
An economic analysis of copyright, secondary copyright and collective licensing

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Table of Contents

Executive Summary	3
1 Introduction	7
Background	7
Scope	7
Context	8
Report structure	10
2 The economics of copyright	11
Introduction	11
The value chain for creative content	11
The economic rationale for copyright	11
A framework for evaluating copyright policy	12
Assessing the economic contribution of copyright	13
Wider Economic Impacts	23
3 The economic impact of secondary copyright	28
Introduction	28
The economics of reproduction of copyright works	28
Secondary copyright as a catalyst to create	29
4 The economics of collective licensing	37
Introduction	37
The role of CMOs	37
The CMOs for literary and artistic works	38
The economic rationale for collective licensing	40
Secondary licensing pricing and revenue distribution	43
Members' and users' views of the CMOs	47
5 Copyright exceptions, fair dealing and fair use	49
Introduction	49
Copyright exceptions	49
The economics of copyright exceptions	50
Exceptions in practice	51
6 Orphan works	56
Introduction	56
The nature and economics of orphan works	56

Costs and benefits of possible solutions.....	58
<hr/>	
7 Responding to the digital environment	61
<hr/>	
Introduction.....	61
Key features of digitisation	61
Key issues for secondary copyright	62
<hr/>	
Annex A: Hargreaves' Call for Evidence.....	68
Annex B: Transaction cost methodology.....	70

Executive Summary

Background

PricewaterhouseCoopers LLP (PwC) was commissioned by the Copyright Licensing Agency Ltd. (CLA) to provide an economic analysis of the impacts of copyright, secondary copyright and collective licensing in the UK.

The CLA licenses organisations copying extracts from print and digital publications on behalf of authors, publishers and visual content creators. We have also prepared our report for three other bodies which represent authors, visual artists and publishers:

- The Authors' Licensing and Collecting Society Ltd. (ALCS) is the rights management organisation which represents author's interests in the UK.
- The Publishers Licensing Society Ltd. (PLS) is the rights management organisation which represents publishers' interests in the UK.
- The Design and Artists Copyright Society Ltd. (DACS) is the rights management organisation which represents the interests of visual artists in the UK.

We refer to these organisations as the Collective Management Organisations (CMOs).

This report has been prepared by PwC for CLA under the terms of our engagement letter with CLA dated 12 January 2011.

Scope

This report collates and sets out an analysis of the available evidence relating to:

- The economic value of copyright. Copyright supports the producers of creative content by requiring users to seek to use original material in certain ways;
- The economic value of secondary copyright. Secondary copyright is concerned with the reproduction of materials protected by copyright which requires the copyright owner's permission; and
- The role, effectiveness and efficiency of the organisations which administer secondary copyright and the economic benefits to both users and rights owners of collective licensing.

The focus of our report is on literary and artistic works (i.e. books, journals, magazines and other periodicals, paintings, sculptures and other artistic works) as these are the media which are of most interest to our clients.

A theme of our analysis is the contribution that the existing copyright framework makes to innovation and economic growth in the UK. We also consider some of the key policy issues as they relate to copyright, for example fair use, exceptions and orphan works. In particular, we consider how policy options and secondary copyright in general affect the economic value generated through the production of "creative content"¹.

Context

Our report has been prepared against a background in which there have been several detailed reviews of the UK Intellectual Property (IP) system in recent years. The latest of these reviews (the Hargreaves Review) is being led by Professor Ian Hargreaves. It focuses on whether the existing IP system provides the appropriate support for innovation and economic growth with particular reference to the digital economy.

The Hargreaves Review has been launched at a time when the Coalition Government see the IP framework playing an important role in creating a more dynamic economy. Whilst the Government recognises the role that the IP framework plays in rewarding the developers of copyright works, it is also concerned that the

¹ We use the term creative content throughout to refer to original copyright works produced by authors, artists, entertainers and academics.

current framework may be obstructing growth by failing to strike the right balance between delivering incentives and enabling innovation.

The Government is also committed to achieving strong, sustainable and balanced growth that is more evenly shared across the country and between industries. It has launched a Growth Review which will identify structural reforms with the potential to improve the business environment and examine barriers to growth which affect specific sectors². Its focus is on finding opportunities to improve the UK's performance, identifying six sectors for priority attention, one of which is the digital and creative industries.

The economics of copyright

The economic rationale for copyright is based largely on the premise that copyright works have characteristics akin to those of public goods. This means that their prospective users can consume the goods without paying for them (i.e. they can free ride) with the result that the incentives to develop new creative content are difficult to maintain. Therefore copyright policy needs to balance this incentive for the development of new content with the desire to provide potential users with access to the material. This balance strikes at the heart of the issue the Hargreaves review is focussing on.

We set out an economic welfare framework with which to analyse the impact of copyright policy. We also note that there is a well recognised paucity of evidence with which to assess the long term costs and benefits of possible changes to copyright policy; we believe that the CMOs potentially can help to address these weaknesses by contributing to a better understanding of the different ways in which creators of copyright works are incentivised.

Measuring the economic contribution of copyright in the UK is not without its challenges. We identify three different measures of the scale of the "copyright dependent" economy:

- First, we consider the number of people engaged in occupations where they spend a significant share of their time producing original content. We estimate that there are 770,000 such creators including authors, artists, and software developers to musicians and choreographers.
- Second, we present estimates from the Intellectual Property Office on the amount of investment in content creation. This shows that content creators invested £4.3 billion in new content in 2007. Of this, £850 million was invested in literature and £720 million was invested in artistic works.
- Third, we consider the contribution to the broader economy. The generation of creative content is part of a value chain which is catalysed by the work of these creators. The Department for Culture, Media and Sport estimates that the creative industries generated 5.6% of total GVA in the UK in 2008 and provided 2.3 million jobs. Estimates based on the World Intellectual Property Organisation's classification suggest that the UK had the largest core and dependent copyright sectors in Europe, at 8.4% of GDP. Our research also shows that the size of the copyright dependent sectors have grown steadily in the last decade.

Each approach to measurement has strengths and weaknesses; significantly, none of them fully considers the wider benefits:

- Copyright also contributes significantly to the wider economy through its role in shaping the pattern of innovation which, in turn, drives the UK's (longer-term) international competitiveness and sustains exports: as recent research indicates, however, the copyright system is only one of many factors which shape innovation³.
- The copyright dependent sectors also have important spillover effects on other parts of the UK economy: for example, by developing and sustaining clusters, by building human capital and by stimulating other sectors of the economy which either buy from, or supply to, the sector and through enhancing the UK's attractiveness to businesses and as a place to live.

² Her Majesty's Treasury and the Department for Business, Innovation & Skills, "The path to strong, sustainable and balanced growth", (2010).

³ Albert. A et al, "A Creative Block? The Future of the Creative Industries: A Knowledge Economy & Creative Industries report", The Work Foundation, (2010)

The economic impact of secondary copyright

We have investigated the evidence available on the influence of secondary copyright income on creators' incentives to generate new content. We find that there is a need for further evidence on the extent to which content creators are incentivised by different sources of potential income: similarly, little is known about the value that users attach to access to material through secondary copyright.

Nonetheless, although the overall income received from secondary copyright licensing of literary and artistic works is modest (around £70 million), such evidence as is available suggests that it has the potential to play a significant role in incentivising developers of creative content:

- Although secondary payments represent around 4% of artists' income and 5% of the writing income of authors, these figures are only averages and can be misleading. The structure of payments (with many small payments to low income creators) means that for some creators these payments are an important part of their income. For example, a recent DACS survey showed that for 34% of artists copyright royalties are more than 10% of their total income; for 12% of artists they are more than 50%. Furthermore, analysis of the earnings of those in creative occupations suggests that they are relatively highly skewed: the Gini coefficient for DACS members is 56% and for professional authors who are ALCS members it is 47% which compares to the UK average of 34%⁴. This reflects a 'winner takes all' aspect to the market which means that many, low paid creators are competing to become the next success story with the rewards it brings. Secondary copyright payments support this structure by adding to the rewards of the lower paid. For example, results from a DACS survey of its members show that more than two thirds of artists consider secondary payments to be significant or very significant for their incentives.
- Income from secondary licence fees also tends to persist for a longer period than that for primary copyright. For example, sales of a fiction book will typically dry up after one year⁵ whereas almost 60% of lifetime secondary revenues occur more than two years after publication⁶.

We also consider incentives from the perspective of the publishing firm seeking to develop content. We have spoken to a number of educational publishers who said that secondary revenues account for up to 20% of their profits and the income has a significant impact on their decisions to continue to invest in new technologies, such as digital technology in schools.

Moreover, we note that the expenditure on secondary copyright licensing by users of the material is very small in relation to their other costs: for example, the cost of secondary licensing is 0.04% of UK higher education institutions' total costs.

The economics of collective licensing

The economic rationale for collective licensing through the CMOs rests on their ability to realise important economies of scale and so help to minimise the transaction costs associated with the management of copyright. We estimate that without the CMOs and with all content creators/commissioners negotiating separately with prospective users, transaction costs would be considerably higher. We take higher education as a case study and estimate that transaction costs for users and rights owners through CMOs are around £6.7 million per year; this compares with costs in an atomised model of between £145 million and £720 million per year (assuming the same level of use of material).

Nonetheless, it is important that CMOs are incentivised to remain efficient.

Copyright exceptions

Copyright exceptions can only be justified where transaction costs are high relative to the reproduction value of goods. CMOs have a role in investing in secondary licensing markets to ensure these costs are minimised. Given this, voluntary secondary (collective) licensing should be allowed time to develop otherwise exceptions

⁴ These Gini coefficients pertain to total household income for the occupation groups discussed. When writing income of authors is considered in isolation the coefficient is 74%. The household figure is brought down by non-writing income and partners' income is more evenly distributed than writing income.

⁵ The Gowers Review of Intellectual Property, page 53

⁶ Based on our analysis from a sample of ALCS data.

can inhibit business models (e.g. digital publishing). Only in cases where transaction costs cannot be sufficiently reduced by CMOs would an exception can provide the benefit of greater consumer access without adversely affecting the revenues accruing to rights owners (since no transactions would occur). Hence, there would be no effect on the incentives to create content.

It is difficult to apply this principle in practice because of challenges in quantifying (and valuing) the transaction costs of licensing and assessing whether rights holders would lose out from the exception (i.e. whether voluntary licensing would provide access for the bulk of users).

In the context of fair dealing and fair use, we find that the principles based approach used in the US is subject to around five times more legal cases than the UK fair dealing system.

Perhaps most important of all is the impact of the respective systems on dynamic efficiency. Organisations that rely on the reproduction of copyright content are more likely to benefit from exceptions since they can use content without paying for it. On the other hand, organisations which rely on the creation, development and distribution of content are more likely to lose out from exceptions (e.g. the digital publishing industry).

We also consider that the uncertainty over whether an exception will cover emerging distribution platforms can inhibit investment by businesses and CMOs in developing an efficient licensing market. This uncertainty is a feature of the fair use system as exceptions are not prescribed clearly in law.

Orphan works

We provide an indicative assessment of a number of potential solutions to the orphan works problem within a clear economic framework which takes account of: user access, search costs, incentives for content creators, rights owners control over their works and minimising administration costs.

Our initial analysis suggests that licensing of orphan works by CMOs or, in default by a government body, may be an effective solution. It could reduce search costs by linking the databases of collecting agencies and making them accessible to users. It could also help to improve user access and enhance incentives and for creators.

We recognise, however, that further work will be needed on both the economic case for each potential solution and how they fit with the existing legal framework.

Responding to the digital environment

Digitisation has brought about major changes to the way in which creative content is produced, distributed and consumed.

Throughout the last decade the CMOs have shown themselves to be responsive to the development of the digital economy: for example, they have been proactive in using digital technologies to improve and simplify licensing process and enabling the education sector, businesses and government to reproduce digital content through inclusion of digital repertoire in their licences.

The need for further evidence

Whilst our research has drawn together disparate sources of evidence on the impact of copyright policy, it has also highlighted some important gaps, for example around the incentive effects of copyright on creators of content and on the scale and value of orphan works. These gaps need to be addressed before critical policy decisions are taken.

1 Introduction

Background

PricewaterhouseCoopers LLP (PwC) was commissioned by the Copyright Licensing Agency Ltd. (CLA) to provide an economic analysis of the impacts of copyright, secondary copyright and collective licensing in the UK. CLA is the UK's largest not-for-profit collective licensing body. It licenses organisations copying extracts from print and digital publications on behalf of authors, publishers and visual content creators.

This report has been prepared by PwC for CLA under the terms of our engagement letter with CLA dated 12 January 2011. We have also prepared our report for three other bodies which represent authors, visual artists and publishers:

- The Authors' Licensing and Collecting Society Ltd. (ALCS) is the rights management organisation which represents author's interests in the UK and collects and distributes fees for writers for the collective use of their works in the UK and overseas, including the fees received from CLA and other bodies.
- The Publishers Licensing Society Ltd. (PLS) is the rights management organisation which represents publishers' interests in the UK and distributes fees from collective licensing which CLA administers.
- The Design and Artists Copyright Society Ltd. (DACS) is the rights management organisation which represents the interests of visual artists in the UK and through an agency agreement, enables CLA to license the copying of artistic work on their behalf. It also distributes fees received from CLA for collective licensing⁷.

In the remainder of our report we refer to these organisations as the Collective Management Organisations (CMOs).

Scope

In this report we examine the key economic issues relevant to copyright, secondary copyright and collective licensing. We pay particular attention to copyright of literary and artistic works (i.e. books, journals, magazines and other periodicals, paintings, sculptures and other artistic works) as these are the media which are of most interest to our clients.

Copyright supports creative content producers by requiring permissions to be obtained in order to use original material in certain ways. The works covered by copyright are defined by the framework established in the Berne Convention as "Every production in the literary, scientific and artistic domain, whatever may be the mode or form of its expression"⁸.

Secondary copyright concerns the reproduction of materials protected by copyright which requires the copyright owner's permission. Examples of the 'secondary' use of copyright material include the photocopying, scanning or digital re-use of published literary or artistic material⁹.

This report collates and sets out an objective analysis of the available evidence relating to:

- The economic value of copyright; and
- The economic value of secondary copyright and the role, effectiveness and efficiency of the organisations which administer it (the CMOs) and the economic benefits to both users and rights owners of collective licensing.

⁷ DACS is also responsible for administering Artists Resale Right and primary copyright licensing on behalf of artists, however these functions are not discussed in this report due to the focus on secondary licensing.

⁸ Article 2, Berne Convention for the Protection of Literary and Artistic Works.

⁹ Secondary copyright applies to a wide spectrum of works but the focus of this report is on literary and artistic works.

Our analysis considers the contribution that the existing copyright framework makes to innovation and economic growth in the UK. We also consider some of the key policy issues as they relate to copyright, for example fair use, exceptions and orphan works. In particular, we consider how the policy options related to secondary copyright affect the economic value generated through the production of “creative content”¹⁰.

There is already an extensive body of academic and policy based analysis of the economics of copyright which informs the debate on issues such as the appropriate level and form of copyright (duration, exceptions and enforcement). We draw upon this literature, where appropriate; we supplement it with additional analysis which focuses on those areas which have received less attention, for example collective management and secondary licensing.

Context

Our report has been prepared against a background in which there have been several detailed reviews of the UK Intellectual Property (IP) system in recent years. The latest of these reviews (the Hargreaves Review) is being led by Professor Ian Hargreaves and is focusing on whether the existing IP system provides the appropriate support for innovation and economic growth with particular reference to the digital economy.

Recent reviews of copyright policy

The Hargreaves Review follows on from a series of other policy reviews, consultations and strategic documents summarised in Table 1 (along with some yet to publish). The Gowers Review in 2006 examined the whole IP system¹¹. Although it considered the system broadly fit-for-purpose, it made 54 specific recommendations for change. It also established the Strategic Advisory Board for Intellectual Property Policy (SABIP) – now part of the Intellectual Property Office - to provide strategic and independent oversight of Government policy. SABIP launched a scoping paper in 2009 which outlines the areas it intends to review to inform long term policy decisions¹².

The previous Government launched several strategies following the Gowers Review which addressed the role of the creative and digital industries in the economy. Creative Britain (2008) developed a strategy to promote growth in the creative industries¹³. Digital Britain (2009) considered the question of how copyright enforcement could face the challenges created by the internet¹⁴. The strategy document “Copyright the Way Ahead: A Strategy for Copyright in the Digital Age” (2009), advanced 32 conclusions and actions designed to make the copyright system better attuned to the digital age¹⁵.

The European Commission has also launched several studies in the same area. The 2008 Copyright in the Knowledge Economy Green Paper evaluated the copyright legislative framework in the light of digital pressures¹⁶. The current consultation on enforcement of IP rights is aimed at evaluating the EU’s previous Directives on enforcement given the wide ranging infringements in the digital economy¹⁷.

¹⁰ We use the term creative content throughout to refer to original copyright works produced by authors, artists, entertainers and academics.

¹¹ Her Majesty’s Treasury, “Gowers Review of Intellectual Property”, (2006). Available at: http://webarchive.nationalarchives.gov.uk/+/http://www.hm-treasury.gov.uk/gowers_review_index.htm

¹² SABIP, “Strategic Priorities for Copyright”, (2009). Available at: <http://www.ipo.gov.uk/c-strategy-digitalage.pdf>

¹³ IPO, “Creative Britain”, (2008). Available at: <http://webarchive.nationalarchives.gov.uk/+/http://www.culture.gov.uk/images/publications/CEPFeb2008.pdf>

¹⁴ DCMS, “Digital Britain”, (2008). Available at: <http://webarchive.nationalarchives.gov.uk/+/http://www.culture.gov.uk/images/publications/digitalbritain-finalreport-jun09.pdf>

¹⁵ IPO, “A Strategy for Copyright in the Digital Age”, (2009). Available at: <http://www.ipo.gov.uk/c-strategy-digitalage.pdf>

¹⁶ European Commission, “Copyright in the Knowledge Economy”, (2009). Available at: http://ec.europa.eu/internal_market/copyright/docs/copyright-info/greenpaper_en.pdf

¹⁷ European Commission, “Consultation on the Commission Report on the Enforcement of Intellectual Property Rights”, (2011). Available at: http://ec.europa.eu/internal_market/consultations/2011/intellectual_property_rights_en.htm

Table 1 Summary of key reviews, consultations and strategy papers relating to copyright

Title	Date published	Scope
Gowers Review of Intellectual Property	December 2006	The review examined all elements of the IP system and considered whether it delivers incentives for creative work while minimising inefficiency.
Creative Britain	February 2008	This review re-evaluated the contribution of the creative industries to the UK's economy and concluded that the creative industries should move "from the margins to the mainstream of economic and policy thinking". As a result, the Government announced a number of initiatives to promote growth in the sector.
SABIP Strategic Priorities for Copyright	March 2009	SABIP outlined six areas of current copyright policy which are of strategic importance to the UK and where it intends to focus its medium-term research effort. These include the link between copyright and innovation, coverage of copyright, the effect of digital rights management (DRM), the link between copyright and contract law, framework simplification and changing consumer attitudes.
Digital Britain	June 2009	This review examined the interactions between the digital industries and the economy and how far the current infrastructure, policy and institutional framework supported growth in the sector. The strategy set the high-level objective for the UK to become "one of the world's leading digital knowledge economies".
European Commission Green Paper: Copyright in the Knowledge Economy	July 2009	The EC published the results of a consultation which examined how broad dissemination of knowledge could be achieved within current copyright legislation. The EC's main conclusion was that copyright policy should be more geared towards the digital landscape, with the role of the internet particularly important. Following the consultation, the Commission committed to a series of follow-up actions with implications for library exemptions, orphan works and educational platforms.
Copyright the Way Ahead: A Strategy for Copyright in the Digital Age	October 2009	The review issued a number of questions related to the copyright industries, particularly on whether the existing framework is fit for purpose in the digital age. This resulted in a set of 32 conclusions and actions.
European Commission Consultation on Enforcement of IP rights	2011 (yet to be published)	The EC consultation into its 2004 Directive on Enforcement of Intellectual Property (IP) Rights may impact the enforcement of IP rights on the internet across Member States. The consultation follows on from the detailed report of the EC in 2010 which concluded that despite enforcement procedures improving, the scale of infringements is "alarming", with the internet cited as the main source of abuse.

Source: PwC

The Hargreaves Review

The Hargreaves Review has been launched at a time when the Coalition Government has set out its vision to create a more dynamic economy. It sees the IP framework as having a key role to play in this. IP rights are seen as helping protect the income of content creators by preventing others from copying their products and so enabling them to attract investment. Furthermore, the assurance of income from IP rights incentivises those whose creativity drives growth.

The Government is concerned that the current IP framework may be obstructing growth by failing to strike the right balance between delivering incentives and enabling competitive innovation. An inflexible framework may inadvertently obstruct the use of technologies which were not foreseen when regulations were developed and it may discourage established businesses from adapting to change, allowing them to stifle competition and raise the cost of market entry.

The Hargreaves Review, which has been asked to focus upon the digital economy, will build upon the evidence and thinking provided by this earlier work as a basis for addressing the question of how the IP framework can best support growth in the economy. It will also establish the reasons why previous proposals for change to the IP system which are relevant to economic growth have failed to make progress.

The Hargreaves Review is expected to contribute in three main ways:

- by outlining the key elements of an IP system, nationally and internationally, that would best promote UK economic growth, as a touchstone for future policy decisions;
- by setting out some specific actions that should be taken as “first steps” towards this goal; and
- by identifying any additional areas where there appears to be real potential for improvement, but where further evidence is needed.

The Hargreaves Review comes at a time when the Government is also committed to achieving strong, sustainable and balanced growth that is more evenly shared across the country and between industries. It has launched a Growth Review which will identify structural reforms with the potential to improve the business environment and examine barriers to growth which affect specific sectors¹⁸. Its focus is on finding opportunities to improve the UK’s performance. It has identified six sectors for priority attention one of which is the digital and creative industries.

Report structure

The remainder of our report is set out in six further Sections:

- In Section 2, we analyse the economic rationale for copyright and assess its associated economic value.
- In Section 3, we examine the economic significance of secondary copyright focusing in particular on its importance incentivising the supply of creative content.
- In Section 4, we analyse the economic rationale for collective licensing and assess its economic costs and benefits.
- In Section 5, we consider the economic issues associated with making exceptions for copyright legislation and examine the debate about fair dealing and fair use.
- In Section 6, we consider the issues associated with the management of orphan works.
- In Section 7, we analyse the economic implications of digitisation for copyright management and policy and describe how the UK collective licensing system has responded to the opportunities and challenges they present.

¹⁸ Her Majesty’s Treasury and the Department for Business, Innovation & Skills, “The path to strong, sustainable and balanced growth”, (2010).

2 The economics of copyright

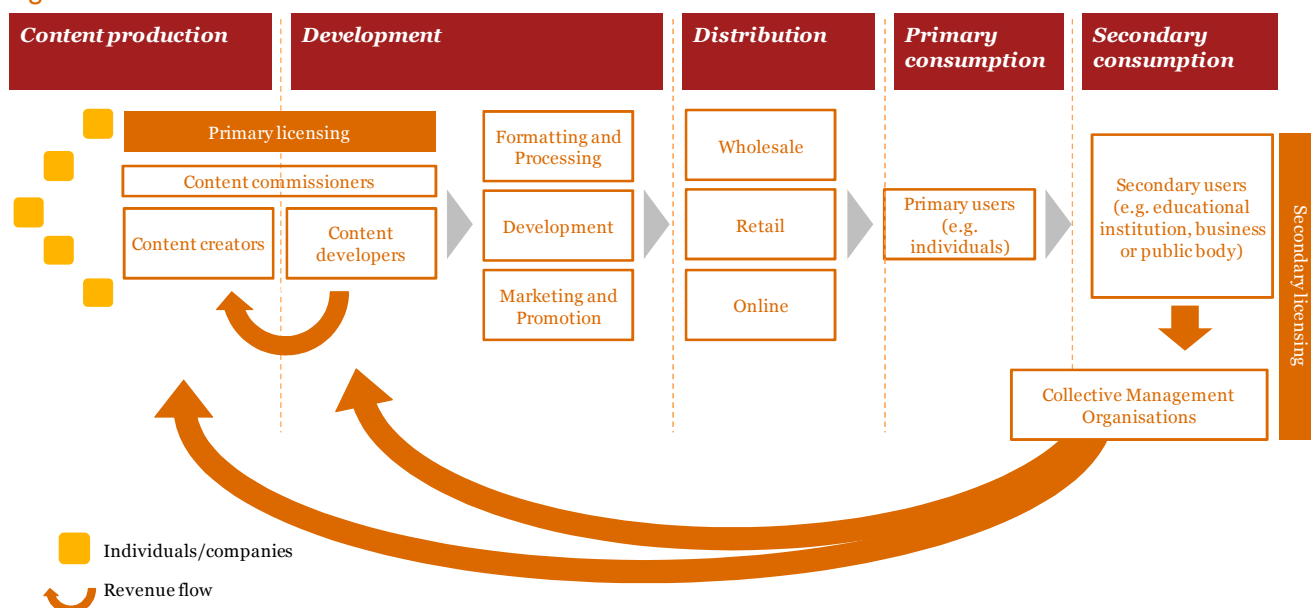
Introduction

In this Section we analyse the economics of copyright, focussing on the creative industries as a whole and literature and the visual arts in particular. We start by providing a brief overview of the value chain for creative content and then analyse the economic rationale which underpins copyright. Following this, we outline an economic framework within which to consider the potential costs and benefits of copyright. The framework provides a basis for assessing whether copyright policy strikes the right balance between incentivising creativity and enabling innovation. We then review the available evidence on the economic significance of copyright; whilst we focus on the UK, we also use other countries as comparators where possible.

The value chain for creative content

At the outset, it is useful to understand the mechanisms through which copyright incentivises content creators. A high-level representation of the flows of income is represented by the value chain in Figure 1. Using the example of a book, the rewards for the author come from two sources. The first is through an agreement with a publisher for the primary sale or licensing of the work. The publisher invests in developing content to take it to market. The second source of reward comes through licensing of rights for the reproduction of the protected work (secondary licensing). This may include the photocopying of substantial portions of the book. The rights owner may negotiate secondary rights separately with users of content or they may use a collecting agency to negotiate on their behalf (e.g. a CMO). Both depend on the framework provided by copyright. We discuss this further in Section 3.

Figure 1 Illustrative creative content value chain and incentives



Source: PwC

The economic rationale for copyright

Copyright provides producers of content with exclusive rights to their work and enables them to be rewarded for its production. We are not aware of any developed nation that does not employ a legislative copyright framework. Most have done so for many years. These frameworks are increasingly spreading to emerging and developing nations.

The most widely used economic justification for copyright is that creative content exhibits some of the characteristics of a public good which is both non-rival and non-excludable (see Box 1). In practice, most creative content is neither fully non-excludable nor fully non-rival. In this sense it is a quasi-public good – but even quasi-public good characteristics can lead to an outcome which is not economically efficient under a free market. In particular, markets tend to produce too few public goods and underutilise those that are produced – this is a market failure.

Box 1 Definition of a pure public good

A public good is one which has both the following characteristics:

- The good or service is non-rival in consumption: this means that consumption by one person does not prevent actual or potential consumption of the same product by another person (e.g. downloading a picture of artwork from the internet)
- The good or service is non-excludable: this means that once the product or service is provided people cannot be easily stopped from consuming it (e.g. national defence, street lighting)

Markets which display pure public good characteristics will “fail” (a sub-optimum equilibrium will be reached where production and consumption of the good are too low). This is because it is difficult to stop non-payers from consuming the product (due to non-excludability). The lack of revenue reduces the incentive to produce the product.

Markets for creative content can fail because, once the content is produced, it is difficult to prevent those who do not pay for the content from consuming (i.e. it is non-excludable). In other words, consumers can free-ride and so obtain the benefits of the content without paying for it. In the absence of a mechanism which enables creators to recover the costs of their investment in the development of content, there will be an undersupply relative to the optimal level. Copyright is one potential means of stopping free-riding and encouraging the production of products with public good characteristics.

