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# Copyright Infringement Online:
# The Case of the Digital Economy Act Judicial Review in the United Kingdom

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## Introduction

Peer-to-peer (P2P) file sharing is used to upload and download digital content.[1] It is one of the many ways in which the use of digital information and communication technologies (ICTs) is challenging conventional assumptions about the way intellectual property rights legislation 'balances' the interests of the creative industries in the production and sale of digital content and the interests of the public in and the use of that content for a variety of purposes. The increasing availability of the Internet as a means of sharing copyright infringing content has prompted renewed efforts by the creative industry to curtail the exchange of copyright protected content.

Governments are responding to the creative industries' claims that declining revenues from sales of music, films and television programmes are attributable to illegal file sharing. A principal tool in an escalating war on copyright infringement is legislation enabling copyright holders to demand that Internet Service Providers (ISPs) identify the 'offline' identities of individual file sharers in order to make them accountable for their 'online' infringing actions or to summarily disconnect users after several complaints of infringement by copyright holders. The legislation of some countries, such as France, requires ISPs to disconnect users, while that of other countries, such as the United Kingdom (UK), requires the ISP to reveal the identities of their subscribers, exposing their customers to civil liabilities of varying and uncertain severity. Although there are differences in individual country legislation, the 'warning' or 'graduated' element of these approaches is based upon the assumption that only the most egregious and recalcitrant of copyright infringers will receive the sanction of being disconnected or exposed to civil lawsuits by copyright owners.

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1 Definition of P2P file sharing: 'The making available of files from a user's own computer for copying and transmission to other users over the Internet, and the receipt of files made available this way. File sharing thus involves uploading as well as downloading. File sharing takes place in networks of users. Third parties have developed the file-sharing services and technologies to connect users and enable them to carry out such transmission and copying activities in the third party's particular "peer-to-peer" (P2P) network' (Dixon 2009: 13-14).

In other words, the graduated approach is billed as an exercise in deterrence rather than enforcement.

The aim of this paper is to examine how the creative industries, ISPs, and governments are positioning themselves in continuing debates about the online use of digital information. We critically assess the evidence in the light of the need to balance industry and citizen interests and reflect on our role as expert witnesses in a case in which a legislative measure aimed at curtailing illegal P2P file sharing was introduced and subjected to judicial review on a number of grounds. The case in question was the judicial review of the Digital Economy Act 2010 (DEA) (UK Government 2010a) which the UK Labour Government enacted following its defeat in May 2010, during the 'clean up' phase when legislation is passed by Parliament in the last days of a standing government before its dissolution. The Government argued that the provisions in the DEA aimed at curtailing online copyright infringement were 'proportionate to the harm caused to UK industries' (BIS*, et al.* 2010b: 32). The Act (and a provisional Code prepared by the regulator, Ofcom),[2] require the largest ISPs in the UK to write to their subscribers when their Internet addresses are reported by copyright holders as being suspected of infringing copyright.[3] On the request of the rights holders, ISPs are required to record the 'offline' identities of subscribers whose online (anonymous) identities are claimed to be involved in the exchange of copyright infringing files, to notify these individuals that they have been accused of copyright infringement, and, upon having issued three warnings, to make available on court order the personal details of these subscribers, enabling rights holders to pursue civil liability cases against these individuals for copyright infringement.

2 (Ofcom 2010). Ofcom was required to prepare a draft Code to implement the details of the provisions of the Act. While the Act was under Judicial Review, the provisions of the Act were suspended pending the outcome which was decided in April 2011 and is now under appeal.

3 Ofcom's initial target is to encompass seven ISPs, each with more than 400,000 subscribers accounting for 96.5% of the residential and small and medium-sized business broadband market in the UK (Ofcom 2010: para 3.15).

Two of the largest ISPs in the British market – British Telecommunications Plc (BT) and TalkTalk Telecom Group Plc – were granted a judicial review of the DEA by the UK High Court of Justice. A ruling was requested by the ISPs as to whether the Act is consistent with European Union law on a number of counts including whether its provisions amount to a disproportionate restriction on the free movement of services, the right to privacy, the right to free expression, or to impart and receive information, thereby breaching directives with respect to electronic commerce, data protection and privacy. The Court was also asked to consider the burden of the costs imposed upon ISPs for data processing associated with matching users to their online identities and notifying those customers accused of exchanging infringing files. A key concern was whether the provisions of the Act are a proportionate response to online copyright infringement. We served as Expert Witnesses to the Court, being engaged by BT to assess the Act's provisions with respect to the issue of proportionality. We concluded that the provisions of the Act are disproportionate and unlikely to lead to the outcomes claimed by the Government and the creative industry.[4] The High Court dismissed the challenge brought by the two ISPs in April 2011. It ruled that it is for Parliament, not the courts, to decide the balance of interests in contestations over copyright (UK High Court of Justice 2011). The Act is to be implemented shortly.[5]

In the following section we provide a brief history of the creative industries' measures to curtail P2P file sharing, as one among several strategies aimed at

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4 Evidence submitted by interested parties and interveners and one of our reports which addresses their evidence is not in the public domain. We cite only our initial report (Mansell and Steinmueller 2010) and public documents supporting the DEA although we provide our interpretation of submissions to the court.

