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An Information-Gathering Approach to Copyright Policy

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AN INFORMATION-GATHERING APPROACH TO COPYRIGHT POLICY

*Peter DiCola & Matthew Sag**

ABSTRACT

For over a century and with increasing frequency, major controversies have erupted between large distributors of copyrighted works (song publishers, movie studios, record labels, book publishers, etc.) and makers of new technologies for experiencing those works (player piano manufacturers, VCR manufacturers, the creators of file sharing software, Google Books, etc.). Usually, the copyright owners and the technology firms reach a licensing deal—but not without some form of government intervention. Various institutions within the federal government have become involved in these disputes, using a variety of different mechanisms. This Article is a theoretical investigation of government intervention in these content-technology copyright disputes. We analyze government institutions based on the relative ability of each one to gather information about the impact of new technology, the positive and negative consequences of using these institutions in combination, the most favorable time for each institution to intervene during the course of a dispute, and the track record of each institution's success or failure in the copyright context. We argue that some government actions might be able to facilitate, hasten, or otherwise encourage a licensing deal, whereas other government actions might be counterproductive on those dimensions. We then apply our framework to disputes between copyright owners and four technologies as case studies to illustrate the theory: piano rolls, radio, VCRs, and webcasting. Each case study explains in detail the many government institutions that intervened in each dispute, describes the governmental and private actions

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chronologically, and reflects on the lessons learned from each set of government interventions. Some of the case studies are familiar, but many important details about the nature of various government institutions' intervention have been underappreciated. The dispute over webcasting royalties is less familiar, motivating a comprehensive discussion of the complicated government role in webcasting. The ultimate goal of the Article is to characterize what policy tools should be used to resolve content-technology disputes and when those tools should be deployed. We hope that our framework can be a guide to policymakers within the various governmental institutions currently involved in copyright policy.

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INTRODUCTION

At the turn of the last century, the music publishers selling sheet music came into conflict with the manufacturers of a new technological device, the piano roll.¹ In the 1920s, 1930s, and early 1940s, the music publishers clashed with radio companies.² In the 1970s and 1980s, the movie studios fought with the makers of videocassette recorders (VCRs).³ In the early 2000s, the record labels resisted digital distribution of music and sought to squelch or otherwise control the software companies that offered file sharing software.⁴ Copyright scholars will find these examples of conflicts between copyright owners and new technology familiar, perhaps even oppressively so. Nonetheless, recounting these and other most famous copyright battles over new technology reminds us of important facts. Each new technology of copying and distribution since the printing press has presented both

¹ See *White-Smith Music Publ'g Co. v. Apollo Co.*, 209 U.S. 1 (1908) (ruling on whether mechanical piano players violated the then-existing copyright act); JESSICA LITMAN, *DIGITAL COPYRIGHT: PROTECTING INTELLECTUAL PROPERTY ON THE INTERNET* (2001); RUSSELL SANJEK & DAVID SANJEK, *PENNIES FROM HEAVEN: THE AMERICAN POPULAR MUSIC BUSINESS IN THE TWENTIETH CENTURY* (1996); Timothy Wu, *Copyright's Communications Policy*, 103 MICH. L. REV. 278 (2004).

² See SANJEK & SANJEK, *supra* note 1, at 50, 152–56, 253–54.

³ See *Sony Corp. of Am. v. Universal City Studios, Inc.*, 464 U.S. 417 (1984); LITMAN, *supra* note 1, at 131.

⁴ See *Metro-Goldwyn-Mayer Studios, Inc. v. Grokster, Ltd.*, 545 U.S. 913 (2005) (holding one who distributes a device with the object of promoting its use to infringe copyright is liable for resulting infringing acts by third parties); *In re Aimster Copyright Litig.*, 334 F.3d 643 (7th Cir. 2003) (affirming district court's grant of preliminary injunction in favor of recording industry copyright owners against a website operator); *A&M Records, Inc. v. Napster, Inc.*, 239 F.3d 1004 (9th Cir. 2001) (ruling on contributory and vicarious copyright infringement claims); *UMG Recordings, Inc. v. MP3.Com, Inc.*, 92 F. Supp. 2d 349 (S.D.N.Y. 2000) (granting summary judgment to copyright owners against an Internet company).

challenges and opportunities. New disputes at the intersection of copyright and technology arise every single year as new technologies and new business practices challenge the status quo. And each time, various government institutions have participated in resolving or exacerbating the conflict, with different branches and agencies interacting in complicated ways. How these past conflicts are understood shapes copyright policy in the present, which in turn determines whether new technologies will survive, and if so, under what terms.

Previous theoretical work on copyright policy has focused on either the strategic interaction between content and technology industries or on the allocation of property rights among copyright owners, technology companies, and the public. We seek to augment the two-player conception of these disputes and to supplement the property-rights framework with a detailed analysis of the government institutions that create, monitor, and enforce property rights.⁵ Our approach provides a connection between the substance of copyright policy, given by the property rights framework, and the process of making copyright policy, based on the capabilities of various government institutions. Our account of government institutions' capabilities incorporates key insights from the public choice school that describe, in the abstract, the limitations and failures of what government institutions can achieve in practice.⁶

In this Article, we study the role of government in addressing content–technology disputes. We address four key questions: Which government institutions should act in response to which kinds of disputes? What combination of policy tools should those institutions deploy? At what times and in what sequence should those institutions deploy them? And which policy tools, in which combinations, have succeeded or failed?

This Article sets out a new theoretical framework for assessing the role of government in resolving the content–technology disputes that

⁵ Tim Wu also takes a dynamic, government-policy-focused view of copyright disputes. See generally TIM WU, *THE MASTER SWITCH: THE RISE AND FALL OF INFORMATION EMPIRES* (2010). He has argued that rather than looking at copyright as solely encouraging or restricting authorship, scholars must also focus on the role of copyright in regulating competition among rival disseminators. See Wu, *supra* note 1. In this Article, we aim to build on Wu's insights to survey the multifarious government institutions that regulate disputes between copyright owners and disseminators, analyze the interplay of those institutions' actions, and determine what combinations of government actions have been beneficial or detrimental in the past.

