i2S News

April - June 2023, #63

Welcome to the second i2S News for 2023. We provide updates on:
- i2Insights (the community blog and repository)
- i2S-Talks (the YouTube channel)
- i2S website (which provides specific information about Integration and Implementation Sciences).

In this i2S News we highlight three i2Insights contributions about modelling. i2Insights provides discussions about aspects of modelling that can help modellers and non-modellers work together or that are useful for non-modellers in interpreting models, and these three contributions all advance thinking in these areas.

In i2S-Talks, this i2S News features another stand-out seminar from the NITRO-Oceania (Network of Interdisciplinary and Transdisciplinary Research Organisations in the Oceania region) seminar series. This one is by Professor Alex Haslam and tackles the important issue of effective leadership, which can easily be translated to leadership of interdisciplinary and transdisciplinary projects, programs and research organisations.

We also provide an update on changes to the i2S website.

Finally, two new publications are noted:
- The just-published *Handbook of Transdisciplinarity: Global Perspectives*, with a chapter on i2S
- A new open access paper on developing transdisciplinary problem-solving expertise in undergraduates at a university-wide scale.

Feedback and suggestions for i2S News are always welcome!

Gabriele Bammer and Peter Deane

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- New *Handbook of Transdisciplinarity: Global Perspectives*, with a chapter on i2S
- New open access paper on developing transdisciplinary problem-solving expertise in undergraduates at a university-wide scale

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i2INSIGHTS BLOG AND REPOSITORY

Highlighting recent contributions about modelling

Modelling is an important tool for research integration and implementation. It involves specialised expertise, which is beyond the scope of i2Insights. Instead, i2Insights focuses on more general aspects of modelling, especially those that can help modellers and non-modellers work together or that are useful for non-modellers in interpreting models. Three i2Insights contributions are highlighted.

First is Andrea Saltelli's "Five lessons to improve how models serve society" which are:
1. Mind the assumptions, by considering the accuracy and credibility of model outputs
2. Mind the hubris, by looking for optimum trade-offs between complexity and error
3. Mind the framing, where transparency supports communication and enhances trust
4. Mind the consequences, by ensuring that quantification does not project a false sense of certainty
5. Mind the unknowns, but avoiding excess precision which can limit policy options and open the door to unintended consequences.

Models are also improved when they include a wide range of perspectives, which is the aim of participatory modelling and facilitated modelling. It is not yet clear if these are different names for the same practice or different practices, and i2Insights aims to promote discussion on this issue. Sondoss Elsawah, Elena Bakhanova, Raimo Hämäläinen and Alexey Voinov explore five core competency areas for participatory modeling. As well as core competencies in systems thinking and modelling, expertise is also required in group facilitation; project management and leadership; and operating in the virtual space.

Vincent de Gooyert takes a more fine-grained approach to improving facilitated modelling, especially achieving cognitive change and forming consensus. He considers lessons from what can go wrong in facilitated modelling, as well as hypotheses to be tested, such as whether workshops should avoid having dual aims of team building and analytical consideration of the issue of concern, especially as in team building there is a tendency to avoid uncomfortable discussions which stops sensitive issues from being raised.
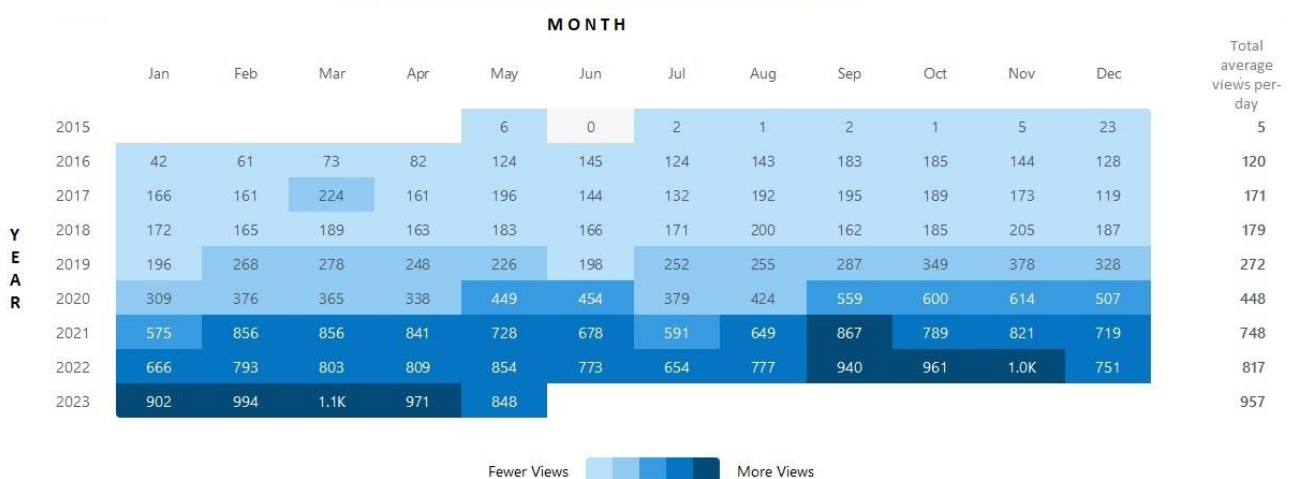
Highlights from i2Insights statistics

