

## **Digital data sharing: Implications for academic roles, practices and identities (0036)**

### **Background**

There has been much debate recently about the changing role of universities, academics and academic research as a result of higher education policies and reforms. One example is the policy move towards greater research impact and commercialization, public engagement, and government expectations that research become more responsive to the needs of business, the economy and society. This has generated discussion about the kinds of knowledge that universities should produce, the purposes of scientific research, and the function of academics.

One area of government policy that has received relatively little attention in relation to its potential impact on academic roles, practices and identities is the introduction of new digital data sharing policies, expectations and requirements. Governments, science policy organisations and research funding agencies are increasingly promoting the scientific, moral, economic and political potential of data sharing in terms of scientific innovation and progress, cost-effective use of public funds, public access to a publicly-funded resource, and democratization of knowledge (e.g. OECD 2007). The key principle underlying this data sharing movement is that of 'open access' and the notion that publicly funded research data is a 'public good' that 'should be openly available to the maximum extent possible' (Arzberger et al 2004: 136).

Open access data sharing policies are being implemented by research funding bodies through their requirement that research applicants specify data storage, access and management plans and in some cases actual data deposit (Ruusalepp 2008). Scientific journals are increasingly moving towards making publication conditional on data archiving (Whitlock et al. 2010). And the recent case of Mike Baillie, ecologist at Queen's University Belfast, suggests that the government is enforcing data sharing through the Freedom of Information Act (Baillie 2010). Data sharing is becoming a normative expectation, with researchers across disciplines under moral (and in some cases legal) pressure to make their 'raw' data available through open access digital data archives.

Academic communities are responding in diverse and discipline-specific ways, reflecting variations in data types and data sharing cultures, traditions and practices. Some researchers are keen advocates of open data while others call for a more cautious approach to public release of raw data (e.g. Cauldfield et al. 2008). A common response has been support for the principle of open access data sharing but reluctance to put it into practice (Nelson 2009). Some of this resistance stems from scientific, ethical, moral and legal concerns relating to: research participants' privacy, confidentiality, and informed

consent; researchers' intellectual property rights; lack of individual or social incentives for data sharing, and limited professional and scientific recognition for data collection and archiving; data ownership and sovereignty across national borders; and the integrity of the science produced through digital data reuse (e.g. Mauthner and Parry 2009). Efforts to overcome these obstacles have focused on improving ethical, legal, scientific and technical infrastructures. One example is more sophisticated ethical protocols for data reuse, including restricted access to full data sets with open access allowed only to data summaries (Cambon-Thomsen 2007; Bishop 2009). Another is the formulation of data standards, and the requirement to archive contextual information (metadata) to render the 'raw' data meaningful (e.g. Gardner et al. 2003).

While these efforts to overcome data sharing obstacles are important, they may overlook more deep-rooted resistance to the ways in which data sharing policies are reconstituting academic roles, practices and identities. One cause for concern may relate to the erosion of academic control, autonomy and freedom over data sharing activities implied by the introduction of data sharing policies. Whereas data sharing used to be left to researchers' discretion it is increasingly being prescribed. There may also be objections to open access being used as a normative data-sharing model because it institutionalizes a particular epistemic and moral understanding of knowledge production; e.g. researchers may be resisting implicit definitions of data as objective 'facts', or the implicit treatment of data as a global commodity. There may be additional concerns about the discourses of public accountability and responsibility accompanying data sharing policies, and the legal, moral and ethical complexities researchers face in fulfilling obligations to the public whilst also safeguarding the interests of research participants and the intellectual property rights of those who produce data. Data sharing policies may therefore be transforming researchers' roles and responsibilities, research practices, and academic identities in critical ways that remain poorly understood.

## **Aims and objectives**

This paper will present preliminary findings from a study funded by the Society for Research into Higher Education (starting October 2011) that is exploring these questions. This project is a theoretical scoping study involving an extensive review of academic, policy and practice publications and documents relating to data sharing. The review is primarily UK-focused with some consideration of international issues reflecting the global nature of open access digital data sharing. Project objectives include:

1. To undertake a review of recent data sharing policies and discourses relating to publicly-funded research undertaken by University-based researchers in the UK.
2. To critically analyze the legal, ethical, moral and epistemic frameworks surrounding data sharing policies and discourses.
3. To examine the implications of these policies, discourses and frameworks for researchers' roles and responsibilities, research practices, and academic identities.

## Implications for policy and practice

The project investigates the potential implications of data sharing policies for research practice in the social sciences (e.g. how does the knowledge that research data will be made public influence: willingness of the public to take part in research; researcher relations, trust and rapport with respondents; nature of the research topics and questions). It will provide insights into broader issues regarding the changing role and responsibilities of researchers and universities in the production of knowledge, including the question of whether academics and higher education institutions are increasingly being seen as producers of research data (as well as knowledge), and the potential implications of this for academics and HE institutions.

## References

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