



MATTHEW
DAVID

SHARING

CRIME AGAINST
CAPITALISM

'Through a remarkably broad cross-industry synthesis, Matthew David demonstrates how information industries could benefit by adjusting market mechanisms to support the vitality of sharing-based economies. Anyone with a serious interest in intellectual property policy and practice should read this provocative case for building business models around sharing.'

William H. Dutton, Quello Professor of Media and Information Policy,
Michigan State University

'Matthew David has written a thought-provoking book that challenges the view that property rights are the only solution to the "tragedy of the commons". He brings a much needed analytical perspective to the study of the sharing economy and suggests that capitalist societies might just not be the end of history. A fascinating read.'

Federico Varese, Professor of Criminology, University of Oxford

Today's economic system, premised on the sale of physical goods, does not fit the information age in which we live. The capitalist order requires the maintenance of an artificial scarcity in goods that have the potential for near infinite and almost free replication. The sharing of informational goods through distributed global networks – digital libraries, file-sharing, live-streaming, free software, free-access publishing, the free-sharing of scientific knowledge, and open-source pharmaceuticals – not only challenges the dominance of a scarcity-based economic system, but also enables a more efficient, innovative, just and free culture.

In a series of seven explorations of contemporary sharing, Matthew David shows that in each case sharing surpasses markets, private ownership and intellectual property rights in fostering motivation, creativity, innovation, production, distribution and reward. In transforming the idea of an information economy into an information society, sharing connects struggles against inequality and poverty in developed and developing countries. Challenging taken-for-granted justifications of the status quo, *Sharing* debunks the 'tragedy of the commons' and makes the case for digital network sharing as a viable mode of economic counterpower, prefiguring a post-capitalist society.

Matthew David is Associate Professor of Sociology at Durham University.

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Sharing

To Hilda Valerie (Val) David
1939–2016

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1

Introduction

Sharing: Crime against Capitalism sets out to examine the pros and cons of property, market and sharing-based economies in terms of innovation, production and distribution of informational goods. The book will address this comparison in terms of efficiency, efficacy and incentive. By informational goods is meant books, music, computer software, visual media, journalism, academic journal articles and scientific research (including pharmaceutical research and development). In contrast to the over- and misused notion of ‘the tragedy of the commons’ (Hardin 1968), which outlines how goods held in common can be overexploited and undermaintained in the absence of counterbalancing forces, but which then (erroneously) asserts that the only viable counterbalance is private property rights, my book (in line with the work of Heller 1998 and 2008) illustrates ‘the tragedy of the anti-commons’, wherein private ownership and competition inhibit the maintenance of public goods and reduce overall efficiency, efficacy and incentive. *Sharing: Crime against Capitalism* also highlights the superiority of a sharing-based economy in maximizing the public good and overall utility.

Free music online reduces opportunity costs (e.g., the inability to purchase one thing – such as a concert ticket – if one has just spent one’s money on something else – such as a recording), increasing spending on live performance; and when freely shared recordings boost live concert ticket sales, and, consequently, ticket prices, musicians get better paid. The Internet and World Wide Web illustrate the primacy of collaborative programming over commercial coding, and open-source networks of hackers have broken all silo-made corporate encryption. Newspapers and broadcasters draw upon freely shared content provided by digital ‘citizen witnesses’, and this has

allowed them to cut costs and sack staff. Yet, such organizations are challenged by the Internet when freely shared content surpasses traditional media claims to be the ones who bring the news and, in particular, who are the first to bring it to audiences (uncensored). Academic journals are increasingly owned by commercial publishers, which profit from content produced by public science, science which is made available without charge by researchers but which is then sold back to the research community in terms of rapidly escalating journal prices. Non-commercial funding (whether in the domain of pure science or of applied science such as in pharmaceuticals) underpins the research that creates most of the value in what may later be fenced off through patent.

While only too willing to cut costs to some degree by means of using freely shared content online (or from other non-property/non-market-based networks such as academic science), commercial intermediaries are threatened by free distribution of content if it is *too* effective in reducing cost. Success in reducing cost can also reduce scarcity and, if that cannot be controlled, may then lead to a radical reduction in price (potentially to nothing). This ‘threat’ (or promise – depending upon how you see things) underpins the pressure for legislation to further criminalize sharing. In conditions of global network capitalism, sharing information is a ‘crime against capitalism’. Nonetheless, despite stringent efforts, such legislative strategies have been radically unsuccessful in actually containing the level and significance of sharing.

