology Studies Conference 2014: Critical Issues in Science and Technology Studies, Graz, Austria (http://www.ifz.tugraz.at/ias/IAS-STS/Upcoming-Activities/STS-Conference-Graz-2014)
- 8-13 June 2014, 20th International Symposium on Society and Resource Management (ISSRM): Challenges of Urban and Rural Transformation, Hannover, Germany (http://www.issrm2014.iasnr.org/)
- 11-13 June 2014, 9th International Conference on Interdisciplinary Social Sciences, Vancouver, Canada (http://thesocialsciences.com/the-conference/call-for-papers)
- 18-20 June 2014, 20th Annual International Sustainable Development Research Conference (ISDRC20): Just Transitions, Trondheim, Norway (http://isdrs.org/2014-norway/)
- 26-28 June 2014, The 3rd International Conference on Transdisciplinary Imaging at the Intersections of Art, Science and Culture: Cloud and Molecular Aesthetics, Istanbul, Turkey (http://blogs.unsw.edu.au/tiic/)
- 11-13 July 2014, World Future 2014: What If, Orlando, United States of America (http://www.wfs.org/worldfuture-2014-what-if)
- 16-20 July 2014, Society for Values in Higher Education (SVHE) 2014 Conference: Minding the Gap – Educating for Economic Justice, Minneapolis-St Paul, United States of America (http://www.svhe.org/calendar.html)
- 18-21 July 2014, International Association for Critical Realism (IACR) Conference: From the Anatomy of Global Crisis to the Ontology of Human Flourishing, London, United Kingdom (http://www.ioe.ac.uk/research/91143.html)
- 4-5 August 2014, 14th International Conference on Knowledge, Culture, and Change in Organizations, Oxford, United Kingdom (http://ontheorganization.com/the-conference/call-for-papers/2014-call-for-papers)
- 9-12 October 2014, 28th Annual Conference for the Society for Literature, Science and the Arts: Fluid, Dallas, Texas (http://litsciarts.org/slsa14/)
- 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/)

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 findings about new tools 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/i2s-publications/newsletters/i2s-news.

To subscribe or unsubscribe to the newsletter go to "I2S Updates" 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.