

Is copyright law fit for purpose in the Internet era?

An economic and legal perspective

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Introduction

This paper will argue that the application of exceptions to copyright that benefit intermediary business models - combined with the limitation on the liabilities of intermediaries made possible in the Digital Millennium Copyright Act [DMCA] in the USA and the eCommerce Directive in Europe - has led to the situation where rights holders are prevented from giving full consent for use of their works as required under copyright law and that this is damaging to the economy as a whole.

The Digital Millennium Copyright Act of 1998 was largely carried over into the EU eCommerce Directive and subsequently interpreted by the courts¹ in the United States and EU respectively. Both have framed the context in which network service operators, content-hosting companies and social networks ('technology intermediaries' or 'intermediaries') operate, limiting their responsibility to copyright owners. They have also framed the limits to copyright owners' consent to their works being distributed on the Internet.

Just as the United States Copyright Office and US Department of Commerce launched long-term reviews of copyright law in the summer of 2013, so too in December of the same year the European Commission launched a public consultation to gather input from all stakeholders to a similar review:

“Over the last two decades, digital technology and the Internet have reshaped the ways in which content is created, distributed, and accessed. New opportunities have materialised for those that create and produce content (e.g. a film, a novel, a song), for new and existing distribution platforms, for institutions such as libraries, for activities such as research and for citizens who now expect to be able to access content – for information, education or entertainment purposes – regardless of geographical borders. This new environment also presents challenges. One of them is for the market to continue to adapt to new forms of distribution and use. Another one is for the legislator to ensure that the system of rights, limitations to rights and enforcement remains appropriate and is adapted to the new environment.”²

Initially in the 1990's the limited availability of internet access, and the slow speed of that access presented a barrier to unauthorised copying of digital music files online. Since the passage of the DMCA and the eCommerce Directive however, broadband networks have become almost ubiquitous³. Even mobile networks offer download and streaming capabilities only dreamed of at

¹ Examples:

Viacom International Inc., Comedy Partners, Country Music Television, Inc., Paramount Pictures Corporation, and Black Entertainment Television LLC v. YouTube, Inc., YouTube, LLC, and Google Inc, 2013. Viacom sued YouTube, alleging that YouTube had engaged in "brazen" and "massive" copyright infringement by allowing users to upload and view hundreds of thousands of videos owned by Viacom without permission. [1] A motion for summary judgement seeking dismissal was filed by Google and was granted in 2010 on the grounds that the Digital Millennium Copyright Act's safe harbor provisions shielded Google from Viacom's copyright infringement claims. [2] In 2012, on appeal to the United States Court of Appeals for the Second Circuit, it was overturned in part. On April 18 2013, District Judge Stanton again granted summary judgment in favour of the defendant, YouTube. [3] An appeal was begun, but the parties settled in March 2014.

TF1 v YouTube, 2012. The Tribunal dismissed a copyright lawsuit lodged by the French TV channel TF1 against YouTube on the basis that YouTube as a mere host is not responsible *a priori* for the content of the material it hosts; therefore, it is not required to implement on its own motion any preventive measure to guarantee that only content not infringing third party rights can be uploaded into its system.

² *European Commission Public Consultation Document on the review of the EU copyright rules*, 2013.

³ Digital Agenda for Europe, European Commission. "basic broadband for all citizens by 2013 (target met - satellite broadband is available to raise the coverage to 100% in every Member State)".

the time. The consumption of music over the Internet has therefore become more and more prevalent⁴

The key constraint on people listening to music sourced online is thus now the limited total amount of time they have available to listen to any music in any day. Edison Research recently released the results of an innovative survey into the amount of time people spend listening to music across different platforms.⁵ It showed that in the US people spent on average 3 hours 29 minutes a day listening to music. Within this limited available time, economics would predict that people are likely to choose the cheapest means of listening to music, and therefore substitute or switch to cheaper, unauthorised online means of listening to music as they become available. This has led consumers to turn to forms of music made available online for free without the adequate consent of the copyright holders. Why pay for music when you can get unauthorised copies for free? This trend is causing significant harm to rights holders, significantly reducing their revenues.

Thus as a sign of how much consumption patterns have changed since the DMCA and the eCommerce Directive, the recent Edison survey showed that people now spend on average nearly the same amount of time on a daily basis listening to music online as they do listening to their own music. Of the total time spent listening to music in a day, people now spend 19% of their time listening to music online, with 34% of the online music listening time in turn being spent on YouTube music videos.⁶ Only 23% of total music listening time is now spent by people listening to their own music.

The sales and licensing of recorded music have thus declined since the passage of the DMCA and eCommerce Directive, shrinking from \$36.1 billion in 2000, to \$15.7 billion in 2013⁷. This is nearly a 60% fall in real terms (57%). The key peer reviewed economic studies now consistently show unauthorised online file sharing has been responsible for this entire fall in recorded media sales.⁸ Though the rate of decline levelled off during the period 2011-2013 in comparison to the previous three years⁹, the current shift from downloads to streaming risks accelerating it again unless the paid subscription version of music streaming services becomes mainstream. Such services, however, compete against increasingly sophisticated, free alternatives, to which rights holders have given either no, or only partial, consent.

Rights holders have no choice in this matter because the way in which current copyright law is framed and interpreted deprives them of the option of granting their consent.

Legal Background

The EU eCommerce legal framework - which was set in 2000, and followed the US DMCA published in 1998 – granted limitations commonly referred to as ‘safe harbours’ to the potential liability of intermediaries in distribution networks on the Internet. These safe harbours cover specific activities, such as providing access to the Internet (mere conduits), transient and temporary storage (caching),

⁴ “consumers are increasingly comfortable accessing content whenever and wherever they want”. Nielsen, 2014.

⁵ The results of the Edison survey were released in June 2014.

⁶ *ibid.* “6.4% of the total time spent listening to music is spent on music videos on YouTube”

⁷ IFPI, 2014. Figures adjusted for inflation. Note that during the period the IFPI started to include within the figures revenue streams that were not new (inc synchronisation and performance rights) masking the full extent of the decline.

⁸ Liebowitz, 2011.

⁹ IFPI, 2014 *op. cit.* Figures adjusted for inflation. Value declined from \$20.4 billion in 2008 to \$17.6 billion in 2010 and from \$16.8 billion in 2011 to \$15.7 billion in 2013.

and hosting services. Unlike the US regime, the EU framework did not address information location tools/search engine services.¹⁰ Under US, EU and other countries' safe harbour legislation, copyright holders are denied the right to monetary compensation from service providers for harm caused by acts that fall within the safe harbour rules and only the possibility of obtaining injunctive relief remains.

