i2S News

March/April 2020, #49

WELCOME

Welcome to the March/April i2S News. This is our bi-monthly notification of additions and updates to the resources on the i2S website (http://i2s.anu.edu.au/resources). i2S News also provides a list of the latest blog posts on the Integration and Implementation Insights blog (https://i2insights.org).

The world was a different place when we sent out the January/February i2S News. We hope you are, and stay, healthy, cheerful and fulfilled in these challenging new circumstances.

Gabriele Bammer and Peter Deane

CONTENTS

FEATURED TOOLS

Stakeholder engagement: Defining stakeholders and reasons to engage them

Purpose: To define who stakeholders are and what engagement with them is likely to contribute to a particular research project.

Description: Discusses who stakeholders in research are, as well as reasons for engaging stakeholders. The benefits of stakeholder engagement are then further examined according to the type of engagement.

Defining 'stakeholders'
The handbook (Durham *et al.*, 2014) defines stakeholders as follows: "A stakeholder is any person or group who influences or is influenced by the research" (p. 12). The handbook further adds that "This broad, inclusive definition covers anyone, or any group, directly or indirectly affected by a project, as well as those who may have interests in a project and/ or the ability to influence its outcome, either positively or negatively. A stakeholder does not have to be a direct user of, or directly affected by, project outcomes to be influenced by them" (p. 12).

It is important for any research to think broadly about who may be relevant, including, for example, those who have power to influence the uptake of the research findings and difficult to reach groups. Attention should also be paid to ensuring balanced participation of all relevant demographic groups. Further, it is important to recognise that not all stakeholders in one broad group (*eg.*, policy makers or an affected community) are likely to have the same interests and motivations.

Reasons to engage stakeholders
The handbook identifies the following reasons to engage stakeholders (p. 27):

- "Raise awareness of the research project.
- Gain trust and improve working relationships, form new partnerships, create new networks, galvanize external support, and provide a clearer understanding of the benefits of the research.
- Encourage a sense of 'ownership' of the project by those likely to benefit, be affected by, or interested in, research outcomes.
- Provide people with an opportunity for personal development through engagement activities.
- Explore issues, share ideas and best practice, generate ideas and identify and raise better awareness of emerging issues.
- Co-design projects with stakeholders that may assist with producing a clearer definition of desired outcomes. Taking a broad spectrum of ideas and thoughts on board enables the adoption of a more holistic approach to addressing potential problems, limitations or conflicts.
- Aid the development of a transparent decision-making process and ensure policy decisions can be based upon stakeholder views and enable decision-makers to consider societal 'wants' and 'needs'. This can help reduce conflict and overcome barriers between science, policy makers and society.

- Involve stakeholders to make it easier to obtain endorsement of, or agreement on, resulting decisions from parties likely to either use or be affected by the results of the research.
- Gain access to resources or to obtain information data.
- Create new (or improved) communication channels, identify effective dissemination avenues and improve clarification of 'common' language.
- Provide equal rights and open access to scientific knowledge ('democratizing science').
- Enable researchers to identify cross-cutting issues and ascertain where research may be applied to other areas. It also improves the relevance, value and depth of the research and broadens the knowledge base, identifies knowledge gaps, addresses information needs and creates opportunities to link research more directly to policy and practice."
- Improved risk management.

Not all reasons will apply to all research projects.

Reasons for engaging stakeholders can also be differentiated by level of engagement, ranging from 'inform' to 'collaborate', as shown in the figure below (p. 14).

BENEFITS OF ENGAGEMENT	LEVEL OF ENGAGEMENT			
	Inform →	Consult →	Involve →	Collaborate
BENEFITS TO RESEARCH TEAMS	Higher profile and enhanced reputation Useful contacts for future engagement Improved dissemination of results Enhanced impact of research Increased support for the research	Improved chances of funding success Better knowledge Opportunities for learning Better quality data	More resources provided Potential to improve methods	Improved research questions Better analysis Increased potential to leave a legacy
BENEFITS TO STAKEHOLDERS	Opportunities for learning Better access to knowledge Improved decision-making Improved policies	Access to better technologies Business opportunities Sense of inclusion and involvement	Opportunities to be paid for providing data or facilities	Opportunities to influence or drive research A sense of ownership
BENEFITS TO WIDER SOCIETY	Better knowledge applied in policy and practice Reduced barriers between science and society	Improved trust and respect Access to opportunities	Better evidence	Shared responsibilities and decision-making More relevant and more inclusive research

