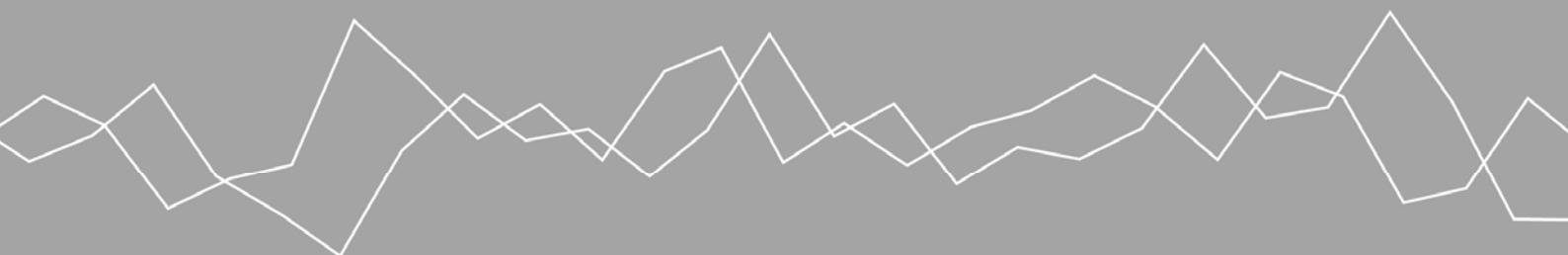


Assessing the Economic Contribution of the Copyright-Based Industries



seo economisch onderzoek

Amsterdam, 25 January 2011
Commissioned by the Computer & Communications Industry Association

Assessing the Economic Contribution of the Copyright-Based Industries

Remarks and alternatives

Rob van der Noll
Joost Poort



seo economisch onderzoek

SEO Economic Research carries out independent applied economic research on behalf of the government and the private sector. The research of SEO contributes importantly to the decision-making processes of its clients. SEO Economic Research is connected with the Universiteit van Amsterdam, which provides the organization with invaluable insight into the newest scientific methods. Operating on a not-for-profit basis, SEO continually invests in the intellectual capital of its staff by encouraging active career planning, publication of scientific work, and participation in scientific networks and in international conferences.

SEO-report nr. 2010-63

ISBN 978-90-6733-596-6

© 2010 Computer & Communications Industry Association / SEO Economic Research
Just Rights™ Statement

We recognize that copyright law guarantees that you, as a member of the public, have certain legal rights. You may copy, distribute, prepare derivative works, reproduce, introduce into an electronic retrieval system, perform, and transmit portions of this publication provided that such use constitutes “fair use” under copyright law, or is otherwise permitted by applicable law.

Permission to use this work in a manner that exceeds fair use or other uses permitted by law may be obtained or licensed from the Computer & Communications Industry Association, 900 Seventeenth Street NW, Suite 1100, Washington DC, 20006 and from SEO Economic Research, Roetersstraat 29, 1018 WB Amsterdam.

Table of contents

Abstract	
1 Introduction	1
2 Copyright and creative production: an elusive relation	3
2.1 The measured contributions are to some extent not dependent on copyright.....	3
2.2 Incentives for creation may be adversely affected by copyright.....	5
2.3 Suggestions for improving the WIPO methodology.....	6
3 Economic welfare analysis is needed	9
3.1 WIPO studies ignore the trade-off between creation and dissemination of content .	9
3.2 Economic analysis: the welfare effects of a policy change	10
4 Concluding remarks	13
Literature	15

Abstract

The *World Intellectual Property Organization* promotes the surveying of the economic contribution of copyright and has published a guide to this effect (WIPO, 2003). This position paper argues that the usefulness of the guide (and resulting studies) is limited. This is done by discussing the economic welfare properties of copyright and the challenges faced by European policy makers. The paper gives two suggestions for improving the WIPO methodology and concludes with promising research avenues that might bring the policy debate forward.