WordPress has recently provided a new way of looking at viewing statistics for i2Insights, shown in the two figures below, one for monthly views and one for average daily views (from May 2015 to May 29, 2023). Both show an increasing trend in views.

Total views by month, from May 2015 to May 2023

MONTH

YEAR	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total views per year
2015					181	10	55	39	58	34	150	711	1,238
2016	1.3K	1.8K	2.3K	2.4K	3.8K	4.4K	3.8K	4.4K	5.5K	5.7K	4.3K	4.0K	43,700
2017	5.1K	4.5K	6.9K	4.8K	6.1K	4.3K	4.1K	6.0K	5.8K	5.9K	5.2K	3.7K	62,428
2018	5.3K	4.6K	5.8K	4.9K	5.7K	5.0K	5.3K	6.2K	4.9K	5.7K	6.2K	5.8K	65,364
2019	6.1K	7.5K	8.6K	7.4K	7.0K	5.9K	7.8K	7.9K	8.6K	10.8K	11.3K	10.2K	99,198
2020	9.6K	10.9K	11.3K	10.1K	13.9K	13.6K	11.8K	13.1K	16.8K	18.6K	18.4K	15.7K	163,969
2021	17.8K	24.0K	26.5K	25.2K	22.6K	20.3K	18.3K	20.1K	26.0K	24.4K	24.6K	22.3K	272,290
2022	20.6K	22.2K	24.9K	24.3K	26.5K	23.2K	20.3K	24.1K	28.2K	29.8K	30.6K	23.3K	297,900
2023	28.0K	27.8K	33.2K	29.1K	25.4K								143,558

Fewer Views ▢▢▢▢▢ More Views

Average views per day, from May 2015 to May 2023

MONTH

YEAR	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total average views per-day
2015					6	0	2	1	2	1	5	23	5
2016	42	61	73	82	124	145	124	143	183	185	144	128	120
2017	166	161	224	161	196	144	132	192	195	189	173	119	171
2018	172	165	189	163	183	166	171	200	162	185	205	187	179
2019	196	268	278	248	226	198	252	255	287	349	378	328	272
2020	309	376	365	338	449	454	379	424	559	600	614	507	448
2021	575	856	856	841	728	678	591	649	867	789	821	719	748
2022	666	793	803	809	854	773	654	777	940	961	1.0K	751	817
2023	902	994	1.1K	971	848								957

Fewer Views ▢▢▢▢▢ More Views

Blog posts added since the last i2S News

Integration and implementation insights (i2Inisghts) has added the following blog posts to its repository since the last i2S News:

An analytical framework for knowledge co-production
By Marianne Penker
https://i2insights.org/2023/05/30/framework-for-knowledge-co-production/

Improving facilitated modelling
By Vincent de Gooyert
https://i2insights.org/2023/05/23/improving-facilitated-modelling/

