

COPYRIGHT DIVISIBILITY AND THE ANTICOMMONS

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I. INTRODUCTION

Copyright represents more than one type of exclusive right. It actually consists of a bundle of different exclusive rights. For example, in the United States, copyright includes rights of reproduction, adaptation, distribution, performance, display, and digital sound recording transmission rights.¹ In the United Kingdom, copyright consists of rights of reproduction, adaption, communication to the public, performance, and broadcasting.² These rights have developed in a disconnected and fragmented way because of the expansion of copyright owners' control in response to technological change.³ Each of these sub-rights can be owned, transacted, and enforced separately.⁴ This is called copyright divisibility.⁵ Copyright divisibility enables separate ownership

1. 17 U.S.C. §106 (2016).

2. *See* Copyright, Designs, Patents Act 1988, c. 2, §§ 16-23 (UK) [hereinafter CDPA].

3. *E.g.*, LIONEL BENTLY & BRAD SHERMAN, *INTELLECTUAL PROPERTY LAW* 136 (3d ed. 2009) (“[r]ights have developed in a piecemeal way in response to external pressures: notably to technological change.”); *see also* PAUL GOLDSTEIN & BERNT HUGENHOLTZ, *INTERNATIONAL COPYRIGHT: PRINCIPLES, LAW, AND PRACTICE* 298 (2d ed. 2010) (noting that rights have expanded “[t]o bring new technological uses of literary and artistic works within copyright control.”).

4. *See* 17 U.S.C. § 201(d)(2) (2012) (“Any of the exclusive rights comprised in a copyright, including any subdivision of any of the rights specified by section 106, may be transferred as provided by clause (1) and owned separately. The owner of any particular exclusive right is entitled, to the extent of that right, to all of the protection and remedies accorded to the copyright owner by this title.”); CDPA, c. 5, §90(2)(a) (“An assignment or other transmission of a copyright may be . . . limited so as to apply to one or more, but not all, of the things the copyright owner has the exclusive right to do.”).

5. *See* AL KOHN & BOB KOHN, *KOHN ON MUSIC LICENSING* 363-64 (4th ed. 2000) (clarifying the conceptual importance of divisibility); *see also* Jessica Litman, *Real Copyright Reform*, 96 IOWA L. REV. 1, 20 (2010) [hereinafter Litman, *Copyright Reform*] (noting the divisibility of exclusive rights complicates

interests in different subsets of the exclusive rights to a single work.⁶ It is quite common for authors to transfer or license each of these sub-rights to different parties.⁷ For example, if I write a novel. I can carve my right by granting Teresa the right to publish the novel; granting Elena the right to produce a motion picture based on my novel; and granting Lawrence the right to produce an audio book of my novel. All these rights can be granted simultaneously and independently.

Copyright divisibility has great virtue. As not all copyright holders are in the position to maximize the value of various uses of their works, copyright divisibility enables them to enlist the assistance of others in multiple markets.⁸ However, these exclusive rights sometimes overlap with each other;⁹ therefore, the same act may infringe different exclusive rights simultaneously.¹⁰ Divisibility and overlapping exclusive rights thus have created enormous transactional costs for copyright clearance.¹¹ Users may never understand that they may infringe copyright even though they

copyright licensing); Jeffrey W. Natke, *Collapsing Copyright Divisibility: A Proposal for Situational or Medium Specific Indivisibility*, 2007 MICH. ST. L. REV. 483, 486, 495-96 (2007) (asserting that copyright in cyberspace is further complicated by divisibility); Mark A. Lemley, *Dealing with Overlapping Copyrights on the Internet*, 22 U. DAYTON L. REV. 547, 570 (1997).

6. See Litman, *Copyright Reform*, *supra* note 5, at 20 (discussing the practical implications of divisibility on the ownership of individual exclusive rights).

7. See Ariel Katz, *Copyright Collectives: Good Solution But for Which Problem?*, in WORKING WITHIN THE BOUNDARIES OF INTELLECTUAL PROPERTY: INNOVATION POLICY FOR THE KNOWLEDGE SOCIETY 395, 395 (Rochelle C. Dreyfuss et al. eds., 2010) [hereinafter Katz, *Copyright Collectives*] (noting that collective administration of individual copyright rights is common practice).

8. See discussion *infra* Section II.A (discussing the longstanding establishment of divisibility as a legal concept within real property ownership).

9. See, e.g., BENTLY & SHERMAN, *supra* note 3, at 136 (noting that the copyright system has developed in a cumulative, reactionary way, producing rights with a degree of similarity, or overlap, between them); see also Tilman Lüder, *The Next Ten Years in E.U. Copyright: Making Markets Work*, 18 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 1, 26 (2007) (identifying criticism of European efforts to harmonize copyright, which has complicated overlapping rights).

10. Cf., MARSHALL A. LEAFFER, UNDERSTANDING COPYRIGHT LAW 294 (4th ed. 2005) (subdividing rights within a given work grants each transferee standing to sue infringers of that right).

11. See ROBERT A. GORMAN ET AL., COPYRIGHT: CASES AND MATERIALS 345-46 (8th ed., 2011) (highlighting the potential difficulty in identifying the owner of a given right in order to obtain a license).

already secure licenses from one of the right holders. Because of copyright divisibility and overlapping exclusive rights, users often need to identify, negotiate with, and obtain permissions from different parties that own different sub-rights even for a single use of only one copyrighted work.¹² Any of the right holders can veto a single use of the subject copyrighted work. This is one example of how copyright rules have become too complicated and arcane for the general public to understand.¹³

Digital technologies and the Internet, however, have not ameliorated the problem, but instead made it more perplexing.¹⁴ Compared to activities in the physical world, those in cyberspace are more often associated with different overlapping exclusive rights.¹⁵ According to international treaties, such as the World Intellectual Property (WIPO) Copyright Treaty, copyright in the digital environment occasionally involves three types of exclusive economic rights:¹⁶ the right of reproduction,¹⁷ the right of communication to the

12. *See id.* at 346 (providing the example of works published online, which implicate multiple divisible rights, and therefore require a license from each individual owner).

13. *See, e.g.*, JESSICA LITMAN, DIGITAL COPYRIGHT 18 (2001) [hereinafter LITMAN, DIGITAL COPYRIGHT] (explaining that copyright developed largely to counter corporate or institutional infringement, so the structure of statutory protections is more complex than what may be generally understood by the public).

14. *See, e.g.*, Ariel Katz, *The Potential Demise of Another Natural Monopoly: Rethinking the Collective Administration of Performing Rights*, 1 J. COMPETITION L. & ECON. 541, 561 n.83 (2005) [hereinafter Katz, *Rethinking the Collective Administration*] (“When it comes to the Internet the problem . . . [it] becomes more complicated because a single online transmission of a work may involve different overlapping copyrights.”); *see also* Natke, *supra* note 5, at 486 (“A single activity in cyberspace often implicates several exclusive rights and copyright owners’ interests.”); Lemley, *supra* note 5, at 573-74 (“The unique problem posed by the Net is that it does not merely constitute a new medium for reproduction, distribution, or performance, but rather a medium which blends each of those exclusive rights in an unanticipated way.”).

15. *See* Katz, *Rethinking the Collective Administration*, *supra* note 14 and accompanying text, at 561 n.83.

16. Lüder, *supra* note 9, at 14 (discussing potential territoriality issues inherent in the three “online” rights).

17. *See* WIPO Copyright Treaty art. 8, *adopted* Dec. 20, 1996, 36 I.L.M. 65 (1997) [hereinafter WIPO Copyright Treaty] (incorporating by reference the reproduction right codified in Annex I article 9 of the Berne Convention); WIPO Performances and Phonograms Treaty arts. 7, 11, 16, *adopted* Dec. 20, 1996, 36 I.L.M. 76 (1997) [hereinafter WIPO Performances and Phonograms] (establishing

public,¹⁸ and the right of making the product available online.¹⁹ New business models enabled by digital technologies, such as International Protocol Television (IPTV), music streaming, and other web-based content delivery services have led to copyright controversies, mostly over which type of copyright is involved in a certain transaction. These different rights may be owned by different right holders or administered by different copyright management organizations (CMOs).²⁰

The Article proceeds in five parts. Part II provides an overview of the problems stemming from copyright divisibility and the theory of the anticommons. The fragmented copyright has led to significant uncertainties for users and huge transactional costs for the exploitation, dissemination, and enforcement of copyright. The problem stemming from copyright divisibility mirrors the tragedy of the anticommons defined by Michael Heller, when he observed the underuse of property and resulting inefficiency in the post-communist Russian economy. This Article uses anticommons theory as a lens to analyze copyright divisibility, its consequential costs on users and the society, and possible policy solutions. Part III introduces judicial approaches to overlapping copyright rights in the United Kingdom, China, Germany, and the United States. The legal treatment of users' costs in obtaining multiple licenses varies significantly in different jurisdictions. Part IV examines three possible solutions to the fragmented copyright and overlapping exclusive rights. These proposals include consolidating existing bundles of exclusive rights and adopting an implied license doctrine

the scope and limitations of the reproduction right, which contracting parties must codify in national legislation); *see also* Directive 2001/29, of the European Parliament and of the Council of 22 May 2001, art. 2, on the Harmonisation of Certain Aspects of Copyright and Related Rights in the Information Society 2001 O.J. (L 167).

18. *E.g.*, WIPO Copyright Treaty, *supra* note 17, art. 8; *see also* Directive 2001/29, *supra* note 17, art. 3.

19. *See* WIPO Copyright Treaty, *supra* note 17, art. 8 (making available to the public “by wire or wireless means”); WIPO Performances and Phonograms Treaty, *supra* note 18, arts. 10, 14, and 16 (making fixed performances and phonographs publically available “by wire or wireless means”); *see also* Directive 2001/29, *supra* note 17, art. 3(2) (making available such that a member of the public may access “from a place and at a time individually chosen by them”).

20. *See* Directive 2001/29, *supra* note 17, art. 7 (outlining obligations concerning rights-management information).

for the incidental use of copyrighted work based on one single exclusive right. This Article also assesses whether a more streamlined collective copyright management mechanism can decrease the costs brought by copyright divisibility. These proposals are not exclusive to each other. Each of them has its strength and weakness, and anticommons theory provides an effective lens to evaluate these possible solutions. Part V concludes that based on the anticommons theory and the line of relevant research, the law should at its best avoid creating new type of sub-right; whereas the court ought to consider developing doctrines reducing users' costs in acquiring license for a single use of copyrighted work.

II. FRAGMENTED COPYRIGHT AND THE ANTICOMMONS

By increasing the number of potential right holders, copyright divisibility requires users to obtain multiple licenses for any single use of a copyrighted work.²¹ Although divisibility may help copyright owners maximize copyright revenue, it may also lead to the tragedy of the anticommons. This section illustrates the multitude of rights and rights holders brought by divisibility, and then links divisibility and the social costs it brought to the anticommons scenario.

A. THE MULTITUDE OF RIGHTS AND RIGHT HOLDERS

Copyright involves a collection of exclusive rights in relation to creative works.²² Different exclusive rights have been designed to cover new technological use.²³ Each sub-right underlying a copyrighted work can be transferred or licensed to different parties.²⁴ Put differently, the ownership of interest over the same object may

21. See e.g., *id.* (“[T]he problem with divisibility is that it potentially requires multiple licenses for any single use . . . while simultaneously making it very difficult to tell who owns the rights one needs to license.”).

22. See 17 U.S.C. § 106 (specifying the exclusive rights of copyright owners).

23. See, e.g., PAUL GOLDSTEIN, *COPYRIGHT'S HIGHWAY: FROM GUTENBERG TO THE CELESTIAL JUKEBOX* 188-89 (rev. ed. 2003) (calling for legislatures to be quick in extending copyright protections to new technological uses of otherwise protected works).

24. E.g., Daniel Gervais, *Collective Management of Copyright: Theory and Practice in the Digital Age*, in *COLLECTIVE MANAGEMENT OF COPYRIGHT AND RELATED RIGHTS* 1, 10 (2010) [hereinafter Gervais, *Collective Management*].

be divided up and owned by different entities.²⁵ This is the doctrine of copyright divisibility, which was once recognized by the U.S. Supreme Court.²⁶ Divisibility is also a long established doctrine in land law.²⁷ For example, a landowner can transfer easement and profit à prendre to different parties.²⁸ The benefit of copyright divisibility is that authors can exploit their works in different ways or even in multiple markets.²⁹

Divisibility aims to enable copyright owners to fully capture the value of copyrighted work with the help of others.³⁰ It provides copyright holders with more economic autonomy.³¹ In order to maximize profit, rights holders may license different rights to different CMOs whose businesses are designed to manage specific exclusive rights.³² Therefore, even when there is only one author

25. See, e.g., Christopher M. Newman, *A License is Not a "Contract Not to Sue": Disentangling Property and Contract in the Law of Copyright Licenses*, 98 IOWA L. REV. 1101, 1123 (2013) (clarifying that different uses of a given work may be divided and owned separately) [hereinafter Newman, *A License is Not a "Contract Not to Sue"*]; Christopher M. Newman, *An Exclusive License is Not an Assignment: Disentangling Divisibility and Transferability of Ownership in Copyright*, 74 LA. L. REV. 59, 61 (2013) [hereinafter Newman, *An Exclusive License*] (noting that divisibility allows subset of rights to be assigned separately).

26. *N.Y. Times Co. v. Tasini*, 533 U.S. 483, 495-96 (2001) (acknowledging that the copyright is a "bundle of discrete 'exclusive rights' . . . each of which may be and owned separately").

27. See, e.g., Newman, *A License is Not a "Contract Not to Sue," supra* note 25, at 1124 ("[p]roperty law empowers titleholders to create license privileges in others."); see also Newman, *An Exclusive License, supra* note 25, at 83-89 (discussing the established concepts of severability and transfer of subsets of real property rights).

28. Newman, *A License is Not a "Contract Not to Sue," supra* note 25, at 1123-24 (clarifying that easements and profits-à-prendre represent "irrevocable privileges" in real property law).

