

9 TRANSATLANTIC PERSPECTIVES ON PUBLIC ENGAGEMENT

Although becoming more common, consultative public engagement is not well embedded in UK policy making procedures. As it becomes better established, there is a tendency to see the UK in the vanguard of a new approach to public engagement. Yet, as **Edna Einsiedel** points out, North America has a number of well-entrenched systems of consultative public engagement, and has learned much about how these systems are best applied.

Organisations and institutions involved with science in many countries share the goal of increasing public engagement and awareness. But the specific ways their efforts play out are affected by different histories and national political cultures. If we recognise that, there is much to be learned from comparing approaches to the issue in different countries.

Public engagement can be analysed in three stages. The first is a recognition of need. This might be expressed in a number of ways, from the development of policy documents to response to outside pressure from different organised interests. In the USA, inclusion of different sectors of society and stakeholders on environmental issues in the 1960s and 1970s exemplified the latter; in the UK, recognition of a democratic deficit was highlighted in various policy papers, as well as by crisis on a number of science and technology issues, initiating greater policy attention to public engagement efforts.

The second stage is experimental, trying out different engagement tools, making information more accessible, and so on. This stage saw the emergence of controversial technologies and issues, from BSE to biotechnology. It has been marked by the emergence of newer forms of engagement, from deliberative models to online approaches, the latter driven by broader interest in e-government and e-democracy.

The third stage is institutionalisation within the policy system. Lessons learned from stage two may be applied to processes or organisational structures. The locus of this policy system is Government, but governance processes – which involve the nature of decisions and decision-making approaches, including who participates and how – are resulting in more dispersed policy making. One response is diffusion of responsibilities, where other networks working together, independently or with Government and/or the private sector, are formed.

Consensus building has not been a tradition in the UK, which remains very much oriented to the use of Expert Advisory Committees.

These stages are not mutually exclusive. Transnational differences, including where a country might be in this sequence, differences in policy responses, and approaches employed, are evident. Political culture, the political-administrative system, stage of democratic development and interest-group activity have all influenced public engagement. France, for example, is steeped in a culture of centralism with heavy reliance on bureaucratic and technical expertise, and experiments with public participation on science and technology issues are uncommon. Denmark, on the other hand, has had a long historical tradition of democratic discussion and consensus seeking. In contrast, consensus building has not been a tradition in the UK, which remains very much oriented to the use of Expert Advisory Committees. Public engagement tends to be expressed through lay representation on these Committees. As is happening in other countries, other fora for and approaches to public engagement are opening up in the UK, the most recent being the diverse set of approaches used in the ‘GM Nation?’ project.

Space does not permit development of all these comparisons, so for the rest of this essay I focus on some aspects of public engagement in North America, emphasising initiatives that deserve to be more widely known elsewhere.

Public views on science

The US National Science Foundation has included public attitudes and understanding in its annual science indicators for several decades. Despite not being well informed about science and technology topics, Americans have remained optimistic about and express strong support for science and technology. Confidence in the scientific community has remained high. Americans also tend to have more positive attitudes about the benefits of science and technology than people in Canada, Europe or Japan. However, they express reservations and concerns about scientific research not paying sufficient attention to moral values.¹

Europeans similarly share with Americans this confidence in science. At the same time, they are conscious of the price that comes with rapid scientific progress and believe that technological choices should involve weighing risks and benefits.



STAN'S THE MAN

Adopting a uniquely simple and imaginative approach, Stan's Cafe Theatre Company has mixed up rice, schoolchildren and epidemiology to striking effect.

It sounds like madness. Turn up at a school with a colossal model of the Earth and a tonne of rice – or 989 kilograms to be precise. And precision is exactly what's required, particularly once the students grasp that every grain represents a human life. The Plague Nation project manages to combine statistics and fun, two words rarely found on the same page, as piles of 'people' are weighed, moved and accurately apportioned into their own discrete piles.

One mound shows how many people die of HIV/AIDS each year, another the →

PLAGUE NATION

Funding
£10 000 (2003, Pulse award)

Main applicant
Stan's Cafe

More details
www.stanscafe.co.uk

Left: People by the pound: one grain of rice represents one person.

The consideration of ethical consequences is also an important one for many Europeans. There is considerable diversity, of course, among European countries. For example, views on science and moral values as well as the precautionary principle vary significantly among countries in the region. Those countries that have achieved a high degree of prosperity remain interested in science but also have ambivalent attitudes and often engage in critical discussions. They are more likely to raise questions about environmental impacts, ethics and regulation.²

Public engagement

Public engagement and participation in science and technology issues have a long history in North America, underpinned by experiences in environmental regulation stretching back to the late 1960s. These regulations were prompted by public concerns around air pollution and toxic emissions, other environmental impacts of chemical or pesticide use, nuclear power, and food safety. The growth of environmental and consumer movements was fed by the perceived serious ‘side-effects’ of science and technology, breaking the unquestioned authority of science and unproblematic associations with ‘progress’ after World War II.

