Economic functions of collecting societies –

Collective rights management in the light of transaction cost- and information economics*

*Gerd Hansen*** and *Albrecht Schmidt-Bischoffshausen****

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Structure:

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** PhD-Student and Scholarship Holder at the Max Planck Institute for Intellectual Property, Competition and Tax Law, Munich.

*** PhD-Student and Scholarship Holder at the Max Planck Institute for Intellectual Property, Competition and Tax Law, Munich; LL.M (Dresden/ Exeter).

I. Introduction

Copyright collecting societies fulfil – along with significant cultural as well as social functions[1] - most importantly economic functions. They safeguard the economic participation in the utilisation of the work for the benefit of the authors and right-holders respectively, when rights management is practically not feasible for the individual person, and the transaction costs[2] that would accrue by individual rights management are prohibitively high. At the same time, they seek – from a user's perspective – to facilitate the access to licenses, by reducing in particular the search- and information costs (ideally by the creation of central contact points).

These economic grounds of justification for the existence of collecting societies[3] are increasingly exposed to considerable criticism. Not only proponents of the exploitation industry question the central justification of existence (at least from an economic point of view) of a legally defined system of copyright collecting societies, that is the reduction of transaction costs by the collective rights management. Inspired by the new technological possibilities, many perceive the future to be in a possibly more efficient coordination form: individual rights management by way of digital rights management (DRM).

Therefore the question arises whether the improved individual reduction of transaction costs by way of DRM finally renders collecting societies superfluous from an economic point of view. Which tasks persist for collecting societies equally in the digital era from an economic point of view? Which challenges must they face for their continuity? These questions are to be examined methodologically in the context of this contribution, by using transaction cost economics and information economics. A particular difficulty for the evaluation of consequences necessary for this purpose certainly consists in the fact that the technological development is subject to rapid change. In order to be able to conclusively evaluate the impacts of DRM-systems on the economic functions of collective rights management, a thorough examination of which actual possibilities technology offers at all at present for the recording and invoicing of uses, and in future may do so with which degree of reliability. In the context available here this question cannot be answered conclusively[4]. At this point merely probable scenarios of technological evolution can be highlighted and the underlying hypotheses on the DRM-induced market evolution be disclosed.

The contribution concludes with fundamental statements about the extent to which collective rights management will also be furthermore considered in the digital era from an economic perspective, and how the system of collecting societies should be designed in order to fulfil its economic functions.

II. Economic functions of copyright law

Since the answer to the question regarding the collecting societies' economic functions depends significantly on the economic functions one attributes to copyright law itself, before examining the economic functions of collecting societies it must be disclosed, which economic model for explanation will be considered for copyright law[5].

This is due to the mere fact that the approval or the rejection of entitlements to remunerations subject to being charged indirectly by collecting societies decides in copyright law about the existence or non-existence of a task to be taken on by collecting societies. Generally speaking one can say the close symbiotic relationship between copyright law and the collective management of license fees and levies cannot be emphasised often enough, because only by doing so can the understanding for the specific problems of this complex subject matter be encouraged[6].

To the same extent as the instrument for analysis in the form of new institutional economics is made useful for the explanation of the collecting societies' economic functions, transaction cost economics as well as information economics equally constitute here the underlying model for explaining copyright law's economic functions. The purely market-based, neoclassical property-rights theory, which seeks to largely avoid state intervention by solely confiding in the market mechanism (and thereby rather rejects uses of works without

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[1] See on this point – and on the function of collecting societies in the context of the general reconciliation of interests to be effected via copyright law notably the contribution by von Lewinski in this volume; **NOTE**: references to "other chapters in this volume" are due to the fact that this contribution is to be published in an anthology edited by the Max Planck Institute for Intellectual Property, Competition and Tax Law by the end of this year.

[2] Transaction costs are the costs, which accrue in the utilisation of a market. According to the chronological phases of a market transaction, one can differentiate four categories of transaction costs: 1. search- and information costs, 2. bargaining costs, 3. enforcement costs, 4. adjustment costs. There will be a more thorough discussion of the concept, typology and the measurability of transaction costs in IV.1-2.

[3] On the concept and somewhat disputed term of "collecting societies", see in this volume the contribution by *Schlatter* in the chapter „Collecting societies – status quo".

[4] Wholly irrespective of this, one faces the limits of empirical ascertainability, when answering this question, not at last because of the dynamics of technical evolution.

[5] The following explanations in this contribution are hereby restricted to copyright law in the stricter sense and focus especially on the domain of the exploitation of music. The rights of the performing artists and the record producers (and thereby also their collective protection) are hereby not further elaborated. The statements on the economic functions of collecting societies however can be largely generalised. Even if the German law is drawn on as a reference model in a few passages, the subsequent explanations are to be looked upon as detached from national German law.

[6] See on the comparison between copyright law (in the stricter sense) and the right of collecting societies only the contribution of *Dietz* in this volume.

prior consent that are subject to subsequent compensation, so-called "liability rules"[7]), is decidedly rejected by the authors[8]. The arguments in favour of copyright law in the various copyright law systems beyond this economic justification are to be consciously suppressed at this stage. By doing so, one largely foregoes a juxtaposition of the continental-European *droit d'auteur* tradition on the one hand, where the granting of copyright protection is justified from a natural law, labour-theoretical and personalistic point of view, and the Anglo-American copyright tradition based on utilitarian aspects on the other hand. The mentioned differentiation shall be considered for the present contribution merely insofar as it crystallises inbuilt specificities with regard to the only interesting question in this context about the economic functions of collecting societies, and as the case may be, leads to respectively different results[9]. Through the focus on the economic functions of copyright law (copyright collecting societies respectively) applicable across all systems, one ultimately seeks to avoid, that the diverging conceptions of systems become an obstacle for the international understanding on the necessary rapprochement in matters relating to the collective management of rights. Not later than at the discussion on the cultural and social functions of collecting societies will the conflict of systems between continental-European and Anglo-American copyright law conceptions inevitably erupt in full swing – so one must fear. The linkage to generalisable economic functions offers however at least for the core activity area of collecting societies the opportunity, to seek the future of collective rights management beyond this paradigm contrast, all too often overstretched.

III. Collective rights management as a subject of economic analysis

The question regarding the economic functions of collecting societies constitutes the question regarding their economic purpose, thus the reasons for their genesis and the role they play in economic life. Before transaction cost economics and information economics can be drawn on for the economic explanation and analysis of the phenomenon "copyright collecting societies", an outline of the range of those works which have dealt explicitly (from an economic point of view) with collective rights management is to be presented[10] and the interest of the findings of this contribution be defined more closely as opposed to the aforementioned.

The considerable economic relevance of collective rights management is at first sight disproportionate to the relatively sparse economic-theoretic preoccupation with said topic up till now. This is particularly true if one makes oneself aware of the density and confusing number of studies in law and economics in general[11]. Deserving exceptions, such as for example the profound study by *Bing*[12], though only based on the German system, insofar confirm the rule. The reasons for this disproportion are to be seen in the facts, that on the one hand, collecting societies in the US, "home country of economic analysis" do not have the same status by far in comparison with France or Germany, and that on the other hand, the reception of the economic analysis of law in Europe particularly in the domain of copyright law began comparatively hesitantly. The latter applies namely to Germany[13]. At the same time, law and economics can be rendered useful for a number of questions relating to collective rights management[14]. Their analytical instruments promise findings

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[7] On the concept of „liability rule" as opposed to "property rule", see the fundamental analysis by *Calabresi*/ *Melamed*, Property Rules, Liability Rules, and Inalienability: One View of the Cathedral, 85 Harv.L.Rev. 1089, 1105 (1972) (in the following cited as: *Calabresi* & *Melamed*, 85 Harv.L.Rev. (1976)).

[8] The proponents of the neo-classical property-rights approach include in the domain of copyright law for example *Easterbrook*, Cyberspace versus Property Law?, 4 Tex.Rev.L.& Pol. 103, 111 et seq. (1999): "Create property rights, where now there are none (…) to make bargains possible."; *Easterbrook*, Contract and Copyright, 42 Houston L.Rev. 953, 961 et seq., 971 (2005); in parts *Goldstein*, Copyright's Highway. From Gutenberg to the Celestial Jukebox, New York 1994, p. 178 et seq., 218, 236; *Merges*, Of Property Rules, Coase and Intellectual Property, 94 Colum.L.Rev. 2655, 2656 (1994); *Merges*, The end of friction? Property Rights and Contract in the "Newtonian" World of Online Commerce, 12 Berkeley Tech. L.J. 115, 131 (1997).

[9] The differentiation become relevant for example for the question, whether one approves of an individual, utilisation-conform distribution of the remuneration, or whether one counters such an allocation with culture- and socio-political allocation considerations.

[10] This is by no means exhaustive.

[11] A general outline is provided for example by *Cooter* & *Ulen*, Law and Economics, 4th ed, Boston/ Munich et al. (2004) (in the following cited as: *Cooter* & *Ulen*, Law and Economics); *Friedman*, Law's order – What economics has to do with law and why it matters, Princeton (2000); for civil law: *Schäfer* & *Ott*, Lehrbuch der ökonomischen Analyse des Zivilrechts, 4th ed., Berlin et al. (2005); an overview for the domain of copyright law is provided by *Benkler*, Intellectual Property and the Organisation of Information Production, 22 International Review of Law and Economics 81, 82 et seq. (2002); *Handke* & *Stepan* & *Towse*, Development of the Economics of copyright, in: *Drexl* (ed.), Handbook on Intellectual Property and Competition Law, Cheltenham (soon to be published); *Landes* & *Posner*, The economic structure of intellectual property law, Cambridge (Mass.)/ London (2003); *Watt*, Copyright and Economic Theory – Friends or Foes?, Cheltenham/Northampton (2000) (in the following cited as: *Watt*, Copyright and Economic Theory). See also the extremely useful bibliography by the Society for Economic Research on Copyright Issues (SERCI), recallable on <http://www.serci.org/biblio.html>.

[12] *Bing*, Die Verwertung von Urheberrechten. Eine ökonomische Analyse unter besonderer Berücksichtigung der Lizenzvergabe durch Verwertungsgesellschaften, Berlin (2002), in the follwowing cited as: *Bing*, Die Verwertung von Urheberrechten.

[13] See for example *Peukert*, Der Schutzbereich des Urheberrechts und das Werk als öffentliches Gut, in: *Hilty* & *Peukert* (eds.), Interessenausgleich im Urheberrecht, p. 11, 12 (2004), who gives an impression of to what extent the economic analysis of law has played for a long time only a subordinate role in contributions on copyright law. See also the studies by *Bechtold*, Vom Urheber- zum Informationsrecht. Implikationen des Digital Rights Managements, Munich (2002), p. 282 et seq.; *Bing*, Die Verwertung von Urheberrechten; Reich, Die ökonomische Analyse des Urheberrechts in der Informationsgesellschaft, Munich (2003); *Haller*, Urheberrechtsschutz in der Musikindustrie. Eine ökonomische Analyse, Cologne (2005); see also the following references.

[14] See a good overview of the economic implications of collective rights management provided by *Towse* & *Handke*, Economics of Copyright Collecting Societies – Report commissioned by the SGAE (soon to be published).

for such different questions as those pertaining to the principal requirement and profitability respectively of collective management by collecting societies (see subsequently)[15], their efficient set-up as regards the definition of tariffs[16] and distribution of revenues[17], both their internal[18] and external control and thereby generally speaking the extent and risks of state regulation in this domain[19].

The interest of the present contribution in terms of findings centres on the substructurally based question on the economic functions of collecting societies as such. The reduction of transaction costs, the central argument for the profitability of collective rights management is instead to be analysed in more detail on the basis of different kinds of transaction costs, and a comparison with the reduction of transaction costs by way of DRM-systems to be carried out in particular. Whilst most studies examine in this domain the profitability of collective rights management predominantly from the licensor's point of view, thus the author and right-holder respectively, particular attention should be paid here to the search- and information costs for licensees, reduced by way of collective rights management. The preoccupation with said costs promises to be rewarding, because it must be assumed that the significance of these special transaction costs will still considerably increase in future, especially in the digital realm.

IV. Collective rights management in the light of transaction cost economics

In order to highlight the economic functions of collecting societies, one must in the first instance resort to transaction cost economics. For that purpose, one must initially define and critically appreciate the theoretical basics of the transaction cost approach as well as the concept of transaction costs together with their typology and measurability. Subsequently the transaction cost approach will be applied in detail to the collective management of copyright law related entitlements, in order to facilitate a discussion of the economic functions of collecting societies in the digital realm.