5 The Claimants' case was supported, in addition to ourselves, by others including Malcolm Hutty, London Internet Exchange and Dr. Christian Koboldt, Partner, DotEcon Ltd. It was defended by The Secretary of State for Business, Innovation and Skills, joined by the British Recorded Music Industry, British Video Association Ltd, Broadcasting Entertainment, Cinematograph and Theatre Union, Equity, Film Distributors' Association Ltd, Motion Picture Association Inc., The Musicians' Union and Producers Alliance for Cinema and Television Ltd, and their expert witnesses who included Professor S J Liebowitz, a US economists specialising in the economics of intellectual property, Professor Patrice Geoffron, Economics, Paris-Dauphine University. There were three interveners: Open Rights Group, ARTICLE 19 and Consumer Focus. The court allowed an adjustment to the costs to be borne by ISPs in implementing the Act in its ruling. The court's ruling was under appeal at the time of writing.

enforcing the provisions of existing copyright law. Next we examine the changing social and cultural norms that are associated with the spread of the Internet and a 'sharing' online culture. It is in this context that the 'graduated response' approach is being introduced. We then turn to a critical assessment of the 'economic calculus' in support of this approach and an examination of the assumptions that are made, demonstrating that alternative assumptions result in a different interpretation of the balancing of interests among all the actors in society. In the next section, we examine the provisions of the Act which potentially draw in many Internet users who are not ISP subscribers and who may or may not be engaged in infringing activity. The penultimate section highlights the responses of the ISPs in the UK case as well as some of the parallel initiatives being taken by the creative industry firms and trade associations. In the conclusion we assess the interpretation of balance that is exemplified by the provisions of the UK Act, arguing that it favours the creative industries. We also reflect on our position as expert witnesses in this case. The analysis in this paper is based on an assessment of documentary evidence submitted to the court from public sources, our review of scholarly and trade literature relevant to the case, and insights arising from our participation as experts in the judicial review of the Act.

## Creative Industry Strategy – A Graduated Response

In the United States (US) by 2005 the Recording Industry Association of America (RIAA), representing 85 per cent of manufacturers or distributors of copyrighted music, had filed some 17,000 legal actions against suspected P2P file sharing copyright infringers.[6] With accompanying actions against companies providing information facilitating file sharing, this enforcement initiative led to charges of censorship and damage to innovation and succeeded in shifting file sharing from being a relatively centralised activity within the US to a highly decentralised global activity (Hambidge 2007). In the US, the RIAA and other trade associations are now seeking cooperation with ISPs in an effort to target only major alleged

6 See Electronic Frontier Foundation (EFF) website for updates on court actions against individual file-sharers, http://www.eff.org/issues/file-sharing, accessed 17/05/2011.

offenders rather than individuals engaged in file sharing of smaller amounts of digital content (Murtagh 2009). The Motion Picture Association of America (MPAA) also has brought legal actions against individuals in the US, but by 2010 was reportedly no longer pursuing this strategy (N. Anderson 2010). In the same year, the RIAA published a list of the top six illegal file sharing websites used for the global exchange of copyrighted movies, music and other works (RIAA 2010), suggesting a reorientation of effort within the US towards targeting firms and associations that encourage infringing file sharing, rather than individuals who download copyrighted content. In the US, the Digital Millennium Copyright Act (United States Government 1998), and Title II of the Liability Limitation Act, involve ISPs in copyright enforcement. However, the US courts have found that the language of the legislation is ambiguous with respect to whether ISPs must reveal the identities of suspected infringers (Hambidge 2007).

Notwithstanding these changes in approach within the US, the representatives of the creative industries via the International Intellectual Property Alliance (IIPA) and their national creative industry associations have been campaigning internationally to strengthen measures to ensure that copyright protection is effective on a global basis. Bob Pisano, President and Interim CEO of the MPAA has said that, 'we know *there cannot be a one-size-fits-all approach* to the problem; … there are cultural and practical issues requiring different approaches' (Fleming 2010), acknowledging that specific mandates given by national policy makers to ISPs are likely to differ. However, these representatives of the creative industry have been actively seeking to persuade governments to legislate to force ISPs to cooperate in efforts to bring legal action against suspected infringing P2P file sharers. 'Graduated response' or 'three strikes you are out' policies requiring ISPs to become the enforcers of copyright without court intervention were initially opposed by the European Parliament. The European Commission and the Parliament have insisted that a court decision is needed before subscriber information can be provided by ISPs to the creative industry

on the grounds that it is essential to protect the fundamental rights and liberties of Internet users.[7]

Legislation in the European Union and in other parts of the world including Japan and South Korea aimed at involving ISPs in curtailing infringing file sharing is relatively recent. There are many differences in the approaches that are being adopted through policy measures and legislation although the details in each country must be pieced together based on claims in the trade literature.[8] These differences are related to variations in a number of areas of policy such as the technical methods of filtering and blocking that are permitted, the willingness of creative industry associations to charge individuals with file sharing offences, the media coverage of public protests against these measures, claims as to whether decreases in file sharing traffic follow from the implementation of new legal measures, the evidence required by the courts to convict offenders, whether ISPs are required to reveal the identities of allegedly infringing customers, the punishments for individuals found to have been engaging in infringing activity, and whether file sharing of copyrighted content is allowed for non-commercial purposes. The general trend, despite these variations, is to employ legislation and/or the force of the courts to ensure that existing copyright law is respected by Internet users.

**Changing Online Cultures**

7 This was discussed by the Parliament and the European Commission in the context of the Telecom Reform Package, leading in November 2009 to an 'Internet Freedom' provision incorporated in the Telecom Reform Package as Annex 1, Article 1(3)a. It refers to the fundamental rights and freedoms of natural persons, as guaranteed by the European Convention for the Protection of Human Rights and Fundamental Freedoms and to general principles of Community law (Europa RAPID Press Releases 2009). This provision was also in response to the goal of controlling violent, racial and pornographic content (Ryan and Heinl 2010; Strowel 2009). Legislation aimed at copyright law enforcement in the European Union is governed by 2001 Directive on harmonising copyright and related rights in the information society (European Commission 2001) and the Directive on intellectual property rights enforcement (European Commission 2004).

8 A comprehensive search of the trade literature was made in mid-2010 and early 2011. The details of sources are not provided here in the interests of brevity.

