## **BOOK REVIEW**

## RIGHTS, REGULATION AND TECHNOLOGICAL REVOLUTION

By Roger Brownsword,

New York: Oxford University Press, 2008, 324 pp (incl. index), \$100, ISBN-13: 9780199276806.

Professor Brownsword is a well-known expert on issues of technology, ethics and law and has long been associated with the House of Commons Science and Technology Committee in the UK. This book benefits immensely from that association. The book could essentially be seen as a continuation of his work in *Law as a Moral Judgement*. In this book he extends his analysis of the ethical concepts underlying the regulatory apparatus and the decision-making in the case of such 'revolutionary' technologies as biotechnology and nanotechnology. Early on in his book, Professor Brownsword defines "regulators" narrowly to include only government and agencies associated with its regulation of conduct. However "regulation" itself is defined too broadly by the author to include "whatever measures" regulators take to control conduct. This allows him to address a gamut of strategies that, although not always falling strictly into the definition of regulation, do regulate behaviour in an intended manner. This is especially true in the case of technology, where regulation is forever in the danger of becoming obsolete if it becomes too specific or too general to control specific technology developments.

The first part of the book addresses the various aspects of regulatory legitimacy, from that of procedural legitimacy in law-making to that of legitimacy for the regulation derived from representation of an ethical standard that is widely shared, given the contested nature of ethical plurality in contemporary societies. The author gives specific instances of a clash of ethical standpoints in both the stem cell and the biotechnology debates within the EU. In this context, more examples of regulations from developing countries could have provided another perspective on the resurgent utilitarianism underlying the developing rhetoric of progress in science and technology. The author also seeks to address a widened definition of the concept of "regulatory effectiveness" along with the two other related concepts (regulatory economy and regulatory efficiency). Professor Brownsword also chooses to differentiate between the legitimacy of a regulatory standard and it effectiveness – on the basis that the former is a broader concept that relates not only to the regulator's essential position on anything, but also on the choice of tools that he employs to achieve his objective. The author then moves on to explaining the concepts of regulatory pitch, regulatory phasing and regulatory range. All of these concepts build on the existing classifications of regulatory modes advanced by Murray and Scott and by Ayers and Braithwaite by describing these phrases and underlining their influence upon the choice of instruments – or mix of regulatory instruments – employed to fulfil the desired objective.

The author develops a matrix to trace a common pattern of the ethical debates relating to new technological development. This is referred to as the "bioethical triangle" and represents the human rights, utilitarian and the dignitarian positions respectively. This matrix can be applied for all technological developments that are enmeshed in ethical debates (of course, the strength of each position may vary according to different technologies). This is a useful tool in tracing ethical positions in ongoing debates concerning the development and adoption of particular technologies. In this section, the author provides a detailed discussion of the status of the human embryo and how that impacts upon regulatory positions. In the following chapter, the author analyses various aspects of the concept of consent (like the right to informed consent, third party consent, informational obligations and induced consent etc) through the jurisprudence developed in the decisions of the courts in the UK, the US and Canada.

In the fourth chapter, Professor Brownsword deals with the question of regulatory effectiveness. The importance of this issue lies in its choice of the means employed to reach a regulatory objective. As in the case of the earlier section – where the author had dealt with the substantive question of legitimacy of regulatory purpose – this section focuses on a second aspect: that of the procedural aspect and the ethical positions underlying the choice of regulatory instruments. This chapter discusses Stuart Biegel's twenty points which are meant to guide regulatory effectiveness and also the technology-specific studies done by the Tilburgh School on Information and Communication Technology. The author supports some of these principles – like the idea of using a combination of regulatory instruments rather than an approach of choosing one over the other. He also underlines the importance of smart regulation in terms of developing strategies where the "regulators are able to act with the grain of regulatees' value" will influence the effectiveness of the instrument. This also points to the importance of the embedded social culture and how "smart" regulators could benefit from their knowledge of it. The author also addresses the question of the choice of the level of regulation. The position that, if an issue were global in nature, then it would obviously need an international solution sounds simple enough. Nevertheless, the author makes the point that, although in such cases international cooperation is called for, opting for a single international regulatory approach may not be the ideal solution. It may face local resistance.