⁶ See generally MANCUR OLSON, *THE LOGIC OF COLLECTIVE ACTION* (1965) (providing the seminal account of public choice theory). Predictions about what government institutions will actually do in a particular situation must also be informed by a more realistic account of political behavior, down to the level of individual actors and their idiosyncratic motivations—something this Article does not attempt. For such an account of the role of public choice *in action* in the context of copyright policymaking, see LITMAN, *supra* note 1.

are the recurring narrative of copyright law. We support our theoretical analysis with detailed case studies ranging from disputes over player pianos to MP3 players. Despite our emphasis on historical accounts of copyright controversies, the ultimate goal of our Article is normative; we make several evaluative and prescriptive claims. In terms of evaluation, we discuss our view of the successful and unsuccessful aspects of previous attempts at government intervention in content-technology disputes. Prescriptively, we provide a framework for thinking of copyright policy toward content-technology disputes between copyright holders, incumbent distributors (if applicable), and new technologists. Our main insights, as we see them, are twofold. First, the government's problem is best understood as an informational problem rather than a distributional problem. Second, with a clear view of what is known how different policy tools operate, we can offer a framework with which policymakers can choose policies that serve as useful catalysts to spur private licensing deals between copyright distributors and makers of new technologies.

Part I describes our theoretical framework. Part II includes four case studies, applying our framework to disputes between: publishers and piano roll manufacturers, ASCAP and radio broadcasters, movie studios and VCR manufacturers, and record labels and webcasters. Part III concludes and offers some reflections on current issues, such as the Google Book Search dispute and the controversy over the ill-fated Stop Online Piracy Act (SOPA).

I. THEORY

This Part describes the theoretical framework for the Article, which we will later bring to a series of detailed case studies of particular controversies in the history of copyright policy. Section A explains our terminology and the scope of our inquiry. Section B describes how our ideas relate to the previous literature on copyright policy. Finally, Section C describes the many government institutions that conduct copyright policy and explains our information-focused approach to understanding these institutions and their actions.

A. *Content-Technology Disputes*

This Article focuses on a specific category of controversies that we will call "content-technology disputes." On one side of each such dispute is a set of firms making a new type of technology, whether

hardware or software, that can be used to distribute copyrighted works.⁷ The very emergence of the new technology and the firms seeking to offer products or services based on that technology creates the potential for conflict. On the other side is a set of copyright-holding firms that distribute copyrighted works, such as movie studios, record labels, and book publishers.⁸ Thus, we mean to describe large-scale disputes between entire industries, whether existing or nascent. Although it is conventional to conceive of these disputes as two-player games, where copyright holders control the current means of distribution, reality is often more complicated. In many instances, there is a third set of firms with a strong interest at stake: firms that employ the incumbent technologies that have previously been used to distribute copyrighted works. In sum, content-technology disputes occur among new technologists, distributors, and in some instances incumbent technologists as well.

Given the participants and interested parties, what are content-technology disputes ultimately about? Broadly speaking, the disputes concern two questions. First, what technologies will be used to disseminate a particular type of copyrighted works? Second, if the answer to the first question permits the new technology a lawful existence, what licensing structure and fees, if any, will exist between the copyright holders and the new technologists? In short, these disputes are about which new technologies will emerge and under what terms they will be allowed to proceed.

The intervention of one or more branches of government is a recurring feature in these content-technology disputes. In part, this is because such disputes are often a product of market failure. We can identify five types of market failure that seem most relevant to this context. First, there may be holdout problems, because every large copyright distributor is needed for the technology to take off.⁹ Second, content-technology negotiations may have negative externalities, in that while the companies dispute, users cannot get the new technologies.¹⁰ Third, there is the danger of collusion between copyright distributors and incumbent technologists—a famous example is the way program producers and television broadcasters worked together to delay the

⁷ Even if only one firm is sued as part of a content-technology dispute, economically speaking, other firms with similar technology have a strong interest in that litigation.

⁸ Copyright holders often engage in content-technology disputes as a group, often through a trade organization such as the Motion Picture Association of America (MPAA) or the Recording Industry Association of America (RIAA).

⁹ Cf. Thomas J. Miceli & C.F. Sirmans, *The Holdout Problem, Urban Sprawl, and Eminent Domain*, 16 J. HOUSING ECON. 309, 311–12 (2007) (explaining the holdout problem).

¹⁰ See, e.g., John F. Duffy, *Intellectual Property Isolationism and the Average Cost Thesis*, 83 TEX. L. REV. 1077, 1081–85 (2005) (explaining the general concept and different categories of externalities).

entry of cable television for two decades.¹¹ Fourth, there is also a possibility of collusion among the copyright distributors; for example, copyright owners may seek to license only one company out of several competitors in the new technology.¹² Fifth, and finally, bargaining failure is possible because of asymmetric and potentially faulty information—there may be no overlap in the ranges of licensing terms to which the parties are willing to agree.¹³ This last market failure especially is exacerbated by the presence of statutory damages in copyright, which gives the copyright distributors a large, and often disproportionate, threat against the new technologists. On the other side, the prospect of bargaining failure is heightened by the difficulty of enforcement for copyright owners, which can make the status quo tolerable or even appealing to technologists.

The emergence of a new technology does not necessarily create conflicts. No significant upheaval arises in those rare instances when content owners are also the inventors of a new copyright technology. For example, the encryption technology that protects DVDs was technology created to serve the current industry's business model, not to challenge it. The DVD succeeded as a format because the leap forward in image and sound quality made consumers willing to tolerate copy restrictions. In contrast, the Secure Digital Music Initiative's attempt to deploy technology that would facilitate copy protection failed because, from a consumer's point of view, the technology offered reduced functionality with no offsetting benefits.¹⁴ However, due to its potential to disrupt the status quo, new copyright technology is almost never developed by the dominant content owners of the day. New technologies for the dissemination of copyrighted works, by their very nature, tend to come from outsiders.

Government actors from the executive branch, Congress, and the judiciary play a key role in providing solutions to these conflicts. Sometimes government actors play their roles well and the results are productive, other times, not so much. When we refer to government action, we mean to refer to *any* government action, even actions that lie in the background and mainly facilitate the operation of a private market for copyright licenses. Thus, we mean to include Congress defining property rights through the Copyright Act in our taxonomy of the governmental mechanisms of copyright policy. Of course, we also

¹¹ Wu, *supra* note 1, at 311–24 (recounting the history of regulation of the cable industry).

