EDITORIAL

Breaking the boundaries to knowledge integration: society meets science within knowledge management for development

Within the Knowledge Management for Development (KM4dev) community of practice www.km4dev.org and the wider field of knowledge management for Development (KM4D), there has been much emphasis on breaking down the boundaries between research, practice and policy because these boundaries are considered to hamper knowledge management and sharing of knowledge (Ho, Stremmelaar and Cummings, 2012). One way of overcoming these boundaries comprises processes of knowledge integration:

> *By integrating various forms of (new) knowledge - academic, practitioner, educational and cultural expressions of knowledge - new insights can be created and strategies formulated that contribute to the development of new policies and practices for the development sector.* (Ho, 2011: 13)

This Special Issue focuses on knowledge integration. Knowledge integration includes: knowledge production in knowledge institutions outside of the traditional scientific world, such as consultancy firms, think tanks and non-governmental organisations (NGOs); knowledge production by citizens and civic organisations looking to build counter expertise to scientific expertise; joint processes of knowledge integration initiated by non-academia (government, industry, public, NGOs) or scientists; as well as integration of multiple knowledges linked to the perspectives and roles of the various stakeholders: individual knowledge, local specialised knowledge, organisational knowledge and holistic knowledge (Brown 2011). This is by no means easy because of the different frames of reference and differences in opinion. Some stakeholders' knowledge will be implicit, neither written down (codified) nor put into words. Other components of knowledge integration can comprise:
- Participation of stakeholders in the process and in the design of the solution.
- Combinations of methods which take into account the complexity of the system such as actor analysis, causal analysis, and system analysis.
- Mutual learning in focus groups, round tables, expert sessions, stakeholder dialogues etc.
- Local scientific, cultural and political practices.

These perspectives on knowledge integration fit within the tradition of transdisciplinary research which addresses ill-defined, societal relevant, real-world *wicked* problems (Bunders et al, 2010: 134). Transdisciplinary research is characterised by participation, a focus on real world problems and the search for unity of knowledge beyond academic disciplines (Pohl and Hirsch Hadorn 2007: 70). Many transdisciplinary approaches often go by a different name because they are embedded in local scientific, cultural and political practices that differ by country. Transdisciplinary research has grown from efforts to meet practical, often local, needs and in very different contexts. Mono-, multi- and interdisciplinary scientific knowledge are here combined with experiential knowledge to share, construe and test new knowledge in

what is called Mode 2.0 knowledge development (Regeer and Bunders 2009). Within the context of Mode 2.0 knowledge development, several trends are currently taking place which are of great relevance to knowledge and KM4D in particular.

The Special Issue

This Special Issue aims to increase awareness of transdisciplinarity within KM4D – as well as the awareness that KM4D fits within the transdisciplinary tradition – but will also aim to contribute to conceptual development regarding the links between development and transdisciplinary approaches. It comprises 11 contributions, comprising 9 papers and two other contributions: one 'Methods and Tool' and one 'Short story'. The 9 papers are broken into three categories. First, four papers dealing with knowledge integration and co-creation but not necessarily in one particular sector. Second, two papers dealing with disability inclusive development and, finally, three papers dealing with health. The first paper sets the scene for the rest of this issue. All the rest of the papers are listed by alphabetical order depend in the sub-section to which they belong.

General papers

The first paper is entitled 'Proposing a fifth generation of knowledge management for development: investigating convergence between knowledge management for development and transdisciplinary research' and has been written by some members of the Guest Editor team for this issue. In this paper, an overview of the state of the art of KM4D is provided, based on existing views of the different generations of knowledge management (KM). Next, an introduction to the development and characteristics of trandisciplinary research is provided. Third, convergence and divergence between KM4D and transdisciplinary research is examined. Fourth, the ways in which KM4D can benefit from approaches developed in transdisciplinary research are considered, as well as some ways in which trandisciplinary research can benefit from KM4D.

The next paper 'Diversity and tensions in knowledge production and dissemination: a closer look at the activities of 10 civil society organisations in Ghana' (Denise Beaulieu) presents the results of multiple case study research, identifying the diversity and richness of approaches to knowledge production and dissemination. The participating CSOs all produced knowledge on priority topics because it was not available from other sources. The scarcity of data was particularly acute in the case of groups advocating for gender issues looking for sex-disaggregated data. Common patterns of knowledge production and dissemination could not be identified because there were more differences than similarities in how the CSOs produced and disseminated knowledge. These varying patterns of knowledge production and dissemination are indicative of the various degrees of knowledge contextualization. It was concluded that CSOs face barriers to their engagement in evidence-based policy debates because the quality of the knowledge they produce makes it vulnerable to marginalization by those powerful actors who decide which evidence is acceptable. Findings from this paper can help CSOs and other development partners develop dissemination strategies to make the most of the knowledge produced.

