

TITLES AND ABSTRACTS OF PRESENTERS

Baker, Virginia,

Title: “‘Up the pipe’: Re-shaping engagement to resolve ‘wicked problems?’”

Abstract:

The science, community and policy interface is vital to Crown Research Institute work and whilst ‘upstream’ public engagement, collaborative design and deliberative democracy are ideals, the funding opportunities often dictate a focus that is applied, client based and project specific. A recent Ministry for the Environment-funded ‘Up the Pipe’ project has sought to extend cutting edge biophysical science on ‘emerging contaminants’, investigating environmental impacts from common household and personal care products (parabens, triclosan, etc.) that enter rural and municipal waste water treatment processes. The project aimed to reduce the contaminants in household waste and offer innovative classroom/community science educational approaches to explore ‘what goes down the drain’, build scientific citizenship, and position sustainable behaviour changes for households. But is this enough? Current policy and funding opportunities increasingly ascribe public education or individual behaviour change models as appropriate solutions for ‘wicked problems’. This paper explores some dynamics in the interface of science, policy and society, and the opportunities and tensions in building effective structural change for sustainability.

Bollard, Rebecca

Title: “New technologies and ethics: Researching the personal”

Abstract:

In New Zealand, assisted reproductive technologies (ARTs) are both a relatively common medical technology, and a deeply personal topic. Those seeking to use them are often on a deeply personal journey, one that is lengthy and fraught with emotion and difficult choices. However difficult, no research would be complete without including a variety of the lived experiences – infertility, childlessness, those seeking ARTs, and those using (or have used) ARTs. Thus one of the chief considerations for those conducting social research on ARTs is collecting and integrating these stories into the research in an ethical manner. A number of research steps, including locating participants, carrying out interviews and discussions in a sensitive manner, and using the information collected while respecting confidentiality all raise serious ethical questions. Resolving some of these ethical issues is essential to creating spaces where productive and positive public engagement can occur.

Coyle, Fiona J.

Title: “How early is too early? Small-scale deliberative stakeholder engagement around the siting of Carbon Capture and Storage in New Zealand”

Abstract:

Carbon Capture and Storage (CCS) is relatively new to the portfolio of responses to climate change, and is still earning its 'social licence to operate'. As yet, there are no plans to deploy the technology in New Zealand, but the Taranaki region would be the most likely location for CO2 storage, due to its oil and gas industry, potential storage reservoirs, and skilled local workforce. This permitted very early, small-scale deliberative engagement with local stakeholders (urban community, farmers and landowners, local iwi, local/regional council, and the oil/gas industry). This occurred in May-June 2013, via group discussions around a future scenario, direct engagement with scientists, and a final small-scale deliberative conference, where all participants were involved in solution-focused decision-making. This paper presents an overview and critique of the method. Key success factors were the empowerment of focus group participants and the opportunity for facilitated dialogue around important issues for the community.

Dryzek, John

Title: "Deliberative Engagement"

Abstract:

Deliberative democracy rests on the idea that democratic legitimacy depends on the right, opportunity, and capacity of those subject to a collective decision to participate in consequential deliberation about its content. Especially when it comes to issues concerning risks associated with new technologies, deliberative mini-publics composed of non-partisan lay citizens have become a popular means for pursuing this ideal. Critics point out that a mini-public can involve only a tiny proportion of the public. Yet we can still learn a lot from mini-publics about what needs to be done in the larger public sphere. Moreover, we can think of mini-publics as moments in the life of larger deliberative systems, fulfilling some but not all of the qualities that are desirable in a deliberative democracy.

Fletcher, Amy

Title: "Towards effective community engagement with personalised medicine"

Abstract:

My current work focuses on the challenges of and opportunities for public engagement on the issue of personalized medicine. Genetically targeted pharmaceuticals (pharmacogenomics) could be extraordinarily beneficial to groups currently underserved by medical systems. However, the move from mass medicine to personalized medicine raises important policy concerns about cost and access, prioritization of medical conditions, social divisions, and the comparative access and influence of diverse stakeholders. I am interested in comparing public engagement with recent pharmacogenomic innovations and policy (with a specific reference to multiple sclerosis) to previous experiences with two early prototypes, BiDil and Herceptin, in order to map current issues and to

analyse and improve both health governance and policy mechanisms for moving technological breakthroughs from the lab to the patient in sustainable and effective ways.