29. See Jessica Litman, *Sharing and Stealing*, 27 HASTINGS COMM. & ENT. L.J. 1, 18 (2004) ("[divisibility is] the biggest reason that authors don't need to sign over their copyrights when they publish things. It allows the author to keep control over different sorts of exploitation of her work by different entities.").

30. E.g., Newman, *An Exclusive License, supra* note 25, at 81-82 (analogizing the divisibility of copyrighted work to the divisibility of real property, where individual title owners are not always best positioned "[t]o engage in all the highest-value uses of their property without enlisting the assistance of others").

31. GORMAN ET AL., *supra* note 11, at 345.

32. See Natke, *supra* note 5, at 497; cf., Poorna Mysoor, *Unpacking the Right of Communication to the Public: A Closer Look at International and EU Copyright Law*, INTELL. PROP. Q. 166, 183-84 (2013) (arguing that assigning overlapping rights to multiple licensees negatively impacts the ability of the copyright owner to

holding copyright over a work, he may still be represented by different copyright collecting societies for different types of rights.³³ In practice, it is quite possible that unrelated parties own or are licensed with different exclusive rights to the same copyrighted work.³⁴ Moreover, all these subdivisions may be co-owned by co-authors or their successors.³⁵ Co-ownership and inheritance certainly increase the transaction costs for copyright clearance.

Sometimes there are multiple copyrighted works on one single subject.³⁶ For example, a film contains a bundle of screenplays, characters, music, and other copyrighted works.³⁷ Producers, directors, and actors in some jurisdictions can claim their rights independently in the same film.³⁸ A pop song may include different copyrighted works owned by respective copyright holders, such as

maximize the benefits of the sub-divided rights).

33. See Daniel Gervais & Alana Maurushat, *Fragmented Copyright, Fragmented Management: Proposals to Defrag Copyright Management*, 2 CAN. J. L. & TECH. 15, 22 (2003) (providing the example of producing and distributing a film, noting the complexity of rights and potential roles for collective management organizations relating to each).

34. See Lemley, *supra* note 5, at 570.

35. See Gervais, *Collective Management*, *supra* note 24, at 2; see also, Abraham Bell & Gideon Parchomovsky, *Copyright Trust*, 100 CORNELL L. REV. 1015, 1043 (2015) (discussing that rights fragment over time; for example, where a single right owner's heirs mutually inherit that right); Katz, *Rethinking the Collective Administration*, *supra* note 14, at 560 (providing an example of copyright fragmentation in the music industry).

36. See Gervais & Maurushat, *supra* note 33, at 15, 20 (“[m]ultimedia work is subdivided into the various components such as a sound, an image, a photograph, or software program.”).

37. E.g., Gervais, *Collective Management*, *supra* note 24, at 13.

38. See, e.g., Daniel Gervais, *Electronic Rights Management Systems*, 3 J. WORLD INTELL. PROP. 77, 81 (2000) (discussing the complexity of copyright management for a motion picture or play, where various rights holders, such as authors, publishers, performers, and producers are involved and entitled to royalties); see Guy Pessach, *The Beijing Treaty on Audiovisual Performances—The Return of the North?*, 55 IDEA 79, 86-89 (2014); Gervais & Maurushat, *supra* note 33, at 21 (discussing musical works within a motion picture, where each composer and producer within that movie may be entitled to royalties for their work). Some commentators argue that by enabling each contracting country to decide upon the relationship between audiovisual performers and film producers, article 12 of the Beijing Treaty on Audiovisual Performances actually weakens the protection for performers, who are principally in an inferior bargaining position. Similar criticisms are made on the “statutory presumptions,” a proposal that copyrights are systematically transferred to corporate entities; see also Lüder, *supra* note 9, at 26-27.

producers, composers, lyricists, performers, and publishers.³⁹ Therefore, a single use of a song requires separate licenses from different right holders and CMOs, such as an author's society, a producer's society, and a performer's society.⁴⁰ Copyright clearance on occasion becomes challenging when rights holders, such as producers/performers⁴¹ and composers/publishers,⁴² may have different views regarding how the subject work should be exploited.

Digital technologies, however, have made copyright fragmentation more common and legally confusing.⁴³ One example is the Internet

39. See, e.g., Katz, *Copyright Collectives*, *supra* note 7, at 402; Gervais, *Collective Management*, *supra* note 24, at 10, 12 (charting the rights and rights holders in an "internet communication of a sound recording containing a performance of a protected musical work"); Lüder, *supra* note 9, at 23-24, 41 ("There are many right-holders—e.g., authors, composers, publishers, record producers and performers—and rights—e.g. communication to the public, reproduction and 'making available'—that are involved in a single transaction involving the electronic provision of music."); see also WILLIAM W. FISHER III, PROMISES TO KEEP: TECHNOLOGY, LAW, AND THE FUTURE OF ENTERTAINMENT 59-67 (2004) (describing the bundle of rights and different rights holders underlying a film); Bell & Parchomovsky, *supra* note 35, at 1045 (noting that copyright protects various component elements, as well as the combined film, as a combined product as a whole of multiple contributions); Katz, *Rethinking the Collective Administration*, *supra* note 14, at 560 (noting that "[a] single song essentially comprises two separate protected works, its composition and its lyrics").

40. See, e.g., Lüder, *supra* note 9, at 23-24 (clarifying the distinction between authors' rights and rights of performers and record producers); see also FISHER, *supra* note 39, at 46-59 (describing the bundle of rights and different rights holders underlying music).

41. See, e.g., Séverine Dusollier & Caroline Colin, *Peer-to-Peer and Copyright: What Could Be the Role of Collective Management?*, 34 COLUM. J.L. & ARTS 809, 834 (2011) ("[p]roducers, who prioritize protecting their markets, may seek to halt unauthorized [peer-to-peer] transfers entirely, while performers may prefer compensation from exploitations bound to happen anyway."); Els Vanheusden, *Performers' Rights in European Legislation: Situation and Elements for Improvement*, AEPO-ARTIS 47 (2007), http://www.aepo-artis.org/usr/aepo-artis%20studies/study%20performers%20rights%20in%20acquis_aepo-artis.pdf (discussing royalties and remuneration interests of performers).

42. See generally Bruce A. Lehman, *Intellectual Property and the National Information Infrastructure: The Report of the Working Group on Intellectual Property Rights*, INFO. INFRASTRUCTURE TASK FORCE 222 (Sep. 1995), <https://www.uspto.gov/web/offices/com/doc/ipnii/ipnii.pdf> (identifying a disconnect in the interests of performers and composers for public performances of musical compositions).

43. See Jessica Litman, *Lawful Personal Use*, 85 TEX. L. REV. 1871, 1917 (2007) [hereinafter Litman, *Lawful Personal Use*]; Natke, *supra* note 5, at 495-98 (suggesting that overlapping rights can needlessly complicate online copyright

transmission of music in the United States, which involves both license for public performance and license for distribution. However, the former is administered by the American Society of Composers, Authors, and Publishers (ASCAP) and Broadcast Music, Inc. (BMI), whereas the latter is licensed by the Harry Fox Agency (HFA), a subsidiary of the National Music Publishers Association.⁴⁴ At times the reproduction and distribution rights are controlled by the music publishers themselves.⁴⁵ In other jurisdictions, similar problems exist where the right of reproduction and right of making available to the public.⁴⁶ The sharing of unauthorized content online infringes these two rights simultaneously.⁴⁷ In some jurisdictions, these rights are administered by one single CMO; whereas in others, they are managed by different entities.⁴⁸

As Henry Hansmann and Reinier Kraakman pointed out: “[f]rom an efficiency point of view, the objective in choosing a property rights regime should be to maximize the aggregate value of assets to rights holders less the aggregate user, nonuser, and system costs induced by the rights regime.”⁴⁹ Therefore, when evaluating the

enforcement); *see also* Jonah M. Knobler, *Performance Anxiety: The Internet and Copyright's Vanishing Performance/Distribution Distinction*, 25 CARDOZO ARTS & ENT. L. J. 531, 533 (2007) (questioning the distinction between reproduction, distribution, and performance rights on the Internet).

44. *See* Lehman, *supra* note 42, at 213-225; *see also* Joshua Keesan, *Let It Be? The Challenges of Using Old Definitions for Online Music Practices*, 23 BERKELEY TECH. L.J. 353, 356 (2008); Knobler, *supra* note 43, at 542 (describing the disaggregation of copyright interests as applied to transmission of music on the internet); Michael A. Einhorn & Lewis Kurlantzick, *Traffic Jam on the Music Highway: Is it a Reproduction or a Performance?*, 45 J. COPYRIGHT SOC'Y U.S.A. 417, 421-22 (2001).

45. *See* DONALD S. PASSMAN, ALL YOU NEED TO KNOW ABOUT THE MUSIC BUSINESS 206-38 (5th ed. 2003); Natke, *supra* note 5, at 495; *see also* Lemley, *supra* note 5, at 571 (“ASCAP licenses only performance rights, and the CCC [Copyright Clearance Center] only reproduction rights.”).

46. *See infra* Part III.B (addressing the problem of overlapping rights as it pertains to making copyrighted works available to the public).

47. *See* Lüder, *supra* note 9, at 26 (illustrating that a music downloading service would need to license both the reproduction right and the “making available” right).

48. *See* Lüder, *supra* note 9, at 24-25; Gervais & Maurushat, *supra* note 33, at 21; *see also* Litman, *Copyright Reform*, *supra* note 5, at 42 (“[i]t has become conventional for different copyright rights to be separately controlled by different intermediaries.”).

49. Henry Hansmann & Reinier Kraakman, *Property, Contract, and*

benefit brought by copyright divisibility, it is equally important to assess the resultant costs. From a user's perspective, if overlapping rights are administered by different CMOs, the costs of right clearance may increase significantly. Users need to identify who the right holders are and negotiate with them separately.⁵⁰ The transaction costs stemming from searching and negotiation are significant,⁵¹ which may be higher than the value of a user's activity.⁵²

B. THE TRAGEDY OF THE ANTICOMMONS

The theory of the tragedy of the anticommons was first conceptualized by Michael Heller's 1998 Harvard Law Review article, in which he used the post-Soviet property system as an example to illustrate the market failure resulted from fragmented property rights and coordination breakdown.⁵³ Heller discovered that in the post-socialist economy, property rights of real estate were fragmented and distributed to multiple stakeholders in Russia.⁵⁴ As it was quite difficult to obtain permission from all the rights holders,⁵⁵ new entrepreneurs preferred to start up their businesses in kiosks, rather than stores.⁵⁶ Therefore, the significant amount of empty and underused stores in the market was viewed as an example of the

Verification: The Numerus Clausus Problem and the Divisibility of Rights, 31 J. LEGAL STUD. 373, 397 (2002).

50. See Litman, *Copyright Reform*, *supra* note 5, at 10; Lemley, *Dealing with Overlapping Copyrights on the Internet*, *supra* note 5, at 570; see also Litman, *Sharing and Stealing*, *supra* note 29, at 21 (illustrating the difficulty of identifying rights holders for works obtained on the internet, yet simultaneously recognizing how the system benefits from that knowledge).

51. See Robert P. Merges, *Contracting into Liability Rules: Intellectual Property Rights and Collective Rights Organizations*, 84 CAL. L. REV. 1293, 1317 (1996) [hereinafter Merges, *Contracting into Liability Rules*]; see also Natke, *supra* note 5, at 500 (suggesting that the practice of "holdout behavior" is one of the many problems created by overlapping rights which can raise the transactional costs for users online).

52. E.g., Natke, *supra* note 5, at 486, 498-99, 501 ("[t]he value of posting the copyrighted work is simply not worth the effort or the price of all the license.").

53. See generally Michael A. Heller, *The Tragedy of the Anticommons: Property in the Transition from Marx to Markets*, 111 HARV. L. REV. 621 (1998) [hereinafter Heller, *Tragedy of the Anticommons*].

54. *Id.* at 637-39; see also Michael A. Heller, *Three Faces of Private Property*, 79 OR. L. REV. 417, 423 (2000) [hereinafter Heller, *Three Faces*].

55. See Heller, *Tragedy of the Anticommons*, *supra* note 53, at 639.

56. *Id.* at 633-35.

tragedy of the anticommons.⁵⁷ He defined anticommons as:

[m]ultiple owners are each endowed with the right to exclude others from a scarce resource, and no one has an effective privilege of use. When there are too many owners holding rights of exclusion, the resource is prone to under use—a tragedy of the anticommons.⁵⁸

Anticommons echoes economic theory suggesting that a single owner is better than multiple owners in making optimal use of the property.⁵⁹ When proposing the theory of anticommons in 1998, Heller was aware that this theory may have wide implications in the study of intellectual property (IP).⁶⁰ He and Rebecca Eisenberg further applied this theory to biomedical research and argued that patenting upstream biomedical research produced anticommons property where “too many owners hold rights in previous discoveries that constitute obstacles to future research.”⁶¹ Anticommons becomes a tragedy when it is too costly for users to obtain all essential licenses.⁶² Nobel laureate James Buchanan and his co-author Yong J. Yoon similarly point out that multiple and overlapping patents may generate anticommons, where too many right holders can prevent the use of a particular resource.⁶³ In recent years, anticommons theory has been applied to the analysis of a number of IP issues, such as joint authorship,⁶⁴ patent pools, and IP clearing houses.⁶⁵ Researchers vividly argue that the transaction costs of negotiating with multiple

57. *Id.* at 633-35, 659.

58. *Id.* at 624.

59. *See, e.g.,* Harold Demsetz, *Toward a Theory of Property Rights*, 57 AM. ECON. REV. (PAPERS & PROC.) 347, 354-55 (1967) (theorizing that negative externalities – and the traditional ‘tragedy of the commons’ – can be mitigated by having a single owner, because the single owner “[w]ill attempt to maximize [property’s] present value by taking into account alternative future time streams of benefits and costs”).

60. *See* Heller, *Tragedy of the Anticommons*, *supra* note 53, at 626.

61. Michael A. Heller & Rebecca S. Eisenberg, *Can Patents Deter Innovation? The Anticommons in Biomedical Research*, 280 AM. ASS’N FOR ADVANCEMENT SCI. 5364, 698, 700 (1998).

