

Book Review

Law, Economics and Cyberspace The Effects of Cyberspace on the Economic Analysis of Law

Niva Elkin-Koren and Eli M. Salzberger,

New Horizons in Law and Economics series. Edward Elgar Publishing Limited, 2004. ISBN 1 84064 669 1 208 pages £55.00

Does the “pre-internet” economic analysis of the law still apply in the age of Cyberspace?

To pursue this question Niva Elkin-Koren and Eli M. Salzberger have set themselves an ambitious task. Overall the book succeeds in considering a wide range of topics within the nexus of the internet, economic theory and the law, although, like any analysis, the quality of the results depend on one’s view of the assumptions.

From the start of Chapter 1, the reader is left in no doubt regarding the authors’ own view of the impact of Cyberspace. Before the end of the second paragraph it is presented as “the most significant transformation in the information environment since the invention of printing”; “an integral part of people’s everyday life” and “even ... affecting the definition of the self”. While having the courtesy to note that others may hold different views, Elkin-Koren and Salzberger feel that Cyberspace necessitates a paradigm shift in economic analysis of the law. This is developed in Chapter 2 which, after the obligatory preamble of how the internet developed from ARPANET in the 1970’s, asks whether the internet, can be characterised as Cyberspace and be perceived as a real place. Although they do not actually state that this is their opinion, the metaphor is repeatedly used throughout the subsequent analysis.

The rest of the book is in two parts, the first of which considers the rationale for legal intervention resulting from various forms of market failure: monopolies, public goods, imperfect information, externalities and transaction costs. The second part then considers the impact of Cyberspace on the state, the firm and the individual.

In looking at market failure, each chapter introduces the relevant economic theory and then notes how Cyberspace may reduce or increase its incidence. While this exposition is strong, the implications for legal policy is often left unstated, so that the conclusions are less than the analysis would warrant.

Monopolies are the first form of market failure considered. If monopoly arises from high entry costs or small market size, then the development of Cyberspace with its low entry costs, and cross national reach, may reduce incidence of this type of failure. The authors note that the influence of Cyberspace is not limited to digital products and services and cite amazon.com to show how Cyberspace can change markets for tangible goods as well. While this example works well, their assertion that internet chat rooms can undermine the monopolies found in broadcast media is more of a stretch.

From this analysis, they conclude that the features of Cyberspace “point to a significant decline in the market failure of monopolistic powers, which indicates less

justification for central intervention in the market”.¹ Without pausing, the authors move on to consider whether Cyberspace creates new monopolistic effects. But if one does pause for a moment, it is clear that the conclusion is not entirely justified by the analysis. While some monopolistic markets are being opened up by e-commerce, this is not true of all sectors. From the text it is hard to infer that the authors are limiting their comments to those markets affected by the development of Cyberspace. This generalisation - from markets affected by Cyberspace to all markets - is a consistent weakness in the authors’ analysis. Naturally if one believes that all markets are or will be affected by Cyberspace then this criticism would fall away.

Having identified ways that Cyberspace may reduce monopolies, the analysis then considers the extent to which it may create entirely new monopolistic effects. Control over standards and network externalities are cited as important possibilities and it will come as no surprise that Microsoft features in this discussion. The chapter concludes by considering how antitrust law should be applied in Cyberspace given these different market dynamics, thus neatly getting from economic theory to cyberspace to legal policy.

Moving on to public goods, while these can be found in many areas of society, the focus of Chapter 5 is entirely on access to information. Elkin-Koren and Salzberger provide a succinct summary of economic rationale for copyright before noting the positive and negative effects of the new technologies which are associated with Cyberspace. The greater ease of copying digital works clearly augments the market failure, while pay-per-use distribution technology may reduce this market failure. Although the distinction between *ex post* enforcement by law and *ex ante* enforcement by technology, ie code, is not discussed until Chapter 8, the diverging effects of Cyberspace on information markets is clearly articulated.

Leaving the “code as law” discussion for later, the authors switch to consider the need for incentives to promote the creation of information. The success of open source software is quite rightly cited as an example of a development which could not have happened without Cyberspace. On that note the chapter concludes with the assessment that traditional economic theory of public goods is not up to the job of analysing Cyberspace. Sadly there is no assessment of what this might mean, if anything, for the law.

Chapter 6 considers imperfect information. As Cyberspace delivers more information to the user than he would be able to obtain otherwise, it must be negating this market failure, although he may be swamped by too much information. By using the example of a tourist planning a journey, Elkin-Koren and Salzberger illustrate that Cyberspace allows the tourist to access information from previous tourists and thus in game theory parlance change his experience from being a one round game to a repeated game. In considering whether users may suffer from too much information, the chapter makes the useful point about the influence of search engines in Cyberspace. The control over these intermediaries, whose search algorithms may well be secret, is an important issue for access to Cyberspace and the information contained in it. While this analysis is useful, the conclusion that “lack of information cannot be regarded as

¹ Page 38.

a source of market imperfection”² fails to consider the digital divide between Cyberspace’s haves and have-nots.

In the next chapter Elkin-Koren and Salzberger consider externalities. They propose that as Cyberspace “reduces the effects of physical location”³, it challenges the assumptions of externality analysis. Low costs of entry and exit to cyberspace communities should allow users to avoid external costs so reducing the need for legal intervention. At the same time, Cyberspace can create new externalities for individual national jurisdictions as illustrated by the conflict between the sale of Nazi materials via Yahoo! and French law. While the discussion considers externalities arising in Cyberspace and those caused by it, there is no discussion of how Cyberspace may affect other externalities. The authors defer until Chapters 8 and 9 any discussion of the role Cyberspace can play in enabling individual objectors to collectivise themselves - where it is discussed as a consequence of reduced transaction costs.