- **Reference**:
  - Durham E., Baker H., Smith M., Moore E. and Morgan V. (2014). *BiodivERsA Stakeholder Engagement Handbook*. ERA-NET BiodivERsA: Paris, France.
    - Webpage with detail on the resource: http://www.biodiversa.org/702
    - Low resolution PDF of the BiodivERsA Stakeholder Engagement Handbook at: http://www.biodiversa.org/706/download (2.7MB PDF)

Location of this resource on the i2S website:
https://i2s.anu.edu.au/resources/stakeholder-engagement-definition-and-reasons

Stakeholder analysis: Power, legitimacy and urgency (updated tool)

Purpose:

- To describe a way of identifying relevant stakeholders
- To provide a way of prioritising which stakeholders to engage with
- To specifically examine this stakeholder analysis method in a research context.

Description: The framework by Mitchell and colleagues (1997) presents a definition of stakeholders, describes how the attributes of power, legitimacy and urgency can be used to identify relevant stakeholders and shows how prioritising which stakeholders to engage with can be based on whether and how these attributes are combined. The framework was developed in a business context, with adaptations required for a research context (not presented in the original) briefly described.

Definition of stakeholders
Business definition: "A stakeholder in an organisation is (by definition) any group or individual who can affect or is affected by the achievement of the organization's objectives" (Freeman, 1984, p. 46).

Research-relevant definition: Stakeholders are those affected by the problem being researched and those in a position to do something about it (Bammer, 2019).

Stakeholders can include "people, groups, neighbourhoods, organizations, institutions, societies, and even the natural environment." (Mitchell *et al.*, 1997, p. 855).

Identifying relevant stakeholders
A key challenge in business and research is identifying which stakeholders are relevant. A systematic way of doing this is through considering who has power, legitimacy and urgency.

Power has three dimensions:

- Coercive – "based on the physical resources of force, violence or restraint"
- Utilitarian – "based on material or financial resources"
- Normative – "based on symbolic resources," such as prestige, esteem, love and acceptance.

One attribute for identifying relevant stakeholders is therefore whether they have or can marshall coercive, utilitarian or normative means to impose their will. Quotations above from Mitchell *et al.* (1997), p. 865, based on Etzioni (1964).

Legitimacy can have its base at the individual, organisational or societal level and implies a desirable social good. Examples relevant to choosing stakeholders in research are:

- An individual stakeholder who clearly works for the good of others rather than their own self interest

- A community group that has transparent governance and clear mechanisms for representing the community's views, rather than an entity that claims to be a 'community group,' but in essence represents only one or two individuals
- A societal stakeholder such as a democratically elected government, rather than a military junta.

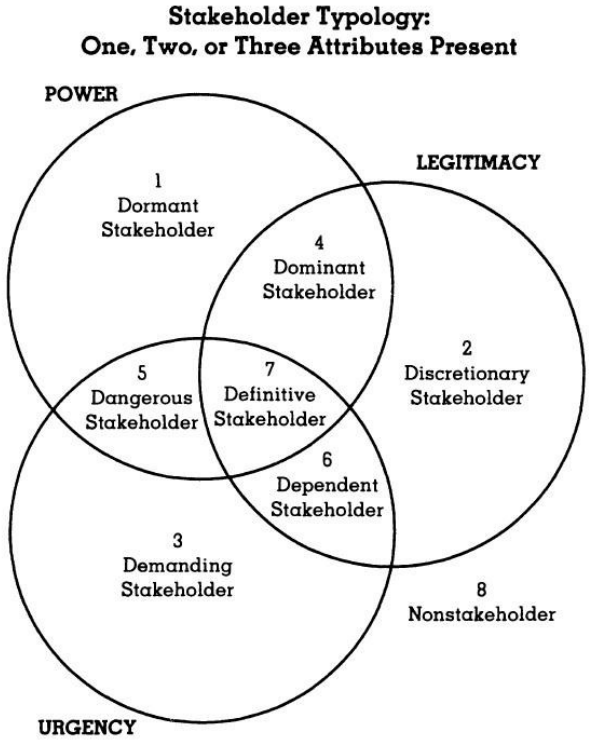
There is also a trickier area, which is when legitimate entities act in illegitimate ways. For example, governments, businesses, civil society groups and individuals can act in fraudulent ways or put profit or self-interest above the public good. The marketing of tobacco and gambling are two examples.