62. *Id.* at 699.

63. *See* James M. Buchanan & Yong J. Yoon, *Symmetric Tragedies: Commons and Anticommons*, 43 J.L. & ECON. 1, 1 (2000).

64. *See* Bell & Parchomovsky, *supra* note 35, at 1047-1049.

65. *See* Reiko Aoki & Aaron Schiff, *Promoting Access to Intellectual Property: Patent Pools, Copyright Collectives, and Clearinghouses*, 38 R&D MGMT. 189, 194-202 (2008).

rights holders would eventually do harm to downstream innovation, market efficiency, and end users of various IP products.⁶⁶ In general, property rights are more “a part of the problem than a part of the solution” in the anticommmons scenario.⁶⁷

The tragedy of the anticommmons takes place in the context of divided copyrights as well. As Heller points out, “[g]overnments can create too many property rights and too many decisionmakers who can block use.”⁶⁸ When specific rights subsist in the same work are administered by different copyright collecting societies, the costs of copyright clearance will increase significantly.⁶⁹ Transaction costs, strategic behaviors, and cognitive biases may all hinder efficient negotiation.⁷⁰ However, this does not mean that CMOs or entities that obtain any of the subdivision right should be blamed for the tragedy. It is natural that “[a]fter initial entitlements are set, institutions and interests coalesce around them, with the result that the path to private property may be blocked and scarce resources may be wasted.”⁷¹

The perverse result will be that every right holder has the exclusive right to prevent others from using the underlying work,⁷² and eventually no single party can legally exploit the subject copyrighted work.⁷³ To put it differently, gridlock in relevant

66. *Id.* at 193.

67. JYH-AN LEE, NON-PROFIT ORGANIZATIONS AND THE INTELLECTUAL COMMONS 20-21 (2012) (explaining how intellectual property rights create problems in the tragedy of the anticommmons by quoting Lee Anne Fennel, “[t]he tragedy of the commons tells us why things are likely to fall apart, and the tragedy of the anticommmons helps explain why it is often so hard to get them back together”).

68. Heller, *Tragedy of the Anticommmons*, *supra* note 53, at 625.

69. See Niva Elkin-Koren, *What Contracts Cannot Do: The Limits of Private Ordering in Facilitating a Creative Commons*, 74 *FORDHAM L. REV.* 375, 381 (2005) (“[o]verlapping rights – held by different rights holders – make it more costly to secure a license to use a copyrighted work.”).

70. See Heller, *Tragedy of the Anticommmons*, *supra* note 53, at 625-26; see also Heller, *Three Faces*, *supra* note 54, at 423; Heller & Eisenberg, *Anticommmons in Biomedical Research*, *supra* note 61, at 698.

71. Heller, *Tragedy of the Anticommmons*, *supra* note 53, at 659.

72. See Gervais, *Collective Management*, *supra* note 24, at 13; Natke, *supra* note 5, at 500 (conceiving of a scenario where most entities grant permission to use copyrighted work, but the final company could ‘hold out’ and demand an outrageous amount of money for the license).

73. See Lemley, *supra* note 5, at 57-72.

industries and holdout behaviors would become a serious problem because of copyright divisibility.⁷⁴ Consequently, a single piece of exclusive right may become less valuable,⁷⁵ and the consumption of copyrighted works may come below the socially optimal level.⁷⁶ Copyright divisibility results in the tragedy of the anticommons, where overly fragmented ownership causes excessive transaction costs for users and consequent underuse of the subject property.⁷⁷ In the end, the multitude of rights and right holders on the same copyrighted work leads to a classic example of market failure.⁷⁸

III. THE PROBLEM OF OVERLAPPING RIGHTS

Traditionally every type of copyright use fits nicely with individual subdivision of copyright.⁷⁹ If I make a copy of a book without a copyright owner's permission, I may infringe his right of reproduction. If I broadcast a song via radio, this involves the right of broadcasting or communication to the public. Nevertheless, a single act may also fall into the overlapping zones of different rights and

74. See Lydia Pallas Loren, *Untangling the Web of Music Copyrights*, 53 CASE W. RES. L. REV. 673, 698 (2003); see also Einhorn & Kurlantzick, *supra* note 44, at 418 (“[s]ince these rights are controlled by different parties and agents, the complexity of the system leads to a gridlock of control that may hinder development.”).

75. See Lemley, *supra* note 5, at 571; see also Robert P. Merges, *Of Property Rules, Coase, and Intellectual Property*, 94 COLUM. L. REV. 2655, 2659 (1994) (discussing valuation problems for overlapping intellectual rights on a single product).

76. See Loren, *supra* note 74, at 700; see also LAWRENCE LESSIG, FREE CULTURE: HOW BIG MEDIA USES TECHNOLOGY AND THE LAW TO LOCK DOWN CULTURE AND CONTROL CREATIVITY 223 (2004) (illustrating that if it is a felony to use intellectual property without permission, and the owner cannot be located, then detriment to society will naturally follow).

77. MICHAEL HELLER, THE GRIDLOCK ECONOMY: HOW TOO MUCH OWNERSHIP WRECKS MARKETS, STOPS INNOVATION, AND COSTS LIVES 37-43 (2008) [hereinafter HELLER, GRIDLOCK ECONOMY].

78. See Loren, *supra* note 74, at 677 (“Without low-transaction-cost solutions and reasonable absolute prices for obtaining authorization for the digital activities of millions of users, we see a classic example of market failure.”). *But see* Katz, *Copyright Collectives*, *supra* note 8, at 402-3 (arguing that the market itself provides incentives for authors to avoid fragmentation of economic rights).

79. See, e.g., Natke, *supra* note 5, at 496 (“Divisibility allows for multiple owners of a single copyrighted work, each with a different slice of the copyright bundle of rights.”).

violate all those rights at once.⁸⁰ The distinction between different economic rights is sometimes unclear, which creates uncertainties for copyright enforcement or collective rights management (CRM).⁸¹ If a user gets a license to make certain use of a work, it does not mean that his exploitation of the work is entirely legal. If other overlapping rights involved are incidental to or necessary to a certain use, the user may still need to get additional licenses associated with those overlapping rights.⁸²

As the Internet and digital technologies have increasingly transformed the clear distinction between different uses and accompanying rights, issues concerning overlapping rights are increasingly common.⁸³ Professor Jessica Litman once asked: “When someone views a website or listens to a song over the Internet, is she committing a reproduction, a distribution, a performance or display,

80. See H.R. REP. NO. 94-1476, 61-62 (1976) (“The exclusive rights . . . can generally be characterized as rights of copying, recording, adaptation, and publishing. A single act of infringement may violate all these rights at once, as where a publisher reproduces, adapts, and sells copies of a person’s copyrighted work as part of a publishing venture.”).

81. Natke, *supra* note 5, at 525.

82. See Litman, *Lawful Personal Use*, *supra* note 43, at 1916-17; see also Lemley, *supra* note 5, at 571 (suggesting that overlapping rights which govern the same conduct can “serve as a trap for unwary users” in the case of divided ownership rights).

83. See, e.g., Katz, *Rethinking the Collective Administration*, *supra* note 14, at 561 (“When it comes to the internet the problem of fragmentation becomes more complicated because a single online transmission of a work may involve different overlapping copyrights . . . such as reproduction, performance, distribution, etc.”); see also Megan Larkin, *The Demise of the Copyright Act in the Digital Realm: Re-Engineering Digital Delivery Models to Circumvent Copyright Liability after Aereo*, 37 COLUM J.L. & ARTS 405, 408 (2014) (stating that rights of reproduction, derivative works, distribution, public performance, public display, and digital transmission often overlap online); Peter K. Yu, *How Copyright Law May Affect Pop Music Without Our Knowing It*, 83 UMKC L. REV. 363, 390-91 (2014) (noting that a wide variety of exclusive rights overlap in the digital environment); Gervais, *Collective Management*, *supra* note 24, at 10-11 (“Rights fragments . . . are complex and increasingly a source of frustration for users because they no longer map our discrete uses.”); Knobler, *supra* note 43, at 542-74 (questioning whether both reproduction and performance rights are involved by an online download); Natke, *supra* note 5, at 486 (“[t]he difficulty is that a single activity in cyberspace often implicates several exclusive rights and . . . interests”); Lemley, *supra* note 5, at 568 (“[t]he pervasive overlap of exclusive rights . . . is endemic to [intern]et transmissions”).

or all of them at once?”⁸⁴ She indicated that every Internet related use of copyrighted works involves rights of reproduction, distribution, public performance, and public display in the United States.⁸⁵ Take the media-on-demand service for example; such a business model may be built upon all those rights, plus the right of communication to the public in some other jurisdictions. It is, therefore, very easy for unwary users to infringe copyright even if they have already obtained license for any of the single exclusive right.⁸⁶ Some scholars have rightfully pointed out that the problem of overlapping rights in the digital space stems from the fact that the divisibility doctrine does not take Internet transmission into consideration.⁸⁷ For instance, whether digital transmission falls in the scope of right of distribution was once an issue.⁸⁸ Just like the anticommons in biomedical research, the spiral of overlapping rights in the hands of different owners may constitute obstacles to new product development and innovation.⁸⁹ In this section, we will discuss a number of cases and

84. Litman, *Copyright Reform*, *supra* note 5, at 45; *see also* Gervais, *Collective Management*, *supra* note 24, at 10 (“[t]he way in which right fragments are expressed no longer matches who does what, and for which purpose, with a work or object of a related right.”).

85. *See* Litman, *Sharing and Stealing*, *supra* note 29, at 19-20; Knobler, *supra* note 43, at 535 (similarly identifying rights of reproduction, distribution, and public performance in the Internet environment); Natke, *supra* note 5, at 486 (claiming that “[c]onsumers who were licensed for example, to publicly display copyrighted content online unknowingly may be infringing a different party’s reproduction or distribution right over that same content”); Einhorn & Kurlantzick, *supra* note 44, at 417 (stating that ever audio transmission on the internet involves rights of reproduction, distribution, public performance and display); Lemley, *supra* note 5, at 567-68 (suggesting that it may be “overkill to say that sending a document across the Net violates the reproduction right. . . the distribution right, the performance and display rights”).

86. *See, e.g.*, Lemley, *supra* note 5, at 571; *see also* Natke, *supra* note 5, at 498, 501 (stating that the “average cyberspace user has little knowledge that a particular action implicates more than one exclusive right” and also describing the “situation where a user obtains a license from one exclusive rights holder but is sued for a copyright infringement by another”).

87. *See* Natke, *supra* note 5, at 495-96, 568; *see also* Loren, *supra* note 74, at 716.

88. *See, e.g.*, David O. Carson, *Making the Making Available Right Available*, 33 COLUM. J.L. & ARTS 135, 145, 147 (2010); *see also* Gervais & Maurushat, *supra* note 33, at 81.

89. *See* Heller & Eisenberg, *supra* note 61, at 698-99 (“[a] spiral of overlapping patent claims in the hands of different owners, reaching ever further upstream in the course of biomedical research. . . [t]he tragedy of the anticommons

relevant issues concerning overlapping rights in the jurisdictions of China, Germany, the United Kingdom, and the United States.

A. RIGHTS OF COMMUNICATION TO THE PUBLIC AND PUBLIC PERFORMANCE

The problem of overlapping rights may exist in traditional use of copyrighted work.⁹⁰ For instance, the difference between the right of communication to the public and the right of public performance once troubled the British courts. In *Football Association Premier League v QC Leisure*,⁹¹ a number of publicans used a foreign decoder to show on television screens the broadcast of Premier League games in their pubs.⁹² Judge Kitchin gave a provisional view that the publican had not communicated to the broadcasts to the public as there had been no further re-transmission by wire or otherwise.⁹³ Therefore, Judge Kitchin held that there was no communication to the public.⁹⁴

However, the Court of Justice of the European Union (CJEU) had a different viewpoint, stating that transmitting the football matches on television screens constituted a communication to the public because the audience there did not have direct physical contact with the actors or performers of the work.⁹⁵ This is because under the E.C. Information Directive and E.C. Copyright in the Information Society Directive Recital 23,⁹⁶ the distinction between right of communication to the public and right of public performance is that the former does not apply to on-site performance.⁹⁷ Nevertheless, commentators suggested that the opinion held by the CJEU has substantially expanded the scope of the right of communication to the public and blurred the line between it and the right of public

refers to the more complex obstacles that arise when a user needs access to multiple patented inputs to create a single useful product.”).

90. *But see* Natke, *supra* note 5, at 503 (claiming that “[t]here are no major barriers, such as high transactional costs, holdout behavior, and uncertainty over litigation”).

91. *FAPL v. QC Leisure*, EWHC 1411 (2008).

92. *Id.*; [2008] 3 C.M.L.R. 12.

93. *Id.*; 3 C.M.L.R. 12 at [262].

94. *QC Leisure*, EWHC 141.

95. *Id.*; *FAPL (C-403/08)*[2011] E.C.D.R. 8 at [202]-[203].

96. *See* Directive 2001/29, *supra* note 17, art. 23.

97. *See* GOLDSTEIN & HUGENHOLTZ, *supra* note 3, at 321.

performance in British law.⁹⁸ Judge Kitchin, who later became Lord Justice, believes that the CEJU's opinion suggested that there is an overlap between the right of communication to the public and the right of public performance.⁹⁹ If the overlap does exist, it means that the users can only make use of the copyrighted work legally with licenses of both right of communication to the public and right public performance, which may be administered by different CMOs.

B. RIGHT OF MAKING AVAILABLE TO THE PUBLIC

As traditional taxonomy of exclusive rights, such as rights of public performance and recitation, broadcasting, and cable transmission,¹⁰⁰ only covers "push" technology,¹⁰¹ the "right of making available to the public" was incorporated into the WIPO Copyright Treaty (WCT) and the European Union Copyright Directive (the Directive 2001/29/EC of the European Parliament and of the Council of 22 May 2001 on the Harmonisation of Certain Aspects of Copyright and Related Rights in the Information Society, the E.C. Copyright Information Society Directive) to include the Internet-enabled interactive services.¹⁰² Put differently, the right of making available to the public originated from the inability of the Berne Convention for the Protection of Literary and Artistic Works to cover interactive or on-demand transmission of copyrighted work enabled by the Internet.¹⁰³ This right was designed to be a type of a more general right of communication to the public.¹⁰⁴

98. See, e.g., Mysoor, *supra* note 32, at 173.

99. *QC Leisure*, EWHC 1411; 2 C.M.L.R. 16 at [63].