Next, 'Transformation science: seven collective questions for a just and sustainable future' (Valerie A. Brown and John A. Harris) offers a framework for inquiry in sustainable development that draws on the full range of human experience, all of which needs to be considered under conditions of development and transformational change. When communities are coping with transformation change, personal, biophysical, social, ethical, aesthetic, and sympathetic questions need to be asked of key individuals, the local community, expert advisors, organizations and creative thinkers, followed by reflective questions on the meaning of the combined answers. The collective answers that come from all the diverse interests in a development programme provide a collective understanding of the needs for a just and sustainable future for the whole development community. To illustrate transformation science, the approach is applied to sustainable development of the Meriam culture of the Murray Islands, part of the Torres Straits Islands and previously part of Australia. This approach of collective action research, based on collective learning, was the research method employed by the Local Sustainability Project 1992-2013 in communities coping with transformational change.

The final paper in this sub-section is 'Creating social entrepreneurship for rural livelihoods in Bangladesh: perspectives on knowledge and learning processes' (Jeroen Maas, Joske Bunders and Marjolein Zweekhorst) which involved a study of how PRIDE, a non-governmental organisation, stimulated entrepreneurial learning among poor women in a rural areas of Bangladesh. Data were gathered during two years of monitoring, group interviews and individual interviews with entrepreneurs, their families and people from their networks. The findings suggest that both formal training and learning from experiments are effective, mutually reinforcing mechanisms to stimulate social entrepreneurship. Initially, entrepreneurs experience single loop learning in training settings. The first double loop learning event occurred when they saw the positive results of their own successful experiments and newly acquired knowledge. Double loop learning occurred in the affective dimension when the women involved realize that they can be entrepreneurs.

Disability inclusive development
The first of two papers on disability inclusive development comprises 'The power of personal knowledge: reflecting conscientization in the lives of disabled people and people affected by leprosy in Cirebon, Indonesia' (Beatriz Miranda-Galarza, Mimi Lusli, Marjolein Zweekhorst and Fiona Budge). This paper describes the *conscientization* process among disabled and leprosy affected research assistants and lay counsellors of the Stigma Assessment and Reduction of Impact (SARI) project in Cirebon, Indonesia. *Conscientization* or critical consciousness refers here to the awakening of the individual regarding his or her individual and social situation to provoke individual and collective change. A significant factor in this process relates to the newly assumed role of staff in the SARI project. Findings from the literature on personal knowledge, its conceptualization and the role of *conscientization* are first presented, including the political nature of personal knowledge and its significance for social change as well as personal knowledge in the context of disability. Narratives portray practice as the materialization of personal knowledge and affirm the value of reflection, experience, intention, context and geographies of power when searching for individual and social *conscientization.* The conclusion reflects on the importance of *conscientization* of

personal knowledge and its contribution to the field of disability and social change and, briefly, to the field of knowledge management for development.

The second paper, 'Mutual learning for knowledge co-creation about disability inclusive development: experiences with a community of practice' (Saskia van Veen, Joske Bunders and Barbara Regeer) documents the experiences of over 30 organisations with a community of practice on disability inclusive development. Through the facilitated process of knowledge co-creation, the participants developed a shared repertoire of insights, tools and guidelines/checklists to include people with a disability in development processes. This tacit knowledge was made more socially robust by experimenting within the mainstream development practices of the home organisations of the participants. Finally, this socially robust knowledge was de-contextualised and aligned with different scientific and professional communities through newsletters, a practical guide, peer reviewed articles and presentations at conferences.

Health
The first paper on health, in this case, mental health comprises 'Integrating service user knowledge in the development of "good" mental health care: challenges and opportunities in low and middle income countries' (Lia van der Ham, Laura Shields and Jacqueline Broerse). It uses transition theory to determine barriers and opportunities in terms of the dominant structure, culture and practice of a mental healthcare system and how they relate to integration of service user knowledge. Regime factors that hamper knowledge integration include: the lack of mental health policy, legislation and resources; stigma; and power differences between professionals and service users. Opportunities for integration of service user knowledge might be found in adopting rights-based, wellbeing-oriented approaches, connecting to broader societal trends. In addition, adopting strategies of deepening, broadening and scaling-up of current initiatives at the niche level might enhance the shift towards integration of service user knowledge.