1 Introduction

Although economists have written on topics of intellectual property for a long time, the impact of economics on public policy in this area has been slight, especially as compared to the influence of professional writings in areas such as antitrust and taxation. We believe that too few of the profession's resources have been devoted to these issues and that, of those resources that have been employed, too few have been devoted to empirical analyses.
(Besen and Raskind, 1991, p. 4)

The above observation was made in 1991 in *The Journal of Economic Perspectives*. The motivation has had effect: a large body of economic research on copyright has emerged. One of the activities that has resulted is the measurement of the economic contribution of industries that are associated with copyright protection. To promote this type of research, the World Intellectual Property Organization (WIPO) launched a guide on surveying the economic contribution of copyright-based industries in 2003 (WIPO 2003, hereafter: WIPO-Guide). Since the 1980s, a large number of such empirical measurements have been carried out in a number of countries.¹ This paper argues, however, that this type of studies has limited relevance to the current policy agenda. It does so by making a number of fundamental remarks and by giving two suggestions for improvement of the current approach. Next, an alternative research agenda which addresses the policy problem is presented.

The WIPO-Guide provides a methodology for measuring the contribution of copyright-based industries to the national economy. For numerous developed and developing countries, such surveys have been carried out since the publication of the WIPO-Guide. One of its main purposes is to inform policy makers (WIPO-Guide, p. 2). The results are used to investigate the hypothesis that *“copyright is a powerful source of economic growth, creating jobs and stimulating trade”* (WIPO-Guide, p. 2).

The WIPO-Guide prescribes the following four steps: identification and classification of industries, data collection, data analysis and presentation of results. It distinguishes between core copyright industries, interdependent industries, partial industries and non-dedicated industries. The core industries are industries that are wholly engaged in creation, production and manufacturing, performance, broadcast, communication and exhibition, or distribution and sales of works and other protected subject matter.² Together with the non-core industries, they make up the ‘total copyright industries’. The studies report the value added, employment and trade balance for the identified sectors, including a cross-time comparison. The USA report (Siwek, 2004) is the first report to fully reflect the WIPO-Guide, and is used as an illustration. The main results for the USA 2004 study are depicted in the Table 1.1 below. Siwek (2004, p. 7) concludes that the copyright industries have outperformed the rest of the US economy by generating higher growth rates in both value added and employment. The employment in the ‘total copyright industries’ is claimed to be comparable to the employment in the construction industry.

¹ For an overview see Table 1.1 in WIPO (2003).

² For the definition of the non-core sectors, see WIPO (2003).

Table 1.1 Example of a WIPO study. Assessing the economic contribution of copyright-based industries in the USA

	Value added	Employment
Core copyright industries	\$626.6 billion or 6% of the US economy	5.48 million workers or 4.02% of workforce
Non-core copyright industries	\$627.4 billion or 6% of the US economy	5.99 million workers or 4.39% of workforce

Source: Siwek (2004)

Later WIPO studies are more sophisticated in the sense that they have developed factors to count only fractions of partial copyright industries. An example of such a study is Leenheer et al. (2008).

A number of remarks on this type of study are possible. The advance of information and communication technologies (ICTs), such as the Internet, has triggered the European Commission to examine how a broad dissemination of knowledge, notably in the online environment, could be achieved in the context of existing copyright legislation (European Commission, 2009). The economic incentives for consumption, production and the distribution of numerous goods and services increasingly depend on the way in which intellectual property rights are designed. The current policy debate is not about the *existence* of copyright, but about refinements in *breadth and design*. For an economic analysis to contribute to this debate, it should start with a policy problem and identify the policy variables that have the potential to solve the problem.

WIPO studies measure the size of industries where copyright plays a role, but do not analyze how these industries would perform with a more permissive or stringent copyright. Nor do they measure the loss of economic activity if there were no copyright at all. They do not contribute to a ‘what if’ analysis, and lack a counterfactual. The economic impact of copyright is confused with the economic impact of industries that are associated with copyright protection. Hence, policy implications can hardly be derived from such studies.