100. Berne Convention, 1971 Paris Text Art. 11, 11bis, and 11ter [hereinafter Berne Convention].

101. See, e.g., Carson, *supra* note 88, at 142; see Mysoor, *supra* note 32, at 168; see also BENTLY & SHERMAN, *supra* note 3, at 163 (noting that traditional communication to the public "presupposes an act of transmission from source to recipient, whereas a making available involves transmission of a work to a place typically, the Internet) from which it can be accessed at will").

102. See WIPO Copyright Treaty, *supra* note 17, art. 8; Directive 2001/29, *supra* note 17, art. 3(1).

103. See, e.g., GOLDSTEIN & HUGENHOLTZ, *supra* note 3, at 328; see also Katherine E. Beyer, *Taking the "Hype" Out of Hyper-Linking: Linking Online Content Not Grounds for U.S. Copyright Infringement*, 55 IDEA 1, 6-7 (2014); Carson, *Making the Making Available Right Available*, *supra* note 88, at 142.

104. See TANYA APLIN & JENNIFER DAVIS, *INTELLECTUAL PROPERTY LAW: TEXT, CASES, AND MATERIALS* 172 (2nd ed. 2013)); BENTLY & SHERMAN, *supra* note 3, at 158-59; GOLDSTEIN & HUGENHOLTZ, *supra* note 3, at 329; SILKE VON

Article 8 of the WCT provides that “authors of literary and artistic works shall enjoy the exclusive right of authorizing any communication to the public of their works, by wire or wireless means, including the making available to the public of their works in such a way that members of the public may access these works from a place and at a time individually chosen by them.”¹⁰⁵ Articles 10 and 14 of the WIPO Performers and Phonograms Treaty (WPPT) similarly provide performers and producers of phonograms with the right of “making available to the public.”¹⁰⁶ Under Article 3(1) of the E.C. Copyright Information Society Directive, Member States are to confer on authors the exclusive right of communicating a work to the public, which “includes” the making available of that work in such way that members of the public may access the work from a place that at a time individually chosen by them.¹⁰⁷ This right covers various interactive uses of copyright works, including offer for download, streaming music works, pay-per-view TV channels, and file sharing over peer-to-peer networks.¹⁰⁸

As this right of making available to the public is different from but sometimes overlapping with traditional exclusive rights,¹⁰⁹ especially the right of reproduction, a legitimate interactive online service involving overlapping rights may require multiple clearance transactions.¹¹⁰ In countries like the United States that have not

LEWINSKI, INTERNATIONAL COPYRIGHT LAW AND POLICY 458 (2008).

105. WIPO Copyright Treaty, *supra* note 17, art. 8.

106. WIPO Performances and Phonograms Treaty, *supra* note 17, arts. 10, 14.

107. Directive 2001/29, *supra* note 17, art. 3(1).

108. *See, e.g.*, GOLDSTEIN & HUGENHOLTZ, *supra* note 3, at 329; *see also* JÖRG REINBOTHE & VON LEWINSKI, THE WIPO TREATIES ON COPYRIGHT: A COMMENTARY ON THE WCT, THE WPPT, AND THE BTAP 134, 139 (2nd ed. 2015); VON LEWINSKI, *supra* note 104, at 457; Carson, *supra* note 88, at 143-44; Lüder, *supra* note 9, at 33-36.

109. *See* REINBOTHE & VON LEWINSKI, *supra* note 108, at 136; *see also* Sherwin Siy, *The Increasing Relevance of Copyright Statutory Damages: Some Brief Digressions Upon Capitol Records v. Thomas*, 19 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 1013, 1013-14 (2009) (discussing the distinction or overlapping of distribution right and right of making available to public); Peter K. Yu, *Teaching International Intellectual Property Law*, 52 ST. LOUIS U. L.J. 923, 934-35 (2008) (noting the confusion associated with the differences between right of making available to public and right of distribution);

110. *See, e.g.*, Gervais & Maurushat, *supra* note 33, at 82; *see also* Lüder, *supra* note 9, at 26. There is one distinction between the right of making available to the public and traditional right of communication to the public: the former is granted

legislated the right of making available to the public, one common argument against such legislation is its potential overlap with the rights of public performance and public display.¹¹¹ This section will use right of making available as an example to illustrate different judicial approaches to overlapping rights issues in China, Germany, and the United States.

1. *Right of Network Communication in China*

Different jurisdictions may implement the right of making available to the public differently in terms of the scope of right and its relations with other type of exclusive right. One notable example is China, amending its Copyright Law in 2001 and establishing a new category of economic right: "the right of communication through the information network" in accordance with the article 8 of WCT and article 10 and 14 of WPPT.¹¹² This right is occasionally referred to as the "Internet right"¹¹³ or "right of network communication" in China.¹¹⁴ According to the Chinese Copyright Law, this right is defined as "the right to communicate to the public a work, by wire or wireless means, in such a way that the public may access these works from a place and at a time individually chosen by them."¹¹⁵ In order to implement this economic right appropriately, the State Council in China promulgated the "Regulation on

to authors, performers, and producers; whereas the latter is only accorded to authors. *See generally* Directive 2001/29, *supra* note 17, art. 3.

111. *See* Beyer, *supra* note 103, at 11; *see also* Carson, *supra* note 88, at 147.

112. *See, e.g.*, QU SANQIANG, INTELLECTUAL PROPERTY LAW IN CHINA 228 (2012); *see also* GORDON GAO ET AL., INTELLECTUAL PROPERTY RIGHTS IN CHINA 153-54 (2011); Qian Wang, *The Right of Communication Through the Information Network in the People's Republic of China*, in COPYRIGHT LAW, DIGITAL CONTENT, AND THE INTERNET IN THE ASIA-PACIFIC 187, 187 (Brian Fitzgerald et al., eds. 2007); Yong Wan, *A Modest Proposal to Amend the Chinese Copyright Law: Introducing a Concept of Right of Communication to the Public*, 55 J. COPYRIGHT SOC'Y U.S.A. 603, 618-619 (2008).

113. *See, e.g.*, Jesse London, *China's Approaches to Intellectual Property Infringement on the Internet*, 38 RUTGERS L. REC. 1, 7-8 (2010-2011).

114. Wang, *supra* note 112, at 188.

115. (2010年2月26日, 中华人民共和国著作权法) [Copyright Law of the People's Republic of China of February 26, 2010] (amended up to the Decision of February 26, 2010, by the Standing Committee of the National People's Congress on Amending the Copyright Law of the People's Republic of China, Feb. 26, 2010, effective Apr. 1, 2010); *see* WIPO Copyright Treaty, *supra* note 17, art. 10(12).

Protection of the Right of Communication via Information Networks” in 2006.¹¹⁶

As mentioned previously, the right of making available to the public occasionally overlaps conceptually with other existing economic rights, especially the right of reproduction.¹¹⁷ Some Chinese copyright scholars suggest that unauthorized uploading of copyrighted material to online platforms or servers triggers the infringement of both right of reproduction and right of network communication.¹¹⁸ Nonetheless, the right of network communication in China is defined more broadly than the right of making available to the public in other jurisdictions. It is a comprehensive right in cyberspace that includes traditional rights of reproduction, performance, and display.¹¹⁹ Two judges in Beijing responsible for adjudicating intellectual property cases recently published their opinions regarding the relationship between the right of network communication and the right of reproduction. Justice Liping Cao provides an example where a user obtains only a license of right of network communication, but not right of reproduction, from the copyright owner for a song.¹²⁰ Justice Cao held that this user will not infringe the right of reproduction if he uses the song in his flash animation and uploads the flash animation to a website for public access.¹²¹ Justice Cao reasons that reproduction is a step towards fulfilling network communication or making available to the public via the Internet.¹²² In other words, reproduction is just part of network communication, rather than an independent economic right in such scenarios.¹²³ Therefore, only a license for right of network

116. See GUAN H. TANG, COPYRIGHT AND THE PUBLIC INTEREST IN CHINA 87 (2011); see also Wang, *supra* note 113, at 188; Wan, *supra* note 113, at 620; Hong Xue, *Les Fleurs du Mal: A Critique of the Legal Transplant in Chinese Internet Copyright Protection*, 34 RUTGERS COMPUTER & TECH. L.J. 168, 170 (2007).

117. See *supra* text accompanying note 105.

118. See Wang, *supra* note 112, at 191; Xue, *supra* note 116, at 189.

119. E.g., SANQIANG, *supra* note 112, at 132.

120. Liping Cao, *Dang Fuzhiquan Yu Xinxiwangluquan Xiangyu Zai Hulanwang [When Right of Reproduction Meets Right of Network Communication in Cyberspace]*, ZHONGGUO ZHISHICHANQUAN WANG [CHINA INTELLECTUAL PROPERTY RIGHT NET], Vol. 108, (Mar. 2, 2016), http://www.cnipr.com/sfsj/zjcf/201603/t20160302_195278.htm.

121. *Id.*

122. *Id.*

123. *Id.*

communication is sufficient for the user.

Justice Gang Feng, who sits on the Beijing Intellectual Property Court, shares a similar viewpoint that the user does not need to acquire a separate license for reproduction rights.¹²⁴ Justice Feng suggests that reproduction is an inevitable premise for network communication.¹²⁵ The former is a minor conduct, which should be conceptually absorbed by the latter, which is a major conduct.¹²⁶ Justice Xiangjun Kong in the Supreme People's Court, a leading authority in intellectual property law, also recognized the overlapping issue brought by the creation of right of network communication.¹²⁷ His opinion is similar to that of Justice Feng that reproduction rights will be absorbed by the right of network communication when they overlap with each other.¹²⁸ Chinese copyright scholars likewise observe that the reproduction right is shrinking in the digital and cloud-computing context because right of network communication has become a major and comprehensive economic right therein.¹²⁹

Although the Chinese courts have not approached the overlapping of network communication right and reproduction right in a sophisticated way, leading IP practitioners have laid solid foundation for further academic dialogue and judicial development. From the discussions above, it seems that, when they overlap, the consensus of leading Chinese IP judges is that network communication right overrides reproduction right.

2. *MyVideo in Germany*

German courts once faced the issue of overlapping rights of reproduction and making available to the public regarding an online

124. Gang Feng, (Qinhai Xinxiwangluquan Xingwei Gouchengyaojian Wenti Yanjiu) [Research on Elements of Infringing Right of Network Communication], ZHONGGUO BANQUAN [CHINA COPYRIGHT], Vol. 5, (Dec. 18, 2015), <http://article.chinalawinfo.com/ArticleFullText.aspx?ArticleId=94454>.

125. *Id.*

126. Feng, *supra* note 124.

127. Xiangjun Kong, *On Information Network Dissemination Behavior*, PEOPLE'S JUDICIARY (2012).

128. Feng, *supra* note 124.

129. See Liping Ma, *A Study on Issues Regarding Reproduction Right in the Cloud Environment*, CHINA COPYRIGHT (2016).

streaming service provider MyVideo.¹³⁰ MyVideo is a subsidiary of a leading German TV company ProSiebenSat.1 Media AG.¹³¹ Although MyVideo already acquired a pan-European license from Gesellschaft für Musikalische Aufführungs- und Mechanische Vervielfältigungsrechte (GEMA) for making available to the public,¹³² it was still claimed for the infringement of mechanical reproduction rights, including the right of reproduction and right of distribution,¹³³ by a CMO called Central European Licensing and Administration Services (CELAS),¹³⁴ a joint venture of Germany's GEMA and UK's PRS for Music.¹³⁵ CELAS administers mechanical right for online users of the Anglo-American EMI repertoire.¹³⁶ After its negotiation with CELAS broke, MyVideo sought declaratory judgment against CELAS, claiming that CELAS did not have legal basis to claim for infringement of mechanical reproduction right.¹³⁷ Both the Munich District Court and Munich Court of Appeals ruled against CELAS because the courts opined that requesting a license

130. Lucie Guibault & Stef van Gompel, *Collective Management in the European Union*, in COLLECTIVE MANAGEMENT OF COPYRIGHT AND RELATED RIGHTS 135, 162 (Daniel Gervais ed., 2010).

131. See Fabian Niemann, *German Court Decides that the Split of Online Music Copyright is Invalid*, LEXOLOGY (Dec. 14, 2009), <http://www.lexology.com/library/detail.aspx?g=698bb05d-7417-4b48-bf4d-8e97bf75a1d0>.

132. *Id.*

133. E.g., Martin Von Albrecht & Jan Nicolaus Ullrich, *Munich District Court Holds Pan-European Copyright Licensing Model of Joint Venture as Invalid*, 1, 11 No. 9 E-COMMERCE L. REP. (2009); see Niemann, *supra* note 131; Anne Yliniva-Hoffman, *DE-Germany: MyVideo Wins Legal Dispute with CELAS Before Munich District Court I* IRIS MERLIN (Aug. 12, 2009), <http://merlin.obs.coe.int/iris/2009/8/article12.en.html>.

134. Guibault & van Gompel, *supra* note 130, at 162.

135. See, e.g., Benjamin Farrand, *Networks of Power in Digital Copyright Law and Policy: Political Salience, Expertise and the Legislative Process* 144 (2014); see also Annette Kur & Thomas Dreier, *European Intellectual Property Law: Text, Cases and Materials* 403 (2013); Allen Bargfrede & Cecily Mak, *Music Law in the Digital Age* 113, 129 (Jonathan Feist ed., 2009); Guibault & Gompel, *supra* note 130, at 161; Von Albrecht & Ullrich, *supra* note 133; Niemann, *supra* note 131 (claiming that declaring the practice of splitting online rights to be consistent with German law has created uncertainty and confusion to collective rights management schemes).

136. See Guibault & Gompel, *supra* note 130; see also Von Albrecht & Ullrich, *supra* note 133; Niemann, *supra* note 131; Yliniva-Hoffman, *supra* note 133.