This can be illustrated with a simple example. A book may take a year or more to write and, as such, represents a considerable upfront investment by the author and publisher. Once the book is written, however, the cost of printing each book and distributing it to retailers is relatively low. If the book is distributed digitally, the cost of distribution can be close to zero. When choosing whether to invest in writing the book, the author must expect to be able to recover their fixed investment. Likewise, the publisher developing the content needs to be reassured of a return on its investment. This requires them to sell the product at a price greater than the marginal cost of distributing it. Without copyright, the author would not be able to prevent others (say an on-line retailer) from copying the book and selling it at a lower cost (it would have no upfront investment to recoup). In this example, free-riding by the on-line retailer due to non-excludability may deter the author from investing resources in writing the book.

A framework for evaluating copyright policy

We have considered the importance of revenue flows to content creators as an incentive mechanism at a high level. To evaluate the key policy questions around copyright it is necessary to develop and use a consistent framework that recognises the benefits and costs imposed by copyright. Our summary of the key costs and benefits is shown in Table 2¹⁹. It distinguishes between the short run and the long run impacts of copyright policy. The long run impacts are especially pertinent for copyright to drive content creation and, so, act as a catalyst for innovation and growth; unfortunately, this is the area which is least well understood. As research for the IPO has noted, the long run impact of copyright on supply of creative content is “probably the most fundamental gap in the entire literature [on copyright]”²⁰.

¹⁹ Adapted from Handke, C, “The Economics of Copyright and Digitisation”, SABIP, (2010).

²⁰ *Ibid*; This point is also emphasised in Towse, R, “Creativity, Copyright and the Creative Industries Paradigm”, *Kyklos* 63(3); 461-478, (2010).

Table 2 Framework of potential costs and benefits of copyright

	Benefits of copyright	Costs of copyright
Short run	<ul style="list-style-type: none"> • Incentivises the creation of new content • Allows content creators to exercise some control over how their work is used and what it is associated with as well as protecting their revenue and brand (as creators of the IP) 	<ul style="list-style-type: none"> • Administrative and enforcement costs for sellers of rights • Transaction costs and licensing costs for purchasers of rights • Deadweight loss from setting price above marginal cost
Long run	<ul style="list-style-type: none"> • Supports sustainable business models for creators of new content 	<ul style="list-style-type: none"> • Innovation may be hindered by transaction costs and licensing costs

Source: PwC

The conceptual framework in Table 2 highlights the key issues which need to be considered when evaluating policy questions such as the granting of copyright exceptions (fair dealing and fair use frameworks), the management of orphan works and how digitisation impacts the copyright system. The framework fits closely with the economic welfare approach to assessing the contribution of copyright described below.

Assessing the economic contribution of copyright

We have identified three broad approaches to measuring the economic contribution of copyright to the UK:

- The first approach is to consider the impact from a policy perspective and focus on the contribution of copyright to economic welfare: this measure captures the level of consumer benefits or surplus from a good (their willingness to pay less what they actually pay) and the level of producer benefits or surplus (the profit that a business makes).
- The second approach is to treat copyright content as an asset and estimate the value of the investment in copyright content by measuring the time spent by authors, artists and musicians creating original works and then estimating the expected return.
- The third approach is to assess the value added by those parts of the economy which depend on copyright.

Each of these approaches captures important aspects of the economic value of copyright but they are not comprehensive. For example, they do not include all the wider economic impacts, such as human capital spillovers or the wider economic impact of the creative industry value chain. In addition, the measures are largely static: they do not capture the dynamic effects of copyright (e.g. the long term benefits through its impact on incentives to generate content).

We consider each of the approaches in turn below and then examine some of the potential wider economic impacts.

The contribution of copyright to economic welfare

One approach to calculating the net impact of copyright policy is by quantifying the welfare impact on consumers and producers. To understand the net impact of policy the situation under consideration must be compared with what would have happened if the policy under consideration was different.

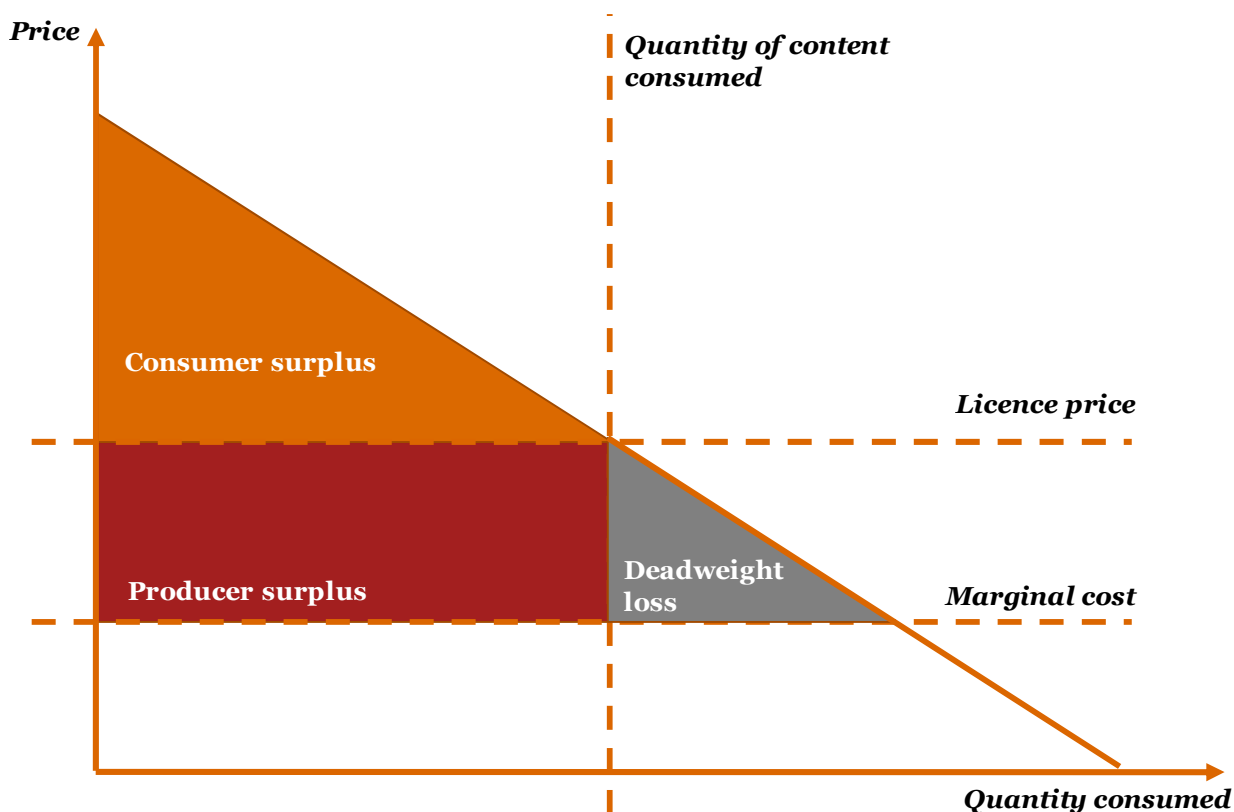
The key metrics considered in welfare analysis are:

1. Consumer surplus – the amount that consumers benefit from purchasing a product or service (calculated as the amount they would be willing to pay less what they actually pay);
2. Producer surplus – the amount that producers benefit by selling a product or service (calculated as the price they receive less the cost they incur); and
3. Deadweight loss – when people who value a product or service more than its marginal cost are not able to consume it.

These economic concepts are illustrated in Figure 2 which shows an aggregate demand curve and the marginal cost of distributing content. The demand curve describes the total quantity of the product or service that would

be demanded at a given price. The diagram shows the level of consumer and producer surplus at a given price and consumption level. The magnitude of the surplus is equal to the respective shaded areas. The point where the sum of the consumer and producer surplus is maximised is considered to be economically efficient²¹. Setting a price above marginal cost is necessary to incentivise creators, but this imposes a deadweight loss due to reduced access.

Figure 2 Economic welfare effects of copyright



Source: PwC

Measuring these welfare effects in practice is difficult with the result that the net impact of copyright policy (and other policies) is poorly understood. The evidence which is available is based on “event studies” where a change in the level of copyright occurs and subsequent impacts (on industry revenue and content creation) are observed and compared to an assessment of what would have happened if the event had not occurred.

Although we are not aware of any such studies for literary or artistic works, the range of welfare effects can be illustrated by reference to studies of the impact of file sharing (e.g. Napster and other peer to peer (P2P) download services) on the music industry. File sharing has enabled music to be copied and redistributed easily which means that more consumers can free ride by not paying for their consumption. To understand the economic welfare effects of this change, it is necessary to determine what would have happened in the absence of file sharing. Several studies have attempted to do this. The evidence suggests that file sharing has led to a decline in revenue from selling music recordings and so has had a negative impact on producer surplus²² although this is not supported by all studies²³. Even if the conclusion is accepted, it does not mean that P2P downloading has reduced economic welfare and that stronger copyright would have a positive impact on

²¹ In referring to economic efficiency, we define it in terms of allocative efficiency which maximises social welfare (i.e. maximising the sum of individuals' utility).

²² Predominantly from studies of the US market: see for example the numerous studies by Liebowitz between 2002-2009 and Zentner, A, “File Sharing and International Sales of Copyrighted Music: An Empirical Analysis with a Panel of Countries”, *Topics in Economic Analysis and Policy* 5(1) Article 21, (2005).

²³ See Oberholzer-Gee, F. and Strumpf, K who find no statistically significant relationship in ‘The Effect of File Sharing on Record Sales. An Empirical Analysis’, *Journal of Political Economy* 115(1), (2007).

economic welfare. The principal positive impact of file sharing is if wider dissemination of music were to boost consumer surplus. In a simple example, file sharing may enhance short run consumer surplus as those who value music at say £5 per album will download it for free, whereas they would not have paid £10 for it. Two notable studies have estimated that the effect on consumer surplus is larger than the reduction in producer surplus from lost sales²⁴. For example, the study by Rob and Waldfogel estimated that the effect of P2P file sharing on each person was to increase consumer surplus by \$70 and reduce producer surplus by \$25.

The findings of Rob and Waldfogel are consistent with reducing the deadweight loss shown in Figure 2. The principal weakness of the current evidence base, however, is on the long run impact of file sharing (or any other form of copyright infringement) on the supply of content. These impacts are potentially large. In the absence of a business model through which new content is created, developed and distributed, there would be a large negative impact on both consumers and producers resulting from the failure of that market.

Investment in creative content

An alternative approach to measuring the economic contribution of copyright is to treat the development of literary and artistic works as an investment which will generate a stream of revenues that persist over several years. This approach has been developed by the Intellectual Property Office (IPO) to address a weakness in national accounting treatment of the activities²⁵.

The first step in capturing the value of this investment is to estimate the number of people who create content. Our estimates, shown in Figure 3, are that there are 60,000 authors and 46,000 artists in the UK²⁶. In addition, we estimate that there are 326,000 software professionals, 116,000 higher education teaching professionals, 77,000 photographers and video equipment operators, 63,000 journalists and significant numbers of the other occupations with a creative element. In total, there are 770,000 workers for whom the creation of original content is a significant part of their work.

We believe that these figures are conservative estimates because they exclude those people who classify their second job as one of the creative occupations. Furthermore, this analysis excludes those managers, administrators, marketing and other back office staff²⁷ who work with people in these occupations as part of the creative process²⁸.

²⁴ Rob, R. and J. Waldfogel, 'Piracy on the High C's: Music Downloading, Sales Displacement, and Social Welfare in a Sample of College Students', *Journal of Law and Economics* 49(1): 29-62, (2006) and TNO Report on behalf of the Dutch ministries of Economics, Justice and Education, Culture and Science, Ups and Downs – Economische en culturele gevolgen van file sharing voor muziek, film en games; (2009).

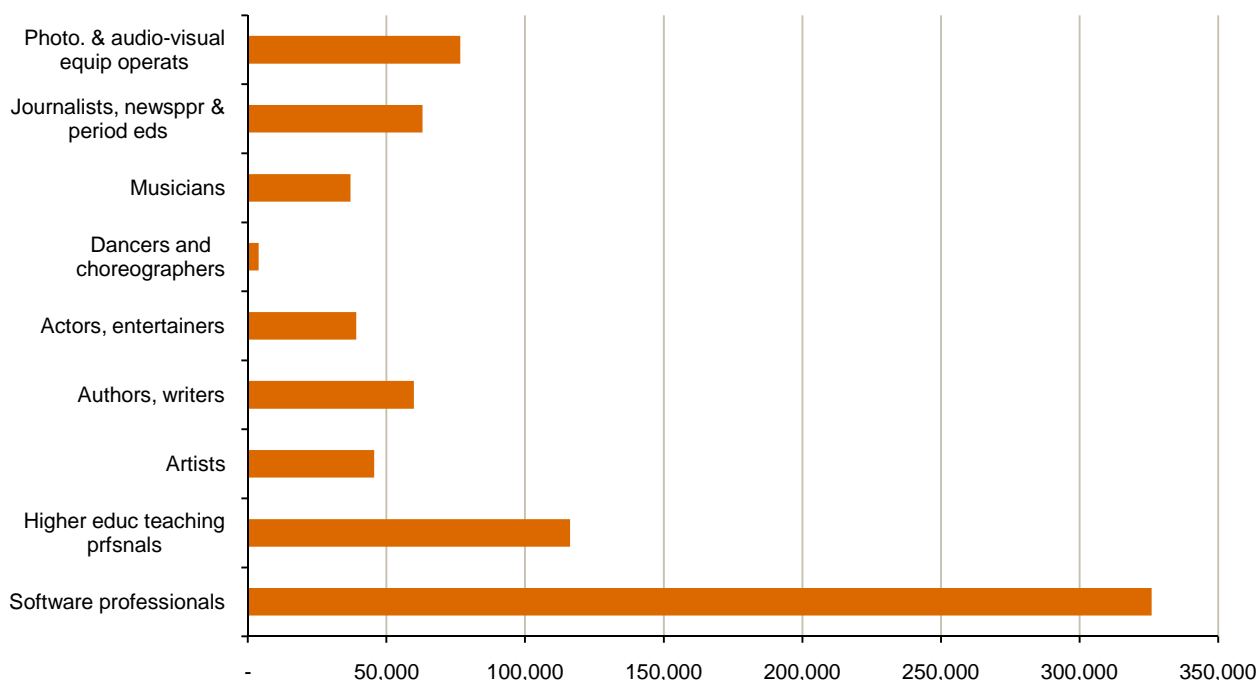
²⁵ Goodridge, Peter and Haskell, Jonathan. 2011. "Film, Television & Radio, Books, Music and Art: UK Investment in Artistic Originals." Report for the UK Intellectual Property Office

²⁶ These estimates include the number of employed full-time and part-time and self employed people who classify their main occupation as the categories listed.

²⁷ In an article on software content development seven occupational groups were included in the creation of new software, ranging from ICT managers to computer engineers. In contrast we have only included one occupation here. See Chamberlin, G, Clayton, T and Farooqui, S, "New measures of UK private sector software investment", Office for National Statistics, (2007).

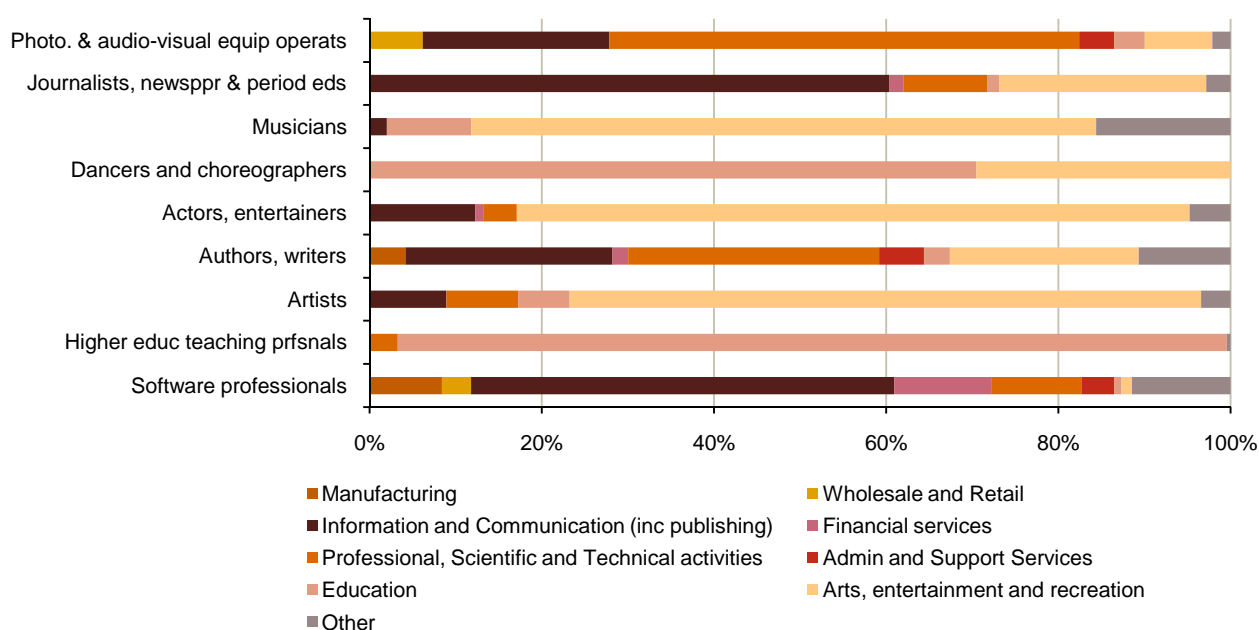
²⁸ In practice, this approach could be extended to cover all workers who are involved in copyright right across the value chain (such as those working in publishing and retail. such an approach may become analogous to the WIPO and DCMS approaches, described below.

Figure 3 Number of content creating workers (UK, 2010)



Source: Office for National Statistics Labour Force Survey, PwC

The second step in understanding the extent of the investment in original works is to identify where the content creators work within the economy. Figure 4 presents our analysis of the industry sectors in which creative workers are employed. The arts, entertainment and recreation sector is important for content creators: it is where the majority of musician, actors and artists are employed. It also contains a significant share of journalists, dancers and authors. The professional, scientific, technical sector is also important: it is where most photographers and video operators are employed, along with significant numbers of authors. The education sector employs the majority of higher education professionals who produce academic articles for journals, whilst dancers and choreographers also work in this sector. The majority of software professionals work in the information and communication sector. This sector includes publishing so many authors and journalists work in it as well.

Figure 4 Analysis of employed workers by occupation and by industry sector (UK, 2010)²⁹

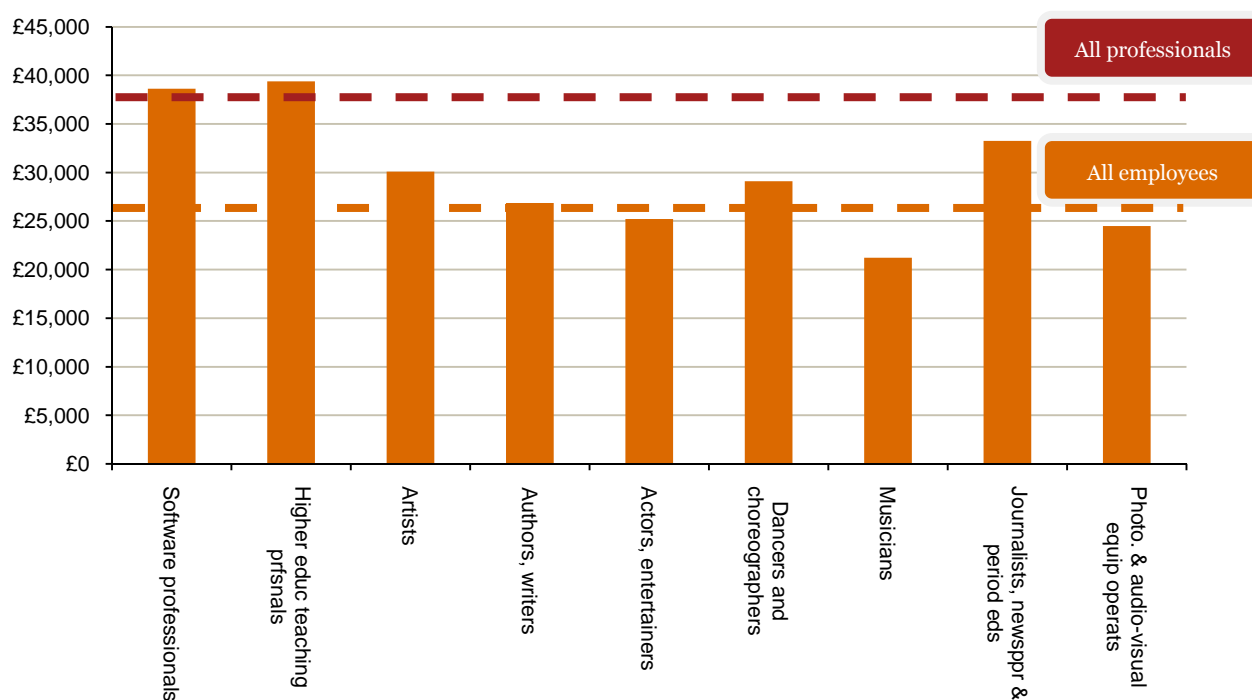
Source: Office for National Statistics Labour Force Survey, PwC

In order to assess the value of the investment in copyright assets, we need to understand the value of content creators' time. Figure 5 shows the mean gross annual earnings of each occupational group based on data from the Annual Survey of Hours and Earnings (ASHE)³⁰. The mean earnings range from almost £40,000 for software professionals and higher education teaching professionals to £21,000 for musicians. Although the majority of content creators earn more than the national average wage of £26,500 (shown as the yellow dotted line), most earn significantly less than the average professional employee (shown by the red dotted line). The latter is, arguably, the most appropriate benchmark³¹.

²⁹ The estimates are designed to capture all workforce jobs (i.e. the employed and self employed, full and part time workers who classify their main occupations in the occupations above).

³⁰ Data are for all employees in employment and includes both full time and part time workers.

³¹ For example, in a recent survey of DACS members, 65% of members who responded were educated to degree level or higher.

Figure 5 Mean gross annual earnings of part time and full time creative workers (UK, 2010)³²

Source: Office for National Statistics, Annual Survey of Hours and Earnings; Note: due to lack of data the figure for actors is from 2009 and for full-time workers only

The next step in estimating the value of investment in content created by workers in creative occupations is to multiply the number of workers with their mean salaries for each occupational group³³. In doing this, we need to account for the share of working time spent creating original content. For example, some occupational groups, such as authors, are likely to spend the majority of their time producing (new) original content whereas other occupational groups, such as higher education professionals, are likely to spend time teaching and lecturing rather than writing academic papers.

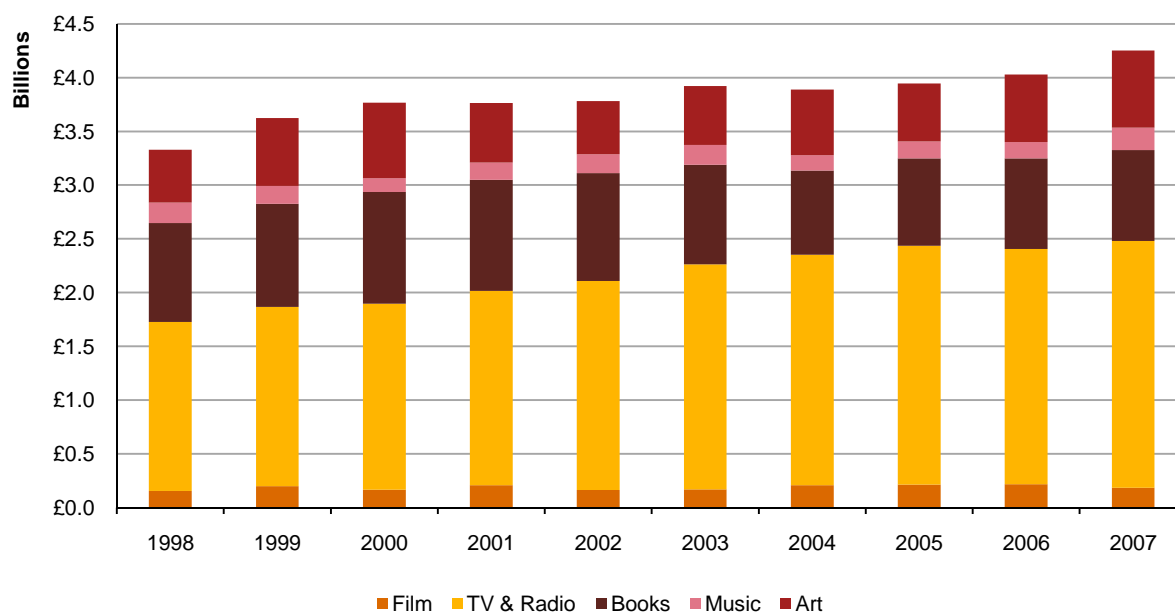
The IPO, in conjunction with Imperial College and the ONS, has recently used a similar approach to estimate the value of investment in creative content³⁴. The IPO's estimates for investment in original content are shown in Figure 6. Total investment has risen since 1998 and reached £4.3 billion in 2007. Television and radio content is the largest component: it was valued at £2.3 billion in 2007. Investment in books and art is also significant: in 2007, £850 million was invested by authors and £720 million by artists.

The IPO analysis quantifies the level of private sector investment in content: it excludes public sector workers such as higher education teaching professionals. It is based on employment estimates from the Annual Survey of Hours and Earnings (ASHE), whilst our earlier analysis uses the Labour Force Survey (LFS). The IPO has used ASHE as it provides a more reliable estimate of employees since it is employer, rather than worker, based. The LFS offers more detail about the industries where creators work and self employed creators.

³² Note that the earnings measured by the ONS differ markedly from the survey findings of ALCS and DACS members. A discussion of the methodological differences is contained in the presentation of Figure 13 in Section 3.

³³ To this the non-salary costs of employing the workers can also be added, such as pension contributions.

³⁴ Goodridge, P and Haskell, J, "Film, Television & Radio, Books, Music and Art: UK Investment in Artistic Originals", Report for the UK Intellectual Property Office, (2011).

Figure 6 Investment in creative content (UK, £ billions, current prices)³⁵

Source: Goodridge, Peter and Haskell, Jonathan. 2011. "Film, Television & Radio, Books, Music and Art: UK Investment in Artistic Originals." Report for the UK Intellectual Property Office

The copyright dependent economy

The third approach to measuring the economic contribution of copyright recognises that the investment made by authors, artists and musicians in original content acts as a catalyst for a wider array of economic activities. For example, once an author writes a book, the content is developed by publishers, physical copies will be produced and a range of wholesale, retail, transport and marketing activities is required to bring the product to the final customer. This wider chain of activities depends to some extent on creative content and, so, copyright. In this part of the Section, we consider two approaches that have been used to measure the scale of this economic activity.

The World Intellectual Property Organisation (WIPO) has developed a classification of industry sectors that depend on copyright in some way in order to provide a consistent framework for measuring its economic contribution across countries³⁶. The approach divides sectors of the economy according to the importance of copyright to their operations:

- Industries which exist to create and distribute copyright works (e.g. a book publisher) are classified as “core” copyright industries.
- Industries which depend on copyright material being produced are classified as copyright “dependent” – this includes the manufacture of paper.
- Industries which are partly dependent on copyright (e.g. architecture) are classified as “partial” copyright industries.
- Other sectors which benefit from creative content but are not directly involved in its production are classified as “non-dedicated support industries” (e.g. retail).

A summary of the WIPO industry classification is shown in Table 3.

³⁵ The estimates for music are likely to be understated and are expected to be re-estimated as more data become available.

