I2S News

May/June 2016, #30

Australian National University

WELCOME

Welcome to the May/June I2S News, where we highlight new additions to the resources on the I2S website (http://i2s.anu.edu.au), as well as the latest blog posts published on the Integration and Implementation Insights blog (http://I2Insights.org). As always, we welcome contributions and feedback.

Gabriele Bammer and Peter Deane

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FEATURED TOOLS

Stakeholder analysis: the alignment, interest and influence matrix

This tool aims to identify the primary stakeholders, as well as suggesting how best to interact with them. It was developed to influence policy in development settings and is usually conducted as a group process with diverse participants, who have insights into different aspects of the policy and the relevant key players. It involves a five-step process.

Step 1. Identify the main stakeholders.

Step 2. Map the stakeholders onto a matrix according to their level of alignment and interest (each rated high or low). Think about the relative positioning of stakeholders in the same quadrant and record the reasons for the position allocated.

To determine alignment ask the following questions: "Do they agree with our approach? Do they agree with our assumptions? Do they want to do the same things that we think need to be done? Are they thinking what we are thinking?"

To determine interest ask the following questions: "Are they committing time and money to this issue? Do they want something to happen (whether it is for or against what we propose)? Are they going to events on the subject? Are they publicly speaking about this?"

Step 3. Consider what to do, for example:
High alignment and high interest – develop an alliance or community of practice
High alignment and low interest – raise awareness of the issue and its importance
Low alignment and high interest – try to change their minds or neutralise their influence.

Step 4. Prioritise by identifying those who are most influential and accessible.

Step 5. Develop a "pathway of change" for target stakeholders, describing specific changes in behaviour that you would like to achieve.

- Reference: Mendizabal, E. (2010). *The Alignment, Interest and Influence Matrix (AIIM) Toolkit*. Research and Policy in Development (RAPID), Overseas Development Institute (ODI): London, UK. URL: https://www.odi.org/publications/5288-stakeholder-engagement-stakeholder-analysis-aiim-alignment-interest-influence-matrix-roma
- Video: A video of a workshop demonstrating the use of this tool is provided at: http://i2s.anu.edu.au/resources/policy-entrepreneur-tools-rapid-alignment-interest-and-influence-matrix.
    - In this video, the following general principles are provided for Step 3:
        - High alignment and high interest – learn in partnership
        - High alignment and low interest – develop enthusiasm to address topic
        - Low alignment and high interest – challenge existing beliefs
        - Low alignment and low interest – develop awareness and enthusiasm.

Stakeholder analysis: power, legitimacy and urgency

The aim of this analysis is to determine "who or what really counts". Although developed in a business context, the analysis has broader relevance.

Power, legitimacy and urgency are defined as follows:
- *Power:* "A relationship among social actors in which one social actor, A, can get another social actor, B, to do something that B would not have otherwise done." The bases for power can be "Coercive-force/threat", "Utilitarian-material/incentives" and/or "Normative-symbolic influences".
- *Legitimacy:* "A generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values,

beliefs, definitions." The bases for legitimacy can be individual, organizational, and/or societal.

- *Urgency:* "The degree to which stakeholder claims call for immediate attention."

Stakeholders are then mapped according to how they rate on each attribute. The diagram below describes the names given to each kind of stakeholder. The combination of attributes can be used to determine how to interact with any stakeholder. It is worth noting that these attributes can vary over time, so that the appropriate interactions can also change over time.
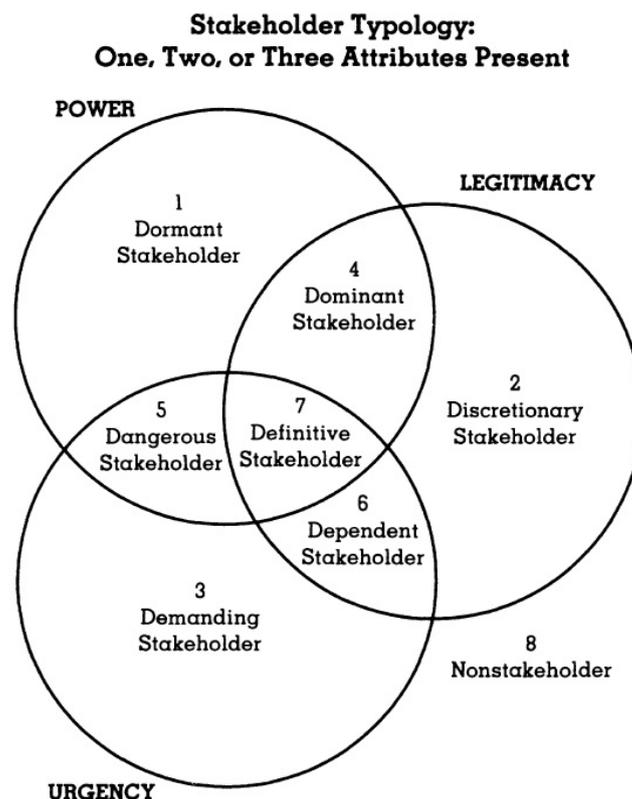
- Reference: Mitchell, R. K., Agle, B. R. and Wood. D. J. (1997). Toward a Theory of Stakeholder Identification and Salience: Defining the Principle of Who and What Really Counts. *Academy of Management Review*, **22**, 4: 853-886. URL: http://www.jstor.org/stable/259247