The structure of this paper is as follows. Section 2 argues why the causality between the measured contribution and copyright is weak, by making two remarks. Subsequently, it argues how the measurement can be improved for the purpose of comparison between countries and over time. Section 3 demonstrates that the WIPO studies ignore welfare effects and presents an alternative economic research agenda, based on welfare analysis and addressing the European policy agenda. Section 4 concludes.

2 Copyright and creative production: an elusive relation

The WIPO studies portray the economic impact of copyright. The link between creative production and copyright, however, is not investigated. The two sections below argue that creative production does not always need copyright, and will sometimes even be hindered by it. It is argued that the WIPO methodology has fundamental shortcomings vis-à-vis the issues brought forward. Taking these limitations as given, section 2.3 explores the uses of the WIPO methodology. It argues that it lies in the comparison between countries (cross-section studies) and in studying time trends. Bearing these uses in mind, Section 2.3 suggests improvements to that effect.

2.1 The measured contributions are to some extent not dependent on copyright

The WIPO methodology suggests the entire value added in core industries depends on copyright, as if no creation would occur if there were no copyright protection. However, in economic terms, creation will often be profitable even without copyright protection, depending on the costs and quality of unauthorized reproduction.

From an economic perspective, the incentives for creative production are the main rationale for the existence of copyright. The economic incentives for creation depend on a number of parameters that together determine whether the investment in creative work is expected to be profitable.³ In their seminal article on the economics of copyright, Landes and Posner (1989) show that the profit of the author depends, amongst other things, on the extent to which copies are substitutable for the original work, and the cost of making copies:

To generalize, when either the cost of making equivalent copies is higher for the copier than for the creator or the copier's product is a poor substitute for the original, the originator will be able to charge a price greater than his marginal cost, even without legal protection. And, obviously, the greater the difference in the costs of making copies and in the quality of copies between creator and copier [...], the less need there is for copyright protection. (p. 329)

From their formal model it follows that, depending on the characteristics of the good in question, some works will be created even when there is no copyright protection. A more recent contribution is Miceli and Adelstein (2006). The authors extend the model of Landes and Posner. The original work and copies are modeled as different varieties lying on a continuum. Consumers vary in their valuations of these varieties. This captures the notion that copies are not always perfect substitutes for the original, either in terms of quality or extent. The extent of copyright is modeled as the variety closest to the original, for which copying is permissible. Two cases can be considered: a cost advantage in producing copies and a preference for the original.

³ Apart from these economic incentives, there are of course non-economic motivations for creative production, such as fame or the desire to express oneself. Also, there are economic but non-remunerative incentives, for instance for academic writers who publish works to improve their reputation, and hence their employability.

Cost advantage in producing copies

As long as an author has a cost advantage in producing copies of the work, the paper shows that, in a world without copyright protection, the author's profit of creating the work is increasing in this cost advantage. This means that for some products or services this profit will be positive. In those industries creative works would still be created in absence of copyright protection.⁴ This does *not* mean that the total number of creative works would be the same in the absence of copyright protection, but it *does* imply that attributing the entire industry to copyright leads one to overestimate the economic impact of copyright protection.

Preference for the original

Second, consumers often prefer the original to a copy. This may arise from a quality difference, or when consumers attach moral importance to supporting the artist. This will lead to a higher willingness to pay for the original compared to a copy. As in the previous case, an author would therefore still have revenues in a world without copyright. These revenues would increase in the premium that consumers are willing to pay for the original, and in the number of consumers that prefer the original. Hence, in markets where these two components are high enough, works would be created even in the absence of copyright.

This is illustrated by the fact that world famous artists and composers such as Rubens, Michelangelo, and Purcell created their work long before copyright was even invented. Many of these renowned artists relied on patronage (by state, church or private individuals) or contracted works for their income. Notwithstanding the fact that these artist lived in a time when the costs of copying works were high compared to these costs in many creative industries today, it is worth noting that copyright is not the only economic model to safeguard creative production.