³⁶ Guide on Surveying the Economic Contribution of the Copyright-Based Industries, World Intellectual Property Association

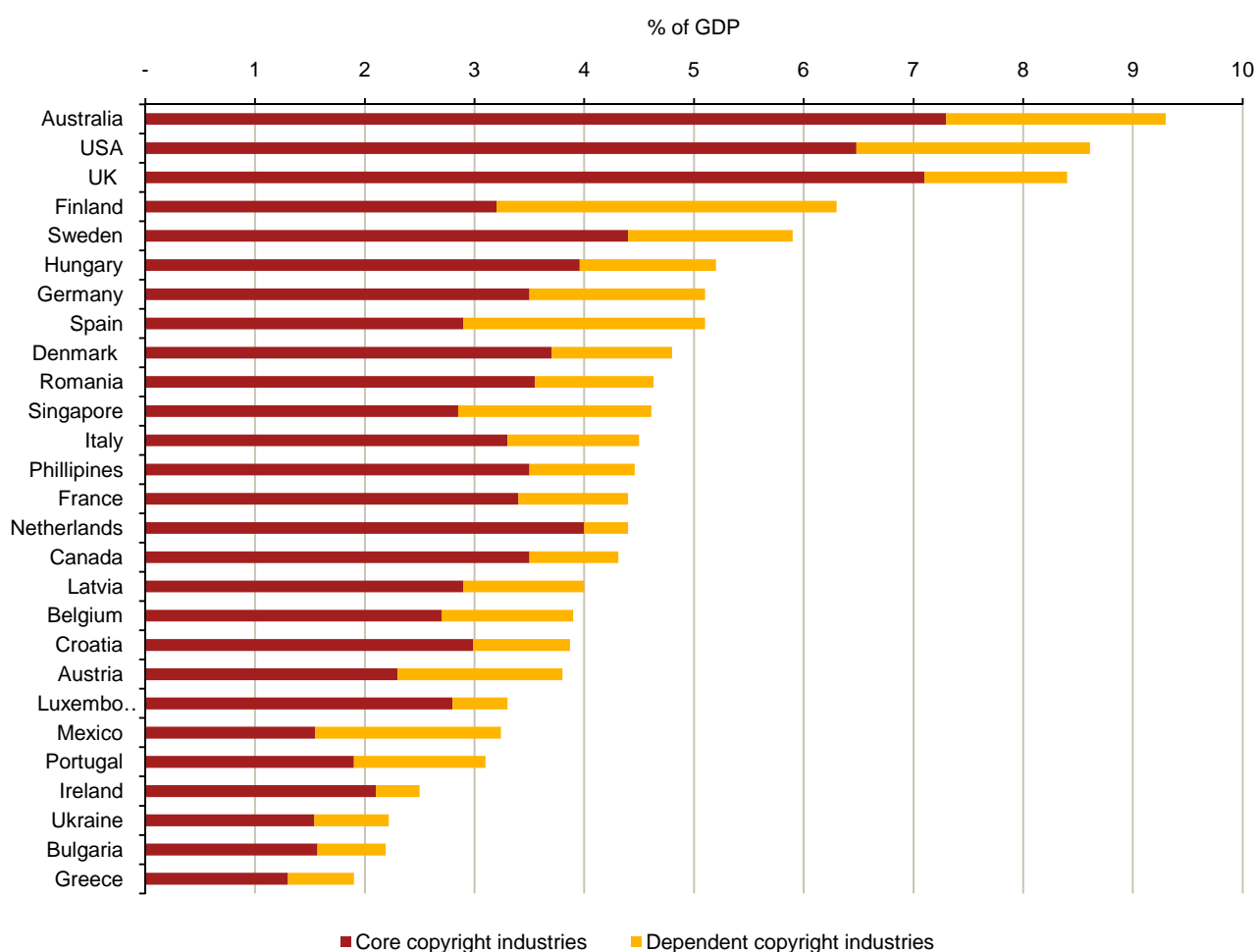
Table 3 WIPO copyright industry classification

Classification	Industries included
Core copyright industries	Press and Literature, Music, Theatrical Productions, Operas, Motion Picture and Video, Radio and Television, Photography, Software and Databases, Visual and Graphic Arts, Advertising Services, Copyright Collecting Societies
Copyright dependent industries	TV sets, Radios, VCRs, CD Players, DVD Players, Cassette Players, Electronic Game Equipment, and other similar equipment, Computers and Equipment, Musical Instruments, Photographic and Cinematographic Instruments, Photocopiers, Blank Recording Material, Paper
Partial copyright industries	Apparel, textiles and footwear, Jewellery and coins, Other crafts, Furniture, Household goods, china and glass, Wall coverings and carpets, Toys and games, Architecture, engineering, surveying, Interior design, Museums
Non-dedicated support industries	General wholesale and retailing, General transportation, Telephony and Internet

Source: World Intellectual Property Organisation

The WIPO approach, whilst involving some judgement in defining industries and in classifying sectors, provides an internationally consistent basis for comparing the size of the copyright economy. Figure 7 summarises the results of a selection of studies which have applied the approach. It shows that core copyright and dependent industries - as defined by WIPO - represent between 2% and 9% of the economy across a range of developed and emerging economies³⁷. The UK economy has the largest core and dependent copyright sector of the 21 European countries for which we have data. The sectors generated value added of €130 billion in 2000 or 8.4% of Gross Domestic Product (GDP). Of all the countries shown in Figure 7, the UK is behind only the US and Australia in terms of the economic significance of the copyright sectors.

³⁷ These figures capture the core copyright and dependent copyright industries only. The partial and non-dedicated support activities are excluded due to lack of data. These categories are usually smaller than the core and dependent industries: for the US adding the partial and non-dedicated sectors increases the share of GDP from 9% to 11%. Comparable figures are not available for the UK.

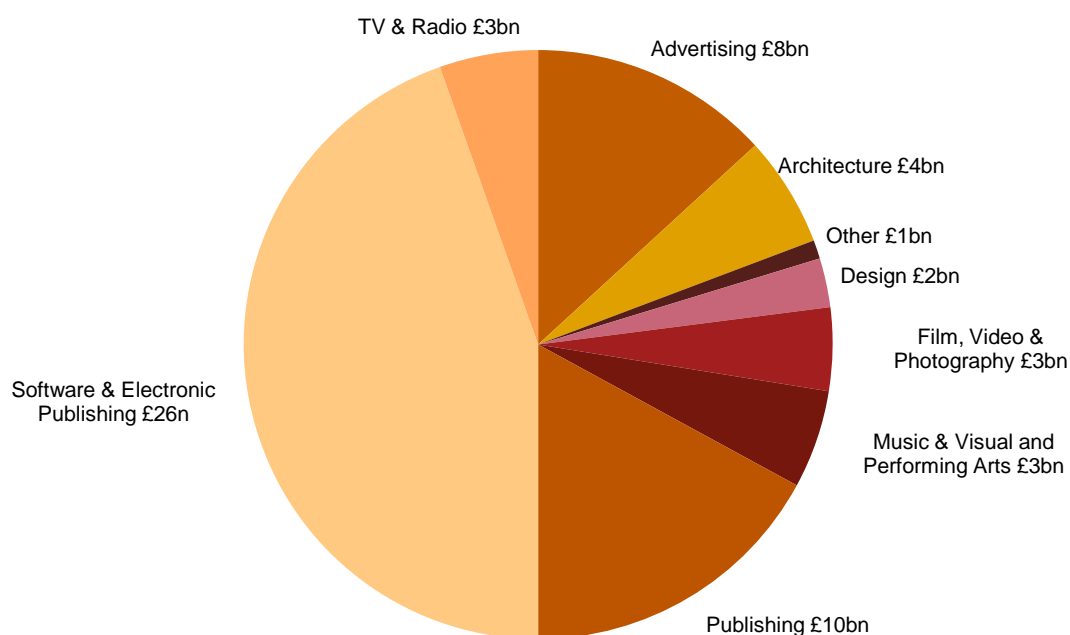
Figure 7 Core copyright and copyright dependent industries (% of GDP)³⁸

Source: World Intellectual Property Organisation, Media Group, (2003-2010)

In the UK, the Department for Culture Media and Sport (DCMS) has used an alternative approach to quantify the economic contribution of the creative industries for around a decade. Its definition of the creative industries is somewhat narrower than that of the WIPO. The DCMS's most recent estimate of the size of the creative industries suggests that they accounted for 5.6% of UK Gross Value Added in 2008, or £59 billion³⁹. The breakdown of this result is shown in Figure 8. The largest of the UK's creative industries is software and electronic publishing which contributed £26 billion to the economy in 2008. This was followed by publishing which contributed £10 billion.

³⁸ These figures are sourced from a number of studies which use the WIPO methodology published between 2003 and 2010; the figures, therefore, pertain to different years in some cases. The Canadian and Singaporean estimates are understated due to data limitations.

³⁹ DCMS, "Creative Industries Economic Estimates Full Statistical Release", (2010).

Figure 8 Economic impact of the creative sector⁴⁰ (UK, £ billion, 2008)

Source: DCMS, 2010

Another way of expressing the scale of the creative sector is in terms of the number of jobs it supports. Table 4 shows a breakdown of employment. The overall level of creative employment is 2.3 million in 2010. Within this the largest sectors are software (753,000 jobs); music, visual and performing arts (305,800 jobs); advertising (299,200) and publishing (236,600). The large number of creative worker classified as self-employed is also noticeable, and represents the large cohort of individual creators who operate in the sector.

Table 4 Employment in the creative sector⁴¹ (UK, 2010)

Sector	Employees in the creative economy	Self-employed in the creative economy	Total creative economy employment
Advertising	252,900	46,400	299,200
Architecture	89,600	38,800	128,400
Art & Antiques	6,600	3,200	9,800
Crafts	66,300	45,100	111,400
Design	148,500	77,000	225,400
Designer Fashion	5,700	4,100	9,700
Film, Video & Photography	36,700	23,800	60,500
Music & Visual and Performing Arts	100,500	205,300	305,800
Publishing	206,800	29,800	236,600
Software & Electronic Publishing	637,600	115,500	753,000
Digital & Entertainment Media	5,600	700	6,200

⁴⁰ Figures add to £60 billion rather than £59 billion due to rounding.

⁴¹ Figures may not sum due to rounding.

Sector	Employees in the creative economy	Self-employed in the creative economy	Total creative economy employment
TV & Radio	87,800	44,500	132,300
Total	1,644,600	633,900	2,278,500

Source: DCMS, 2010

Wider Economic Impacts

Besides the short run direct and indirect economic impacts discussed in previous parts of this Section, we also consider the important wider impacts of copyright, including the longer term effects on innovation and competitiveness across the economy and the broader spillover effects across the economy.

Copyright, innovation and competitiveness

There is an extensive literature demonstrating the positive contribution that successful innovation makes to competitiveness and economic growth. For example, the most recent Annual Innovation Report prepared by the Department for Business, Innovation & Skills estimates that UK private sector labour productivity grew by 2.24% per year between 2000 and 2008 and that innovation contributed 63% of this productivity growth, adding an average of 1.41 percentage points per year to productivity growth per year over the period⁴².

There is also a broad literature which analyses the many elements of the ‘innovation system’ which influence how successful an economy is in promoting innovation. These are often referred to as the framework conditions. They include:

- The public research base and knowledge exchange;
- Consumer and business demand and, in particular, the propensity to demand innovative new products and processes;
- The business environment and the extent to which competition encourages innovation;
- The level of entrepreneurship;
- Ease of access to finance;
- The quality of the infrastructure and services which supports innovation; and
- The stock of human capital available to support innovation.

Recent work by NESTA has compared the framework conditions in the UK for innovation with those prevailing in some of the UK’s main competitors⁴³. The analysis shows that the UK lags behind other countries in some important respects: in particular, the UK has a lower rate of investment in physical infrastructure, a less conducive business environment for innovation (in particular weak partnerships with suppliers) and less conducive consumer demand conditions. It also notes the paucity of evidence linking IP (including copyright) and innovation, although it is recognised to be one of the factors which have an influence.

To understand the relationship between IP protection and competitiveness we have examined the World Economic Forum’s (WEF) Global Competitiveness Indicators⁴⁴.

Competitiveness is defined by WEF as the set of institutions, policies and factors that determine the level of productivity of a country. In turn, this sets the sustainable level of prosperity that can be earned by an economy (i.e. more competitive economies tend to be able to produce higher levels of income for their citizens). The productivity level also shapes the likely rates of return obtained by investments (physical, human and technological) in an economy and these are the fundamental drivers of the rate of growth of the economy. Thus, competitiveness involves static and dynamic components.

⁴² Department for Business, Innovation & Skills, Annual Innovation Report 2010, (2011).

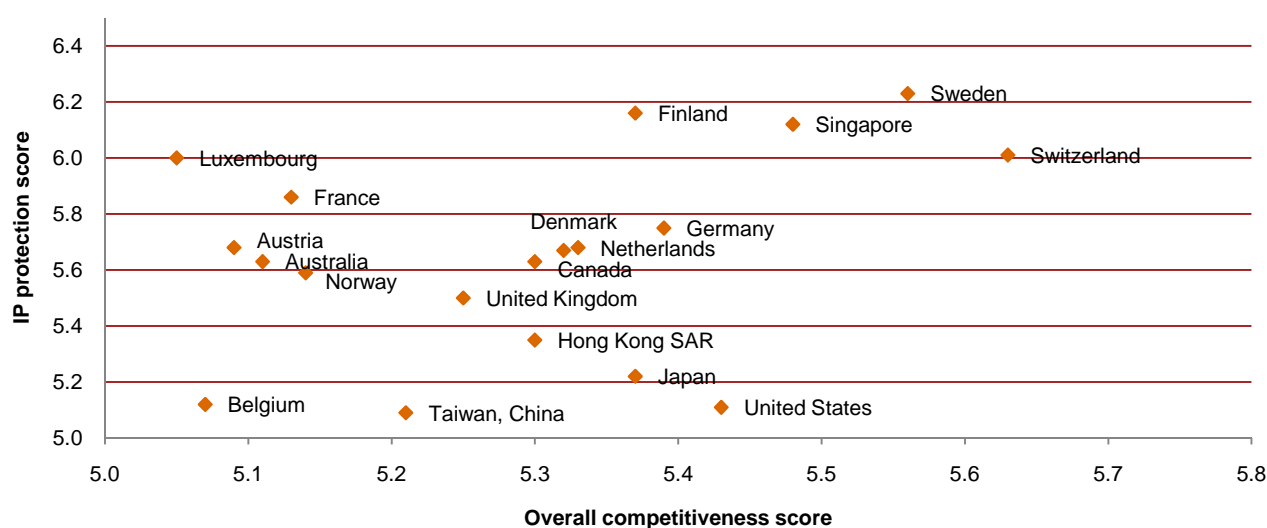
⁴³ NESTA’s report reviews UK and international innovation data to summarise the six WFC’s: NESTA, “Measuring Wider Framework Conditions for successful innovation”, (2011).

⁴⁴ World Economic Forum, “The Global Competitiveness Report 2010-2011”, (2010).

Business leaders' perceptions of the strength of intellectual property protection is measured by a survey which asks about the extent to which existing frameworks for IP protection, including anti-counterfeiting measures, contribute to competitiveness. This includes copyright as one of many factors.

Figure 9 plots the overall competitiveness scores of some of the UK's main competitors against the perceived levels of IP protection. This shows that, although there is a positive correlation between perception of the IP framework and overall competitiveness, some countries are highly competitive despite having relatively poorly perceived IP frameworks (e.g. the US and Japan) whilst other countries are less competitive than might be expected given their highly rated IP framework (e.g. France and Luxembourg). The UK would be close to a trend line, if drawn on the chart, which means that the strength of its IP framework correlates with its level of competitiveness.

Figure 9 Global competitiveness scores (2010/11)



Source: World Economic Forum

To understand the significance of this pattern, it is important to recognise that WEF assesses and measures competitiveness by combining a series of measures reflecting twelve different “pillars”. These include institutional strength, infrastructure, the macroeconomic environment, health and primary education, higher education and training, goods market efficiency, labour market efficiency, financial market development, technological readiness, market size, business sophistication and innovation. The IP framework sits within both the institution and innovation pillars. As part of the innovation pillar, the indicator is amongst seven other indicators all of which have a strong focus on science and technology, and may, therefore, be less relevant to the creative industries as a whole. Thus, it plays only a small part in overall competitiveness.

In summary, our analysis suggests that:

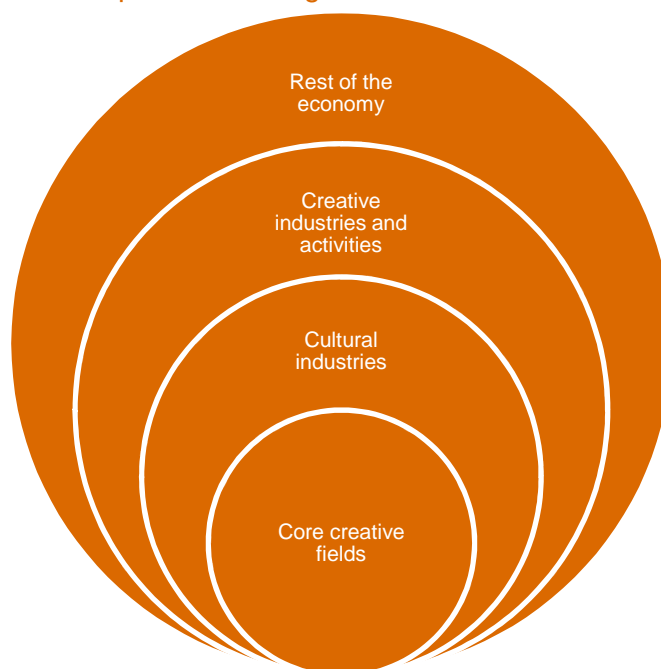
- there are numerous factors that drive competitiveness including the IP framework; and
- the IP framework in the US (a framework highlighted by the Hargreaves Review) does not make as much contribution to competitiveness as it does in the UK.

Other wider economic impacts of copyright

At a micro-economic level, it is evident that the existing UK copyright system generates several other types of wider economic impact. These can be seen as ‘spillovers’ which reflect the positive economic externalities that arise from the production and commercialisation of artistic and literary works in a knowledge economy. In the context of copyright, these spillovers are especially relevant because the costs of replicating knowledge are relatively small. This means that others can easily use or replicate a work that someone has created. A study

for DCMS by the Work Foundation describes a tiered model for analysing how value from the creative industries spills over to the wider economy (see Figure 10).

Figure 10 Model of economic spillovers arising from creative activities⁴⁵



Source: *The Work Foundation, 2010*

Reflecting this model, we identify five types of (interrelated) spillover effect arising from the activities and outputs of creative occupations:

- **Enhanced process innovation** –the creative industries support the application of advanced technologies, encourage better organisational models which foster creativity and enhance production processes. These productivity enhancing innovations can spread both within and outside the creative value chain, leading to enhancements in productivity. For example, a recent study compared the performance of Austria's creative industries with that of other knowledge-intensive industries and found that the share of enterprises that introduced any type of innovation (both product and process innovation) was 86% amongst the creative industries and 56% in other knowledge-intensive sectors⁴⁶.
- **Greater product innovation** – the creative industries have a track record of generating ideas which when commercialised contribute directly and indirectly to the broader economy's innovative performance through the generation of new products and services⁴⁷. These innovations are, however, sometimes difficult to detect with the result that their significance can be underestimated. They have been referred to as 'hidden' innovation⁴⁸. Nonetheless, in the area of design, there is evidence that manufacturers which use design as an input are more likely to carry out product innovation and to increase product quality, productivity and market share⁴⁹. Expenditure on design is also positively correlated with firms' productivity growth⁵⁰. Furthermore, a major study of non-creative industry organisations' connections with creative businesses found that UK businesses which invest twice as much as the average firm in creative services (as

⁴⁵ Albert, A et al, "A Creative Block? The Future of the Creative Industries: A Knowledge Economy & Creative Industries report", The Work Foundation, (2010)

⁴⁶ 2000 creative industry enterprises from Austria were examined in: Muller et al. "The role of Creative Industries in Industrial Innovation", A ZEW Discussion Paper. (2009).

⁴⁷ See also Higgs, P., Cunningham, S., and Bakhshi, H., "Beyond the Creative Industries: Mapping the Creative Economy in the United Kingdom", NESTA, London, (2008).

⁴⁸ Miles, I., and Green, L. "Hidden Innovation in the Creative Industries", NESTA, London, (2008).

⁴⁹ HM Treasury, "Cox Review of Creativity in Business: building on the UK's strengths", London, HM Treasury, (2005).

⁵⁰ DTI, "Creativity, Design and Business Performance", DTI Economics Paper No. 15, London, (2005).

a proportion of their output) are 25% more likely to introduce product innovations⁵¹ since ‘supply chain linkages to the creative industries are positively related to innovation elsewhere in the economy.’⁵² Parts of the creative industries are also intensive users of technology and often demand adaptations and new developments of technology. As such, they stimulate technology producers to develop new products.

- **Strong clusters** – creative clusters are geographic concentrations of interconnected companies, specialist suppliers, other service providers and associated institutions. Recent research by NESTA⁵³ has shown that there is a strong concentration of creative activities in London and the South East which has built up around the development of new content. This reflects a strong culture of interdisciplinary working which encourages knowledge exchange amongst firms in the wider economy. Similarly, the large proportion of small firms in the creative industries helps to inspire risk-taking and entrepreneurial culture. Successful clusters are valuable because they contribute a vital part of the infrastructure of cities and help to make them attractive locations for both individuals and businesses. Organisations in successful clusters are seen as simultaneously organising their activities in a more open and collaborative model which is conducive to the spread of knowledge to firms inside and outside the industry⁵⁴ whilst maintaining the pressure of competition⁵⁵.
- **Human capital spillovers** – partly linked to the notion of clusters, workers in creative occupations develop and embody a set of skills and competencies which create value across the economy. This is most apparent as professionals moving between jobs take their ideas and knowledge to other sectors. This provides an important way of transferring tacit knowledge which is especially relevant since the skills of creative workers are seen as especially valuable in other sectors.
- **Product spillovers** – sales of creative goods and services can also lead to product spillovers as they increase demand for complementary goods in other sectors. This occurs in several ways besides the typical multiplier effects. For example, production (and sale) of artistic and literary works play a significant role in raising cultural awareness: this has been shown to contribute to attracting visitors to the UK. Similarly, the UK’s position as a leading educational publisher contributes to attracting foreign student enrolment in the UK. Again, the impact is potentially large: £2 billion per year in revenue is provided for universities by foreign student enrolments⁵⁶.

⁵¹ Bakhshi, H. and E. McVittie, “Creative supply-chain linkages and innovation: Do the creative industries stimulate business innovation in the wider economy?”, *Innovation: Management, Policy & Practice*, 11(2); 169-89, (2009).

⁵² *Ibid* and also see; Frontier Economics, “Creative Industry Performance, A statistical analysis for the DCMS”, Frontier Economics, London, (2006).

⁵³ NESTA, “Creative clusters and innovation: Putting creativity on the map”, NESTA research report, (2010)

⁵⁴ Potts, J. And Morrison, K. “Nudging Innovation”, London, NESTA research report, (2008).

⁵⁵ Empirical support for such spillover effects has been found in a recent paper: Haskell, J and Wallis, G, “Public Support for Innovation, Intangible Investment and Productivity Growth in the UK Market Sector”, Imperial College Discussion Paper, (2010).

⁵⁶ Lenton, P, “The value of UK education and training exports: an update”, British Council, (2007).

Box 2 Section summary

In this Section we set out the key economic rationale for copyright and that free riding (consuming goods without paying) may threaten the sustainability of copyright dependent industries without some form of framework in place to maintain incentives to produce creative content.

We also set out the economic welfare framework which we use to analyse copyright policy in subsequent Sections and shown that the investment of a relatively small group of people, the creators of content, underpin a much broader range of economic activity.

There are a number of ways of measuring the “copyright dependent” economy:

- First, we consider the number of people in occupations which spend a significant share of their time producing original content. We find there are 770,000 such creators, ranging from authors, artists, and software developers to musicians and choreographers.
- Second, we present data which shows that content creators invested £4.3 billion in new content in 2007. Of this, £850 million was invested in new content by authors; and £720 million was invested by artists.
- Third we show that a much broader economic value chain is dependent on the work of these creators. Different definitions of the “copyright” or “creative” economy exist. The Department for Culture, Media and Sport estimates the creative economy to be 5.6% of GVA in 2008, or 2.3 million jobs. Estimates based on the World Intellectual Property Organisation’s classification suggest that the UK has the largest core and dependent copyright sectors in Europe, at 8.4% of GDP.

3 *The economic impact of secondary copyright*

Introduction

In this Section we assess the economic significance of secondary copyright in terms of the fees collected by CMOs and the materiality of these fees for content creators. We focus on secondary copyright licensing of books, journals, magazines and other periodicals, paintings, sculptures and other artistic works.

We have structured the Section in four parts:

- We start by presenting the economic theory pertaining to the reproduction of copyright works, focusing on where it differs from the theoretical background to copyright as a whole.
- We describe the scale of the financial flows from secondary copyright (recognising that not all secondary licensing will be rewarded through these mechanisms).
- We examine the significance of the financial flows which accrue to creators of content from secondary licensing and assess their importance in maintaining the supply of creative content.
- We present case studies on the importance of secondary copyright from the perspective of individual creators and the firms who take content to market in the educational publishing sector.

The economics of reproduction of copyright works

The economics of reproduction of copyright works is also based on the public goods model presented in the previous section. It involves balancing the incentive to create content with a desire to ensure consumer access⁵⁷. The main difference is in terms of pricing strategies can be used to maintain incentives in a world where copying exists⁵⁸. This is predicated on the view that consumers' value authorised original works more highly than unauthorised copies of that work. The significance of this argument was greater when copies were of poor quality and relatively expensive to produce and distribute (such as a photocopy of a book); it is less relevant today as a result of digital technology. We reflect further on this point in Section 7 on digitisation.

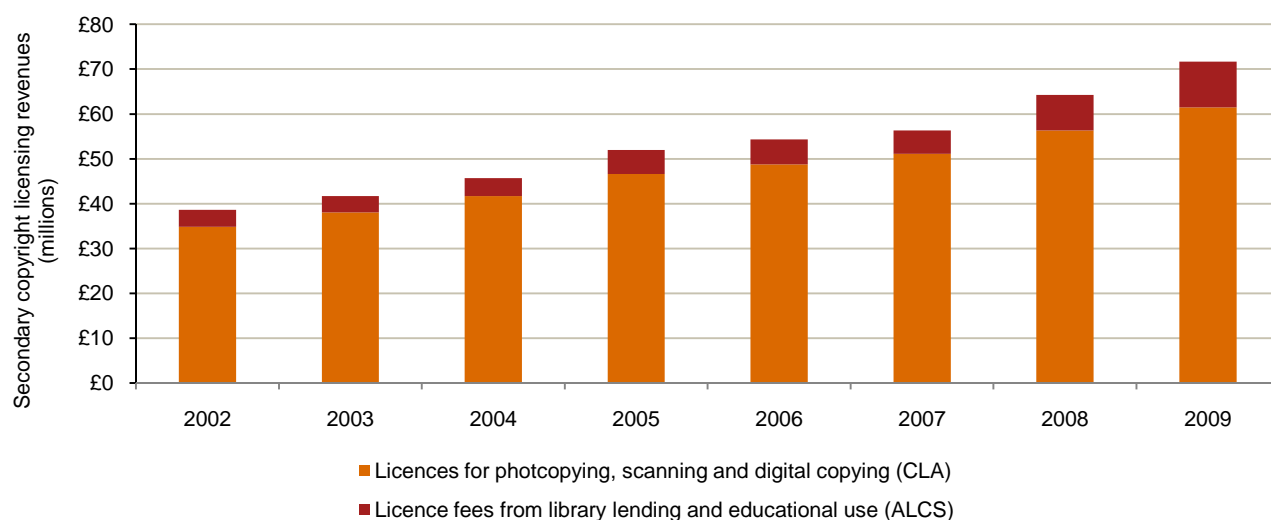
Some indication of the significance of secondary copyright can be derived by considering the value of the licence fees which are currently collected. Figure 11 shows the fees that CLA and ALCS collect for secondary licensing of the reproduction of literary and artistic works. It shows that the value of licence fees has risen from £39 million in 2002 to £72 million in 2009, a compound annual growth rate of 9%.

It is important to note that these payments are one segment of the secondary copyright market in the UK which also includes the licensing of music and video content. For example, Phonographic Performance Limited (PPL) licenses the use of recorded music in the UK on behalf of performers and record companies. The PPL distributes over £100 million each year to its members⁵⁹.

⁵⁷ See for example: Johnson. W.R, "The economics of copying", Journal of Political Economy, 93; 158-74, (1985).

⁵⁸ The idea of indirect appropriability – where producers use price discrimination to counter the loss of sales from unauthorised copying has been shown to be ineffective in a world with digital copying; see Liebowitz. S.J, "Economists' Topsy-Turvy View on Piracy", Review of Economic Research on Copyright Issues 2; 5-17, (2005).

⁵⁹ Figures available from the PPL Annual Report.