In this context, where criminalization has largely failed to prevent sharing, alternative business models have emerged. These new business strategies have attempted to ‘compete’ in the spaces created by sharing as an alternative to capitalist business-as-usual. What has emerged, as this book will document, is a form of post-scarcity ‘sharing economy’. This is, at least, at the level of informational goods. In suspending intellectual property rights in practical terms (the law still formally protects IP), and in bypassing the need for markets (free-sharing is not the same as direct reciprocation in the form of exchange by barter), what emerges is something not fully capitalist. However, there still remains the potential for people to get paid and even for some people to make a ‘profit’. Yet, this is in conditions where content is open and accessible to ever greater numbers; and in many cases for nothing.

Sharing: Crime Against Capitalism?

The significance of free-sharing across global digital networks needs to be seen in the light of the emergence of global network capitalism (Castells 1996, 2009). The contradictions within global network capitalism are both the spaces in which free-sharing arose, and those that are intensified by free-sharing. The first contradiction lies in globalization itself. On the one hand, globalization extends market and property relations. Globalization has meant expanding markets by means of a deregulation of trade barriers and the integration of distribution chains within global distribution networks. Globalization has also extended property rights protection beyond national jurisdictions. This is particularly true for IP, where the harmonizing of national laws has been achieved in recent years through a combination of multi- and bilateral treaties (Yu 2015). Globalization also reduces costs through global outsourcing of production to cheaper labour markets (Chon 2015). On the other hand, globalization affords an exponential expansion in pirate, counterfeit and generic ‘outsourcing’ in production and distribution (Rojek 2015).

In similar fashion, digital networks expand markets and reduce costs for copyright holders and counterfeiters alike – this is the second contradiction of global *network* capitalism. This is true in music, film, publishing, software and computer games, as well as in television (Kirton and David 2013). Digital compression, distribution and processing have afforded the expansion of legal markets and have also allowed widespread bypassing of the legal channels for gaining access, as well as the bypassing of the technical means of preventing access to those who do not pay – i.e., encryption (David and Kirkhope 2004).

Third, the ‘capitalism’ within global network capitalism shows an intensification of the tension between markets and property rights, which is a generic contradiction – but one that global digital networks take to new levels. Intellectual property protection is designed to limit market entry and so to suspend competition. However, pirate capitalists operate illicit markets at the expense of IP-based monopoly profits. In so doing, they reduce prices. Whether ‘capitalism’ is primarily defined by ‘markets’, as Weber (1930) argued, or whether ‘capitalism’ is primarily defined by ‘private property’, as Marx (1995/1867) held, remains disputed. This is not just a dispute between theories. It is a dispute enacted in the conduct of IP defenders, pirates and sharers across global digital networks.

The free circulation of information challenges IP-based business models, because in such models it is information that is the commodity being sold, or at least it makes up the greater part of the value being sold relative to the physical packaging in which the informational content is delivered. This is true in relation to copyrighted software, music, published works and live sports broadcasts, as well as in patent-protected scientific research. If the price being charged is largely determined by the market value of the informational content and not by its packaging, then when that informational content is freely available elsewhere, the price collapses.

Knowledge has always been valuable and, in part at least, defines human social and economic activity in distinction from animal behaviour (Gouldner 1976). What is understood today as intellectual property law emerged alongside capitalism and the industrial revolution (May and Sell 2005). The significance of innovative technologies and novel creative expressions, in giving economic advantage, is not new. Nor is the drive to protect such innovation/novelty as something akin to 'property'. The emergence of what Castells calls a network society (1996, 2009) does give greater significance (as a cost of production) to information over physical raw materials, physical labour power and/or energy inputs. However, it is an error to simply assume that an 'information society' is one where informational content inevitably becomes more valuable than physical objects, effort and energy. Where once information-rich commodities (such as novels, films, musical recordings and so on) required physical carriers to be manufactured and distributed, networked computers allow such content to be circulated without the need for traditional modes of packaging and distribution. In the past, someone seeking to sell books or records would look to protect themselves from commercial rivals by means of copyright. Now it is possible for every networked computer user to copy and share content that would have once required expensive printing or record presses.

