Chapter XXV
Nanoethics:
The Role of News Media in Shaping Debate

A. Anderson
University of Plymouth, UK

S. Allan
Bournemouth University, UK

A. Petersen
Monash University, Australia

C. Wilkinson
University of the West of England, Bristol, UK

ABSTRACT

Recent evidence on genetically modified crops, cloning and stem cell research suggests that the news media play a significant role in shaping wider agendas for public debate about 'the rights and wrongs' of newly emergent technologies. This may prove to be especially pertinent to nanotechnologies, which currently register low public visibility and yet are predicted by many scientists, policymakers and other stakeholders to have far-reaching implications in the years ahead. This chapter, drawing upon data from the authors' British study on nanotechnologies and news production, examines how the press may influence the terms of public debate about such ethical issues as the dangers posed by particular applications, who has access to the technologies, and who is likely to benefit or be disadvantaged by developments. Efforts to enhance public deliberation about the ethical implications of nanotechnologies, it is argued, must attend to the complex ways in which journalists mediate between contending claims about their benefits and risks.

INTRODUCTION

The field of nanotechnologies poses a significant challenge for ethics and governance, especially in relation to how information about technological innovation is communicated during early phases of development. Levels of public knowledge of the substantive issues raised by nanotechnologies, including possible benefits and risks, will likely depend on how this information is portrayed in the media, how widely it is disseminated, and under what circumstances. At present, applications of nanotechnologies have achieved relatively low public visibility, with their attendant media representation subject to fairly routine forms of negotiation amongst interested stakeholders. In the years ahead, however, it is anticipated that questions regarding how pertinent issues are configured in and by the media are likely to be increasingly important for the formation of public knowledge about (and responses to) these technologies.

This chapter discusses the role of the newspaper press in shaping portrayals of nanotechnologies, recognising as we do that this process influences competing agendas for public debate about its ethical implications during a period of growing scientific and policy interest in this field. It focuses particular attention on the role of stakeholders in this process, such as with regard to their efforts to affect the ways in which journalists frame the relevant issues. Informing this chapter's discussion are findings drawn from our case study into the production and portrayal of nanotechnology news by British newspapers.[a] The study was conducted in the wake of widespread media coverage – and intense public controversy – about bovine spongiform encephalopathy (BSE) and genetically modified (GM) food and crops (see also Allan, 2002), accompanied at the time by growing concerns among science groups and policymakers about a public backlash against virtually any emergent technology associated with scientific uncertainty.

We argue that the ways in which the significance of nanotechnology risks are recurrently framed during the early stages of their growing public visibility is likely to be crucial to how citizens understand and subsequently respond to the technologies, whether they believe the benefits outweigh the risks, and whether they trust experts and information concerning ethical issues. The dynamics of news reporting figure only rarely in discussions about the ethical implications of new technologies, and yet given the significance of the media in influencing the terms for public debate about technology issues, we contend, it deserves a more central place in deliberations in this area in the future. The discussion begins with a brief account of what we mean by 'nanotechnologies', their convergence with other 'new' technologies, and some of their current applications. Next, it outlines certain key concerns highlighted in the Royal Society and Royal Academy of Engineering (2004) Report *Nanoscience and Nanotechnologies: Opportunities and Uncertainties.* On this basis, the chapter proceeds to situate nanotechnologies in relation to the literature on representations of science and technology so as to enable comparisons to be made with earlier biotechnology controversies. Questions raised include: what, if anything, is novel about the framing of nanotechnologies? In particular, what part do the media play in shaping public discourse about the ethical implications of their applications?

It is against this backdrop that the chapter presents and discusses relevant findings drawn from its case study. In so doing, it considers several pressing implications for the study of nanoethics, as well as future avenues of research.

PUBLIC AWARENESS AND TRUST

Nanotechnology, the design and manipulation of matter at the level of atoms and molecules is, according to Friends of the Earth, "…set to be one of the defining issues of our time." (Friends of the