BOOK REVIEW: HACKING: DIGITAL MEDIA AND TECHNOLOGICAL DETERMINISM (TIM JORDAN)

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In our increasingly connected global society, where digital media facilitate the distribution and creation of information and our reliance on technology becomes more prevalent, our attention turns to those hackers who create, manipulate and even break these technologies. Tim Jordan's Hacking: Digital Media and Technological Determinism suggests the hacker community is complex. For Jordan, that community is primarily centred around two differing forms of the hack, crackers and Free Open Source Software (FOSS) programmers, as well as a number of sub-cultures or periphery groups such as hacktivists and cyberterrorists. These forms merge, develop, interlink and compete within the virtual space to create a community of hackers that offer new and exciting questions to the debate around technological determinism.

In the first chapter of *Hacking* Jordan is quick to distance himself from the seemingly abstract definitions of hacking that have been popular amongst scholars and practitioners in recent years. Instead he suggests that hacking not only creates difference, but also must have "an engagement with some form of technology" (p. 16). Supported by anecdotes and analysis found later in the book, Jordan aims to create a definition of hacking that is based upon 'material practice', technologies, and community relations.

In the second chapter, Jordan focuses on the hacking sub-community known as crackers. Crackers are hackers that attempt to manipulate technology in order to gain access to private or previously inaccessible information. A cracker may, for example, write a virus that can breakdown government firewalls and provide the cracker access to sensitive information. Jordan suggests that the cracking community operates through a number of common traits including secrecy, masculinity, confrontation and technology. Further, the social processes of peer recognition and education are critical to the make up of cracking communities.

Jordan's next chapter is devoted to Free Software and Open Source programmers. This sub-group of the hacking community creates, manipulates and freely distributes software to the wider virtual community. In his analysis of various FOSS projects, Jordan maintains that this type of hacking is able to combine the two seemingly opposing positions on the question of technological determinism. While FOSS programmers are necessarily de-

termined by the technology with which they are working, they are able to manipulate this technology to produce, through a collective effort, new technology that is itself socially determined.

In chapter four, *Hacking the Social,* Jordan begins his description of the hacking community. This community, as suggested by Jordan, is "technologically mediated" (p. 66) and therefore is neither solely technologically determined or sociologically determined, but is in fact a mixture of the two. This community is split into themes and sub-themes. For instance the theme of "hacking the social" is summarized through hacktivism, cyberwar, cyberterror and cybercrime. Whilst these summaries may be useful to readers who are unfamiliar with the hack, Jordan offers little significant analysis of the operation or wider political/social implications of these forms of hacking. As a result this chapter merely provides an exhaustive summary of previously defined hacking groups.

In *Hacking the Non-Hack,* Jordan provides an overview of various groups who either employ hacking techniques to non-technological situations, such as creative commons or hackers who don't program, or use these programming techniques for employment purposes. At first glance I feared that Jordan was beginning to enter the area of abstraction he so passionately criticised in his opening statements. However, this chapter develops the ideas of the non-hack in material and practical terms and provides the reader with interesting and original arguments concerning the ideas of hacker sub-cultures.

The final chapter seeks to draw together the separate aspects of the hacker community Jordan delineated in earlier chapters. Many of his arguments concerning the notion of community, membership, integration and movement, material practice and space-time are solid and well constructed. Here Jordan is able to deliver a short yet concise introduction to the workings of the hacker community.

An aspect of this book that led to some disappointment is that its strongest argument is categorically underemphasised. Jordan sporadically returns to his hypothesis concerning hacking and technological determinism, suggesting that social scientists have been overzealous in their critique of the theory. He proves, through his analysis of FOSS that the hacking community or hacking values are able to create a middle ground in this argument, with constant competition between technological determinism and social determinism. Hackers are able to shift between these two determinisms and create difference. However, Jordan's analysis of this phenomenon falls short. He admits that hacking poses a paradox where "technology and society cannot be separated but nor can they be kept together" (p. 134), however further discussion of this claim through social theory or science and technology studies is lacking. Whilst drawing his conclusions concerning technological determinism, Jordan relies almost solely on the theories of Ian Hutchby, and fails to integrate a wider range of scholarly literature into his discussion. Thus the reader is presented with just one section of a much wider debate concerning technology, society and humanity. However, an in depth discussion of the theories of technology and society may be beyond the scope of Jordan's book. His analysis of the increasing abstractness of the hack is cogent while his attempt to re-define hacking in terms of material practice and community relations is useful and well researched.

Hacking: Digital Media and Technological Determinism should be viewed as an overview of hacking and an introduction to the concept of the hacking community. Students and scholars who wish to gain a greater understanding of the nature, elements, and processes of hacking will find this book to be a good introductory text.