Figure 11 Secondary copyright revenues received by CLA and ALCS (UK, £ million)⁶⁰

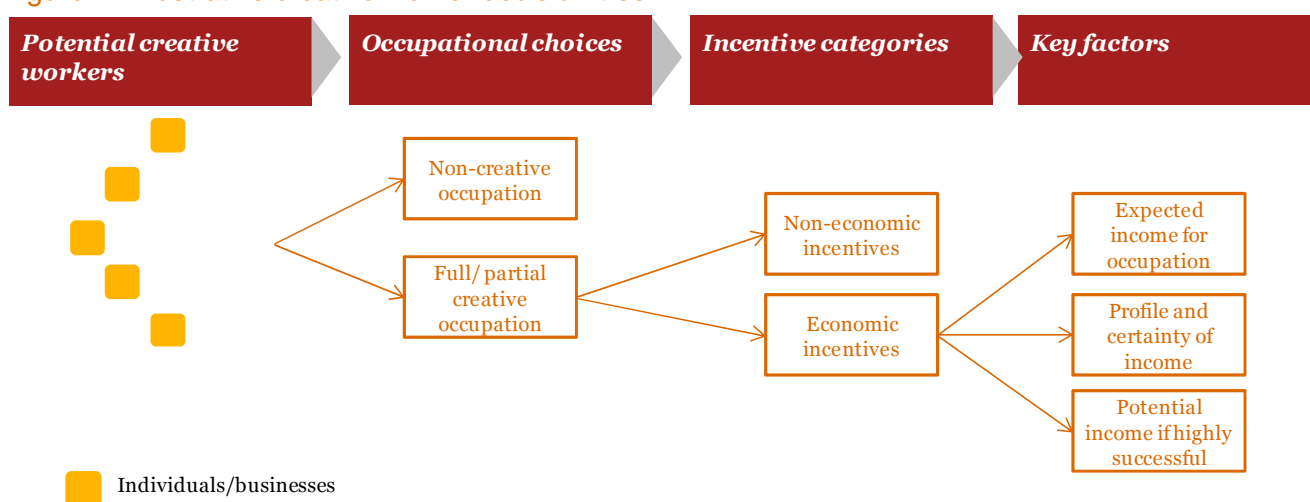
Source: CLA, ALCS, PwC

Secondary copyright as a catalyst to create

As we explained in Section 2, copyright exists to ensure that creative workers have appropriate incentives to produce new content. This is important because, as we have shown in Section 2, a substantial economic value chain depends on new content being created. To capture the importance of secondary licensing, we need to understand how secondary and primary payments affect content creators' incentives.

Before considering the available evidence, we consider the decision facing an individual when deciding whether and how to invest their time in content creation. This decision is fundamental to whether copyright provides a long term incentive. In Figure 12 we illustrate some of the key economic and non-economic factors which potentially influence the decision whether to enter or remain in a creative occupation⁶¹.

Figure 12 Illustrative creative worker decision tree



Source: PwC

The framework recognises that non-economic incentives matter. Indeed, a recent survey of creative graduates concluded that “Graduates often make a lifestyle choice when they choose a creative education and a creative

⁶⁰ Figures have been adjusted from financial year to calendar year basis for consistency.

⁶¹ We present this in terms of an individual's decision, but it can equally be applied to businesses.

outlook is already a way of life. After graduation, goals and aspirations remain focused on creative practice”⁶². These factors are important but difficult to quantify except at a very high level by showing that creators are often willing to accept less pay than people with similar qualifications can obtain in other occupations (see Figure 5)⁶³.

The wage disparity has also been explored in a recent paper by Towse⁶⁴. She reviewed a number of studies which demonstrated that, whilst most artists have above-average educational qualifications, they have below-average earnings and, therefore, are unable to spend sufficient time on their chosen art form.

Focusing on the economic incentives, we believe that three aspects are important to decision making:

1. The expected income – the ‘typical’ income level the content creator can expect to receive for working in a creative occupation;
2. The profile and timing of income – in general, individuals prefer a more predictable income that is evenly distributed over time⁶⁵; and
3. The potential income if highly successful – creative occupations are often exhibit a “winner takes all” structure, with many low paid individuals or small businesses competing to become the next J.K Rowling or Damian Hurst.

We now consider the available evidence on the impact of secondary licensing on these factors. The majority of the evidence relates to the first of these points, the level of income and impact of secondary licensing payments. The issues around the income profile and the “winner takes all” market structure are no less important, but have less data available to explore them. We consider these points towards the end of the Section.

The importance of secondary licence income for individual creators

Many members of the CMOs are engaged in the development of new creative content as their principal economic occupation but, in some cases, they do not do it as their principle job (instead relying on other forms of employment). For everyone involved in the creation of new content, it is important to understand the significance of the income they derive from secondary copyright payments and its effect on their incentives to create new content.

Both DACS and ALCS have commissioned independent surveys of their members which provide information on creators’ incomes and the share of income from secondary licensing. Figure 13 shows the key results from DACS’ survey⁶⁶. It shows the total median income for visual creators by occupation type (the bars with the scale on the right hand axis) and expresses the income from secondary payments as a proportion of this income (the line with the scale on the left hand axis). The figure covers four occupational groups as well as the full sample and a ‘constructed artist’ category which represents a subset of high profile and successful photographers and cartoonists who have maintained a successful career for more than a decade.

⁶² Ball, L et al, “Report for Stage 2 Qualitative Research - Creative Graduates Creative Futures”, Creative Graduates Creative Futures Higher Education partnership and the Institute for Employment Studies, (2010).

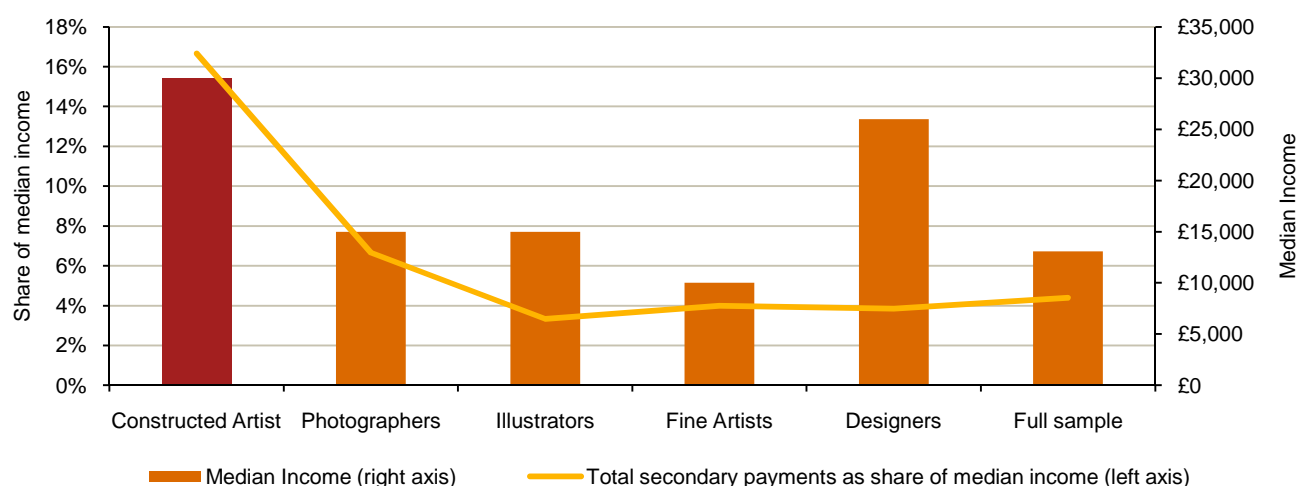
⁶³ This point has also been explored in detail by Throsby who identifies the importance of intrinsic rewards for artists. See: Throsby, D. “Economics and Culture”, Cambridge, Cambridge University Press, (2001).

⁶⁴ Towse, R, “Creativity, Copyright and the Creative Industries Paradigm”, *Kyklos* 63(3); 461-478, (2010).

⁶⁵ This point is referred to as “income smoothing” in economics and reflects the theory that most individuals will prefer to maintain a reasonable standard of living throughout their life rather than experiencing a mixture of opulence and poverty.

⁶⁶ Conducted by Martin Kretschmer and Sukhpreet Singh from the University of Bournemouth and Lionel Bently and Elena Cooper from the University of Cambridge, (2011), report awaiting publication.

Figure 13 Artists' median income and share received from secondary licensing (UK, 2009/10)



Source: DACS survey, PwC

The median income of all DACS members surveyed was £13,000 and income from secondary payments accounted for 4.4% of this total income. Designers and the 'constructed artist' category both earned significantly higher incomes than other DACS members. Members in the 'constructed artist' category also received a significantly higher proportion of their income from secondary licensing than other DACS members.

The DACS survey shows that the income of visual artists surveyed by DACS is significantly lower than the earnings revealed by the ASHE survey which indicated that median gross earnings in 2010 were £32,000⁶⁷. There are two likely reasons for this difference. The ASHE survey is based on information provided by employers and only covers those in full-time employment as artists (rather than in part-time employment or self-employed) whereas the DACS membership survey will include all those producing artistic content. Secondary licensing incomes are, therefore, paid to relatively low paid artists.

Equivalent evidence on the creators of literary works is provided by a survey of authors which was published in 2007 based on data from 2004/5⁶⁸. It shows that around 5% of the median writing income of ALCS member is derived from secondary copyright payments. The study also found that secondary copyright as a share of this income was below 5% for full time professional writers and higher for other authors, such as those who write as a second job.

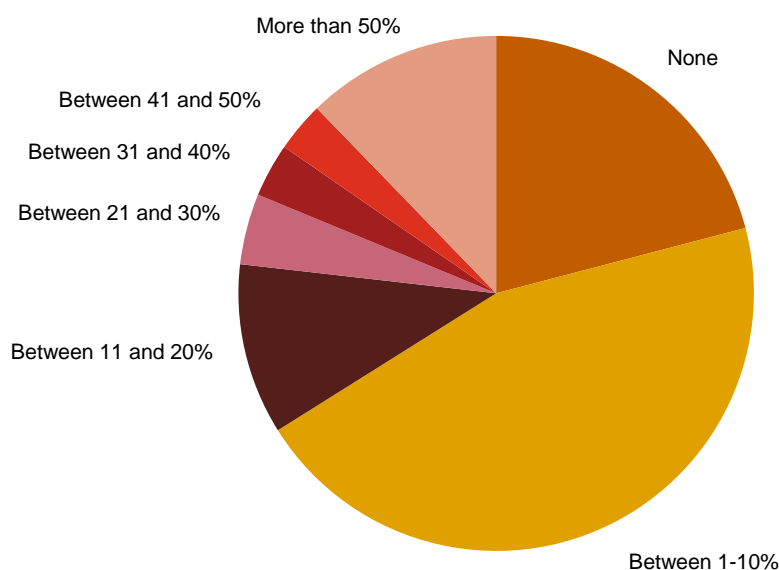
The results in Figure 13 are based on average across a large group of artists. As such, they mask important variations across the DACS's members. Figure 14 shows the results of a more recent survey of DACS members which collated data on the importance of copyright royalties as a source of income⁶⁹. It shows that whilst 21% of DACS members receive no royalties, 45% receive between 1% and 10% of income and a significant proportion receives more than this. One third of DACS members (34%) derive more than 10% of their income from copyright royalties and 12% earn more than 50%.

⁶⁷ Figure is only for full time employees due to lack of data on part time workers.

⁶⁸ Kretschmer, M and Hardwick, P, "Authors' earnings from copyright and non-copyright sources: A survey of 25,000 British and German writers", Centre for Intellectual Property Policy & Management, (2007). The data were collected in 2004/5.

⁶⁹ There were 1,870 responses to this survey; note that data from this survey relate to all copyright royalties rather than secondary alone.

Figure 14 Artists share of income from total copyright royalties (UK, 2011)



Source: DACS survey

As we noted above, content creators' decisions about how much effort to devote to content creation are also influenced by the possibility that they might be one of the very few people who are particularly successful (like JK Rowling or Damian Hurst) and the profile of their incomes over time. In practice, there is little empirical evidence of the importance of these factors⁷⁰. We do, however, understand from CMOs that there is a large number of often low income content creators hoping to achieve success for whom copyright payments are an important source of income. At the same time, as Towse has put it succinctly "[copyright earnings] of the superstars are very high and the others' are derisory"⁷¹.

The significance of this asymmetry can be appreciated by considering the equality of income distribution within the occupations (as measured by the Gini coefficient). Artists and authors exhibit significantly higher income inequality than the average across the UK (where the Gini coefficient is 34%). The Gini coefficient is highest for professional artists (57%) and the full sample of DACS members (56%), but professional authors and main income authors also have high income inequality with Gini coefficients of 47% and 46%⁷² respectively⁷³.

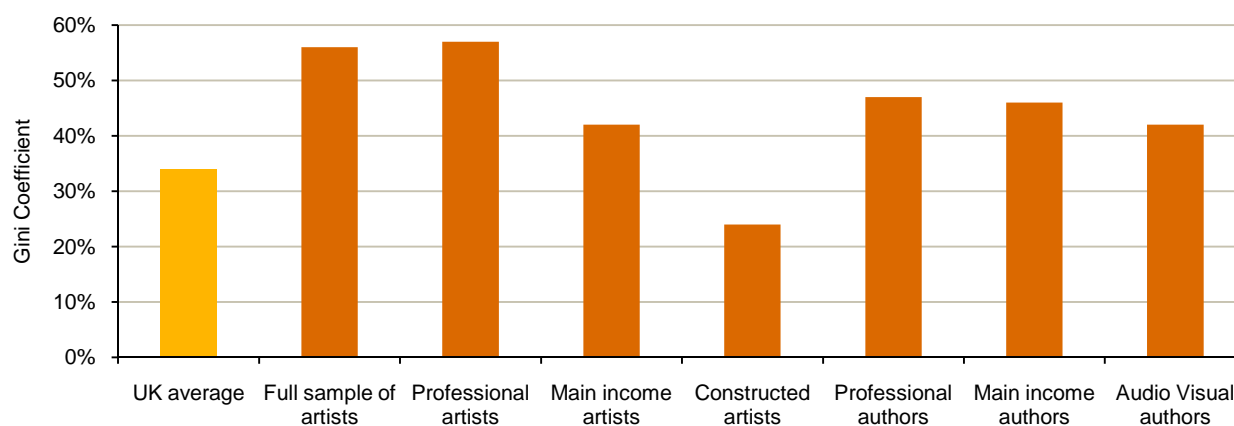
In Section 4 we consider the mechanism used by CMOs to distribute secondary payments to creators. Payments are targeted towards the most used work – but the information requirements of this process and need to balance the costs of gathering more information mean that the targeting is imperfect. As a result, licence fees tend to support lower paid artists disproportionately. Whilst this may not perfectly correspond to economic efficiency in terms of rewarding the most valuable works, it provides a useful income source for those at the lower end of an unequal income distribution.

⁷⁰ For example, earnings data from the Office for National Statistics only provide earnings information up to the 90th percentile. It is the 99th percentile that would be needed for this point.

⁷¹ Towse, R, "Creativity, Incentive and Reward", Cheltenham, UK and Northampton, Mass, USA, Edward Elgar, (2001).

⁷² These Gini coefficients pertain to total household income for the occupation groups discussed. When writing income of authors is considered in isolation the coefficient is 74%. The household figure is brought down by non-writing income and partners income which are more evenly distributed than writing income..

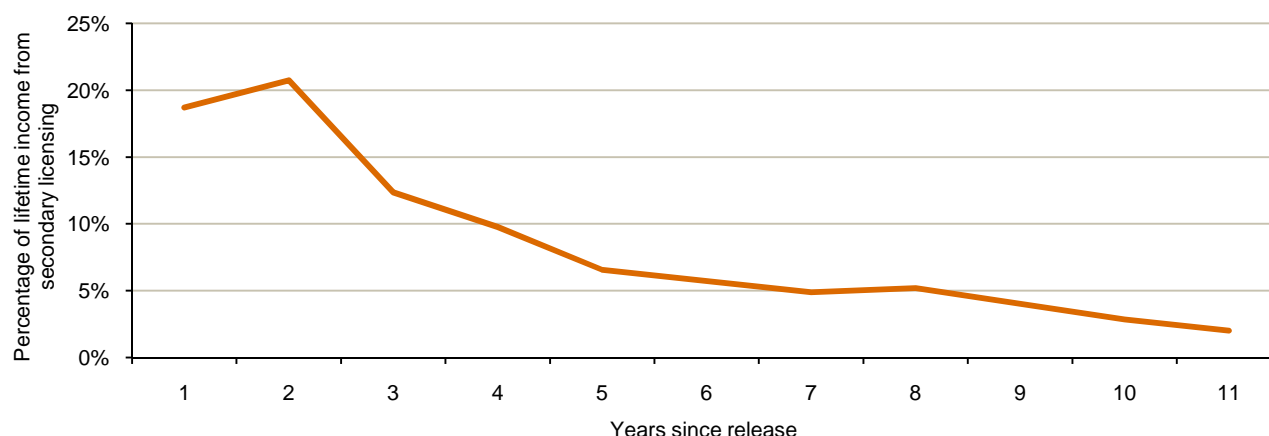
⁷³ The data for artists and authors are derived from the DACS and ALCS surveys respectively. The artist groups follow the categorisation set out before. Authors are split into three sub-groups: the main income author, audio visual author and professional income author subsets. These subsets are defined as authors who spend more than 50% of their time writing (professional authors), who obtain more than 50% of their income from writing (main income authors) or who work in the audio-visual industry (audio-visual writers).

Figure 15 Household income inequality⁷⁴ (UK)

Source: DACS, ALCS, Office for National Statistics

The final aspect of the economic incentives facing content creators relates to the likely profile and timing of primary and secondary licensing income. In general, authors and artists earn their primary copyright income in short periods typically after a work is sold or licensed to a publisher. Even if an author receives a royalty for each book sold the income may still be short lived. The Gowers Review presented evidence on the profile of sales of fiction books which showed that, on average, sales fell to around 10% of their peak after 24 weeks and almost zero after 52 weeks⁷⁵. This pattern of decline is not mirrored for secondary licensing revenue. Using a small sample of payments for specific works provided by the ALCS, we have estimated the profile of secondary payments over the lifetime of a work. Our results are shown in Figure 16. They show that secondary licensing income remains significant for up to a decade. Almost 60% of lifetime secondary revenues occur more than two years after publication. Secondary payments, therefore, have a significant role to play in smoothing the profile of expected income, and providing a portfolio of incomes from different works that persist over time. In this way, they can encourage creative workers who continue to produce new content. This point is also emphasised by the authors we spoke to, such as Deirdre Howard-Williams (described in Box 3).

Figure 16 Illustrative secondary licensing revenue profile



Source: ALCS, PwC

⁷⁴ The latest available data is used in each case; this is 2008/9 for the UK average, 2009/10 for DACS members and 2004/5 for ALCS members. The Gini index does not typically vary significantly over time so this is not likely to affect the interpretation of results.

⁷⁵ The Gowers Review of Intellectual Property, page 53.

Box 3 Secondary copyright payments and educational authors

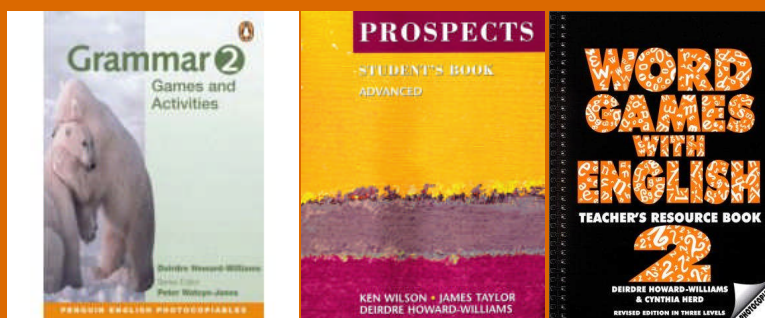
One of the key catalysts of the UK's educational publishing sector is the authors.

Although authors writing for the educational market receive revenues from the publication of their books through primary licensing, they also receive income from secondary licensing fees through the copying, lending or the incorporation of their work in learning materials.

As well as being material to an author's income, secondary licensing fees have an additional benefit in that they help to provide a stable income source over many years. Revenue from primary licensing can be highly variable and only last whilst the book is in print.

Deirdre Howard-Williams, an acclaimed educational author who has written and co-written over 30 English as a Foreign Language textbooks for publishers such as Heinemann, Penguin and Macmillan over a 20 year period, receives an annual secondary licensing payment of £500-800 and cites this income as:

"of great use, especially when working on longer-term projects which could take years to realise primary sales".



For Deirdre, secondary copyright payments provide the assurance that the investment she makes when writing a book is protected, particularly because she does not have an agent to protect her interests:

"the secondary copyright payments give you confidence that you are part of an overarching system which is in place to protect you...this assurance is absolutely vital when I am deciding whether to start a writing project".

For most authors, a writing career is often combined with other jobs to generate sufficient income to sustain them:

"It is impossible for me to live solely off the royalties from book sales. Secondary licensing helped me to juggle my joint responsibilities whilst being able to spend more time writing".

In some cases authors are not aware of secondary licensing fees. The ALCS informed her of the payments they had collected on her behalf:

"They contacted me first whilst I was living abroad, informing me that I was eligible for secondary copyright payments and urged me to claim them"

Source: Interview with Deirdre Howard-Williams

In interpreting the evidence on incentives in this Section, we recognise that the motivation to create original works is driven by more than immediate monetary rewards from selling work: for example, academics may wish to enhance their reputation by writing an original paper. Nevertheless, economic returns are important at the margin (i.e. when creators make a decision whether to spend their time producing original content or doing something else).

In summary, as we have previously noted, empirical evidence on the influence of secondary payments on the incentives facing generators of creative content is very limited. It is probably the most fundamental gap in policymakers' knowledge. We can, however, get a flavour of its significance from a question in the DACS survey (referred to previously in this section) which asked whether royalty payments, which we have seen account for an average of around 4% of total income, provide significant incentives to produce (new) artwork: more than two thirds of artists said that the payments are very or quite significant incentives.

The importance of secondary income for business developers of content

The preceding part of this Section has focussed on the impact of reward on the behaviour of individual creators of content. In this part of the Section, we consider the same issue from the corporate perspective. As with individuals, the decision to invest in developing content and taking it to market must also make economic sense

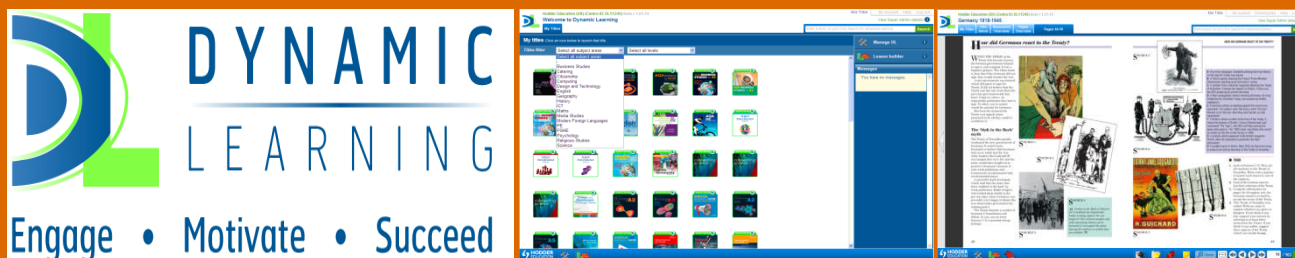
for the companies involved. For these companies (such as publishers), the economic returns (rather than other forms of return) may be even more important as some of the non-monetary rewards which motivate individuals are less relevant.

Where businesses own the rights to works, they also receive secondary licensing payments. To understand the importance of these payments to content developers, we have conducted a series of interviews with UK based firms in the educational publishing sector. The results of these interviews are summarised in Box 4. Our key finding is that secondary payments have a significant impact on investment decisions (e.g. in relation to investment in new educational technologies). The example of Hodder's Dynamic Learning tools is described below. Across the educational publishers we have interviewed, the scale of secondary licensing payments was equivalent to up to 20% of their profits.

Box 4 Secondary copyright payments and UK educational publishers

The UK's publishing industry is the second largest in the EU⁷⁶. In 2008, it directly added over £10 billion to the UK economy⁷⁷. The educational sector is one of the success stories of the publishing sector and the UK is the home of leading international publishers.

The educational publishing sector has a reputation for innovation. It has brought a number of new digital products to market in recent years. For example, Hodder Education has invested in the "Dynamic Learning" product and has developed a new Digital Education Division which now accounts for around 5% of the Schools division workforce. Through its "Dynamic Learning" online service, Hodder Education offers all its previous multimedia material on an online platform which allows unlimited digital access for students to use in over half of all the UK's secondary schools.



For several of the leading educational publishers in the UK, secondary copyright payments play an important role in incentivising investment in new products. Having talked to a number of publishers, revenue from secondary licensing typically adds between 5-20% to the profits generated by the educational division. As one Managing Director for the Schools Division stated:

"Secondary licensing payments can be collected through CMOs with them expending very little cost the primary importance of secondary licensing is the predictable nature of a relatively constant revenue stream, therefore it would be more difficult to invest if secondary licensing was not available".

This source of investment funds is particularly important given the high fixed costs involved in developing new educational resources platforms. A Managing Director of a major publisher's Education Division said:

"To create new resources for a single school year over all subjects can cost £4-5million...the extent of this investment is made possible through the secondary licensing revenues we receive from the PLS."

The strength of copyright and secondary licensing systems is an important factor when publishers make their investment decisions. Eric Baber, the Innovations Director at Cambridge University Press (CUP), stated:

"A sound secondary licensing sector is a sign of a serious and robust copyright environment, and equates to the markets where we would be more likely to invest in innovative product. The development of sound secondary licensing agencies in India, for example, would influence our approach to investment in that market."

Additionally, international demand for educational publications is growing with the emergence of developing nations in the global economy. For example, one fifth of Hodder Education's turnover in its Schools Division is now accounted for by exports to regions including Asia, Africa and the Caribbean. These exports help to drive growth in the economy.

Publishers support digital technologies in schools by directing significant investment at improving digital platforms for students and teachers and educating teachers how to use them. Cambridge University Press' latest innovations in the education sector include blended propositions alongside traditional print materials. Eric Baber stated:

"Blended propositions take the form of interactive CDs, websites, mobile applications and resources for the Interactive

⁷⁶ BIS, "Publishing", (2011). Available at: <http://webarchive.nationalarchives.gov.uk/+berr.gov.uk/whatwedo/sectors/publishing/index.html>

⁷⁷ DCMS, "Creative Industries Economic Estimates - Full Statistical Release", (2010). Values represent 2008 statistics.

Whiteboard, to ensure that both the teacher and the students are fully supported.”

Innovation by the educational publishing industry has also brought wider benefits to the UK by enabling education to be delivered more efficiently. A recent PwC report for The British Educational Communications and Technology Agency on the Economic Impact of Technology in Schools traced a series of effects on investment in technology in schools to potential economic outcomes and showed that for every £1 invested in technology, there was £2.05 of benefit⁷⁸. The majority (85%) of this benefit accrued to pupils through better educational outcomes.

Source: Interviews with UK educational publishing companies

Box 5 Section summary

In this Section we examine the role of secondary licensing payments as an incentive for individuals and businesses to produce new content.

A number of non-economic and economic incentives are important when determining the decision made over whether or not to embark upon a creative career. The economic incentives include the expected income, the potential income if highly successful and the timing and certainty of income. We demonstrate the following evidence on these points:

Secondary payments represent around 4% of artists income and 5% of the writing income of authors. These averages can be misleading. The way the payments are structured (lots of small payments to low income creators) means that for a large share of creators these payments are an important part of their income. For example, a recent DACS survey shows that for 34% of artists copyright royalties are more than 10% of their total income; for 12% of artists they are more than 50%.

Creative occupations show above average income inequality. The Gini coefficient for DACS members is 56%, for professional authors who are ALCS members it is 47% - this compares to the UK average of 34%. This reflects the ‘winner takes all’ structure of the market with a large cohort of often low paid creators competing to become the next success story. Secondary payments are important for this market structure. Survey results from DACS shows that two thirds of artists consider secondary payments to be significant or very significant for their incentives.

Secondary licence fees also tend to be much longer lived than primary fees. For example, sales of a fiction book will typically dry up after one year. Whereas almost 60% of lifetime secondary revenues occur more than two years after publication. This can provide a valuable income smoothing effect for creators.

We also consider incentives from the perspective of the publishing firm seeking to develop content. We have spoken to a number of educational publishers who said that the scale of secondary licensing payments is equivalent to up to 20% of their profit and impacts their decisions to invest in new technologies – of which Hodder’s Dynamic Learning is an example.