Within the copyright model, however, the extent to which incentives for creation depend on copyright, depends on the author's cost advantage in producing copies and the extent to which copies are preferred to the original. Both factors will significantly vary between the industries included in the WIPO-Guide. Consider the case of a piano concert: some pianists are well known for performing works of classical composers, and numerous people pay significant amounts to visit the concert of the grandmaster. Any person is in fact free to perform the exact same classical work, but this does not affect the revenues of the grandmaster or the concert venue. Put differently, the value added is achieved regardless of copyright, yet the economic contribution of the industry group 'music, theatrical productions, operas' is included in entirety in the WIPO methodology. While the business model for the recorded CD of the grandmaster may require copyright protection, this is not the case for the concert performances. Other examples can be thought of: famous painters' and sculptors' works are worth much more than copies of those works. The earnings of those painters and sculptors do not depend on copyright, nor do the earnings of their galleries or allied services. Similar reasoning applies to the following industries included in the WIPO-Guide:

⁴ Of course, improvements in technology have reduced or eliminated cost advantages in producing copies of music, film, games and e-books. In the information good type of industries, there is almost no cost advantage for the author in creating copies.

- Music, theatrical productions, operas (a core sector);
- Motion picture and video;
- Photography (a core sector);
- Visual and Graphic Arts (a core sector);
- The interdependent industries;
- Partial copyright industries;
- Non-dedicated support industries.⁵

Of course, the argument does not apply to all kinds of creativity. The young contemporary composer that performs his/her new composition on stage, or publishes a music record, would be significantly hampered in his/her business interests if anyone could freely copy the composition. The point is that the link between value creation and copyright differs between different creative works.

The WIPO studies do not tell us what contribution would be achieved if copyright were redesigned. The measured contributions are arguably not fully dependent on copyright. This includes the core industries. Moreover, the WIPO studies do not analyze the degree of dependency. The WIPO studies are therefore limited in application to the debate on copyright.

2.2 Incentives for creation may be adversely affected by copyright

The WIPO methodology suggests that creators benefit from copyright protection. In fact, copyright may harm authors and other economic activity if it limits their ability to build on prior works. The incentives to create may decrease in the scope of copyright.

Authors use the work of others to create a new work. Landes and Posner (1989) was one the first studies to recognize this:

Creating a new work typically involves borrowing or building on material from a prior body of works, as well as adding original expression to it. A new work of fiction, for example, will contain the author's expressive contribution but also characters, situations, plot details, and so on, invented by previous authors. Similarly, a new work of music may borrow tempo changes and chord progressions from earlier works. (p. 332)

The cost of creating a work will therefore increase in the extent of copyright protection. This effect should be balanced against the variable profits of selling, which may increase in copyright. Landes and Posner (1989) shows that when copyright is modeled as a continuum variable, the number of works created will *decrease* in the extent of copyright, if copyright protection is high enough. This suggests an inverted U-shaped relation between copyright protection and creation or creative value added.

Authors might therefore find it in their self interest to limit copyright protection. From an ante viewpoint, authors are at some times “early authors/copyright holders” from whom “later

⁵ The core industries not in this list are: press and literature, radio and television, software and databases, advertising services and copyright collective management societies.

authors” might want to use content, and “later authors” at other times. The optimal balance between the two opposing effects has been sought in practice by various doctrines in copyright law that limit protection, such as “fair use” in the United States and exceptions and limitations in the European Union.

The theoretical insight that exceptions and limitations boost the incentives for creation has been corroborated by Akker et al. (2010). This study estimated the value added generated by industries in the European Union relying to some extent on exceptions and limitations to copyright at € 1.1 trillion or 9.3% of GDP in 2007. These figures are based on an analysis of 35 industries that either use exceptions or limitations as an input in their production process or derive their demand from exceptions or limitations. The issue is analogous to the literature on spillovers of Research and Development (R&D) by firms: firms profit from the knowledge that other firms create, and social welfare is maximized when patents and other arrangements for intellectual property allow for some knowledge to freely spillover to other firms.

It is tempting to interpret the outcomes of WIPO studies as measurements of the effect of copyright protection. In fact, one might even be led to believe that the stronger copyright protection, the larger the value added and employment in the copyright industries. This is false. The relation between copyright and creative production is not necessarily positive. Rather, there will be a U-shaped relation and the real challenge for research is to find the optimum. Section 3 will revert to this.