1. The transaction cost approach

One cannot talk about transaction costs without mentioning Nobel price winner *Ronald H. Coase*. It was him who directed the attention of (economic) sciences to the significance of transaction costs. With his two groundbreaking essays "The Nature of the Firm" in 1937[20] and "The Problem of Social Cost" from1960[21], he laid the foundation for the transaction cost approach, which was then significantly developed further by *Williamson*[22] as a section of the new institutional economics[23]. According to the Coase theorem, one must assume that on the basis of missing transaction costs, private negotiations will lead to a more efficient allocation of resources than state interventions. For the initiation of private negotiations the granting of

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[15] Quite early on this issue for example *Hollander*, Market Structure and Performance in Intellectual Property, 2 International Journal of Industrial Organisation 199 et seq. (1984), who examines, to what extent an increase of authors' income stemming from collective rights management vis-à-vis the income resulting of individual management creates an additional incentive for the production of new works; *Smith*, Collective Administration of Copyright: An Economic Analysis, in: *Palmer* & *Zerbie* (eds.), Research in Law and Economics, Vol. 8, p. 137 et seq. (1986); *Besen* et al., An Economic Analysis of Copyright Collectives, 78 Virginia Law Review 383, 390 (1992), who identify two reasons for collective rights management: "cost savings from collective administration and the acquisition of market power through cooperative price-setting"; *Merges*, Contracting into Liability Rules: Intellectual Property Rights and Collective Rights Organisations, 84 California Law Review 1293, 1296 and 1302 et seq. (1996): "property rule entitlements drive IPR holders in high transaction industries into repeat-play bargaining which leads to the formation of CROs" (note by the authors: CROs stands for "Collective Rights Organisations"); *Watt*, Copyright and Economic Theory, p. 161 et seq.

[16] *Albach*, Zur Tarifgestaltung für urheberrechtlich geschützte Darbietungen, in: *ibid* (ed.), Organisation. Mikroökonomische Theorie und ihre Anwendungen, Wiesbaden, p. 239 et seq. (1989), deals for example with the basics of the fixing of remuneration. On the setting of tariffs see also *Besen* & *Kirby*, Compensating Creators of Intellectual Property. Collectives that collect. RAND Report No. R-3751-MF, p. 3 et seq. (1989) (with a discussion of individual tariffs vis-à-vis blanket licenses).

[17] On this point see *Tietzel* & *Weber*, Urheberrechte im Zeitalter der Fotokopie. Zur Ökonomik von Verwertungsgesellschaften am Beispiel der VG Wort, in: *Ott* & *Schäfer* (eds.), Ökonomische Analyse der rechtlichen Organisation von Innovationen, p. 128, 132 et seq. (1994) critically on the consolidations into a lump sum-not reflecting the exact intensity of uses of works and of remunerations, which lead to a distortion at the charge of the authors at the allocation of income. See also *Besen* & *Kirby*, Compensating Creators of Intellectual Property. Collectives that collect, RAND Report No. R-3751-MF, p. 9 (1989).

[18] *Bing*, Die Verwertung von Urheberrechten, p. 205 et seq. (applying the principal-agent approach); similar approach also *Tietzel* & *Weber*, Urheberrechte im Zeitalter der Fotokopie. Zur Ökonomik von Verwertungsgesellschaften am Beispiel der VG Wort, in: *Ott* & *Schäfer* (eds.), Ökonomische Analyse der rechtlichen Organisation von Innovationen, p. 128, 135 to 138; *Rochelandet*, Are copyright collecting societies efficient organisations? An evaluation of collective administration of copyright in Europe, in: *Gordon* & *Watt* (eds.), The Economics of Copyright – Developments in Research and Analysis, p. 176 et seq. (2003).

[19] *Besen* et al., An Economic Analysis of Copyright Collectives, 78 Virginia Law Review 383, 395 et seq. (1992); *Bing*, Die Verwertung von Urheberrechten, p. 224 et seq. with many further references also to p. 35; *Merges*, Contracting into Liability Rules: Intellectual Property Rights and Collective Rights Organisations, 84 California Law Review 1293 (1996); *Watt*, Copyright and Economic Theory, p. 190 et seq.; generally on the necessary regulation because of the copyright collecting societies' market power: *Fujitani*, Controlling the Market Power of Performing Rights Societies: an Administrative Substitute for Antitrust Regulation, 72 California Law Review 103 et seq. (1984); as well as *Smith*, Collective Administration of Copyright: An Economic Analysis, 8 Research in Law and Economics 137 et seq. (1986). The problematic of external state control (foundation control, continuous state control through supervisory bodies, competition-policy regulation etc.) is delved into in other contributions in this volume. With many further references *Bing*, Die Verwertung von Urheberrechten, p. 35.

[20] *Coase*, The Nature of the Firm, 4 Economica 386 et seq. (1937).

[21] *Coase*, The Problem of Social Cost, 3 Journal of Law and Economics 1 et seq. (1960).

[22] As such *Williamson*, Transaction- Cost Economics: The Governance of Contractual Relations, 22 Journal of Law and Economics 233 et seq. (1979) and *Williamson*, Transaktionskostenökonomik, Münster/ Hamburg (1993).

[23] On this point see *Coase*, The New Institutional Economics, 88 The American Economic Review 72 (1998).

property rights is therefore necessary; in doing so it is irrelevant how and who is originally attributed said rights, because through the conclusion of contracts and in the absence of transaction costs[24], an optimal allocation of resources would ensue anyway[25].

The transaction cost theory focuses on the circumstance that in a real world with any kind of transactions, costs will accrue. *Coase* describes the concept of a transaction as follows: "in order to carry out a market transaction it is necessary to discover who it is that one wishes to deal with, to inform people that one wishes to deal and on what terms, to conduct negotiations leading up to bargain, to draw up the contract, to undertake the inspection needed to make sure that the terms of the contract are being observed and so on. These operations are often extremely costly, sufficiently costly at any rate to prevent many transactions that would be carried out in a world in which the pricing system worked without cost."[26]

If in other words therefore costs accruing in a transaction exceed the utility of a transaction, then this transaction by a *homo oeconomicus* behaving in a rational and utility-maximising way, will not be carried out, though both sides would profit as such to a certain extent. Potential cooperation profits would in this case not be realised, due to prohibitively high transaction costs[27]. The level of the respective transaction costs is therefore crucial for the degree of individual achievement of objectives by the participants, as well as for the efficiency of the market for legal positions in general[28]. Transaction cost economics therefore take the existence of transactions as a starting point to seek efficient coordination mechanisms for their reduction[29]. The approach attempts to optimise the market efficiency for legal positions by facilitating market transactions, by way of searching for the most efficient institutional arrangement for the minimisation of transaction costs[30]. Objective of transaction cost economics rendered useful for collective rights management is therefore the identification of that arrangement with minimal transaction costs and thereby guaranteeing a preferably efficient access to licenses as well as the highest possible economic participation in the use of works by authors and right-holders. The decisive question of transaction cost economics therefore goes: how can one best correct inefficiency of the use and diffusion of (artificially depleted) intellectual resources, triggered by the existence of transaction costs? By individual – eventually DRM-based – or rather by collective rights management? Before the transaction cost approach is subsequently applied to the collective management of licenses and legal claims for remuneration, in first instance one ought to discuss the notion, typology and measurability of transaction costs.

2. Notion, typology and measurability of transaction costs

Transaction costs are costs which accrue in the use of a market[31]. Following the chronologically subsequent phases of a market transaction, four categories of transactions can be differentiated[32]:

Search- and information costs are those costs, which accrue in the soliciting of a potential contracting partner. The latter has to be tracked down, information about him and his conditions are to be supplied and processed. Through the time involved for the search alone costs accrue, just as for the subsequent establishment of contact (e.g costs for the use of the Internet and/ or telephone). Conversely, others have to be informed, that one is ready for the conclusion of a contract (e.g. Advertising expenditure or for the creation of a website or a download platform)[33]. Information costs play a big role especially for the problem dealt with in this contribution pertaining to the economic operating mode of collecting societies. Information costs at the charge of authors and right-holders respectively equally include costs, which accrue when detecting "illegal", i.e. copyright violating uses. The identification of the respective users is ultimately the prerequisite in order to be able to grant licenses and claim compensations[34]. In addition, licensors must

[24] *Coase* was aware of the fact that in the case of existing transaction costs the primary attribution was certainly most arguably of significance, *Merges*, 84 California Law Review 1293, 1302 (1996).

[25] Hereunto and on the applicability of the Coase theorem to the economic analysis of copyright law, see *Reich*, Die ökonomische Analyse des Urheberrechts in der Informationsgesellschaft, Munich (2003), Chapter 1. A.II.1.a).

[26] *Coase*, The Problem of Social Cost, 3 Journal of Law and Economics 1, 15 (1960).

[27] *Eidenmüller*, Effizienz als Rechtsprinzip. Möglichkeiten und Grenzen der ökonomischen Analyse des Rechts, 3rd ed., p. 64 (2005) (in the following cited as: *Eidenmüller*, Effizienz als Rechtsprinzip).

[28] *Bing*, Die Verwertung von Urheberrechten, p. 122.

[29] See *Drexl*, Die wirtschaftliche Selbstbestimmung des Verbrauchers. Eine Studie zum Privat- und Wirtschaftsrecht unter Berücksichtigung gemeinschaftsrechtlicher Bezüge, p. 188 (1998).

[30] *Eidenmüller*, Effizienz als Rechtsprinzip, p. 64; *Bing*, Die Verwertung von Urheberrechten, p. 124: „Da sowohl gesamtwirtschaftlich als auch individuell ein geringer Transaktionsaufwand vorteilhaft ist, ist Ziel des Transaktionsansatzes ein Kostenvergleich alternativer Koordinationsformen".

[31] Alongside these market transaction costs, there exist also company/business transaction costs and the costs, accruing in the „establishment, maintenance and change of the formal or informal political order of a system" („political transaction costs"), see *Richter* & *Furubotn*, Neue Institutionenökonomik, Tübingen, 3rd. ed., p. 53 et seq. (2003) (in the following cited as: *Richter* & *Furubotn*, Neue Institutionenökonomik); Generally on the notion of transaction costs also *Bing*, Die Verwertung von Urheberrechten, p. 116 et seq.; *Cooter* & *Ulen*, Law and Economics, p. 91 et seq.; fundamentally *Coase*, The Problem of Social Cost, 3 Journal of Law and Economics 1, 15 (1960).

[32] Cf. *Cooter* & *Ulen*, Law & Economics, p. 91 et seq.

[33] *Coase*, The Problem of Social Cost, 3 Journal of Law and Economics 1, 15 (1960).

[34] One can classify these costs also already as exemption/exclusion costs. These are costs which partially precede the transaction, which accrue for example in the specification, allocation and value-maintaining implementation of copyright law. This equally includes monitoring- and supervision costs, which have to be spent as to deter third parties from unauthorisedly using copyrighted works. See

particularly in the case of primary exploitations be able to find appropriate licensees[35]. In the case of the far more relevant secondary exploitation for collective rights management, it is on the contrary often the potential licensee, who is already aware of a defined published work, and therefore is assigned the active role of soliciting the right-holder who remains to be identified[36]. Especially when an author is hardly known, licensees can be confronted with enormous search- and information costs. One will have to deal with this problematic at a later stage.

When the contracting partner has been found, costs accrue again for the negotiation and the conclusion of the contract (*bargaining- and decision costs*). This procedure does not only require time, it can in case of doubt equally necessitate legal and frequently cost-intensive advice[37]. When a contract has been concluded once and for all, its compliance must be monitored and eventually be legally implemented (*enforcement costs*). Especially in the case of longer term contracts, after a certain amount of time unforeseen need for review may occur (*adjustment costs*). In the copyright law context one has to namely consider that the originally agreed license fee is ostentatiously disproportionate to the proceeds and advantages, which the licensee draws from the use of a work. In the case of an unexpectedly successful exploitation of a work will the licensor seek to participate in the commercial success by way of a retroactive contract amendment[38]. All the mentioned costs can, depending on their amount, obstruct or even circumvent possible transactions[39].