Fox, Ashleigh

Title: "Understanding science, or the science of understanding?"

Abstract:

The FEAST (Facilitating Engagement of Adults in Science and Technology) initiative, a 3-year project funded by the EU Commission, aimed to foster adult engagement in children's learning. The project groups investigated how the general public engage with science, and then designed workshops to support inquiry-based learning, to encourage critical reflection and to build methodologies for the explainer (the scientist) to mediate this interaction. We can apply the FEAST rationale in New Zealand to make complex science more accessible to the public, for example, to help combat the perceived 'CSI effect' and thereby foster greater understanding of forensic science in future generations of potential jury members. It is imperative for scientists to enhance and maintain effective communication, both within their professional communities, and with the public. We need to be pro-active, taking advantage of all the accessible distribution channels and opportunities to engage external parties and strengthen the position of science in New Zealand's future.

Greensill, Angeline

Title: "Biocolonialism and resisting the commodification of biodiversity in Aotearoa"

Abstract:

Biotechnology such as genetic engineering has had a significant impact on Maori whanau, hapu and iwi working to maintain tino rangatiratanga over our genetic materials and who are seeking to ensure the protection of whakapapa and tikanga approaches to wellbeing. Angeline will discuss key issues that have been faced by her own whanau, hapu and iwi in the area of Maori wellbeing.

Harry, Debra

Title: "New biotechnologies and issues of intellectual and cultural property for indigenous peoples"

Abstract:

Bio-colonialism extends the reach of the colonial process into the biomes and knowledge systems of Indigenous Peoples as bio-prospectors search for marketable genetic resources and traditional knowledge. Traditional knowledge and genetic resources are the currently subject of international standard-setting processes. Dr. Harry will discuss Indigenous Peoples' efforts to advance Indigenous Peoples rights in the United Nations to protect Indigenous Peoples' biodiversity and Indigenous knowledge.

Hendy, Shaun

Title: "The naked scientist"

Abstract:

There is more need than ever for scientific understanding and insight to be brought to bear on the issues that confront our society. In this talk I discuss the responsibilities of practising scientists to engage in public discussion of issues affected by science. This not only includes the responsibility to communicate their own work, but also involves the discussion of issues of the day that may lay outside their domain of specialist expertise and engagement in direct dialogue with the community. I will talk about the barriers that science communicators and commentators face, including some erected by the scientific community itself, as well as how we can make it easier for scientists and researchers to engage with the public.

Kathlene, Lyn

Title: "Citizen engagement – Finding innovations along the way"

Abstract:

Theories and models of effective citizen engagement are important resources in a practitioner's toolbox but nothing beats contextual creativity. Each citizen engagement opportunity presents unique challenges that must be incorporated into the process. Flexibility, out-of-the box thinking, and a willingness to venture into unknown territory are necessary ingredients to designing a process that meets the needs of the planners/policy makers and of the affected population. How do we recognize when creativity is needed, how can we adapt well-honed processes, and what can we expect in return? Dr. Kathlene will use case studies ranging from city-wide transportation master planning, to urban renewal projects, to watershed coalition building to demonstrate the benefits of dynamic citizen engagement process design.

Lee, Young Hee

Title: "Technology and citizens: A case study of the first citizens' jury in South Korea"

Abstract:

Due to technical complexity, most public policies in technological society are dominated by expert-centrism and technocracy, based on the belief that they should be the exclusive realm of technical experts. This is particularly true in S. Korea's public policy cultures even after democratization of S. Korean society. But globally, technocratic policy-making culture is faced with challenges. I analyze the democratic implications of the Korean experience of the citizens' jury, a form of citizens' deliberative participation. I examine the citizens' jury on the National Pandemic (particularly *Avian Influenza*) Response System in 2008, which was the first case of the citizens' jury in S. Korea. Fourteen members of randomly selected citizens' jury spent four weekend days across two weeks

learning and deliberating S. Korean government's Avian Influenza policy. I conclude by identifying its democratic implications in S. Korean society.