As illustrated above, creative authors may benefit from exceptions and limitations, depending on the product and business model considered. Van Eijk et al. (2010) discuss the effects of unauthorized file sharing on music, films and games. Unauthorized file sharing can be seen as a lack of effective copyright protection.⁶ The paper shows that unauthorized file sharing has positive, neutral and negative effects on sales. Positive effects may arise due to a sampling effect, an increase in the demand for concerts and related products, and may boost the popularity of products. These positive effects of lowered protection on the sales of creative products illustrate that a detailed analysis of the industry and the business model of authors is needed to understand the effects of copyright on creative production.

The incentive to create is the main rationale for copyright. However, the WIPO studies ignore the potentially *adverse* effects of copyright on the incentives to create. The WIPO type of measurement does not answer the question to what extent the current copyright protection hinders authors in their business models.

2.3 Suggestions for improving the WIPO methodology

If the WIPO studies do not tell us what contribution would be achieved if copyright were redesigned, then what do they tell us? They measure the employment and value added in industries for which copyright protection is relevant. In itself, such a measurement does not teach us anything once we realize that no causal link should be accepted *a priori* between the level of

⁶ The terms *illegal filesharing* or *piracy* are avoided here, because file sharing, at least downloading of films and music, is not illegal in various countries as it falls under the private copying exception.

copyright protection and the economic size of copyright industries. The value of WIPO studies lies at best in the comparison between countries and in time trends. Comparing outcomes of WIPO studies reveals differences in economic structures of countries and changes over time can teach us about structural changes within an economy. If one has additional hypotheses about the relevance and desirability of such changes, WIPO studies may be input for policy making.

In addition, WIPO studies that are wholly comparable across countries and over time, could be used to study the question if there is a correlation between the degree of copyright protection in countries and the size of their copyright industries. Note, however, that addressing causality issues is particularly important for this question, since a large copyright industry may be more successful in enhancing the degree of copyright protection.

For such purposes, the international comparability and time consistency of the WIPO methodology is key. Not only the industries that make up the core copyright industries, interdependent industries, partial industries and non-dedicated industries should be specified and followed unanimously. Also the copyright factors used to weigh the non-core industries should not differ between countries and over time. These factors are useful to give a more detailed perspective on the economic activities that relate to copyright but are to some extent subjective. Hence, changes in these factors over time and differences between countries give a false sense of accuracy while at the same time they open the door for boosting the outcome of WIPO studies. This comes at the expense of international comparability and reliable time trends, which were argued to be the primary uses of WIPO-studies.

Bearing comparability over time and between countries in mind, a more radical suggestion for improvement of the WIPO endeavour would be to revert from counting industries to counting jobs based on activity codes. Such an approach would to some extent be similar to the definition of the creative class as it was introduced by Richard Florida in his book *'The rise of the creative class'*. Counting jobs comes closer to a reliable measure of the economic activity associated with the production of copyright.

Following such an approach, designers that work for large industrial companies such as the car industry or consumer electronics can also be included, while the catering, administration, and secretary working for a publishing house are not. It could be argued that these jobs and their value added are apparently dependent on the core business of a publishing house and should therefore be included. However, the current approach will exhibit irrelevant changes in the economic size of the copyright industries, if for instance catering services are outsourced at a large scale. Presently, different trends in outsourcing thwart a reliable comparison of WIPO studies.

3 Economic welfare analysis is needed

The WIPO studies lack important welfare trade-offs inherent in copyright. A more useful economic research agenda would address a policy problem, by analyzing the welfare effects of a policy change, for all actors in society.

