Steve Woolgar, *Virtual Society? Technology, Cyberbole, Reality.* Oxford: Oxford University Press, 2002. 368 pp. ISBN 0 1992 4876 1, US\$29.95 (pbk)

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New technology such as the internet and mobile phones are heralded partly because of supposedly unprecedented speed of diffusion within society. Never before has any technological innovation known such rapidly achievement of a large user basis. With this collection of 17 papers, covering a wide variety of social aspects of these new technologies, it appears that social science reflection

upon new technology has increased speed too. While De Sola Pool's seminal volume on the social history of the telephone was published only a century after its invention, and while it took television several decades to generate equivalent attention, here is a rich overview of social perspectives on the internet less than a decade after that technology began to emerge in household settings.

All papers in this volume result from 20-plus projects within the ESRCfunded 'Virtual Society?' programme (do read Woolgar's paragraph on the genealogy of the question mark in his opening chapter). This programme ran from 1997-2000 (see http://www.virtualsociety.org.uk). However, do not be misled by these dates. These chapters are not out-of-date research reports, but updated scholarly papers that add considerable depth to the earlier output of this research programme. This also rightly suggests that these papers are not the first results to emerge from 'Virtual Society?'. Throughout its lifespan, project descriptions, hypotheses, research plans, initial findings, and meeting reports were communicated broadly through the very media that they studied, and can still be found on the internet. Having said that, the contents of this book feels a bit dated in details at times. You will search in vain for information on, for example, the implications of broadband connection, file-sharing applications such as Kazaa, or the widespread use of SMS and weblogs, all applications that emerged near the end of the Virtual Society? programme and that highlight the ever-changing nature of the internet. Fortunately, this collection of papers avoids being merely a snapshot in time by identifying more timeless 'counterintuitive findings' and labelling five rules of virtuality.

Sally Wyatt and colleagues' contribution is a case in point (1999; 2001). Her often-quoted findings on internet rejectors and non-use of the internet has been communicated previously, but the chapter in this book adds significant thinking to justify an updated reading. The same can be said for the chapter on 'the reality of virtual social support', which expands on earlier publications by the same research group. It would go beyond the scope of this book review to mention or reflect upon all 17 chapters. For a mixture of reasons, two specific contributions drew my attention. First, Sonia Liff and colleagues write about e-gateways, a label referring to 'supervised locations offering public access to computers and the internet outside the state sectors of education or libraries' (p. 84). These include commercial (internet cafes) and non-commercial (community technology centres) variants. Their analysis covers not only provision of access but equally encompasses social inclusion and social cohesion (third places). Within the current context of endangered funding for community technology centres, and ever-increasing access in households, their findings suggest that private access does not simply make e-gateways obsolete.

Second, my attention was drawn to two papers on 'big brother technologies'. McGrail writes about the use of these applications in the context of high-rise public housing estates, making it interestingly different from the usual attention

given to CCTV in city centres or shopping malls. Mason et al. write about the use of these tools in the work environment and deal with the 'increasing ubiquity of technologies' with surveillance capability. They introduce the useful notion that many technologies are not concerned primarily with surveillance but include functions that can be used for surveillance, e.g. in workflow or reporting software. My understanding is that any organisation's computer network would incorporate such facilities, by, for example, monitoring who was logged on when, and who sent how many emails. Interestingly, both McGrail and Mason et al. describe how surveillance technologies do not introduce surveillance as such, but build on the surveillance patterns that were already in place, pre-technology. In this way, both chapters illustrate Woolgar's third rule of virtuality: 'virtual technologies supplement rather than substitute for real activities' (p. 16). It would be interesting to expand this notion to the most recent big brother technology, the mobile phone with a camera, and the way citizens use this to supplement traditional ways to surveil each other (see e.g. the popular http://www.phonebin.com).

Amidst the richness of the contributions, I missed references to where full reports from these research projects are available. There are several issues that would be relevant to my own work or simply interesting (e.g. the time-diary study of how higher education students use the technology that is provided to them), but nowhere in the book, the Virtual Society? or ESRC's website, authors' academic websites, nor the professional literature, can full reports be found.

Given the quality of the papers in this book and the coherence amongst them, it is unfortunate that this book does not finish with a concluding chapter. As most contributions argue against the deterministic nature of technology, ascribed to both utopians and dystopians of the new information society, they miss out here on the opportunity to draft guidelines for new policy in this area. It feels like they have put the ball on the spot, but neglected to score the goal.

References

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