The creative industries' campaign to enforce copyright law by targeting individual users of P2P file sharing technology is being mounted in a context in which there are clear signs of change in the perceptions of appropriate online social and cultural norms and moral behaviour, in Internet users' experience and skills (literacy), in the demand for digital products including music, films, and games, in the supply structure of the creative industries, and in the levels of awareness of the risk of liability associated with infringing file sharing activity. Academic research in the fields of cultural studies, sociology and media and communication, provides ample indications of the growing importance of experimentation with digital platforms where Internet users become collaborators in the production of content (Jenkins 2006). In what has been dubbed an emerging 'remix' culture, amateur creativity becomes a substantial resource for society and the sharing of digital information is coming to be regarded as a new form of economic production (Benkler 2004; Lessig 2008).

An increasing array of personalised, networked, convergent and mobile media products and services means the social environment is changing the contexts of Internet use, with online media becoming more integral to all spheres of life, blurring the boundaries between home and school and between public and private life (Livingstone 2009). There is some empirical evidence of a growing gap between the legal and user perspectives on what constitutes 'good' online behaviour (T. Anderson 2009; Chen*, et al.* 2008; Pouwelse*, et al.* 2008). For many Internet users the impression is that the use of P2P software is legal. Internet users participating in 'bootleg' (unauthorized recording) online sharing communities have been shown to be motivated by their loyalty and enthusiasm for the content they share and by the voluntary and altruistic ethos that characterises virtual communities (Berdou 2011; Bruns 2010).

The development of an Internet culture in which social norms regarding the sharing of files are unsettled reflects the changes enabled by technologies such as the World Wide Web which were developed in a culture based on public domain information. Those involved in activism and social movements aimed at preserving an open information commons sometimes regard measures to

enforce intellectual property rights as a case of pulling 'the rug out from under many of the communal and sharing practices that have enabled local music scenes on and off the Net' (Burkart 2010: 4). Our assessment is not that *all* those engaged in P2P copyright infringing activity will seek methods of circumvention of copyright laws to enable these practices, but that there are strong indications that cultural and social norms have changed and that legal threats (real or imagined) to curtail such activity are unlikely to put the genie back in the box.

Internet users may, for example, take steps to protect themselves from surveillance and legal threats by infringement detection organisations working on behalf of copyright holders by turning to groups that are devising 'filters' to block access from particular web sites – denying these sites access to P2P file sharing. Ordinary or 'unshielded' P2P exchange inevitably discloses a user's IP (Internet Protocol) address although this address is ordinarily ephemeral to a particular session or 'logon' and therefore it is only traceable to the actual ISP subscriber through the records of the ISP. One means of avoiding detection is to refuse sharing with the IP addresses that have been identified as being related to enforcement, lists of which are maintained by groups such as I-Blocklist (Banerjee*, et al.* 2008).[9] Lists of blocked sites are designed to protect users from invasions of their privacy, sources of spyware or malicious software, or government or company monitoring of their activities. One list indexed by I-Blocklist, which is available for an annual subscription of 8€, is named 'Anti-Infringement'. A group developing open source software for the purposes of P2P blocking, PeerBlock, uses lists such as those produced by I-Blocklist. There are reports of 250,000 downloads of their software by mid-December 2009.[10] Evasive tactics also involve efforts to disguise IP addresses during the use of BitTorrent. One source indicates that it is possible to detect IP addresses associated with newly uploaded files, but it also suggests ways in which the practices of uploaders and downloaders may change, making such identification difficult or impossible (Le Blond*, et al.* 2010). Thus, efforts to curtail P2P file

9 See http://www.iblocklist.com/, accessed 17/05/2011.

10 See http://www.peerblock.com/news, accessed 17/05/2011.

sharing are likely to spark an 'arms race' between those seeking to identify infringing behaviour and those seeking to protect themselves from surveillance (Ekblom 2005).

The evidence from studies of the history of the media industries and of social and cultural change in norms influencing online behaviour is that disruptive effects on earlier industry business models are also accompanied by continuities so that the outcome in terms of industry response is uncertain (Bakker 2005; Baym 2010; Briggs and Burke 2009). In the face of uncertainty, it is not clear which technologies will take hold, what industry strategies will be successful, and whether technology users will respond positively to new media devices and online service offers. Interventions aimed at curtailing P2P file sharing infringing behaviour therefore need to be assessed in the context of these social and cultural changes and in an environment in which Internet use has 'passed a tipping point' in most of the industrialised countries.[11] Interactions between the norms of 'free culture' and those of markets for the sale of online products, such as music, film and television programming, leave little doubt that the present transition is leading to the creation of parallel activities with increasing movement between the 'paid for' market and 'free' (at point of consumption) access to digital content.

Thus, an accommodation of the interests of rights holders and file sharers is more likely to stimulate innovation and creativity, than are costly initiatives such as those envisaged by legislation which exposes individual Internet users to large legal liabilities and potential 'criminalisation' in terms of social reputation. The 'three strikes' legislation being adopted in some countries runs a risk of encouraging circumvention of existing copyright law using technological innovations, whether with playful, ideological or criminal intent. It also confronts

11 The 2009 Pew Internet survey shows for the US, nearly 4 in 5 (79%) of teens had an iPod or other MP3 player; 3 in 4 adults reported purchasing a product online such as books, music, toys or clothing; half of teens were buying online (Lenhart*, et al.* 2010). In the UK, the Oxford Internet Survey shows that the practice of downloading (any) music is growing (54% downloaded music in 2005, 59% did so by 2009). Respondents to the Survey considered it slightly less appropriate in 2009 than in 2007 to download music, books and articles without paying for them (Dutton*, et al.* 2009).

those who seek enjoyment from digital products with a heightened perception of risk (real or imagined). These outcomes are inconsistent with policy that seeks to promote the pervasive use of the Internet and other digital technologies and a thriving online participatory culture.