In order to evaluate the respective level of transactions costs, *Williamson* has introduced three specific and empirically ascertainable criteria: the frequency with which the transactions recur, extent and type of uncertainty, which are to be dealt with in a transaction, as well as the level of the transaction-specific investment ("asset specificity")[40]. The frequency of transactions has an impact on the duration of time, in which the investment in a certain coordination form is amortised. The more rarely transactions (for example via a collecting society) are handled, the longer proves to be the amortisation period of the chosen coordination form. The perception and overcoming of uncertainty has equally an impact on the level of transactions costs. The uncertainty can result from the incomplete information situation as regards the subject matter of the contract or the potential contractual partner. Said uncertainty increases the larger the respective market is and the more dynamic the legal, economic and last but not least the technical context[41] is, in which a transaction takes place[42]. In order to overcome this manifold uncertainty, monitoring & control-, information-, bargaining- and decisions costs may accrue. "Transaction-specific costs" finally are those costs, which accrue merely through and for one defined transaction[43].

3. Critical assessment of the transaction cost approach

One may make different objections as regards the transaction cost approach. One of its weaknesses certainly is its limited operationability. As such, hardly any reliable statement can be made *ex ante* about the foreseeable transaction cost level of that coordination form, which so far had not been chosen as a means of minimising transaction costs and which can therefore not be examined empirically[44]. The cost comparison of alternative coordination forms strived for by transaction cost economics for the reduction of transaction costs is thereby decisively reduced.

Another conceptual weakness of the transaction cost approach consists in the fact that it concentrates solely on the transactions between (potential) contractual partners. Impacts of these respective bilateral interactions on third parties remain equally unconsidered as do external factors, which influence the respective transaction and their organisation. In other words: both positive and negative effects of private

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Bing, Die Verwertung von Urheberrechten, p. 116, 113 et seq., as well as expenses on determent measures (one may think here for example of anti-piracy campaigns by the music- and film industry, thereby wishing to appeal to the sense of injustice of potential users).

[35] *Bing*, Die Verwertung von Urheberrechten, p. 135, the unknown author for example must find a publisher, who will publish his work.

[36] *Bing*, Die Verwertung von Urheberrechten, p. 135.

[37] *Richter* & *Furubotn*, Neue Institutionenökonomik, p. 60.

[38] In practice, he will certainly succeed only in exceptional cases. In German law on copyright contracts, Section 32 a) German Copyright Law grants the author in these constellations however still – under certain circumstances – a mandatory claim for contract amendment, as to enable him to have an appropriate participation.

[39] This applies equally to adjustment costs, the more so when, if one can anticipate already *ex ante* a need to renegotiate, *Bing*, Die Verwertung von Urheberrechten, p. 137, Para 108; for example incalculable additional demands may possibly accrue as a result of a legal change of the law on copyright license contracts.

[40] *Williamson*, Transaction-Cost Economics: The Governance of Contractual Relations, 22 Journal of Law and Economics 233, 246 (1979); *Williamson*, The Economics of Organisation: The Transaction Cost Approach, 87 The American Journal of Sociology 548, 555 et seq. (1981); *Williamson*, Transaktionskostenökonomik, p. 12 et seq. (1993); *Bing*, Die Verwertung von Urheberrechten, p. 119 et seq.

[41] The technical framework as a decisive factor of the transaction amount is emphasised by *Picot* et al., Organisation, Eine ökonomische Perspektive, 4th ed., p. 62 (2005).

[42] Yet attention should be also paid to the dependency of the amount of transaction costs on the behaviour and the individual experiences of the players on the relevant markets: especially supervision- and enforcement costs will be all the more lower, the bigger the mutual confidence is and the more rights of disposal are tolerated in advance. In this case there exist relatively uniform conceptions regarding more fair and equitable solutions in conflict situations. See *Richter*, Institutionen ökonomisch analysiert, p. 9 (2004).

[43] *Bing*, Die Verwertung von Urheberrechten, p. 120, cites as an example the costs, which are caused through the negotiation of a contract for a special, one-off transaction.

[44] *Bing*, Die Verwertung von Urheberrechten, p. 119 and p. 130, emphasising in addition (p. 125), that the problem of quantifying anticipatory transaction costs intensifies in a dynamic context. One may simply think of the rapid technological change precisely in the domain of DRM-systems.

bargaining are not sufficiently taken into consideration; moreover, further cases of market failure[45] induced by the one-dimensional focussing of the transaction cost approach on the facilitation of market transactions are blended out. One has to mention at this point namely the negligence of the problems, which can arise from the existence of information asymmetries (for example in the relationship between licensor and licensee)[46] or the existence of market power[47].

Finally one has to criticise, that the approach insinuates that the relevant decision-makers would inevitably choose the coordination form that reduces the transaction costs in the most efficient manner. As regards the hypotheses about this selection process, possible information deficits of the parties involved and the limited rationality of their actions are neglected[48]. Especially in the case of state regulation of transaction costs[49], through which in turn new – and not to be underestimated – new intervention costs[50] accrue from a macroeconomic point of view, the decision-making process can be influenced additionally by meta-economic criteria. At this point, motives can – and should to a certain extent – have an effect, motives which are not merely geared to how the efficiency of the market can optimised for legal positions by the minimisation of transaction costs. It therefore seems obvious that transaction cost economics alone cannot give any exhaustive recommendations for action, neither for the definition of copyright law nor for the most advantageous coordination of collective rights management by collecting societies. The significance of transaction economics is insofar limited; their findings should at all times be appreciated with the reservation that meta-economic considerations can lead to a differing result.

Even though the transaction cost economics approach is not devoid of weaknesses, it should nonetheless be used for the analysis of the collecting societies' economic functions. Because transaction cost economics promise in any case gains in terms of findings, as to why the coordination form "collecting societies" exists at all. It can explain convincingly to what extent it can be advantageous for the individual author or right-holders respectively to process certain transactions collectively as well as generally for the efficiency of an economic system. Even if the volume of the different transactions can often not be quantified precisely, transaction cost economics allow, in comparison with defined forms of coordination, to at least make fundamental statements about their respective advantages and disadvantages[51]. The transaction cost approach insofar deepens the understanding for the economic and legal contexts of collective rights management and provides at the same time for the analytical framework, in order to subject the much discussed question regarding the remaining economic functions of collecting societies in the digital realm at least to an economic prognosis.

4. Reduction of transaction costs by collective rights management

Following the explications on transaction cost economics' theoretical bases, this approach is to be subsequently applied to the phenomenon of collective rights management by collecting societies.

a) Collective rights management in the face of prohibitively high transaction costs

The advocates of collective management of licenses and legally granted claims for remuneration postulate that an individual management by the individual authors and right-holders respectively is in many situations practically impossible, would overburden them or would simply not be lucrative[52]. In the face of the big number of uses, which are possible parallel (for example at the public performance or rendering of a musical piece), it is often practically impossible for the individual author to record every individual use of this work. The administrative burden for the recording of relevant uses and handling of payments bears no relation to the income, the more so as in the individual case, only a small licensing fee is to be expected[53]. The individual enforcement of his rights would simply not be lucrative for the author – at least in the traditional domain of analogue uses[54]. The transaction costs – i.e. the costs which the author – but also his potential

[45] Causes for market failure may be: the existence of monopolies, and as the case may be generally the existence of market power, the existence of external effects, public goods or information asymmetries, *Cooter & Ulen*, Law and Economics, p. 44 et seq.

[46] This aspect, which has been taken up by information economics, will be delved into in the course of this contribution.

[47] The last mentioned aspect is also criticised by *Bing*, Die Verwertung von Urheberrechten, p. 131 et seq.

[48] In more detail *Bing*, Die Verwertung von Urheberrechten, p. 130 et seq., who highlights in particular the risks of state intervention based on information problems.

[49] In the context of copyright law, transaction costs can be regulated by the State through copyright defined barriers, the obligatory specification of collective management of levies by a collecting society as well as generally through the State determination of a general regulation framework for collecting societies (obligation to contract).

[50] On these costs triggered by the amendment or creation of legal provision see *Eidenmüller*, Effizienz als Rechtsprinzip, p. 106 et seq., who cautions against the fact that prohibitively high transaction costs alone are not meant to indicate automatically State intervention – against the backdrop that not only the use of the market, but also the use of the government machine causes costs. The intervention costs ought in the context of a cost-benefit analysis to be always smaller than the use they cause.

[51] Cf. *Bing*, Die Verwertung von Urheberrechten, p. 132: „Even if the level of costs is not often ascertainable directly, it (the approach, remark by the authors) allows though to analyse the underlying problem and to make prototype predictions about the effects of certain measures".

[52] See *Besen* et al., An Economic Analysis of Copyright Collectives, 78 Virginia Law Review 383, 390 (1992).

[53] *Besen* et al., An Economic Analysis of Copyright Collectives, 78 Virignia Law Review 383 (1992); *Zapf*, Kollektive Wahrnehmung von Urheberrechten im Online-Bereich. Rechtliche Rahmenbedingungen für ein Tarifmodell zur Nutzung von Musik im Internet, p. 7 (2002).

[54] *Watt*, Copyright and Economic Theory, p. 161 et seq.; *Besen* et al., An Economic Analysis of Copyright Collectives, 78 Virginia Law Review 383, 390 (1992) correctly point out, that this applies only under the condition, that the damages to be obtained in the case of a discovered/exposed use must turn out less – in relation to the probability of this recording of uses – than the costs which accrue from the administration effort.

license agreement partner would have to spend on information, coordination and administration, in order to conclude and enforce a licensing agreement, would be prohibitively high. Licenses would subsequently not be granted and would hardly be obtainable, as the case may be. Unauthorised uses would ensue, without the author and right-holder respectively obtaining any remuneration. In other constellations, the author would miss out on legal claims for remuneration.
Collective rights management therefore unburdens the author and right-holder respectively in the enforcement of rights, and at the same time facilitates the access to licenses for the people willing to use copyrighted works. In the economic terminology, transaction costs are thus reduced through collective management, in order to increase the number of the transactions taking place[55].

b) Collective rights management in the face of "economies of scale" and "economies of scope"
On the basis of the rationale of the "economy of scale" and the "economy of scope", it may be explained that the precedingly drafted economic advantageousness of collective rights management applies by no means universally to all types of works and forms of uses likewise. In order to be able to apply these models of explanation to the granting of licenses by collecting societies, it seems logical to perceive the costs of licensing as the costs of producing licenses[56]. According to the rule of the "economy of scale" – equally known as the "law of mass production" – the costs per produced unit decrease beyond a certain "critical mass"[57] and an increasing production output, in the extreme case to the minimal value of the variable costs per unit[58]. As regards an "economy of scale", merely the fixed costs are degressive, but not the variable costs[59]. In spite of high fixed costs, which accrue for collecting societies when establishing and maintaining a big administrative machinery, they can insofar reduce their fixed administrative costs on average via the volume of "produced" transactions. This constitutes the advantage of a collective rights management vis-à-vis an individual one[60].
However, collecting societies do not obtain economies of scale as mentioned before for every kind of collective rights management – one must therefore differentiate: said economies of scale may notably be obtained for the management of "small rights", i.e. those rights which pertain to the mere recital or simple performance of a composition for instance. Something else in contrast applies to the management of the "big rights". This category encompasses for example the performance right in the case of an opera[61]. The "big rights" are traditionally enforced on an individual basis, i.e. by the authors and right-holders respectively[62]. In the case of "big rights", a license presents vis-à-vis the costs of licensing a particularly high value[63]. Because the granting and monitoring respectively of these rather specific and very few licenses (in terms of quantity) makes economies of scale a rather impossible prospect in default of large volumes; these rights are not managed collectively, but on an individual basis.
On the other hand, collecting societies, which realise and exploit bundles of rights respectively, can equally profit from synergies and economies of scope. According to the rules regarding the "economy of scope", the profitability of the "production of rights" may be increased via a supplementation or combination of the rights, which are to be managed. One may explain with this approach that collecting societies always realise several rights at once[64] within their field of activity. Through a combination of several exploited rights, collecting societies can profit from specialisation- and learning curve advantages[65]. The grouping of many different rights in a blanket license leads to economies of scope, because a big "selection" of to-be acquired licenses are particularly attractive for users.
In order to obtain positive economies of scale, authors and right-holders respectively as well as users will be at pains to entrust as many works as possible to as few collecting societies as possible and obtain small rights from as few collecting societies as possible. In order to profit from economies of scale, both authors and users have an interest in that the exploitation of rights leads to certain synergies, which are forwarded to

