The University of Nottingham

UNITED KINGDOM · CHINA · MALAYSIA

Exploring Concepts of Ethical and Social Engagement in the Biosciences

UK Experiences and Tentative Definitions

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BBSRC
bioscience for the future

The Current Situation

1. **Increasing attention** to **ethical and social aspects** of science and technology as part of research planning and management.

2. This is prevalent in the UK in **statements** from major **institutions** and a (similar situation in Europe).

3. How do statements **translate** into practice?

Interests, Questions & Objectives

Primary question:

What implications do differing constructions of the concept of 'ethical and social engagement' in the biosciences have for practice?

Project Objectives (& Interests):

1. Examine different rationalisations of the changing **interactions between science and society**, focusing on the management of ethical and social issues.
2. Use BBSRC as a case study to examine **institutional response** (and part in this).
3. Investigate different **constructions of managing concerns** from actors in the biosciences.
4. Assess the **implications** of differing definitions, rationales for, and barriers to engagement in relation to current rhetoric that advances a more socially-responsible science.

Outputs

1. **Conceptual clarity**
   - How can we define and group engagement (in the context of UK biosciences)?
   - What value can they be ascribed?

2. **Comment on Policy & Implementation of major scientific institutions – Practical**
   - Relate findings to current policy trends – REF / impact
   - Implications for encouraging / requiring engagement & reflexivity – e.g. who & what?

3. **Research Training**

A Very Brief History of Engagement

“Trust”
1970s
Eroded?

“Understanding”
Top Down
1980-90s
Tell -> Show

“Crisis of Confidence”
- **Cabinet OST** (1999) The adivisory and regulatory framweork for biotechnology
- **House of Lords STC** (2000) Science and Society

“Engagement”
2 way dialogue
2000s

Examples *ad nauseum*

RESEARCH COUNCILS UK

Is working with other finders to create a culture where public engagement is regarded as an important and essential activity by the research community

EXCELLENCE IN SCIENCE

THE ROYAL SOCIETY

Engages members of the public and other stakeholders in informed dialogue and debate on SET and supports the scientific community, policy-makers, industry and others to embed dialogue and to take account of the social and ethical aspects of science

BBSRC
bioscience for the future

Aims to enable researchers to be reflective about issues raised by their research, and take part in dialogue with public & stakeholder groups

COUNCIL FOR SCIENCE AND TECHNOLOGY

Will take into account the cultural, economic, environmental, ethical and social context of developments in SET.

What practical actions do these statements translate into?

Part 3 - types of engagement

Clarifying definitions

Engagement as dialogue (& monologue)

Some definitions:

1. **Lewenstein & Brossard (2006) – anything to democratise science**

Activities include consensus conferences, citizen juries, deliberative technology assessments, science shops, deliberative polling, and other techniques.

With the **intention** of enhancing public participation in science policy. Then driver is often a commitment to democratising science, which is different to the driver for PUS.

Engagement as dialogue (& monologue)

Some definitions:

2.**Tlili & Dawson (2010) – activities to improve relations**

PEST: "the **whole range of activities**, policies and institutional spaces which aim to improve the relationship between science and the public."

"an aim of PEST is to enact a deliberative democracy model" and to **"improve" relations** between science and the public.

Engagement as dialogue (& monologue)

Some definitions:

3.**Martin & Bauer (2011) – a continuum of communication**

Clearly, there is **no entirely satisfactory definition** of public engagement.

PE or “popularisation” lies in fact on a **continuum of communicative genres** from arcane technical laboratory discussions on the one end, via conference presentations, and published literature, to lectures and writings for wider audiences outside the peer group on the other end, with no clear “cut” indicating where “science” ends and “popularisation” or PE begins.

Engagement as dialogue (& monologue)

Some definitions:

4. **Rowe and Frewer (2005) – categorisation by information flow**

The practice of **involving members of the public** in the agenda setting, decision-making, and policy-forming activities of organizations / institutions responsible for policy development.

Assumptions and Problems?