## The Economic Calculus of Balance

In this paper we focus on the logic rather than the quantitative estimates that representatives of the creative industry have advanced in support of their claims about losses attributed to infringing P2P file sharing and other ways in which digital technologies are used in contravention of current copyright legislation. [12]

*Contradictory Empirical Evidence*

The factors influencing P2P file-sharing behaviour (and the use of streaming sites and one-click hosting services) and, hence, the claims of the industry with respect to lost revenues due to infringement of copyright, are the subject of many academic studies that yield contradictory results and provide a limited basis for generalization. The majority of studies make simplifying assumptions and are limited by issues relating to data availability or data collection and sampling. Most are based on self-reported intentions to infringe copyright law or on self-reports of actual infringements. The relatively small amount of research conducted independently of the rights holders concludes that there is no robust body of evidence upon which to base conclusions about the impact of measures to curtail infringing file sharing (Hanke 2010). Most conclude that it is very difficult to provide a definitive estimate of revenue losses. The conclusion offered by independent sources is that 'it is difficult, if not impossible, to quantify the net effect of counterfeiting and piracy on the economy as a whole' (GAO 2010: 24) and that 'neither governments nor industry were able to provide solid assessments of their respective situations' (OECD 2008: 16).

12 For details of the DEA case claims see (Mansell and Steinmueller 2010). See also (Cammaerts 2011; Cammaerts and Meng 2011).

Even the World Intellectual Property Organization (WIPO), which is mandated to enforce international conventions on intellectual property protection, concludes that 'most academic studies are of a theoretical nature, that is, they develop models of supply and demand to ascertain how unauthorized uses of intellectual property impact on different agents in the economy. … By nature these models cannot capture the complexities of how markets for IPR-protected goods function in the real world' (WIPO 2009: 5). Thus, evidence from the business and economics literature is inconclusive regarding the behavioural relationship between file sharing and physical or online acquisition of non-infringing content (Bhattacharjee*, et al.* 2006; Hietanen*, et al.* 2008; Oberholzer-Gee and Strumpf 2007). Experimental studies in social psychology have focussed on the relationships between reported intentions and actual behaviour and sociological studies have examined propensities towards various forms of 'deviant' behaviour (Harris and Dumas 2009; Holsapple*, et al.* 2008; Ingram and Hinduja 2008; Li and Nergadze 2009; Liao*, et al.* 2010; Plowman and Goode 2009), but these also yield inconclusive evidence.

Overall, the empirical evidence available to economists seeking to provide an 'economic calculus' of the benefits and costs associated with P2P copyright infringing behaviour provides no clear indication of the implications of various types of prosecution, threats of prosecution and other sanctions that may be brought against individuals. Among the reasons for this are that some sales of copyrighted material will occur because of copyright infringement, for example, sharing of an infringing item leading to a purchase a copy (that is more permanent and includes other features as in the case of music CD 'liner' material). However, some sales will be lost due to the availability of infringing content.

The balance is unclear because of the interaction of a number of developments. For example, measures are being taken to close Internet sites that facilitate illegal file sharing, reducing the availability of infringing material. If there is a very low probability of obtaining high quality copies of digital content this may influence users towards high quality legal content. The entry of merchants selling music online, a development that began by selling 'copy protected'

content (content only playable through a 'player' that automatically verifies the ownership rights for a particular item) is fostering a 'market' for music that is not 'copy protected' in a bid to increase the attractiveness of downloading music to be used in other 'players' including MP3 devices. Prices charged for online music vary and are sometimes lower than those for the physical product, although costs are also lower. In addition, the relative convenience and added service available from legitimate vendors of copyright music may be reducing the demand for infringing content. The increasing availability of material where the copyright owner, through various means including the 'creative commons' license, has indicated that those who copy will not be required to pay for copying, is leading to changes in the incidence of infringement. Other factors include education campaigns, the placing of 'rubbish files' (those not containing the infringing content expected or containing incomplete, distorted or otherwise imperfect copies of infringing content) in P2P distribution networks to disrupt users from acquiring infringing content.

In summary, the gaps in the empirical literature include uncertainty about the effect of digital copying on user welfare, the effects of digital copying on major firms and fringe and new entrant suppliers, differences among markets, and the impact of copyright systems on follow-up creativity and socially desirable aspects of technological change. Empirical studies of behaviour change in this area suffer from data from only a few sources, panel data that may be unreliable, and the fact that fear of reporting actual behaviour if it is subject to legal action, will influence responses of survey participants and interviewees.

*Estimating Revenue Restoration as a Result of Substitution*

Economists' estimates of the revenue restoration effects of foreclosing file sharing generally have been based upon a standard economic theory of demand substitution – when two similar goods are available in the market, a decline in the price of one will lead to an increase in the quantity demanded of the less expensive good and a 'substitution', that is, a reduction in the quantity demand of the other. Ordinarily this principle is followed by the phrase – ceteris paribus – 'other things being equal'. However, a cacophony of changes related to the

creative industries and the Internet is underway in addition to changes in social norms – for example, the collapse of bookstores precipitated by online bookstores, the overtaking of printed books by e-books, the increasing instability of DVD rental stores, and even postal DVD rental services in the face of online 'streaming' competition as well as copyright infringing video file sharing. Distinguishing 'signal' from 'noise' under these conditions is not an exercise akin to establishing the effect of a glut of strawberries on the price of raspberries.

There is a plethora of file sharing options – online P2P exchange, offshore downloading sites, P2P exchange of memory sticks and other mass storage (e.g. CDs 'burnt' from other sources), as well as more sophisticated techniques such as depositing files in online 'data lockers' and giving others the keys to the locker, or e-mailing files in encrypted formats or through VPN (virtual private network) channels. In attempting to measure what might happen if one of these channels were to become more burdensome, one might presume that the most relevant study would be of the effect on other channels. Instead, the effort to measure substitution undertaken by market research companies on behalf of their creative industry clients is to ask people to speculate on what they might do if they were unable to acquire copyrighted material by online downloading. Predictably, some of them say that they would purchase some of what they had previously received without cost. From these hypothetical responses, claims are constructed about the effect of curtailing file downloading – the substitution of the 'old' method of acquiring copyright content for the 'new.'