Additional tools can be found at: http://i2s.anu.edu.au/resources/tools

FEATURED VIDEO

Unknowns in Inter- and Trans-disciplinary Settings

The problem of dealing with unknowns does not reside in any one discipline. Instead, it inhabits many disciplines. Nearly all disciplines and practice domains have perspectives on the unknown, and their perspectives employ methods ranging from mathematics to discourse analysis. These perspectives are, however, fragmented and specific to their discipline's linguistic-conceptual frameworks. Thus, researchers and scholars have difficulty communicating across disciplines

about the unknown. Even explicitly defined or technical concepts such as 'probability' or 'risk' may have distinct meanings in different disciplines. Likewise, a layperson's construal of unknowns necessarily is culturally and historically specific, so that a culturally heterogeneous population of stakeholders may embody a heterogeneous set of perspectives on unknowns.

Cross-disciplinary undertakings require approaches to dealing with unknowns and also with the multiplicity of views about them. This video surveys the problems raised thereby, and methods for addressing those problems. The chief problems include:

1. Assessing epistemological trade-offs
2. Developing a common terminology and set of concepts
3. Overcoming "blind spots" about unknowns
4. Establishing methodological pluralism
5. Developing inclusive but productive discourses.

This video "Dealing with unknowns in inter- and trans-disciplinary settings" presented by Michael Smithson 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/L6BeA4Yy1ZQ.

LATEST I2INSIGHTS BLOG POSTS

The I2Insights blog has recently featured posts on:

1. **Choosing a model: If all you have is a hammer…** *by Jen Badham*
   https://i2insights.org/2016/06/02/choosing-a-model/

2. **Eight institutional practices to support interdisciplinary research** *by Margaret Palmer, Jonathan Kramer, James Boyd, and David Hawthorne*
   https://i2insights.org/2016/05/31/institutional-practices-for-interdisciplinarity/

3. **Virtues and vices of real-world co-creation** *by Quassim Cassam*
   https://i2insights.org/2016/05/26/co-creation-virtues-vices/

4. **Integrating Disciplines / Integrando Disciplinas** *by Marcel Bursztyn, Gabriela Litre and Stéphanie Nasuti*
   https://i2insights.org/2016/05/24/integrating-disciplines/

5. **Five Steps for Managing Diversity to Create Synergy** *by Doug Easterling*
   https://i2insights.org/2016/05/19/managing-diversity/

6. **Facilitating multidisciplinary decision making** *by Bob Dick*
   https://i2insights.org/2016/05/17/facilitation-process/

7. **Eight Strategies for Co-creation** *by Arnim Wiek*
   https://i2insights.org/2016/05/12/eight-strategies-for-co-creation/

8. **Six types of unknowns in interdisciplinary research** *by Gabriele Bammer*
   https://i2insights.org/2016/05/10/six-unknowns-in-interdisciplinarity/

