CHAPTER 27

REPRESENTING SCIENCE THROUGH MULTIPLE-CHANNEL DIGITAL TELEVISION

Opportunities for dialogue, engagement and deliberation?

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Abstract: Television has long been considered an important medium for communicating science, not least because television programmes have the potential to reach large audiences, disseminating information about the work of a range of scientists working in a variety of disciplines. This paper briefly considers recent developments in two important areas – technological innovations (e.g. the shift from analogue to digital television) and deregulation (e.g. the increasing take-up of multi-channel television) – critically evaluating the potential for these developments to provide new opportunities for dialogue, engagement and deliberation.

Keywords: science communication; digital television; dialogue, engagement and deliberation

1. INTRODUCTION

Television is an important source of information about newly published scientific research for citizens once they have completed formal school-based education.1 Portrayals of newly published scientific research are likely to be partial, however, as studies have noted how a range of actors, including media professionals, scientists and non-governmental agencies, mediate information within particular cultural and institutional circumstances, and following certain specialised production values.

1 House of Lords Select Committee on Science and Technology, 2000.
Understanding how audiences interpret and contextualise these representations is a complex task, requiring methods that allow viewers to articulate their views within a familiar social context and using their own vocabulary (Holliman, 2005). It can be argued, therefore, that television portrayals currently have the potential to engage a wide range of citizens with partial, mediated representations of complex science-based issues, but that media influence of these portrayals cannot be easily predicted.

This comes at a time when the relationship between science and society is being reconsidered in the UK and other EU countries (for an overview of these issues, see Miller, 2001). Widespread criticism of the “deficit model” throughout the late-1980s and 1990s (see Irwin and Michael, 2003 for discussion) was accompanied by calls for greater openness and transparency about science-based issues, alongside the introduction of opportunities for dialogue, engagement and deliberation. More recently, calls have been made to move these deliberations “upstream”, that is, to involve members of the public in decision-making processes about complex science-based issues as they emerge (Willis and Wilsdon, 2004), then continuing these deliberations throughout the development of a given issue.

On a similar timescale to these ongoing critiques, the introduction of new technologies, such as digital television, which offers interactivity in real-time, and developments in the broadcast media marketplace, such as multi-channel TV, which allows greater audience choice, have converged to provide new ways of consuming science and other forms of programming. This paper briefly investigates whether multi-channel digital television has the potential to provide effective opportunities for real-time audience engagement and deliberation about complex science-based issues.

2. THE ROLE OF NEW TECHNOLOGIES AND DEREGULATION: FROM VIEWERS TO USERS?

Recent figures from the media regulator Ofcom state that nearly two thirds of UK households have access to digital TV (Deans, 2005). It is within this context that the decision has been made to “switch off” UK analogue TV signals region-by-region between 2008 and 2012. It is not surprising, therefore, that promotional campaigns to encourage remaining analogue viewers to switch to digital TV, which can be accessed through satellite, cable and freeview technologies, continue to be broadcast, whilst more and more programmes take advantage of the opportunities to engage interactively with viewers. You may have even pressed the red button on your digital remote control to access additional services. What then are the advantages for communicating science on digital television?

Educational technologists have evaluated different media as a way of gauging their pedagogic potential to facilitate science (and other) learning (Laurillard, 2004). In this sense, analogue TV can be seen as a linear medium, where producers use a number of tools to structure programmes in ways they hope viewers will understand and enjoy. Digital TV does this too, but also has the potential to offer