It might be thought that economists, who are generally sceptical of hypothetical experiments, would express scepticism about such exercises. Indeed, economists generally have refused to be drawn on the effects of curtailing one channel of acquisition, confining their attention to the effect of file sharing on sales. Predictably, the effect of having channels through which copyright material can be obtained without paying for it leads to a substitution effect – less music is purchased.

Using economic logic to link industry losses with the possibility of revenue gains through suppressing file sharing is possible only by making a series of assumptions about what individuals would do if file sharing were not available. Economic studies of substitution measure what people do when infringing file sharing is an option. If a file sharing option is not available, what they actually do is a matter of conjecture rather than of measurement – the world has changed and the options available have changed with it. It does not follow that they will, in fact, behave as the economic logic suggests – they may well choose to do other things with their time and money than purchase copyrighted music which they previously freely accessed. Another problem for economic analysis concerns the effectiveness of suppressing a single channel, albeit a large one, P2P file sharing. This too is a matter for conjecture rather than for measurement in the absence of data.

The consequence is that even if industry losses due to file sharing are significant, estimates of revenue restoration from efforts to curtail P2P file sharing are not a matter of measurement, but rather of conjecture. The 'substitution' theory has little traction when it is applied to actual behaviour because it rests on several problematic assumptions: 1) it presumes that individuals' inherent desire for consumption of music is unchanged over the period in which file sharing has become established; 2) it presumes that the availability of new substitutes for copyright music is inconsequential if individuals are unable to obtain copyrighted music without payment to rights holders; and 3) it presumes that other methods of acquiring copyright infringing material would not be substituted for the specific methods that are subject to enforcement.

It may be argued that in the era prior to P2P file sharing the apparent effect of infringement on industry revenue was not pronounced as a result of the use of other technologies. However, we cannot rewind history to this era, that is, we cannot create, by fiat, a world in which people who infringe suddenly become unaware of the possibility of exchanging infringing MP3 or other audiovisual files as an alternative to paying for them. Nor can we rewind history to eliminate the further proliferation of technological means to exchange files through social

networks (including those formed online). Thus, estimates provided by the creative industry in support of its claims of revenue likely to be recovered as a result of legislative measures such as the DEA in the UK, and similar legislation being introduced in other countries, are simply not reliable.

*Welfare Analysis and Interests*

In the following section, we discuss how widely the UK DEA net has been cast potentially affecting many more Internet users than the Government has claimed. In this section we consider the assumptions about the social welfare of these individuals and the balancing of their interests with those of the industry. The impact assessments prepared by the UK Government prior to the passage of the DEA barely acknowledged that many Internet users will be affected. Instead, it was argued that the Act affects only those who are infringers and, furthermore, that their welfare, because of their infringement, should *not* be considered in the balancing of interests. The Government took this position despite acknowledging that 'US evidence indicates that were this cost [the welfare loss of those unable or unwilling to pay] to be monetised it could outweigh the monetised benefits' (BIS*, et al.* 2010a: 55). However, it is people who are unable to pay for digital content who also suffer a welfare loss from the unavailability of the infringing content, and therefore we argued that their interests should be considered in the economic analysis of the costs and benefits of this legislation.

The lost value that former infringers incur when they are induced to stop infringing is in fact a cost that should be considered in assessing the proportionality of legislation that targets individuals such as the UK DEA. It may be claimed and often is claimed by those favouring the rights holders, that when legislation is put in place, it takes into account all the values of all potential consumers. Therefore it is unnecessary to count the value of the gain received by infringers as a new loss to society when the infringement is deterred because it has already been counted when copyright law was set. Following this line of argument the claim is either that legislatures accurately weigh the incentive and welfare effects in setting intellectual property legislation or that economists should act as if they do. If we accept this argument, then the social welfare (value)

gained by those who participate in copyright infringement should not be counted because it is contrary to legislative intent. In this view, a 'diversion' of social welfare from producers (and their customers) to infringers occurs as the result of infringement; that is, it is not legitimate to 'count' the value realised by infringers since it is the intent of the legislature that this should go to producers directly and their customers indirectly through the incentive effect it creates over time.

There are, however, two problems with this argument. One is that those who infringe are believed to have a desire to acquire music which they may do either by infringing or purchasing. If infringing is not an option, then they are presumed to purchase a share of what they acquired from infringing. As we have already noted, there are reasons to be dubious about the behavioural assumptions that link an inability to infringe with claims regarding a conversion to revenue through purchasing. The second problem concerns the assumption that legislatures make concerning the incentive effects of copyright protection. It is presumed by some economists that copyright is a limited restriction on re-publication to ensure that those undertaking the initial publication are able to recover their costs and to generate revenues that enable them to expand their offerings. However, it is not reasonable to believe that legislatures are able to ascertain or act upon all of the ways in which this desirable incentive may be diluted – for example, through the resale of CDs or vinyl recordings (with or without the retention of a copy), the broadcast of music and its retention through online recording, or even more sophisticated methods, for example, the monitoring of online 'radio' (streaming) broadcasts in search of desired material (with or without the retention of a copy of same). To argue, therefore, that the parameters of copyright protection, are a *direct weighing* of incentive effects against the social welfare costs of exclusion is to attribute godlike powers to legislatures.

There is an additional issue regarding whether, as a matter of policy, the welfare gains created by infringement should be considered in balancing the interests of the creative industry and Internet users. In the UK, the Government argued that

no account should be taken of any benefit to these users because the law must be respected. The deterrence of theft is in the long run interest of society even if it might be argued that, in the short term, the transfer of value from victim to thief might increase the welfare of the latter. However, these are statements of principle. We support the view that in an ideal world, it might be better if copyright infringement did not occur.[13] However, assessments of the proportionality of a specific intervention such as the DEA which purports to provide net benefits to society are biased in favour of the creative industry if they ignore the existence of online practices and the benefits that might in 'economically neutral' terms arise from these practices. This is especially the case for goods, such as digital media, that are non-rival, where 'theft' does not deprive a 'victim' of the ability to possess or sell what is 'stolen'. Thus, it is appropriate to consider the value that might be lost in relation to the extent of value that might be recovered through further expenditures on enforcement. This was not done in the UK Government's assessment of the costs and benefits of the DEA provisions.