[55] *Besen* et al., An Economic Analysis of Copyright Collectives, 78 Virginia Law Review 383, 390 (1992); *Watt*, Copyright and Economic Theory, p. 161 et seq.
[56] Cf. *Bing*, Die Verwertung von Urheberrechten, p. 197.
[57] Cf. *Bing*, Die Verwertung von Urheberrechten, p. 183.
[58] *Altmann*, Volkswirtschaftslehre, p. 317, 6th ed. (2003); on the limits of so-called „diseconomies of scale, *Colander*, Microeconomics, p. 235 et seq., 6th ed. (2006).
[59] For example the marginal costs, which accrue respectively in the exploitation of a defined work for one user.
[60] *Drexl* speaks in this context of a so-called "network effect": Das Recht der Verwertungsgesellschaften in Deutschland nach Erlass der Kommissionsempfehlung über die kollektive Verwertung von Online-Musikrechten (*draft version*), p. 10.
[61] Insofar it is not only performed in different parts and the theoretical tenor of the complete works is discernable.
[62] On the differentiation between „small" and „big" rights in Germany *Karbaum*, Kleines Recht und Großes Recht- Kollektive und individuelle Wahrnehmung von Urheberrechten in der Musik, GEMA-Nachrichten (ed. 152), December 1995; this differentiation dates in Germany to agreements between the public broadcasting corporations and the GEMA from 1965, which is still in force with a few amendments down to the present day; on the phenomenon beyond Germany *Cohen Jehoram*, The Future of Collecting Societies, 23 E.I.P.R 134, 136 (2001).
[63] See *Bing*, Die Verwertung von Urheberrechten, p. 172.
[64] For example in the music domain, the right to perform a work, the broadcasting right, the right of public reproduction via visual- or sound recordings, the mechanical right of reproduction- and distribution, the right of production- and synchronisation in films and multimedia data carriers together with right of representation and also (to a certain extent) the right of making available to the public; on the example of the German GEMA, see *Rehbinder*, Urheberrecht, Para 882, 14th ed. (2006).
[65] See *Bing*, Die Verwertung von Urheberrechten, p. 197.

the collecting societies through a bundling of several kinds of rights. Whether collecting societies may be designated as natural monopolies[66] because of these economies of scale and scope seems questionable[67]. Other international experiences in the domain of music rather militate against this[68].

c) Reduction of transaction costs by collecting societies in detail

It is to be subsequently examined, how the different kinds of transaction costs in detail may be reduced by the collective management of rights. For this purpose, one will at this point equally keep the chronological subdivision, which differentiates between the costs of soliciting between persons willing to use copyrighted works and licensors (search- and information costs), the bargaining- and decision costs as well as the adjustment costs.

As such, the search- and information costs are reduced by the fact that people willing to use copyrighted works, the access to licenses is canalised and the clarification of rights accelerated by way of the creation of central contact and information points. In contrast, search- and information costs can be reduced as regards potential users. For authors and right-holders respectively, the search for people interested in using copyrighted works is completely superfluous, when they would as a result of an exclusive license to the advantage of copyright collecting societies, in any case no longer be able to directly grant licenses. In this case, the search of users (by addressing themselves to the collecting societies for example) substitutes the search for persons interested in using copyrighted works.

The bargaining costs, more precisely the time and costs spent on the negotiation of a licensing agreement are in the meantime reduced by the fact, that given contractual terms and tariff rates come into operation[69]. The bargaining costs are further reduced by an existing obligation to contract where applicable, thus either by an obligation to conclude a contract for collecting societies vis-à-vis potential licensees[70] or by an obligation to safeguard, imposed on the collecting societies vis-à-vis the authors[71]. The application of uniform conditions additionally confers upon all involved parties legal certainty[72], and ideally drops bargaining costs, which could accrue by way of claiming legal advice. Collecting societies achieve a further reduction of bargaining costs by the granting of so-called “blanket licenses”: users are allotted a “bundle” of rights, without there being the need to specify in detail which individual works of the whole repertoire are allowed to be used concretely[73]. The”blanket license” may be granted for a certain period of time, without the individual utilisation procedure becoming material to the determination of the user fee[74].

Enforcement costs are reduced through the recording of uses as well as the administrative facilitation of the handling of payments (namely both in the case of collecting and distributing the compensation)[75]. Especially in cases, where a user uses without having acquired a license or does not pay following the acquisition of a license – a situation which may surpass the individual author and also give rise to legal counselling costs – the professional collective rights management by a collecting society may alone on the basis of its repetitive specialised activity be able to reduce enforcement costs[76].

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[66] A natural monopoly distinguishes itself by the fact that a sole supplier can offer a good or as the case may be, a bundle of goods, on a relevant market at lower production costs than two or more suppliers (so-called sub-additive cost function)). See *Sharkey*, subject index “natural monopoly”, in: *Eatwell* (ed. et al.), The New Palgrave – A Dictionary of Economics, Vol. 3 (K-P), p. 603, 604 (1987).

[67] *Watt*, Copyright and Economic Theory, p. 164 et seq. (2000).

[68] See *Bing*, Die Verwertung von Urheberrechten, p. 198 et seq.; in the US, ASCAP and BMI compete within music copyright law with one another; alongside this, more smaller organisation operate in the domain of music licenses according to *Goldmann*, Die kollektive Wahrnehmung musikalischer Rechte in den USA und Deutschland. Eine vergleichende Studie zu Recht und Praxis der Verwertungsgesellschaften, p. 406 (2001) (in the following cited as *Goldmann*, Die kollektive Wahrnehmung musikalischer Rechte in den USA und Deutschland), with further references. See also the homepage of the “Copyright Board Canada” <http://cb-cda-gc.ca/societies/index-e.html> on the numerous collecting societies competing with one another in the music domain in Canada (last recalled on 11 June 2007); in the domain of mechanical reproduction rights, CRMRRA and SODRAC compete with one another.

[69] *Merges*, 84 Cal.L.Rev, 1293, 1295 (1996): „contract terms are predetermined. This either eliminates haggling, or reduces it substantially”.

[70] Such an obligation of the collecting society to grant everyone on demand licenses at adequate conditions, exists for example in Germany in line with Section 11 Para 1 Copyright Administration Act. French law for example does not know a corresponding provision, see *Sirriainen*, Das Recht der Verwertungsgesellschaften in Frankreich, in: *Hilty & Geiger (eds.),* Urheberrecht im deutsch-französischen Dialog – Impulse für eine europäische Rechtsharmonisierung, soon to appear in print (see right at the end of the contribution).

[71] See in Germany Section 6 Para 1 Copyright Administration Act.

[72] On the dependency of transaction costs on the degree of the mutual confidence of the parties involved *Richter*, Institutionen ökonomisch analysiert, p. 9 (1994); according to *Williamson*, as a mirror-image to the degree of mutual confidence the degree and kind of uncertainty which has to be coped with in a transaction is one out of three criteria to make transaction costs measurable, see above IV.2.

[73] See *Watt*, Copyright and Economic Theory, p. 191 (2000).

[74] Bargaining costs can reduced by way of the concept of „extended collective license“ (ECL), particularly prevalent in Scandinavian countries since the beginning of the 1960s, to the advantage of users. Standard conditions for certain uses of copyrighted contents agreed between the representative collecting societies and big user groups thus apply also to non-members of a copyright collecting society (extension effect). There exist in favour of “compulsorily” protected authors and right-holders respectively in part opt-out rules as an equalising mechanism. More in detail on the ECL *Koskinen-Olsson*, Collective Management in the Nordic Countries, in: *Gervais* (ed.), Collective Management of Copyright and Related Rights, Alphen aan de Rijn, p. 257, 264 et seq. (2006); *Olsson*, The Extended Collective License as Applied in the Nordic Countries, Lecture on the occasion of the 25th anniversary of Kopinor (20.05.2005), <http://kopinor.org/opphavsrett/artikler_og_foredrag> (last recalled on 11 June 2007).

[75] *Merges*, 84 Cal.L.Rev. 1293, 1295 (1996): „costs of record keeping, payment collection, and royalty disbursement“.

[76] The reduction of enforcement costs in favour of authors and right-holders respectively has to be emphasised because this fact can explain the genesis of collecting societies as of the middle of the 19th century, see only the small presentation in *Gervais*, The Evolving Role(s)

Should the adjustment of existing contractual relationships become necessary, collecting societies can, by drawing on experiences similarly reduce transaction costs in favour of authors and right-holders respectively, just as they already facilitate the conclusion of negotiations and contracts on the basis of their experience of repetitive activity[77].

The function of copyright collecting societies according to the transaction cost approach can be depicted particularly well from the user's perspective, taking the example of the production of a multimedia work, which consists of a multitude of independent copyrighted works. The person interested in using the aforementioned must in the first instance determine for each individual work, which types of economic rights could be affected. He would subsequently have to find out the individual authors and right-holders respectively (possibly worldwide), then clarify their willingness to license, in order to then negotiate the conditions of the required licenses. This constitutes a procedure, which due to the complexity of the legal situation would inevitably entail a very high input, in other words very large search- and information costs[78]. The search and information is all the more complex, the more different parts are meant to be used for a multimedia work. The accruing search- and information costs (as well as the bargaining- and decision costs) are meanwhile significantly reduced by central contact points, which facilitate the clarification of the rights (clearing houses) or more even through portals, which can directly grant licenses (one-stop-shops). Copyright collecting societies have reacted to the specific difficulties in the production of multimedia works, by establishing central contact- and information points. In 1996 for example, nine German collecting societies founded the "Clearingstelle Multimedia der Verwertungsgesellschaften von Urheber- und Leistungsschutzrechten GmbH (CMMV[79])". CMMV itself is merely an intermediary, which itself does not grant any licenses. Its most important task consists in providing information for persons willing to use, about who holds and as the case may be, manages the rights – in other words, it serves as an information broker. Users subsequently either enter into contact with the individual collecting societies, or they use works and pay the required licenses to the CMMV, which insofar acts as a collecting agent[80]. The collecting societies' efforts to react to digitalisation by establishing electronic administrative instruments can also conceptionally be designated as so-called "copyright management systems" (CMS). But their objective however is not only the diffusion of works online, but also the diffusion of information, which are necessary for a legal (online) use[81]. Once persons willing to use copyrighted works have identified authors and right-holders respectively, collecting societies reduce their bargaining- and decision costs, by no longer having to deal with a multitude of contractual partners[82].

d) Transaction costs in spite of and, as the case may be, because of collective rights management

The establishment of institutions for the collective management of rights is of course accompanied by costs. As such, the creation of administrative machinery necessary for this purpose gives rise to costs, which would not accrue in the case of an individual management of rights in this form. Beyond this, bargaining costs and costs pertaining to the conclusion of contracts do not decrease down to 0 as a result of tariffs; moreover, one has to possibly negotiate in the individual case which tariff is to be applied for a defined use.

Frictions losses additionally occur due to a certain default in standardised conditions for use and a fragmentation of the sector of copyright collecting societies.[83] The latter is first of all attributable to the fact that due to the territoriality principle, collecting societies are only competent for the granting of licenses within one country[84]. In addition to that, the tasks pertaining to the management of rights are distributed to several

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of Copyright Collectives, in: *Graber & Govoni* (eds. et. al.), Digital Rights Management: The End of Collecting Societies?, p. 27, 28 et seq. (2005) (in the following cited as *Gervais*).

[77] See in this context *Schricker*, German and Comparative Copyright law – Efforts for a Better Law on Copyright Contracts in Germany – A never-ending story?, 7 IIC 850, 857 et seq. (2004) on the question to what extent the claims from Section 32 a German Copyright Act (further participation of the authors, remuneration provision, which has substituted the previous "bestseller-provision") can be safeguarded by collecting societies. Prerequisite for this would be certainly that the authors "confer" upon the collecting societies their claims deriving from Section 32 a. *Schricker* ultimately expresses his concerns as to whether such a solution could be reconciled with the activity of collecting societies and whether the structure of their administration costs would justify the use of such resources for such individual claims; cf. also *Schulze*, in; *Dreier & Schulze*, UrhG – Kommentar, Section 32 a, Para 17, 2nd ed. (2006).

[78] *Bechtold*, Vom Urheber- zum Informationsrecht, p. 125 (2002); *Merges*, Contracting into Liability Rules: Intellectual Property Rights and Collective Rights Organisations, 84 California Law Review 1293, 1376 et seq. (1996).

[79] See <http://www.cmmv.de> (last recalled on 11 June 2006).

[80] Cf. *Bechtold*, Vom Urheber- zum Informationsrecht, p. 126, Para 645 (2002) on more One-Stop-Shops in Europe and internationally.

[81] *Meyer*, DRMS Do not Replace Collecting Societies (comment), in: *Graber & Govoni* (eds. et al.), Digital Rights Management: The End of Collecting Societies?, p. 61 (2005).