A second attribute for identifying stakeholders is therefore the desirable social good that they represent. While legitimacy is often entangled with power, it is important to treat it separately.

Urgency is the "degree to which stakeholder claims call for immediate attention." (Mitchell *et al.*, 1997, p. 867). In a research-context, a third attribute for identifying stakeholders is therefore to look for those for whom understanding and/or acting on the problem is urgent.

This analysis helps identify "who or what really counts." (Mitchell *et al.*, 1997). It is also important to identify not only actual but also potential power, legitimacy and urgency and to note that these characteristics can change over time.

Prioritising stakeholders
Stakeholders are then mapped according to how they rate on each attribute. A Venn diagram such as that shown in the figure below (from Mitchell *et al.*, 1997) can be helpful.



In the research context, it is useful to think about three roles for stakeholders: being an advisor (*eg.*, on an advisory board), being a participant (*eg.*, being consulted or collaborating on part of the research) and being a co-producer of the research (*ie.*, being fully involved in all the research decisions and undertakings). Which roles are relevant will depend on the specifics of the research and the stakeholders.

Highly salient stakeholders (high power, legitimacy and urgency): The most important or "highly salient" stakeholders are those are those who rate high on all three characteristics of power, legitimacy and urgency. These are "definitive" stakeholders (group 7 in the figure above).

In the business context, "managers have a clear and immediate mandate to attend to and give priority to" the claims of definitive stakeholders.

In the research context, definitive stakeholders have the greatest call on being able to influence the direction of the research and the research processes, through advisory boards, participation or co-production.

Expectant stakeholders (high in 2 of the 3 characteristics of power, legitimacy and urgency): Next in importance or "expectant" are those who rate high on two of the three characteristics:

- High power and high legitimacy characterises "dominant" stakeholders (group 4)
- High legitimacy and high urgency characterises "dependent" stakeholders (group 5)
- High power and high urgency characterises "dangerous" stakeholders (group 6).

Dominant stakeholders (high power and legitimacy): In the business context, these stakeholders "matter" to managers and there are often mechanisms in place to maintain good relations with them. In the research context, similarly, it can be argued that dominant stakeholders should have a significant call on being able to influence the direction of the research and the research processes, through advisory boards, participation or co-production.

Dependent stakeholders (high legitimacy and urgency): These stakeholders are characterised as 'dependent' because they depend on those with power to support them in achieving what they think is important. In business this can be other stakeholders or the firm's managers. In the research context, these stakeholders are often those affected by the problem. Researchers themselves often ensure that these stakeholders are included and try to reduce power differentials among different stakeholder groups (and the researchers themselves) so that these dependent stakeholders are also influential.

Dangerous stakeholders (high power and urgency): Stakeholders who lack legitimacy often resort to coercion, which makes them dangerous. In the business context they may use tactics that hold the firm to ransom, such as hacking and adverse publicity. In the research context an example is stakeholders whose vested interests are threatened by the research, who may, for example, seek to discredit the research and/or the researchers.

Latent stakeholders (high in 1 of the 3 characteristics of power, legitimacy and urgency): Least important or "latent" are those who only rate high on one characteristic:

- High power only characterises "dormant" stakeholders (group 1)
- High legitimacy only characterises "discretionary" stakeholders (group 2)
- High urgency only characterises "demanding" stakeholders (group 3).