Lewis, Nick; Shaw, Richard; Arcus, Vic

Title: "Beyond 'engagement': Knowing and doing differently in New Zealand Research"

Abstract:

In this paper we explore controversial dimensions of claims about the need to transform public engagement in 'Science & Technology'. We draw on experiences from the Oxygen Group, He Waka Tangata and Taki Ao, our work within universities, and research into the rise of the Third Mission to argue that science communication is neither the source nor the solution to the problem of building a sustainable and generative public engagement in 'NZ Science' (NZS). Rather the problem lies much deeper in the organization of our universities and CRIs and the ways in which they are 'policied'. Any solution must begin with a more incisive and penetrating critical reflection on the architecture and practice of NZS, and a much deeper reading of the dynamics and multiplicity of 'the public'. It must transcend superficial calls for public acceptability and/or social license. Social theory and critical reflection on grounded scientific practice have much to offer in pointing to necessary changes.

MacArthur, Julie

Title: "Challenging public engagement: Participation, deliberation and power in energy policy design and implementation"

Abstract:

Citizen engagement in policymaking represents an increasingly popular mechanism for civic rejuvenation and policy innovation. Its application in many different policy fora from city budgeting, to housing and energy systems across various national contexts provides, in theory, space for the public to feel empowered, connected to new policy spaces and positions them to aid in design and implementation of more effective solutions to complex social and environmental problems. This engagement takes many different forms such as deliberative polling, citizen's assemblies, online referenda and even creation of community-based ownership in key sectors. However, various forms of engagement are also accompanied by challenges of design and capacity that can undermine their effectiveness and, ultimately, public confidence in government actors and processes. This paper outlines key promises and challenges arising from research on citizen engagement in renewable energy policy design and implementation with a view to providing a basis for more informed and effective practices in the future.

Mercer, David

Title: "Negotiating the tensions involved in communicating about science in particular and science in general"

Abstract:

When regulators and publics are called on to evaluate the implications of new science they frequently find themselves considering broader universalistic dimensions of science: 'the scientific method', 'science as way of knowing', 'science vs values' etc. These broader images of science can invite dialogue about the philosophy of science and ethics which in some contexts is valuable. More often though problems arise when dialogue relating to specific and immediate implications of a new area of science becomes confused by being linked to such broader visions which are often difficult to pronounce on in a definitive way or are difficult to apply to practice. I will argue that sociologically and historically 'grounded' discussion of 'science in particular' e.g. scientific institutions, disciplines, skills, practices and tangible scientific and social implications etc. should in most contexts be given priority over open ended discussions about 'science in general'.

Mika, Carl

Title: "Problematizing 'ira': Existential or rational?"

Abstract:

In literature about genetics, the phrase 'ira tangata' has been commonly resorted to as the Maori equivalent of 'gene'. The translation suggests that 'ira' in particular is a thing comprising specific properties; moreover, this thing is located within an environment – the body – that is able to be removed from its relationship with the world and studied. Ira, the Maori self, and the Maori world thus neatly fit a Western metaphysics of presence and visibility. The equivalence between gene and ira is not borne of science in the first instance but one reflecting that particular metaphysics. I claim that the correspondence between the terms is yet another example of philosophical colonisation, and theorise that ira is much more an existential phenomenon that should not be regarded as a thing of essence but may be thought of as an indication of mysterious situatedness within the world. I suggest that Ira is one example of many that signifies vulnerability towards things, and above all depicts a comportment towards the invisible and the unknowable.

Payne, Deborah

Title: "New Zealand's process of applying for ethical approval for specific ART procedures"

Abstract:

While previously the National Ethics Committee on Assisted Reproductive Technology (NECHAR) reviewed novel treatments and research and developed guidelines on related topics, there was no legal requirement to seek the committee's approval and comply with its decisions. The introduction of the Human Assisted Reproductive Technologies Act (2004) brought in the Advisory Committee on

Assisted Reproductive Technology (ACART) and the Ethics Committee for Assisted Reproductive Technology (ECART). The role of ECART broadly is to decide on applications for assisted reproductive technology using non-established procedures, and human reproductive research. This presentation provides a broad overview of ECART, explores the concerns articulated in documentation regarding the 2004 Act that brought the revised functions of ECART into being, and the process by which the guidelines that shape ECART are created. Do the existence of ECART and the processes required as part of an application create and ensure a limited form of public engagement?