¹² See *infra* Part II.A (describing this situation in the piano roll industry).

¹³ See, e.g., Christopher Buccafusco & Christopher Sprigman, *Valuing Intellectual Property: An Experiment*, 96 CORNELL L. REV. 1, 42–44 (2010) (describing bargaining failure of this sort and suggesting a behavioral explanation).

¹⁴ See, e.g., STEVE KNOPPER, *APPETITE FOR SELF-DESTRUCTION: THE SPECTACULAR CRASH OF THE RECORD INDUSTRY IN THE DIGITAL AGE* 150–56 (2009) (telling the story of the SDMI initiative's failure).

mean to include Congress setting the rate of a compulsory license as an intervention. In other words, we will speak of different types of government policies rather than the absence or presence of government involvement. We know of no examples in copyright policy in which the government had no role of any kind at any point in the timeline of a content–technology dispute. Thus, we seek to employ the discourse of different kinds and perhaps different degrees of government intervention while eschewing black-and-white terminology.¹⁵

Government intervention is also a recurring feature of content–technology disputes because the arrival of new technology almost invariably creates legal uncertainty, market instability, or both. Since 1790, the Copyright Act has vested exclusive rights in authors. However, the congressionally defined scope of copyrights has changed significantly over time and the scope of those rights is often ambiguous. New technologies of copying and distribution don't just upset the market equilibrium; they expose uncertainties and inadequacies in the existing legal regime. In such instances, the question of whether the new technology firms have infringed copyrights—or, more commonly, whether new technology firms have secondary liability because their products or services allow users to infringe copyrights—has an uncertain answer. Moreover, even when the descriptive scope of copyright is clear (i.e., all sides agree on what the law allows), the normative scope of copyright (i.e., what the law should be) remains contentious.

Out of that legal uncertainty,¹⁶ a wide range of governmental institutions can enter the mix, with various mechanisms at their disposal. To take a very common example, the federal courts may have to decide a case between a set of copyright-holding plaintiffs and a defendant firm that has offered a new distribution technology. Alternatively, the Copyright Office may engage in administrative rulemaking on gaps in or difficulties with the Copyright Act.¹⁷ The federal antitrust agencies, the Department of Justice (DOJ) and the Federal Trade Commission (FTC), may engage in scrutiny of the copyright holders, especially to the extent those firms engage as a group in content–technology disputes.

¹⁵ Cf. JAMES BOYD WHITE, *JUSTICE AS TRANSLATION: AN ESSAY IN CULTURAL AND LEGAL CRITICISM* (1994) (advocating a more modest, more contingent language in which to discuss law and economics).

¹⁶ Cf. Ben Depoorter, *Technology & Uncertainty: The Shaping Effect on Copyright Law*, 157 U. PA. L. REV. 1831 (2009) (discussing legal uncertainty as the result of congressional delays in updating the law to catch up with technological change).

¹⁷ The Copyright Office is a department of the Library of Congress, which is a legislative agency (and thus reports to and supports Congress in the vast organizational chart of the federal government).

These are just the simplest examples; many other governmental mechanisms, some quite novel and complicated, have been used to resolve content-technology disputes. And new approaches are always possible. These mechanisms are not mutually exclusive or free of inter-agency conflict.

B. *The Property Rights Framework*

Much of the policy discourse about copyright concerns the allocation of property rights. Using Guido Calabresi and A. Douglas Melamed's celebrated framework of property rules and liability rules, commentators characterize the protection awarded to copyright owners or the rights reserved to the public.¹⁸ Property discourse tends to focus on rights in relation to things—Blackacre, for example—but in the case of intellectual property it is more productive to think of rights allocated for certain uses. The property rule conception of copyright is reflected in the exclusive rights enumerated in section 106 of the Copyright Act.¹⁹ Those with an entitlement protected by a property rule can name their price for any transfer and retain control—they can choose not to sell. In contrast, those with an entitlement protected by a liability rule cannot name their price or prevent others from using the resource—they have the right to a government-determined fee but no control over the resource. The copyright code contains several compulsory licenses: for mechanical reproductions of musical works,²⁰ for webcasts of sound recordings,²¹ for cable retransmission of television programs,²² and so on. The code also contains several exceptions to copyright protection. One can think of these doctrines—such as fair use,²³ exceptions for libraries,²⁴ first sale,²⁵ and exceptions to the public performance right²⁶—as Congress giving the public the entitlement to certain uses and protecting them with a property rule.²⁷

¹⁸ Guido Calabresi & A. Douglas Melamed, *Property Rules, Liability Rules, and Inalienability: One View of the Cathedral*, 85 HARV. L. REV. 1089 (1972).

¹⁹ 17 U.S.C. § 106 (2006) (granting copyright owners the exclusive rights to reproduce, prepare derivative works from, distribute, publicly perform, and publicly display their works).

²⁰ *Id.* § 115(a)(2).

²¹ *Id.* § 114(d)(2).

²² *Id.* § 111(d)(1).

²³ *Id.* § 107.

²⁴ *Id.* § 108.

²⁵ *Id.* § 109(a).

²⁶ See, e.g., *id.* § 110(5)(A) (exempting transmitted performances or displays received "on a single receiving apparatus of a kind commonly used in private homes" from infringement as long as there is no financial charge and no retransmission).

²⁷ This is much like saying you have a right to walk on a public street because no law says otherwise.