Whether or not these stakeholders are taken into account depends on the time and energy that managers (in a business context) or researchers (in a research context) have. They are often worth keeping an eye on in case they develop a second characteristic over time. The first two groups of stakeholders also often have little interest or motivation to get involved in the business or research. 'Demanding' stakeholders may seek to influence the research, but with no power or legitimacy, may be treated as an annoyance. An example in a research context is a lone individual concerned about a particular problem who uses various means to try to get researchers interested.

The diagram above and analysis can also be helpful to stakeholders in figuring out how to position themselves to be more influential.

- **References**:
  - Bammer, G. (2019) Key issues in co-creation with stakeholders when research problems are complex. *Evidence and Policy*, **15**, 3: 423-435. URL (DOI) https://doi.org/10.1332/174426419X15532579188099
  - Freeman, R. E. (1984) *Strategic management: A stakeholder approach*. Boston: Pitman.
  - 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 (DOI): http://dx.doi.org/10.2307/259247

Location of this resource on the i2S website:
https://i2s.anu.edu.au/resources/stakeholder-analysis-power-legitimacy-urgency

Values: Schwartz theory of basic values

Purpose: To identify personal values that are robust across cultures and that can help explain diversity and conflict in values.

Description: Six main features, relevant to all values, are described first. This is followed by an outline of ten basic personal values, with a guide to which are congruent and which conflict.

Six main features of values

1. "Values are beliefs linked inextricably to affect. When values are activated, they become infused with feeling".
2. "Values refer to desirable goals that motivate action."
3. "Values transcend specific actions and situations. … This feature distinguishes values from norms and attitudes that usually refer to specific actions, objects, or situations."
4. "Values serve as standards or criteria. Values guide the selection or evaluation of actions, policies, people, and events. People decide what is good or bad, justified or illegitimate, worth doing or avoiding, based on possible consequences for their cherished values. But the impact of values in everyday decisions is rarely conscious. Values enter awareness when the actions or judgments one is considering have conflicting implications for different values one cherishes."

5. "Values are ordered by importance relative to one another. People's values form an ordered system of priorities that characterize them as individuals."
6. "The relative importance of multiple values guides action. Any attitude or behaviour typically has implications for more than one value. … The tradeoff among relevant, competing values guides attitudes and behaviors… Values influence action when they are relevant in the context (hence likely to be activated) and important to the actor."

These six features are relevant to all values.

Ten basic personal values

The Schwartz theory of basic values identifies ten broad personal values, which are differentiated by the underlying goal or motivation. These values are likely to be universal because they help humans cope with one or more of the following three universal requirements of existence:

- needs of individuals as biological organisms
- requisites of coordinated social interaction
- survival and welfare needs of groups.

The ten broad personal values are:

1. "Self-Direction – Defining goal: independent thought and action–choosing, creating, exploring."
2. "Stimulation – Defining goal: excitement, novelty, and challenge in life."
3. "Hedonism – Defining goal: pleasure or sensuous gratification for oneself."
4. "Achievement – Defining goal: personal success through demonstrating competence according to social standards."
5. "Power – Defining goal: social status and prestige, control or dominance over people and resources."
6. "Security – Defining goal: safety, harmony, and stability of society, of relationships, and of self."
7. "Conformity – Defining goal: restraint of actions, inclinations, and impulses likely to upset or harm others and violate social expectations or norms."
8. "Tradition – Defining goal: respect, commitment, and acceptance of the customs and ideas that one's culture or religion provides."
9. "Benevolence – Defining goal: preserving and enhancing the welfare of those with whom one is in frequent personal contact (the 'in-group')."
10. "Universalism – Defining goal: understanding, appreciation, tolerance, and protection for the welfare of all people and for nature."

Dynamic relations among the values

Relations among these 10 broad personal values are dynamic. Actions pursuing one value "have consequences that conflict with some values but are congruent with others." This has "practical, psychological, and social consequences." "Of course, people can and do pursue competing values, but not in a single act. Rather, they do so through different acts, at different times, and in different settings."