Lessons for strengthening community-university partnerships
By David D. Hart, Bridie McGreavy, Anthony Sutton, Gabrielle V. Hillyer and Darren J. Ranco
https://i2insights.org/2023/05/16/community-university-partnerships/

Institutionalizing evidence-informed policy-making in Latin America and the Caribbean / Institucionalizando la toma de decisiones informadas por evidencias en Latinoamérica y el Caribe/ Institucionalizando a formulação de políticas informadas em evidências na América Latina e Caribe
By Directors and Coordinators of the Latin American and the Caribbean Evidence Hub
https://i2insights.org/2023/05/09/evidence-informed-policy-making-in-lac/

Decolonising your writing
By kate harriden
https://i2insights.org/2023/05/02/decolonising-your-writing/

Decolonising research capacity development
By Maru Mormina and Romina Istratii
https://i2insights.org/2023/04/25/decolonising-research-capacity-development/

Five core competency areas for participatory modeling
By Sondoss Elsawah, Elena Bakhanova, Raimo Hämäläinen and Alexey Voinov
https://i2insights.org/2023/04/18/participatory-modeling-competencies/

Wisely navigating knowledge co-production: Towards an ethics that builds capacities
By Guido Caniglia and Rebecca Freeth
https://i2insights.org/2023/04/11/practical-wisdom-in-co-production/

Pragmatism and critical systems thinking: Back to the future of systems thinking
By Michael Jackson
https://i2insights.org/2023/04/04/pragmatism-and-critical-systems-thinking/

A pattern language for knowledge co-creation
By Yuko Onishi
https://i2insights.org/2023/03/28/patterns-for-co-creation/

An effective way to organize research coordination meetings
By Gemma Jiang, Diane Boghrat and Jenny Grabmeier
https://i2insights.org/2023/03/21/organizing-research-coordination-meetings/

Keyword quiz: an icebreaker method for interdisciplinary teams
By Sebastian Rogga and Anton Parisi
https://i2insights.org/2023/03/14/keyword-quiz-icebreaker/

Inclusive Systemic Thinking for transformative change
By Ellen Lewis and Anne Stephens
https://i2insights.org/2023/03/07/inclusive-systemic-thinking/

Seven methods for mapping systems
By Pete Barbrook-Johnson and Alexandra Penn
https://i2insights.org/2023/02/28/systems-mapping-methods/

i2S-TALKS

Highlighting effective leadership for interdisciplinary and transdisciplinary projects, programs and research organisations

Professor Alex Haslam proposes that effective leadership is grounded in leaders' capacity to embody and promote a sense of social identity that they share with others—a process of identity leadership. He argues that leadership is the product not of 'I-ness' but of 'we-ness' that binds leaders and followers together.

This perspective sees leadership, motivation and influence not as processes that revolve around individuals acting and thinking in isolation, but as group processes in which leaders and followers are joined together—and perceive themselves to be joined together—in shared endeavour. But in order for this to succeed, leaders need to represent and champion the group and they also need to create and embed a sense of shared identity.

The seminar provided evidence of these processes in action and established the basis for a discussion about the implications for leadership of interdisciplinary and transdisciplinary projects, programs and research organisations.

The seminar by Professor Alex Haslam, Professor of Social and Organizational Psychology and Australian Laureate Fellow at the University of Queensland in Brisbane, Australia, on "Effective organisational leadership and what it means for interdisciplinary and transdisciplinary research organisations" was presented on December 2, 2021 as part of the NITRO-Oceania (Network of Interdisciplinary and Transdisciplinary Research Organisations in the Oceania region) seminar series. Videos from the series are hosted on i2S-Talks. The direct link to this hour long video is: https://youtu.be/9cy9OHjzSsE.