Another part of the legislative package included new provisions for the protection of technological measures that applied to works in digital form. Copyright owners' rights to control, authorise and prohibit the use of their digital works through technological protection measures (TPM) were supported by legal sanctions attached to the circumvention of such measures. As the digital market continued to evolve, two key developments took place: first, the use of technological protection measures by copyright owners in the music sector gradually ceased to be applied. This was primarily due to the ease with which such measures could be circumvented but also as a result of the practical difficulties there were in enforcing the anti-circumvention provisions. Effectively, rights holders in the music industry have lost their ability to control and authorise the use of their digital content. At the same time, the application of the service providers' safe harbours expanded beyond their original scope. Business models that did not exist in the mid-90's when the DMCA provisions were crafted, and online services that were not foreseen at the time, are claiming protection under safe harbours that were not intended to cover them.

Summary

The safe harbour regime was introduced before broadband¹¹, file sharing¹², social media¹³ and apps¹⁴, and at a time when knowledge of what was passing through the network was limited at best.

This paper will argue that the unintended consequences of the safe harbour legislation have been the distortion of markets and investment, the creation of barriers to entry and the limitation of overall economic growth for the cultural and creative industries, both now and in the future. The failure of the law either to require the consent of rights holders, or to compensate them for the harm caused by such lack of consent, means that economic growth has been less than it should have been and that society as a whole is therefore worse off than it would have been had creators' full consent for the use of their works on the Internet been required, or had their lack of consent been compensated for.¹⁵

¹⁰ The EU eCommerce Directive does not include a provision similar to Section 512(d) of the US Copyright Act.

¹¹ Point Topic, 2013.

¹² While File Transfer Protocol was established in 1985 and the World Wide Web proposed in 1990, peer-to-peer file sharing became popular in 1999 with introduction of Napster.

¹³ In 2002 social media really hit its stride with the launch of Friendster. Goble, G. et al, 2012.

¹⁴ Following the launch of the iPhone in January 2007, Apple launched the App Store in July 2008. 60 million apps were sold within the first month.

¹⁵ Stan Liebowitz, in his review of the academic literature on the effect of unauthorised file sharing on music sales, notes that while it is well known that most studies have concluded that unauthorised file-sharing has decreased record sales, "*What has not been noted is that most estimates indicate that the file-sharing has caused the entire enormous decline in record sales that has occurred over the last decade... the estimates from a majority of studies imply that that file-sharing has caused the entire decline in sound recording sales that has occurred since the ascendance of Napster.*" *ibid.* Liebowitz, 2011.

The importance of consent to fostering a virtuous cycle of efficient growth

Consent of the owner of an input used in any production or consumption process is central to both economics and law. In economics it is essential to ensuring the efficiency of economic growth, markets, investment and the competitive process. In economics, voluntary transactions of products with well-defined property rights are a precondition for markets to work efficiently. The voluntary nature of the exchange implies that the seller of an input, such as music, must agree to terms with the buyer, or user, of the music, and that both expect to be made better off by engaging in the transaction.

A widely accepted test for efficiency, and therefore for measuring improvements in wellbeing or social welfare, is the Pareto efficiency test, named after the Italian economist Vilfredo Pareto (1848–1923). Using the Pareto efficiency test, an outcome is judged efficient if it is impossible to make any one individual better off without making at least one individual worse off.¹⁶ For a society to become wealthier and grow Pareto-efficiently requires that some are made better off, and none worse off, and that all opportunities to make people better off are exploited. This requires efficiency on all fronts, including allocative efficiency,¹⁷ productive efficiency,¹⁸ and dynamic efficiency.¹⁹

Whereas Pareto-efficient growth or optimal economic growth involves a virtuous cycle that continues until no one can be made better off without making someone else worse off, parasitic transfers occur when someone (the parasite) is made better off, while making others worse off. Because parasitic transfers are not pure transfers of wealth, but rather are transfers that occur at the expense of market transactions, parasitic transfers must be a negative sum game²⁰, decreasing society's wealth.²¹

A regime within which consent is not required can lead to market failure²²

Consent provides a test for Pareto-efficient growth, and a brake on parasitic transfers. One may reasonably assume that, if someone consents to an act, they are not made worse off by it. Consent enables at least an initial assumption that only Pareto-efficient growth will occur and not parasitic growth as no one would consent to parasitic growth that comes at his or her own expense. Lack of consent generates externalities²³ that can be a source of market failure and the rationale, in welfare

¹⁶ Under Kaldor-Hicks efficiency an outcome is more efficient if those that are made better off could in theory compensate those that are made worse off and lead to a Pareto-optimal outcome. The compensation does not actually have to occur. This captures some of the intuitive appeal of Pareto efficiency, but has less stringent criteria. The criterion is named for Nicholas Kaldor and John Hicks.

¹⁷ Allocative efficiency requires that resources be allocated to their highest valued users and uses.

¹⁸ Productive efficiency is achieved when no additional output can be obtained without increasing the amount of inputs, and that production proceeds at the lowest possible per-unit cost.

¹⁹ Dynamic efficiency requires efficient innovation or that all opportunities to enhance both allocative and productive efficiency are exploited efficiently.

²⁰ The win-lose or lose-lose situation where the sum of gains and losses is negative.

²¹ Note the term "parasitic technologies" has been used in an article by Stan Liebowitz. Liebowitz, 2006. The term "parasitic" business model has also been used in an article by Professors Peter Menell and David Nimmer, at Berkley and UCLA respectively - "*Highly parasitic business models that pose serious threats to the content industries*". Menell and Nimmer, 2007.

²² Coerced or involuntary transactions which result from of a lack of consent should lead to inefficiency unless there are special circumstances that prevent the market from functioning efficiently on its own.