**Casting the Net Too Widely**

Legislation which targets individual P2P file sharers makes every Internet subscriber liable for possible misuse of his or her Internet connection for copyright infringement. This has substantial implications for the way the Internet online culture is likely to develop in the future because the methods of accessing the Internet are varied. It suggest the need for an analysis of the scope of the application of the DEA.

In the UK, almost all those who access the Internet do so at least some of the time at home (95% in 2009).[14] A single person in the household may, through

13 Given the dramatic reduction in the costs of distribution of copyright material enabled by the Internet, it is conceivable that greater social welfare might be generated simply by treating digital information as a public good, an approach considered in the conclusion of this paper.

14 As in other countries, the UK has many different types of households. Although some households may have more than one Internet connection, this is unusual because of the use of Internet routers with wireless and wired connections for sharing a single subscription. In the

engaging in copyright infringing behaviour, affect others in the household. The number of people potentially involved is substantially greater than the Government acknowledged in its impact assessment for the DEA. Based on Office for National Statistics data on household composition in the UK, we estimate that as many as 15 million individuals could be at risk if there is a single infringer in the household, a number far in excess of the number of ISP subscribers.[15]

Furthermore, the home is not the only place of Internet access. Each point of access is likely to involve an ISP subscription and a subscriber who is concerned about possible misuse of this connection, resulting in threats and possible sanctions. This could lead to responses such as denying access, requiring users to assume liability and close monitoring of access, or to the purchase of insurance to protect against misuse. Some of these responses will raise the costs of Internet use; others are likely to erode trust.

In the Oxford Internet Institute (OII) sample for its 2009 survey of Internet use, some 41 per cent of users reported accessing the Internet at work (Dutton*, et al.* 2009: 9). In the UK, 29.3 million people were employed full or part-time workers in 2008 (ONS 2009: 52). OII estimated that 70 per cent of adults were Internet users. Thus, a reasonable estimate of the number of people using the Internet at work is 12.5 million.[16] Places of employment may record Internet use by employees, but the DEA makes them liable for the possible misuse of every Internet connection at all times. This liability is likely to have a chilling effect on

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estimates here, we assume a single ISP subscription per household. The estimate of the share of users who access the Internet at home is from (Dutton*, et al.* 2009).

15 This estimate is based on applying the average household Internet subscription rate (61.5%) to all households with two or more people in them, counting the number of people in the household other than a single assumed 'infringer', applying to all household members the OII estimate that 70% of all adults (14 years of age and older) are Internet users (Dutton*, et al.* 2009: 7) and subtracting an estimate of the number of children under the age of 5 from the European standard population age structure (ONS 2009: 14, 232). As stated in the text, 'as many as' refers to uncertainties concerning younger children's usage of the Internet and other possible refinements that might affect the estimate.

16 This estimate is based on the 29.3 million people employed multiplied by 70% of adults who are current users, which equals 20.5 million employed people who use the Internet. Then, the 20.5 million users who are employed multiplied by the 41% of users who use the Internet at work, yields the 12.5 million reported.

the freedom and ease with which people make use of the Internet in the workplace.

People also use the Internet in other places where the subscriber to the Internet will now face liability associated with the misuse of a computer. For example, according to the OII, 35 per cent of Internet users report accessing the Internet from someone else's home. This means that more than 10 million people are, at least occasionally, using the Internet from someone else's home.[17] Some of these 10 million users will represent a liability for the person allowing someone else's use of his or her Internet connection. This too is likely to have a chilling effect on the willingness of people to allow their friends or guests to use their Internet connections.

The net is cast even further as the implications of this legislation will be felt by public institutions such as schools, libraries, museums, hospitals and universities. For example, the OII found that 16 per cent of those aged 14 and over use the Internet at school or university (over 7 million people) and 14 per cent (over 6 million people) access the Internet from libraries.[18] These are large numbers of users who previously have enjoyed access, often without the need to prove their identity, as well as the risks that a friend or other person can gain access in their name and misuse their access privileges. All of these sites as well as others such as Internet cafés (with over 3 million people accessing the Internet)[19] are now threatened with possible misuse of the access they provide as a public service or as the basis for their business or mission. In each of these environments, access to the Internet is now more tightly regulated, subject to suspicion and involves a test of trust. Users of the Internet who do not subscribe to the ISPs participating

17 Some 35% of users between the ages of 15 and 75, estimated as 70% of the population of this age group (46 million multiplied by 70% is 32 million) and recognising that those aged from 60 to 75 are less likely to be users, but that children under the age of 15 are likely to be both Internet users and using the Internet at the homes of friends. The estimate is based on 35 % of 32 million (11 million).

18 (Dutton*, et al.* 2009: 9). The estimated number of users is derived from the total number of adult users (32 million) estimated earlier.

19 Estimated as the number of Internet users, as in the above footnote, multiplied by the share of users who report Internet café access (Dutton*, et al.* 2009: 9).

in the initial phases of the implementation of the Act may also find their access curtailed as the Government has recommended that they take action to avoid being included in the future (Ofcom 2010: para 3.15).

In summary, the scale of those affected by this legislation who are not online copyright infringers is potentially very large. Doubts about what constitutes legal and illegal online behaviour may reduce the desirability of subscribing to Internet access or lead ISP subscribers to discontinue their subscriptions after being threatened by ISP letters.

The Government claimed that the Act is aimed at balancing legitimate uses of the Internet and freedom of expression against the costs of implementing technical sanctions against Internet users, assuming authorisation by the courts (UK Government 2010b: paras 81, 83). However, if citizens become confused about the legality of their use of the Internet or the likelihood of punishment for this use, resulting in a reduction of their experimentation in using Internet services, this would defeat the Government's aim of encouraging innovative and inclusive online participation. Measures aimed at curtailing P2P file sharing mean that citizens will perceive that their online behaviour is being monitored and the resulting loss of privacy is likely to result in a decline in perceptions of the trustworthiness of the Internet. Surveillance and monitoring involving interference with privacy and democratic principles may lead Internet users to find alternative ways of obtaining digital content regardless of whether it is legal or illegal (Brown 2009; Lyon 2007).