9. **Can co-creation achieve better outcomes for people and communities?** *by Deborah Ghate*

https://i2insights.org/2016/05/05/co-creation-outcomes/

10. **Knowledge synthesis and external representations** *by Deana Pennington*

https://i2insights.org/2016/05/03/external-representations/

11. **Responding to stakeholders - lessons learnt** *by Klaus Hubacek and Christina Prell*

https://i2insights.org/2016/04/28/responding-to-stakeholders/

12. **Designing applied research for impact** *by Andrew Campbell*

https://i2insights.org/2016/04/26/research-for-impact/

13. **Modeling as empowerment** *by Laura Schmitt Olabisi*

https://i2insights.org/2016/04/21/modeling-as-empowerment/

14. **Transdisciplinarity: Learning together to teach together** *by BinBin Pearce, Carolina Adler and Christian Pohl*

https://i2insights.org/2016/04/19/transdisciplinary-teaching/

15. **Should water scientists be advocates?** *by Patricia Gober*

https://i2insights.org/2016/04/14/water scientists-as-advocates/

16. **Looking over the horizon for team effectiveness** *by Stephen M. Fiore*

https://i2insights.org/2016/04/12/team-effectiveness/

17. **La modélisation participative, un lieu privilégié pour l'interdisciplinarité? / Participatory modeling: an ideal place for interdisciplinarity?** *by Pierre Bommel*

http://i2insights.org/2016/04/07/participatory-modeling-for-interdisciplinarity/

18. **Should researchers be honest brokers or advocates?** *by John Callewaert*

http://i2insights.org/2016/04/05/honest-brokers-or-advocates/

19. **Towards an evaluation framework for participatory modeling** *by Miles McNall*

http://i2insights.org/2016/03/31/evaluating-participatory-modeling/

RECENT LINKEDIN GROUP POSTS AND DISCUSSIONS

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

Tamika Heiden: Are you and your research a secret?
(https://www.linkedin.com/groups/4888295/4888295-6131603036000235523)

FEATURED JOURNALS

Educational Action Research

"*Educational Action Research* is concerned with exploring the dialogue between research and practice in educational settings". It "publishes accounts of a range of action research and related studies, in education and across the professions, with the aim of making their outcomes widely available and exemplifying the variety of possible styles of reporting. It aims to establish and maintain a review of the literature of action research. It also provides a forum for dialogue on the methodological and epistemological issues, enabling different approaches to be subjected to critical reflection and analysis".

It is the journal of the Collaborative Action Research Network (CARN).

- Website: http://www.tandfonline.com/action/journalInformation?show=aimsScope&journalCode=reac20#.V06CA_mGNhG

Palgrave Communications

Palgrave Communications is an open access online-only journal which focuses on the humanities, the social sciences and business. It fosters "interaction, creativity and reflection within and between the rich disciplines the journal encompasses". These disciplines include: anthropology; business; economics; cultural studies; geography; international studies; history; information systems; law; languages; operational research; philosophy; religion; sociology; and science studies. Of particular interest to I2S is operational research and a thematic collection on interdisciplinarity.

The thematic collection on interdisciplinarity is "dedicated to the concept of interdisciplinarity within and between disciplines in the humanities, social sciences and business studies". Articles in the collection "explore evolving definitions of the term 'interdisciplinary', as well as different perspectives on the need and drive for interdisciplinary research, and provide case studies of effective collaborative research in practice". The thematic collection on interdisciplinarity can be found at: http://www.palgrave-journals.com/palcomms/article-collections/interdisciplinarity.

- Website: www.palgrave-journals.com/palcomms/about

Additional journals can be found at: http://i2s.anu.edu.au/resources/journals

FEATURED ASSOCIATIONS

Association Française de Science des Systèmes (AFSCET) (French Association for Systems and Cybernetic Studies)

The *Association Française de Science des Systèmes* (AFSCET) focuses on supporting a transdisciplinary approach using systems thinking and cybernetics to the complex problems of today.

The Association organizes seminars and workshops devoted to deepening systemic theories and practices. A number of working groups are active, including the AFSCET Café; Modeling of Complex Systems; System Dynamics; and, Control Equipment and Systems Interaction with Risks. AFSCET hosts an online review called Res-Systemica and publishes a variety of materials in support of its goals.

It was founded in 1999.

- Website (in French only): http://afscet.asso.fr/

Society for Implementation Research Collaboration (SIRC)

The *Society for Implementation Research Collaboration* (SIRC) is "dedicated to facilitating communication and collaboration between implementation research teams, researchers, and community providers. SIRC aims to bring together researchers and stakeholders committed to the rigorous evaluation of implementation" of Evidence Based Psychosocial Interventions (EBPI).

SIRC runs a biannual conference dedicated to facilitating communication and collaboration between implementation research teams, researchers, and community providers alongside supporting a community interested in advancing the field of implementation research (known as the Network of Expertise).

It was founded in around 2010.