Because the challenge to IP control has shifted from commercial to non-commercial copying, it is sharing that has been criminalized all the more forcefully in recent years. The rise of the tape-cassette first saw a shift in attention from commercial piracy to personal infringement (Marshall 2004), but digital network sharing has taken this challenge to far greater levels (David 2010). However, while efforts have been made to prohibit sharing as a threat to network capitalism, there is also evidence of a more fluid relationship between sharing and business, which this book will highlight. Legally speaking, sharing, in the sense of making free copies of IP-protected content without

permission, is an 'alternative to business'. Yet it can also be the basis for 'alternative business models'. Freely distributed content is being profited from by some, even as freely shared content is undermining profit from the sale of such content by those who retain the traditional IP-protected business model. Sharing (in the sense of lending) an individual's physical goods and/or giving up their time may lead to an extension of market relations (if that lending is done in the form of paid 'renting'). However, IP infringement, in the form of free-sharing (making copies) of formally IP-protected content, challenges capitalism as a system of property rights. In this way, free-sharing of digital content challenges us to rethink our theoretical accounts of property, exchange relations, production, distribution and incentive.

Since the end of the Cold War, a 'global network capitalism' has been constructed. At the heart of this new 'regime' has been the deregulation of labour combined with an intensified regulation of property protection, particularly intellectual property protection. In 'global network capitalism', monopoly rights over informational content have been extended in time, space, scope and depth (David and Halbert 2015). This is true at least at the level of formal law, even if enforcement of such a regulative framework has not been fully achieved. The World Trade Organisation (WTO) was created in the years just after the collapse of the Soviet Union. The WTO's first act was the 1994/95 Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS). TRIPS required all signatories to the WTO to pass into domestic legislation the treaty's harmonization of global IP protection. At that point in time, the perceived threat to intellectual property was still commercial infringement. Only one year later, the World Intellectual Property Organization (WIPO) produced a revised Copyright Treaty (1996). This treaty first addressed the perceived global threat of free digital sharing. In 1996, it was the increased availability of cheap CD copiers to the general consumer that was considered the primary emerging challenge (Krueger 2004). Simply having two CD players built into one stereo system, and the fact that one of these had a record function, meant the 'digital revolution' that had been such a benefit to the music industry since the advent of the CD in 1982 (Sandall 2007) suddenly started to look like a threat. Yet the 'threat' from CD burners was as nothing when compared to what came next: online file-sharing.

Free digital sharing arose in the copyright domain. Its development from music (discussed in Chapter 3) to film and onto live visual content (see Chapter 4) in part followed, but also drove, technical developments. The same is also true of computer software (see

Chapter 5). In a further development of technical capacity, the 3D printer revolution (Rifkin 2014) will make IP-rich physical goods available to ‘download’. Where film and television followed music, downloading objects will follow the downloading of purely informational content. However, for the moment, ‘free’ sharing of (patent-protected) information (such as is contained in generic medicines and ‘fake’ designer handbags) does not ‘give’ you the pill or the bag. For this, for now, the end-user still requires what IP holders call ‘pirate capitalist’ intermediaries (Rojek 2015).

While the copyright industries’ war on downloading has commanded the headlines regarding the potential challenge of sharing, significant issues also exist around sharing in the domains of IP covered by patent and trademark. Two-thirds of pharmaceutical science is funded by non-commercial actors (Boldrin and Levine 2008). Scientific innovation is built upon the principle of free-sharing of knowledge (Merton 1972/1942). Sharing-based knowledge production makes large private profits only if pharmaceutical companies can place end-products under patent controls, or if counterfeiters can sell unlicensed copies at inflated prices – something itself only possible because the monopolies they infringe keep prices higher than would be the case if competition were legal. In both cases, shared knowledge production fuels private profits only if its shared origins can be controlled.

On the other hand, trademark holders, when seeking to reduce costs by outsourcing production, also make life easier for counterfeiters. Counterfeiters can use the same cut-price outsourced manufacturers used by lawful rights holders to make identical, but IP-infringing, ‘fakes’ (Chon 2015). However, at the level of selling these pills and bags and so forth, the struggle is between legal and pirate capitalists.