137. See Guibault & Gompel, *supra* note 130, at 161; Niemann, *supra* note 131.

purely for mechanical right does not make economic sense.¹³⁸ In other words, making copyrighted work available to the public online necessarily involves making reproductions of that work.¹³⁹ The courts considered the users' perspective and therefore, reasoned that splitting rights of reproduction and making available online create significant uncertainties for online users.¹⁴⁰ Moreover, users are not supposed to face "double claims regarding a uniform technical process."¹⁴¹ These decisions were also based on the German copyright rule that prevents right holders from over-fragmenting exclusive rights.¹⁴² As a result, the courts ruled that right holders can only license rights that are economically feasible.¹⁴³ Researchers indicate that the court decisions "invalidated the license system set up by CELAS for use of content on the Internet."¹⁴⁴

3. *MP3.com in the United States*

There is no "right of making available to the public" in the U.S. Copyright Act because Congress was advised that this right is already included in the combination of public performance right and distribution right.¹⁴⁵ Rights of reproduction and public performance

138. See Reto M. Hilty & Sylvie Nérisson, *Collective Copyright Management*, in HANDBOOK ON THE DIGITAL CREATIVE ECONOMY 222, 229 (Ruth Towse & Christian Handke eds., 2013).

139. See Guibault & Gompel, *supra* note 130; Niemann, *supra* note 131; Von Albrecht & Ullrich, *supra* note 133; Yliniva-Hoffman, *supra* note 133.

140. Guibault & Gompel, *supra* note 130, at 163; Von Albrecht & Ullrich, *supra* note 133.

141. See Von Albrecht & Ullrich, *supra* note 133 (explaining that "[u]sers would face substantial legal uncertainty and the risk of double claims regarding a uniform technical process").

142. See Josef Drexl, *Collective Management of Copyrights and the EU Principle of Free Movement of Services After the OSA Judgment—In Favour of a More Balanced Approach*, in VARIETIES OF EUROPEAN ECONOMIC LAW AND REGULATION 459, 483 (Purnhagen Kai & Peter Rott eds., 2014) [hereinafter Drexl, *Collective Management of Copyrights*]; see also Von Albrecht & Ullrich, *supra* note 133; Niemann, *supra* note 131 (holding that the defendant, who claimed to be a collecting society, would need approval from the Patent Office before executing collective rights on half of others).

143. See Drexl, *Collective Management of Copyrights*, *supra* note 142, at 483; Guibault & Gompel, *supra* note 130, at 163.

144. See Guibault & Gompel, *supra* note 130, at 162.

145. See, e.g., Von Lewinski, *supra* note 104, at 135; see also Carson, *supra* note 88, at 146-47.

are two rights that tangle in a number of new business models.¹⁴⁶ Therefore, digital services, that trigger the right of making available to the public in other jurisdictions, implicates instead rights of reproduction and public performance in the United States

In the early days of the digital music revolution, *MP3.com* purchased CDs and reproduced the music to facilitate its streaming business model. Although the company acquired public performance licenses from ASCAP and BMI,¹⁴⁷ it was held liable for willful infringement of the reproduction right, which was administered by another entity.¹⁴⁸ *MP3.com* argued that the acquisition of CDs includes a performing right license, accompanied by an implied license for reproduction insofar as necessary to perform the music.¹⁴⁹ Professor Jessica Litman similarly argued for *MP3.com* by referring to the fact that “[m]aking temporary unlicensed copies to facilitate licensed broadcasts is something radio and television broadcasters have done as a matter of course for forty years.”¹⁵⁰ Nonetheless, the U.S. District Court for the Southern District of New York disagreed and held that:

“Performance” and “reproduction” are clearly and unambiguously separate rights under the Copyright Act of 1976. Here, the performing rights licenses themselves, as their name implies, explicitly authorize public performance only, do not purport to grant a reproduction right in music compositions. . . . Moreover, the performing rights societies themselves do not, and do not purport to have, the authority to grant such a right.¹⁵¹

In other words, even though *MP3.com* had secured performance

146. See, e.g., Lemley, *supra* note 5, at 574; see also FISHER, *supra* note 39, at 160 (discussing whether the streaming of audio or video and delivery of downloadable files fall into public performance, reproduction, or distribution rights); Gervais, *Collective Management*, *supra* note 24, at 10 (“Right fragments such as ‘reproduction’ or ‘public performance’ are complex and increasingly a source of frustration for users.”).

147. See Litman, *Sharing and Stealing*, *supra* note 29, at 19.

148. *Country Rd. Music*, 279 F. Supp. at 333 (holding that the defendants “[c]ould not escape a finding of willfulness by reliance on their erroneous views of a legal ‘escape hatch’ that does not exist.”).

149. *Id.* at 327.

150. Jessica Litman, *War Stories*, 20 CARDOZO ARTS & ENT. L.J. 337, 346-47 (2002).

151. *Country Rd. Music*, 279 F. Supp. at 327-28.

rights licenses from the performing rights societies, the court held that the company still infringed copyright because such licenses did not include right of reproduction and doctrine of implied license was not applied there.

Comparison and Analysis

Judiciaries in China, Germany, and the United States have been aware of the issues associated with overlapping reproduction right and public performance right/right of making available to the public. Previously mentioned Chinese judges and the German judges deciding the *MyVideo* case all agree that if users already have license for making available to the public, they do not need additional one for reproduction. They reach the same conclusion with similar reasoning, pointing out that reproduction is an inevitable step for making available to public and it does not make legal sense to separate them for two licenses.¹⁵² Some researchers expressed viewpoint similar to *MyVideo* courts that from an economic perspective, copyright holders can be justifiably “compensated for an ancillary, technological byproduct that potentially implicated another right yet had no independent economic value” and “[t]o require additional fees in such a situation would undermine the economic, utilitarian framework that underlies copyright law.”¹⁵³ In a report concerning overlapping rights of reproduction and public performance in connection with music downloading and the Digital Millennium Copyright Act (DMCA), the U.S Copyright Office likewise pointed out that:

To the extent that such a download can be considered a public performance, the performance is merely a technical by-product of the transmission process that has no value separate from the value of the

152. See Wang, *supra* note 112; see also TANG, *supra* note 116; APLIN & DAVIS, *supra* note 104; BENTLY & SHERMAN, *supra* note 3; GOLDSTEIN & HUGENHOLTZ, *supra* note 3; SANQIANG, *supra* note 112; BARGFREDE & MAK, *supra* note 135; FARRAND, *supra* note 135; Xue, *supra* note 116; Cao, *supra* note 120; Von Albrecht and Ullrich, *supra* note 133; Yliniva-Hoffman, *supra* note 133; Guibault & Gompel, *supra* note 130; Copyright Law of the People’s Republic of China (promulgated by the Standing Comm. Nat’l People’s Cong., Feb. 26, 2010, effective April 1, 2010), art. 10 P.R.C. LAWS 1, 7.

153. Jesse A. Bland, *Biting the Hand That Feeds: Why the Attempt to Impose Additional Performance Fees on iTunes Is a Search for Dollars Without Sense*, 2 HARV. J. SPORTS & ENT. L. 157, 185 (2011).

download. . . Demanding a separate payment for the copies that are an inevitable by-product of that activity appears to be double-dipping and is not a sound equitable basis for resisting the invocation of the fair use doctrine.¹⁵⁴

The similarity between the *MyVideo* and *MP3.com* is that defendants in both cases obtained licenses for making available to the public or public performance. However, neither was licensed for reproduction. The U.S. federal district court insisted on the doctrine of copyright divisibility and held that another license for reproduction was necessary.¹⁵⁵ On the other hand, the German court approached this issue from an economic and technical perspective and ruled that additional license for reproduction is pointless.¹⁵⁶ Some scholars suggest that the *MyVideo* case presented the different practice of CMOs in continental-European countries and Anglo-American jurisdictions.¹⁵⁷ Continental-European CMOs normally require right holders to license both the reproduction right (“mechanical right”) and right of making available to the public; whereas Anglo-American CMOs typically only request public performance right.¹⁵⁸ Therefore, courts in *MyVideo* found it unacceptable that GEMA only administered right of making available to the public without reproduction right.

The U.S. judges in the *MP3.com* case took a different approach than the Chinese and German judges. This is probably because copyright divisibility has been clearly defined in the U.S. Copyright Act.¹⁵⁹ Another possible explanation is that there is no right of making available to the public in U.S. copyright law, and public

154. 146-48 U.S. COPYRIGHT OFF., DIGITAL MILLENNIUM COPYRIGHT ACT OF 1998 §104 (2001). .

155. See *supra* text accompanying note 142.

156. See Guibault & Gompel, *supra* note 130; see also KUR & DREIER, *supra* note 135; BARGFREDE & MAK, *supra* note 135; Niemann, *supra* note 131; Von Albrecht & Ullrich, *supra* note 133; Yliniva-Hoffman, *supra* note 133.

157. Josef Drexel et al., *Comments of the Max Planck Institute for Intellectual Property and Competition Law on the Proposal for a Directive of the European Parliament and of the Council on Collective Management of Copyright and Related Rights and Multi-Territorial Licensing of Rights in Musical Works for Online Uses in the Internal Market Com*, MAX PLANCK INST. FOR INTELLECTUAL PROP. AND COMPETITION L. RESEARCH PAPER NO. 13-04 (2012) [hereinafter Drexel et al., *Comments of the Max Planck Institute*].

158. *Id.*

159. See Heller, *Three Faces*, *supra* note 54.

performance right is instead on point in the case.¹⁶⁰ Public performance right has been coexisting with reproduction right in the Copyright Act and various types of copyright transactions.¹⁶¹ Public performance does not necessarily include reproduction. Therefore, when the two rights overlap, it is natural for the U.S. court to view them as two independent economic rights. By contrast, both German and Chinese copyright laws implement the right of making available to the public from WCT and WPPT, which is specifically designed for Internet-enabled interactive services.¹⁶² When defining the scope of this right, the courts only need to focus on the digital environment and, therefore, can easily reach the conclusion that reproduction will definitely take place when users make the copyrighted work available to the public.

IV. POSSIBLE SOLUTIONS

When an anticommons appears, it becomes challenging and slow for potential users to obtain permissions from each and every right holder.¹⁶³ The enormous transaction costs for copyright clearance in a single use of any given work are not only bothersome for users but may also stifle new and innovative business models.¹⁶⁴ Startup

160. See Hilty & Nérisson, *supra* note 138.

161. See, e.g., Einhorn & Kurlantzick, *supra* note 45, at 417, 421-22, 432-33; see also Keesan, *supra* note 44, at 355-57. See generally *Cartoon Network LP v. CSC Holdings, Inc.*, 536 F.3d 121, 134 (2d Cir. 2008) (“[t]he definitions that delineate the contours of the reproduction and public performance rights vary in significant ways.”).

162. See *supra* text accompanying note 4; Mysoor, *supra* note 32; see also *FAPL v. QC Leisure*, *supra* note 91; BENTLY & SHERMAN, *supra* note 3; Berne Convention, *supra* note 100; Carson, *supra* note 88. See generally WIPO Copyright Treaty, *supra* note 17, art. 8; WIPO Performances and Phonograms Treaty, *supra* note 17, art. 3.

163. See Heller, *Three Faces*, *supra* note 54, at 424 (explaining that when too many users have a right to a resource, no one has a right to exclude each other, yet, underuse of a resource results in multiple owners who do have the right to exclude others from use).

164. See, e.g., Litman, *Lawful Personal Use*, *supra* note 43, at 1917; see also Heller & Eisenberg, *supra* note 61, at 700 (arguing that “[l]arge corporations with substantial legal departments may have considerable greater resources for negotiating licenses on a case-by-case basis than. . .small start-up firms”); Litman, *Copyright Reform*, *supra* note 5, at 20 (“[s]mall businesses that want to pay reasonable royalties for the opportunity to exploit work in new markets can face insuperable difficulties in arranging to do so.”).

companies may hesitate to develop innovative technologies or businesses if it is too costly to clear various overlapping exclusive rights. This section provides a detailed analysis of three policy proposals aiming to solve the inefficiency brought by copyright divisibility and fragmented exclusive rights. These proposals include consolidating sub-rights, implied license, and collaborations between CMOs. They all aim to help users get a license from a single source without having to track and negotiate with multiple parties for a single use of a copyrighted work. Nevertheless, has its strengths and weaknesses. This section will evaluate them by applying the anticommons theory when appropriate.¹⁶⁵

A. INTEGRATION OF RIGHTS

Some scholars have criticized overlapping copyright as unnecessary and suggested that those rights should be consolidated from a policy perspective.¹⁶⁶ These reform proposals contained the redesigning of copyrights into one single right of commercial

165. It should also be noted that some other copyright reform proposals may alleviate the anticommons problem as well. These alternatives include but are not limited to the extended collective licensing used in Nordic countries, a centralized one-stop-shop licensing agent, or compulsory licensing. *See* Gervais & Maurushat, *supra* note 33, at 23-25; Gervais, *Collective Management*, *supra* note 24, at 17. Furthermore, private copyright practice has started to address the divisibility and resulting anticommons problem. As clearance of various rights involves enormous of transactional costs, some users of multimedia works would rather use the materials in the public domain if they have such a choice, or even create everything from scratch, than obtaining permission to use other people's work. *See* Gervais & Maurushat, *supra* note 33, at 24. On the other hand, copyright owners may rely on sophisticated digital rights management ("DRM") technology, rather than various CMOs, to collect royalties; *see also* Marco Ricolfi, *Individual and Collective Management of Copyright in a Digital Environment*, in *COPYRIGHT LAW: A HANDBOOK OF CONTEMPORARY RESEARCH*, 283, 283, 297-301 (Paul Torremans ed., 2007); Merges, *Contracting into Liability Rules*, *supra* note 51, at 1298 (proposing the "electronic clearinghouses," where all copyright transactions can take place in one electronic marketplace). The combination of those public and private orderings may also help to reduce the transactional costs brought by copyright divisibility.