It may be difficult to preserve a casual approach to sharing Internet access as is currently experienced by people allowing the use of their home Internet connection by visitors or by (particularly younger) family members. The ways in which the Internet is used in public and private institutions will reflect the potential liability of these institutions to claims of copyright infringement. Short of preventing others from accessing an ISP connection, the measures will require ISP subscribers who receive letters to approach others (family, friends or strangers in the case of public access) to discuss their private actions.

Encouraging such behaviour on the part of ISP subscribers involves them in a presumption of the wrongdoing of others. In the context of developing a culture of co-operation and online sharing, this approach is a form of surveillance by individuals or institutional ISP subscribers that is out of step with norms of good online and offline behaviour

**Contradictory Industry Responses**

The interests of other segments of the ICT industry are not universally aligned with those of the creative industries and their efforts to achieve stronger means of enforcing copyright legislation. These differences are evident in the response of the ISPs in the UK which we consider first in this section. Second, although they were not represented in the judicial review of the DEA for obvious reasons, there are those within the creative industry itself who are developing new business strategies that demonstrate an awareness of the changing online culture and the need to work with, rather than against, consumer interests.

*ISP Perspectives*

The ISPs that sought a judicial review of the DEA in the UK were concerned about the implications of their involvement in implementing the Act for their reputations, customer goodwill towards them, and the demand for their services, as well as the costs of compliance. Among the reputational costs for ISPs that must implement the Act's provisions by (under court instruction) releasing the identities of subscribers to the rights holders, are the consequences should these actions result in 'false positive' identifications.[20] Some ISP subscribers may turn to privacy-enhancing technologies such as snoop-proof email programmes, anonymous remailers, anonymous web-browsing tools, HTML filters, cookie busters, and web encryption tools to protect their anonymity. Methods for overcoming copyright infringement detection or for misdirecting assignment of infringing behaviour to other non-infringing users, could result in mistaken notifications being sent to misidentified users. Customers are unlikely to be

20 False positives are identifications of copyright infringement by ISP customers that are found to be groundless.

pleased to receive notices from ISPs and may terminate their service rather than risk re-occurrence of the implicit threat, resulting in a loss of revenue to the ISP. In addition, the costs of ISP compliance are uncertain because of the potential inclusiveness of the Act. It is implied that only P2P file sharing is subject to ISP reporting, but the wording of the Act opens the door to all those who hold copyright in photographs, texts, 'blueprints', musical scores, cross-stitch patterns, etc. (BIS*, et al.* 2010b).

*Creative Industry Strategies*

People are incorporating recorded music and other digital content into their lives in new ways with the possibility of portability and of anytime, anywhere consumption. The origins of these changes precede the digital era with the advent of the Sony Walkman and other portable cassette players. The digital phase is creating further benefits for consumers and producers and sellers of MP3 and other portable music and media players. It is not possible to rewind history before the 'Napster era' when online sharing of copyright material (and hence infringement of copyright) accelerated and began to play a role in displacing the sale of CD recordings, opening the market for digital music and media players such as the iPod and MP3 players.

In accommodation to the file sharing and the business opportunities made available by portable music, music publishers have licensed distributors of legitimate copies of their products such as iTunes and a variety of services that offer online access to music. When Apple launched its downloading service – iTunes Music Store in 2003 - its sales rose to 70 per cent of the level of infringing downloads on Apple MACs. Legal digital services seem to appeal to some mature users but illegal digital services continue to appeal to bootleggers, aficionados and singles-buying youths.[21] Companies are developing paid services which offer reliability, reduced security problems, faster and porn-free access with extra features such as celebrity play lists, exclusive tracks, album art, gift certificates,

21 (Bakker 2005) notes that the Kazaa, Gnutella and Morpheus services filled a gap when Napster was closed down. Other services like MusicMatch, MusicNor, pressplay, Rhapsody MusicNet, Weblisten and Napster 2.0 have more complicated digital rights management systems than the earlier services.

allowances and streaming audio, leading to changes in the attractiveness of legal services. In the wake of all this activity in the market, van Eijk et al. conclude that 'introducing new protective measures does not seem the right way to go' (van Eijk*, et al.* 2010: 53).

The use of illegal downloading sites is reported to be growing despite the availability of 'free' sites such as Spotify where copyright licensing arrangements permit making music available online.[22] The industry is developing new business models and taking steps to make content available legally for consumers in ways that substitute for copyright infringing file sharing. These new business models are responses to the disruptive effects of technological change and they suggest a growing recognition that Internet users will continue to engage in practices that violate existing copyright law. It is possible to speculate that in the absence of P2P file sharing, greater investment would be made in these services. However, their variety and the scale of their operation indicates that the industry is willing to license music, despite the relatively straightforward means of retaining copies and potentially distributing them to others, that is, infringing on copyrights. These developments are indicative of the many innovative ways in which rights holders are adapting to a changing online marketplace.

## Conclusion

The uploading and downloading of digital content are regarded as 'piracy' or stealing *and* as content sharing. The former view has been consistently taken by the UK government, despite its insistence that it is simply seeking to balance the interests of rights holders and Internet users. A report commissioned by the Government prior to the introduction of the DEA stated that 'if IP rights are balanced, coherent and flexible, the system will support greater investment in R&D and will allow the access to knowledge that will stimulate future

22 Spotify, for example, was offering a premium and basic subscription service that is advertiser supported and a 'free at the point of consumption' service of 20 hrs of music listening per month at the time of writing. This opportunity is not equivalent to downloading music from infringing sites which may not actually be listened to, but simply stored on a music enthusiast's computer, an instance of over-consumption.

innovation' (HM Treasury 2006: para 1.9). In the Government's *Digital Economy* report a similar view was adopted (BIS and DCMS 2009). The Government claimed that legislation was needed 'to make sure that investment in content is at *socially appropriate levels* by allowing investors to obtain fully appropriate returns on their investment' (emphasis added) (BIS*, et al.* 2010a: 54). It was acknowledged that file sharing infringement has an uncertain impact on incentives to invest in digital content, but the Government consistently has favoured the creative industries' interests, giving very little importance to the interests of Internet users.