²³ An externality arises whenever one party's actions affect another - whether positively or negatively - in ways that have not been agreed or consented to, contracted or paid for. Thus a negative externality occurs when an individual or firm making a decision does not have to pay the full cost of their decision - for example the cost of any pollution they cause that affects third parties. If the relevant action causing an externality becomes the subject of consent or agreement between the parties affected then any externality is said to be 'internalised'. Externalities are seen to be a fundamental source of potential inefficiency and market failure.

economics, for Government intervention in markets. The role of transaction costs in relation to consent was highlighted by Nobel Prize winning economists Ronald Coase, James Buchanan and Douglas North. Coase suggested that, in a world of zero transaction costs²⁴, consent would always be obtained or given where it was efficient and markets would work perfectly. Under these conditions the law would not matter, nor indeed be needed; people would agree to any change that was Pareto-efficient, displacing the need for the law, and markets would not fail. As Coase rightly pointed out, however, we live in a world where transaction costs do exist and the law does matter. Transaction costs are thus the fundamental reason why copyright law matters - and also why current exceptions to copyright law have the unintended, adverse consequences highlighted in this paper.

Well-functioning markets require the law to minimise total harm and promote economic efficiency

To promote economic efficiency, the law needs to try to mimic market, or consensual, or efficient outcomes, which transaction costs might otherwise prevent. At the same time, given scarcity, it is clear that difficult choices will have to be made about who should have what legal rights, how they should be enforced and by what institutions. With scarcity, if a legal right is allocated to one side of a market, this may deny the right and cause harm to the other side. But the same is true vice versa, or if the right is reallocated. In other words, given scarcity, harm is reciprocal, and inevitable in the sense that someone must 'miss out' in the allocation of rights.

The law should however try to minimise total harm. By defining and enforcing both rights and respective duties in a manner that can be understood to minimise total harm, the law can promote efficiency and economic growth. The unifying principle, or common objective, for the allocation and enforcement of rights should therefore be to minimise total harm and promote economic efficiency.

Under such a principle, if the actions of one person could harm a second person and if there are preventative actions the second person could take to avoid such harm that are lower in cost than the harm that would be caused in the absence of preventative action, then an agreement for the second person to undertake those actions would take place if transaction costs were zero, regardless of who has the initial right, as shown in the Coase theorem. If, on the other hand, transaction costs might preclude such an agreement, then the definition and assignment of the initial rights matters. To promote efficiency the right should, for example, be given to the party with the higher cost of adjustment so that the second party, with the lower cost of mitigating the harm, will have an incentive to undertake the avoidance of the harm.

In this paper we argue that limitations of liability for service providers are leading to less-efficient outcomes than would occur were copyright holders' rights strengthened, or normalised.

²⁴ Ronald Coase identified the components of transaction costs as follows: "In order to carry out a market transaction it is necessary to discover who it is that one wishes to deal with, to inform people that one wishes to deal and on what terms, to conduct negotiations leading up to a bargain, to draw up the contract, to undertake the inspection needed to make sure that the terms of the contract are being observed, and so on. These operations are often extremely costly, sufficiently costly at any rate to prevent many transactions that would be carried out in a world in which the pricing system worked without cost". Coase, 1960.

If consumers or intermediaries are allowed access to content through exceptions and limited liabilities, this harm will lead to parasitic growth

Diagram 1 below identifies the key parties commonly found in online information markets. On the right are rights holders; consumers are on the left, intermediaries near the top, and advertisers at the bottom. The parties are assumed to be able to take actions that result in a flow of value or harm between the parties indicated by the lines linking the parties.

Thus the parties are interdependent. The interdependencies arise from one party's actions that may cause value or harm to another party, either through their production process or consumption. These interdependencies may or may not be the subject of consent or agreement between the parties. If they are not the subject of full consent, they generate production or consumption externalities.²⁵

Thus on the right-hand side of the diagram we identify rights holders and their relevant primary value-adding action or activity – the creation of works. The horizontal line connecting the rights holders to consumers on the left of the diagram indicates the flow of value to consumers from creators' creation of works. If there is consent, then this flow of value may occur through contracts²⁶ or market exchanges. If there is no consent, or only partial consent, then there may be missing markets and incomplete contracts. As noted, any value or harm that is not the subject of consent, and not covered by contracts, or exchanged on markets, will result in positive and negative externalities. The diagram as a whole thus identifies the relevant core relationships and flow of value and harm that are the focus of this paper, the loci of consent and relevant potential contracts and markets, and any residual positive and negative externalities.

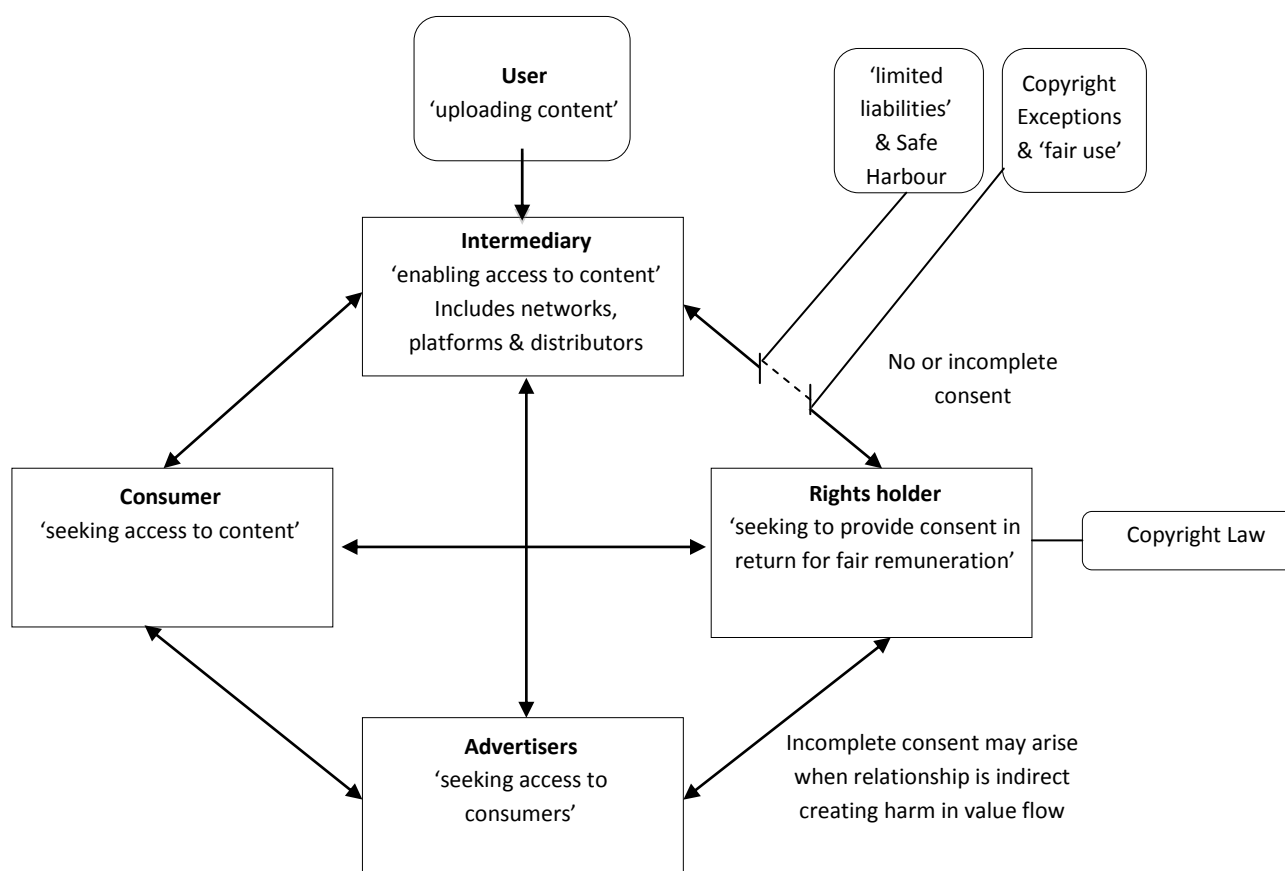
The intermediary is identified towards the top of the diagram. The diagonal line connecting the intermediary to the consumer on the left captures the intermediary's activities, which facilitate access by consumers to rights holders' copyright material e.g. as a search engine provider, or Internet content provider. As shown by the vertical line in the diagram connecting the intermediary to advertisers at the bottom, the intermediary enters into relationships with advertisers to fund the costs of its activities.