166. *See, e.g.,* Bernt Hugenholtz et al., *The Recasting of Copyright and Related Rights for the Knowledge Economy*, INST. INFO. L. 164 (2006); Lüder, *supra* note 9, at 26; *see also* Litman, *Copyright Reform*, *supra* note 5, at 43 ("[l]imiting the scope of copyright to commercial exploitation would be simpler than the current array of five, six, seven, or eight distinct but overlapping rights.").

exploitation by eliminating divisibility.¹⁶⁷ From a comparative perspective, the economic rights in French copyright law are more integrated than most other jurisdictions.¹⁶⁸ It provides only two types of economic right, reproduction right and performance right (or right of representation), which covers all forms of exploitation.¹⁶⁹ Some others proposed to abolish divisibility in cyberspace while maintaining it in the real world.¹⁷⁰ China has adopted a similar approach, where the right of network communication is deployed as a single exclusive right, which is capable of absorbing other exclusive rights in cyberspace.¹⁷¹ In that sense, any digital use of

167. See LITMAN, DIGITAL COPYRIGHT, *supra* note 13, at 180-86 (proposing to, “[s]top asking whether somebody’s actions resulted in the creation of a ‘material object . . . in which a work is fixed by any method now know or later developed,’ and ask instead what effect those actions had on the copyright holder’s opportunities for commercial exploitation”); Litman, *Copyright Reform*, *supra* note 5, at 43-45 (arguing that limiting the scope of copyright to a right to control commercial exploitation would be simpler and align with the public’s understanding of copyright law’s role).

168. Laëtitia Bénard et. al., *France*, in INTERNATIONAL COPYRIGHT LAW: A PRACTICAL GLOBAL GUIDE 183, 195 (Ben Allgrove ed., 2013) (referring to article L 122-1 of the French Intellectual Property Code that grants authors the right of representation and the right of reproduction).

169. See, e.g., APLIN & DAVIS, *supra* note 104, at 161; DANIEL C.K. CHOW & EDWARD LEE, INTERNATIONAL INTELLECTUAL PROPERTY: PROBLEMS, CASES, AND MATERIALS 172 (2nd ed. 2012); Bénard et. al., *supra* note 168.

170. See Natke, *supra* note 5, at 505 (suggesting Congress makes copyright indivisible in cyberspace and divisible in real space); see also Lemley, *supra* note 5, at 582-84 (proposing to create a unique right to online transmission replacing all other exclusive rights in the digital sphere).

171. See SANQIANG, *supra* note 112, at 132 (stating the right of network dissemination of information includes the “[r]ights of copying, publishing, performing and exhibiting, etc.”); TANG, *supra* note 116, at 87 (defining the “right of communication through information network” as the “[r]ight to make available works, performances, or sound and video recordings to the public by wire or wireless means so that the public may choose a place and time to access those works, performances, or sound and video recordings.”); Wan, *supra* note 112, at 195, 620 (noting that the right of communication pursuant to the 2001 Copyright Law applies only “[t]o interactive, on-demand transmission in digital networks” also explaining that China’s right of network communication is a single exclusive right because judges do not believe traditional exclusive rights should be applied to the Internet and no general right of communication enumerated in the Copyright Law of 1990 can be implemented to network communication); Xue, *supra* note 116, at 169-70 (observing that the revision of the Chinese Copyright Law granted copyright owners the “[e]xclusive right of communication via an information network, as well as legal protection for technological measures and information management rights”); see also Copyright Law of the People’s Republic of China

copyrighted work requires only a license of network communication right. By recognizing only one single right holder, these proposals associated with integration aim to build an indivisibility doctrine that can effectively reduce copyright users' costs in identifying, negotiating, and transacting with the right party.¹⁷²

Evaluating Integration as a Solution

The evolution of the U.S. Copyright Act provides an ideal example for investigating copyright divisibility and integration. The U.S. Copyright Act adhered to the indivisibility principle before 1976, where copyright was “only a single incorporeal legal title or property.”¹⁷³ The indivisibility principle is abrogated by § 201(d)(2) of the 1976 Act,¹⁷⁴ which provides: “Any of the exclusive rights comprised in a copyright, including any subdivision of any of the rights specified by section 106, may be transferred as provided by clause (1) and owned separately.”¹⁷⁵ In evaluating the reform proposal on rights integration, it is necessary to reevaluate the factors influencing the change from indivisibility to divisibility in the 1976 Copyright Act.

The main purpose in establishing divisibility in copyright law is to enable right holders to exploit their copyrighted work in multiple markets.¹⁷⁶ Before the 1976 Act, copyright owner could not assign any ownership interest associated only with certain type of uses.¹⁷⁷ They needed to either transfer the whole piece of copyright ownership or use contract to engage in the specified use.¹⁷⁸ This

(promulgated by the Standing Comm. Nat'l People's Cong., Feb. 26, 2010, effective April 1, 2010), art. 10 P.R.C. LAWS 12.

172. See Newman, *An Exclusive License*, *supra* note 25, at 80-81 (explaining one single titleholder precludes third parties from determining “[t]he current actual users or the natures of their various uses” by allowing third parties “[t]o pay the single titleholder for the needed rights.”).

173. See Harry G. Henn, “Magazine Rights” – A Division of Indivisible Copyright, 40 CORNELL L. Q. 411, 418 (1955).

174. See Newman, *An Exclusive License*, *supra* note 25, at 69.

175. 17 U.S.C. §201(d)(2) (2002).

176. See Newman, *A License Is Not A “Contract Not to Sue,” supra* note 25, at 1145 (observing that indivisibility “[g]reatly impeded the ability of copyright owners to engage in transactions conducive to the exploitation of a work in multiple markets.”).

177. See *id.*; see also GORMAN ET AL., *supra* note 11, at 344.

178. See Newman, *A License Is Not A “Contract Not to Sue,” supra* note 25, at

indivisibility prevented the fragmentation of copyright ownership, but eliminated the possibility of various copyright transactions.¹⁷⁹ Another reason for the 1976 reform regarding divisibility was that indivisibility created problems for the standing to sue for infringement.¹⁸⁰ If copyright owners would like to transfer part of his right to a transferee, such a transaction would mostly be viewed as a license by the court, rather than as an assignment.¹⁸¹ Consequently, the licensee would not have standing to sue third-party infringers.¹⁸² Even if the license were an exclusive one, he would still have difficulties in joining the copyright owner as a necessary party in the infringement litigation.¹⁸³ Moreover, the indivisibility principle could not reflect the real copyright practice, which demanded varieties of contractual arrangement.¹⁸⁴ It was also believed that CMOs with the expertise in one specific subdivision of right may operate more efficiently.¹⁸⁵ Indeed the indivisibility rule has created some negative impact on the flexibility and efficiency of copyright transactions.

Nonetheless, the problem of standing, which is the main concern in the 1976 Copyright Act, can be easily solved by slight revision of the Federal Rules of Civil Procedure that allows exclusive licensees to join the copyright owner as a necessary party in the infringement. Some scholars raise concerns about the introduction of the divisibility rule in the 1976 Copyright Act. For example, Nimmer suggested that divisibility might produce difficulties for copyright notice, *i.e.* whose name should appear on the published copies of the work.¹⁸⁶ However, such concerns do not seem to have been realized in the last few decades, not to mention the fact that, in current

1145.

179. *See id.*

180. *See id.*

181. *See, e.g.,* Natke, *supra* note 5, at 493-94 (noting before the 1976 Copyright Act the major problem with indivisibility “[w]as an exclusive licensee’s inability to join necessary parties and gain standing to sue third parties for infringement.”).

182. *See id.* at 494.

183. *See id.*

184. *See id.* at 492 (noting “[a]ttorneys regularly considered copyright divisible in practice, feeling the ‘legal concept of an indivisible copyright is not relected in business dealings’”).

185. *See id.*

186. *See id.* at 492 (noting “[a]ttorneys regularly considered copyright divisible in practice, feeling the ‘legal concept of an indivisible copyright is not relected in business dealings’”).

copyright management information, marking multiple right holders has become easy, clear, and costless.¹⁸⁷ Therefore, the difficulty of copyright notice may not be a strong reason to eliminate copyright divisibility.

Implications from the Anticommons Theory

Transaction costs are the main obstacles for market players to bundle the anticommons property through private ordering.¹⁸⁸ Bundling various economic rights by new laws, therefore, has been the most straightforward way to solve the anticommons problem.¹⁸⁹ With the integration of exclusive rights, users only need to seek for license from one copyright holder, instead of several. The holdout problem can, thus, be avoided. If policymakers decide to integrate the fragmented rights, they need to design mechanisms to share the economic gain with existing rights holders or find other ways to adequately compensate them.¹⁹⁰

However, whenever there is an anticommons problem, the integration of existing fragmented rights is “brutal and slow”¹⁹¹ because it is difficult to deal with current rights holders and the existing contractual relationship. Just like rights holders who had “invested in reliance on the current property regime” in post-Soviet Russia,¹⁹² holders of any subdivision of the copyright may refuse to give up their rights, not to mention those who run their businesses primarily based on one particular right. As Heller notes, “[o]nce anticommons property is created, markets or governments may have difficulty in assembling rights into usable bundles.”¹⁹³ Furthermore, as Nobel Laureate Douglas pointed out: “[the inefficient property system] existed because rulers would not antagonize powerful constituents by enacting efficient rules that were opposed to their

187. 17 U.S.C. § 1202(c) (2006).

188. See Heller & Eisenberg, *supra* note 61, at 700 (concluding transactional costs are the main concerns to reach “[e]fficient bundling of intellectual property rights in biomedical research.”).

189. See Heller, *Tragedy of the Anticommons*, *supra* note 53, at 626.

190. *Id.* at 655 (“[b]undlers can avoid holdouts among komunalka owners by sharing the economic gains of conversion . . .”).

191. See *id.* at 698; see also Heller, *Three Faces*, *supra* note 54, at 424.

192. See Heller, *Tragedy of the Anticommons*, *supra* note 53, at 641.

193. *Id.* at 659.

interests.”¹⁹⁴ Property law scholarship also reminds us that “one should not expect existing property rights regimes to conform to a high standard of social efficiency” partly because legal reforms that abolish old ones, are likely to be influenced strongly by the relative influence of different interest groups.¹⁹⁵ After initial entitlements are in place, institutions and interests coalesce around them, resulting in the possible blocking of the path to private property and wasting of scarce resources.¹⁹⁶

The same reasoning can be applied to the fragmented copyright anticommons. In numerous jurisdictions around the globe, incumbent copyright holders in the copyright market have opposed the reform of integrating the bundle of rights into one single right just to ensure their interests.¹⁹⁷ China’s broadly defined and integrated scope of the right of network communication may be relevant to the country’s underdeveloped CMOs, all of which are state-controlled and affiliated with the National Copyright Association.¹⁹⁸ It is obvious that those Chinese CMOs do not have sufficient incentives to oppose a policy of integrating various economic rights in the digital arena.

From a policy perspective, anticommons teaches us that efficiency can be reached by preventing the property system from over-fragmentation. Michael Heller invoked the anticommons theory to explain why the law accommodates only a restricted set of divided property rights.¹⁹⁹ Other property law experts also rightfully argued that by limiting property rights to limited forms, the law reduces

194. DOUGLASS C. NORTH, INSTITUTIONS, INSTITUTIONAL CHANGE AND ECONOMIC PERFORMANCE 52 (1990).

195. See Hansmann & Kraakman, *supra* note 49, at 403.

196. See Heller, *Tragedy of the Anticommons*, *supra* note 53, at 659.

197. See, e.g., Litman, *Lawful Personal Use*, *supra* note 43, at 1917; see also Natke, *supra* note 5, at 504 (indicating that “[a] legislative proposal to revive indivisibility would likely receive fierce opposition from major industry players with entrenched interests who are forceful lobbyists in Washington D.C.”).

198. See Ye Jiang, *Changing Tides of Collective Licensing in China*, 21 MICH. ST. INT’L L. REV. 729, 732-33 (2013); see also Ke Steven Wan, *Internet Service Providers’ Vicarious Liability Versus Regulation of Copyright Infringement in China*, 2011 U. ILL. J. L., TECH., & POL’Y 375, 390 (2011) (documenting the quasi-government background of Chinese copyright collectives).

199. See Michael A. Heller, *The Boundaries of Private Property*, 108 YALE L.J. 1163, 1176-82 (1999) (quoting Bernard Rudden, “[t]he current literature offers no economic explanation of the numerus clausus, but seems largely to ignore its existence”).

“information-processing costs” for those seeking to acquire the property.²⁰⁰ Given the significant costs in consolidating existing rights, anticommons theory provides an important implication for future copyright policymaking, which is that any copyright reform should at its best, avoid creating new exclusive rights for new technological use.²⁰¹ Every new addition of the exclusive right or sub-right will complicate current property system and increase transaction costs associated a particular use of the subject copyright.²⁰² For all these reasons, simplifying the genres of exclusive right and avoid crafting new type of sub-right should become a fundamental copyright principle. This principle echoes the German courts’ interpretation of copyright law in *MyVideo* case, which aimed to prevent right holders from over-fragmenting existing copyright.²⁰³ Without such a principle, courts have no choice but to stick to the divisibility doctrine and consequently require license for each exclusive right. This can be seen in the Ninth Circuit’s ruling in the *Perfect 10* case, where the Court held that “[n]othing in the Copyright Act prevents the various rights protected in section 106 from overlapping.”²⁰⁴

B. IMPLIED LICENSE

A more modest proposal is to adopt the “implied license” approach to solve the fragmented copyright problem while maintaining the multiple exclusive rights regime.²⁰⁵ Implied license has been viewed as a mechanism to resolve the tension between copyright holders and users.²⁰⁶ By making an analogy to the concept of easement in property law, some researchers propose that if each distinct exclusive right in copyright is conveyed to separate entities,

200. See Thomas W. Merrill & Henry E. Smith, *Optimal Standardization in the Law of Property: The Numerus Clausus Principle*, 110 YALE L.J. 1, 27 (2000).