Robert Merges added a new wrinkle to this property-rule/liability-rule framework by noting that copyright owners, even when they are given exclusive property rights over certain uses, can nonetheless contract into liability rules.²⁸ Performing rights organizations take this approach in the way they aggregate the rights of individual owners of musical composition copyrights, typically original composers or music publishers.²⁹ The three main performing rights organizations, the American Society of Composers, Arrangers, and Publishers (ASCAP), Broadcast Music, Inc. (BMI), and the SESAC, Inc. (SESAC), offer blanket licenses to radio stations, concert venues, restaurants, and others who wish to perform musical works publicly. For example, an individual songwriter who participates in ASCAP contracts into a liability rule system; she waives the right to refuse individual licensees and commits to authorizing anyone willing to pay the externally determined scheduled fee. Law and economics scholars have admired the performing rights organization solution as a way to reduce transaction costs without resorting to government price-setting.³⁰ Each blanket license offered by a performance rights organization (PRO) acts as a switchboard between, for example, over ten thousand radio stations and hundreds of thousands of publishers and composers. It is common to regard PROs and similar institutions as spontaneous market solutions to the problem of transaction costs. We agree that PROs are a solution, but the literature has largely overlooked the role of the government in making such private ordering possible.³¹

Another dimension of rights allocation is the distinction between opt-in rules and opt-out rules. In the proposed (and ultimately rejected) Google Books Settlement, owners of book copyrights would have been required to opt out of the Book Rights Registry.³² By contrast, the performing rights organizations represent a kind of opt-in regime, in which composition copyright owners opt in to a blanket-licensing

²⁸ Robert P. Merges, *Contracting into Liability Rules: Intellectual Property Rights and Collective Rights Organizations*, 84 CALIF. L. REV. 1293 (1996).

²⁹ See KEMBREW MCLEOD & PETER DICOLA, CREATIVE LICENSE: THE LAW AND CULTURE OF DIGITAL SAMPLING 76–77, 82–84 (2011) (summarizing the role of publishers in the music industry and their contractual relationship with songwriters and composers).

³⁰ See, e.g., Ronen Avraham & K.A.D. Camara, *The Tragedy of the Human Commons*, 29 CARDOZO L. REV. 479, 502, 502–03 n.85 (2007) (describing the performing rights organizations as a potential model for a health care clearinghouse).

³¹ For example, Robert Merges, in his widely cited commentary, describes ASCAP's beginnings as "cost-spreading club for copyright litigation" and treats antitrust enforcement as an afterthought. See Merges, *supra* note 28, at 1330. He regards the resulting court supervision of ASCAP charges as something that "merely formalized long standing ASCAP procedures for resolving member and licensee disputes." *Id.* at 1340.

³² See *Authors Guild v. Google Inc.*, 770 F. Supp. 2d 666 (S.D.N.Y. 2011) (rejecting a proposed settlement); see also Hal R. Varian, *The Google Library Project* 15–16 (Feb. 10, 2006) (unpublished manuscript), available at <http://people.ischool.berkeley.edu/~hal/Papers/2006/google-library.pdf> (last visited Mar. 9, 2012).

scheme. Merges has called attention to waiver as another dimension of property rights analysis; the idea of waiver relates closely to the idea of opt-in.³³ The possibility of waiver gives owners of property rights flexibility, but the requirement to opt in could cut into copyright owners' control if taken too far.³⁴ As Tim Wu has observed, waiver, non-enforcement, or other manifestations of "tolerated use" are an important feature on copyright's landscape. Through tolerated uses, such as fan fiction, copyright owners leave certain uses to the public without formally renouncing their rights.³⁵ The DMCA safe harbors facilitate pervasive tolerated use in connection with social media because, for a copyright owner to take action against an online service provider such as YouTube, it must first provide notice of an alleged infringement. Upon receipt of such notice, the service provider must take down the accused content or lose safe harbor protection.³⁶

Commons management schemes are another essential aspect of the allocation and design of property rights in copyright law. Scholars over the past decade have increasingly emphasized that individual rights are not the only way to grant property rights.³⁷ This approach has shed light on all aspects of the nature of property. Thinking about the commons has also prompted thinking about its opposite, the anticommons, in which too many entities have rights to the same resource, rendering it difficult or impossible to use the resource.³⁸ Another aspect of "commons thinking," in terms of expanding beyond individuals and competition, is a new recognition of collaborative production, such as open source software or Wikipedia, and the property rights regimes that can best enable it.³⁹

These important ideas about property rights have given commentators and policymakers a way to understand copyright law,

³³ Robert P. Merges, *To Waive and Waive Not* 13, 15–17 (Apr. 2, 2011) (unpublished manuscript), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1854731.

³⁴ *Id.* at 17–19.

³⁵ Tim Wu, *Tolerated Use*, 31 COLUM. J.L. & ARTS 617, 620–21 (2008).

³⁶ *Id.* at 621; see 17 U.S.C. § 512(c)(3) (2006) (describing the DMCA's notice and takedown regime for service providers that store information "at the direction of a user"). Another example is the process by which a copyright owner can object to a non-profit performance by giving notice. 17 U.S.C. § 110(4)(B).

³⁷ BRETT M. FRISCHMANN, *INFRASTRUCTURE: THE SOCIAL VALUE OF SHARED RESOURCES* 61–116 (2012); Charlotte Hess & Elinor Ostrom, *Ideas, Artifacts, and Facilities: Information as a Common-Pool Resource*, 66 LAW & CONTEMP. PROBS. 111, 117–21 (2003); Michael J. Madison, Brett M. Frischmann & Katherine J. Strandburg, *Constructing Commons in the Cultural Environment*, 95 CORNELL L. REV. 657, 659 (2010).

³⁸ MICHAEL HELLER, *THE GRIDLOCK ECONOMY: HOW TOO MUCH OWNERSHIP WRECKS MARKETS, STOPS INNOVATION, AND COSTS LIVES* (2008); Michael A. Heller & Rebecca S. Eisenberg, *Can Patents Deter Innovation? The Anticommons in Biomedical Research*, 280 SCIENCE 698 (1998).

³⁹ See generally YOCHAI BENKLER, *THE WEALTH OF NETWORKS: HOW SOCIAL PRODUCTION TRANSFORMS MARKETS AND FREEDOM* (2006).

along with many other areas of law. The property-rights view has led to many useful insights and policy recommendations.⁴⁰ In this Article, we build on the property-rights framework to discuss the government institutions that create, monitor, and enforce property rights. Part of our contribution in this Article lies in making the connection between the *substance* of copyright policy, given by the property rights framework, and the *process* of copyright policy, based in the capabilities of various government institutions.