[82] Collecting societies can according to the logic of transaction cost economics somewhat outmatch the content industry in an additional point: the alternative of transaction cost reduction through vertical integration by the production of own creative contents or the creation of a big "in-house library", theoretically arising in particular for big companies on the part of the content industry, is precisely in the domain of creative work-creation hardly promising. Though it may cheaper for a (multimedia)-enterprise under certain circumstances, to contract own creative brains for the creation of an "in-house library". It is however unpredictable, if precisely their contents meet the large approval of consumers. Beyond that, the majority of consumers will arguably prefer "mainstream contents" to such (multimedia)-products, which stem from unknown "in-house" creative brains. See *Merges,* Contracting into Liability Rules: Intellectual Property Rights and Collective Rights Organisations, 84 California Law Review 1293, 1383 et seq. (1996).

[83] See also *Gervais*, p. 27.

[84] But cf. the Commission Recommendation of 18 October 2005 on collective cross-border management of copyright and related rights for legitimate online music services (2005/737/EC), especially the Recitals 7-9 and the chapter on that topic by *Drexl* in this volume.

competent collecting societies as regards different kinds of works and uses[85]. The use of a work though can particularly affect a multitude of (economic) rights, in the face of new digital forms of use: additional costs may accrue in the search for the respectively competent collecting society within one country and costs for the respective negotiation of conditions for use[86].

A system of collective rights management can ultimately reduce transaction costs only insofar, as it guarantees a certain transparency in favour of the authors and right-holders respectively, and particularly in favour of users. If the persons willing to use copyrighted works remain unclear about the conditions (and in particular costs) under which they are allowed to use works, or which collecting society manages defined rights, they are hardly capable of evaluating in their individual cost-benefit calculation, whether a legal use is more cost-effective than an illegal one. For users, it is more likely that that form of use will be interesting, which in any case causes subjectively the lowest costs. The legal use of copyright protected contents can therefore only in the form of a preferential course of action be added to an individual cost-benefit analysis, if the simple locating and understanding of conditions of use and tariffs is guaranteed. Oblique conditions, complicated structures and other obstacles, which are opposed to an intuitive use of the collecting societies' offer, can on the other hand generate new transaction costs.

5. Individual rights management: More efficient reduction of transaction costs by means of DRM?

It may well be that henceforth, the persistence of collecting societies is only to a minor degree economically justifiable. This could at least hold true if authors and right-holders respectively, by falling back upon DRM-systems (and business models based on these), may achieve their objectives just as well or even better compared to a system of collective rights management.

a) Individual recording and monitoring of uses by DRM

The notion "DRM" stands for a series of technical solutions, whose concrete economic and legal significance, depending on its efficiency, can widely differ. DRM-systems can quite generally be defined as electronic distribution systems for electronic contents[87]. They facilitate the controlled diffusion of digital contents via the Internet also by means of other digital media in the offline-section[88]. DRM-systems aim a bit more concretely at reinforcing the exclusive effect of copyright law in the digital realm[89]: they prevent and as the case may be, impede the unauthorised access to contents and unauthorised uses of works[90]. Alongside new possibilities of excluding users from contents, DRM-systems increasingly allow in particular to automatically register uses and invoice them. To the extent of their technical efficiency, DRM-systems make it possible for authors and right-holders respectively to control digitalised contents. Especially technical solutions, which make identification standards such as the "Digital Object Identifier" useful, merit attention: by way of DOI, works can be tagged in the Internet with a kind of ISBN-number. They thereby permanently ensure that they can be located, even if they wander off to another place in the Internet (labelled by the so-called "uniform resource locator" (URL)[91]. Even if they allow - at least in theory - a "pay per view" or as the case may be, a "pay per listen", i.e. a remuneration reflecting the exact value of the use, despite progressing technical evolution, it must not be lost out of sight, that the consistent technical barrier is not yet in sight; total control is an illusion[92].

The market model, which as a reference underlies the present contribution as regards the implementation of DRM-systems, constitutes an individual commercialisation and exploitation of works by authors and right-holders respectively. This model will presumably result in that on the supply side, people willing to use copyrighted works will be confronted with a multitude of individual suppliers and contact points, and that a

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[85] *Gervais*, p. 37 et seq.

[86] *Drexl* points out that the proposals made in the Commission Recommendation of 18 October 2005 (2005/737/EC) will predictably lead to comparably high (additional) search- and information costs. See on this aspect and on further flaws of the commission recommendation the contribution by *Drexl* in this volume, p. 10 et seq.; see beyond that also the European Parliament resolution of 13 March 2007 on the Commission Recommendation (2006/2008(INI)).

[87] *Bechtold*, Vom Urheber- zum Informationsrecht, p. 2 (2002).

[88] *Peukert,* DRM: Ende der kollektiven Vergütung?, sic! 748 (2004).

[89] On the concept and rationale of the legal protection against the circumvention of effective technological measures in German law which can be traced back to Art. 6 § 1 of the Directive on the harmonisation of certain aspects of copyright and related rights in the information society (2001/29/EC) of 22 May 2001 see *Götting* in: *Schricker* (ed.), Urheberrecht – Kommentar, 3rd ed, Munich, Vor §§ 95 a et seq., Para 11 et seq. (2006).

[90] *Dreier*, in: *Dreier* & *Schulze* (eds.), *UrhG – Kommentar*, Introduction, Para 24 with further references, 2nd ed. (2006).

[91] For more in detail on the technical impact of DOI <http://www.doi.org> (last recalled on 11 June 2007); in this context one must also mention the identification standard ISAN (International Standard Audiovisual Number), with which audiovisual works can be tagged in order to locate them more easily. See in more detail <http://www.isan.org> (last recalled on 11 June 2007).

[92] DRM-systems at present still come up against technical and other factual limits; one must mention for example the problems pertaining to the interoperability of different DRM-standards and problems of customer acceptance. See in more detail *Bechtold*, The Present and Future of Digital Rights Management – Musings on Emerging Legal Problems, in: *Becker* & *Buhse* (eds. et al.), Digital Rights management – Technological, Economic, Legal and Political Aspects (in the following cited as: *Bechtold*, The Present and Future of Digital Rights Management), p. 597, 617; *Fränkl* & *Karpf*, Digital Rights Management Systeme – Einführung, Technologien, Recht, Ökonomie und Marktanalyse, p. 193 (2004), in particular also on the problem of the so-called "analogue gap", p. 21 Para 19; to what extent "trusted computing" will possibly change this situation cannot be delved into at this stage. See in more detail, *Bechtold*, Trusted Computing: rechtliche Probleme einer entstehenden Technologie, Preprints of the Max-Planck Institute for Research on Collective Goods, on <http://www.coll.mpg.de/pdf_dat/2005_20online.pdf>.

more fragmented market in comparison to the analogue world thus emerges. Starting point of this hypothesis is that the individual author and holder of rights respectively will be keen on drawing on the biggest individual profit from the use of his work[93]. It is by all means probable, that economically successful authors and right-holders respectively in particular will thus be less willing in future, in the face of DRM-systems' technical possibilities, to accept cross-financing in favour of economically weaker authors in a system of collective management of rights to their disadvantage. The probable consequence is their leaving the traditional collecting societies and their re-organisation, marked by a certain degree of de-affiliation. In this context, it is important to crystallise that the concrete evaluation of the impacts of DRM-systems on the market structure depends on two variables[94]: if already some uncertainty exists as regards the technical evolution and reliability of DRM-systems, this must apply all the more to market models based on this, which are still in the process of development[95].

DRM-systems fundamentally allow a reduction of the variable transaction costs[96], especially in favour of authors and right-holders respectively: the provision of information pertaining to potential contractual partners and also the control of legal and particularly illegal uses is made a lot easier through technical solutions. DRM-systems also offer the individual author and holder of rights the (potential) possibility of standardising the desired transactions, which was only possible to a limited extent, prior to digitalisation. Data about users could be fed rather well into a private data base, conclusions of contracts at standardised conditions per mouse click can also substitute for the individual author and holder of rights respectively erstwhile costly and lengthy contract negotiations. DRM thereby permits to a certain extent price discriminations, because more persons interesting in using copyrighted works can pay the compensation that they are just about willing or able to raise, due to the differentiated pricing policy by authors and right-holders respectively[97]. The use of technology allows in addition an automated reaction to variations of supply and demand. It is also comparably easier in the digital realm to change individual parameters of the contents offered for a defined market[98]. In addition, the so-called "menu costs", i.e. the costs, which accrue through a price change, are regularly lower in the digital realm and therefore make the price discrimination here more economic in comparison to the analogue world.

b) DRM – the end of collecting societies?

At first sight, a few things seems to militate in favour of the fact that the use of DRM will reinforce the individual management of rights at a rate, where the collective management by copyright collecting societies could become in many areas a relic of the analogue era[99]. By way of technically effective DRM-systems, the distortions arising in collective management could be surmounted – distortions which arise through the usual consolidations into a lump sum in the fixing of remunerations or through blanket licenses. At the same time one has to caution against being too rash. Because digital monitoring- and work identification possibilities are of course available also to copyright collecting societies. Due to technical evolution, improved monitoring- and recording opportunities open up equally to copyright collecting societies, and thereby the prerequisite for undistorted remunerations, which reflect better the individual uses[100]. However, the question crops up as to why collecting societies should take over this collective management function at all from an economic point of view. Why should they still collectively manage the rights of authors and right-holders, when the latter could do this themselves, by way of technical means?[101] Are collecting societies in the digital era just simply the "second best solution" or even largely superfluous?

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[93] See on further criteria (though they cannot be numbered), which can influence the evolution of a specific market model *Hugenholtz* et al., The Future of Levies in a Digital Environment, p. 42 et seq. (2003), <http://www.ivir.nl/publications/other/DRM&levies-report.pdf>; worthy of mention at this point is that one consciously foregoes in part the application of DRM-systems in default of customer acceptance on the part of the content industry. See on the corresponding discussion in the context of the EMI Music Group <http://www.emigroup.com/Press/2007/press18.htm>; one must equally refer ultimately to the recent statements of the co-founder of Apple *Steve Jobs*, who declared that, as regards iTunes, that he would support a renunciation of DRM, insofar as the Music-Majors allowed this, *Steve Jobs*, Thoughts on Music, <http://www.apple.com/hotnews/thoughtsonmusic> (all links last recalled on 11 June 2007).

[94] Their concrete measuring would require the recourse to substantial data material and its evaluation, which would however go beyond the scope of the present contribution.

[95] See for example the operational analysis of four different market models in relation to music labels by *Buhse*, Wettbewerbsstrategien im Umfeld von Darknet und Digital Rights Management – Szenarien und Erlösmodelle für Onlinemusik, p. 179 et seq., 1rst ed. (2004); *Fränkl* & *Karpf* examine over 40 different market models: *Fränkl* & *Karpf*, Digital Rights Management Systeme – Einführung, Technologien, Recht, Ökonomie und Marktanalyse, p. 137 et seq. (2004).

[96] These are in particular the marginal costs, which accrue in every particular use; see in relation to technical information- and control systems *Bing*, Die Verwertung von Urheberrechten, p. 128 et seq.

[97] On this issue *Bechtold*, Vom Urheber- zum Informationsrecht, p. 307 et seq. (2002).

[98] For example scope, quality, date of publication etc., so-called "versioning".

[99] See only the title of the anthology by *Graber* & *Govoni* (eds. et al.), Digital Rights Management: The End of Collecting Societies? (2005).

[100] *Goldmann*, Die kollektive Wahrnehmung musikalischer Rechte in den USA und Deutschland, p. 385; through the hereby caused pressure to conform, the existing system of cross-financing is being questioned. This applies at least from the point of view of the commercially successful authors and right-holders respectively, who would benefit the most from a shift towards a remuneration system that would reflect the exact intensity of use. With regard to this pertinent question see as follows.

[101] *Drexl* speaks aptly of a competition of systems of collective versus individual management in his contribution to an anthology edited by *Hilty* & *Geiger*, Urheberrecht im deutsch-französischen Dialog – Impulse für eine europäische Rechtsharmonisierung, soon to be published.

In order to answer this question, it seems commendable to take another look at the respective transaction costs. Should the transaction costs to be expected in a technically backed individual rights management ultimately be lower than they are in the case of a collective rights management, copyright collecting societies would at least from an economic point of view lose their justification.

From the author's point of view, a few things militate in favour of the fact that with progressive technology in the digital realm, the transaction cost argument for the justification of existence of copyright collecting societies is being increasingly relativized. In particular the registration and monitoring of relevant uses, is made easier through technically refined DRM-systems, which tap the aforementioned described potential of DOI-systems. The technically backed individual management of rights in favour of the author and holder of rights respectively seems to be considerably superior to the collective management of rights, from the point of view of monitoring and implementing contents[102].