⁷⁸ PricewaterhouseCoopers, “Becta: The economic impact of technology in education”, London, (2007).

4 *The economics of collective licensing*

Introduction

In this Section we analyse the economics of collective licensing for the reproduction of literature and visual arts focusing in particular on how it works in the UK. We have divided the Section into four parts as follows:

- We start by describing the structure, membership and activities of CMOs which essentially manage secondary rights on behalf of their members who create copyright material: whilst we focus on the role of the CMOs in the UK, we also describe briefly how collective licensing works in other countries.
- We then analyse the economic rationale which underpins collective licensing.
- We assess the impact of the UK collective licensing system in transaction cost terms by comparing it with alternative approaches.
- Finally, we consider the operation of the CMOs in the UK focusing specifically on the terms on which they provide (secondary) access to copyright material, how the revenue they raise is distributed to their members and the costs associated with the operation of the collective licensing system.

The role of CMOs

CMOs have emerged in the majority of international jurisdictions as the primary organisational structure for licensing secondary copyright. They perform a number of common roles: they provide a single point of access to content for those wishing to reproduce copyright materials and, in this way, help to keep administrative costs of secondary licensing to a minimum. They also ensure content creators are rewarded for any copying or reproduction of their work and they act as advocates for their members.

There are some significant differences in the business models of CMOs across countries. These are often the result of the legislative framework under which they operate. The International Federation of Reproduction Rights Organisations (IFRRO) classifies these operating models as follows⁷⁹:

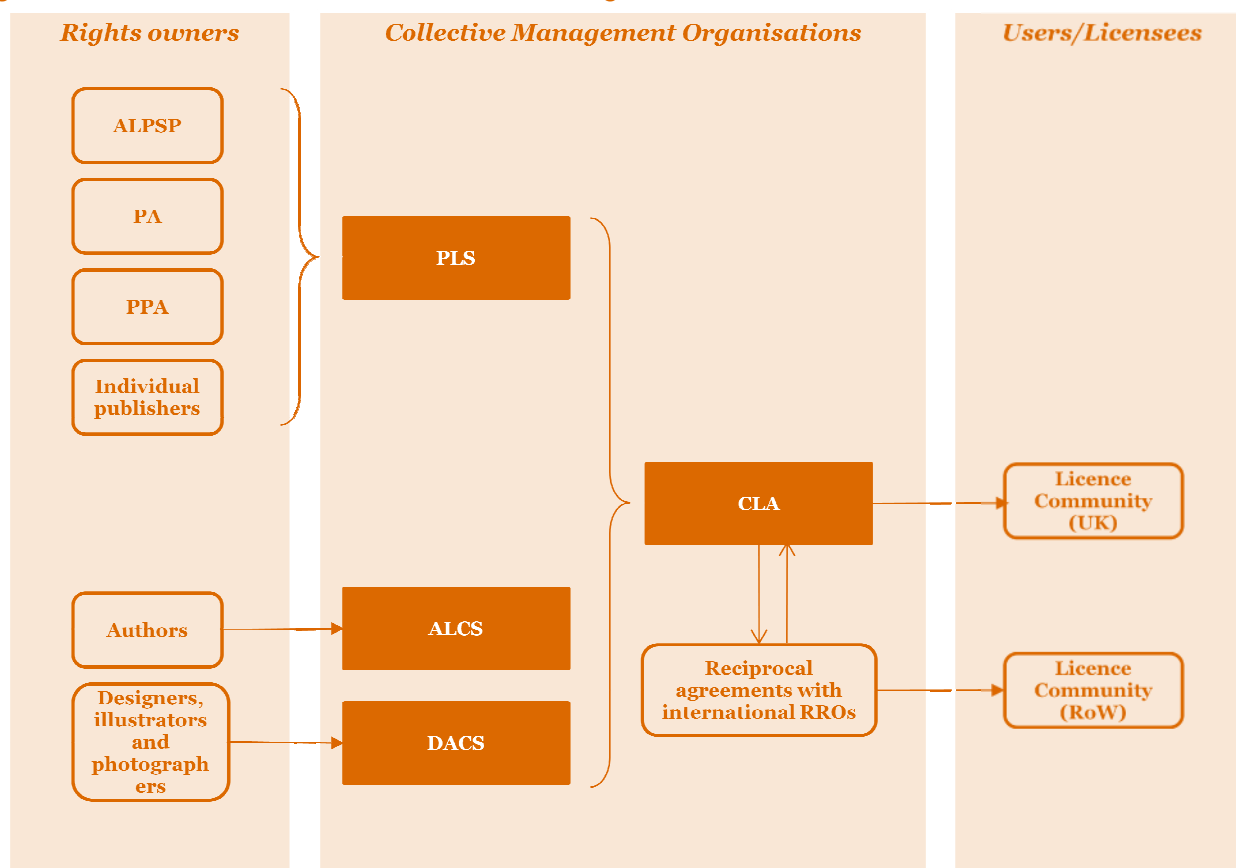
1. Voluntary collective licensing (e.g. US, Canada, UK) where organisations are free to license for reproduction rights either with an individual rights owner or a CMO mandated to act on the rights owners' behalf (but with no stipulation in law to govern this role).
2. Voluntary collective licensing with back-up in legislation which takes two forms:
 - a. Extended collective management (e.g. Norway) – this follows the voluntary model above except that the agreements reached between users and CMOs are extended to cover rights owners who have not specifically mandated the CMO to act on their behalf. Rights owners are able to opt out of the CMO if they wish.
 - b. Compulsory collective management (e.g. France) – under this system rights owners are legally obliged to negotiate secondary rights through a CMO with no opt out.
3. Licensing under a legal licence; this also takes two forms:
 - a. Non-voluntary system with a legal licence (e.g. Switzerland) – a licence to copy is provided by law so that no agreement with the rights owner is needed. There is a right to remuneration, however, and a statutory licence fee is set by law and collected by a CMO on behalf of all rights owners.
 - b. Private copying remuneration with a levy system (e.g. Belgium) – secondary licence fees are levied on copying equipment at the point of sale or for ongoing operation (e.g. for photocopiers) and the CMO collects and distributes the fees to the rights owner.

⁷⁹ IFRRO, "Overview of models of operation of RROs under national exceptions and limitations regarding educational activities", Brussels, (2009).

The CMOs for literary and artistic works

As noted above, the UK operates a voluntary collective licensing model in which rights owners are free to license with users directly for reproduction rights or through a CMO. A high level illustration of the industry structure in which the CMOs sit is shown in Figure 17, with details of their membership and roles contained in Table 5. We note that the scope of these organisations' activities does not cover all areas of secondary licensing in the UK. Secondary licensing for music for example falls under the remit of other bodies.

Figure 17 Structure of UK CMOs and affiliated organisations



Source: PLS

Table 5 Key information about UK CMOs for literary and artistic works

Organisation	Key role	Members	Flow of secondary licence funds
CLA	Licensing agency for reproduction of Owned by the ALCS and PLS books, journals, magazines and other periodicals		Collected £62 million in licence fees in 2009
ALCS	Represents authors' interests and distributes fees to members	81,000 members in 2010	Distributed £24 million to members in 2009
PLS	Represents publishers' interests and distributes fees to mandating publishers	2,850 mandating publishers in 2010	Distributed £27 million to members in 2009
DACS	Represents artists' interests Collecting agency for reproduction of artistic works	60,000 members in 2010	Distributed £5 million in secondary copyright payments ("artists payback") in 2009

Source: ALCS, CLA, DACS, PLS

The activities and relationship between the literary and artistic CMOs can be expressed in terms of the financial flows between them (see Figure 18). The CLA collects secondary licensing fees for authors, publishers and artists from business, education and government institutions. These revenues are then distributed to the PLS, ALCS and DACS, and then to individual members. This is the main source of secondary licensing income administered by these organisations. ALCS receives some additional fees for authors from other sources such as the Public Lending Right (PLR) fees and the Educational Recording Agency (ERA). DACS also operates a primary licensing scheme and administers Artists' Resale Right (ARR) payments⁸⁰. The financial flows associated with DACS two additional functions are excluded from Figure 18 as they are not classified as secondary licensing.

The flowchart illustrates the UK Copyright Licensing Scheme, showing the flow of funds between various stakeholders. The entities are represented by boxes, and the flows are indicated by arrows with associated amounts in millions of pounds (£m).

Entities (Boxes):

- Publishing firms (Orange)
- Publishers licensing Society (Dark Red)
- Authors (Orange)
- Authors Licensing and Collecting Society (Dark Red)
- Other secondary licensing fees (ERA, PLR) (Orange)
- Visual artists (Orange)
- Copyright Licensing Agency (Dark Red)
- Design and Artists Copyright Society (Dark Red)
- Government and educational users (Orange)
- Business users (Orange)
- Reciprocal agreements with International RROs (Orange)

Flows (Arrows):

- £27m** flows from Publishing firms to Publishers licensing Society.
- £30m** flows from Publishers licensing Society to Copyright Licensing Agency.
- £24m** flows from Authors to Authors Licensing and Collecting Society.
- £10m** flows from Other secondary licensing fees (ERA, PLR) to Authors Licensing and Collecting Society.
- £17m** flows from Authors Licensing and Collecting Society to Visual artists.
- £5m** flows from Visual artists to Design and Artists Copyright Society.
- £11m** flows from Copyright Licensing Agency to Publishing firms.
- £51m** flows from Government and educational users and Business users to Copyright Licensing Agency.
- £5m** flows from Design and Artists Copyright Society to Authors Licensing and Collecting Society.
- £6m** flows from Reciprocal agreements with International RROs to Copyright Licensing Agency.
- Share of licence fees for copying publications** (dashed arrow) flows from Copyright Licensing Agency to Publishers licensing Society and Authors Licensing and Collecting Society.
- Artists payback** (dashed arrow) flows from Copyright Licensing Agency to Design and Artists Copyright Society.

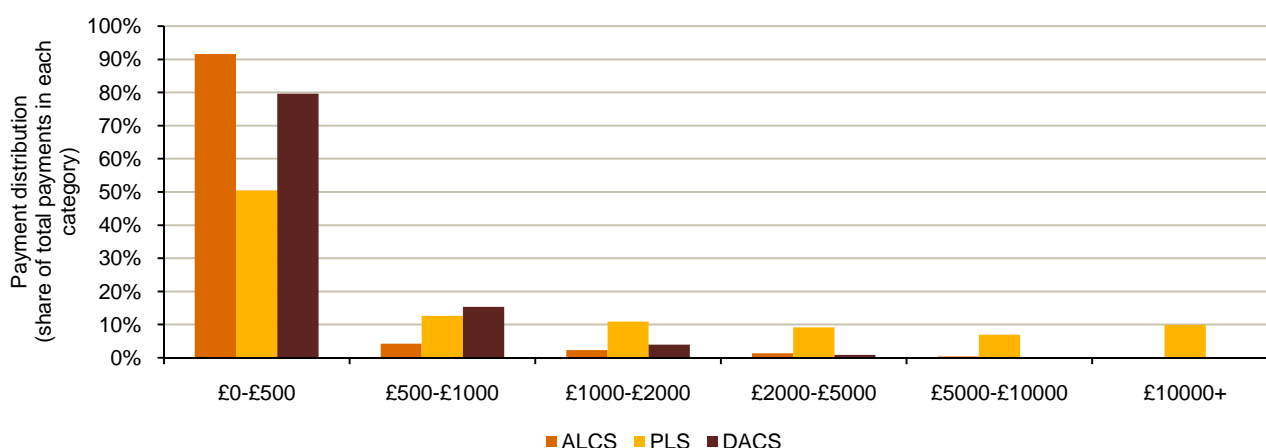
The aggregate funds flowing between the CMOs are around £70 million. For members these flows are manifested as a large number of relatively small payments. Figure 19 shows the distribution of member

⁸² The CLA distributions to ALCS and PLS are financial year 2009/10 rather than calendar year

payments by volume for the ALCS, PLS and DACS. The payments to individual creators made by DACS and ALCS are predominantly small; 80% and 90% of payments respectively are less than £500. Both make very few payments in excess of £2,000.

PLS makes payments to publishing firms which in many cases are small in absolute terms. Of the total payments made in 2009, 50% were less than £500. Of the remainder, only 10% of payments were more than £10,000. The role of CMOs in facilitating a large number of small transactions between rights owners and users is an important part of their value. We discuss this in greater detail below.

Figure 19 Distribution of member payments by size (UK, 2009)



Source: ALCS, DACS, PLS

The economic rationale for collective licensing

The emergence of the CMOs as the organisational structure for licensing secondary copyright rights reflects the economic advantages of collective licensing over other potential forms of licensing. In particular, it reflects the difference in transaction costs.

As we have noted above, the role of the CMOs is to bring together many rights owners and users who make frequent use of reproduction. A prospective user of protected material faces several transaction costs associated with secondary licensing:

- Identification costs – potential users of a copyright work may find it costly to identify and locate the rights owner;
- Search costs – the time required to obtain the information needed to negotiate a price for a given use; and
- Transaction time costs – the time taken to negotiate with individual rights owners for reproduction rights.

Rights owners face equivalent transaction time costs. In addition, they may incur further costs detecting unauthorised use. For many users and rights owners working alone, therefore, the costs of identification, search and transaction time if rights owners and users licensed every time a photocopy was made would be very large relative to the (user) value of the reproduction rights. This creates the risk that high transaction costs would bring about market failure in secondary licensing⁸³. The CMOs are able to realise economies of scale by working with rights owners and users to support a more efficient market in secondary rights. The benefit of CMOs, therefore, is that they can lower transaction costs, pass the cost savings to users and maintain a reward for rights owners (which supports their incentive to continue to create new works).

⁸³ Besen and Kirby, "An Economic Analysis of Copyright Collectives", Virginia Law Review 78(1); 383-411, (1992).

The scale economies achieved by CMOs can be delivered by establishing a large network which locates and matches potential users with copyright owners thereby consolidating otherwise duplicated efforts by individual rights owners on monitoring infringement and reducing the number of negotiations required between users and rights owners. Such a solution offers economic benefits because users benefit from lower costs of access to a wider range of material while rights owners also benefit from lower costs (as well as market access).

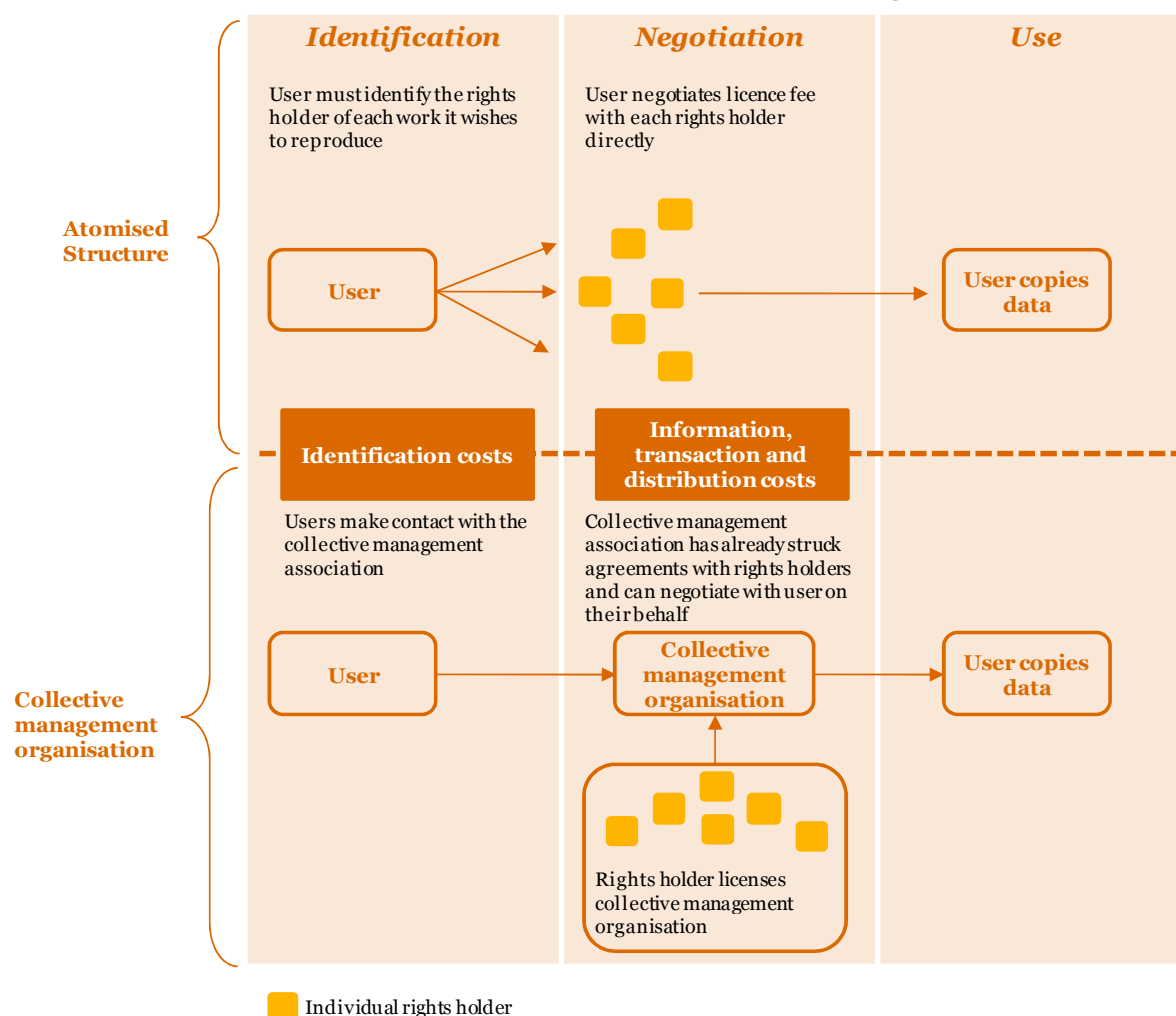
Estimating the transaction cost benefits of collective licensing

In this part of the Section, we summarise the results of our analysis of the scale of the transaction costs benefits associated with the UK collective licensing system. Further details of the basis of our estimates can be found in Annex B.

In order to assess the benefits of the (existing) collective licensing system in the UK, we have compared the transaction costs of collective licensing with the transaction costs of an “atomised system” in which each user is assumed to have to contract directly with each rights owner. To do this, we have developed a model which compares the costs of the current collective licensing system with the estimated costs of the atomistic system. Due to data limitations we have restricted the model to the UK higher education sector although we believe that the conclusions are more generally applicable.

The framework for the costs which are incurred in both the collective and atomised systems is outlined in Figure 20. This shows that costs are incurred at the “identification” and “negotiation” stages before the user can copy (“use”) the creative works.

Figure 20 Illustrative transaction chain with and without collective licensing

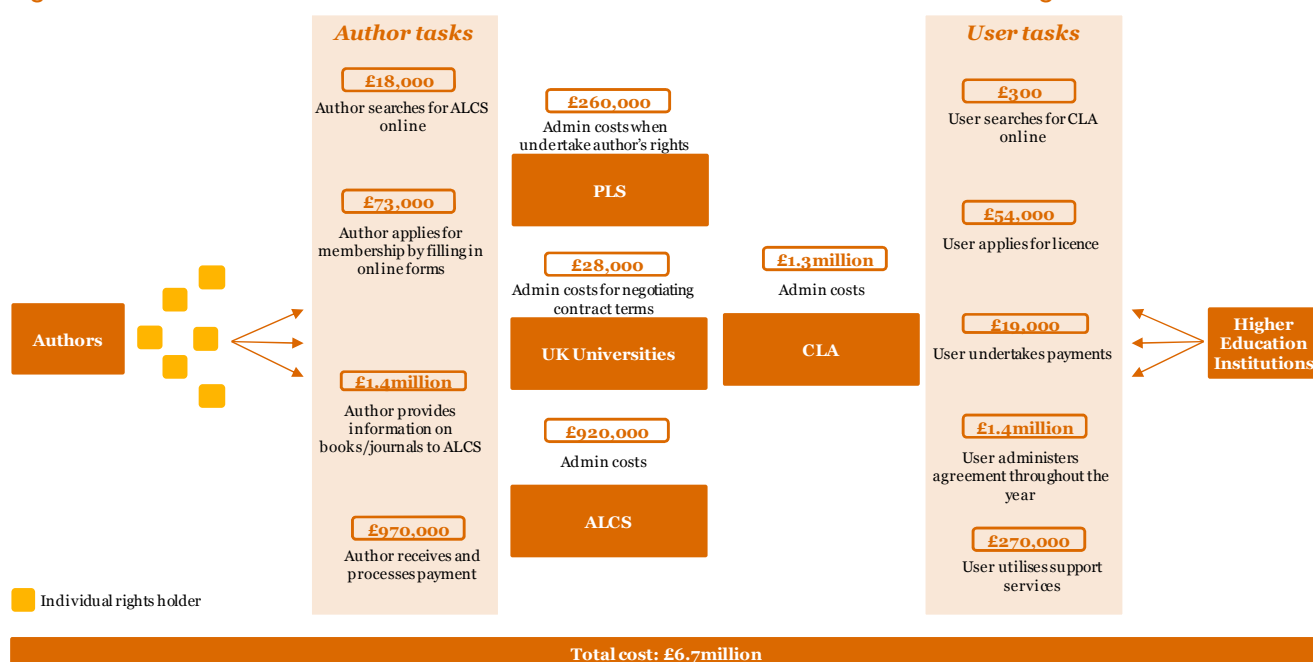


Source: PwC

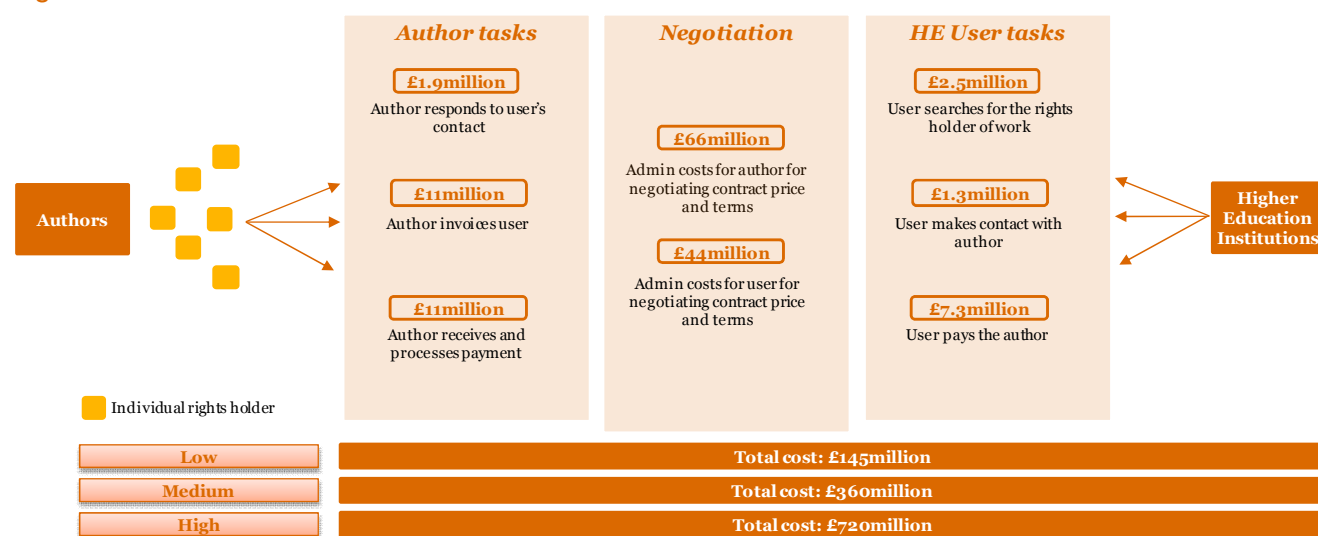
The illustrative estimates of the model are shown in Figure 21 and Figure 22. We estimate that the transaction costs for higher education licensing under the collective system are around £6.7 million a year. With an atomised model, we estimate that the transaction costs would be between £145 million and £720 million per year depending on the proportion of authors assumed to transact with higher education institutions. These transaction costs reflect the time spent by authors, CMOs and users of content.

The potential transaction costs of the atomised system are considerably higher than the current CMO based model. They exceed the amount that higher education institutions pay in licence fees each year, which is a measure of how much these institutions value the ability to reproduce copyright content. It is highly likely that in the absence of the CMOs, the market would fail. As a result, there would be a deadweight loss as users would not be able (legally) to access the content they value and authors would not receive the reward owing to them.

Figure 21 Estimated transaction costs associated with current collective licensing framework



Source: PwC using data from CMOs

Figure 22 Estimated transaction costs associated with an atomised framework⁸⁴

Source: PwC using data from CMOs

Secondary licensing pricing and revenue distribution

We have discussed the transaction cost rationale for the existence of CMOs and assessed their impact in these terms. In this part of the Section, we examine how the CMOs operate in practice. We focus on the mechanisms for pricing and distribution of fees in the CMO sector. In doing this, we reflect on our earlier conclusion that the role of the CMOs is to strike an appropriate balance between providing access to content at minimum cost and maintaining incentives for the production of content.

Access and pricing

As we have noted, the CMOs need to structure and price secondary licences so that they achieve a balance between consumer access (lower prices) and creator incentives (ensuring creators are rewarded for their work). In practice, the desire for administrative efficiency has led to the dominance of blanket licensing by CMOs⁸⁵.

The typical pricing structure used by CMOs is to bundle their entire rights repertoire into a single blanket licence. Users are then charged according to an approximation of how much they value use of the rights. In practice, a proxy is used such as the number of employees.

Altering prices according to user value is commonly referred to in economics as price discrimination. The CLA licences are structured so as to allow copying of all licensed materials (within licence extent limits) during the licence period (typically a year) for the payment of one up-front annual fee. Intensity of use and hence fees are set based on measures such as the number of students (for educational establishments) or the number of professional employees (for business and government). In some cases, such as licensing of some libraries, the CLA has access to photocopying logs which provide a more accurate measure of overall intensity of use.

Blanket licensing has ambiguous consequences. On the one hand, it provides the opportunity to reduce transaction costs to users and right holders by sparing market participants the costs of negotiating the exact size of the bundle of rights and its price for every transaction. As shown above, it can reduce what would otherwise be very considerable transaction costs and increase efficiency. On the other hand, blanket licensing does not enable the secondary licensing market to signal which works are most highly valued (through an individual price which balances supply and demand). Instead of being done through price and demand, signalling of the value of works is done through the CMO payment distribution mechanism, a point which we will discuss in the following sub-section.

⁸⁴ Figures presented on chart pertain to low estimate of transaction costs

⁸⁵ Other forms of licence exist, such as paying for reproduction rights of individual works. In practice the difficulty in knowing *ex ante* copying needs and administrative simplicity (as shown in the transaction cost analysis) have contributed to the widespread use of blanket licensing.

The price of CLA's blanket licences per user is determined by a mixture of negotiation, tariff setting or judicial determination. Typically, CLA tries to engage with a representative body and negotiate a common rate. This is generally based on an extensive negotiation informed by usage details from surveys conducted by CLA. Where there is no representative body with which a rate can be agreed, the CLA sets a price based on any relevant copying volume information. Users can ask the Copyright Tribunal to arbitrate on the outcome of price negotiations. This process is asymmetric as the CMOs are not able to refer cases to the Tribunal which prevents rights owners from making representations in the event of licensee behaviour they consider unreasonable.

To illustrate the scale of the cost of a CLA licence, we have estimated secondary licensing costs as a share of non-staff costs and total costs for different user groups. The results are shown in Table 6 and demonstrate that secondary licence fees are an insignificant item of cost for users.

Table 6 Licence costs as a share of total costs (UK, 2008/9⁸⁶)

Type of organisation	Secondary copyright spend as % of total spending excluding staff, depreciation and financing costs	Secondary copyright spend as % of total spend
Schools	0.12%	0.03%
Further education	0.28%	0.08%
Higher education	0.11%	0.04%
Central government	0.13% ⁸⁷	0.05%
Businesses ⁸⁸	0.0005% ⁸⁹	0.0006%

Source: Annual Business Survey 2010, Higher Education Statistics Agency, Learning and Skills Council, Department for Education, CLA accounts, PwC

In all cases, the cost of secondary copyright is less than 0.1% of the institutions' total costs, with the cost to business being the lowest. The lower figure for business reflects the different levels of coverage. Public sector licensing is well established and has high coverage of the institutions in the sector. In contrast, not all businesses have the same need for licensing as say educational institutions with the result that a smaller proportion of organisations in the sector hold a licence. When staff, depreciation and financing costs are excluded from the cost base, the cost of secondary copyright licences still accounts for less than 0.3% of overall cost.