Manufacturing generic drugs in developing countries is another example of the relationship between IP control and infringement. Unlike counterfeit drugs, generic drugs replicate the chemistry of the patented product but not the trademarked packaging of its owner’s brand. Generics undercut patent monopoly prices, just as they also undermine the market for counterfeits. This enables safe and affordable access to medicine in the global South (Darch 2015; Millaleo and Cadenas 2015; Thomas 2015). Again, we see that what was produced in conditions of freely shared knowledge can become private property; and what was private property can be appropriated and sold by others. Medical research produced by publicly funded science may be patented, and this may then be infringed by generic drug-makers. (Of course, such things as medicines and designer goods cannot be

simply shared freely at the current time, but free access to the information required to make them does enable radically more affordable generic products.)

This book is for the most part concerned with the free-sharing of informational content. It is not, therefore, primarily concerned with commercial generics, counterfeiting and piracy. The 3D printer revolution is increasing the scope for the free downloading of information-based physical goods. However, at the present time, for all but the simplest of objects (and only for the very small minority of people with access to a 3D printer), information-rich things still require manufacturers and distributors (lawful or otherwise), and these are for the most part commercial – not sharing-based. As such, a large part of this book focuses upon the free-sharing of content protected under copyright. This includes music, visual media, software and publishing, including scientific publishing. However, to the extent that sharing is central to scientific knowledge production, this book does address genetics research and pharmaceuticals.

Alternative Business Models or Alternatives to Business?

The collaborative production and free distribution of code (protocols) enabled the production of the Internet (Abbate 1999), as well as of the World Wide Web (Berners-Lee 2000). Nevertheless, such foundations do not mean that the Internet and the Web cannot be used to make money.

Facebook streams advertising to its users when they freely share their lives on its platform, and this business model is hugely profitable. Similarly, selling eyeballs to advertisers is the basis for Google's business. This is despite the fact that most of the information being sought via Google's search engine is not for sale as such (Vaidhyathan 2012). Services like YouTube (itself owned by Google) also make their money from advertising linked to the freely shared content that users upload, or look for and then look at, via these search services. A range of very lucrative alternative business models work on the basis of linking end-users to freely shared content, but then also linking both to advertising content.

Traditional business models, such as those of record companies, film studios, publishers and broadcasters, have suffered as a result of the rise of free-sharing. Nevertheless, during the first wave of the digital revolution, these businesses benefited greatly from reduced costs and wider distribution networks, fuelling a wave of global

cross-media integration. The largest recording, filmmaking, publishing and broadcasting businesses are today owned by global cross-media corporations (Castells 2009). More often than not, one arm of the same corporation will be selling the Internet access that enables the infringement of content produced and/or distributed by other arms of that same corporation (David et al. 2015).

This book documents how sharing-based production and distribution underpin the greater part of informational content in today's network society. This ranges from science to publishing and the arts. Collaborative production is the wellspring of profit in pharmaceuticals, biotechnology, print and television. It also underpins the wider 'creative industries', although this is in large part due to the non- and underpaid nature of much creative work, under conditions of copyright control and royalties rather than real wages and secure employment (O'Brien 2015).

Free-sharing is good for business if content is free to *business* while remaining scarce to customers. However, this condition cannot be easily maintained in a network society. Free-sharing cannot be kept scarce when it can be freely copied and distributed online. This potential for post-scarcity threatens, or promises (depending on your point of view), to turn a reduced cost of production into a radical driver of price reduction. Such price reduction is potentially to zero if the cost of making each new copy by any given computer user is too small even to be measurable (Rifkin 2014; Mason 2015).

Where marginal cost, the cost of making the next copy, approaches zero, there can no longer be said to be any scarcity in such a good. In these conditions, the need for allocation mechanisms such as markets and property rights is brought into question. In relation to informational goods, that 'zero marginal cost' situation has become a reality. Nonetheless, even if the marginal cost of informational goods falls away in a network society, the prior development costs remain. Those who defend IP argue that it is in the need to recover these fixed and upfront costs that a justification for property rights and markets remain.

Markets and property rights may be warranted after all if free-sharing of outcomes does not incentivize individuals and organizations to produce efficient and effective products and distribution mechanisms for them. The three related issues of efficiency, effectiveness and incentive are therefore recurrent ones in this book. At least in relation to informational goods, *Sharing: Crime against Capitalism* will show that free-sharing outperforms markets and property rights on all three fronts.