201. Cf. David Lametti, *The Concept of the Anticommons: Useful, or Ubiquitous and Unnecessary?*, in CONCEPTS OF PROPERTY IN INTELLECTUAL PROPERTY LAW 232, 256 (Helena R. Howe & Jonathan Griffiths eds., 2013) (advocating that property structures should be as simple as possible).

202. See Newman, *An Exclusive License*, *supra* note 25, at 83.

203. See *supra* text accompanying note 142.

204. *Perfect 10, Inc. v. Amazon.com, Inc.*, 508 F.3d 1146, 1161 (9th Cir. 2007).

205. See Litman, *Lawful Personal Use*, *supra* note 43, at 1917.

206. See, e.g., Cullen Kiker, *Amazon Cloud Player: The Latest Front in the Copyright Cold War*, 17 J. TECH. L. & POL’Y 235, 272 (2012).

a licensed right should also include other rights incidental to the subject of use.²⁰⁷ In other words, if licensee X only obtains the license of right A, but right B is incidental to the exercise of right A, then X should also get an implied license of right B, even though right B is not listed in the license agreement.²⁰⁸

Implied license is not a new concept in copyright or IP law. Although it has not been connected to the anticommons context, implied license has been viewed as a policy tool to promote information dissemination or harness conflicting interests, especially in the digital environment.²⁰⁹ Courts occasionally use this concept to cope with disputes where contracts do not explicitly regulate whether licensees were licensed for a specific use of the work, but the parties' conduct implied so.²¹⁰ Courts construe the parties' conduct to infer that they anticipate establishing a license.²¹¹ In such scenarios, courts have a wide scope of discretion to deploy implied licenses, which is

207. See Litman, *Lawful Personal Use*, *supra* note 43, at 1917 (suggesting the division of exclusive copyright rights warrants "[t]he power to engage in uses incidental to that right, even if they implicate other exclusive rights" is analogous to property law).

208. Litman, *Copyright Reform*, *supra* note 5, at 46-47.

209. See, e.g., Orit Fischman Afori, *Implied Licenses: An Emerging New Standard in Copyright Law*, 25 SANTA CLARA COMPUTER & HIGH TECH. L.J. 275, 277-78, 282 (2009); 312; Jo Dale Carothers, *Note: Protection of Intellectual Property on the World Wide Web: Is the Digital Millennium Copyright Act Sufficient?*, 41 ARIZ. L. REV. 937, 951 (1999) [hereinafter *Protection of Intellectual Property*] (noting conflicting policy reasons for not assuming implied licenses); David Cook, *Searching for Answer in a Digital World: How Field v. Google Could Affect Fair Use Analysis in the Internet Age*, 11 SMU SCI. & TECH. L. REV. 77, 83 (2007); see also Jane K. Winn, *Crafting a License to Know from a Privilege to Access*, 79 WASH. L. REV. 285, 298 (2004) (noting that "[s]ome form of implied license for individual end users must be recognized to prevent the destruction of the open, public character of the Internet in the name of commerce").

210. See, e.g., *Effects Associates, Inc. v. Cohen*, 908 F.2d 555 (9th Cir. 1990) (holding a nonexclusive license was implied pursuant to a special effects company's conduct where the company transferred altered footage back to the movie maker to incorporate into film); *Field v. Google Inc.*, 412 F. Supp. 2d 1106, 1116 (D. Nev. 2006) (explaining case law makes clear implied licenses need not be manifested in writing); Afori, *supra* note 210, at 280; Christian H. Nadan, *Open Source Licensing: Virus or Virtue?*, 10 TEX. INTELL. PROP. L.J. 349, 365 (2002); Christopher M. Newman, "What Exactly Are You Implying?": *The Elusive Nature of the Implied Copyright License*, 32 CARDOZO ARTS & ENT. L.J. 501, 520-21 (2014) [hereinafter Newman, *What Exactly Are You Implying*].

211. See, e.g., Bell & Parchomovsky, *supra* note 35, at 1038.

not subject to formal restrictions.²¹²

The approach adopted by German judges in the *MyVideo* case and the Chinese judges mentioned previously is, to some extent, similar to the “implied license” theory. Although they did not mention “implied license” in the decisions, the German courts in *MyVideo* held that it did not make any economic sense if users need to secure another license for reproduction.²¹³ The Chinese judges’ interpretation of the nation’s right of network communication similarly excludes the necessity for users’ to obtain licenses for other exclusive rights on the same copyrighted work.²¹⁴ Therefore, reproduction is a necessary step of network communication and thus should be “absorbed” by the latter, which is the major conduct of copyright use.²¹⁵ In sum, we may interpret the Chinese and German rules as follows: in the digital environment, reproduction of copyrighted work is incidental to making it available to public. Users shall be deemed to have obtained an implied license for reproduction if they are licensed for public performance. Any additional request for license would be redundant. Such interpretation may find its foundation in literature, which suggests that the implied license doctrine can be applied to certain economic rights if it is incidental to the execution of an explicit license of another economic right.²¹⁶

212. *Id.*; see also Raghu Seshadri, *Bridging the Digital Divide: How the Implied License Doctrine Could Narrow the Copynorm-Copyright Gap*, 2007 UCLA J.L. & TECH. 3, 5 (2007) (indicating courts’ broad reading of the implied license doctrine); but see *Asset Marketing Systems, Inc. v. Gagnon*, 542 F.3d 748, 754-55 (9th Cir. 2009) (ruling that implied licenses are granted when “(1) a person (the licensee) requests the creation of a work, (2) the creator (the licensor) makes that particular work and delivers it to the licensee who requested it, and (3) the licensor intends that the licensee-requestor copy and distribute his work.”); Sue Ann Mota, *Napster: Facilitation of Sharing, or Contributory and Vicarious Copyright Infringement?*, 2 MINN. INTELL. PROP. REV. 61, 69 (2001) (arguing that implied license “is found only in narrow circumstances” from *A & M Records, Inc. v. Napster, Inc.*, 239 F.3d 1004 (9th Cir. 2001)).

213. See Niemann, *supra* note 131, at 5 (describing the reasoning of the court as two-fold: one is the technical impossibility of such a split and the second that “[s]plitting a composite technical process creates the risk of unjustified multiple claims and legal uncertainty.”).

214. See *supra* text accompanying notes 114-120.

215. See *supra* text accompanying notes 120-121.

216. See, e.g., W. Jonathan Cardi, *Über-Middleman: Reshaping the Broken Landscape of Music Copyright*, 92 IOWA L. REV. 835, 867 (2007); see also Kara Beal, *Comment: The Potential Liability of Linking on the Internet: An Examination of Possible Legal Solutions*, 1998 BYU L. REV. 703, 723 (1998) (“[t]he existence

Different from the integration approach based on legislation, the “implied license” represents the approach that the judiciary is capable of adopting to solve the anticommons problem. Implied license can avoid the legislative costs of pushing through the bundling of various exclusive rights.²¹⁷ In other words, implied license can be applied to solve the anticommons problem without abolishing copyright divisibility doctrine.²¹⁸ Nonetheless, there are some problems underlying the implied license approach. First, compared to some bright-line rules, there are always some uncertainties regarding whether specific rights should be covered by implied licenses.²¹⁹ Second, it would be natural for holders of specific rights to object to this approach if implied license is applied to their exclusive rights, which are the subject matter of their primary business and transactions. Some CMOs and rightholders have been relying on one single or a few types of exclusive rights. Implied license may thus impose negative effect on their revenues. Therefore, some commentators suggest that courts should consider the commercial reality and adopt a minimalist approach to grant the least amounts of rights in implied licenses.²²⁰ The minimalist approach

of any website implies to the viewer a license to take all action that is incidental to viewing that site.”); Jessica Litman, *Cambell at 21/Sony at 31*, 90 WASH. L. REV. 651, 675 n. 120 (2015) (introducing the Copyright Office’s opinion that making ephemeral RAM (random access memory) copies incidental to lawful use should be covered by implied license); Robert P. Merges, *To Waive and Waive Not: Property and Flexibility in the Digital Era*, 34 COLUM. J.L. & ARTS 113, 123 (2011) (discussing whether doctrine of implied license can be applied to copying incidental to crawling and indexing).

217. See generally GUIDO CALABRESI, *A COMMON LAW FOR THE AGE OF STATUTES* (1982) (suggesting how the court should tackle outdated statutes with its rulings); see also Ralph Oman, *Intellectual Property After the Uruguay Round*, 42 J. COPYRIGHT SOC’Y U.S.A. 18, 21-22 n.8 (1994) (describing the difficulty of changing intellectual property law).

218. Cf. Afori, *supra* note 210, at 299 (arguing that implied license may “[e]nable further adaptation of copyright law to the changing reality, without abandoning the internal considerations and underpinnings of traditional copyright law.”).

219. See, e.g., DAVID I. BAINBRIDGE, *INTELLECTUAL PROPERTY* 87 (6th ed., 2007); RAYMOND T. NIMMER, *LICENSING OF INTELLECTUAL PROPERTY AND OTHER INFORMATION ASSETS* 315 (2004); Bell & Parchomovsky, *supra* note 35, at 1039 (discussing *Effects Assocs.*, 908 F.2d at 559, in which the court, though finding an implied license, failed to discuss the scope of the right further).

220. BAINBRIDGE, *supra* note 220, at 87.

then will in return limit implied license's function in correcting the market failure associated with anticommons.

C. COLLABORATIONS BETWEEN CMOs

The problem related to overlapping fragmented copyrights can also be addressed from a downstream perspective by the standardization of practice and cooperation between copyright collecting organizations. CRM has been conceived as a solution to the inefficiency caused by copyright enforcement on an individual basis.²²¹ CRM helps users save an enormous amount of transaction costs in obtaining permission from copyright owners.²²² It has also become a practical way for authors to enforce copyright efficiently and be compensated appropriately.²²³ Although some commentators believe that it is the most workable solution for copyright enforcement amid new technologies,²²⁴ CRM does face new challenges in clearing rights in digital products and new business models with divided copyright ownership,²²⁵ such as Internet radio,

221. See, e.g., Gervais & Maurushat, *supra* note 33, at 15; see also Katz, *Rethinking the Collective Administration*, *supra* note 14, at 543 (introducing conventional wisdom favoring collective administration of copyright).

222. See *Broadcast Music, Inc. v. Columbia Broadcasting System, Inc.*, 441 U.S. 1, 20 (1979) (“[i]ndividual fees for the use of individual compositions would presuppose an intricate schedule of fees and uses as well as a difficult and expensive reporting problem for the user and policing task for the copyright owner,” therefore, “[a] middleman with a blanket license was an obvious necessity.”); see also HELLER, GRIDLOCK ECONOMY, *supra* note 77, at 72; Aoki & Schiff, *supra* note 65, at 199; Dusollier & Colin, *supra* note 41, at 817-18; Merges, *Contracting into Liability Rules*, *supra* note 51, at 1295.

223. See Gervais & Maurushat, *supra* note 33, at 16; Yafit Lev-Aretz, *The Subtle Incentive Theory of Copyright Licensing*, 80 BROOK. L. REV. 1357, 1385-86 (2005); see also Katz, *Copyright Collectives*, *supra* note 7, at 404 (citing Professor Jacques Robert's work describing how CMOs enable right holders to extract revenues).

224. See Jehoram H. Cohen, *The Future of Copyright Collective Societies*, 23 E.I.P.R. 134, 135 (2001); see also Lemley, *supra* note 5, at 571 (the divided ownership “[m]ay undermine the laudable efforts of groups like . . . ASCAP . . . and . . . CCC . . . to provide efficient market-clearing mechanism for low-value copyright licenses.”).

225. See, e.g., HELLER, GRIDLOCK ECONOMY *supra* note 77, at 190 (“[t]hese collectives did not keep up with the changing locus of value in media production. Today the cutting edge is multimedia assemblies, mash-ups, repackaging, rebundling, mix this and multi-that.”); Katz, *Rethinking the Collective Administration*, *supra* note 14, at 561, note 83 (“[t]raditional [performing rights organizations] cannot solve the problem [of anticommons] because the user would

webcasting, podcasting, and pay-per-download services. If CMOs are not able to grant the complete set of rights that users need, the value of their services will decrease markedly.²²⁶

Evaluating CRM as a Solution

CRM is organized based on the traditional divisibility of copyright.²²⁷ One of the most challenging tasks for CMOs and users in the digital age is to identify various rights associated with different right holders.²²⁸ If different CMOs agree that one CMO is to grant licenses on behalf of all other CMOs, copyright users may save a great deal of costs in copyright clearance.²²⁹ A streamlined licensing process would not only reduce transactional costs for right holders and users, but also foster innovative business models.²³⁰ In countries like the United Kingdom, different collective societies have started to cooperate to provide a “one-stop” shop for clearing various copyrights.²³¹ From a policy perspective, governments or lawmakers may consider forcing CMOs to work together to solve the copyright anticommons problem. For example, the Copyright Board in Canada is empowered to legally force CMOs to work together to offer a single license fee.²³²

still need to obtain licenses from the owners of the other rights, which may or may not be administered collectively.”).

226. See Lemley, *supra* note 5, at 571.

227. See Gervais, *Collective Management*, *supra* note 24, at 11; see also Mario Bouchard, *Collective Management in Commonwealth Jurisdictions: Comparing Canada with Australia*, in COLLECTIVE MANAGEMENT OF COPYRIGHT AND RELATED RIGHTS 307, 311 (Daniel Gervais ed., 2010) (“Collective management is divided not only according to rights (performance/communication, reproduction) or subject matter (work, performance, sound recording), but also to a right holder’s craft (musician, singer, backup artist) and linguistic background”).

228. See Gervais & Maurushat, *supra* note 33, at 20; see also Litman, *Copyright Reform*, *supra* note 5, at 20 (“[a] creator or distributor seeking to exploit works in new media, though, faces daunting problems in identifying the rightsholders entitled to license its uses and negotiating the terms of the licenses.”)

229. See Gervais, *Collective Management*, *supra* note 24, at 12.

230. Lüder, *supra* note 9, at 19 (“Simple and efficient rights clearance not only enables online service providers to achieve economies and efficiencies of scale, but it also leads to market entry by innovators, the development of new online services and, most importantly, has the potential to increase the revenue stream that flows back to the right-holders.”).