Distribution of secondary licence fees

In this part of the Section we consider the distribution of secondary licence fees to users. As touched upon in the pricing discussion, it is desirable that a signalling mechanism exists to highlight the works which users value most highly, so incentivising the creation of these works.

There are two key issues to reflect upon in this area. The first is the materiality of secondary fees for the incentive mechanism. We have shown that secondary licensing payments on average represent a fairly small portion of content creators total income; the impact on incentives may therefore be small.

The second issue to consider is how the CMOs allocate fees in practice. CLA, for example, licence fees generated in the education sector are distributed using surveys of schools, further education and higher education establishments. The surveys include photocopying or usage logs and an inventory of available materials, and surveys of what titles are most used. Whilst the information provided by surveys is imperfect, this approach does provide some information on the level of usage ensuring that more revenues reach higher value works. The efficiency of the incentive structure in place must be weighed against the cost of obtaining this

⁸⁶ Business data pertains to calendar year 2009.

⁸⁷ Does not account for depreciation and financing costs.

⁸⁸ Annual Business Survey data excludes business costs of financial services firms.

⁸⁹ Does not account for depreciation and financing costs.

information. The imperfect nature of this proxy, however, means that authors of the most popular works end up indirectly subsidising other CMO members.

Competition

The transaction cost rationale also provides a guide to the optimal size of a CMO. In practice a single large supplier of rights management will always have lower unit costs than several smaller suppliers would have (due to economies of scale). CMOs are therefore ‘natural’ monopolies – a term used to describe a market where having a single monopoly supplier can be more efficient than if there were competition.

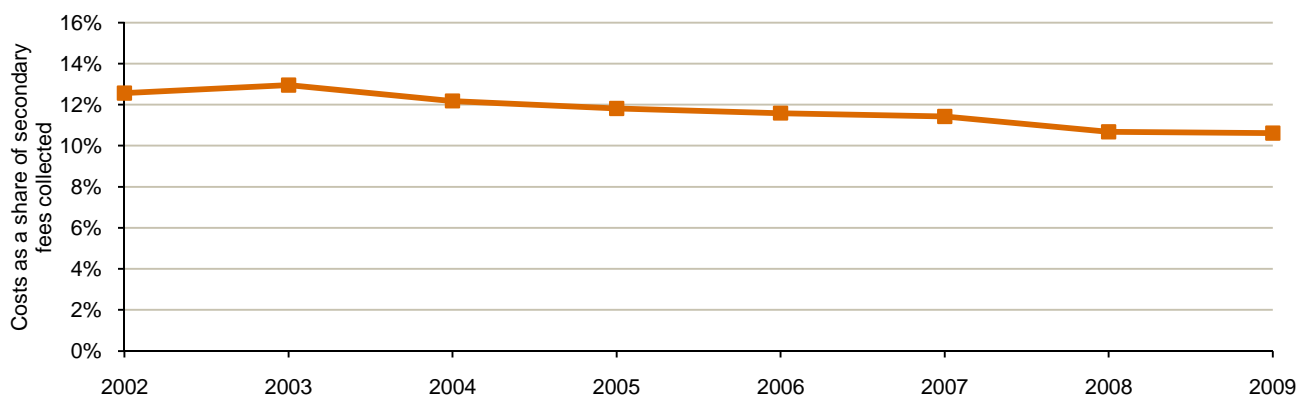
But natural monopolies in this market may not be efficiency enhancing if CMOs exploit their monopoly position to raise prices or to tolerate inefficiencies within their organisations. The insights provided by economic theory in this case are about the need to balance the benefits of economies of scale with the potential costs of monopoly. Referring once again to our analytical framework, economies of scale can be welfare enhancing as a reduction in the cost of licensing for users will increase access to content and so raise consumer surplus. A monopolistic market structure, however, has the potential to be exploited through producers raising prices to maximise producer surplus (or in the case of CMOs, rights owner royalties). An increase in price would restrict user access.

The key issue in this context is the extent to which CMOs are limited in their scope to increase prices. It is useful to consider the structures which can mitigate any attempt to exploit monopoly power. These include:

- **Bilateral monopoly** – when a single ‘monopsony’ user of copyright bargains with a monopoly controller of copyright works, such as the In the market for literary and artistic secondary rights there are a number of large users of rights such as the NHS and Universities UK who may be able to exhibit considerable bargaining power.
- **Price discrimination** – if sufficient information were available then price discrimination can be used (charging individual users differently according to their valuation of the good/service) – this would ensure that access to the rights are maintained. In practice, price discrimination is used by CMOs (who charge based on number of employees or students for example) but it is bound to be limited, however, because it is costly to assemble and process the necessary information.
- **Regulation** – there are a number of regulatory controls in place for CMOs including: the Office for Fair Trading, Competition Commission and the Copyright Tribunal. Furthermore, a voluntary code of conduct is currently under development.

There is little data with which to assess the extent to which competitive pressures are applied to CMOs. However, the information shown in Figure 23 suggests that CLA has successfully been driving internal efficiencies. The chart shows the administration costs of CLA as a share of licence fees collected. The data also suggests that the scope of CLA to increase prices is limited.

Figure 23 Administration costs of CLA (% of fees collected)



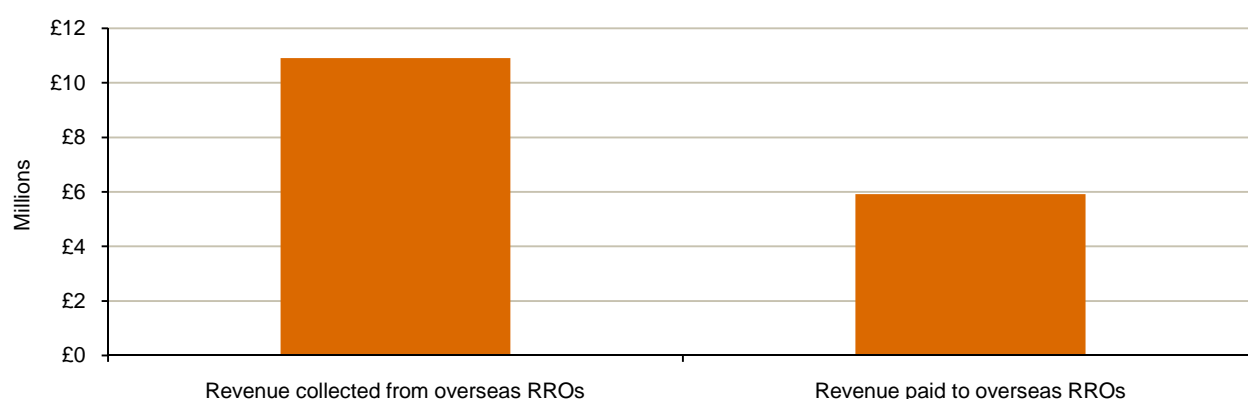
Source: CLA, PwC

Despite significant differences in collective licensing systems across Europe⁹⁰ it is also useful to compare the CLA costs shown in Figure 23 to international benchmarks. A recent study by the International Federation of Recording Rights Organisations (IFRRO) surveyed its members (who comprise of bodies like the CLA). It found that 22% of bodies charge more than 20% in fees and 17% charge 16%-20%. The CLA sits at the lower end of the 11%-15% band along with 35% of CMOs. One quarter (26%) of CMOs charge 10% or less⁹¹.

The international CMO context

UK CMOs are also active in engaging with international organisations. CLA has established licensing agreements with 31 foreign countries to allow UK users to copy material published abroad, and foreign users are able to benefit from copying UK-originated material. The agreements allow UK content creators to receive funds from foreign reproduction of their works. CLA figures from 2009/10 for overseas payments and receipts also highlight that the UK is a net exporter in the market for reproduction of literary and artistic works. CLA paid nearly £5.9million to overseas CMOs, whilst receiving £10.9million.

Figure 24 CLA transactions with international rights organisations (2009/10)



Source: CLA

The CLA is currently working towards the design of frameworks for new “digital exchange agreements”. These agreements will span 12 countries and include scanning and digital copying licence fees. As part of this effort, the PLS has encouraged international publishers to opt-in to the international licensing agreement, allowing users to digitally copy a wider variety of journals from foreign sources. CLA is also leading a project with European CMOs in response to requests from industry, to provide standard licence terms for all of their subsidiaries, thus improving access to content and reducing their costs.

Value added services

In addition to acting as the CMOs for literary and artistic works, ALCS, DACS and PLS all provide a variety of other services to their members in their roles as industry bodies. These services include networking events, knowledge sharing and helping to maintain a supportive legislative framework.

One of the most important roles they fulfil is the enforcement of the copyright system. The economies of scale the CMOs can access enable them to challenge copyright infringement in some cases, an option rarely open to individual creators due to legal costs. We illustrate one aspect of this role in Box 6.

These enforcement actions are important for both primary and secondary copyright; they contribute to the incentive structure for content creators and developers through reducing the uncertainty that infringement will erode revenue opportunities. This environment is present in the UK, in part due the CMOs enforcement activities.

⁹⁰ Notably in a number of European countries it is mandatory to license through a CMO (e.g. France) this can be beneficial in terms of economies of scale

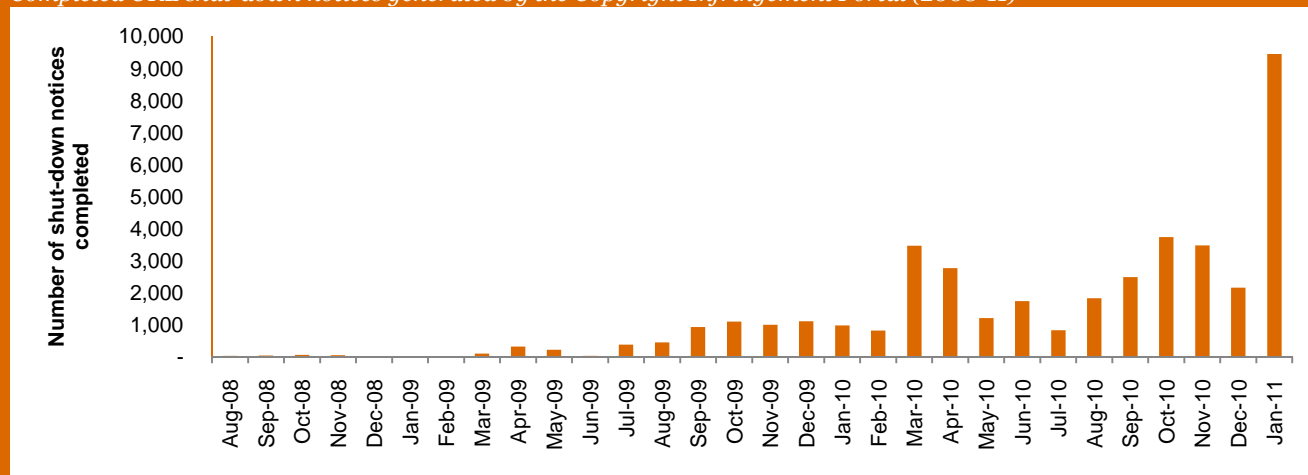
⁹¹ IFRRO. “Study on Reproduction Rights Organisations (RROs) in European countries”, (2005)

Box 6 The Copyright Infringement Portal

Some of the UK's CMOs along with the Publishers Association (PA) have developed copyright enforcement services alongside their traditional secondary copyright services. DACS have recently developed an enforcement service, helping to find infringing examples of work in print and digital forms and negotiating compensation for the rights owner. Since 2010, the service has led to payouts of more than £175,000 in compensation for rights owners. The large number of small, not-for-profit and larger publishers who are represented by the PLS and the Publishers Association (PA), have been able to access a copyright infringement service, the "Copyright Infringement Portal" which has been developed by the PA since 2008. The Portal helps members to enforce copyright in a digital environment.

When rights owners identify a website which is infringing copyright, they are able to input the web page into the Portal which will then identify the Internet Service Provider (ISP) and issue a legal notice to the ISP asking it to remove the page. Since the Portal's introduction in 2008, the number of take-down notices issued for infringing web pages has increased from 33 in August 2008 to 9,449 URLs in January 2011. To date, over 40,000 infringing web pages have been removed. ISPs have been very responsive to the initiative. Offending web pages have typically been removed within two days and, in total, 77% of all referred web pages have been successfully removed since the Portal's inception.

Completed URL shut-down notices generated by the Copyright Infringement Portal (2008-11)



The growing number of take down notices reflects the rising prevalence of online piracy, with the development of social networking services for users to upload and share various creative works which frequently contravenes copyright, and a greater take-up of the service by publishers and authors. The PA's Director of Operations, Mark Wharton, commented that "the online piracy that music and film has suffered is increasingly affecting the publishing industry"

This highlights the important role that the Portal is playing in fighting this trend in the publishing industry. Lis Tribe, the Managing Director of the Schools Division of Hodder Education, a major international publisher, has commented that the Copyright Infringement Portal:

"...was vital in helping us understand the threat of online piracy."

The number of publishers registered to use the Portal is 135. This includes a large number of small publishers who, without the resources available to a large publisher, would struggle to enforce copyright individually.

The Portal is being upgraded currently to combine its current enforcement features with new search features. This will provide the additional ability for the system to scan the internet for infringing websites which the user has not discovered. Mark Wharton commented that:

"The surge in demand for the service provided by the Copyright Infringement Portal has encouraged us to look at how we can more effectively enforce copyright in a growing digital environment where this is likely to develop into an essential service for every author and publisher."

Source: Interview with the PA

Members' and users' views of the CMOs

The CMOs for literary and artistic works frequently consult their members and licensees to evaluate the effectiveness and efficiency of the services they provide. The responses they have received have been largely positive. For example, in its 2010 member satisfaction survey, two thirds of CLA licensees' stated that they were either "satisfied" or "very satisfied" with the service they had received. Likewise, in a recent survey of DACS members, 79% agreed or strongly agreed that DACS is an "excellent service provider". Similarly, a survey of PLS members showed that 85% were "satisfied" or "very satisfied" with the service that the PLS provides.

Although ALCS does not conduct member surveys, two recent focus groups have described the customer service ALCS provides as “fantastic” and “excellent”.

Box 7 Section summary

In this Section we have examined the role of the CMOs for literary and artistic works in greater detail. We have captured the scale of the funds which flow from users to creators, and whilst these payments, in aggregate, are relatively large, the majority of payments to members are for less than £500.

We present the key economic rationale for CMOs operation in terms of reducing transaction costs, and show that the transaction costs of licensing without CMOs is likely to be prohibitive. For the licensing of higher education institutions, the transaction costs for users and rights owners through CMOs are £6.7 million. With an atomised model, we estimate that the transaction costs would be between £145 million and £720 million per year.

From the perspective of licensees, we also show that the licensing costs faced by educational institutions and business is on average less than 0.1% of the institutions' total costs, with the cost to business being the lowest. We also highlight the need to ensure CMOs are incentivised to remain efficient.

5 Copyright exceptions, fair dealing and fair use

Introduction

In this Section we analyse the economic issues associated with the definition and application of copyright exceptions. We start by outlining the (current) basis for defining copyright exceptions and then analyse how this is applied in practice in different countries. We focus on describing and analysing the difference between fair dealing and fair use. We then consider the economic rationale which underpins copyright exceptions. Finally, we discuss three key practical issues which arise:

- The impact of fair dealing and fair use on long term economic performance and the development of new business models.
- Whether and how copyright exceptions should be identified in practice.
- The comparative legal costs associated with fair dealing and fair use systems.

Copyright exceptions

Copyright exceptions are where the exclusive rights normally given to copyright owners are relaxed or removed. Their purpose is to balance the interests of those requiring access to copyright works in certain non-commercial circumstances against the exclusive rights of copyright owners. Under an exception, rights owners typically have no control over reproduction of their work and they have no right to receive payment for their use.

Legal framework

The debate on where to apply exceptions is based upon the application of the Berne three step test⁹². In practice, the test is used by the majority of jurisdictions when determining exceptions⁹³. It is based on three guiding principles:

- an exception to copyright must be a special case;
- the use must not conflict with a normal exploitation of the work; and
- it must not unreasonably prejudice the legitimate interests of the author.

Exceptions can also be granted on a “public interest” basis, for example for library copying or educational uses⁹⁴.

Since the Berne three step test is based on a set of guiding principles rather than an explicit or quantifiable evaluation framework, it can be subject to interpretation and legal wrangling over whether or not an exception is appropriate. As a result, the application of the test varies between countries. Countries which employ fair dealing typically use the test to determine what should be subject to an exception. These exceptions are then prescribed in law. Countries with fair use define the principles in law and then determine exceptions on a case by case basis.

Fair dealing vs. fair use – exceptions in practice

The majority of countries with copyright legislation, including the UK, Australia, Canada and all other EU Member States, operate a fair dealing policy. Under fair dealing, copyright exceptions are provided for a very specific list of activities. The detailed specification in law leaves little room for interpretation and,

⁹² The Berne three step test was first applied to the exclusive right of reproduction by Article 9(2) of the Berne Convention for the Protection of Literary and Artistic Works in 1886. Since then it has been transplanted and extended into the TRIPs Agreement, the WIPO Copyright Treaty, the EU Copyright Directive and the WIPO Performances and Phonograms Treaty.

⁹³ In a recent WIPO survey of national members, 24 nations included the test either fully or partially as a general provision in national law, 14 did not. See: WIPO, “Standing Committee on Copyright and Related Rights”, 20th session, Geneva, June 21-24, (2010).

⁹⁴ For example, exceptions that permit copying by libraries and archives are present in 32 WIPO member countries.

consequently, legal challenge. Although there are some differences between the fair dealing frameworks in the countries listed, the broad areas covered by exceptions are the reproduction of copyright materials for research or study, criticism or review, reporting of news, Parliamentary and judicial proceedings and certain educational and library uses.

The United States is the best known example of a country employing a principle based fair use approach⁹⁵. Its system defines a general exception which can be invoked by a broad range of people in relation to a variety of activities⁹⁶. The 1976 Copyright Act gives four non-exclusive factors to consider in an analysis of whether an exception can be justified under fair use:

- the purpose and character of the use;
- the nature of the copyright work;
- how much of the whole work is used; and
- the effect of the use upon the potential market for or value of the copyright work

In addition to these four factors, a fifth one has emerged as a result of a court decision in *Field v. Google*⁹⁷ which noted that the Copyright Act authorises courts to consider other factors beyond the four non-exclusive factors described above. It described a fifth, non-statutory factor namely “whether an alleged infringer has acted in good faith”.

The economics of copyright exceptions

The economic rationale for exceptions was set out in an influential article by Gordon⁹⁸ where she described the US fair use doctrine in terms of “market failure”. Market failure occurs when the transaction costs of licensing are so high that a licensing market will not operate voluntarily. In this case, economic theory provides guidance on when exceptions should be allowed. It would be efficient to allow an exception when the transaction costs of licensing exceed the value consumers attach to use of the material (i.e. their reservation price). In this situation no functioning market for rights will exist voluntarily as the cost of licensing (the transaction cost plus the licence fee) will exceed the value users put on rights. The exception would, therefore, have no impact on incentives to create as the users would not have been paid anyway.

There are, however, several limitations with this framework. For example, as noted by Landes and Posner⁹⁹, a premature or broad exception could undermine incentives for the development of market mechanisms that reduce transaction costs and make economic exchanges possible (such as investment by CMOs in setting up a licensing system). Acknowledging these concerns, a transaction cost focus on exceptions should also be judged in the following terms:

- where consumers’ demands could be met by a collective licensing scheme, exceptions should not be applied;
- where market development is unlikely, and transaction costs associated with licensing remain significant, an exception should be applied; and
- where a market could develop if copyright was enforced, and transaction costs are reduced, the absence of an initial market should not automatically lead to the implementation of an exception.

If an exception is granted in a market which would otherwise have operated (i.e. the transaction costs are small in relation to the value consumers attach to the material) then business models which rely on the production and distribution of content may be compromised. Later in this Section, we examine an example from the Australian digital publishing industry.

⁹⁵ Very few countries operate a principles based approach like fair use. Israel and Japan both operate a form of fair use.

⁹⁶ Christie. A.F, “Copyright Exceptions: Fair Dealing and Fair Use in the Context of Cultural Institutions”, Faculty of Law, University of Melbourne, (No Date).

⁹⁷ Nev. D, “*Field v. Google*, 412 F. Supp. 2d 1106”, (2006).

⁹⁸ Gordon. W.J, “Fair Use as Market Failure: A Structural and Economic Analysis of the Betamax Case and Its Predecessors”, *Columbia Law Review*, (82);1600-57, (1982).

⁹⁹ Landes and Posner, “An Economic Analysis of Copyright Law”, *Journal of Legal Studies*, (18); 325-63, (1989).

Exceptions in practice

The theoretical guidance on exceptions is clear but significant implementation challenges remain. These can be assessed by considering the following:

1. The implications of the fair use and fair dealing approaches to exceptions for long term economic performance and the emergence of new business models;
2. Whether and how copyright exceptions can be identified in practice; and
3. The legal costs associated with different approaches.

The remainder of this Section considers each of these factors in turn.

Long term economic performance and new business models

The first issue we consider is how fair dealing and fair use approaches impact on long term economic performance and the emergence of new business models (i.e. dynamic efficiency). In particular, we examine the difficulties of defining an approach to exceptions today which will also be fit for purpose tomorrow and which does not hinder innovation. We do this by considering the evidence in relation to two examples: the emergence of Google (but can equally be applied to all search engines) and the Australian digital publishing sector. We feel that these cases convey the range of positive and negative impacts of fair use and fair dealing, and exceptions in general. We also note that the Google case is often cited by proponents of fair use in relation to recent and current reviews of copyright policy.

The case of Google

Band has argued that the existence of a fair use approach to copyright exceptions was critical to the development of Google's search engine business¹⁰⁰. Our analysis of the available evidence suggests, however, that other factors also played an important role in Google's success. For example, Dr Bernard Girard¹⁰¹ identified four critical factors:

- Investment in world-leading mathematicians and ICT engineers;
- The vision, leadership and management techniques of its founders;
- High R&D intensity and collaborative research efforts which continuously seek for new innovations; and
- Responding to users' needs and influencing their preferences.

This is consistent with the evidence presented in Section 2 which suggests that a wide range of factors influence innovation.

Fair use may offer benefits for businesses which rely on the reproduction of creative content. To the extent that it offers a broader range of exceptions, it may encourage investment in new business models if firms believe they will neither infringe copyright nor incur licensing costs. The other potential benefit is its flexibility. With a prescribed list of exceptions (under fair dealing), there can be a presumption that when a new technology or model emerges it will not be granted an exception. This may be the case even if the rationale for an exception were shown to be strong based on the framework illustrated in Figure 25. Under fair use, the merits of an exception would be judged on a case by case basis.

There are, however, two counters to this argument. First, the corollary of flexibility is uncertainty. Businesses and individuals who create and sell content have less economic incentive to invest in new content distribution processes or development if they are unsure whether they will be able to recoup their investment. Second, as we explore in the next sub-section, transaction costs of secondary licensing are important for judging whether exceptions are justified. The role of CMOs is to use economies of scale and reduce the transaction costs of secondary licensing. To do this they need to invest as fixed costs are incurred in establishing the market (e.g. the upfront spending to establish a rights owner database). If the CMO is uncertain about whether a market will be covered by an exception, they will have less incentive to invest in reducing licensing transaction costs in this

¹⁰⁰ See, for example, Band, J., "Google and Fair Use" *The Journal of Business and Technology Law*, (2007).

¹⁰¹ Girard, B., "The Google Way: how one company is revolutionizing management as we know it", No Starch Press, San Francisco, (2009).

market. There is a scenario where the uncertainty of fair use may lead to failure of a secondary licensing market which would not have occurred under fair dealing¹⁰².

The case of the Australian digital publishing industry

The second case study examines the impact of copyright exceptions for electronic copying in libraries on the Australian digital publishing industry¹⁰³.

The key critique of copyright policy was that the government provided a broad exception for digital copying in libraries before allowing rights owners, CMOs and libraries to develop a functioning licensing market. The government's move stifled the Australian digital publishing industry as incentives to invest were weakened. Linking this back to the discussion of Google and fair use, we note the parallels between the exception in this case and the uncertainty caused by fair use when making investment decisions. The impact in Australia was to slow the introduction of digital publishing models despite the significant cost saving relative to traditional publishing and potential efficiency gains for the economy as a whole.

The paper estimated the net expected economic impact of the broad digital exception on library copying using the MONASH economic model¹⁰⁴. The analysis accounted for both the reduction in access resulting from people needing to pay for what they had previously consumed for free and the benefits of a more efficient digital publishing sector which was able to pass cost savings through to users. The costs of investment in digital publishing and of new rights management systems were also included in the assessment. Under a range of different scenarios it was estimated that the net welfare effect of removing digital exceptions for library copying would be positive – ranging from AUS\$45 million a year to AUS\$63 million a year by 2012.

This research highlighted two further challenges of designing a practical exceptions framework:

- Exceptions must not get in the way of innovation and new business models as technology changes the way copyright content can be produced and consumed. The research suggested that exceptions currently in place should not automatically be transferred to a new platform – rather it is better to wait and see whether rights owners, CMOs and users form a voluntary licensing arrangement; and
- Exceptions have positive and negative impacts on different business models. Organisations that rely on the reproduction of copyright content are more likely to benefit from exceptions (e.g. Google) since they can use content without paying for it. On the other hand, organisations which rely on the creation, development and distribution of content are more likely to lose out from exceptions (e.g. the digital publishing industry).

Evaluation of exceptions

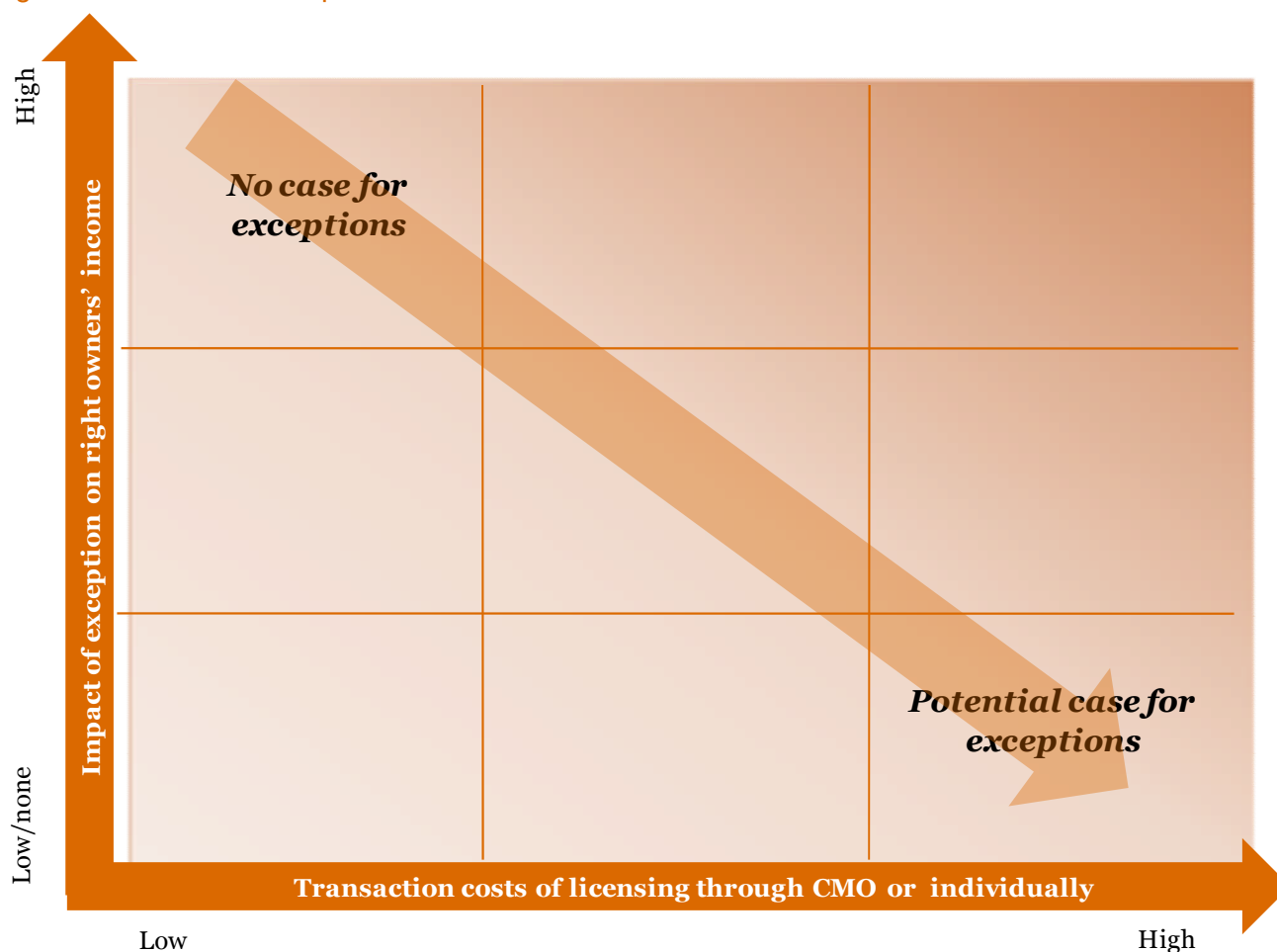
Figure 25 illustrates an economic framework which could be applied when considering individual exceptions. It shows that exceptions will be beneficial where transaction costs are high and the impact on rights owners' (expected) income is low or zero.