Thus, our focus in this Article is an institutional one. Other intellectual property scholars have addressed institutional aspects of copyright policy, highlighting different dimensions of the copyright lawmaking process. Jessica Litman has described the history of copyright policymaking⁴¹ and, in light of that history, has made recommendations about who should participate in copyright policymaking⁴² and how copyright statutes should be written in order to be comprehensible to the public.⁴³ Pamela Samuelson and a team of academic and practitioner experts have offered many constructive and appealing suggestions for copyright reform, which include recommendations specifically for Congress,⁴⁴ the Copyright Office,⁴⁵ and the courts.⁴⁶ Other examples of institutional perspectives come from patent law scholarship. Commentators have considered whether patent law needs specialized trial courts.⁴⁷ Others have questioned whether patent law needs to adopt a regulatory model and apply administrative law principles.⁴⁸ In advance of recent statutory reforms to patent law, Liza Vertinsky developed a framework for choosing the

⁴⁰ See, e.g., Dotan Oliar, *The Copyright-Innovation Tradeoff: Property Rules, Liability Rules, and Intentional Infliction of Harm*, 64 STAN. L. REV. 951, 1000–07 (2012) (analyzing a model with two players with a small dynamic component allowing for one-time modification of entitlements).

⁴¹ See, e.g., LITMAN, *supra* note 1, at 35–63, 122–45.

⁴² *Id.* at 184–86 (arguing that relying on industry players to negotiate copyright reform on their own is unlikely to succeed in serving the public interest).

⁴³ Jessica Litman, *Real Copyright Reform*, 96 IOWA L. REV. 1, 33–34 (2010) (advocating reforms to simplify copyright law to better facilitate public understanding and navigation of it).

⁴⁴ Pamela Samuelson et al., *The Copyright Principles Project: Directions for Reform*, 25 BERKELEY TECH. L.J. 1175, 1193–95 (2010) (discussing statutory reforms with which Congress could deal with content–technology disputes).

⁴⁵ *Id.* at 1202–08 (discussing several administrative reforms the Copyright Office itself could undertake).

⁴⁶ See, e.g., *id.* at 1223–26 (discussing injunctive relief reforms for courts to make).

⁴⁷ See Kimberly A. Moore, *Are District Court Judges Equipped to Resolve Patent Cases?*, 15 HARV. J.L. & TECH. 1 (2001) (reporting the results of an empirical study of district judges' error rates in patent cases); John B. Pegram, *Should There Be a U.S. Trial Court with a Specialization in Patent Litigation?*, 82 J. PAT. & TRADEMARK OFF. SOC'Y 766 (2000).

⁴⁸ See Jonathan S. Masur, *Regulating Patents*, 2010 SUP. CT. REV. 275 (2011); Stuart Minor Benjamin & Arti K. Rai, *Who's Afraid of the APA? What the Patent System Can Learn from Administrative Law*, 95 GEO. L.J. 269 (2007).

appropriate institution to make various changes in patent law.⁴⁹ Perhaps the most direct precedent for our approach, methodologically speaking, is Arti Rai's study of which institutions have are best suited to do patent policymaking.⁵⁰ Another important influence is Philip Weiser's work on telecommunications policy.⁵¹

Like the studies described in the previous paragraph, this Article aims to take the insights of property rights theory and consider them in their dynamic institutional context. Concepts that model the solutions to copyright controversies—such as property rules versus liability rules, opt in versus opt out, and individual rights versus commons regimes—are essential. But they do not tell the whole story. The property rights regime that will regulate relations among copyright owners, technologists, and the public must be chosen and evaluated at particular points in time based on the information available to the relevant policymakers and government institutions. The content-technology disputes that we focus on in this Article are inevitably impacted by decisions by policymakers. Thus, analyzing the hybrid public-private way that content-technology disputes are resolved requires a robust sense of which government institutions have what information at what time during the course of these disputes.

Our explicit focus on institutional capacity and information flows should not be taken to suggest that prior property rights theorists lacked any sense of institutional context or the role of information. Rather, our view is that these institutional considerations have been left implicit. For example, many commentators favor property-rule protection precisely because they fear that elected representatives or other government officials will lack adequate information to set liability rules correctly.⁵² But this is a static, black-and-white model of information in which the regulated entities have better information by assumption, and the government is always trailing behind. Even if the resolution to a content-technology dispute will center on a private negotiation, various government institutions are going to provide the settings in which that negotiation initially takes place and in which private contracts are enforced down the road. Similarly, those commentators who favor

⁴⁹ Liza Vertinsky, *Comparing Alternative Institutional Paths to Patent Reform*, 61 ALA. L. REV. 501 (2010).

⁵⁰ Arti K. Rai, *Engaging Facts and Policy: A Multi-Institutional Approach to Patent System Reform*, 103 COLUM. L. REV. 1035 (2003).

⁵¹ Philip J. Weiser, *Regulatory Challenges and Models of Regulation*, 2 J. TELECOMM. & HIGH TECH. L. 1, 2 (2003) (describing four different regulatory strategies, each employing different institutions).

⁵² See, e.g., F. Scott Kieff, *On Coordinating Transactions in Intellectual Property: A Response to Smith's Delineating Entitlements in Information*, 117 YALE L.J. POCKET PART 101, 102 (2007) (expressing a preference for private parties to control uses of intellectual property because others "cannot know ex ante who will be best for that role").

liability-rule protection for intellectual property also tend to focus on the effect on bargaining between private parties, rather than the government institutions that must administer disputes.⁵³ This approach needs to be augmented by a discussion of what government institutions would best develop and administer the compulsory license.

Property rights solutions are not like wind-up toys in this context. As the case studies reviewed in this Article demonstrate, achieving the desired allocation of rights can require government participation at the start to set up the system and on a continuing basis to maintain the system. For example, as Part II.B will discuss in more detail, the birth of the performing rights organizations' blanket licensing solution came on the heels of two decades' worth of antitrust investigations by the Department of Justice. Moreover, the ASCAP and BMI blanket licenses are—still!—subject to a consent decree administered by the U.S. District Court for the Southern District of New York.⁵⁴ Owners of composition copyrights may have contracted into a liability rule.⁵⁵ But they did so under government pressure and they have maintained the scheme thanks in part to government supervision. There appears to be an important layer of public ordering undergirding what is commonly regarded simply as a private ordering solution.⁵⁶ This is not to take anything away from the success of blanket licensing. On the contrary, our point is to provide a full picture of the origins of blanket licensing so that the mechanism can be properly understood if it is to be replicated to solve other content–technology disputes.

In this Article, we focus on the aspects of copyright policy that seek to resolve content–technology disputes in a way that benefits the public. For this task, we claim that a more general model of time and information and an accurately complex portrayal of the public-private nature of the policy tools will aid understanding of copyright policy. We outline this framework in the next section.