Peters, Monica

Title: "Grassroots Citizen Science: Community solutions for measuring the success of environmental restoration projects"

Abstract:

In a typical "Citizen Science" project, community volunteers act as the 'eyes' for scientists to help answer bigger questions such as climate change effects on flora and fauna. Throughout NZ community groups are using diverse science-based methods to measure the success of their environmental restoration projects – this is "grassroots" Citizen Science. However, dissatisfaction with available monitoring protocols has led to some groups developing hybrid approaches to better meet their restoration needs and limited budgets. Interview feedback from agency representatives and scientists reveal concerns with the validity of community generated data by some, while for others community data represents an opportunity to fill gaps in environmental reporting. What solutions exist for storing and sharing community data, as well as strengthening data validity? These questions are being asked not only by resource managers but also within the community restoration and NGO sectors. Though international Citizen Science projects provide many insights along with practical examples, what approaches might work best within New Zealand's unique context?

Pihama, Leonie

Title: "Critical indigenous views on biocolonialism and the impact of new technologies"

Abstract:

Dr Pihama will serve as Chair for the panel on "Critical indigenous views on biocolonialism and the impact of new technologies". She will provide an overview of key Maori research in the area of tikanga and biotechnologies. This presentation will raise critical issues of the impact of biotechnology on whakapapa, mana and mauri, and will open key questions that will be addressed by other speakers on the panel.

Russell, Wendy

Title: "A STEP towards public engagement in national science and technology policy in Australia"

Abstract:

A recent response to the policy challenges of emerging technologies in Australia was a National Enabling Technologies Strategy (NETS), implemented within the federal innovation and industry department (2009 – 2013). A best-practice framework for community engagement, Science and Technology Engagement Pathways (STEP, www.industry.gov.au/step), was developed under NETS. It was co-designed through a multi-stakeholder engagement process that included citizens, and implemented in a series of engagements called *STEP into the Future*. Both the co-design process and *STEP into the Future* received Core Values awards from the International Association for Public Participation (IAP2) Australasia branch. Features and challenges of the STEP project included elevating ‘ordinary’ citizens to the status of stakeholders, opening up discussions about national technology and innovation policy, including and gaining commitment from decision makers in dialogues, and creating ongoing engagement ‘pathways’ (Russell, 2013). STEP provides an accessible and robust framework for organisations seeking engagement to inform science and technology decisions.

Salmon, Rhian A.; Govan, Joanna; Priestley, Rebecca

Title: “The history, politics and practice of science outreach – how the politics of different sciences shapes communication by scientists”

Abstract:

“Science outreach”, or communication of science by scientists, is relatively commonplace but rarely examined critically. This research is a collaboration between a scientist communicator with a positive attitude to outreach, who works in the field of climate change; a political theorist with expertise in public dialogue around biotechnology and who has been critical of motivations for engaging the public with science; and a science historian and science communicator, who has uncovered surprising and significant changes in public attitudes towards nuclear science and technology in New Zealand. By exploring outreach through these diverse disciplinary lenses, and applying these approaches to fields of science that are or have been highly controversial for different reasons, this new research project will illuminate the politics, practice and history of outreach in New Zealand, while at the same time providing a new approach to the study of outreach internationally.