¹⁰² We define market failure here under Gordon's definition "when the transaction costs of a voluntary transfer are so high that a licensing is unlikely to take place spontaneously".

¹⁰³ The Allen Consulting Group, "Copyright Exceptions in a Digital Environment: Matching Outcomes with Rationales", Copyright Agency Limited, Sydney, (2004).

¹⁰⁴ The MONASH model is a dynamic computable general equilibrium model of the Australian economy.

Figure 25 Illustrative exceptions evaluation framework



Source: PwC

Applying this framework in practice to specific cases requires the following information:

- The transaction costs associated with licensing for the user. In Section 4 of our report, we have compared the estimated costs of the current CMO licensing system with an atomised system for licensing reproductions of literary and artistic works in the higher education sector. These estimates show that the total transactions costs of the collective management system are £6.7 million per year; this compares with costs in an atomised model of between £145 million and £720 million per year¹⁰⁵.
- Whether a market for a particular right exists voluntarily. Take the example of institutions such as universities voluntarily choosing to license for reproduction rights. This implies that students, teachers and researchers within these institutions attach more value to their ability to reproduce and use copyrighted works than the transaction cost plus licence fee. In turn, the generation of this revenue creates positive incentives for the production of educational content as we have shown in Section 4.

In conclusion, given the low transaction costs and voluntary existence of a market, secondary licensing of literary and artistic works is likely to feature toward the top left of the chart.

This framework is also useful in considering the case of Google's core search engine business model. Considering the horizontal axis, the number of websites on the internet and the continual stream of new additions mean that the transaction costs associated with licensing the reproduction of works are likely to be high. Whilst these transaction costs may potentially be lowered through the development of CMOs

¹⁰⁵ Note however that the figures we produced include the rights owner and CMO costs as well as the users transaction costs. Only the latter is considered in the evaluation framework.

representing website creators, they would still be likely to remain high. On this basis there may be an economic case for an exception for the core search engine function of Google, however, we would need to be able to estimate the transaction costs accurately.

The vertical axis is more challenging to evaluate. Google is able to monetise the content of the websites it copies as its search functions drive footfall and so revenues from advertising and, increasingly, other revenue streams. The assessment that would need to be made is whether these revenues are sufficiently large to justify the transaction costs of Google licensing with rights owners for internet content.

This balance could be understood were there any evidence of a search engine model which had been forced to license. The US was the first to embrace internet business models and the majority of search engines developed there. As such we cannot observe whether Google would have been able to form a working licensing market with rights owners (likely via a CMO). Further research is needed to understand this case.

The framework in Figure 25 is static, yet fair use and fair dealing may have important dynamic effects on the development of business models (as discussed in the previous sub-section). The key dynamic effect in this context is whether a CMO has an incentive to invest in lowering transaction costs. We have discussed the potential for broad exceptions and the uncertainty caused by fair use to inhibit this incentive.

There is a scenario where this incentive is blunted and transaction costs have not been reduced appropriately by CMOs where an exception may mistakenly appear justified.

Legal burdens

As we have noted above, in a principles based framework such as fair use, exceptions are not clearly defined and rights infringements need to be established through legal challenge and ruling. This may impose significant legal costs on businesses and individuals who are involved in the production or use of creative content as well as giving rise to significant uncertainty.

Accurately measuring the relative legal costs of fair dealing and fair use is difficult. The British Copyright Council (BCC) has gathered available data on both the number of UK and US legal cases on fair dealing and fair use¹⁰⁶. This research shows that in the UK there have been 67 fair dealing decisions in the courts since 1978 (an average of two per year). The data on the United States were drawn from an article in the *Pennsylvania Law Review*¹⁰⁷, which identified 306 opinions from 215 cases between 1978 and 2005, an average of around eight cases and eleven opinions per year. The BCC has also produced indicative estimates of the average cost of defending a copyright case. These suggested that the average legal costs in a US fair use were around twice that of a UK fair dealing case.

¹⁰⁶ British Copyright Council, Submission to Hargreaves Review

¹⁰⁷ Barton. B, "An Empirical Study of U.S. Copyright Fair Use Opinions, 1978 – 2005", *University of Pennsylvania Law Review*, 156(3), (2008).

Box 8 Section summary

In this Section we have considered the approach to defining copyright exceptions and have focused specifically on fair dealing and fair use frameworks.

The economic evidence suggests that exceptions should be applied to licensing markets which would normally fail due to high transaction costs. In these cases an exception would provide the benefit of greater consumer access without adversely affecting the revenues accruing to rights owners (since no transactions would occur). Hence, there would be no effect on the incentives to create content.

The role of CMOs is important insofar as they are able to use economies of scale to reduce transaction costs of licensing.

Evaluation of exceptions faces a number of practical difficulties including quantifying the transaction costs of licensing and assessing whether rights holders would lose out from the exception (i.e. whether a voluntary licensing market would be able to provide access for the bulk of users).

In the context of fair dealing and fair use, we find that the principles based approach used in the US is subject to around five times more legal cases than the UK fair dealing system as well as an unknown number which are deterred by the potential costs.

Perhaps most important of all is the impact of the respective systems on dynamic efficiency. Organisations that rely on the reproduction of copyright content are more likely to benefit from exceptions (e.g. Google) since they can use content without paying for it. On the other hand, organisations which rely on the creation, development and distribution of content are more likely to lose out from exceptions (e.g. the digital publishing industry).

We also consider that the uncertainty over whether an exception will cover emerging distribution platforms can inhibit investment by businesses and CMOs in developing an efficient licensing market. This uncertainty is a feature of the fair use system as exceptions are not prescribed in law.

6 Orphan works

Introduction

In this Section, we examine the copyright issues associated with orphan works. We start by explaining what we mean by orphan works, describing the issues to which they give rise from an economic perspective and outlining their scale and significance. We then identify some of the main potential solutions that have been proposed for managing orphan works before assessing the potential (economic) costs and benefits of these approaches. There are practical and economic challenges associated with all the possible approaches.

The nature and economics of orphan works

Orphan works arise where rights owners cannot be identified and/or contacted. This is mostly associated with old works but also can arise with new works, such as photographs and illustrations, where the metadata can be stripped out when they are transmitted digitally.

The economics of orphan works, based on the welfare framework presented in Section 2, is relatively straightforward.

- Users of potential orphan works might incur substantial search costs in attempting to locate individual rights holders;
- Where the rights holder cannot be located, there is currently no legal means of using the work and remunerating the rights holder. In such a situation, the work may typically not be used (due to uncertainties over potential litigation for infringement) and may be replaced by another work which the user values less: if this happens, there is loss of economic welfare (in terms of ‘consumer surplus’); and
- The incentive mechanism of copyright does not function effectively as the creator of the work is not rewarded and therefore does not receive the full potential revenue streams –to which they are entitled as they cannot be located.

The scale and value of orphan works

As in other areas of the copyright policy debate, data on the scale and value of orphan works are very limited and, even where they do exist, they are hotly disputed. Some sense of the potential scale of orphan works can be gained from estimates by CMOs and other bodies such as museums. ALCS has recently undertaken research in relation to the Google books settlement on the share of books which could be classified as orphan works. The approach is based on the number of out of print works for which ALCS has collected secondary fees. On this basis, ALCS estimates that between 1.6% and 4.7% of books are orphan.

An alternative estimate comes from research commissioned by the Strategic Content Alliance JISC Collections Trust¹⁰⁸. This research, which was based on a survey of over 80 UK public sector bodies such as museums, estimated that:

- 5-10% of all content is orphan works (i.e. the rights owners of the works cannot be located) and this equates to 13 million works in the UK in total;
- Those wishing to digitise orphan works for archival purposes face considerable search costs as they attempt to locate the rights owner of the work they wish to use; and
- Where users are unable to identify the rights owners, they face the risk of litigation if they choose to use the copyright work and this adds to uncertainty and, therefore, is a deterrent to use.

Much less is known about the potential value of orphan works to prospective users. In some cases, orphan works exist where the potential value is significant but the high search costs and/or risk of litigation from illegal use is sufficiently large that it deters their use. In these cases, the absence of a practical solution for orphan works means that potentially significant economic benefits are being foregone. In other cases, there are orphan

¹⁰⁸ Strategic Content Alliance JISC Collections Trust, “In from the Cold: An assessment of the scope of ‘Orphan Works’ and its impact on the delivery of services to the public”, (2009).

works where users' value of them is very limited and where the costs of searching for the rights owner more than exceed this value. These cases are less problematic from an economic perspective.

In considering the orphan works issue, it is also useful to distinguish between two situations which arise: first where prospective users are seeking to reproduce works for subsequent commercial exploitation and second where they are being stored simply to preserve them (digital archiving). The economic issues for each are slightly different, and we have focused our analysis around the ongoing secondary market for commercial exploitation of orphan works. Consideration of potential solutions to the issue of digital archiving is outside the scope of our analysis.

Proposed reforms for the use of orphan works

There is a clear economic rationale for reforming the current approach to orphan works. Indeed, the earlier Gowers Review noted the need to solve the orphan works problem and recommended that the Patent Office (now IPO) should establish a voluntary register of copyright, either on its own or through partnerships with database holders such as the CMOs¹⁰⁹.

To date, the key initiative which is addressing this issue is the ARROW programme (Accessible Registries of Rights Information and Orphan Works towards Europeana) which aims to set up a rights information infrastructure with a pan-European database of rights owners for literary works¹¹⁰. ARROW is a search tool expected to reduce the costs associated with tracing the rights owners of works and improve inter-operability between public and private collections. CLA, PLS and ALCS, together with the British Library, have been leading the development of ARROW in the UK. ARROW is nearing the end of the design and build technical solution phase. This is about to be trialled before the database can be populated and become functional. A further phase is envisaged, "ARROW Plus", which will integrate images into the database as well as text works and constitute a legal entity to take over the running of a fully functional ARROW database.

The range of approaches that have either been adopted or proposed to solve the orphan works problem include:

Setting a maximum infringement penalty

The United States has amended its law on orphan works following a report by the US Register of Copyrights¹¹¹. The new system limits the scope of rights owners' compensation to cases only where the infringer obtains commercial advantage and specifies that the amount of compensation must be a "reasonable" fee for the use of the work. This system effectively allows use of orphan works following reasonable search and provides users with some certainty that they will not be fined for non-commercial uses or face excessive penalties for any commercial use.

Licensing of orphan works by CMOs or government

A further approach would be to license all works classified as orphan. The licence fee would need to be agreed with a body representing rights owners, such as a CMO or a public sector organisation.

This approach is already used in Canada where the Copyright Board has the right to issue a licence for the use of orphan works after reasonable efforts to locate the rights owner have been made. In practice, the Board's remit includes three elements¹¹²:

- it maintains a database of rights owners and, in some cases, locates the rights owner;
- it licenses works where rights owners cannot be located; and
- it distributes licence fees to the relevant CMO which will distribute the fee to members.

¹⁰⁹ The Gowers Review of Intellectual Property, November 2006, recommendation 14b.

¹¹⁰ Europeana is the European Digital Library.

¹¹¹ Register of Copyrights, "Report of Orphan Works", (2006). Available at: <http://www.copyright.gov/orphan/orphan-report.pdf>

¹¹² Note that in some cases the Copyright Board has subcontracted these elements to the relevant collecting agency, such as ACCESS, the Canadian equivalent to CLA.

Providing an orphan works exception with no remuneration

An alternative approach is to make an exception for an orphan works if the licence holder cannot be identified or contacted after a reasonable search. This exception could be designed to have different levels of coverage: for example, it could apply only to non-commercial uses.

Changing the limitation period for infringement

A final approach is to set a time limit within which the rights holder of an orphan work needs to come forward and seek compensation from the user.

We note that some views have been expressed on the relative efficacy of these solutions. For example, the BCC, in consultation with the CMOs, has suggested that licensing of orphan works and performances should be done via CMOs. Specifically, it proposes that where an appropriate collecting agency exists for the works in question, they are able to license for use after the user has conducted a diligent search. Where an appropriate collecting agency is not available, the Copyright Tribunal would license the use of the works. Licence fees received for orphan works would be held in trust by the CMOs whilst they searched for the rights owner. If the rights holder could not be located, fees would be distributed to members in general after a period of six years.

Costs and benefits of possible solutions

















We recognise that there are important legal considerations to these potential solutions and that some of them may not be permissible under the current EU legislation. Below, we consider each potential approach from an economic perspective.






For an approach to orphan works to be attractive, we believe that it needs to meet the following five criteria:

- It should improve user access (i.e. ensures orphan works can be used);
- It should minimise search costs for users;
- It should improve earnings for content creators and, where possible, identify the rights owner so valuable works can be rewarded;
- It should minimise the administration costs associated with setting up and maintaining the chosen system.

Figure 26 provides an indicative assessment of the possible approaches according to the five criteria. Further work would be needed to provide a comprehensive quantified analysis of each of these issues.

Figure 26 Indicative framework for assessing orphan works solutions

	User access	Search costs	Earnings for creators	Administration costs
Setting a maximum infringement penalty				
Licensing by CMOs or government				
Orphan works exception with no remuneration				
Changing the limitation period for infringements				

Key: Impact relative to current UK system	Large negative	Small negative	Negligible effect	Small positive	Large positive
					

Source: PwC

In terms of user access, setting a maximum infringement penalty or limiting the period of penalty may not enhance access greatly. In each case, the threat of penalty remains for infringement, albeit the penalty is lower. Using compulsory licensing or an orphan works exception access to all orphan works would be possible. Use of orphan works would be likely to be higher under an exception approach as no licence payment would be required.

Under each of the proposed solutions users would still each need to carry out diligent search themselves so this would have no impact on search costs for users.

There are two key issues regarding incentives for creators. First, whether licence fees for orphan works go to creators in general, and second how likely it is that the fees will reach the actual rights owner. On these issues the licensing model will ensure creators in general are rewarded for the use of orphaned works. The use of a rights owner database such as ARROW may also increase the chance that the actual owner will be identified. The other solutions may have a negative impact on rights owners' earnings and so incentives to create. Setting a maximum infringement penalty and limiting the period for infringement would both reduce the deterrents for infringement. It is possible that more infringement would occur so fewer people would pay for rights. Similarly, a blanket exception on orphan works would encourage users to substitute the use of orphan works (which they would have to pay for) in place of non-orphan works so reducing incentives to develop new content.

The final issue is administrative costs for altering the orphan works system. Changing the rules on infringement or granting an exception for orphan works would require little or no additional administrative spend. Setting up a government body or requiring CMOs to administer rights would require some additional investment.

Box 9 Section summary

In this Section we consider potential improvements to the administration of orphan works for commercial use.

We provide an indicative assessment of a number of potential solutions to the orphan works problem within a clear economic framework which takes account of: user access, search costs, incentives for content creators and administration costs.

The initial analysis suggests that licensing of orphan works by government or CMOs may be an effective solution. It may help to improve user access and enhance incentives for creators.

We recognise that further work will be needed on both the economic case for each potential solution and how they fit with the existing legal framework.

7 *Responding to the digital environment*

Introduction

In this final Section, we examine how the CMOs are responding to the increasing influence of digitisation on the copyright landscape. We start by summarising the key features of digitisation and analysing their economic significance. We then discuss their implications for copyright. We focus on two issues:

- The impact on creative content incentives of the migration to digital platforms; and
- How CMOs have responded innovatively to ensure that they are efficient and fit for purpose for licensing in the digital environment.

Key features of digitisation

Digitisation has seen increasing volumes of copyright material being created in a digital (rather than analogue) format. In parallel, users of this information have access to an ever growing number of devices which are becoming more and more sophisticated as well as cheaper. These provide platforms with which to distribute and consume content, and can also be used to make copies. Digitisation has made content far easier (and, therefore, cheaper) to copy and distribute than traditional analogue forms. For example, the development of e-books means that the marginal cost of distributing authors' content is closer to zero. This is not the case for books which require printing and distribution before they reach the consumer.

In the short term, this development in the cost structure has the potential to enhance economic welfare since it means that consumers can derive the same level of enjoyment at less cost to producers. In so far as the lower costs are passed on in lower prices, some consumers who were previously priced out of the market are now able to access content.

For this potential benefit to economic welfare to be realised, the market must function efficiently. The reduced cost and improved quality of copying and distribution mean that some markets for creative content are now closer to those for pure public goods because viewing or downloading content is essentially nearly non-rival (although at a very high level of use servers may reach capacity). Similarly the development of digital copying and P2P file sharing has made excludability more difficult. The corollary of this lower cost of and enhanced quality of distribution is that it gives rise to a greater potential for copyright infringement.

If the public good characteristics lead to failure in digital markets for content then the welfare benefits of digitisation will not be realised.

In summary, digitisation has some important potential positive economic impacts:

- Increased consumer surplus – the lower cost of distributing creative content, if passed on as lower prices, will increase consumer surplus;
- Reduced transaction costs of licensing – the ability for CMOs to offer online licensing solutions (see Box 10) can reduce the time and cost required to license reprographic and other secondary rights; and
- Reduced search costs and preference matching – digitisation can also allow users to search for content more easily and better match their preferences, and this will enhance their economic welfare (consumer surplus).

It also has some significant potential negative economic impacts:

- Reduced (long term) incentives to produce content – any increase in illegal copying threatens the ability of content producers to obtain revenue for their work;

- Increased enforcement costs – the increased risk of illegal copying means that more effort may be required by rights owners to enforce their copyright. Attempts at implementing cost effective Digital Rights Management (DRM) systems have so far not been successful in most cases¹¹³.

Key issues for secondary copyright

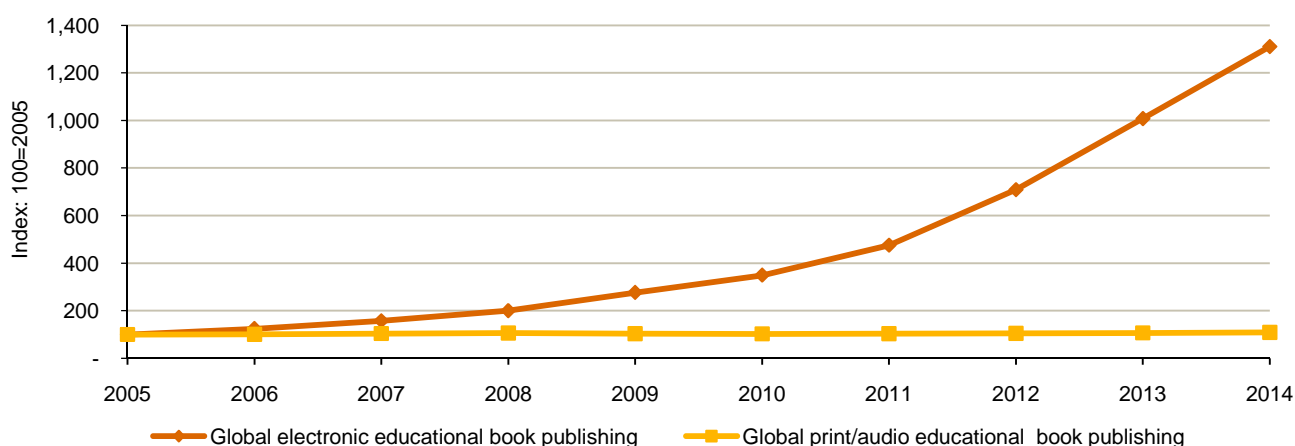
In the final part of this Section, we consider how two aspects of digitisation have evolved in practice:

- The incentives to produce content under digitisation – how to maintain incentives for content creators, whilst ensuring the benefits of digitisation are passed on to consumers; and
- Transaction costs of licensing – how CMOs have innovated to make licensing easier for users and suitable for new technologies.

Maintaining incentives to produce content

The digital distribution of content is becoming more widespread in many markets. Amazon recently stated that it sells more e-books than paperbacks¹¹⁴. Digital sales of music are expected to surpass physical sales this year in the UK, and globally by 2014¹¹⁵. It can be illustrated by reference to educational book publishing: between 2005 and 2010, sales of printed and audio published books remained broadly flat, whilst electronic book publishing grew three-fold. Our forecasts show that sales of electronic books are expected to increase further over the next four years.

Figure 27 Global educational book publishing sales by type (2005-2014)



Source: PwC Global Entertainment and Media Outlook, 2010-2014

Within the trend, there has been a shift in the online models of content creators and distributors. In the early stages of digitisation, content was generally provided for free. This was done in a bid to drive footfall (and advertising revenues) and to boost customer loyalty and sales of traditional products. More recently, more content has been moved behind pay walls as the aforementioned revenue sources were not found to be sufficient.

A good example of this is the UK newspaper industry where print advertising revenues declined from \$6.5 billion in 2005 to \$4.1 billion in 2010 whilst digital advertising revenues have only grown from \$130 million to \$300 million over the same period¹¹⁶. This trend has added pressure to develop new business models in the sector. The Times and Sunday Times have moved content behind a pay wall, and others may follow suit. It may

¹¹³ An example of this can be seen in the UK newspaper industry, where the adoption of Automated Content Access Protocol (ACAP) technology, which can give rights owners control over use of content by search engines, appears to have stalled.

¹¹⁴ From a statement by CEO Jeff Bezos, Reported by CNN, 27 January 2011.

¹¹⁵ PricewaterhouseCoopers, "Global Entertainment and Media Outlook 2010-2014", (2010).

¹¹⁶ *Ibid*

also have contributed to the closure of newspapers and reduction in the variety and quantity of content produced.

Whilst the newspaper example relates to primary licensing it is equally applicable to copyright content in general. If in the future the majority of content is consumed or reproduced digitally, then creators must expect to be able to earn a sufficient return from digital uses to provide them with the incentive to develop it in the first place (i.e. to cover its costs of production). Unless there are adequate incentives to produce new content, the risk is that the current stream of benefits from the supply of artistic and literary works will be jeopardised because the market will be failing to provide adequate incentives.

The digital context is well understood by the CMOs. In 2008, for example, CLA established a digital copying licensing system to enable creators to be rewarded for the digital reproduction of their work. This licence provides an authorised means for digital to digital copying of web content and other material. It is described in Box 10.

Box 10 CLA's new digital licences

Creative content is increasingly being distributed and consumed digitally. The CLA and other CMOs have responded to this trend in several ways. For example, new digital licences have been designed in consultation with users which allow them to meet their digital needs.

Following a consultation in 2007, the CLA identified demand from users to include digital-to-digital copying within the scope of their licences. In response, it launched the "collective digital licence" for the business, education and pharmaceutical sectors in 2008. This licence enables users to copy material such as journals digitally and then send them through digital channels.

Enabling users to undertake digital-to-digital copying has yielded significant time and cost savings across a number of industries. For example, Sarah Paramour, Pfizer's Information Analyst Manager, has indicated that digital-to-digital copying has allowed her company:

"to turnover medical information requests in a shorter time frame, which not only saves a large proportion of the department's time, but also improves the service we can provide for our customers and their patients. Prior to the development of the comprehensive digital licence, we could not make a digital copy of the publications in the e-Journal subscriptions we paid for; many times we had to order an additional hard copy of the article, scan it and then send it on to the doctor...now, if the publication is included in the digital element of the licence, we can just send the PDF straight to the doctor"

The PLS and CLA has engaged with publishers to encourage them to opt-in to the digital licence agreement, allowing a broader range of articles available for users to copy digitally. The CLA's business licence includes over 1,400 publishing companies who distribute material digitally¹¹⁷. The secondary licensing revenue from the comprehensive digital licence is distributed to these publishers and authors and this incentivises the development of digital distribution.

CMOs are continuing to consult with industry to adapt to the changing mediums through which users consume content. For example, DACS is currently consulting with the museum and archives industry to develop a primary licence for visual works which can be used across a number of technological platforms ranging from touch screen interactive displays to an iPhone "App". These offer benefits in terms of enhanced access and enable communication with audiences in a more stimulating way.

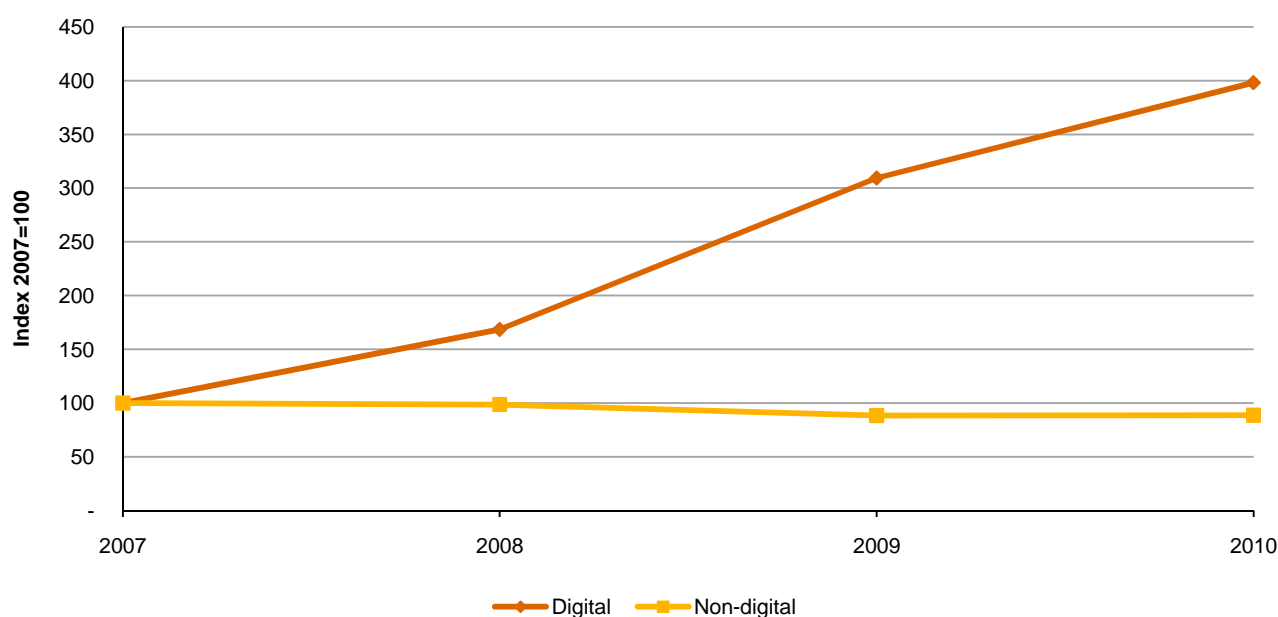
Present licence developments allow users to consume in more convenient ways, reducing transaction costs for business and hence, improving the UK's competitiveness and widening access for UK consumers of digital and international content.

Source: PwC interviews

The CMOs are taking steps to ensure that licensing is fit for purpose in the digital age by ensuring that an incentive structure for individuals and businesses is available in the future. The outcome of this can be seen in the take up of the new licensing services offered by DACS and CLA. DACS' revenue from digital licences has increased four-fold since 2007 at a time when licensing from traditional platforms has been flat or falling (see Figure 28).

¹¹⁷ This figure is around half of the total members of PLS, so represents a substantial portion of the UK publishing industry.