⁵³ See, e.g., Oren Bar-Gill & Gideon Parchomovsky, *A Marketplace for Ideas?*, 84 TEX. L. REV. 395, 412–17 (2005) (describing a compulsory license for ideas).

⁵⁴ See Daniel A. Crane, *Bargaining in the Shadow of Rate-Setting Courts*, 76 ANTITRUST L.J. 307, 310–11 (2009) (describing the rate-setting court for the ASCAP and BMI consent decrees).

⁵⁵ See Merges, *supra* note 28, at 1295–96.

⁵⁶ There is a passage by Elinor Ostrom regarding institutional solutions to commons problems that we think applies to institutional solutions to content–technology disputes as well: “Institutions are rarely private or public—‘the market’ or ‘the state.’ Many successful [common-pool resources] institutions are rich mixtures of ‘private-like’ and ‘public-like’ institutions defying classification in a sterile dichotomy.” ELINOR OSTROM, *GOVERNING THE COMMONS* 14 (1990). We thank Arti Rai for suggesting this connection.

C. *Information and the Institutions Making Copyright Policy*

Consider in the abstract how a copyright dispute breaks out. A technologist has developed a new method for distributing and experiencing copyrighted works. The technologist has a choice: seek licenses before releasing its product or simply launch the product without licensing.⁵⁷ If the technologist seeks a license, then the content owners have two choices: negotiate or refuse. Should negotiations succeed and a license be achieved, then there is no controversy. But if negotiations drag on for a substantial period of time, the interaction begins to look like a dispute. And if the content owners refuse to negotiate at all, a dispute will result unless the technologist folds. In the event of protracted or refused negotiations, the technologist has several options. It can release its technology regardless of lacking permission. It can redesign its product to reduce the likelihood of being found liable for direct or contributory infringement. It can seek government intervention. Or the technologist can pursue all these strategies at once.

One can also follow the other branch, in which the technologist chooses to operate without licenses. The content owners can confront an unlicensed technology in several ways. They can continue or restart negotiations. They can sue the technologist for copyright infringement, whether for direct infringement, secondary liability, or both. They can develop their own competing technology, perhaps needing to invent around the technologist's patent. They can also seek government intervention. Different content owners may choose any or all of these strategies at once.⁵⁸

The key point of the preceding outline of the game play between content owners and technologists is to illustrate that seeking state intervention is one strategy among a portfolio of tactics that disputants in content-technology disputes can employ simultaneous to other tactics. It would be misleading, of course, to refer to the government as a monolithic entity. The disputants might approach Congress, the Copyright Office, the Department of Justice, the White House, or some subset of these government institutions.⁵⁹ Disputants can also pursue

⁵⁷ Cf. John P. Walsh, Ashish Arora & Wesley M. Cohen, *Working Through the Patent Problem*, 299 SCIENCE 1021 (2003) (reporting based on interviews with researchers that interviewees choose among "licensing, inventing around patents, going offshore, the development and use of public databases and research tools, court challenges, and *simply using the technology without a license* (i.e., infringement)" (emphasis added)).

⁵⁸ In copyright, content owners tend to coordinate on litigation and lobbying, often through trade organizations like the RIAA and the MPAA.

⁵⁹ Disputants may even seek to have the Government bind itself to certain rules in the international arena by lobbying the U.S. Trade Representative. See, e.g., Warren Newberry, Comment, *Copyright Reform in China: A "TRIPS" Much Shorter and Less Strange Than Imagined?*, 35 CONN. L. REV. 1425, 1427-28 (2003) (describing such lobbying efforts).

lawsuits in combination with other tactics as one part of a broader strategy. In this context, litigation is simply another tactic that happens to involve the courts, which can be brought into this framework as simply a specific type of government institution.

We are interested in the moments at which government institutions are either asked, or required, to become involved in content–technology disputes. Moreover, to take a dynamic perspective, we want to consider the ways in which some government institutions remain involved in, or come in and out of, content–technology disputes. What information does each particular government institution have at the moment it becomes involved in a dispute? What information can each government institution obtain, and how quickly? How can the different government institutions work in combination? Which policy tools in what combination have worked the best to resolve content–technology disputes?

1. Congress

Congress can attempt to address content–technology disputes before they happen by passing legislation. By defining the scope of copyright owners' exclusive rights broadly enough, Congress could try to cover uses of copyrighted works that will eventually occur with the aid of new technologies. In this way, Congress can try to designate copyright holders as the winners in future conflicts with new technologists. At the opposite extreme, Congress can craft broad privileges intended to exempt any new-technology uses. These approaches to legislation would put one party or another in control of future disputes. The party with statutory leverage would most likely dictate the terms of the resolution of any dispute. For example, if Congress granted copyright holders broad statutory rights, it would be more likely that copyright holders have the power to deny licenses to new technologists and to shape licensing terms. In short, Congress could try to define property rights and leave the parties to bargain in the shadow of those rights.⁶⁰

In practice, Congress has chosen the path of giving broad rights to copyright owners, but with a modification. Since at least the Copyright Act of 1976, the exclusive rights of copyright owners have been phrased in general terms and subject to typically narrow exceptions benefiting those technology interests powerful enough to be at the bargaining

⁶⁰ See Maureen A. O'Rourke, *Bargaining in the Shadow of Copyright Law After Tasini*, 53 CASE W. RES. L. REV. 605, 605 (2003) ("Copyright law often provides the background rules against which bargaining over rights in works of information takes place.").

table.⁶¹ An informational perspective explains the drawbacks of this approach. The principal methods for gathering information to draft copyright legislation have been private conferences⁶² and congressional hearings.⁶³ Parties could, in theory, provide a great deal of up-to-date information both informally in conferences and formally in written testimony. On the other hand, the information Congress receives through these tools is limited by the set of parties invited to participate.⁶⁴ As a result, the granting of broad rights with narrow exceptions gives short shrift to third parties who may also deserve exceptions but are outsiders to these negotiations. Moreover, the information conveyed at these conferences and hearings typically takes the form of lobbying positions rather than social scientific or business studies.⁶⁵ Another problem is that even the precise definition of property rights by Congress can leave legal uncertainty that may even impede private bargaining.⁶⁶ The deficiencies of this approach explain why so much copyright policy is developed by the courts in either (i) their application and refinement of the general limits of the rights of the copyright owner, such as the idea-expression distinction and the fair use doctrine; or (ii) the declaration of entirely non-statutory sources of liability such as contributory liability, vicarious liability and liability for inducing copyright infringement.⁶⁷

