
WELCOME

Welcome to the November/December i2S News, our last for 2019. You'll see that this is a much shorter News than usual, featuring just three updated resources, plus a list of the blog posts published in the last two months.

We've been busy over recent months reviewing options for updating the 'look' of the i2Insights blog (<https://i2insights.org>) and if all goes well, we'll be ending 2019 with a new home page. The idea is to feature not only the latest blog post, but also snippets of the four most recent ones. Each month we also plan to highlight blog posts on a specific topic such as research implementation, collaboration, modelling or stakeholder engagement. We are also celebrating a fourth successful year for the i2Insights blog.

Another task that has been occupying us is updating or phasing out all the resources on the i2S website (<https://i2s.anu.edu.au/resources>) that were based on digital posters submitted to the 2013 First Global Conference on Research Integration and Implementation. Digital posters were a key innovation at the conference (see <https://i2s.anu.edu.au/what-i2s/first-i2s-conference/concept-processes>). Six years on it's time to review these resources to ensure that they are still useful and we have almost completed that process.

We anticipate that the i2S news will be back at full strength for the January/February 2020 edition.

Wishing you a refreshing end-of-year break and a productive and fulfilling 2020,
Gabriele Bammer and Peter Deane

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- There have been 8 new contributions since the last i2S News

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FEATURED TOOLS

Learning for sustainability (LFS) website (updated tool)

Purpose: To provide those helping communities “identify and adopt more sustainable practices” with a range of on-line resources that support “social learning and constructive action in multi-stakeholder settings.”

Description: The resources are organised under the following categories:

- Social learning, including systems thinking, building networks and knowledge management
- Planning, monitoring and evaluation (PM&E),
- Collaboration/engagement, including stakeholder mapping and analysis and working across cultures
- Supporting change
- Research, including participatory action research and managing integration
- Sustainable development.

The resources include “papers, handbooks, tips, theory and techniques” with a strong focus on skills and there is an annotated guide to each resource. The guide also shows “how the application of these different skills are interlinked in practice to contribute towards social learning and constructive practice change.”

The resources largely come from “material developed in the sustainable development, natural resource management, public health and agricultural sectors.” “Typical site users include policymakers, agency staff, community and business leaders, and practitioners working in collaborative settings.”

This site started in 1998 as the NRM-changelinks site, with the change to the current name occurring in 2016.

- **Website:**
 - <http://learningforsustainability.net/>
 - This website includes a substantial number of resources. While the same or related tools and topics can also be found on the i2S website, i2Insights blog and Wikipedia, each has a unique way of approaching and presenting these resources.

Team science toolkit (updated tool)

Purpose: To consolidate and provide access to knowledge, practical tools and strategies for collaborative efforts to address scientific challenges by leveraging “the strengths and expertise of professionals trained in different fields.”

Description: This user-generated collection provides “resources to help manage, support, conduct, or study team-based research,” in particular:

- Tools, includes proven approaches, training materials and promotion and tenure guidelines
- Measures, including survey instruments and interview guides
- A bibliography, including peer-reviewed articles and reports
- A directory of experts.

Anyone can contribute to the toolkit. The toolkit consolidates information from multiple disciplines and fields, including public health, communications, management sciences, and psychology.

The target audience includes investigators, community and translational partners, administrators at academic institutions, funding agency staff, science of team science scholars and evaluators.

The toolkit was developed and is hosted by the US National Cancer Institute.

- **Website:**
 - <https://www.teamsciencetoolkit.cancer.gov/Public/Home.aspx>

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

FEATURED VIDEO

Knowledge system transformation to support research integration and implementation (updated video)

Purpose: To describe open knowledge systems.

Description: Open knowledge systems are required to deal with accelerating global change, the danger of crossing planetary boundaries, multiple and interacting pressures, as well as the consequences of partial solutions for one problem leading to pressures elsewhere. The transformative change required to deal with these earth system challenges needs cooperation and dialogue between the scientific community and all other stakeholders *i.e.*, those with relevant knowledge for contributing to solutions. This is what is meant by an open knowledge system.

Inviting stakeholders to participate in open knowledge systems:

- enhances the use and validation of local and specialised knowledge
- provides space for dialogue, communication and learning
- supports common framing of issues
- improves the legitimacy of processes
- supports “buy-in”
- improves understanding of the socio-ecological system.

Open knowledge systems require:

- broad collaboration, transdisciplinary knowledge integration and understanding
- an orientation to implementation, with decisive changes in individual behaviours and collective values
- a systemic open approach
- new criteria and procedures for assessing scientific excellence and societal impact.

Moving to open knowledge systems requires:

- recognition that projects need time and that it might be best to fund them in phases
- new skills *eg.*, facilitation, mediation, systems thinking
- researchers to become part of the process
- open (not pre-defined) outcomes
- 'excellence' to be measured in the success of the process design and implementation (rather than the number of peer-reviewed papers)
- experimentation and learning.

Four cases of integrative, implementation-oriented, transformative research in which the knowledge system has been opened up and sustainability challenges have been tackled are briefly presented. They are:

- RESPONDER project which looked at knowledge integration using systems mapping as a tool for knowledge brokerage
- InContext project which examined the challenges of having an implementation orientation, especially when researchers become part of the process (rather than being independent analysts)
- MATISSE project which used a systemic approach, including scoping and re-scoping
- Project Vision RD4SD which examined new evaluation criteria, especially for societal impact.

LATEST i2INSIGHTS BLOG POSTS

The i2Insights blog (<http://i2insights.org>) has recently published the following posts:

Yin-yang thinking – A solution to dealing with unknown unknowns?

by Christiane Prange and Alicia Hennig

<https://i2insights.org/2019/12/03/yin-yang-thinking-and-unknown-unknowns/>

Theoretical framework for open team science / オープンチームサイエンスという考え方

by Yasuhisa Kondo

<https://i2insights.org/2019/11/26/open-team-science-framework/>

Blackboxing unknown unknowns through vulnerability analysis

by Joseph Guillaume

<https://i2insights.org/2019/11/19/vulnerability-analysis/>

What motivates researchers to become transdisciplinary and what are the implications for career development?

by Maria Helena Guimarães, Olivia Bina and Christian Pohl

<https://i2sinsights.org/2019/11/12/transdisciplinary-careers/>

Looking in the right places to identify “unknown unknowns” in projects

by Tyson Browning

<https://i2sinsights.org/2019/11/05/detecting-unknown-unknowns-in-projects/>

The role of persistence in influencing policy with research

by David McDonald

<https://i2sinsights.org/2019/10/29/persistence-for-policy-influence/>

Creative writing as a journey into the unknown unknown

by Lelia Green

<https://i2sinsights.org/2019/10/22/creative-writing-and-unknown-unknowns/>

Participatory research and power

by Diana Rose

<https://i2sinsights.org/2019/10/15/participatory-research-and-power/>

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 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”:

<https://www.linkedin.com/groups/4888295/> (when these occur) and new entries on the Integration and Implementation Insights blog: <http://i2sinsights.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”:
<https://www.linkedin.com/groups/4888295/>
- i2S Insights blog: <http://i2sinsights.org>

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