Our concern is the line between the intermediary and rights holders, indicating the harm caused to rights holders by the intermediary's actions, for which inadequate consent may have been sought. The two boxes to the north-east of our diagram further highlight the potential impacts of copyright exceptions and immunities on the relationship between rights holders and intermediaries - the focus of our analysis.

²⁵ See definition of externalities provided earlier. As noted, an externality arises whenever one party's actions affect another - whether positively or negatively - in ways that have not been agreed or consented to, contracted or paid for. Thus a negative production externality occurs when one firm's pollution negatively affects the production process of another firm, e.g. pollution from a smoke stack negatively affects a laundry that is airing clothes. A consumption externality occurs where one firm or household's actions affect another individual's wellbeing or consumption, e.g. noise from a party affects the welfare or wellbeing of a neighbour. If the relevant action causing an externality becomes the subject of consent or agreement between the parties affected then any externality is said to be 'internalised'.

²⁶ Throughout this paper the term "contracts" should be understood to include licensing agreements.

Diagram 1: Flow of value and harm in online access model of exploitation of copyright content²⁷



Key

↔ Value flow // Harm in value flow — Legal framework

The focus of this paper is on the nature of the intermediary's actions, their relationship with users who upload copyright content ('uploaders') and the extent of, and economic consequences of, any lack of rights holder consent in relation to the actions of these parties.

From an economic efficiency point of view, the intermediary and/or the uploader who uploads copyright content should pay for rights holders' consent for actions that harm rights holders if this would ensure more efficient outcomes. This is the economic rationale for the property rights of rights holders, which require such consent in order to achieve an efficient outcome. In the absence of the right to consent (without which there would be no remuneration for the creator) there would

²⁷ 'Intermediaries' is used as a general name for parties that can also be principals rather than intermediaries when it comes to supply in the digital value chain between creator and consumer. Our reference to incomplete consent covers situations where although there may be an agreement (e.g. a contract or licence) it is not optimal, efficient or perfect, but rather inefficient or imperfect, involving imperfect or incomplete consent; due, for example, to some element of coercion, duress, or abuse of market power, or due to lack of information arising from information costs, or asymmetric information (etc.) undermining complete, optimal or perfect agreement.

be no economic incentive to create new copyright material and both the economy and society would be worse off over time.²⁸

In the current model, the intermediaries (who also implicate uploaders when they allow them to share in the resulting advertising revenues) grow parasitically on the investments creators and their representatives have made in the production of valuable creative content when that content is consumed, adapted and shared without appropriate consent. The businesses benefiting from parasitic growth do not support or invest in the production of new content and those that traditionally would have taken the risk to invest in content are undermined. Parasitic growth creates an unsustainable model for the future because revenues go to third parties, not to the producers of the product.

Table 1 below further elaborates the diagonal line running between intermediary and rights holder in Diagram 1 in terms of the dimensions of the relationship between the intermediary and rights holders, and the relevant economic space in which we are interested. In the last two columns of the table we identify how the intermediary's actions can theoretically harm rights holders. In the last two rows of the table we then identify how the intermediary may or may not seek or obtain consent from rights holders to the intermediary's actions. Thus while the intermediary's actions may be assumed to benefit said intermediary, one cannot assume they will not harm rights holders, nor that the intermediary will seek or obtain rights holder consent – at least, not without an incentive.

Table 1: Intermediary/rights holder scenarios

Rights Holders' Consent		Effect of Intermediary's Actions on Rights Holders	
		No Harm	Harm
	Consent not Required or not Sought	1. No dispute	3. Parasitic growth
	Consent Required	2. Chilling effects	4. Pareto-efficient growth

This gives rise to four case scenarios identified in the four adjacent boxes in the bottom right-hand area of the table above. In the bottom right cell or south-east corner one has “Pareto-efficient growth” where the actions of the intermediary cause harm to rights holders, but rights holders have given full consent and have been fully compensated for harm caused as a consequence of actions by the intermediary.

In the cell above this is “Parasitic growth” where rights holders have neither given their full consent nor have they been fully compensated for harm caused as a consequence of the actions of the intermediary. In this situation we need to examine whether rights holders should be entitled to remedies. The cell identified as “Chilling effects” in the last row, and second-to-last column, illustrates a situation where an intermediary's actions have not caused harm to rights holders, but where there is a dispute in which rights holders have not consented to the intermediary's actions. In this situation it is conceivable that rights holders might not be entitled to remedies.

²⁸ One of the criticisms being made of copyright is that creators create without compensation. This fundamentally ignores the effect economic incentives and greater reward for creative effort can have in increasing investment in creative activity by all artists, and in attracting new talent and capital to creative industries, increasing output over time.

The final cell identified as “No dispute” in the second-to-last column is where there is no harm and no consent.