3.1 WIPO studies ignore the trade-off between creation and dissemination of content

The dissemination of content, not only of private users but also for education and creative industries, is an issue that is currently on the policy agenda (European Commission, 2008). For example, research and training establishments lack the flexibility to disseminate materials, including for the purpose of distance learning. Libraries face constraints in digitization initiatives to preserve and disseminate archives. Besen and Raskind (1991) note:

A third issue [...] is whether the intellectual property system strikes an appropriate balance between creating and disseminating intellectual property. (p. 6)

Copyright grants the author of a work a certain degree of monopoly power on selling copies of his work. The rationale for this is to provide the incentive to create the work. However, monopoly power comes with a disadvantage for social welfare: the number of copies sold to consumers is reduced in monopoly. Also, it raises the costs for the creation of other works. Monopoly rents therefore cause a welfare loss to society. Moreover, strict copyright protection and enforcement could impose substantial costs on other industries such as telecommunication and the ICT industry. Any policy analysis on copyright should take the trade-off between creation and dissemination and the costs imposed by protection and enforcement into account.

The trade-off between creation and dissemination can be illustrated with the model by Miceli and Adelstein (2006). The authors consider the case that copying is not possible or feasible.⁷ In that case, the monopoly price is set and some consumers with a valuation for the work that exceeds the cost of making the copy end up *not* buying it. This is the inefficiency associated with market power. The authors next introduce the possibility of copying and show that in equilibrium, more consumers consume the good and the authors' revenues from selling the work are lower. As long as these revenues can support the cost of creation, the latter equilibrium yields higher total welfare. Hence, full copyright protection comes at a cost of reduced output and may be suboptimal.

When copyright is not tailored to different types of works, another trade-off arises. For some works the revenues when copying is permissible will not support creation costs (say, type A) and for other works it will (type B). Allowing some copying therefore gives rise to a trade-off between works A and B. When copying is permissible, a welfare *loss* results due to works of type A that are not created and a welfare *gain* results from a higher consumption of work B.

⁷ It is assumed that there are no substitutes for the work available.

Exceptions and limitations to copyright may help to strike a welfare improving balance between creation and dissemination. Firstly, exceptions and limitations may tailor copyright to different types of works. Secondly, exceptions and limitations may boost dissemination for subgroups of consumers and professional users, without eroding the business model of the producer, e.g. exceptions for the visually impaired. The WIPO studies do not address the trade-off between creation and dissemination.

3.2 Economic analysis: the welfare effects of a policy change

Economic analysis is a widely used tool to address problems of public policy. An analytical framework has been put forward by Cohen (2001). The starting point of any such analysis is to identify market failures. This step should make clear why the government should intervene in the area of interest. An abbreviated version of the procedure is presented in Box 3.1 below.

Box 3.1 Stylized approach to economic policy preparation

1. State the policy problem and identify the corresponding market failure.
2. Examine possibilities for self-regulating market corrections.
3. In case step 2 falls short: identify projects/measures that address the policy problem.
4. Identify and measure the efficiency consequences of alternative projects/measures.
5. Identify and measure the distributional consequences of alternative projects/measures.
6. Identify and measure the trade-off between the possibly conflicting goals of efficiency and equity.
7. Identify and measure the extent to which the projects/measures affect other public policy objectives, redesign in step 3 if necessary.
8. Make a choice among the alternative projects/measures, taking note of long-term institutional constraints and political processes that could affect the final design, implementation and success of alternative projects/measures, redesign in step 3 if necessary.

Source: SEO Economic Research, based on Cohen (2001).

The statement of the problem and identification of the alternative policy measures or variables are at the basis of the analysis. The core of the analysis consists of identifying and measuring the consequences of alternative projects, for the different actors involved. Projects that score high on efficiency might not be beneficial for some parties in the economy. The final balance between conflicting goals and conflicting interest groups can only be made by policy makers. The purpose of economic analysis is to clarify and report the trade-offs.

The market failure that legitimizes intellectual property protection is well understood in the literature. Akerlof et al. (2002) summarize as follows:

The main rationale for copyright is to supply a sufficient incentive for creation. [...] An economically minded author will [...] invest in creation only if expected returns, after paying per-unit (or "marginal") costs, are larger than the up-front investment; otherwise the author would lose money overall. (p. 4)

The public problem that gives rise to copyright is that in absence of it, some creative producers would not earn sufficient returns on investment and thereby creative production would fall short of the level desired by society. The trade-offs between interests of different actors in society have been identified in the literature. Copyright provides owners of the copyrighted material with the opportunity to earn returns. These returns must be generated at the expense of consumers (see for example LECG, 2007).