A distinct approach to copyright legislation is for Congress itself to craft the terms of the agreement between content owners and technologists. Congress can write a statute laying out the conditions under which new technologists may license a certain class of copyrighted works.⁶⁸ As described above, compulsory licenses give copyright owners neither the right to deny a license nor the right to name their own price. Congress can set the licensing rates itself, or it can set up an administrative entity that will set rates.⁶⁹ Even if Congress sets

⁶¹ See Jessica D. Litman, *Copyright Legislation and Technological Change*, 68 OR. L. REV. 275, 317–23 (1989) (describing the historical development of the Copyright Act of 1976 as a pattern of broad rights and narrow exceptions).

⁶² See *id.* at 284–85 (describing private conferences held at the urging of the Librarian of Congress and with Congress’s unofficial blessing).

⁶³ See, e.g., *id.* at 293–94.

⁶⁴ See *id.* at 299 (discussing the fact of “absent competitors” in legislative negotiations).

⁶⁵ Cf. JAMES BOYLE, *THE PUBLIC DOMAIN: ENCLOSING THE COMMONS OF THE MIND* 205–07 (2008) (describing intellectual property policy as an “evidence-free zone”).

⁶⁶ Cf. Carol Rose, *The Shadow of the Cathedral*, 106 YALE L.J. 2175, 2199 (1997) (“Sharply defined property rights may allow the process of contracting to begin, but those very rights may also impede the further course of contracting.”).

⁶⁷ See, e.g., *Metro-Goldwyn-Mayer Studios, Inc. v. Grokster, Ltd.*, 545 U.S. 913 (2005) (announcing the principle of liability for “inducing” a third party to commit copyright infringement).

⁶⁸ See 17 U.S.C. § 115(a)(2) (2006) (establishing a compulsory license for musical compositions).

⁶⁹ See *id.* § 114(f) (establishing Copyright Royalty Judges for webcasting rates).

up a compulsory license, however, parties may bargain around those rates.⁷⁰ Perhaps more ambitiously, Congress can set up a tax-and-subsidy scheme to transfer money from new technologists (and their customers) to copyright holders.⁷¹ In this event, the parties cannot contract around the legislative scheme.⁷² Some policy recommendations from copyright scholars would also fall into this category, such as proposals to replace all of copyright for music and movies with a tax and subsidy scheme.⁷³

Both compulsory licensing and tax-and-subsidy schemes call for Congress to have more specific information. Neither solution allows legislators to remain agnostic about the licensing fee between content owners and technologists. Instead, these solutions require information about royalty rates and the specific recipients of those rates. The Audio Home Recording Act of 1992 (AHRA) provides an example of the challenges facing this approach.⁷⁴ Anticipating that digital audio tape (DAT)—at that time a new technology—would allow near-perfect copies of compact discs and cannibalize sales, Congress instituted a tax of 2% on DAT recorders and other “digital audio recording devices” as well as a tax of 3% on DATs and other recordable media.⁷⁵ The statutory scheme involves the following payments: 38.4% to sound recording copyright owners (usually record labels), 25.6% to featured recording artists, approximately 16.7% to music publishers, approximately 16.7% to composers and songwriters, 1.75% to the American Federation of Musicians, and approximately 0.92% to the American Federation of Television and Radio Artists.⁷⁶ In short, Congress set up an exquisitely detailed scheme.

For the AHRA tax rates to raise the desired amount of revenue, Congress would have needed accurate information about the supply of

⁷⁰ See DONALD S. PASSMAN, ALL YOU NEED TO KNOW ABOUT THE MUSIC BUSINESS 213–14 (7th ed. 2009) (explaining that parties usually bargain around the section 115 statutory license).

⁷¹ See 17 U.S.C. § 1003–07 (establishing a royalty scheme for certain types of digital recording media).

⁷² See *id.* § 1003(a) (“No person shall import into and distribute, or manufacture and distribute, any digital audio recording device or digital audio recording medium *unless such person records the notice specified by this section and subsequently deposits the statements of account and applicable royalty payments* for such device or medium specified in section 1004.” (emphasis added)).

⁷³ See WILLIAM W. FISHER III, PROMISES TO KEEP: TECHNOLOGY, LAW, AND THE FUTURE OF ENTERTAINMENT 199–258 (2004); Neil Weinstock Netanel, *Impose a Noncommercial Use Levy to Allow Free Peer-to-Peer File Sharing*, 17 HARV. J.L. & TECH. 1, 37–59 (2003).

⁷⁴ Pub. L. No. 102-563, 106 Stat. 4237 (1992) (codified at 17 U.S.C. §§ 1001–10).

⁷⁵ See 17 U.S.C. §§ 1003–04.

⁷⁶ The numbers here are provided as approximate percentages of the total amount of royalties, but technically the payments are separated into two funds, with sound recording copyrights receiving two-thirds of the total and musical work copyrights receiving the other one-third. See *id.* § 1006(b) (describing the royalty payments into the Sound Recordings Fund and the Musical Works Fund).

DAT recorders and DATs, consumer demand for these products, and the likely behavioral responses to the taxes. The royalty shares should have reflected, at least in part, a calculation based on information about necessary incentives for creation and distribution by intermediaries. Alternatively, the royalty shares might have a rational basis in replacing anticipated declines in revenue due to digital media. Of course, no such analysis took place. Instead, the tax rates and royalty shares reflected a political compromise. And the AHRA was a failure, as technological uncertainty resolved itself in favor of other technologies not included in the scheme, notably computers, MP3 files, and Internet connections. Our information-focused approach provides a simple explanation: Congress did not have the proper economic or technical information at its disposal when it constructed the AHRA.⁷⁷ This resulted in a failed attempt to anticipate changes to the market for music with a detailed rule.⁷⁸

Another important approach Congress can take in response to content-technology disputes is to leave things ambiguous. It can accomplish this through silence, vagueness, or contradiction. This is not just a residual category or necessarily a mere default choice. Congress may deliberately choose this option, perhaps as a way to encourage negotiations that could occur on even footing.⁷⁹ Or perhaps Congress wants to let another governmental institution address the problem first.⁸⁰ As a part of this non-legislative avenue, Congress might attempt to use “soft power,” whether through hearings, formal letters, or informal communication.⁸¹

⁷⁷ See Andrea Sloan Pink, Comment, *Copyright Infringement Post Isoquantic Shift: Should Bulletin Board Services Be Liable?*, 43 UCLA L. REV. 587, 595 (1995) (describing AHRA as a failure and mentioning new technologies for distributing music that arose just three years after the Act’s passage).