The next chapter concerns the issue of regulatory connection. Here, the author deals with the question of disconnection – when the technology developments outpace the regulatory framework in place. Professor Brownsword separates this problem into descriptive-normative disconnection, productive-unproductive disconnection and intelligent-unintelligent purposive reconnection. Although the author underlines the flexibility of purposive interpretation of statutes to make them applicable to a fast-paced technological landscape, he also warns against the need to "reconnect at all costs", since that would prevent discussion and debate which, although capable of promoting legal uncertainty in the short run, could prove to be more effective and sustainable in the long run. Thus a sole focus on regulatory economy could become "a false economy." The author's entire thesis is explained through the lens of English

jurisprudence developed through the *Pro-Life Alliance* case and the *Quintavalle* case (which dealt with the interpretation of sections of the Human Fertilization and Embryology Act 1990).

In the last chapter of this section, the author revisits the question of the international-versus-national as the level of regulatory decision-making. He discusses two aspects of the problem, by focusing first on the interpretation of the morality exclusion within the patent regimes of European countries and, also, at the level of the European community. The second case study is that of the *odre public* exceptions within the WTO regime governing market-access to goods and services. Both of these morality exceptions refer to questions of regulatory self-determination that have become contentious in, for instance, the GM debate. The author suggests that some threshold needs to be recognised and accepted by the international community in assessing such cases.

The second part of the book focuses on the use of technology as a regulatory instrument (for example, in the case of the compiling of genetic databases or forensic collections). Although access to such information could be of help to the police in apprehending criminals, it does hold within itself the spectre of an Orwelliean State with a largely diminished concept of privacy. Another characteristic of such developments is their self-fulfilling nature, in which such developments come across as obvious next steps in criminal policy given the unprecedented technological developments. Thus, the question which should be asked is not whether the usage of new technological applications will promote regulatory effectiveness but, more intrinsically, whether the introduction of technological applications will possibly redefine current regulatory objectives and even the more fundamental values within our society.

"Regulatory architecture" has been referred to by Lawrence Lessig as one of the four key regulatory modes and, as the author suggests, it is also known as the "code" in the "west coast" regulatory lingo. Professor Brownsword discusses the different characteristics of the code and suggests that it can easily be differentiated from other regulatory instruments. This is because it operates individually (in exclusion of all other regulatory instruments) and has been designed to make it difficult to choose an alternative pathway of action or decision. This kind of "smart regulation" - as the author refers to it – could, however, also make the objectives of the regulators vaguer and therefore less transparent; thus creating a democratic deficit and also providing avenues for misuse in circumstances. This idea is expounded further in chapter ten, wherein the author attempts to forge a middle path by rejecting both the extreme instrumental manner of the "west-coast" code-based system and the east-coast preference for moral agency. Both these systems are, however, largely normative positions and, in reality, a mix of both styles is usually reflected in practice (although this could very well vary according to the issue and the regulatory culture of the jurisdiction concerned).

In conclusion, Professor Brownsword reiterates that this book marks the beginning of a project as we enter a new era of technological revolution that will increasingly challenge the existing regulatory frameworks. In the last chapter, the author provides a list of questions, which represent the agenda of his future project. This list is not only illuminating, but is also quite comprehensive — covering both issues of technology developments as well as questioning the relevance, structure and functioning of regulatory institutions. The author raises the question of whether there are any generic lessons to be learnt or whether we have to reinvent the regulatory wheel with each new technology. In one of the earlier chapters, the author had answered in the negative, emphasising the difficulty in building a database of past regulatory actions which could be used thereafter. This remains the basic problem within the regulatory discourse (i.e. the applicability of the same set of measures and strategies across regulatory fields). Although this remains an open question, this book contributes admirably to the development of such a discourse in today's technologically-wired world.

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