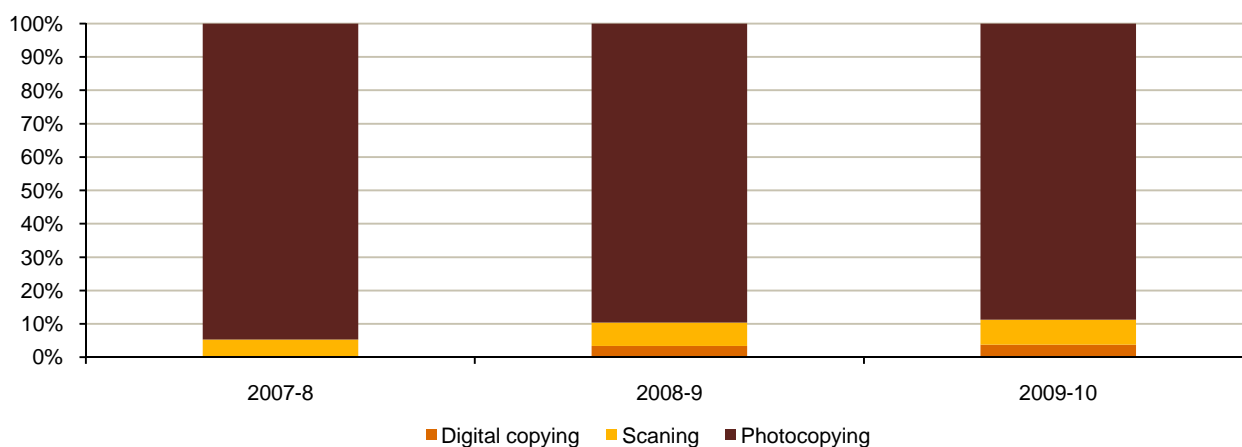
Figure 28 DACS copyright licence revenues from digital and non-digital platforms (index 2007=100)



Source: DACS

A similar picture can be seen in CLA data (see Figure 29). Digital copying licences were introduced in 2008, but together with scanning are already accounting for over 10% of licence fees.

Figure 29 Share of CLA revenues by usage type



Source: CLA

We can see that CMOs have developed a licensing system to fit with the current technological platform. In the rest of this Section, we discuss what digitisation means for the individuals who create this content, in particular the effect on infringement. The impact of digitisation on creators' incentives is poorly understood. This is in-line with the general paucity of information on how creators are incentivised which we have noted in Section 3. DACS has, however, conducted a survey of visual artists concurrently with our research which provides some insights into the impact of digitisation¹¹⁸.

¹¹⁸There were 1,870 responses to the survey.

Table 7 Impact of digitisation on DACS members¹¹⁹

Q: Digital technology has...	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
Reduced my overhead costs (e.g. production, distribution)	17%	37%	27%	15%	5%
Helped me promote my work to a wider audience	41%	48%	10%	1%	0%
Increased licensing opportunities (secondary)	13%	32%	45%	8%	2%
Increased sales / commissions of my work (primary)	23%	34%	28%	11%	4%
Made it harder to protect the integrity of my work	35%	39%	22%	4%	1%
Increased infringements of my work	21%	33%	38%	7%	1%

Source: DACS

The majority of respondents either strongly agree or agree that the advent of digital technology has both increased sales (57%) and copyright infringements (54%). In addition, 45% state that it has improved licensing opportunities for them.

Looking at these particular results in more detail shows that, of the artists who experienced greater levels of infringement:

- 58% also experienced a rise in sales/commissions whilst 18% experienced a decline; and
- 56% also experienced a rise in licensing opportunities whilst 11% experienced a decline.

The remaining artists saw no impact of increased infringement on sales or licensing.

The survey results highlight the positive and negative impacts technology is having on artists. Digitisation aids promotion of work, sales and licensing opportunities but it also increases the scope for infringement and makes it harder to protect the integrity of work.

Improving the ease of licensing

The second area where digital technologies have played a major role is in rights management where they are enabling the CMOs to improve their efficiency and reduce transaction costs for users. CMOs are using digital technology to speed up the licensing process, cut costs and to better inform users of licensing requirements. Such moves can be welfare enhancing.

We have already shown in Figure 23 that CMOs have been driving efficiencies and reducing their administration costs as a share of licence fees collected. In addition, several other new initiatives are underway to make the digital rights environment easier to navigate. An example of this is the development of the CLA's copyright logo (see Box 11).

Box 11 Improving the communication of copyright in an online environment

For many internet users, the rules surrounding what can and cannot be legally copied from the web are confusing. It is important for a balanced copyright system that supply of content is incentivised at the same time as making the system simple for users. To this end, the CLA is currently developing processes to make using web content easier and clearer. It is also redesigning the way it communicates these messages to users through the development of its website.

To clarify and simplify copyright for online end users, the CLA has developed the copyright "logo" which will appear on the websites of all participating publishers and content creators. The logo provides users with clear information on what material can and cannot be used for, and for what uses a CLA licence is required. For example, the logo informs the user that if they hold a CLA licence they can print multiple copies of the website, store it on an intranet for up to 30 days and use extracts from it for separate materials.

¹¹⁹ Figures may not sum due to rounding.



The logo has been developed in response to requests from users. The CLA's 2010 survey of higher education institutions revealed that 27% of academics thought that existing copyright messages on websites are "unclear so they don't use the content". The copyright logo aims to provide a clear and consistent explanation of copyright which can be applied across all participating websites.

Additionally, the CLA is developing the way it communicates such messages to users by developing the ease of use of its website. Dr Secker, the Learning Technology Librarian at the London School of Economics (LSE), comments that:

"... the [CLA] website used to be very difficult to navigate as they changed the location of key information frequently. I think they were aware there was a problem and the testing they conducted on LSE staff with different versions has vastly improved its usability"

Overall, the website copyright logo is expected to lower transaction costs for users by reducing the time for them to search for the terms of their licence and provide more certainty over what they are allowed to do with and without a licence.

This is one example of several efforts to make licensing easier and to incentivise future development of content. Another in the digital arena is the development of Digital Exchange Agreements. Both CLA and PLS have engaged with publishers around the world to encourage them to opt-in to the Digital Exchange Agreement which makes a broader range of articles available for users to copy digitally. The CLA's business licence includes over 1,400 digital material publishers and the UK is pioneering "digital exchange agreements" with 12 countries where UK users can digitally copy participating material from international publishers with the same benefits available for foreign users. CLA is also leading a European initiative to create multi-territory licences, to enable multi-national companies to digitally share copyright material between head office and overseas subsidiaries, on standard terms; this will reduce the cost and complexity of compliance, and increase access to the content. In international terms, the UK is well-placed to profit from such agreements, with a high demand for UK creative work from abroad.

Box 12 Section summary

In this Section we have highlighted the potential of digitalisation to enhance welfare through the more efficient distribution of content and greater consumer access. But for these benefits to be realised the markets for digital content must function effectively to maintain incentives for content to be produced and for business to invest in digital platforms.

The need to maintain incentives will take on increasing importance as more content is distributed and consumed digitally. The initial results are encouraging:

CMOs are innovating to bring new digital licensing models to market and drive efficiencies in their broader operations – demand for these digital licences has been robust; DACS digital licence revenues have increased four-fold since 2007 – against a decline in revenues from traditional platforms; and

Artists report that digitisation is bringing substantial benefits in terms of promoting their work, sales and licensing opportunities, digitisation has also led to greater infringement of their works.

Annex A: Hargreaves' Call for Evidence

This report has been prepared in part in response to the Call for Evidence issued by the Hargreaves Review. Table 8 summarises the questions identified by the Hargreaves Review which are addressed in this report.

Table 8 Summary of scope of report

	Considered in report?
Patents	
1. In your experience, are there any aspects of the patent system that currently act as barriers to UK economic growth? How could these barriers be removed or diminished? What evidence do you have to support your argument? If hard evidence is lacking, can you identify how to establish it?	✗
2. Can you identify those parts of the patent framework which have adapted and continue to adapt well to technological change and to new business practices?	✗
3. What evidence is there that the UK patent framework presents opportunities or obstacles compared with the framework in other countries?	✗
4. What evidence is there that the need to obtain licences from patent holders presents barriers to innovation and growth?	✗
5. What evidence is there that allowing certain activities in spite of relevant patent protection is or is not conducive to promoting economic growth?	✗
6. Is there evidence that the benefits of patents for the economy vary by technological sector or business model?	✗
7. Is there evidence of difficulties in obtaining financing based on patent rights?	✗
8. To what extent do features of the patent examination process act as barriers to economic growth?	✗
9. To what extent is the international system more or less significant than the UK one?	✗
Copyright	
1. Is there evidence from other national frameworks to suggest how the UK (and EU) copyright systems could better support innovation?	✓
2. Are markets involving copyright more competitive in any other countries, while still providing satisfactory incentives to creators and investors?	✓
3. Is there evidence of how the UK copyright framework supports growth and innovation?	✓
4. Is there evidence of areas where the UK copyright framework does not deliver the optimal outcomes?	✓
5. Is there evidence to suggest that the current framework impacts the production and delivery of goods and services which consumers want?	✓
6. What evidence is there that the necessity / complexity / cost of obtaining permissions from existing rights owners constrains economic growth?	✓
7. What non-legislative changes could improve practices around copyright to improve overall outcomes?	✗
8. Is there evidence of difficulties in obtaining financing relating to copyright?	✗
9. To what extent are the international rules around copyright more or less important than those in the UK? How should the UK approach this matter?	✓
Enforcement of Rights	
1. Is there any evidence of the relationship between the overall IP enforcement framework and economic growth or innovation?	
2. In terms of promoting economic growth, what should be the objective of the overall framework for enforcing IP rights?	✓

	Considered in report?
3. How can the effectiveness of the enforcement framework be measured?	✗
4. What evidence is there of the effectiveness, in terms of promoting economic growth, of various approaches to improving compliance with IP rights?	✓
5. To what extent is cost of litigation a factor in the effectiveness of civil remedies?	✓
6. To what extent, if any, does the enforcement of IP rights operate as a trade barrier, particularly for UK companies attempting to expand overseas? Are there particular issues with particular countries?	✓
7. To what extent would international courts, or similar bodies, make a difference to enforcement of rights and hence the UK economy?	✗
Intellectual Property and Competition	
1. To what extent do the IP and competition frameworks complement or conflict with each other?	✓
2. Could growth and innovation be stimulated by a different balance between competition and IP?	✓
SME access to Intellectual Property Services	
1. Are there cases where SMEs face barriers in accessing IP services to help them to protect and exploit their IP?	✗
2. What can be done to overcome these barriers?	✗

Annex B: Transaction cost methodology

In this Annex we describe the model we have developed and used to estimate the potential costs of different models for secondary copyright licensing. Specifically, we have sought to compare the costs of the existing system with an alternative model in which rights holders and users contract directly with each other.

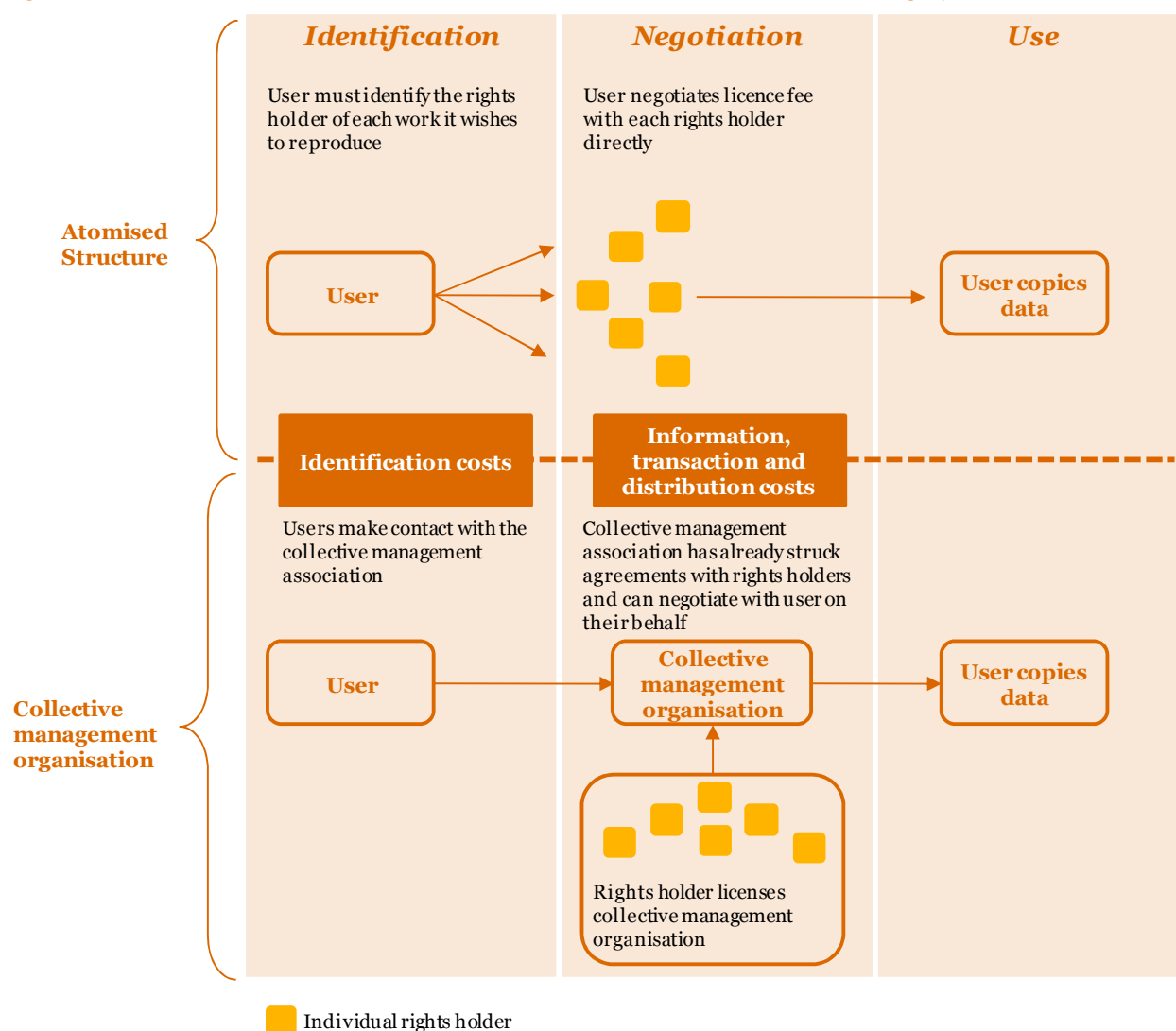
Our approach to the analysis has some important features:

- The approach seeks to capture the costs incurred throughout the value chain from the rights holder (the creator) through to the user, and including the CMOs where relevant.
- The framework is based on the principles of the Standard Cost Model which has been used by many governments to estimate the costs of different regulatory systems¹²⁰. As such, the cost estimates are necessarily indicative.
- Due to limitations in the availability of data, it illustrates the comparative costs by focusing on the implications for the higher education sector (which is one of the major users of secondary copyright).

This model we have developed compares the costs of higher education institutions purchasing licences to use creative work from the CLA ('collective licensing') with a model in which higher education institutions directly contract with the author (an 'atomised system'). The model is based around describing the process which both the content creator and the prospective user would need to go through in order to establish the necessary right to secondary use of works. Figure 30 illustrates the broad differences in the steps between the two alternative processes which underpin the transaction. We break them down between identification, negotiation and use.

¹²⁰ Cabinet Office, "Measuring Administrative Costs: UK Standard Cost Model Manual", Better Regulation Executive, London, (2005)

Figure 30 General transaction chain in an atomised and collective licensing system



Source: PwC

To estimate the costs of each process, we have identified and defined each of the activities that we would expect to be undertaken under the CMO system (Table 6) and under the atomised system (Table 7). Then, for each activity, we have developed evidence based estimates of:

- the number of times each activity is undertaken across the whole system which is the product of the frequency of the activity (i.e. the number of times it is undertaken each year) and the number of people or organisations which undertake it; and
- the cost of each transaction which is largely made up of the time costs of those who perform the activity.

In our model, we distinguish between new users and content creators - who would incur both annual and one-off costs and existing users and content creators who are assumed to incur only the annual recurring costs assigned to them.

To model the costs of the current collective licensing system, we consulted with the CLA, the ALCS, higher education users and authors to understand the volume and cost of each transaction (see table 6). This has provided us with information covering:

- the number of users and content creators;
- the tasks associated with the current licensing system;

-
- the time it takes to undertake each of activities tasks associated with current licensing system;
 - the frequency with which the activities are undertaken; and
 - the cost in terms of time for these groups of individuals.

On this basis, we can estimate the costs to higher education users and authors who use the current collective licensing system to “transact” with each other. We also need to add-in the costs to the ALCS which are incurred when it administers rights holders’ secondary copyright for authors who produce work for higher education institutions, the costs to the CLA of administering secondary copyright for higher education institutions and the costs to the Universities UK team which bilaterally negotiates the terms of the secondary licensing contracts on behalf of the individual institutions.

To estimate the costs of the proposed “atomised” system (where authors and higher education institutions are assumed to transact their secondary copyright negotiations bilaterally), we have developed a model using separate assumptions (see Table 10). This has provided us with information about:

- the proposed activities the content creator and higher education institutions would undertake to agree secondary copyright contract;
- the proposed time it would take to undertake each of these activities;
- the frequency with which these activities are undertaken;
- the cost of time for these groups of individuals; and
- a range for the potential number of transactions per year.

We have used the results from the CLA’s “user audits” to estimate the number of transactions which would occur under a range of scenarios. Our “low” scenario for the transaction cost assumes that 10% of the potential transactions which could occur if the collective licensing system was abolished tomorrow would occur. Our “medium” and “high” scenarios assume 25% and 50%, respectively.

Table 9 Transaction chain for higher education licensing with CMOs

Agent undertaking transaction	Transaction	Action which is involved	Frequency of transaction	Time for transaction	Cost base	Assumption made on time
Author	Searches for the organisation who manages their rights (ALCS)	Uses search engine to find website	One-off	30 minutes	Average earnings of SIC 4 Authors, Writers from ASHE, 2010	Verified with ALCS: average depending on technological fluency
Author	Become a member of ALCS	Fills in online membership form	One-off	2 hours	Average earnings of SIC 4 Authors, Writers from ASHE, 2010	Verified with ALCS
Author	Provides information on own creative works to ALCS	Fills in Scripts/Magazines/Books/Journals online information form	Annual	3 hours	Average earnings of SIC 4 Authors, Writers from ASHE, 2010	Verified with ALCS: average from authors who have few/many works
Author	Receives and processes payment	Time taken to fill in Bank Details form and to read and file bi-annual invoices	Annual	2 hours	Average earnings of SIC 4 Authors, Writers from ASHE, 2010	Verified with ALCS: average depending on technological fluency
ALCS	ALCS incurs administrative cost	N/A	Annual	N/A	Public Accounts in 2009	Pro-rata share of costs for ALCS based on the proportion of ALCS members who produce material for HE purposes (32%).
CLA	CLA incurs administrative cost	N/A	Annual	N/A	Public Accounts in 2009	Pro-rata share of costs for HE based on proportion of revenues from HE (21%)
PLS	PLS incurs administrative cost	N/A	Annual	N/A	Public Accounts in 2009	Pro-rata share of costs for HE based on proportion of revenues CLA receive from HE (21%)
UK Universities	UK Universities incurs administrative cost in the annual	8 members of UK negotiating team meet four times a year prior to CLA meeting. Each member does approximately 12 hours work for each meeting (including meeting time).		960 hours of negotiator time plus 8 hours for admin assistant	Average earnings from SIC 1 Managers and Senior in ASHE 2010 taken for negotiators. Average	Verified by UK Universities members

Agent undertaking transaction	Transaction	Action which is involved	Frequency of transaction	Time for transaction	Cost base	Assumption made on time
	negotiations on the design and price of licences offered to HEI's	In addition there are two additional groups- the Licence Operating Working Group (meets each quarter) and the Data Working group (meets bi-annually). Each member does 12 hours of work for each meeting (inclusive of meeting)			earnings of SIC 1 Administrative and Secretarial Occupations taken for PA from ASHE, 2010	
HE user	Searches for the organisation which manages copyright	Uses search engine to find CLA website	One-off	30minutes	Average earnings of SIC 1 Administrative and Secretarial Occupations from ASHE 2010	Verified with CLA: average depending on technological fluency
HE user	Transacts with the CLA to gain a copyright licence	Time taken to read online copyright licence, provides details to CLA and signs declaration	Annual	8 hours	7 hours work for Average earnings of SIC 1 Administrative and Secretarial Occupations and 1 hour work for Average earnings SIC 1 Managers and Senior from ASHE 2010	Verified with CLA in consultation with LSE
HE user	Payment is undertaken	Invoice is received, it is signed off by a Senior Manager and telephone bank account payment is made	Annual	2 hours	1 hour work for Average earnings of SIC 1 Administrative and Secretarial Occupations and 1 hour work for Average earnings SIC 1 Managers and Senior from ASHE 2010	Verified with CLA in consultation with LSE
HE user	Undertakes actions to administer copyright throughout the year	Around 40% of institutions (i.e. all public ones) undertake recordkeeping of all scanning and digital transactions	Annual	0.25 hours per item	Average earnings of SIC 1 Administrative and Secretarial Occupations from ASHE 2010	Verified with CLA in consultation with LSE: All public institutions must fulfil this obligation
	Undertakes actions to administer copyright throughout the year	Around 2% of institutions are audited on their scanning activities. This involves approximately 10 hours of preparation time (providing samples of materials, reading audit guidelines) and 5 hours of attendance with CLA representative	Annual	15 hours	Average earnings of SIC 1 Administrative and Secretarial Occupations from ASHE 2010	Verified with CLA in consultation with LSE
	Undertakes actions to administer	Around 3% of universities are compelled to undertake a photocopy survey annually.	Annual	10 hours of meetings and 0.25	Average earnings of SIC 1 Administrative and	Verified with CLA in consultation with

Agent undertaking transaction	Transaction	Action which is involved	Frequency of transaction	Time for transaction	Cost base	Assumption made on time
	copyright throughout the year	There are two initial meetings and brief cover sheet for users to fill in over a period of six weeks		hours per item	Secretarial Occupations from LSE ASHE 2010	
HE user	Utilises support services throughout the year	Licence coordinators liaise with account managers and check website for terms of licence	Annual	4 hours of contact per month	Average earnings of SIC 1 Administrative and Secretarial Occupations from LSE ASHE 2010	Verified with CLA in consultation with

Source: PwC

Table 10 Transaction chain for higher education licensing under atomised system

Agent undertaking transaction	Transaction	Action which is involved	Frequency of transaction	Time for transaction	Cost base	Assumption made on time
Author	Responds to user's contact	Responds to e-mail/receives telephone call to arrange date and time for discussion	One-off	30 minutes	Average earnings of SIC 4 Authors, Writers from ASHE 2010	Verified with ALCS and number of authors: average depending on technological fluency
Author	Negotiation with user	Negotiates the price and terms of the copyright licence with the user	Annual	3 hours	Average earnings of SIC 4 Authors, Writers from ASHE 2010	Verified with ALCS and a number of authors: proxy made with a primary contract discussion
Author	Invoices user	Draws up an invoice on a word processing application and sends to user over e-mail	Annual	0.5 hours	Average earnings of SIC 4 Authors, Writers from ASHE 2010	Verified with ALCS: average depending on technological fluency
Author	Receives and processes payment	User sends payment through PayPal. Author logs on to receive funds and transfers into bank account	Annual	0.5 hours	Average earnings of SIC 4 Authors, Writers from ASHE 2010	Verified with ALCS: average depending on technological fluency
HE user	Searches for the rights holder	Involves an in-depth search using different means if necessary- including contacting publishing groups, searching for user directly and contacting other agencies	One-off	1 hour	Average earnings of SIC 1 Administrative and Secretarial Occupations from ASHE 2010	Lower bound of estimate for time to find Orphan Works currently in JISC "In

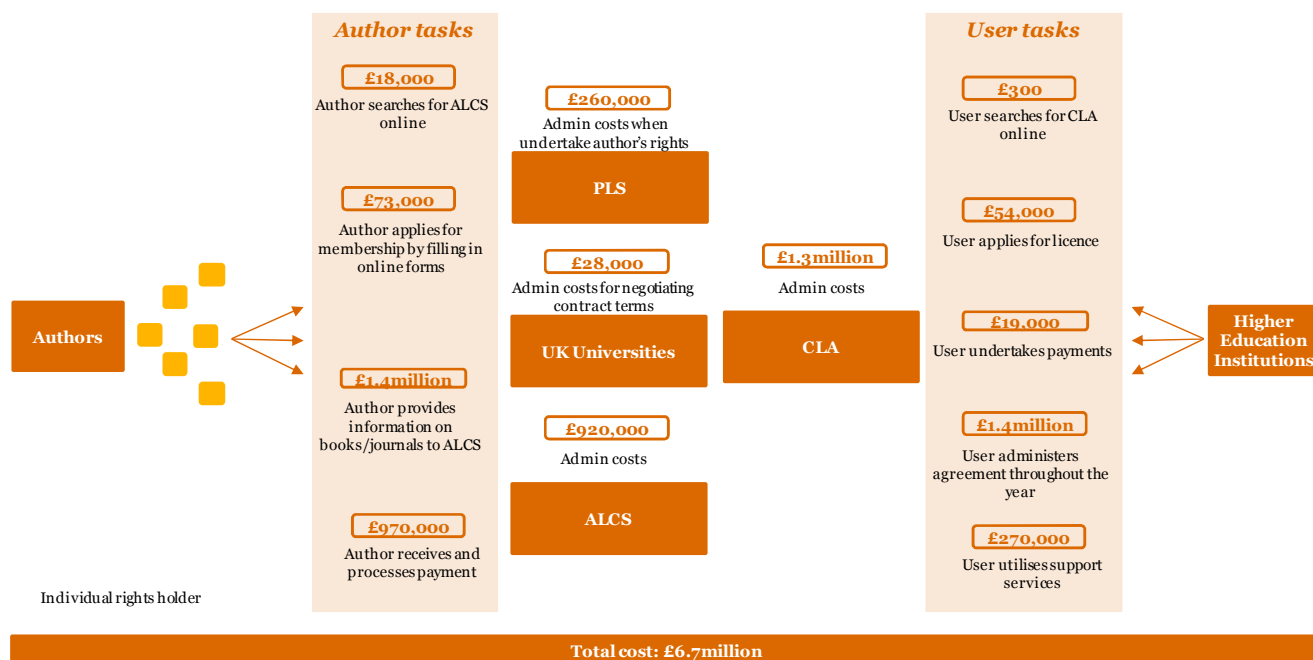
Agent undertaking transaction	Transaction	Action which is involved	Frequency of transaction	Time for transaction	Cost base	Assumption made on time
						<i>from the cold": Assessment of the Scope of Orphan Works and its impact on the delivery of services to the public</i>
HE user	Makes contact with the rights holder	Writes e-mail/undertakes a telephone call to arrange date and time for discussion	Annual	0.5hours	Average earnings of SIC 1 Administrative and Secretarial Occupations from ASHE 2010	Verified with CLA in consultation with authors/rights holders
HE user	Negotiation with rights holder	Negotiates the price and terms of the copyright licence with the rights holder	Annual	3 hours	Average earnings of SIC 1 Administrative and Secretarial Occupations from ASHE 2010	Verified with ALCS and a number of authors: proxy made with a primary contract discussion
HE user	Undertakes payment	Receives invoice through e-mail and sends payment through PayPal.	Annual	0.5hours	Average earnings of SIC 1 Administrative and Secretarial Occupations from ASHE 2010	Verified with ALCS: average depending on technological fluency

Source: PwC, CLA, ALCS

The results of our analysis are shown in Figure 31 and Source:PwC

Figure 32 which summarises the economic costs of the activities associated with each system and an estimate for the total costs of the system.

Figure 31 Transaction costs associated with current collective licensing framework



Source:PwC

Figure 32 Transaction costs associated with an atomised framework



Source:PwC

Our model shows that if the current collective licensing framework was abolished, the annual cost of an atomised system would be approximately 28 times as large if 10% of the potential transactions that would occur in the collective licensing system occurred in an atomised system. If we assume that more than 10% of transactions take place, the costs savings associated with collective licensing increase accordingly. The number of transactions would need to fall by 99.5% of the current level for the costs of the two systems to be the same.

This analysis highlights that unless access is severely restricted or widespread illegal copying is tolerated; the current licensing system results in large cost savings when compared to an atomised system.

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