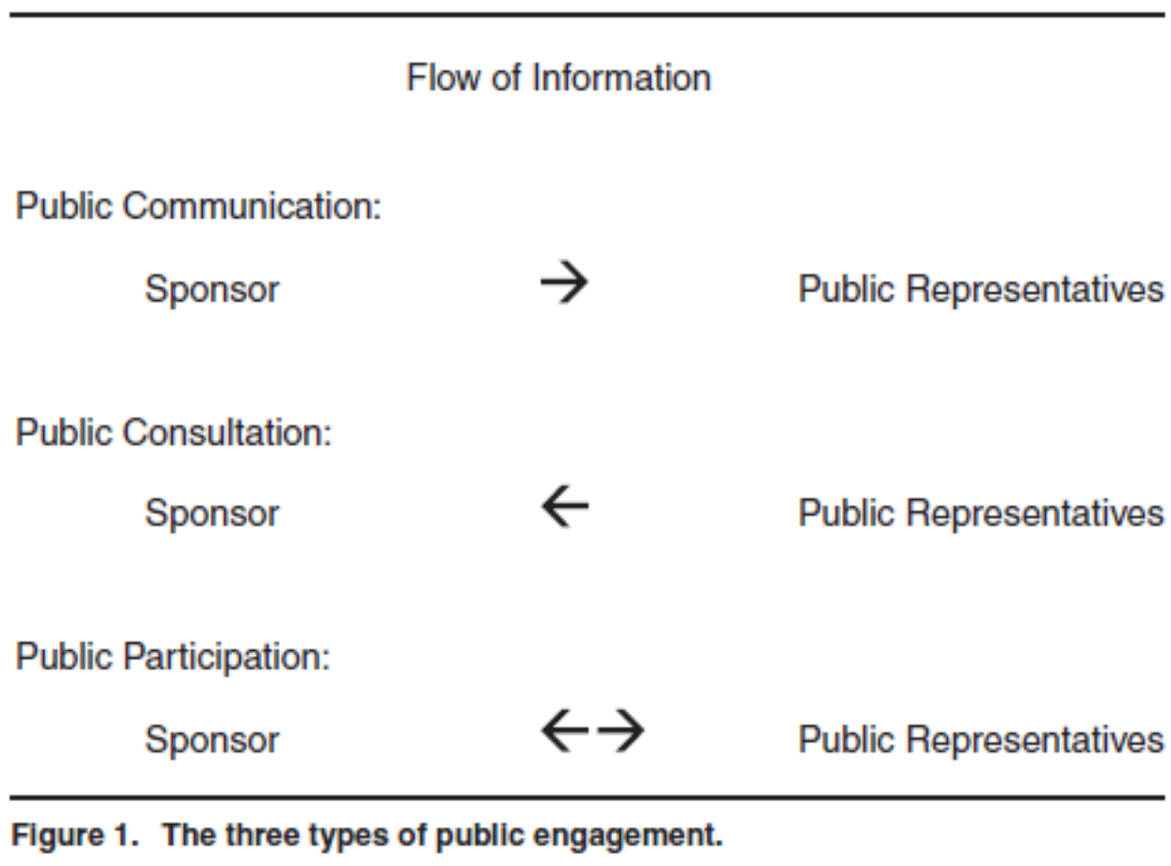

Figure 1. The three types of public engagement.

Upstream Engagement / Realising Public Value

Wilsdon & Willis (2004); Wilsdon, Wynne & Stilgoe (2005)

Upstream engagement: Building reflective capacity into science...to bring out the public within the science by enabling scientists to reflect on the social and ethical dimensions of their work.

Overview:

- Rhetorical shift but lack of change in practice
- Discussions closed down
- Lack of a culture of responsibility
- Reflexivity needed.

Moving towards embedding reflection? (A "post-ELSI" agenda?)

- Owen and Goldberg (2010) Responsible Innovation

- Doubleday (2007) The laboratory revisited.

- Fisher (2007), Schuurbiers & Fisher (2009) Lab-scale intervention, midstream modulation

- Much of this is collaborative

Midstream modulation

- On going on a day-to-day basis
- Response to policy mandates that call for "the integration of social and scientific considerations" into research
- Aim: Address the lack of "policy precedents" and " social research" aimed at achieving this.
- Ethnography in a lab to embed reflexivity.

Aims of reflection vs. Public engagement?

Responsible Innovation (Owen & Goldberg, 2010)

- **Nanosciences, EPSRC initiative,** on a broader level than just scientists.

- Stems from **the time-lag between innovations** being developed and their **wider impacts** being realised à calls for anticipating these impacts.

- "[these approaches] should be reflexive, participatory, and **facilitate the opening up of the innovation process** to modulation and adaptive management...framed by stakeholders and public engagement.

BBSRC: statements, discussions and actions

BBSRC Website	Enable informed debate, broaden strategic decisions, embed researcher reflection
Annual Report (07/08)	Aim to increase interdisciplinary research w/ social science
Strategic plan & delivery plan	Engage with the issues raised by funded research, especially bioenergy and industrial biotechnology and global food security.
Bioscience for Society Panel	Strategic input on societal issues surrounding the conduct and outcomes of research supported by BBSRC
Social Science Collaboration	For example: networks in synthetic biology, bioenergy and previously sustainable agriculture (2007).
Public Engagement / Dialogue	Ad-hoc major schemes (2010 Synthetic Biology); ~£1m towards individual events w/ PI encouraged to partake in 1-2 per annum.

Case Study 1: BBSRC & Bioenergy

- Major current funding point

  BSBEC

- Key Activities

  - Outreach Group
  - Interdisciplinarity / collaboration
  - Role of the scientist?

Conclusions & questions

- **(Public) Engagement is generally vaguely defined –** more in terms of practice and less in terms of ideals. This isn't really acknowledged by the different communities - there is often conflation of engagement with communication. Rationales and underlying values for engagement are often implicit.

- **Similarity of agendas -** Most calls for PEST are to increase democracy. This isn't the case for reflexivity, it's more about responsibility. Public engagement is a part of this but not the end.

- **Role and practice of collaboration?** – How do you embed reflexivity & what role do social scientists / ethicists play?

- What happens in practice?

Thanks for listening!