Having discussed market failure from a neoclassical perspective, Chapter 8 considers transaction cost theory. Elkin-Koren and Salzberger observe that Cyberspace may reduce the cost of obtaining information but the sheer volume of the information available will increase the human cost of assessing it.

The argument moves on to consider the relative costs of protection by property rules and liability rules. Here the technology of Cyberspace is shown to substantially assist the protection of property rights by code limiting access. But if protection is to be by technology and if the technology Cyberspace is developing rapidly, it is unrealistic to use a theoretical model which assumes that the state of technology is fixed. Inevitably rapidly developing technology will be influenced by the law at the time. The US Digital Millennium Copyright Act is given as an example of law determining which technologies can and cannot be developed. The chapter and this part of the book concludes that the traditional micro-economic analysis of market failure and central intervention needs to be significantly modified by the development of Cyberspace.

In Chapter 9, entitled “Preliminary thoughts on neo-institutional law”, the authors note that a framework in which all political, legal and economic structures are endogenous, most easily accommodates an analysis of Cyberspace which transcends national boundaries. With everything up for grabs, Elkin-Koren and Salzberger start by asking whether Cyberspace affects the development of the norms which underlie the law. In this context, the ability of interest groups to collectivise their actions and to promote their values around the world is discussed. The authors note that, as well as being internationalised, norms may be customised – to specific on-line communities, existing in a plurality - with individuals choosing to which communities they wish to belong, and be inherent in the code - with individuals largely unaware of them. They cite privacy norms as fitting well within this analysis. When looking at enforcement the authors point out that regulation by code may be both more constricting than the prevailing law and will also apply *ex ante* rather than *ex post* as with traditional laws. Furthermore it is not at all certain that individual will know what rules are embedded in the technology.

Leaving any conclusion on these observations for the final chapter, the discussion turns to consider the impact of Cyberspace on the organisation of the firm and the

² Page 78.

³ Page 82.

state. By starting with the concept of the firm as the product of non-zero transaction costs, the potential impact of Cyberspace to affect the form by reducing these costs is immediately apparent. The analysis notes that Cyberspace will improve internal communication costs as well as external transaction costs. While tentatively suggesting that the external factors will be more important, the analysis quickly moves on to consider radical changes in work organisation as discussed by Benkler.⁴

Next the analysis moves on to consider the organisation of the state and in particular whether Cyberspace undermines its framework. The authors ask, if Cyberspace creates a borderless world, whose welfare should the law be seeking to maximise? They conclude the chapter by asserting that individual preferences can no longer be taken fixed within economic analysis. Instead consideration should be given to the cross cultural influences of Cyberspace to create homogenised consumers detached from their real world cultural roots.

The final chapter considers the economic theory of the state. Beginning with an outline of the theoretical bases for the state and central government, the authors revisit many of the features of Cyberspace described in the analysis of its effects on markets and ask whether their analysis challenges the need for the state or shape of it. If Cyberspace can play a role in distributing public goods, such as education, and its technology can allow contract enforcement without the need for ex post regulation, the role of the state can be reduced as many of its functions are privatised. While they accept that the territorial state cannot be eliminated entirely, the presumption that it has a monopoly over the individual's social contract may be challenged.

Having reined in the necessary role of the state, the author's question the need for central government within it. Here they propose that Cyberspace's ability to reduce transaction costs undermines the justification for central government as a means of alleviating the excessive cost of having public decision making at all times. Furthermore through Cyberspace, citizens are better able to monitor the actions of central government and the creation of larger interest groups which will reduce the influence of narrow interest groups.

Reduced transaction costs and the low cost of exiting a (virtual) community are combined in the consideration of two other facets of the central government. First the need to accept decision making by simple majority is questioned and second the need for separation of powers within the government. Elkin-Koren and Salzberger conclude that Cyberspace challenges the conventional thinking of the role and operation of the state. Whilst the reader may not share the authors' view that Cyberspace will have such a large impact on the state and its institutions it is interesting to see the analysis pushed so far.

At around two hundred pages, *Law, Economics and Cyberspace The Effects of Cyberspace on the Economic Analysis of Law* provides a succinct analysis the prevailing economic theories of the market, the firm and the state. Its observations on how Cyberspace affects each of these are timely, even though some may also question whether the failure of economic theory to explain observed economic activity is due to the development of Cyberspace or is more simply a failure of the theory.

⁴ Benkler, Y. "Coase's Penguin, or, Linux and The Nature of the Firm" (2002) 112 Yale Law Journal 369.

However, while the analysis presented is substantial, the authors overplay their hand by not recognising that Cyberspace only materially affects a small part of the lives of people in the developed world and, as an economic agent, is of little consequence elsewhere. The analysis does not place the impact of the development of Cyberspace in a broader perspective of general economic and social activity. Thus in Chapter 7 the only externalities considered are those related to Cyberspace itself. With so many real world externalities to chose from, the analysis should have gone further. It would have been interesting to consider whether Cyberspace could address a classic externality such as the collapse of fish stocks in the North Sea and, if so, how it could replace regulation.

Similarly the analysis of the theory of the firm jumps too quickly to considering Linux etc. without looking at more mundane uses of internet technology such as closed trading platforms and e-procurement systems which are affecting a far wider range of businesses.

Finally, as this review is being written shortly after the start of the Athens Olympics, the reader may wish to consider whether Cyberspace communities could join or replace the nation states in such an event. While one should never say never, there is more to nationalism than economics or law.

Aidan Courtney
Edinburgh University

DOI: 10.2966/scrip.010304.505

© Aidan Courtney 2004. This work is licensed through [SCRIPT-ed Open Licence \(SOL\)](#).