From an economic efficiency point of view, the user uploading content or the intermediary should pay for rights holder consent for actions that harm rights holders if this would ensure more efficient outcomes. However, where the intermediary’s actions do not harm rights holders, as shown in the second-to-last column as scenarios 1 and 2 in Table 1, there is no strictly economic rationale to require rights holders’ consent.

In terms of a role for the law to promote efficiency, four categories flow from the above matrix:

- i) “Pareto-efficient growth”: harm is resolved through rights holder consent.
- ii) “Parasitic growth”: there is harm but rights holder consent is wholly or partly avoided.
- iii) “Chilling effects”: there is denial of rights holder consent but no harm requiring consent.
- iv) “No Dispute”: there is no requirement of consent and no harm.

i) Pareto-efficient growth

It has thus been well recognised in common law that the competitive process both in general and in technology industries relies on well-enforced property rights to ensure its efficient operation. Thus in one of the earliest competition law cases in common law it was commented that:

“I can see no limit to competition, except that you shall not invade the rights of others.”
(Per Lord Morris *Mogul Steamship Co v McGregor, Gow & Co* [1892] AC 49, p.50.)

Property law offers protection in relation to a set of well-defined interests. The class or category of interests protected by property law is said to be closed. The critical property rights relevant to supporting innovation and the competitive process in the knowledge economy are exclusive property rights in information. Generally, these rights are called intellectual property rights (IPR). IPR include copyright that protects creative works, patents that protect new inventions, and trademarks that protect business goodwill.

Copyright-based creative goods include films and television programmes, music, e-books, games, software and database-production software. The economically important and common elements of each of these information goods are:

- a. they involve high creativity or creation costs, being creativity intensive; and²⁹
- b. they are easy to imitate, learn and appropriate, or difficult or costly to protect.

These two features create opportunities for copiers to ‘free ride’ on investments in creativity made by others. If copying is then extensive enough, competition will force the price of copies down to the copier’s marginal cost. So long as copying is less costly than creating, the resulting market price will

²⁹ See Harold Demsetz, 2009. As Demsetz notes standard economic theory does not contemplate creative activity “*standard economic theory, does not allow for two classes of goods, newly created and already existing. All goods are presumed to already exist in these models*” (p.9)... “*It deals only with production of an existing, known good. This denies opportunities to engage in the sort of free-riding that is involved in the copyright debate, which is based on the ability of a copier to avoid the cost of creating the new work.*” (p. 8)

be less than the price required to recoup the fixed costs of creation (including opportunity and risk-bearing costs).

The second feature of creative goods identified above, commonly called non-excludability, is the most important from a law and policy point of view. In the absence of the ability to exclude others from appropriating the information goods or knowledge one possesses or creates through copyright, there will be greatly weakened incentives both to invest in creativity or information, and to engage in exchange or transfer its output. This is why the enforcement of copyright is efficient. Copyright requires consent and thereby minimises the problem of parasitic behaviour or free riding on creative and innovative processes, which we discuss next.

ii) Parasitic growth

The free rider, or economic parasite, lets others incur the risks and costs of creativity, invention and discovery and simply imitates and appropriates the successful creative outputs and practices. The economic parasite can then undercut market prices, thereby reducing returns for investment in creativity and innovation and creating a fundamental obstacle to market entry and competition. Unless efficiency-enhancing legal rules are enforced in new markets, there will be suboptimal levels of innovation. As Keith Maskus, Sean Dougherty and Andrew Mertha note:

*“[Innovative] investments can be quite costly and will be undertaken only when risk of their loss to unfair competition [is minimised]... Rather, the economy stagnates in a mode favouring copying and counterfeiting.”*³⁰

As a result of the safe harbour provisions, intermediaries have thus enjoyed a free ride, and thrived through parasitic growth. The legal privileges offered by safe harbours have afforded super-normal growth opportunities that ultimately become a source of market power for some intermediaries, allowing them to abuse monopoly power in their output markets (e.g. for online goods and services) and monopsony power in their input markets (e.g. for copyright goods). Lack of competitive discipline in part arises from the fact that copyright owners’ consent is not required by law.

The safe harbour provisions in effect subsidise intermediaries, lowering their costs relative to their competitors who do not qualify under the safe harbour rules. The safe harbour rules thus weakened the competitive position of traditional distributors such as cable operators or broadcasters, who are competing with subsidised digital distributors. Over time the safe harbour rules also created a barrier to entry to new competitors to digital intermediaries. The prospect of predatory pricing of ‘subsidised’ services by digital intermediaries would tend to deter downstream competitive entry, for example by copyright owners, acting either directly themselves, or indirectly through preferred licensed agents. The safe harbour rules have thus no doubt contributed to the decline of traditional distribution channels, and prevented the development and market entry of new ones. The special privileges offered to digital intermediaries distort the competitive process and resource allocation, and give digital intermediaries an unfair competitive advantage compared to other distributors of copyright works. The safe harbour rules and copyright exceptions are a form of distortionary

³⁰ Maskus, Dougherty, Mertha, 2005.

industry assistance to particular firms, and forms of distribution, redistributing wealth to those firms involved, but creating economic costs as a result, without any offsetting advantages or benefits.

The unintended consequence of exceptions to copyright law, and limitations on the liabilities of intermediaries, is that they encourage and increase parasitic growth. The restoration of Pareto-efficient growth requires the reinstatement of the requirement for the consent of the creators and innovators of the creative goods used in digital distribution platforms.

iii) Chilling effects - creative destruction, competition and the innovation process?

An argument often advanced by intermediaries and other technology companies is that any harm suffered by rights holders from intermediaries' actions might be just a natural incident of innovation and competitive market processes; there should be no remedies for such harm because any remedies would lead to an offsetting chilling effect on the innovation process, causing offsetting harm to both intermediaries and wider society.

In 1942, in his book *Capitalism, Socialism and Democracy*³¹, Joseph Schumpeter described the nature of innovation and competition in a capitalist economy as a “*process of creative destruction*”. Schumpeter’s description of innovation and competition has often been used to describe the nature of recent developments in information and technology markets, and the possibility of a chilling effect from copyright law. For example, William Patry, Senior Copyright Counsel at Google Inc. comments:

*“Innovation is by its nature dynamic. Innovation’s dynamic power lies in what economist Joseph Schumpeter described as “creative destruction”... Competition is inextricably linked to innovation. Laws are not... The Internet and information technologies are key drivers of the twenty-first-century economy and cultural development, but such development is possible only if copyright laws do not inhibit their growth”*³²

The implication here is that innovation in Internet and information technologies is good for economic growth, and for competition, but laws are not, and copyright laws in particular. Patry indeed goes on to illustrate “*how copyright laws have to adapt*” to a number of uses of Internet and information technologies claiming that they “*are all socially desirable uses that not only do not harm the market for copyright works, but increase their market*”.