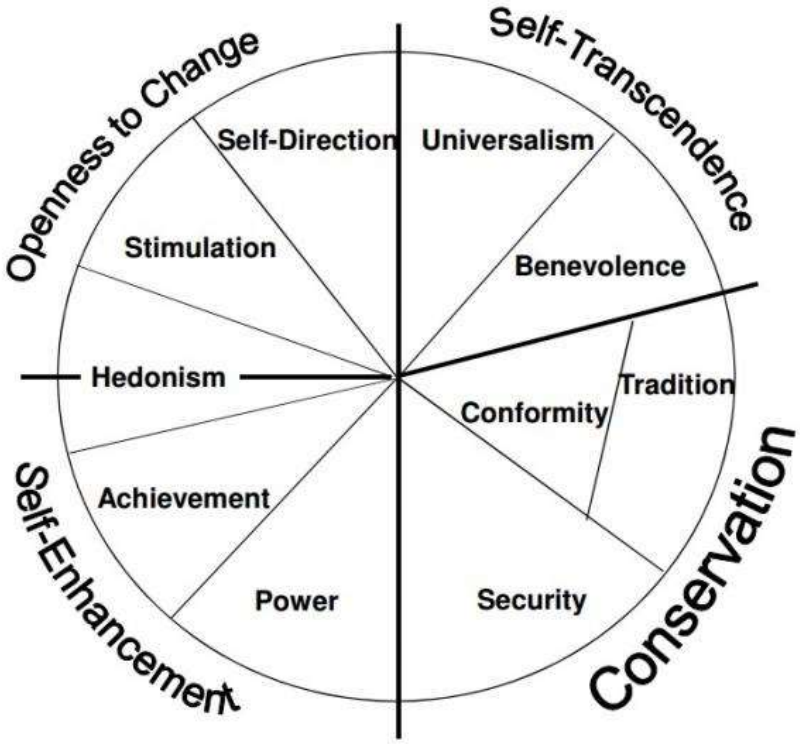
The figure below provides a quick guide to values that conflict and those that are congruent. There are two bipolar dimensions. One "contrasts 'openness to change' and 'conservation' values. This dimension captures the conflict between values that emphasize independence of thought, action, and feelings and readiness for change (self-direction, stimulation) and values that

emphasize order, self-restriction, preservation of the past, and resistance to change (security, conformity, tradition)."

Tradition and conformity are located in a single wedge because they share the same broad motivational goal. Tradition is on the periphery because it conflicts more strongly with the opposing values.

"The second dimension contrasts 'self-enhancement' and 'self-transcendence' values. This dimension captures the conflict between values that emphasize concern for the welfare and interests of others (universalism, benevolence) and values that emphasize pursuit of one's own interests and relative success and dominance over others (power, achievement)."

"Hedonism shares elements of both openness to change and self-enhancement."



There are two major methods for measuring the basic values: the Schwartz Value Survey and the Portrait Values Questionnaire.

Schwartz' work also examines relationships between different values in more detail, which is useful for a richer analysis of how values affect behaviour and attitudes, as well as the interests that they express.

- **Reference**:
  - Schwartz, S. H. (2012). An Overview of the Schwartz Theory of Basic Values. *Online Readings in Psychology and Culture*, **2**, 1. Online (DOI): http://dx.doi.org/10.9707/2307-0919.1116

Location of this resource on the i2S website: https://i2s.anu.edu.au/resources/schwartz-theory-basic-values

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

FEATURED VIDEOS

Systems thinking: Oxfam's introductory materials (updated video)

Purpose: To describe some basic elements of systems thinking and how they affect approaches to complex societal and environmental problems.

Description: The report and video each provide a useful description of systems and show what is required to move to a more systemic approach to a problem when technical solutions focusing on individual parts of a problem are not adequate.