The growth of environmental and consumer movements was fed by the perceived serious ‘side-effects’ of science and technology.

The underpinnings of policy responses to demands for greater transparency, accountability and participation became codified as ‘rights’ that are the foundation for approaches to public engagement and participation in the USA, and later in Canada: access to information, public participation in decision making and access to justice. Freedom of information legislation began in the USA in 1966. Legislation also requires agencies to consult. And citizens have a right to challenge decisions in court. In Canada, this includes the right to sue for damage to the environment if the Government fails to enforce the Canadian Environmental Protection Act.

These policies and laws do not, in themselves, make for good public engagement but rather are starting points. Agencies have learned that public engagement and participation do not happen on their own; they need to be made possible through provision of resources and capacity building, and elucidating processes and procedures for potential participants. And sometimes, government agencies have had to be prodded – through court action if necessary – to meet their mandated responsibilities.

The forms of public participation

In the USA, public hearings and negotiated rule making have been common forms of public engagement. Notices of public hearings are published in the *Federal Register* (the *Gazette* in Canada). Transcripts of such hearings are made available on websites and all public comments received are also made publicly available, as is

the final report. This form of participation has been criticised as expert-focused and unreliable as a forum for hearing public views, since such hearings tend to draw people who are primarily opposed, as was also said of the ‘GM Nation?’ exercise in the UK.

Negotiated rule making is invoked when an agency is promulgating a new or revised regulation. A diverse set of stakeholders is convened to negotiate prior to moving the draft rule through the standard administrative process. Negotiated rule-making strategies seek agreement. The agency commits, within its existing rules, regulations and guidelines, to draft new or revised regulations consistent with the recommendations of the negotiating committee. It is a formalised, specific kind of consensus-building approach and has been a successful forum for public engagement.

Ballot initiatives are another form of participation – albeit an uncommon one – in the USA, but are non-existent in Canada. These are generally proposed by members of the public to introduce or amend laws. In California, an initiative to raise US\$3 billion in tax-free state bonds to support stem cell research was passed by voters in 2005.

Trends in public engagement

In many countries, there has been growing interest in deliberative forms of public engagement. For example, the deliberative poll was pioneered by American political scientist James Fishkin and combines features of representativeness from public opinion surveys with discussion with experts and deliberation. Citizen juries are frequently held at the local level. In Canada, a national consultation on xenotransplantation was held using a combination of multi-stakeholder meetings, expert advisory committees, public opinion surveys and citizen juries in six regions.

The use of new information and communication technologies to expand or enhance public engagement and participation efforts has also been gaining currency in the last decade. This covers information provision and service delivery (e-government). A more important change is the use of computer networks to allow expanded public involvements in policy deliberations, sometimes referred to as ‘e-governance’. In the USA, established processes of public hearings or negotiated rule making are being expanded with electronic deliberations for more significant public involvement. In Canada, at the time of writing, there were close to a dozen online consultations on science and technology issues going on.

Online deliberation and ‘groupware’ (collaborative software) such as discussion fora, chats, ‘webinars’, surveys and social networking tools are also being deployed. This model of online public engagement in policy deliberation is one that is more

→ number of people who might die of malaria – every day – throughout the world. Humour too, finds its way in, in the form of famous ‘celebrity grains’, unceremoniously bagged, tagged and sold off to charity, for example.

Soon, this ‘performance installation’ takes on a life of its own. Rather than being guided from one statistic to the next, the students, awakening to the true impact of the reams of numbers before them, want to see for themselves the impact of medical advances, such as polio vaccination. Faced with such a graphic manifestation of human life, they become deeply immersed, treating each grain with reverence, each neat pile with care. The significance of epidemiology, statistics and medicine, and the value of

human life, are suddenly summed up in a tiny capsule of carbohydrates.

James Yarker, Stan’s Cafe’s Artistic Director, is pleased with the impact and ripples caused by *Plague Nation*, not least because it illustrates so well the power of creative approaches to engaging children (especially years 8 and 9) with scientific issues. The simplicity of the original concept, one grain per human being, lies within the grasp of the youngest of minds. And, once the students’ confidence grows, there’s no stopping them. Never still, they calculate, weigh and rearrange, exploring the limits of the installation.

Stan’s Cafe is now touring internationally with what James Yarker refers to as →



Right: A brush with death: students divide the world’s population.

challenging to generate and sustain. As the information flows move to the highest levels of public involvement, new roles and functions are required on the part of the institutions and processes, tailored more carefully to account for integrating technological innovations with policy objectives.

The increasingly global context of many science and technology issues has encouraged a move to trans-border public engagement.