Videos added since the last i2S News

The following video have been added to the i2S-Talks YouTube channel since the last i2S News:

Facilitating interdisciplinary research through vertically-integrated teams
By Edward J. Balleisen and Laura Howes (1 hr and 6 min)
https://youtu.be/VKt4sZyruXE
(Playlists: Interdisciplinarity and Transdisciplinarity; and, Intereach Webinar Series)

The Ohio Innovation Exchange: Boundary spanning to engage researchers with industry
By Jeffrey Agnoli (1 hr and 2 min)
https://youtu.be/PtIZYxy1HgI
(Playlist: Intereach Webinar Series)

Spanning multiple government agencies and nations in building transdisciplinary research
By Quinn Spadola (58 min)
https://youtu.be/mni6DNC3wUA
(Playlist: Intereach Webinar Series)

Complexity explorer lecture: What is complexity?
By David Krakauer (34 min)
https://youtu.be/FBkFu1g5PlE
(Playlist: Complexity)

i2S WEBSITE

Changes in train

We are continuing the process of removing tools from the resources repository on the i2S website and instead making i2Insights the consolidated repository of tools relevant to i2S.

Two reminders:
1. The repositories of journals, professional associations and networks, and conferences that were developed between 2002 and 2021 have been transferred to the website of the ITD-Alliance (Global Alliance for Inter- and Transdisciplinarity at https://itd-alliance.org/resources/).
2. We have decided not to proceed with the development of FAQ (frequently asked questions) which we trialled in the first two issues of the new-look i2S News in 2022, as these often duplicate resources in i2Insights. Instead, each issue of i2S News will highlight specific contributions to i2Insights and i2S Talks.

OTHER UPDATES

Two publications may be of interest:
1. the new *Handbook of Transdisciplinarity: Global Perspectives* edited by Roderick Lawrence (Edward Elgar, 2023); https://doi.org/10.4337/9781802207835
   It contains a chapter by Gabriele Bammer on 'Does transdisciplinarity need an

underpinning discipline? The case for Integration and Implementation Sciences (i2S)'. A copy is available from the author on request.

2. A new open-access paper may be of interest: Bammer, G., Browne, C. A., Ballard, C., Lloyd, N., Kevan, A., Neales, N., Nurmikko-Fuller, T., Perera, S., Singhal, I. and van Kerkhoff, L. (2023). 'Setting parameters for developing undergraduate expertise in transdisciplinary problem solving at a university-wide scale: A case study'. *Humanities and Social Sciences Communications*, **10**: 208. (Online): https://doi.org/10.1057/s41599-023-01709-8

It illustrates the development of an implementation plan for providing all undergraduate students at The Australian National University with the "Capability to Employ Discipline-based Knowledge in Transdisciplinary Problem Solving".

ABOUT i2S NEWS

The aim of this newsletter is to provide regular updates (4 times per year) about what's new in Integration and Implementation Sciences (i2S), especially in three major repositories:

- the i2S website (http://i2s.anu.edu.au), which provides a range of information about Integration and Implementation Sciences
- Integration and Implementation Insights (http://i2Insights.org), which functions as a community blog, as well as a repository, for sharing concepts, methods and other research tools for understanding and acting on complex real-world problems
- the i2S YouTube channel (https://www.youtube.com/i2S-Talks), which provides a range of videos about various aspects of i2S.

Other updates about i2S are also provided and, from time to time, we also post news that is not directly related to i2S, but that is in line with i2S objectives.

Our target audience is researchers who tackle complex societal and environmental problems and who are interested in:

- Synthesizing knowledge from different disciplines and stakeholders,
- Understanding and managing diverse unknowns, and
- Supporting improved policy and practice responses to problems by government, business and civil society.

The three i2S repositories therefore provide new tools, as well as compiling and sharing existing tools, in 11 main areas:

- understanding the processes involved in *change*
- improving *communication*
- understanding *context*
- effective *decision making*
- incorporating, harnessing and managing *diversity*
- *integration* of multiple and varied perspectives about any problem and insights into acting on it
- *research implementation*
- *stakeholder engagement*
- taking a *systems* perspective
- *teamwork*
- understanding and managing *unknowns*.

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
- i2Insights blog and repository: http://i2Insights.org
- i2S-Talks on YouTube: https://www.youtube.com/i2S-Talks
- Twitter: @GabrieleBammer
- LinkedIn group "Global Network for Research Integration and Implementation": https://www.linkedin.com/groups/4888295/

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