The following two papers on health are both concerned with maternal and reproductive health in East Africa. The first 'Mapping networks to improve knowledge exchange among family planning and reproductive health organisations in Ethiopia' (Sarah Harlan, Tara Sullivan and Samson Hailegiorgis) is part of wider qualitative health information needs assessments, undertaken in Ethiopia, India, Malawi, Peru, and Senegal, by the Knowledge for Health (K4Health) Project at the Johns Hopkins Centre for Communication Programs (JHU·CCP), USA, and funded by the US Agency for International Development (USAID). As part of this multi-country research effort, K4Health designed a needs assessment and network mapping study in Ethiopia in order to examine the social knowledge management (SKM) system among family planning and reproductive health organizations in Ethiopia at the national, regional, and district/*woreda* (community) levels. Net-Map, a novel, participatory, transdisciplinary approach, was used to yield a highly visual presentation of the data that identifies key actors in Ethiopia, explores the nature of relationships among the actors, and examines the level of influence of the different actors with regard to information exchange.

Next, 'Reflections on the dynamics of the coexistence of multiple knowledge cultures in a community-based maternal health project in Tanzania' (Andrea Solnes Miltenburg, Evelien

Rijkers, Naomi Maselle, Jamal Barass, Jos van Roosmalen and Joske Bunders) investigates the low uptake of maternal health services in Magu District, arguing that the gulf between local knowledge, biomedical knowledge and organizational knowledge has resulted in a mismatch between demands and needs of women and the supply of services. Healthcare providers and women were found to have markedly different perspectives on causes of delay to reaching appropriate care, based on their different knowledge cultures. Healthcare workers cited socio-cultural motivations as main reasons: women's lack of knowledge on the importance of antenatal care or lack of decision-making power in the household. However, most women seemed to base their decision on the perceived accessibility and quality of care. For women, financial risks outweighed the risks of pregnancy. This case demonstrates that improvements in healthcare cannot be reached by simple technical interventions and policies. Instead, partnerships are needed between different stakeholders from different knowledge cultures based on mutual respect and recognition of the value of each other's knowledge.

Other contributions
In the 'Methods and Tools' section, the next contribution, 'Guidelines for knowledge integration: navigating a myriad of perspectives' (Wenny Ho) provides parameters for the use of knowledge integration in social change and innovation programmes. It aims at demystifying the concept by providing practical advice for three sets of professionals: managers overseeing social change programmes, professionals designated as knowledge workers, and programme staff in general. It ends by describing the sequencing of a generic knowledge integration process. Although operational, this sequencing draws on theoretical models rooted in learning and organisational change theories. The guideline was originally developed for Hivos, an international development organisation located in The Netherlands.

Finally, we have a 'Short Story', 'A reflection on positionality and knowledge processes in transdisciplinary research' (Ruth Peters) in which the author reflects on her own positionality, namely her 'baggage' and position in transdisciplinary research. She shares her understanding of the path she has travelled to her position as a researcher in the Stigma Assessment and Reduction of Impact (SARI) project which aims to reduce stigma and improve the lives of people affected by leprosy in Cirebon District, Indonesia. This short story highlights that understanding one's own positionality should be encouraged in transdisciplinary research as it can help break down barriers to knowledge co-creation processes.

Our thanks
Finally, we would like to thank all of the contributors who have written papers for this issue, all of the colleagues who reviewed papers and provided feedback to authors. We are very pleased with the quality of the contributions and would like to thank the authors for the efforts they have made to view KM4D from a transdisciplinary lens, and *vice versa*.

Valerie A. Brown, Sebastiao Ferreira, Wenny Ho, Barbara Regeer and Marjolein Zweekhorst with Sarah Cummings
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About the Guest Editors

Valerie Brown is Director of the Local Sustainability Project, Fenner School of Environment and Society, Australian National University, during 1992-2013. Valerie was a member of the Australian National Health and Medical Research Council 1984-92, and CSIRO Council 1986-2004. In 1999 she was appointed an Officer of the Order of Australia for national and international research, policy development, and advocacy for sustainable development. She was inaugural Professor of Environmental Health at the University of Western Sydney 1995-2002. Valerie is currently working on collective learning as a tool for transformational change. Over 300 collective learning workshops have been delivered across Australia and in Nepal, Europe, Malaysia, Fiji and China. Her 100 research papers and 10 books explore the human capacity for transformational change. She is a member of the KM4Dev community and a member of the Editorial Board of the *Knowledge Management for Development Journal*. E-mail: valeriebrown@ozemail.com.au

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