The report describes systems as follows:

> *We talk about social, environmental and political systems. These interact to form bigger market, governance and ecological systems. Each of these systems is made up of multiple inter-linked parts and actors that influence each other (e.g. formal and informal institutions, natural processes, people and behaviours). For instance, a market system is made up of companies, government agencies, rules and regulations and physical assets (such as infrastructure) as well as environmental, social and political factors that will influence how the market operates and who participates in it. It is not possible to understand what is happening in any of these systems by looking at their individual parts. For instance, imagine trying to understand why there was no water in the river by looking at the riverbed. To understand what is happening we need to understand how the different parts of the system interact and affect each other, which actors are affecting the system and what motivates them. In the case of the river, we would need to understand the environmental factors – such as rainfall and percolation of water into the soil – as well as the different human activities that are having an impact on the water levels.*

Highlighted are the necessity of, along with some tools for:

- Shifting away from fixed, long-term planning to more iterative and adaptive planning based on learning and experimentation. Tools include a table comparing characteristics of technical problems and adaptive challenges, a discussion of adaptive capacity and a comparison of log frames and cycles of action and reflection.
- Recognising that individual paradigms and pre-conceived ideas often limit ability to understand local contexts. Tools include ways of broadening perspectives.
- Focusing on multi-stakeholder approaches and co-creation with local stakeholders. Tools include ways of managing power differences, of engaging uninterested stakeholders, and of engaging marginalised groups.

Although the target audience is Oxfam's own staff and other development practitioners, the resources are more widely useful.

"Systems Thinking" by Oxfam Great Britain was a video presentation created as an introduction to systems thinking for Oxfam staff, uploaded in 2015. Online: https://www.youtube.com/watch?v=WfyWgp95kgA.

- **Reference**:
  - Bowman, K., Chettleborough, J., Jeans, H., Rowlands, J. and Whitehead, J. (2015). *Systems Thinking: An introduction for Oxfam programme staff*, Oxfam: Oxford, United Kingdom. Online at: https://policy-practice.oxfam.org.uk/publications/systems-thinking-an-introduction-for-oxfam-programme-staff-579896

Location of this resource on the i2S website: https://i2s.anu.edu.au/resources/systems-thinking-oxfam-introduction

Systems thinking principles (example based on 'love') (updated video)

Purpose: To provide an understanding of key systems principles.

Description: This five-minute video uses 'love' as a universal example to illustrate what it means to think in systems (rather than parts) to better understand complexity. An example is provided of each of the following:

- Stocks
- Inflows
- Outflows
- Reinforcing feedback loops
- Balancing feedback loops
- Nonlinearity
- Delays
- Non-existent boundaries
- Unintended consequences
- Policy resistance
- Escalation
- Eroding goals
- Addiction
- Seeking wrong goals.

The following "wisdoms" are suggested as a guide towards systemic solutions:

- Take time to understand the system
- Make your language meaningful and truthful
- Favour quality over quantity
- Acknowledge mistakes, stay a learner
- Go for the good of the whole.

"A systems story" by BEE Environmental Communication was a short introduction to key systems thinking concepts uploaded in July 2014. Online: http://youtu.be/rDxOyJxgJeA

Location of this resource on the i2S website: https://i2s.anu.edu.au/resources/systems-thinking-principles-example-of-love

LATEST i2INSIGHTS BLOG POSTS

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

Effectively including online participants in onsite meetings
By Participants in the SESYNC theme "Building Resources for Complex, Action-Oriented Team Science"
https://i2insights.org/2020/03/24/effective-online-plus-onsite-meetings/

Fifteen characteristics of complex social systems
By Hamilton Carvalho
https://i2insights.org/2020/03/17/fifteen-aspects-of-complex-systems/

How can expertise in research integration and implementation help tackle complex problems?
By Gabriele Bammer
https://i2insights.org/2020/03/10/expertise-in-research-integration-and-implementation/

A framework to evaluate the impacts of research on policy and practice
By Laura Meagher and David Edwards
https://i2insights.org/2020/03/03/research-impact-evaluation-framework/

Theory U: A promising journey to embracing unknown unknowns
By Vanesa Weyrauch
https://i2insights.org/2020/02/25/theory-u-and-unknown-unknowns/

Transdisciplinary action research: A guiding framework for collaboration
By Steven Lam, Michelle Thompson, Kathleen Johnson, Cameron Fioret and Sarah Hargreaves
https://i2insights.org/2020/02/18/collaboration-processes/

Why do we protect ourselves from unknown unknowns?
By Bem Le Hunte
https://i2insights.org/2020/02/11/unknown-unknowns-and-creativity/

FEATURED JOURNAL AND JOURNAL NEWS

Journal of Science Communication

The Journal of Science Communication (JCOM) "covers a broad range of issues pertinent to science communication and public engagement with STEM, including citizen science as well as environmental and health communication, where these relate to communication of research."