The copyright system currently in place can be seen as the result of the stylized 8-step procedure in Box 3.1. Implicitly or explicitly, policy makers have accepted certain trade-offs between conflicting interests. The design of copyright is, however, not marked in stone. It can always be questioned whether the design performs well enough. As in most areas of public policy, refinements are being debated since relevant parameters change with time.

Economic analysis should be focused on a specific policy problem, and identify measures that enhance total welfare. The optimal design of limitations and exceptions to copyright is an example of an issue worth analyzing. The set of policy variables would include various degrees of scope and breadth of the exception. If a policy measure has been identified, the next step is to identify the effects of the “project” on the different actors in society. In this step, a detailed analysis should be made of the characteristics of the markets and industries involved. This includes the incentives for production and consumption, and pricing and business models. In such a framework a ‘what if’ analysis can be provided: how would the quantity of creative works change if the exception were introduced? How would consumer prices change? How would the volume consumed change? Next, an attempt can be made to estimate the effect of the exception on total welfare, outlining what different actors in the economy gain or lose.

A first step is an economic impact analysis, clarifying all the economic linkages that are of relevance, by investigating business models and how consumers interact with suppliers. Second, when the linkages have been identified, a partial equilibrium model may be useful to estimate how quantities and prices change after introducing the policy change (e.g. Miceli and Adelstein, 2006). Third, when these estimates are available, a cost-benefit analysis can be used to quantify the effects for all actors involved. The balance of costs and benefits can then be used by policy makers to design new policy.

This paper claims that only such specific types of analysis can empirically contribute to the debate about the future and the optimal design of copyright. Such studies can address specific issues, such as the economic and cultural effects of file sharing as was done in Van Eijk et al. (2010).

4 Concluding remarks

The studies on the economic contribution of copyright-based industries, performed under the umbrella of the WIPO-Guide, have demonstrated the enormous significance of creative industries in the respective economies. The efforts spent on statistical exercises and economic analyses on intellectual property protection should be welcomed. Since the launch of the WIPO-Guide in 2003, however, some developments have taken place that question the usefulness of the type of studies the WIPO promotes. The application of the WIPO-Guide to current policy seems limited.

Firstly, the studies fail to address the challenges faced by policy makers and fail to identify the corresponding policy measures. Without a doubt, the policy debate is not whether copyright should exist. Even if that were the case, the WIPO measurements would hardly contribute to such ‘what if’ analysis. It was argued in this essay that only a fraction of the economic contribution reported in the WIPO-Guide is truly dependent on copyright. To some extent, the endeavour to introduce various factors country specific factors to include only certain fractions of industries delivers a false sense of accuracy, as long as these factors do not reflect a ‘what if’ scenario. Rather such factors should be kept constant over time and between countries to allow for comparison of outcomes, which is claimed to be the primary use of the WIPO methodology.

The lack of a ‘what if’ analysis weakens the claim that copyright protection contributes to economic growth.⁸ Secondly, creators use other creators’ works and the cost of creating may increase in the extent of copyright protection. The WIPO-Guide ignores this fundamental determinant of creative production: the ability to remix others’ works. It is therefore unclear to what extent the reported industries benefit from a stringent or permissive copyright. Thirdly, the appeals made for copyright ignore the trade-off between content creation and content dissemination, both to consumers and to other industries. Stringent copyright protection comes at the cost of reduced consumption of goods and may be suboptimal from a welfare perspective. The numbers reported in a WIPO study do not shed light on this trade-off. It remains unclear whether a more desirable balance between creation and dissemination can be achieved with a stricter or more permissive copyright.