But what does Schumpeter’s theory of creative destruction actually imply? Schumpeter wrote:

*“The opening up of new markets, foreign or domestic, and the organizational development from the craft shop to such concerns as U.S. Steel illustrate the same process of industrial mutation—if I may use that biological term—that incessantly revolutionizes the economic structure from within, incessantly destroying the old one, incessantly creating a new one. This process of Creative Destruction is the essential fact about capitalism.”*²⁷

³¹ Schumpeter, 1975.

³² Patry, 2011.

“The essential point to grasp is that in dealing with capitalism we are dealing with an evolutionary process.”²⁷

Schumpeter suggested that four types of innovation can drive dynamic competition and the process of creative destruction:

“The fundamental impulse that sets and keeps the capitalist system in motion comes from the new consumer goods, the new methods of production or transportation, the new markets, the new forms of organisation that capitalist enterprise creates.”²⁷

One can illustrate the process of creative destruction arising from new consumer goods, or product innovation, in the context of the current digital revolution, by considering how the development of MP3 players (such as the iPod) simply replaced portable cassette and CD players (such as the Sony Walkman) as the market standard for portable music devices. New, more-efficient technologies obviously often harm competing older, less-efficient technologies (‘substitutes’) in this way. Everyone would agree that any such harm to older, less-efficient competing technologies should be ignored.³³ It is important however to be clear why, and the limits to which harm should be ignored.

Similarly, in the music industry, incumbent publishers and collective management organisations face competition from Creative Commons licensing, direct-to-fan business models and buyout libraries. They may resist such competition, but have no economic rationale to oppose it; a distinction must be drawn between competition from new business models and the harm caused by the avoidance of rights holders’ consent to participate as inputs in the business models of others. The development of MP3 players, which are replacing CD players, and of the CD, which replaced the compact cassette, are both examples of creative destruction where a better product has been adopted without directly affecting rights holders’ consent.

A key point about this process of creative destruction is that, for it to be efficient, it still has to involve the consent of key parties. Consumers of course must be able to choose to adopt an innovator’s new products or services, like an MP3 player, and not be forced to do so. To be efficient, the innovator must also secure the consent of its suppliers, staff, and other cooperating or complementary input owners. Where it wants people to work for it, it must pay for their participation, not simply take their rights. Thus, while an innovator does not typically need the consent of its competitor to market its innovation, it does, however, need the consent of its suppliers and any other cooperating or complementary input owners. Thus, for the creative destruction process emphasised by Schumpeter to be efficient, it has to occur with the consent of the owners of property used in the innovation. This includes the consent of owners of ‘complementary’ inputs, as opposed to that of the owners of competing products, which is not required for Schumpeter’s process of creative destruction to be efficient.³⁴

³³ It is thus suggested by intermediaries that any harm to rights holders being discussed, although no doubt involving financial loss, is just a ‘pecuniary externality’ in economic terms and not relevant to social welfare. A pecuniary externality is an externality that operates through prices, rather than through real resource effects. It also requires both complete markets and complete contracts - or complete consent.

³⁴ For example, music and MP3 players are complements in the production of ‘music listening’. Music is thus not an input to the MP3 player but instead is an input, as is the MP3 player, in the consumption of music

There is thus no chilling effect if owners of property used by the innovator require consent. The innovator may try to source the supply elsewhere competitively, but it does not have to use the inputs. Similarly, the requirement for consent applies to new intermediary technology firms. It is not efficient for them to be allowed to effectively 'take and deliver' copyright creative goods and then claim that any copyright owners' requirement for consent has a chilling effect. Indeed, although it may be costly for intermediary technology firms to obtain the consent of the property owners they rely on, there would be greater total costs or total harm to society if they were not required to obtain consent.

Where the consent of relevant property owners is obtained, including copyright owners, there may be harm as a result to an innovator's competitors, like Sony in the MP3 example, whose customers, suppliers and staff may choose to switch to the innovator, but they have the right to make these choices and, as long as it is a consensual process, any harm to the innovator's competitors is treated as only an effect that is inherent to a competitive market process. The innovator's competitors' only choice is to compete with the innovator. They do not have a legal right to their consumers' ongoing support; rather their consumers have the right to choose better options.

The unintended consequence of exceptions to copyright law - and limitations on the liabilities of intermediaries made possible by the Digital Millennium Copyright Act in the USA and the eCommerce Directive in Europe - is that the creative destruction process associated with the advance of digital technologies has not required the consent of rights holders. The process has as a result been inefficient, leading to forms of parasitic growth. The perception that copyright may pose a risk of a chilling effect on the process of creative destruction is mistaken. Quite the contrary: copyright supports the process of creative destruction and ensures that it proceeds efficiently. Copyright also supports the forms of innovation identified by Schumpeter as new consumer goods (e.g. new films, music, games, books etc.) around which one may see the formation of new markets.

The importance of intellectual property rights and this link to the creative destruction process was not referenced by Schumpeter at the time, a topic discussed by Mark Blaug. Blaug comments that the reason for Schumpeter's failure to mention them was that their importance had not been realised at the time Schumpeter wrote in the 1940s:

*"It was the rise of property rights economics in the 1970s, and especially the 1980s, that finally tied together the old labels of patents, copyrights and trademarks in one label of IPR... The economic rationale for patents, copyrights and trademarks was itself transformed by the property right approach, stemming from Coase's objection to Pigovian welfare economics and the emergence of law and economics as a distinct disciplinary subject."*³⁵

It is important however to avoid misinterpreting Schumpeter's incomplete characterisation of the nature of the innovative and competitive process in a market economy as justifying safe harbours that override the need for consent by copyright holders.

³⁵ Blaug, 2005.

iv) No Dispute

As highlighted in Table 1 on page 9 in the upper left cell, there is no need for consent where there is no harm to the copyright holder. Copyright exceptions such as fair use, fair dealing and safe harbours have been justified on this basis where there is no harm to creators from a use, or the use is not parasitic. The received economic rationale for copyright exceptions thus focuses on situations where transaction costs are high relative to the value of the use.³⁶

Where the value derived by a copier from making a copy of a work is less than the transaction costs of obtaining consent, a consensual transaction will not occur. Those who argue in favour of copyright exceptions suggest that under these circumstances there would be no harm to the copyright holder in terms of lost sales, because a sale would not have occurred anyway given the high transaction costs.