With regard to the user's perspective, effective DRM-systems and identification standards such as DOI or ISAN seem to facilitate at first sight the search for information on works and their authors and right-holders respectively: the digital identifiability and disposability allow for an individual search at the push of a button. When taking a second glance however, users remain with rather high search- and identification cots. The search for works and authors and right-holders respectively is hampered by the fragmented market structure on the suppliers' side. Moreover, authors and right-holders will very consciously not fully tap the potential for the reduction of search- and information costs, since a certain complexity of the market and missing inter-operability of the technical standards applied can be in their very own interest: By way of targeted obfuscating strategies with regard to the products offered, authors wishing to exploit their contents at a higher price, can hinder the comparability of offers by the competition, in order to thereby circumvent an efficient price comparison[103]. One reason less to emit the hypothesis of the end of collecting societies in the face of DRM.

c) Necessity of collective rights management despite DRM

aa) Remaining search- and information costs of users

Even if there should one day be digital identification systems, which could record without cease every use of a work, it would not change anything about the fact that a few persons interested in using copyrighted works have an original need to be able to actively and prior to an intended use address themselves personally to the author (be it because they wish to concertedly obtain their consent for a processing, be it because they wish to avoid in general eventual claims to compel someone to refrain from doing something or claims for damages.

When discussing the consequences which DRM-systems can bring about for the practice of the collective rights management by collecting societies[104], the insight was gained that in the case of the individual exploitation of contents, transaction costs would rather be reduced in favour of authors and right-holders respectively than in favour of users. Users are stuck in part with prohibitively high search- and information costs. As long as the market does not generate a technical or institutional solution, high transaction costs accrue in particular for mass users in their search for works and authors and right-holders respectively - owing alone to the number of necessary transactions[105]. A solution approach could consist in obliging author and holder of rights respectively in the digital realm to provide their works (for example by way of metadata) with information on the author's identity and how he can be contacted[106].

In order to facilitate the access to licenses and contents (i.e. for the reduction of information- and search costs), collective management seems to be equally necessary from an economic point of view for the time being. To which degree this will continue to be the case in future, will depend to what extent alternative central contact points for people interested in using copyrighted works and DOI-systems, capable of facilitating the search for works and author and holder of rights respectively, develop. One may further

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[102] Obviously of another opinion *Kreile*, Verwertungsgesellschaften in der Informationsgesellschaft – Wirtschaftliche und rechtliche Standortbestimmung, in: *Immenga* (ed. et al.), Festschrift Mestmäcker, p. 77, 87, 1st ed. (1996).

[103] *Bechtold*, Vom Urheber- zum Informationsrecht, p. 325 (2002). Such distorting effects are in one way also the consequence of so-called „proprietary" technical solutions, which establish – as for example iTunes – a closed system. The offers by iTunes are only available for Apple-Macintosh environments. In addition, the costs for the acquisition of the playback devices (iPods) must be added to the variable costs for the individual uses, which additionally hampers the comparability with other music offers. On the conditions for use of iTunes see <http://apple.com/itunes/store/>; on the competition law-related problems, which can arise from the lacking interoperability and on the lawsuit filed on 21 July 2006 against *Apple Computer Inc.* in the US <http://blog.seattlepi.nwsource.com/microsoft/library/applesuit.pdf>; see also the decision of the court of 1rst instance, the Tribunal de grande instance de Nanterre (6ème chamber) of 15 December 2006 with regard to the download offer "Connect" by *Sony France* and *Sony United Kingdom Ltd*., <http://legalis.net/jurisprudence-decision.php3?id_article=1816#> (all links last recalled on 11 June 2007).

[104] See above under V. 5.b).

[105] A concrete example for the problem of high search- and information costs of persons willing to use copyrighted works, who wish to trace the right-holders, is also phenomenon of the non-traceability of information on the right-holders, known as the „orphan-works" problem. See on the problem and on solution approaches United States Copyright Office, Report on Orphan Works, <http://www.copyright.gov/orphan/> (last recalled on 11 June 2007).

[106] On this proposal discussed in the US see *Merges*, Contracting into Liability Rules: Intellectual Property Rights and Collective Rights Organisations, 84 Cal.L.Rev. 1293, 1386 et seq. (1996); as regards the feasibility of the approach, considerable doubts must be voiced/cast in the face of a globally uniform provision, which would be necessary.

consider data bases or search engines, which facilitate the locating of the rights holder for people interested in using copyrighted works. The situation could also theoretically improve for many people interested in using copyrighted works, by actually returning one day to a (technically backed) registration requirement, the way it is being discussed in the context of shortening the term of copyright[107].
As seen, collective rights management remains advantageous from the persons' perspective who are interested in the use of copyrighted works; it is merely questionable whether the collective management of the granting of rights should be carried out by the collecting societies, or whether other central contact points such as agencies or clearing-centres are not more suited for this purpose, in the institutional comparison[108].

bb) Presumably remaining transaction costs of authors and right-holders respectively
Said transaction costs will presumably decrease to a certain degree, owing to effective DRM; it is however questionable whether the equal monitoring of these rights is feasible beyond the henceforth easier granting of rights. In this domain, a collective management of rights respectively by copyright collecting societies, who manage on the basis of reciprocal representation agreements the so-called "world repertoire", seems to be furthermore a sensible option, which is not rendered completely superfluous through the further development of DRM-systems. However, this traditional emphasis of the economic justification of collective rights management will probably lose in importance from the author's point of view.

cc) The future of levies and the remaining tasks of collecting societies
It would be wrong to reduce the copyright collecting societies' economic functions to the collective management of licenses. An important field of activity for the collecting societies results actually also from the management of legally prescribed claims for remuneration[109] and from levies on copy machines as well as on video or audio recording mediums[110]. The system of legal claims for remunerations established in many countries hereby makes allowance for the fact, that in the face of technically improved copying devices and easier distribution options, the search- and information costs in the case of mass uses and arising through the detection of illicit uses of works, are prohibitively high[111]. In reaction to the loss of control induced thereby, the legislator has partially rescinded the property rule and conceded to the author a claim for remuneration as a compensation for the consequently consent-free uses of works. In economic terminology, the legislator has thus partially substituted a "liability rule" for a "property rule"[112].
Equally with regards to this fundamental setting of course in copyright law terms, it is being hotly debated which consequences are to be drawn from the new technological control possibilities[113]. As regards the question whether and as the case may be, in which combination the legislator should opt in future for a property- or a liability rule in the face of new technical management mechanisms, it can only briefly be highlighted in this contribution, that the technical control possibilities must by no means lead necessarily to the end of the traditional levy system and thereby to the phasing out of a corresponding management activity by collecting societies. On the contrary, many reasons militate equally in future in favour of the maintenance, and as the case may be, even the development of further levies and claims for remuneration. Though critics of the levy system fear that consumers, faced with a coexistence of DRM-systems and levies on machines/equipment, would have to pay twice: once directly for the use of DRM-controlled contents, another

[107] See *Lessig*, The Future of Ideas – The Fate of the Commons in a Connected World, p. 251 et seq. (2001); one could consider, following up on this, for example a five-year long automatic protection by way of law, for which a chargeable, multiple prolonging option would exist for the same period of time. As one would presume that especially right-holders with commercial exploitation intention would use the prolonging option, the great number of works for which such a commercial exploitation is not (or no longer) sought, would fall into the public domain. The registration required for the technical implementation of such a model would certainly demand a modification of international copyright law. At present, a (re-)introduction of the fulfilment of formalities as a condition for copyright protection would clearly be in conflict with Art. 5 (2) of the revised Berne Convention.

[108] This very interesting comparison of institutions cannot be dealt with in the context of this contribution unfortunately. See on this issue in detail *Merges*, Contracting into Liability Rules: Intellectual Property Rights and Collective Rights Organisations, 84 Cal.L.Rev. 1293 et seq. (1996).

[109] German Copyright Act for example knows some provisions, which combine an obligation to pay remuneration with a mandatory, collective management of these claims by collecting societies: see e.g. Section 45 a § 2 (privilege for disabled persons), Section 49 § 1 Subsections 2 and 3 (press reviews), Section 52 a § 2 (public disclosure for classes and research).

[110] See German Copyright Act, Sections 54 et seq.

[111] One can classify these costs also already as „exclusion costs". These are costs which partially precede the transaction, which accrue for example in the specification, allocation and value-maintaining implementation of copyright law. This equally includes monitoring- and supervision costs, which have to be spent as to deter third parties from unauthorisedly using copyrighted works, cf. *Bing*, Die Verwertung von Urheberrechten, p. 116, 113 et seq.

[112] Fundamentally on this pair of concepts *Calabresi* & *Melamed*, 85 Harv.L.Rev. 1089, 1105 et seq. (1976).

[113] Whilst one camp stands up for a return to the strict nature of a property rule and count on technical protective mechanisms, their protection from legal circumvention and the use of DRM-systems for the realisation of said nature of a property rule, the other camp argues in favour of the development of liability rules elements, thus the reinforced use of compulsory licenses, equipment levies, or a continuing license fee, set down as a lump sum. The objective of this camp goes "compensation without control", as such *Lessig*, The Future of Ideas. The Fate of the Commons in a Connected World, p. 201 (2001). See also *Fisher*, Promises to keep. Technology, Law and the Future of Entertainment, p. 199 et seq. (2004); *Huuskonen*, Copyright, Mass Use and Exclusivity. On the Industry initiated Limitation to Copyright Exclusivity, especially regarding sound recording and broadcasting, p. 259 (recallable on the Internet under <http://ethesis.helsinki.fi/julkaisut/oik/yksit/vk/huuskonen/>).

time indirectly via the equipment levy[114]. Nonetheless the answer to this problem must not necessarily be, that one gradually lets the levy system phase out, the way it is obviously being intended by the European Commission[115]. The maintenance of a competition of systems between DRM- and levy systems seems preferable. The amount of the levy can then, as *Bechtold* remarked quite aptly, constitute an upper limit, up to which companies, marketing DRM-systems, can license their technologies to equipment manufacturers. Should it prove for the equipment manufacturer to be less expensive to pay a levy than to develop or license respectively and subsequently implement a possibly cost-intensive DRM-technology, this may eventually not lead at all to a strengthening of the levy system[116]. This market result is particularly not improbable, when the equipment manufacturer, implementing DRM-systems, must envision decreasing sales figures due to the absence of tolerance by consumers, as regards said DRM-systems[117]. Such a development would ultimately make the collective management of levies necessary for the same reasons as up until now[118]. After all, the question "DRM or levies?" misses in any case the essence of the problem - the more so as the DRM-technology could not only be applied for control purposes, but equally (for example in the context of a collective management) for solely guaranteeing an adequate remuneration in the framework of a liability rule[119]. The far more important questions is whether and to which extent the development liability rules can be superior to abiding by the nature of a property rule. The advantageousness of a stronger consideration of liability rule elements could be justified for example with the fact, that consent-free, but compensation-liable uses of works are in many cases rather beneficial for the promotion of creativity – not only for transaction costs reasons – than latching onto to the traditional nature of a property rule. Another argument is the harmfulness to innovation of property rules in copyright law, which is to be noticed sometimes[120]. Even if this question cannot be delved into at this point, it should have already become noticeable that the transformation process of copyright law must not necessarily scale down the collecting societies' scope of duties- the transformation process having been triggered by technical change and so far not foreseeable. On the contrary: it must not be excluded that liability rules will re-blossom, due to the lack of acceptance and remaining technical gaps in DRM-systems. It would thus be definitely too early – also against this background – to herald the end of copyright collecting societies.

dd) DRM in the face of "economies of scale" and "economies of scope"

The establishment of DRM-systems entails to a certain extent, that formerly variable costs pertaining to the search for users, the bargaining of conditions for use and the control and ongoing adjustment of uses become henceforth fixed costs, because both the installation of the herefore necessary platform (hard- and software) as well as the subsequent electronic administration no longer constitute variable costs. In order for these fixed costs to be reduced- and this is a consequence of the above mentioned regularity of the "economy of scale"- a certain scope of the use and exploitation of copyrights is necessary, also for the

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[114] Hereunto *Hugenholtz* et al., The Future of Levies in a Digital Environment, p. 34 (2003) (recallable on the Internet under <http://www.ivir.nl/publications/other/DRM&levies-report.pdf>); see hereunto also *Peukert*, DRM: Ende der kollektiven Vergütung?, sic! 749, 752 (2004).

[115] This is at least suggested by Art. 5 (2) of the Directive on the harmonisation of certain aspects of copyright and related rights in the information society (2001/29/EC) of 22 May 2001, in conjunction with the Recitals 35 and 39; see also *Bechtold*, The Present and Future of Digital Rights Management, p. 597, 615, Para 1860.