The observations made in this essay give rise to a number of recommendations for future economic analysis of copyright. Such an analysis should take a policy problem as a starting point. The European Commission has identified a number of problems. The dissemination by libraries and training and research institutes is high on Europe’s agenda, as are exceptions for the visually impaired (European Commission, 2008). The design of limitations and exceptions to copyright is therefore an issue worth analyzing. The set of policy variables would include various degrees of scope and breadth of the exception. If a policy measure has been indentified, the next step is to identify the effects of the “project” on the different actors in society. This paper has suggested

⁸ Akker et al. (2010) demonstrated that a given industry (e.g.: artistic and literary creation and interpretation) may benefit both from protection of copyright and from the exceptions and limitations to copyright. The measurement of economic activities does therefore not answer the question what a hypothetical world without limitations and exceptions would look like.

the use of economic impact analysis, partial equilibrium modeling and cost-benefit analysis. With that toolbox, a ‘what if’ analysis can be provided: how would the quantity of creative works change if the exception were introduced? How would consumer prices change? How would the volume consumed change? Which actors would gain, and which actors would lose? How would overall welfare change? Answering these questions will bring the policy debate forward.

The measurement advocated by the WIPO does not contribute much to the policy agenda for copyright and it provides limited insights on how copyright protection impacts on economic performance. This paper has suggested a more fruitful type of economic analysis. Statistical offices have however raised the issue of poor data availability for the creative industries, and it is for this purpose that continuing harmonized data collection is beneficial.

Literature

Akerlof, G. A., Hahn, R. and R. E. Litan (2002). The Copyright Term Extension Act of 1998: An Economic Analysis. *AEI-Brookings Joint Center for Regulatory Studies* Brief 02-1 May 2002.

Akker, I., Noll, R. van der, Poort, J. & Tewes, F. (2010). *Economic contribution of EU industries relying on exceptions and limitations to copyright*. (SEO-rapport, 2010-30). Amsterdam: SEO Economisch Onderzoek.

Besen, S. M. and Raskind, L. J. (1991). An Introduction to the Law and Economics of Intellectual Property. *The Journal of Economic Perspectives*, 5(1) Winter 1991, pp. 3-27.

Cohen, S. I. (2001). *Microeconomic Policy*. London: Routledge.

European Commission (2008). Green Paper: Copyright in the Knowledge Economy. <http://ec.europa.eu/internal_market/copyright/docs/copyright-info/greenpaper_en.pdf>.

European Commission (2009). Communication from the Commission: Copyright in the Knowledge Economy. (19 October 2009).

Florida, R. (2002). *The Rise of the Creative Class. And How It's Transforming Work, Leisure, Community and Everyday Life*. Basic Books.

Landes, W. M. and Posner, R. A. (1989). An Economic Analysis of Copyright Law. *The Journal of Legal Studies*, 18(2) June 1989, pp. 325-363.

LECG (2007). The economics of copyright term extension. 29 May 2007, <<http://www.ifpi.org/content/library/legc-study.pdf>>.

Leenheer, J., Bremer, S. & Theeuwes, J. (2008). De economische omvang van het auteursrecht in Nederland. (SEO-rapport, 2008-60). Amsterdam: SEO Economisch Onderzoek.

Miceli, T. J. and Adelstein, R. P. (2006). An economic model of fair use. *Information Economics and Policy*, 2006(18), pp. 359-373.

Rogers, T., Szamoszegi, A. (2010). Fair use in the U.S. economy. Economic contribution of Industries relying on Fair Use. *Prepared for the Computer & Communications Industry Association*.

Siwek, Stephen E. (2004). The Economic Contribution of Copyright-Based Industries in USA, the 2004 Report. World Intellectual Property Organization, *Creative Industries Series No. 1*, p. 209.

Van Eijk, N., J. Poort & P. Rutten (2010). Legal, Economic and Cultural Aspects of File Sharing. *Communications & Strategies* 77 1st Q. 2010, p. 35.

World Intellectual Property Organization (2003). Guide on Surveying the Economic Contribution of the Copyright-based Industries. Geneva: 2003.



seo economisch onderzoek

Roetersstraat 29 . 1018 WB Amsterdam . T (+31) 20 525 16 30 . F (+31) 20 525 16 86 . www.seo.nl