This analysis of the economic rationale for copyright exceptions is quite general, and is appropriate to all situations where it has been argued that copyright exceptions can be efficient, and not create harm. Those justifying copyright exceptions have often focused only on specific manifestations of the underlying high transaction costs problem,³⁷ using different specific terms to describe the concern, such as “externalities”³⁸, “monopoly pricing”³⁹, “non-rivalry” or “non-divisibility”⁴⁰, “holdout problems”⁴¹, “informational asymmetries”, “network effects” and “anti-commons issues”.⁴² All these problems, however, reduce to the problem of transaction costs preventing exchange. Thus, for example, a monopoly pricing problem could be avoided by price discrimination unless it was prevented by transaction costs.⁴³

The economic rationale for copyright exceptions then is that they may release value otherwise locked up by transaction costs. Given this rationale, a number of important factors limit the economic role of copyright exceptions over time, suggesting they should be kept narrow to limit their potential for harm.⁴⁴ Copyright owners have clear incentives to grant consent to create value from their work and therefore clear incentives to find ways of lowering transaction costs to the point where this value may be released. There will always be incentives and competition for more efficient institutional arrangements to evolve, which reduce transaction costs and release any residual value through market transactions. For example on the supply side, voluntary copyright collectives, or collecting societies serve to minimise transaction costs, with blanket licences being used to levy small fees for copying for low value uses.⁴⁵ Similarly on the demand side, one sees intermediaries

³⁶ Gordon, 1982, 1989, Landes and Posner, 1989, Gordon and Bone, 2000.

³⁷ Others however also look to redistribution objectives (Merges, 1997), or wealth effects (Gordon, 1990, 1997), as an explanation for copyright exceptions. However tax-funded transfers are likely to be more efficient to address distribution issues than copyright exceptions

³⁸ Loren, 1997 Gordon, 1982.

³⁹ Plant, 1937.

⁴⁰ Arrow, 1962.

⁴¹ Merges, 1997.

⁴² Depoorter and Parisi, 2002.

⁴³ The general transaction costs rationale also applies to situations other than where the cause of transaction costs is the large number of potential users which most focus on. Indeed as Williamson (1985) clarifies the fundamental drivers of transaction costs include other environmental factors, like information conditions, and the degree of asset specificity; and relevant human factors such as the bounded rationality and opportunism of individuals which can aggravate transaction costs.

⁴⁴ *ibid.* Gordon, 1982, 1989, *ibid.* Landes and Posner, 1989, *ibid.* Gordon and Bone, 2000.

⁴⁵ *ibid.* Gordon, 1982, Besen, Kirby and Salop, 1992, *ibid.* Merges, 1996.

emerge who minimise transaction costs and aggregate value (e.g. libraries) where there is only low value use at stake for certain uses and users.

Thus one would predict that the value that copyright exceptions might create will tend to fall over time as market solutions emerge from competition and one sees the evolution of more efficient institutional arrangements. Not only the evolution of institutional arrangements over time, but also growth in incomes and technological advances suggest the benefits and role of copyright exceptions will tend to fall over time and the optimal extent of copyright protection will tend to rise.⁴⁶ Growth in income, for example, is likely to increase the ability of users to pay for copyright goods, which will tend to reduce the role of exceptions, or the extent to which the willingness to pay for use is less than the transaction costs of securing consent.

Technological advance has further reduced the value of exceptions in two ways. First, the Internet in particular has reduced the transaction costs of obtaining consent and enlarged the size of the market. It has made it easier to identify copyright holders or reduce so-called search costs. It has also reduced the transaction costs of obtaining consent by enabling more sophisticated price setting, including real time price discrimination, micro-payments and lower cost payment systems that can lead to lower prices and lower transaction costs for lower value uses and users. Second, by making it easier to copy, or reducing natural barriers to copying, technological advances have raised the value of stronger legal copyright protection, and by implication reduced the value of copyright exceptions. This is akin to the increase in value of stronger laws, policing and sanctions against theft when technological advances lower the cost of theft.

The benefits of copyright exceptions are thus likely to be limited and falling over time, implying a limited or narrow and reducing role on a case-by-case basis. The problem then is that the limited and falling benefits of copyright exceptions may be readily offset by the costs or harm associated with exceptions. The costs of exceptions include both the costs of operating the market for consent and their impact on the costs of legal administration.

Copyright exceptions increase the costs of operating a market as they encourage opportunism in the form of parasitic behaviour, or free riding and market bypass. People will opportunistically claim low value uses in order to benefit from an exception, when in fact the value of their use is high and they are trying to avoid paying. This in turn means copyright exceptions have the effect of raising the transaction costs of monitoring and enforcing contracts. Copyright exceptions also involve the added cost of 'crowding out' private solutions to high transaction costs, including the new institutional or technological solutions outlined above. Copyright exceptions also increase transaction costs by increasing uncertainty. Whereas a simple copyright law that enforces the requirement of consent against all uses is quite certain, copyright exceptions entail uncertainty as to their application. The doctrine of fair use for example has been called "the most troublesome in the whole law of copyright",⁴⁷ and "has traced a quicksilver course of judicial development".⁴⁸

Turning to the costs of legal administration and public policy, the availability or existence of copyright exceptions encourages rent seeking in the form of political lobbying, which wastes resources. It also leads to the risk of regulatory creep, where pressure is placed to expand the

⁴⁶ *ibid.* Landes and Posner, 1989 (p 344).

⁴⁷ *Universal City Studios v. Sony Corp. of America*, 1981.

⁴⁸ *ibid.* Gordon, 1982.

boundaries of original exceptions and introduce new exceptions, extending existing and introducing new economic inefficiencies. Copyright exceptions then become a form of industry assistance, which benefit some but cause market erosion and greater offsetting harm. Copyright exceptions also raise legal administration costs, where judges need to supervise market and regulatory activity. The problem here is twofold: first, the direct costs of litigation to test the boundaries of expanded or new exceptions; and second, the costs of legal error, especially given asymmetric error costs due to the diminishing value from greater copyright use. Even if one assumes judges do not make errors, and only allow exceptions that should have been permitted, then any value released is likely to diminish over time for the reasons stated above. If there is room for error however, then a bias towards denying exceptions makes sense due to asymmetric error costs. On the other hand, the costs of an error which expands an exception when it should have been denied ('expansion costs'), are likely to grow over time, implying asymmetric error costs. Any losses to society from an exception that is too wide will also be harder to minimise as further market erosion occurs. Given uncertainty, therefore, it may be efficient to bias decision making against exceptions.