[116] *Bechtold*, The Present and Future of Digital Rights Management, p. 597, 615, Para 1859: "The amount of the levy would create an upper bound up to which DRM technology companies could license their technologies to device manufacturers (as it would be cheaper for device manufacturers to use the levy system for content protection if the DRM technology license fee would be more expensive than the device levy)." *Bechtold's* alternative proposal going beyond that cannot convince however. He considers, in the place cited, "to enact a broad levy system, but to disregard such content providers in the levy distribution process which use DRM-systems to protect their content". This would already be dissatisfying for the simple reason that the exploiters, who apply DRM-systems, are not always identical with the device manufacturers (but see for example Apple and Sony).

[117] Another aspect, which a rational device manufacturer acting as *homo oeconomicus* will include in his cost-benefit analysis, is the circumstance, that the use of DRM-systems is only lucrative beyond a critical volume, see hereunto the above explanations on „economies of scale" and „economies of scope" under IV.4.b).

[118] Of course one can ask the question whether collecting societies in particular should cash legally provided compensations. Why couldn't industrial federations in the private sector or even the tax and revenue office take on this task? In the institutional comparison, the fact that an association for example of dutiable device manufacturers lacks the necessary neutrality due to their self-interest in a preferably low revenue from levies, militates against the industrial associations in the private sector. Collecting societies distinguish themselves in contrast by their neutral, transparent and stately supervised mediating function. The tax and revenue office is out of question, because it could not be presumed that the management of claims for remuneration would necessarily be effected in a more efficient and flexible way, if this involved the bureaucratic machinery of a purely public organisation. Also with regard to the distribution of remunerations, one has clearly prefer an institution, that is preferably distant from the state, because one would otherwise have the danger of state and cultural policy intervention in the allocation process (keyword: censorship).

[119] As such already *Bechtold*, The Present and Future of Digital Rights Management, p. 597, 617: "to ask whether a levy system or a DRM solution should be preferred is to ask the wrong question. Rather, it should be asked whether a copyright regime that is solely based on a property rule approach is preferable over a regime that includes well-placed elements which are based on a liability rule approach".

[120] Best example herefore is the project „Google Book Search", where 18 million books are to be scanned in a handful of selected libraries, in order to be subsequently integrated into the Google search engine, see <http://books.google.de/>; see *Hansen*, Angst vor digitaler Landnahme. Google plans a huge digitalisation project. This meets with resistance not only in Europe, Der Tagesspiegel of March 30th, 2005, recallable on the Internet under <http://archiv.tagesspiegel.de/archiv/30.03.2005/1727330.asp>. In this project, the right to expel impedes also the making available of the many books, whose term of copyright has not yet expired. It is not comprehensible, if one adheres to this reasoning of property rules.

individual author and holder of rights respectively, embracing said DRM-systems. But the realisation of economies of scale is only possible – according to the above mentioned rationale – when bundling the transactions and beyond a certain critical volume[121].

Conclusions of contract made possible by the application of DRM-systems "per mouse-click", can realise the above-mentioned advantages of the "economies of scale" insofar as authors and right-holders respectively embrace learning advantages and see to a certain standardisation of their (actually individual) contractual conditions. Business-inexperienced authors will have greater difficulties doing so, insofar they get involved at all.

All in all, positive economies of scale can, despite DRM-systems, only be realised beyond a certain volume of the to- be-exploited repertoire, a recognition, which ultimately at least relativises the above stated degression of variable costs by the introduction of DRM-systems[122]. The realisation of learning curve advantages and economies of scope by the grouping of several different rights into a blanket license, can arguably be realised less well by DRM-systems, which are geared towards an individual management of rights, in comparison to a system of collective management of rights by collecting societies.

V. Collective rights management in the light of information economics

Not transaction cost economics alone but also information economics can be drawn on for explaining the copyright collecting societies' economic functions[123]. Object of information economics is especially the preoccupation with constellations, where an asymmetric distribution of information amongst (potential) contractual partners exists, both therefore are situated on different "information levels". A licensee can for example be better informed about the options on offer about the form of contract than a licensor, who rarely operates on the market or may do so for the first time and thus inexperienced. The consequence of information asymmetries can in particular be hardly advantageous contract conditions for the less well-informed (below average remuneration, signing of a buy-out contract and so forth). If the market does not solve the problem of asymmetric information by itself, state intervention may become necessary. Information economics concentrates amongst others on solution possibilities for the problems, which may result from an asymmetric distribution of information between two contractual partners.

Another function of collecting societies may insofar be possibly discerned in balancing these asymmetries. Collecting societies could in this sense on the basis of their economic and legal specialist knowledge be conferred the role of unions of authors vis-à-vis the content industry. In Germany, as well as in other *droit d'auteur* countries, this constitutes the traditional self-image of collecting societies[124]. Condition for the need of such a take-over of roles is of course from the information economics' point of view that an asymmetric information situation is given. Collecting societies regularly acquiring licenses are more likely to dispose on the basis of their experience of many years and specialisation of distinct transaction-specific knowledge than the individual author – this militates in favour of there existing an asymmetric information situation. The risk of possibly being overreached at the agreement of the licensing fee and the general form of a licensing contract exists therefore for the musician, the author and so forth, the more so as they may be inexperienced in business[125]. In order to equally provide the individual author with the possibility to negotiate at eye level with the content industry, an institutionalised collective rights management by collecting societies is necessary as a countervailing power[126].

This is the scenario which is outlined by the collecting societies. But does this suffice already in order to diagnose the existence of an asymmetric information situation, which should possibly even make state intervention necessary? One should be somewhat sceptical doing so. Finally one may argue that information asymmetries constitute in trade transaction the normal situation- absolute information symmetries are in any case a utopia. The argument based on transaction economics that collecting societies served the purpose of overcoming information asymmetries should therefore be taken with a pinch of salt. It is not by chance that

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[121] Cf. *Bing*, Die Verwertung von Urheberrechten, p. 129.

[122] The possible objection of large (individual) platforms such as for example iTunes can be refuted here and now through the reference to countless other rights' platforms. See on the various platforms and so-called "online content services" for example <http://www.digital-rights-management.info> and <http://www.drmwatch.com> (last recalled on 11 June 2007).

[123] On information economics. *Stiglitz*, Information and the Change in the paradigm in Economics, 92 The American Review 460 (2002); *Macho-Stadler & Perez-Castrillo*, An Introduction to the Economics of Information. Incentives and Contracts, 2nd ed. (2001); *Stiglitz'* approach must not be confused with the work of another Nobel Prize winner, namely *Stigler*. *Stigler*, The Economics of Information, 69 The Journal of Political Economy 213 et seq. (1961). It is deserving, to have pointed out to the importance of information costs as an important part of transaction costs, whereas *Stiglitz* has come forward on the basis of his analysis of market with information asymmetries.

[124] See for example *Becker*, Neue Übertragungstechniken und Urheberrechtsschutz, ZUM 231, 237 (1995). *Becker* is the executive director of the board of GEMA, the economically most important, oldest and most well-known collecting society in Germany.

[125] *Schricker,* German and Comparative Copyright law – Efforts for a Better Law on Copyright Contracts in Germany – A never-ending story?, 7 IIC 850 et seq. (2004).

[126] *Goldmann*, Die kollektive Wahrnehmung musikalischer Rechte in den USA und Deutschland, p. 406:"In spite of future perspectives for an individual management of rights it is necessary to maintain collecting societies, because only they are capable of also offering the individual author the possibility of negotiating on equal terms with the content industry and thereby maintain the existing countervailing power concept."

proponents of information economics partially demand also explicitly the existence of *severe* information asymmetries[127]. To what extent one can speak of a severe asymmetric information distribution in the relation between authors and content industry, could be evaluated conclusively alone on the basis of an empirical stock-taking, which cannot be carried out in the context of this contribution. The fact however that a certain imbalance of powers – based last but not least on information asymmetries – between the parties mentioned exists in principle, cannot be dismissed[128]. This imbalance of powers has even incited a few legislators to establish protective provisions in favour of authors in the law on copyright contracts[129]. At the latest when said law will in practice however not have fulfilled its desired protective effect[130] and the imbalance of powers of the contracting parties becoming manifest in remuneration provisions to the disadvantage of the author or a total buy-out of rights, a lot militates in favour of the collecting societies, taking over the function of at least partially attenuating existing information asymmetries, by way of their specialist knowledge [131].

The objection against information economics, that ultimately only a political and not an economic function of collecting societies is being explained or justified, seems appropriate. This objection can, when taking a closer look, be rebutted: it is precisely the "political function", thus the creation of countervailing power on the author's side, which is a prerequisite for collecting societies efficiently fulfilling their economic functions. Collecting societies allow for the circumstance that authors and right-holders respectively as market players adverse to risks, who from the outset cannot evaluate the economic success of their works, will rather resort to the "safer option" of a collective management of rights than bear the risk of economic failure on their one – this is due to the advantages, which a collective take-over of risks offers[132]. Collective rights management by collecting societies can according to the logic of information economics thus contribute to the increasing probability of an adequate participation in uses of works at predictable conditions[133].

VI. Insights

1. Persisting economic functions of collective rights management

The economic function of collecting societies will equally be in future to reduce transaction costs in favour of authors, exploiters and users, in order to increase the number of remunerated uses of works. The obviously partially still persisting approval in exploiter circles of the potential possibilities of technical protection should not deter one from seeing that collective management in the domain of traditional analogue uses, especially for the so-called "small rights" is necessary for the same reasons as before. The proceeding digitalisation of contents will certainly not completely substitute analogue works. Here the association of authors and right-holders respectively will become commendable, in order to profit in the entire range of transaction costs from their reduction.

The overriding interesting question in this contribution is, however, the future of collective rights management in the digital realm. Advantages of a collective rights management on the part of collecting societies may be identified here, especially due to the search- and information costs to be expected furthermore by potential

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[127] *Cooter & Ulen*, Law and Economics, p. 47.

[128] This imbalance of powers is certainly not solely to be attributed to information asymmetries. The predominance of one party vis-à-vis the other can also play a decisive role. One could argue though that "knowledge is power", this would however be too short-sighted and one would leave those aspects of power unconsidered, which could be based on the financial dependency of one licensor on his licensee (example: as the licensee holds the whip hand, a rationally acting author will possibly be more reticent in re-negotiations on remuneration, in order to not endanger the further cooperation with a publisher, TV station or other contracting party. The fact that transaction cost- and information economics do not sufficiently take into account these aspects of power – and thereby the problem of disturbed contract parity, is one of the undeniable weaknesses of these approaches, similar *Bing*, Die Verwertung von Urheberrechten, p. 131 et seq.; see also under IV.3, the critical assessment of the transaction cost approach.

[129] As such, the author in Germany is protected from transferring all exploitation rights as a whole. As a consequence of the monistic concept of German copyright law within the *droit d'auteur* approach, the author can only grant licenses (see Section 31, German Copyright Act); the extent of granting licenses is restricted through the so-called "purpose transfer principle" (Section 31 § 5 German Copyright Act), according to which one must presume that the author in doubt will not confer any further rights than is required for obtaining the purpose of the eventual license agreement. The "purpose transfer principle" leads to a specified burden on the part of the licensee, i.e. he who wishes to be certain that he acquires the respective license, must see to specifying it appropriately. See e.g. *Schulze*, in: *Dreier & Schulze* (eds.), UrhG – Kommentar, 2nd ed. (2006), Section 31 Copyright Act, Para 111. This burden of specification can be interpreted from information economics' point of view to the extent, that the licensor should be better informed to what extent he renounces some rights. Sections 32, 32 a German Copyright Act are meant to meanwhile guarantee the author – at least in theory – an adequate *ex post* remuneration and further participation of rights that he has previously "renounced" by granting licenses.

[130] Critically for example *Schricker*, German and Comparative Intellectual Property Law – Efforts for a Better Law on Copyright Contracts in Germany – A never-ending story?, 7 IIC 850, 856 et seq. (2004).

[131] More on the supporting function by collecting societies for an insufficiently functioning copyright contract law *Drexl,* Auf dem Weg zu einer neuen europäischen Marktordnung der kollektiven Wahrnehmung von Online-Rechten der Musik?, in: *Riesenhuber* (ed*.),* Wahrnehmungsrecht in Polen, Deutschland und Europa. INTERGU-conference 2005, p.193, 221 et seq. (2006). See also the contribution by *von Lewinski* in this volume.