In our expert witness evidence we argued that the question of balancing interests should be considered in the context of innovative developments in ICTs (including the Internet) and the changing expectations of Internet users about their capacities to produce and consume digital products. In the light of uncertainty about the direction of change in social norms and behaviour, legislation that seeks to suppress P2P file sharing by bringing legal actions against individual infringers is likely to disrupt, or alter the course of, Internet development in ways that we cannot assume to be benign. We have indicated above that the balancing of interests in the 'calculus' of benefits and costs is contested. In an economic interpretation of theory and available empirical evidence that favours the interests of the rights holders, the interests of those engaged in infringing file sharing are downplayed or simply excluded. When they are included a different overall balancing of interests is warranted.

An economic analysis offering a reasonable balancing of interests would take into account the structure of the ISP industry, provide a full welfare analysis with consideration given to the welfare gains and losses to *all* stakeholders, including Internet users and the implications for privacy. There is little doubt that rights holders have lost revenue as the result of P2P file-sharing, but the evidence is insufficient to estimate the amount of these losses. The balance between losses and gains from industry innovations appears to be fluctuating over time. We argued in our submission to the Court that the provisions of the DEA are disproportionate because of uncertainties regarding the benefits that might be

produced for the creative industries and the negative implications for Internet users.

This conclusion is in marked contrast to the logic of the argument that, because industry revenue losses have occurred through online infringing behaviour, something must be done. Implementation of the DEA means that ISP customers will find themselves liable to claims of infringement. The hopes that this form of 'deterrence' will target only those guilty of infringement and have no effect on others, or that the result will be a very substantial increase in the revenues of the rights holder industry, are just that, hopes. The legislation is a large and risky experiment and, hence, we argued it is disproportionate. The Act does not achieve an appropriate balancing of the interests of intellectual property rights holders and others with an interest in a thriving participatory online world.

The Government took the view that the only way forward is to change hearts and minds so that Internet users regard copyright infringement as being unacceptable, assuming that a system of mass notifications will 'educate consumers about copyright and bring about a change in consumer behaviour' (BIS 2010: 36). There is no evidence for this claim. However, there are alternatives which could be pursued with greater vigour. Legal actions could target those responsible for hosting or facilitating access to large amounts of infringing content as is being done in some jurisdictions. The promotion of legal means of acquiring content, combined with greater public recognition of improvements in legal services, is more likely to shape the development of the creative industries in the interests of all than is legislation that targets Internet users. Other solutions, short of revising existing copyright legislation, include rethinking how digital content producers could be compensated for their efforts via taxes applied to the use of the Internet or general taxation and mechanisms to allocate the resulting pool of resource to content providers.

In its ruling, the Court accepted our argument about the ambiguity of the results of empirical studies of online user intentions and behaviours with respect to copyright infringement. It also accepted the argument that Internet users may

take steps to avoid legal liability resulting in a chilling effect on the development of the Internet. However, it did not accept that such an effect would exceed the benefits of enhanced copyright protection. In leaving it to Parliament to decide the appropriate weighing of the interests of the creative industries and Internet users, the Court had this to say:

> 'Parliament, through current copyright legislation, has already struck a balance between, on the one hand, the aim of providing incentives to actual and potential creators of audio-visual material, and, on the other, the potential welfare loss to those consumers who would, in the absence of copyright protection, enjoy such material either free of charge or at substantially reduced prices but who, as a result of copyright restrictions, are either deprived of the material or are required to pay higher prices for it. Existing copyright legislation may strike that balance in a way that is controversial or open to criticism. However, in my view, Parliament, when considering measures such as the contested provisions, which could be expected to enhance copyright protection, is entitled to proceed on the basis that existing copyright law does strike a fair balance between the interests referred to' (UK High Court of Justice 2011: para 249).

It also observed that until the DEA is implemented, it is not possible to know with certainty what risks are associated with this legislation. This raises an interesting issue for scholarship and for the role of academics who choose to participate in debates of this kind when they reach the courts. One issue is that in participating on behalf of ISPs we were faced with the need to respect the confidentiality of the court proceedings and were not at liberty to join in the debate which is ongoing about the wisdom of invoking this method of enforcing existing copyright legislation. We might have been more effective had we chosen simply to publish our views online or participate in other forums where these issues, including arguments about changing copyright legislation, are being debated.

More important for the academic community generally is the insistence of the court that *ex post* evidence of the impact of legislation is the only evidentiary basis for a legitimate case against the present legislation. This places academics in the position of retrospective analysts of history rather than as commentators, based on a variety of methodologies, on present and future developments which

are likely to impinge on the way Internet users enjoy their online experience, learn to experiment with digital content, and build a participatory online culture.

Finally, the court observed that 'a number of expert economists were deployed on each side, putting forward with equal conviction and vigor their rival cases. … the evaluation is not of scientific evidence but of competing economic arguments, when a similar margin of appreciation is justified' (UK High Court of Justice 2011: para 213, 214). This suggests that the court held academic analysis based in economic and other social sciences to be too detailed to be weighed as evidence in a court proceeding of this kind. The conclusion, at least in this case, is that we cannot rely on the court to rebalance the outcomes of existing copyright legislation so that they favour citizens' interests at least as much as those of the creative industries. That work remains therefore a matter for political lobbying, or more likely, for the creative tactics adopted by Internet users as they appropriate the technology increasingly to access digital content, whether legal or not.

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