Šunde, Charlotte; Longley, Alys

Title: “Imagining Water Sustainability: Art-science collaborations for a fluid city”

Abstract:

Imagining Water Sustainability is a project led by University of Auckland researchers that focuses on multidimensional aspects of urban water sustainability. Its aim is to develop transdisciplinary methodologies for connecting important research in sustainability to specific urban communities. Central to the project is interactivity between academics, community members and school students

through processes of listening, sharing, imagining, dialoguing and participating. Imagining Water Sustainability uses the infrastructure (i.e. three mobile vessels towed by bicycles) previously developed for the Fluid City project (www.fluidcity.auckland.ac.nz), which emerged from a diverse interdisciplinary research team that came together to create a dynamic interactive installation for the general public. This art-science-education project has since had highly successful tours to Wynyard Quarter on Auckland's waterfront (for UN World Water Day 2012) and the Whau Estuary (aligned with Auckland Arts Festival 2013). **LAST SENTENCE IN THE EARLIER VERSION NEEDS TO BE DELETED**

Tallbear, Kim

Title: "Combating colonial technoscience – Lessons from the frontlines"

Abstract:

Historian Ian Mosby's 2013 research article in *Social History* detailed shocking unethical nutrition experiments done on First Nations people in Canada, including children, during the mid-20th century. Chronically malnourished Aboriginal people—victims of colonial interference in their traditional lifeways and subsequent government deprivation—were used as a living human laboratory for nutrition scientists' research. This is but a latest revelation of unethical technoscientific research done on indigenous people by scientists whose assumptions and goals are shaped by a colonial state. TallBear will give several examples of such research, provide an over-arching analysis through case comparisons, and highlight lessons learned for resisting the ongoing colonial work of the 21st century scientific state that still views indigenous peoples as natural resources upon which to build the nation. Ironically, resisting the colonial state includes indigenous peoples themselves colonising technoscientific fields and appropriating the resources of those fields to build indigenous capacities, institutions, economies, and knowledges.

Tamatea, Armon

Title: "Crime risk prediction technologies: Law, psychology, and human rights"

Abstract:

Protecting the public from future harm of violence is a central concern for criminal justice agencies. Post-sentence detention has been proposed to empower the New Zealand High Court to issue a public protection order to detain a person if they pose a '*very high risk of imminent and serious sexual or violent reoffending*'. Such legislation acts as a precautionary measure but also means imposing incarceration in the absence of a crime. The execution of such an order requires accurate prediction of behaviour. Current risk prediction technology as used in New Zealand reflects the state-of-the-art and draws from actuarial measures, personality models, and behavioural theory. However, these tools are still less-than-perfect at predicting dangerousness. This brief presentation will highlight some of the issues that exist at the interface between behavioural risk prediction technology and human rights.

Wolf, Amanda

Title: "Between-case dialogue"

Abstract:

The elusiveness of agreement marks emerging-technology debates. In dialogic settings, the variety of people's experiences thwarts easily discovering or creating common understanding. Dialogue enables individuals to share subjective experiences in case narratives, thereby opening windows on unique experiences ('what I see'). Yet dialogic workshops with policy-action imperatives aspire to objective, collective perspectives ('what can be seen'). In comparison, second-person narrative operates between cases, offering a way to advance policy aims while retaining the insights of subjective temporal-spatial specificity. Dia-logue – between reason – is also intersubjective, entailing both subjective representations and listeners' representations, considered in light of their perspectives and experiences ('what I see, from my perspective, what you see from yours'). Iteratively working with these representations in a dialogic workshop can be tuned to discovering locally generalizable patterns and to creating new second-person plural pragmatic understandings ('what we see').

NOT PRESENTING, BUT PARTICIPATING:

Allen, Kristiann – chairing the policy engagement roundtable session; **Campbell, Alison** – discussion leader; **Goddard, Rachael** – participant; **Goven, Joanna** – discussion leader; **Howard, Stephanie** – discussion leader; **Hudson, Maui** – discussion leader; **Kelly, Betty-Ann** – session chair; **Kurian, Priya** – symposium organiser and co-leader; **Laible, Goetz** – session chair; **Legge, Michael** – participant; **Mackenzie, Graeme** – symposium administration; **MacRae, Elspeth** – participant; **Matete, Beryl** – participant; **McMillan, Christl** – participant; **Morrison, Sandy** – discussion leader; **Morrison, Talei** – participant; **Munshi, Debashish** – symposium organiser and co-leader; **Saunders, Sue** – participant; **Scott, Stacy** – session chair; **Simms, Meliors** – featured artist; **Widick, Richard** – discussion leader; **Wouters, Mariska** – participant; **Wright, Jeannette** – participant; **Vishwanath, Vish** – session chair