LETTER

Piecing Together the Elephant: Public Engagement on Nanotechnology Challenges

Craig Cormick

As Kyle and Dodds point out in *Science and Engineering Ethics* issue 15, engaging the public on nanotechnology issues has clearly become a high priority over recent years and the increasing amount of social science research feeding into public engagement should improve the quality of what is being undertaken (Kyle and Dodds 2009). But should we now turn the gaze of research closer towards the organisations undertaking engagement, and try to understand them and their values as well as we are seeking to understand those of the public?

The Australian Office of Nanotechnology (AON) is charged with undertaking community engagement activities, seeking to encourage an informed debate based on balanced and factual information. This has included information exchange and education programs, underpinned by ongoing public attitude research to best understand the Australian public.

One lesson that has been gained by the Office from working with partners in the OECD, and through exposure to experts like Professor Arie Rip of the Netherlands, is that many engagement activities don't really find many things new, and many have trouble translating their engagement outcomes into actual policy outcomes when not all key stakeholders have buy-in to the process (OECD 2008).

Having undertaken a series of nationwide community forums on nanotechnology, providing information and hearing from the public, a key challenge identified in Australia was how to engage with the unengaged, rather than the already engaged—who tend to make up the audiences for such events. It can also be difficult to attract and maintain public interest in a debate being conducted between interest groups, particularly when it degenerates into polarised extremes of those passionately for

C. Cormick (✉)
Department of Innovation, Industry, Science and Research, Public Awareness and Engagement, Australian Office of Nanotechnology, GPO Box 9839, Level 10, 10 Binara Street, Canberra, ACT 2601, Australia
e-mail: craig.cormick@innovation.gov.au
URL: www.nanotechnology.gov.au

and against the technology—neither of which align well with the broad public interest in hearing a balanced account of the relevance of different applications to their lives.

Seeking to find a more effective and inclusive way to engage the public, the AON held a workshop on Social Inclusion and Engagement on Nanotechnology, late in 2008, inviting equal numbers of representatives of the five key interest groups: government, industry, researchers, community groups and activists or change agents, seeking to develop some common principles and try to find ways to work together rather than against each other. Amongst the 45 people who attended were five members of the general public, chosen by a market research company as best representing people about mid-range in public attitudes, based on a previous Australia-wide attitudinal study (Australian Office of Nanotechnology 2008).

There were also a few notable absences from organisations who were invited and would have undoubtedly added a lot to the day, but chose not to attend, including Friends of the Earth, who stated, amongst other reasons, that the participant list was too strongly skewed to industry (although industry representatives were in fact by far the smallest group in attendance). This was perhaps a demonstration of how preconceived biases and values may influence the decisions not just of the general public, but of organisations engaged in the public debate on nanotechnology.

The full day workshop sought to meet the participants' stated objectives of:

- Exchanging views and sharing ideas between stakeholders.
- Sharing an understanding of nanotechnology issues.
- Sharing ideas on how to promote awareness of nanotechnology.
- Clarifying the Government's role in relation to nanotechnology.
- Discussing how best to encourage information dissemination and public participation.
- Creating a process and framework for improved social inclusion and public engagement.

And the outcomes? After breaking into groups and work shopping issues, there was a general agreement on key principles that should underpin engagement:

- Deliberative
- Inclusive
- Substantive
- Consequential

There was also general agreement that there needed to be wider dialogue on nanotechnology issues—especially between the community and industry, and between the community and government.

And while each of the key participating groups were able to well articulate their different positions and perspectives, there was little evidence of this altering anybody's point of view. An initial driving idea behind the workshop had been that if everybody described the piece of the elephant in the darkened room that they encountered, to use the common analogy, then it would be possible for participants to see the shape of the whole elephant, and as a result see a bigger picture approach

to public engagement that might lead to more working together than working against each other.

But in fact, most individuals and groups defended their positions more strongly, rather than moving towards any middle ground.

One of the most interesting findings, however, was the reaction of the members of the general public who tended to find the anti-nanotechnology activist groups in attendance too alarmist, and wanted to hear the risks posed in terms of benefits, and vice versa. This tended to support the view of Kahan et al. (2009) that how a message is framed can be more important that what it says.

So what was learned?

Well, many of the outcomes were also not very new, such as that different groups have different attitudes to the adoption of nanotechnology and different attitudes tend to be driven by differing values.

Yet the workshop did lead to the kick-starting of several engagement activities by participants, and some new partnerships have been formed. But some only wish to engage on their own terms and others are still a little reluctant to engage with the public.

The workshop also led to a few pertinent questions, such as whether many activist groups should more accurately claim to represent the public's interests rather than representing the public? Which begs the question of who really does represent the public if not the public themselves? And will the energy that has gone into defending the different positions, policies and perspectives of all key interest groups continue, often through piece-meal communication and engagement activities designed more to reinforce positions than to actually engage with the public on the issues they really wish to engage on?

And that's perhaps the most important point that the workshop uncovered. Despite all the rhetoric about it, engaging with the already engaged is actually fairly simple, but to really seek to engage with the wider public, stripping out ideologies, biases and one's own values, is a whole other level of difficulty.

It might not ever really be possible, of course, since every organisation views the elephant from where it is positioned, and is often unable to shift that position easily, nor even recognise biases, but any one undertaking public engagement should at least look critically at what they are doing and ask, is this how an unbiased member of the 'mid-range public' might have designed this?

(The full workshop report can be viewed at: www.nanotechnology.gov.au)

References

Australian Office of Nanotechnology. 2008. *Australian Community Attitudes held about Nanotechnology—trends 2005 to 2008.* http://www.innovation.gov.au/Industry/Nanotechnology/Pages/PublicAwareness andEngagement.aspx

Kahan, D. M., Braman, D., Slovic, P., Gastil, J., & Cohen, G. (2009). *Nature Nanotechnology, 4*, 87–90. doi:10.1038/nnano.2008.341.

Kyle, R., & Dodds, S. (2009). Avoiding empty rhetoric: Engaging publics in debates about nanotechnologies. *Science and Engineering Ethics, 15*(1), 81–96. doi:10.1007/s11948-008-9089-y.

OECD. 2008. OECD Working Party on Nanotechnology workshop on best practice engagement with the general public in nanotechnology, Delft, The Netherlands, 29–30 Oct 2008.