On a final note, there are three further general issues associated with the economic analysis of copyright exceptions, of which to be wary. The first can be called the 'instrument assignment problem'. Often it is simply assumed that exceptions to copyright are necessarily the best answer to problems that arise where copyright prohibits a use without consent, and consensual or market transactions may fail.⁴⁹ Rather than copyright exceptions being the best answer, a different legal or policy instrument may in fact offer a more efficient and targeted solution to any perceived problem. Thus for example government subsidies to low income users to buy rights that are of low value in use may be more efficient than copyright exceptions (e.g. subsidies for education/research purposes). Thus it is sometimes argued that copyright exceptions are justified by externalities or public benefits associated with, for example, education (better human capital development), research (progress of science) or news and commentary (free speech). However it is not clear why copyright holders should pay for or fund such external benefits through copyright exceptions.⁵⁰

The second is the 'nirvana fallacy', which first posits a perfect market or nirvana world without transaction costs. In such a world, there might be a market transaction in a particular use (eg research) but transaction costs in the real world prevent it. The nirvana fallacy suggests that a copyright exception should be allowed in order to enable the transaction because the market is said to have failed. However, the comparator being used here is a perfect market where there are no transaction costs. This is a nirvana fallacy. Just because a real market fails relative to how it might perform in a nirvana world does not mean a real world legal intervention like a copyright exception can make things better, or is the best remedy.

Finally, there is the issue of the 'blanket exceptions approach'. One of the curious features of copyright exceptions is why they are litigated, given their rationale. Although a copyright holder might pursue a defendant for copying without consent, if a legitimate copyright exception was raised as a defence the copyright holder is unlikely to continue suing as the logic of copyright exceptions requires there is no harm to the copyright holder and there would therefore be nothing to gain from litigation. On the other hand, disagreements between the copyright holder and copier

⁴⁹ This might be called the "under the light" fallacy, as it is like the drunk who loses his car keys outside at night, and looks for them under the street light.

⁵⁰ Another example of an alternative instrument to copyright exceptions is compulsory licensing.

may arise due to different expectations as to a court's likely application of the exception, though it is not clear why copyright holders would ever disagree with the court regarding any given exception.

As Klein, Lerner and Murphy (2002) note:

*"The primary legal determinant of "fair use" (or use that does not require authorization by the copyright-holder) is whether the use adversely affects the present or future economic value of the copyrighted work.⁵¹ However, given this legal standard, it is unclear why copyright-holders ever disagree with the court regarding "fair use." Our analysis shows that there is no inherent conflict between the court and copyright holders with regard to particular uses, but why there may be a conflict with regard to a technology that has both "fair" and infringing uses."*⁵¹

The issue in these circumstances is to recognise that while digital technology may have significant benefits and fair uses, it may also have infringing uses that create substantial harm. Any copyright exceptions need to be limited to uses that do not create harm. Harmful or infringing uses still need to be targeted, rather than included in a blanket exception. The residual problem of legislative and court error however remains.

Conclusion

This paper asked the question: *"Is copyright law fit for purpose in the Internet era?"* to inform the debate on the development of a sustainable, online ecosystem from an economic and legal perspective. This paper has argued that the unintended consequences of legislation that establishes safe harbours are the: encouragement of parasitic growth; distortion of markets and investment; reduction of competition; creation of barriers to entry; and limitation of the overall economic growth of the cultural and creative industries both now and in the future. Society as a whole is therefore worse off than it would have been had rights holders' full consent for the use of their works on the Internet been required or had their lack of consent been compensated.

By examining the relationship between intermediaries and rights holders in the light of the Coase Theorem, three relevant scenarios for growth were identified.

The first, "Pareto-efficient growth", illustrates the role of copyright law in promoting economically efficient growth. If Pareto-efficient growth is to be achieved, it is necessary that creators have the option of granting their consent for the distribution of their works on the Internet.

The second, "Parasitic growth", describes the actual unintended effects of safe harbour, exposing the flaws in the safe harbour model. It suggests that under these conditions the economy may stagnate in a mode favouring copying and counterfeiting.

The third, "Chilling effects", reflects the concerns that led to the current framework for copyright law, in which intermediaries enjoy safe harbour in order to facilitate innovation. This argument often

⁵¹ Klein, Lerner and Murphy, 2002.

relies for its economic and legal justification upon a misinterpretation of Schumpeter's characterisation of the nature of the competitive process in a market economy.

The fourth, "No dispute" section highlights that copyright exceptions need to be limited to uses that do not create harm. Current exceptions in legislation are now too wide and unfit for the digital age. Growth of incomes, the development of suitable alternative institutional arrangements, together with falling transaction costs, and the lower costs of copying associated with the digital age all imply a more limited or narrow and reducing role for exceptions on a case-by-case basis is now appropriate.

There is a range of policy options available to achieve Pareto-efficient growth, including:

- i) changing the law to oblige the intermediary, who currently benefits from safe harbour, to seek the full consent of rights holders by licence or contract;
- ii) implementing a mechanism under existing law that would enable the uploader to obtain the full consent of rights holders;
- iii) requiring the intermediaries to pay fair compensation⁵², freely negotiated by and distributed to, all rights holders to compensate for the harm described in this paper.

The contrasting fortunes of intermediaries and creators in the Internet economy provides testament to the balance of interests between the parties, having settled in a place where the absence of full consent of rights holders for the transformation, mass usage and distribution by intermediaries of copyright works (in original, amended, parodied or remixed music and video, through extracts of and links to news and thumbnails) not only impacts negatively the economics of creation and production, but also, through free-riding on the investment made by creators, damages the whole economy.

This paper has sought to provide an economic and legal perspective on copyright law in the Internet era and policy recommendations lie deliberately outside its scope, but if Pareto-efficient growth is to be restored and overall welfare maximised, policymakers must address the present imbalance between the interests of intermediaries and creators.

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⁵² This paper does not explore the concept and application of fair compensation mechanisms in detail. Further research should be undertaken in this area. There have been sector-specific initiatives at a national level and there are different approaches and positions held by stakeholders and governments in different countries.

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