[132] On this aspect in more detail *Snow & Watt*, Risk sharing and the distribution of copyright collective income, in: *Takeyama* et al. (eds.), Development in the Economics of Copyright, p. 23, 33 et seq. (2005).

[133] Incidentally one ought to point out that from an methodological point of view, the economic treatment of law is never completely devoid of (hidden) political, and as the case may be, normative premises. The aura of supposedly unbiased methods of analysis attached to it is deceiving. As such, already the selection of the institution to be analysed and simultaneously of those variables, which are kept constant in the context of a ceteris paribus-observation, constitutes a valuation decision, which influences the result of the observation in a respectively politically desired direction.

licensees. The collective management of rights is equally advantageous because it helps to attenuate information asymmetries between authors and right-holders respectively, and users. Due to the highlighted economic advantages of a collective rights management in comparison to an individual one, the management of licenses and levies will equally remain in the digital realm to a certain extent the task of collecting societies. Despite their potential for the reduction of transaction costs, DRM-systems will always encounter technical limits. The technical complete control of contents will foreseeably remain just as illusive as a world without transaction costs.

2. Shift of the focus of duties in the digital realm

In the digital realm, the focus of duties of collecting societies will probably shift. Trigger is the increasing importance of search- and information costs in this domain. Through the possibility of technically backed individual management of rights, the transaction cost argument for the justification of the existence of collecting societies will partially become less important though, from the authors' and right-holders' perspective. Technology may then take over to a certain extent the duty of reducing the costs pertaining to the registering of uses and implementation. But search- and information costs at the charge of persons willing to use copyrighted works accrue even when it should become more possible than before to register individual uses in a fully automated way: a person willing to use copyrighted works wishes to trace the licensor in the forefront of an intended use. In order to facilitate the access to licenses, i.e. for the reduction of information costs, the collective rights management related powers remain therefore from an economic point of view equally necessary in the digital realm for the time being.

3. Principle of subsidiarity of collective rights management

Collective rights management is no end in itself. On the basis of the transaction cost approach applied precedingly to the collective management of licenses, one can thus formulate the tenet, that collective management should only be carried out, where it is necessary in order to reduce transaction costs, and individual management only where it is possible and where it in particular does not lead to comparably higher search- and information costs at the charge of the persons interested in the use of copyrighted works[134]. According to the subsidiarity principle, collecting societies should in other words only become active, as long as the reduction of transaction costs by way of individual management cannot be sufficiently obtained and can therefore be better obtained by collecting societies, in view of remaining and also new transaction costs which accrue only with a DRM-induced market evolution. Collective management can outmatch the individual, DRM-based management in the overall comparison insofar as it guarantees in the ideal case both a more efficient access to licenses and stronger economic participation of the authors in the use of the work, due to lower search- and information costs. The latter applies in particular to the case where authors receive otherwise a lump sum in the individual, DRM-based exploitation by their licensees via buy-out contracts and they no longer have their share in the subsequent income by the exploiters. In this case, collective rights management can particularly benefit authors.

4. Transaction costs as a benchmark for flaws of collective rights management

The setting for the development and exploitation of copyright protected contents is everything but static. The economic framework, which may have in the past led to defined systems for the use of copyright protected contents, are changed by new technologies such as DRM-systems. These lead to a change in transaction costs, which accrue for the authors and right-holders respectively and the users. At least an alignment of existing coordination forms and institutions becomes thereby indispensable[135].

North speaks in this context of technological and institutional change of "adaptive efficiency"[136]. *Bing* makes in the face of the apparent dynamic environment the obvious demand, that the selected coordination forms must be "adaptable and flexible", in order to "safeguard the natural selection of coordination forms"[137].

An important conclusion from the transaction cost approach is insofar the reduction of transaction costs as a benchmark for the current and future system of a collective rights management. Functional flaws are to be stated, insofar the existing system of collecting societies does, in reality, not perceptibly reduce transaction costs. If such a coexistence of individual and collective management of rights can be ascertained, this clears the view for a necessary revision of the current system[138].

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[134] See *Dördelmann*, Gedanken zur Zukunft der Staatsaufsicht über Verwertungsgesellschaften, GRUR 890, 892 (1999); see also *Cohen Jehoram*, The Future of Copyright Collecting Societies, 23 E.I.P.R. 134, 136 (2001).

[135] *Bing*, Die Verwertung von Urheberrechten, p. 126.

[136] *North*, Transaction costs through time, in: *Ménard* (ed.), The Political Economy of Institutions, p. 562, 569 (2004).

[137] *Bing*, Die Verwertung von Urheberrechten, p. 126.

[138] An example for high transaction costs at the charge of users is supplied by the German practice of managing ring tone rights by the GEMA, which distinguishes itself through its parallel competence for the collecting society and the authors and right-holders respectively. See hereunto *Hertin*, Zur Lizenzierung von Klingeltonrechten, KUR 101, 111 (2004); *Becker*, Die Lizenzierungspraxis der GEMA bei Ruftonmelodien – Rechteeinräumung und Rechtefluß, in: *Becker* & *Hilty* (eds. et al.), Festschrift Rehbinder, p. 187, 197 et seq.; apparently, *Poll* is of another opinion regarding GEMA's competence for ring tones: *Poll*, Urheberrechtliche Beurteilung der Lizenzierungspraxis von Klingeltönen, MMR 67, 75 (2004); a further example for high transaction costs concerns the management of rights for online uses, which pertain to the related rights of performing artists and manufacturers of sound recordings. Alongside a

5. Information costs and number of collecting societies

If one perceives the collecting societies' duty to be in reducing transaction costs – and amongst that namely the information costs – then this means that one should as far as possible counteract a fragmentation on the supply side, especially in favour of the users articulating a demand for works. A large reduction of information search costs means that a preferably small number of collecting societies operates, preferably at both national and international level, the existing collecting societies cooperate at least efficiently with one another, and as the case may be, even grant multiple state licenses. Especially in the digital domain and there in particular in the multimedia domain this means that in the ideal case, a uniform and unproblematic acquisition of all required rights in one single place [139]exists (so-called "One-Stop-Shop"), but at least in one contact point, whose task it is to coordinate the acquisition of rights (so-called "clearing houses")[140]. As already highlighted, one can in addition only obtain beyond a certain critical volume of collectively carried out transactions, made possible through relatively few collecting societies, certain "economies of scale" and "economies of scope".

6. Exact per use remuneration and distribution by collecting societies

Collecting societies should perceive new technical possibilities of exploitation control not as a threat, but as an opportunity. The technical development, which increasingly permits an exact per use remuneration, will probably have on the present system of collective management the effect, that a stronger establishment of "copyright management systems" becomes necessary on the collecting societies' part, as to better accommodate the economic proceeds for individual exploitation. This presupposes that they can actually obtain the data necessary for the recording and measuring of the respective intensity of utilisation. Furthermore collecting societies will have to deal with the challenge of not only establishing a more exact recording of uses by the application of technology, but equally administrate the huge volume of data arising in the process. In the relationship between collecting societies and authors, one must equally seek the creation of greater transparency, in order to better demonstrate to authors and right-holders respectively the existing advantages of a collective management of rights in comparison to an individual one.

The individual registration and invoicing of individual exploitations, which reflect the exact intensity of utilisation, thus presents collecting societies with the task of introducing a system shift, away from a collective to a more central rights management[141]. As authors and right-holders respectively will be hard to please with valuation procedures and internal allocation aspects in view of precise recording possibilities, one could in future hardly consider a re-allocation in favour of commercially less successful authors and right-holders respectively. In the case of a rational behaviour pattern geared alone towards economic criteria of authors and right-holders respectively as well as of the users and a corresponding legal leeway, the transformation of copyright collecting societies into mere collecting agencies, i.e. into institutional arrangements, which operate exclusively in market-orientated and profit-orientated way is predictable[142].

Carrying on with this train of thought, a strict remuneration and distribution system which mirrors the exact intensity of use – appearing at least *prima facie* advantageous from an economic point of view – would consequently shatter the traditional system of collecting societies, which is decisively shaped by the solidarity notion of cross-financing. There would simply be no room left for cross-financing[143], insofar the legislator does not intervene in a correcting way to implement meta-economic objectives and moral concepts[144]. Such a state policy of reallocation could be justified for example by the fact that an exact per use distribution must admittedly though be the demand of a purely static approach focusing on allocative efficiency. Yet the legislator could argue that one obtains another result, if one correctly follows a dynamic approach. A static, exactly per use remuneration and distribution namely leaves out the dynamic welfare

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collective rights management by the German collecting society GVL in the domain of so-called "webcasts", an individual management of rights is carried out by the authors and right-holders respectively for very similar, yet interactive "podcasts".

[139] The initiative „OnLineArt" can be cited as an example, where since 2002 13 European collecting societies have in the meantime merged in the domain of pictorial art. In contrast to CMMV, OnLineArt is not merely a uniform contact point, but can directly grant rights as the holder of online rights. See <http://www.onlineart.info/>.

[140] In this context however, one must point out certain disadvantages in the form of „deadweight losses", which may arise through state intervention as a result of the elimination of competition between competing collecting societies. See on this problematic the contribution by *Drexl* in this volume.

[141] *Melichar*, executive director of the German collecting society VG Wort, speaks in this context of a return to the original mission of collecting societies: *Melichar*, Verwertungsgesellschaften und Multimedia, in: *Lehmann* (ed.), Internet- und Multimediarecht (Cyberlaw), p. 205, 216 (1997).

[142] Whether there will be such a system shift, will ultimately depend on the intensity of the pressure to conform and the overcoming of „moral hazard". Hereby one cannot assume in every case the existence of complete information and perfectly rational behaviour of all parties involved. The principal-agent approach teaches in addition that the agent (here: the collecting society) does not necessarily act alone in the interest of his principal (here: the authors and right-holders respectively). According to *Goldstein*, collecting societies can have an interest in delaying the technological progress in order to maintain their hitherto existing structures, *Goldstein*, Commentary on "An Economic Analysis of Copyright Collectives", 78 Va.L.Rev. 413, 415 (1992).

[143] See also *Goldmann*, Die kollektive Wahrnehmung musikalischer Rechte in den USA und Deutschland, p. 387.

[144] See for example *Handke* & *Stepan* & *Towse*, Development of the Economics of copyright, in: *Drexl* (ed.), Handbook on Intellectual Property and Competition Law, Cheltenham (soon to be published) at 8.: "No doubt the distribution rules will become easier to administer. However, equity will always demand that they are seen to be fair not only efficient.".

profits, which can precisely be promoted by valuation procedures and cultural policy-related allocation aspects. Beyond that the principle of collective take-over of risks[145] can be advanced[146] in favour of a re-allocation in favour of commercially less successful niche artists. Collecting societies are accordingly organisations, where risk-adverse authors ally, because they do not know to what extent they will be successful on the market[147].

VII. Outlook

Digital rights management most likely does not mean the end of collecting societies. One dare make this statement on the basis of the preceding findings. Collecting societies will also in future fulfil important economic functions and guarantee in favour of authors and right-holders respectively the economic participation in the use of works by way of collective management of licenses and levies[148]. The collective management of licenses also promises in future to be advantageous from an economic point of view, because it will always, in view of arising search- and information costs, be preferable, to address oneself only to a “one-stop shop” or a “clearing house” than to a multitude of right-holders, who – DRM-based – individually exploit their works on a fragmented market.

Irrespective of the advantages of collective rights management, equally applicable in the digital realm from an economic point of view, there however exists enormous pressure to adapt for collecting societies. Even if the implementation of copyright management systems has already in the past led to more efficiency in the collective management of rights, the continuous technical progress will continue to force collecting societies to adapt. Authors and right-holders respectively, who hope to obtain a bigger income through the individual exploitation of their works, without the calling in of collecting societies, will know how to sound out the advantages and disadvantages of DRM-systems and safeguard their interests. If collecting societies themselves do not use more resolutely and more persistently the potential of these new technologies, collecting societies risk losing out in the competition of systems. Only if collecting societies prove to be adaptively efficient institutions and as such realise their economic functions in a flexible and transparent way, they will also in future be able to perform their undeniably important cultural and social tasks.

[145] See above V. at the end.

[146] *Snow* & *Watt*, Risk sharing and the distribution of copyright collective income, in: *Takeyama* (eds. et al.), Development in the Economics of Copyright, p. 23, 33 et seq. (2005).

[147] *Kretschmer*, Copyright Collecting Societies and Competition: The new regulatory policy, p. 26 (draft version 2007).

[148] On the here underlying assumption that there will also in future be levies or even an increasing number of liability rules in copyright law, see in more detail above under IV.5.c) cc).