- Website: https://www.societyforimplementationresearchcollaboration.org/what-is-sirc/

Additional professional associations and networks can be found at:
http://i2s.anu.edu.au/resources/associations_networks

FEATURED CONFERENCE

60th Annual Meeting of the International Society for the Systems Sciences (ISSS) and 1st Policy Congress – An East-West Systems Dialogue

The annual meeting of the ISSS - an East-West Systems Dialogue – combines two conferences on different continents - in India, the co-conference focuses on *Leadership for Sustainability of Socio-Ecological Systems*; whilst in the USA the co-conference focuses on *Realizing Sustainable Futures in Socio-Ecological Systems*. They are both connected in seeking participation from "environmental, ecological, economic, ethical, policy, and other social and natural system academicians and practitioners, from around the world... in discussing how to realize whole socio-ecological systems and to expand our choices for the future by advancing systems thinking."

In the USA co-conference and dialogue, the central questions are focused on system sustainability and how to achieve it. Central concerns include: "What does it mean for a system to be whole and sustainable? What does it require of us today to achieve it?" In this there is a need for "improved knowledge, practices, competencies and models to comprehend system sustainability and to guide critical development needs, through research, education, institutional cooperation, new management and leadership approaches, entrepreneurial opportunities, and professional involvement."

In the India co-conference and dialogue the central questions are focused on contemplating the natural ecosystems that support our life on Earth and how "companies, business sectors, research organizations, municipal administrations and national agencies" are exploring sustainable systems through approaches and policies around habitat reengineering for sustainable livelihoods. The title of the conference, *Leadership for Sustainable Socio-ecological Systems*, promotes young minds to ponder over the engineering systems and Green technologies needed to support our living conditions.

The conference will be held in two locations across similar dates:
- University of Vignan, Vadlamudi, India, on 23-25 July 2016
- University of Colorado, Boulder, United States of America, on 24-30 July 2016

- For further details, please see:
  - http://www.isss2016usa-india.com/
- Conference program:
  - http://media.wix.com/ugd/4ac9a4_c50cadd56153414989ef760ec4240785.pdf (PDF 2.2MB)
- Call for abstracts closes:
  - 20th June 2016

Other Upcoming Conferences

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

Interdisciplinarity, Transdisciplinarity and Action Research Methods
- 16-18 June 2016, Action Research Network of the Americas 2016 Conference, Knoxville, Tennessee, United States of America (http://www.arnaconnect.org/conferences/2016-arna-conference)
- 27-30 October 2016, 38th Association for Interdisciplinary Studies (AIS) Conference, Ottawa, Canada (http://wwwp.oakland.edu/ais/conferences/annualconference/)
- 7-9 November 2016, Learning for Change and Innovation World Congress (incorporating the Action Learning, Action Research Association (ALARA) Australasian Conference; and the, Global Centre for Work-Applied Learning (GCWAL) Annual Conference), Adelaide, Australia (http://www.gcwal.com.au/2016congress/)
- [NEW] 11-13 November 2016, Collaborative Action Research Network (CARN) Conference: Integrating the Personal and Political in Professional Practice, Lincoln, United Kingdom (https://sites.bishopg.ac.uk/carnconference/)

Systems, Modelling and Simulation
- 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/)
- 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/)

- 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)
- 13-17 July 2016, 24th Conference on User Modeling, Adaptation and Personalization, Halifax, Canada (http://www.um.org/umap2016/)
- 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/)
- 18-21 July 2016, International Council on Systems Engineering (INCOSE) International Symposium, Edinburgh, United Kingdom (http://www.incose.org/symp2016/home/when-where)
- 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://isss.org/world/node/625)
- 6-8 September 2016, Operational Research (OR) 58 Annual Conference, Portsmouth, United Kingdom (http://www.theorsociety.com/Pages/Conferences/OR58/OR58.aspx)
- 7-9 September 2016, XIX International Conference on Systems Science, Wroclaw, Poland (http://www.icss.pwr.wroc.pl/)
- 19-23 September 2016, European Conference on Complex Systems (CCS'16), Amsterdam, The Netherlands (http://www.ccs2016.org/)
- 19-23 September 2016, Social Simulation Conference 2016, Rome, Italy (http://ssc2016.cnr.it/)
- [NEW] 13-15 October 2016, Relating Systems Thinking and Design (RSD5) Symposium: Systemic Design for Social Complexity, Toronto, Canada (http://systemic-design.net/)
- 11-14 December 2016, Winter Simulation Conference: Simulating Complex Service Systems, Washington D.C., United States of America (http://meetings2.informs.org/wordpress/wintersim2016/)
- 13-14 December 2016, 7th French Conference on Complex Systems Design & Management (CSD&M), Paris, France (http://www.2016.csdm.fr/)
- [NEW] 4-7 January 2017, 50th Hawaii International Conference on System Sciences (HICSS 50), Waikoloa, Hawai'i, United States of America (http://www.hicss.org/)
- [NEW] 5-6 January 2017, World Complexity Science Academy VII Conference: Governing Turbulence: Risk and Opportunities in the Complexity Age, Rio de Janeiro, Brazil (http://www.wcsaglobal.org/call-for-7th-conference/)
- 20-23 January 2017, 8th International Conference on Computer Modelling and Simulation, Canberra, Australia (http://www.iccms.org/)