The journal "publishes research that explores a wide range of issues pertinent to the science communication community, including: issues in communication between science and citizens and within the scientific community itself; challenges arising when models for theoretical analysis or practical means to popularize science are used; the changing relation between science and social institutions; and the informative, pedagogical, interpretative and political dimensions of science communication."

The journal seeks "to encourage interdisciplinary exchange in the study of today's complex knowledge societies and the role of publics and scientists in the development of new knowledge."

"In addition to research papers, JCOM also publishes invited thematic commentaries, essays, practice insights, reviews and letters."

Journal impact factor (2018): N/A

- **Website**:
  - https://jcom.sissa.it

Location of this resource on the i2S website: https://i2s.anu.edu.au/resources/journal-of-science-communication

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

Compilation of nine frameworks for transdisciplinary research

A compilation of nine frameworks for transdisciplinary research published in the journal *GAIA* between mid-2017 and end-2019 is now available online at:
https://www.oekom.de/publikationen/zeitschriften/gaia/c-275

FEATURED PROFESSIONAL ASSOCIATION

Network of Interdisciplinary and Transdisciplinary Research Organisations (NITRO) – Oceania

NITRO – Oceania is a "network of leaders fostering interdisciplinary and transdisciplinary research and education within and across organisations in the Oceania region." The aim of the network is to inspire and support "researchers to achieve transformational impact on global challenges by:

- Fostering attention to grand challenges of particular significance to the Oceania region
- Creating supportive environments and infrastructure
- Developing effective metrics for excellence, impact and return on investment
- Improving funding availability and outcomes
- Supporting next generation organisational leaders
- Providing effective career paths and role models for interdisciplinarians and transdisciplinarians at all levels, and especially to support early-career researchers

- Developing workable transition pathways to implementation of new metrics and effective career paths."

The network defines "interdisciplinary and transdisciplinary organisations as those fostering research and/or education that integrates across disciplines to more comprehensively understand and support action on complex societal and environmental problems. Such research and education may also involve: a) engaging with stakeholders, including decision makers and other research users; and, b) research implementation into policy and practice change." Organisations that are included in this definition can be "diverse in size, funding, structure and mission. Some have interdisciplinarity and transdisciplinarity as the core focus; for others interdisciplinary and transdisciplinary research and education sit alongside a wide range of discipline-based activities."

Membership of NITRO - Oceania is open to leaders in interdisciplinary and transdisciplinary organisations in the Oceania region.

The inaugural meeting of the network took place in Brisbane, Australia in May 2019.

NITRO-Oceania has several working groups, including one focused on impact narratives (success stories), and is also active in a global network of leaders in interdisciplinary and transdisciplinary research organisations.

- **Website**:
  - https://nitro-oceania.net/

Location of this resource on the i2S website: https://i2s.anu.edu.au/resources/network-interdisciplinary-transdisciplinary-research-organisations-oceania

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

FEATURED CONFERENCES

Postponed conferences

When we become aware of changes to relevant conferences due to COVID-19, such as rescheduling, cancellation or going online, we list that information on the conference webpage and also pass it on here.

- Interdisciplinary Learning and Teaching Conference scheduled for April 2020 has been postponed to Spring 2021: https://interdisciplinaryuk.net/pastconferences/
- UK Systems Society international conference scheduled for June 2020 has been postponed to June 2021: https://www.systemsforum.org/
- Sustainability Research and Innovation Congress 2020 scheduled for June 2020 has been postponed to 2021, dates still to be advised: https://sri2020.org/sri2020-postponed-until-2021/

- Evidence and Implementation Summit 2020 scheduled for October 2020 has been postponed to 30-31 March 2021: https://www.eisummit.org/

Additional conference information can be found at:
http://i2s.anu.edu.au/resources/conferences

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://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": https://www.linkedin.com/groups/4888295/
- i2Insights blog: http://i2Insights.org

To subscribe or unsubscribe to the newsletter go to "i2S News" 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.