231. See SIMON STOKE, DIGITAL COPYRIGHT LAW AND PRACTICE 169-70 (2002).

232. See Bouchard, *supra* note 227, at 320.

In addition to the cooperation agreements between CMOs, some researchers propose that various rights on one single object, especially the public performance rights and mechanical reproduction rights, owned by different right holders should be administered by one entity and under one license.²³³ The Canadian Private Copying Collective (CPCC) was incorporated as an umbrella collective for the benefit of other Canadian CMOs.²³⁴ However, it should be noted that given the difficulty of harmonizing the interests of various right holders,²³⁵ the centralized umbrella model has not yet become a widespread success.

Moreover, digital content or multimedia services occasionally include numerous copyrighted works, such as sound, photograph, software, or audio. If the centralized organization needs to cope not only with multiple rights or rights holders associated with one specific copyrighted work, but also different types of copyrighted works in one single transaction, such issues may become even more knotty. Traditionally, CMOs have had different marketing and collecting strategies for different types of copyrighted works.²³⁶ If a CMO needs to tackle licensing issues associated with different types of copyrighted works in the same transaction, it may not easily prioritize the interests involved and the accompanying strategies. In addition, not all CMOs have incentive to cooperate to facilitate streamlined copyright clearance. Given that the nature, duration, and royalty rates of different rights cannot be easily harmonized, it is very likely that various rights holders may challenge the neutrality of the centralized authorities or mechanisms. Another yet-to-be-explored policy question is how to balance the diverse interests of rights holders and stakeholders of various copyrighted works.

233. Andrew Gowers, GOWERS REVIEW OF INTELLECTUAL PROPERTY 45 (2006), http://www.hm-treasury.gov.uk/media/6/E/pbr06_gowers_report_755.pdf; see also Robert Merges, *Contracting into Liability Rules*, *supra* note 51 (describing Japan's plan to establish a central clearing house to serve the multimedia industry).

234. However, CPCC only focuses on royalties associated with music works. See, e.g., Bouchard, *supra* note 227, at 314.

235. See e.g. Calabresi, *supra* note 217; see also Gervais & Maurushat, *supra* note 33.

236. See, e.g., Dusollier & Colin, *supra* note 41, at 833-34 (noting the diversity of markets and consumers between different forms of media necessitates diversity in strategies).

Therefore, a centralized approach or collaboration between CMOs may not always be easily implemented.

A similar but different problem is that when individual rights are administered by CMOs in multiple jurisdictions, the collaborations between CMOs become transnational. As transnational copyright transaction and enforcement become increasingly important, the reciprocal representation agreements between CMOs in different jurisdictions and umbrella organizations with members at the international level have played a vital role in global copyright clearance.²³⁷ In Europe, some rights clearance centers have been successfully set up as umbrella organizations for right holders and their CMOs.²³⁸ Some principal umbrella organizations, such as CISAC, SCARP, and IMAE, have been established to fulfill cross-border licensing.²³⁹

Similar to previous proposals of integrating existing exclusive rights and implied license, collaboration between CMOs facilitates one-stop transaction for users and eliminates unnecessary transaction costs brought by copyright divisibility and anticommons. Nevertheless, there is a subtle difference between this proposal and the other two. Collaboration between CMOs concerns how revenue be distributed among different CMOs.²⁴⁰ Although users do not need to negotiate and transact with different right holders for a single use of copyright, they still need to pay for each individual sub-right. Collaboration between CMOs just streamlines multiple payments for one single use. By contrast, under the first two proposals with regard to integration of rights and implied license, users just need to pay the price of one single economic right. Therefore, the first two proposals may better serve users' interest and prevent copyright owners from "double dipping" under multiple licenses.

Implications from the Anticommons Theory

The existence of CMOs is sometimes viewed as a solution to copyright anticommons if they can pool relevant rights together.²⁴¹

237. See, e.g., GOLDSTEIN & HUGENHOLTZ, *supra* note 3, at 273-74.

238. See, e.g., HUGENHOLTZ ET AL., *supra* note 166, at 176; Lüder, *supra* note 9, at 27.

239. Lüder, *supra* note 9, at 42-43.

240. *Id.* at 27.

241. See Katz, *Rethinking the Collective Administration*, *supra* note 14, at 560-

Collaboration between CMOs represents a market route to solve the tragedy of the anticommons.²⁴² Just like kiosk merchants who wanted to assemble fragmented rights by transactions, while reducing the pressure to overcome anticommons by *ex post* contracting, collaboration between CMOs does not change the property regime itself.²⁴³ However, Heller indicated that the anticommons problem is often inevitable when the costs of collective action between market players are insurmountable.²⁴⁴ Consequently, market failure takes place when the transactional costs exceed the gains from collaboration.²⁴⁵ Therefore, costs of collective action between CMOs are the key factor for the success of their collaboration.

The free or open source software (F/OSS) and Wikipedia communities both encounter the tragedy of the anticommons concerning copyright management. Because contributors to F/OSS or Wikipedia are always scattered and the number of contributions is huge, the transactional costs of IP clearance for those commons

61 (“By pooling their rights into a single entity, such as a PRO [performance rights organization], copyright holders set a standard price for their rights thus eliminating the incentive to behave opportunistically and avoiding this anticommons problem. The result is that more transactions, relative to individual licensing, are enabled.”); *see also* Francesco Parisi & Ben Depoorter, *The Market for Intellectual Property: The Case of Complementary Oligopoly*, in *THE ECONOMICS OF COPYRIGHT* 26 (Wendy J. Gordon & Richard Wat eds., 2003) (claiming that CMOs’ monopoly may lead to lower prices and greater output and solve the anticommons in performing rights).

242. *But see* Katz, *Rethinking the Collective Administration*, *supra* note 14, at 569 (arguing that in the context of performing rights, “[o]n many occasions the market can overcome these [anticommons] problems or could have overcome them if [performing rights organizations] did not exist”).

243. *See* Heller, *Tragedy of the Anticommons*, *supra* note 53, at 642-43 (“[k]iosk merchants negotiated around the anticommons regime through *ex post* contracting. . . . The success of kiosks may have reduced pressure to overcome the anticommons in stores.”).

244. *See* Heller, *Three Faces*, *supra* note 54, at 424 (“Avoiding tragedy requires overcoming transactional costs, strategic behaviors, and cognitive biases of participants, with success less likely among strangers in markets than within close-knit communities of repeat players. Once an anticommons emerges, collecting rights into usable private property may prove to be brutal and slow.”).

245. *Cf.* Heller, *Tragedy of the Anticommons*, *supra* note 53, at 760 (claiming that “[t]he market route to bundling rights might fail altogether if the transactional costs of bundling exceed the gains from conversion, or if owners engage in strategic behavior such as holding out for the conversion premium.”); *id.*, at 657 (suggesting that “[o]wners may convert their rights into private property when they can overcome transactional costs and holdout problems.”).

projects are enormous.²⁴⁶ Robert P. Merges proposed to solve such problem by having representatives administer multiple IP rights on behalf of the communities by contractual arrangement.²⁴⁷ In reality, a number of commons organizations, such as the Free Software Foundation, Apache Software Foundation, and Wikimania Foundation, have aggregated scattered IP rights and alleviated the anticommons problem effectively.²⁴⁸ Akin to the role of those F/OSS and Wikimania foundations, if CMOs can cooperate with each other, they shall be able to help ease the anticommons tragedies resulting from copyright divisibility. Ronald H. Coase has argued that firms function to internalize the transaction costs stemming from imperfect markets and, as a result, firms increase the market's overall efficiency.²⁴⁹ The theory can be applied in the context of commons organizations and CMOs as well. By internalizing the transaction costs of assembling fragmented copyrights, both commons organizations and CMOs provide solutions to the tragedy of the anticommons.²⁵⁰

Empirical research has indicated that close-knit communities may develop norms and institutions to manage resources efficiently and avoid the tragedy of the anticommons.²⁵¹ One economist also pointed

246. See Jyh-An Lee, *Organizing the Unorganized: The Role of Nonprofit Organizations in the Commons Communities*, 50 JURIMETRICS J. 275, 291-92 (2010) [hereinafter Lee, *Organizing the Unorganized*] (“[t]he tragedy of the anticommons exists in communities such as F/OSS and Wikipedia, where transactional costs are extremely hard to identify and to bargain over with scattered IP owners.”).

247. See Robert P. Merges, *Locke for the Masses: Property Rights and the Products of Collective Creativity*, 36 HOFSTRA L. REV. 1179, 1187-88 (2008) (proposing that awarding a sort of group property right would ensure that the same alienability is present, and that such a right “[s]hould survive any transfer of ownership from a party against whom it might be asserted to another party” as it “[g]rows out of an explicit recognition of group efforts, and thereby renders irrelevant whether any single individual has expended enough effort to qualify personally for an estoppel defense.”).

248. Lee, *Organizing the Unorganized*, *supra* note 247, at 292-93.

249. See generally Ronald H. Coase, *The Nature of the Firm*, 4 ECONOMICA 386 (1937).

250. Cf. Aoki & Schiff, *supra* note 65, at 199 (arguing that “an IP access system may . . . create value by internalizing the externalities that lead to the tragedy of the anticommons”). Double check the formatting here!

251. See, e.g., ROBERT C. ELLICKSON, ORDER WITHOUT LAW: HOW NEIGHBORS SETTLE DISPUTES 164-66 (1991); see also ELINOR OSTROM, GOVERNING THE COMMONS: THE EVOLUTION OF INSTITUTIONS FOR COLLECTIVE ACTION 182-84

out that “it [is] worthwhile to cooperate with other players when the play is repeated, when they possess complete information about the other players’ past performance.”²⁵² Communities of IP owners with repeat-play features have also developed “institutions to reduce transaction costs of bundling multiple licenses,” such as patent pools.²⁵³ Consequently, the holdout problem becomes less important in the repeat-play setting.²⁵⁴ Based on this line of literature, if different CMOs become a close-knit community of repeat players, it is likely that they will collaborate to fix the anticommons problem. CMOs are of course repeat players in enforcing specific exclusive rights. Nevertheless, different CMOs conventionally focus on different types of exclusive right and may not form a close-knit community. However, the distance between different CMOs has been eliminated by digital technologies. As a variety of content, including text, music, audio, and etc., has been digitalized and can thus be disseminated on the same platforms, the boundary between different exclusive rights has been blurred and the overlapping rights issue becomes increasingly common.²⁵⁵ As a result, CMOs that used to operate on a different subdivision of rights may be forced to develop into a closer community. In other words, by creating an environment with more overlapping rights, digital technologies may also push various CMOs to form a close-knit community, which will eventually develop a private-ordering solution to the anticommons problem.

(1990); Heller & Eisenberg, *supra* note 61, at 698; Carol Rose, *The Comedy of the Commons: Custom, Commerce, and Inherently Public Property*, 53 U. CHI. L. REV. 711 (1986).

252. NORTH, *supra* note 194, at 12.

253. See Heller & Eisenberg, *supra* note 61, at 700; see also Merges, *Contracting into Liability Rules*, *supra* note 51, at 1319, 1340-42.

254. See Merges, *Contracting into Liability Rules*, *supra* note 51, at 1321 (“That is, since institutions structure an ongoing relationship, they discourage holdout behavior. If A holds out in period 1, B will be likely to do so in period 2. Knowing this, the institution is structured, and its rules administered, to reduce the incidence of holdout behavior. This is in everyone’s interest over the long haul.”).

255. See, e.g., Kevin Ryan, *Communications Regulation—Ripe for Reform*, 17 COMM. LAW CONSPPECTUS 771, 772 (2009); see also Niva Elkin-Koren, *The Case Against Copyright Liability of Bulletin Board Operators*, 13 CARDOZO ARTS & ENT. L.J. 345, 371 (1995) (“The exchange of information in a digitized form becomes the most efficient way of sharing and communicating information.”).

V. CONCLUSION

As Hansmann and Kraakman correctly indicate: “the most serious anticommons problems seem to arise when a division of rights whose expected value was initially positive is rendered inefficient by time or changed circumstances.”²⁵⁶ Although divisibility has provided flexibility for copyright owners’ utilization of their works, it also creates tremendous costs for users to secure licenses from multiple right holders. Copyrighted works are therefore underused. This problem has become more serious in the Internet arena as digital technologies enable new ways of exploiting and distributing copyrighted works. Such new development has led to controversy over how new technological use should be classified into copyright law’s traditional taxonomy of entitlements.

Courts in China, Germany, and the United States have different approaches to overlapping reproduction right and public performance right/right of making available to the public. Both Chinese and German judges opine consider that if users already have license for making available to the public, they do not need additional one for reproduction. However, the U.S. court insisted on the doctrine of copyright divisibility and held that another license for reproduction was necessary. The difference may be the result of dissimilarities between CRM practices and the implementation of right of making available to the public in each jurisdiction.

This Article has identified three possible solutions to the copyright anticommons. These proposals similarly aim to help users identify a single party for any and all transactions concerning use of the copyrighted work. They share the same goal of reducing transaction costs and correcting market failure resulting from divisibility overlapping rights. Nevertheless, they represent different approaches to the tragedy of the anticommons. The integration of rights needs legislative action, whereas implied license denotes a judicial treatment of the fragmented copyright.²⁵⁷ Different from consolidating various rights and implied license, the collaboration between CMOs exemplifies how the market responds to the fragmented and overlapping copyright system. Nonetheless, these

256. See Hansmann & Kraakman, *supra* note 49, at 418-19.

257. See Natke, *supra* note 5, at 504 (predicting that “[t]he Supreme Court is not likely to revive indivisibility in the absence of legislative action”).

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three proposals are not mutually exclusive. It is possible for these solutions to work together to ease the tragedy of the anticommons. Based on the anticommons theory and the line of relevant research, this Article has argued that a guiding principle should be established for future copyright reform and judicial approaches to overlapping exclusive rights. The law should at its best avoid creating new type of sub-right; whereas the court ought to consider developing doctrines reducing users' costs in acquiring license for a single use of copyrighted work. Implied license and the reasoning of Chinese and German judges introduced in this Article have laid solid foundation for future development of such doctrines.