Team Science and Project Management
- 14-16 July 2016, 11th Annual INGRoup Conference, Helsinki, Finland (http://www.ingroup.net/conference.html)
- 25-27 September 2016, Project Management Institute (PMI) Global Congress 2016 - North America, San Diego, California, United States of America (http://congresses.pmi.org/NorthAmerica2016/)

Uncertainty, Risk and Decision Making
- 20-22 June 2016, Conference 2016 - Society for Risk Analysis Europe (SRA-E): Understanding Risk: From Theory to Application in Policy and Practice, Bath, United Kingdom (http://www.bath.ac.uk/ipr/events/news-0171.html)

- 20-24 June 2016, 16th International Conference on Information Processing and Management of Uncertainty in Knowledge-Based Systems, Eindhoven, The Netherlands (http://is.ieis.tue.nl/ipmu/)
- 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 July 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)
- 21-23 September 2016, 10th International Conference on Scalable Uncertainty Management (SUM 2016), Nice, France (http://sum2016.unice.fr/)
- 27-29 October 2016, European Sociological Association's (ESA) Risk and Uncertainty Research Network 22 - Mid-term Conference: Risk and Uncertainty in a Comparative Context, Aydin, Turkey (http://www.europeansociology.org/research-networks/rn22-sociology-of-risk-and-uncertainty.html)
- 30 November - 2 December 2016, 5th International Symposium on Integrated Uncertainty in Knowledge Modelling and Decision Making (IUKM), Da Nang, Vietnam (http://www.jaist.ac.jp/IUKM/IUKM2016/)
- 11-15 December 2016, Society for Risk Analysis (SRA) Annual Meeting, San Diego, California, United States of America (http://www.sra.org/events/sra-2016-annual-meeting)

Bridging the Gap from Research to Policy and Practice
- 28-29 June 2016, Canadian Knowledge Mobilization Forum, Toronto, Canada (http://www.knowledgemobilization.net/event/2016-canadian-knowledge-mobilization-forum-forum-canadien-sur-la-mobilisation-des-connaissances)
- 5-6 October 2016, 3rd Biennial Australian Implementation Conference, Melbourne, Australia (http://www.ausimplementationconference.net.au/)
- 20-21 June 2017, Global Implementation Conference: Expanding Implementation Perspectives - Engaging Systems, Toronto, Canada (http://gic.globalimplementation.org/)

Other (including Sustainability Science)
- 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/)
- 18-19 July 2016, 13th International Conference of Engaged Scholars and Practitioners, Melbourne, Australia (http://www.engagementaustralia.org.au/conference)
- 26-29 July 2016, International Association for Conflict Management 2016 Conference, New York City, New York, United States of America (http://www.iacm-conflict.org/)
- 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/)
- 17-19 August 2016, 7th Annual VIVO 2016 Conference, Denver, Colorado, United States of America (http://vivoconference.org/)
- [NEW] 19-20 September 2016, Mistra Urban Futures: Realising Just Cities - Co-Production in Action, Gothenburg, Sweden (http://www.mistraurbanfutures.org/en/annual-conference/realising-just-cities-introduction)
- 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/)

- 6-9 December 2016, 30th Australian and New Zealand Academy of Management (ANZAM) Conference: Under New Management - Innovating for Sustainable and Just Futures, Brisbane, Australia (http://anzam2016.com/)

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 and new entries on the Integration and Implementation Insights blog: http://I2Insights.org.

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
- I2Insights blog: http://I2Insights.org

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