A growing emphasis on voluntary initiatives to complement or even replace regulation has found public engagement efforts carried out by the private sector, in tandem with civil society organisations. The development of codes of practice to ensure that such voluntary mechanisms can produce desired results has resulted in more partnerships between Government, industry, civil society organisations and citizens. For example, the New Directions Group in Canada is a coalition of major Canadian corporations and environmental NGOs. This group created criteria for the use of voluntary or non-regulatory initiatives to achieve environmental policy objectives. Especially in the USA, such voluntary initiatives have benefits in terms of expanding the range of participants, but have also been criticised as an unwelcome turn toward cost-cutting and more market-based approaches.

The increasingly global context of many science and technology issues, from climate change to infectious diseases and air and water quality, has also encouraged a move towards trans-border public engagement. The recently concluded Great Lakes Water Quality Agreement between Canada and the USA, which focused on restoration and maintenance of the ecosystem, included a public engagement component, with provision of information and consultation of communities, including a web-based process.³ Another example is an EU public consultation on brain science involving a panel of 126 citizens from nine countries.⁴

Is public engagement sustainable?

Efficacy and sustainability of public participation and engagement require both support for engagement and organisational learning. Support means adequate provision for the process and for participants. In Canada, the Canadian Environmental Assessment Agency administers a Participant Funding Program,⁵ which supports individuals and nonprofit organisations interested in participating in environmental assessments. Such support can cover travel, lost wages in some instances for participants or fees for experts.

Support also means recognising that people come to public engagement with different skills and awareness. Agencies have learned that capacity may need to be developed before fuller engagement can take place. Finally, capacity building needs to be recognised as a two-way street. That is, it also needs development among regulatory and policy communities.

As consultative public engagement efforts approach maturity, the opportunities for reflection and institutional learning increase. In Canada, an analysis of online consultation efforts has uncovered patterns of roles and responsibilities. Further efforts at institutionalisation are taking place through more systematic provision of information through the new institutional arrangements. Attempts to address earlier difficulties with accessing information include comprehensive listings of consultations. For example, a complete listing of consultations on bioengineered foods is available on the US Food and Drug Administration's website. Agriculture Canada's website has a listing of all its 'Science Consultations' and the Government of Canada has created a single window to all federal consultations.⁶ In terms of institutional reform, Health Canada instituted a cross-division Office of Consumer and Public Involvement to systematise approaches and learning within the agency.

Reviews of the wealth of public engagement initiatives in the UK and Europe may give the impression that there has been little comparable activity elsewhere. As this essay shows, the North American scene is also varied and vigorous. Not all of these engagement methods would fit other political cultures. But there is undoubtedly much to learn from the best work on both sides of the Atlantic.

Edna Einsiedel is Professor of Communications Studies at the University of Calgary, Canada.

References

- 1 Science and Engineering Indicators 2005. Washington, DC: National Science Foundation; 2005.
- 2 Eurobarometer 2005: Citizens, science and technology. European Commission; 2005.
- 3 www.ijc.org/rel/agree/quality.html.
- 4 www.meetingmindseurope.org.
- 5 www.ceaa-acee.gc.ca/010/0001/0002/index_e.htm.
- 6 www.consultingcanadians.gc.ca.

Further reading

- Abelson J et al. Deliberations about deliberative methods: issues in the design and evaluation of public participation processes. *Social Sciences and Medicine* 2003;57:239–51.
- Allum NC et al. Science knowledge and attitudes across cultures: a meta-analysis. *Public understanding of science*. In press.
- Blumler JG, Coleman S. Realising Democracy Online: A civic commons in cyberspace. *IPPR/Citizens Online*; 2001.
- Einsiedel E, Wambui Kamara M. The coming of age of public participation. In G Gaskell, M Bauer (eds). *Genomics and Society: Legal, ethical and social dimensions*. London: Earthscan; 2006.
- Environment Canada. Our commitment to effective consultations. 1996 May 27. www.ec.gc.ca/consult/policy_e.html [accessed 5 June 2006].
- Kass G. Recent developments in Public participation in the United Kingdom. *TA-Datenbank-Nachrichten* 2000;3(9):20–8.

→ the 'professional version' of Plague Nation, entitled *Of All The People In All The World*. Over a period of days, rice is used to represent everything from the number of people who have walked on the moon to the number of people killed in the Holocaust.

Anyone keen to try out their approach can read a simple guide in the *Pulse Annual* and DVD, available free from the Wellcome Trust. As well as a feature on Stan's Cafe, the *Annual* showcases other successful Pulse projects, while the accompanying DVD features performances, interviews and useful resources for anyone interested in creative science education.

Pulse awards

Part of the Engaging Science funding programme, Pulse awards provide funding for projects aimed at those 22 years and younger and encourage the use of any art form (or combination of art forms) to engage young people in the historical, social, ethical, cultural or contemporary issues arising from biomedical science.

www.wellcome.ac.uk/pulse

Right: A Pulse award supported Double Vision's dance piece on handedness, Left.