⁷⁸ This relates to the classic problem of rules versus standards. See, e.g., Pierre Schlag, *Rules and Standards*, 33 UCLA L. REV. 379, 383–85 (1985) (explaining the rules versus standards debate as a dialectic and providing an illustration in the context of deterrence).

⁷⁹ See Matthew Sag, *God in the Machine: A New Structural Analysis of Copyright’s Fair Use Doctrine*, 11 MICH. TELECOMM. & TECH. L. REV. 381, 401–02 (2005) (describing the fair use doctrine as an illustration of Congress rationally and expediently choosing to enact incomplete policies). See generally Tonja Jacobi, *The Role of Politics and Economics in Explaining Variation in Litigation Rates in the U.S. States*, 38 J. LEGAL STUD. 205 (2009) (reviewing the positive political theory literature on the effect of gridlock on the form of legislation and explaining how gridlock leads to incomplete legislation).

⁸⁰ Paul Goldstein notes that although Congress was actively considering the issue of non-commercial home video taping in the wake of the Ninth Circuit’s decision in *Universal Studios v. Sony*, lobbying and negotiations slowed once the Supreme Court agreed to hear Sony’s appeal. Apparently, “being realists, [industry representatives] understood that a chance to do nothing and blame it on another branch of government would be hard for Congress to resist.” PAUL GOLDSTEIN, *COPYRIGHT’S HIGHWAY* 121 (2003) (quoting an unnamed “close observer”).

⁸¹ Cf. Josh Chafetz, *Congress’s Constitution*, 160 U. PA. L. REV. 715, 742–68 (2012) (discussing the “soft power” tools at Congress’s disposal in the context of inter-branch disputes).

2. Courts

Federal courts often face copyright policy decisions in the presence of ambiguity in the Copyright Act. This of course requires one party to a particular content-technology dispute to have filed suit. Peter Menell has described the relationship between Congress and the courts in making copyright law as a “symbiotic process.”⁸² In the early period of American history, many copyright doctrines, such as fair use and the idea-expression distinction, were created through the common law process and later partially codified.⁸³ The legislative history of the Copyright Act of 1976 shows that Congress expected judge-made law to persist even after the legislation.⁸⁴ Subsequently, litigation actually spurred the copyright legislation of the 1990s, for example, with the influence of *Religious Technology Center v. Netcom On-Line Communication Services, Inc.*⁸⁵ on the Digital Millennium Copyright Act of 1998.⁸⁶ Thus, one of the ways that Congress gathers information to set legislative priorities and draft statutes is by looking to the courts. At the same time, one of the ways that Congress deals with a lack of information at a particular time is by leaving issues for the courts to resolve.

Legal scholars have long been aware that private litigation can serve a public law function, representing the creation of regulatory policy for third parties well beyond the litigants.⁸⁷ As a method of collecting information for the sake of making policy, litigation has both advantages and drawbacks. The discovery process tends to reveal informative items like the internal business-strategy communications of technologists. Expert witnesses battle over issues like the econometric evidence about harm to the copyright owners’ sales. On the other hand, the information courts obtain during litigation is of course limited by the parties before it and by the parameters of what those parties choose to pursue.⁸⁸ Moreover, despite the potential value of econometric

⁸² Peter S. Menell, *The Mixed Heritage of Federal Intellectual Property Law and Ramifications for Statutory Interpretation*, in *INTELLECTUAL PROPERTY AND THE COMMON LAW* (Shyamkrishna Balganesh ed. 2012) (forthcoming 2011) (manuscript at 26), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1895784.

⁸³ *Id.* at 4–8. See generally Matthew Sag, *The Pre-History of Fair Use*, 76 BROOK. L. REV. 1371 (2011).

⁸⁴ Menell, *supra* note 82, at 16 & n.83 (demonstrating that Congress wrote the Copyright Act of 1976 in general terms and expected courts to fill in the details).

⁸⁵ 907 F. Supp. 1361 (N.D. Cal. 1995).

⁸⁶ Menell, *supra* note 82, at 23 (describing the DMCA safe harbors as “modeled upon the *Netcom* decision”).

⁸⁷ Abram Chayes, *The Role of the Judge in Public Law Litigation*, 89 HARV. L. REV. 1281, 1284 (1976).

⁸⁸ See Rai, *supra* note 50, at 1123 (“[T]he only views that courts will generally hear are from the litigating parties.”). One possibility is that amicus briefs will make up for this deficiency. See

information, courts may not be the best institution to evaluate it, as compared to expert agencies that employ professional economists and statisticians.⁸⁹

One way to address the representativeness problem of litigation is to utilize the class action mechanism.⁹⁰ This particular use of the courts to make copyright policy came to the forefront with the Google Book Search controversy. After the parties proposed a settlement, scholars recognized that the trial court had an opportunity to make copyright policy where Congress had failed to do so.⁹¹ As we argue below in Part III, the ultimate decision to reject the parties' proposed settlement was an expression of the insufficiency of the information available to the court.

The Google Book Search litigation also highlights another function of courts: their potential to serve a supervisory or monitoring role in the context of consent decrees. In this role, courts may promote private bargaining or generate tolerable rate-setting solutions (that are preferable to antitrust actions against the copyright owners).⁹² Courts supervising consent decrees also have the potential to develop expertise and collect a great deal of information over time. This can serve an important complementary role to other institutions in resolving content-technology disputes.

3. Copyright Office

The Copyright Office is an administrative agency subordinate to the Librarian of Congress. Until after World War II, the Copyright Office was a relatively weak administrative agency with limited authority.⁹³ In more recent decades, it has come to play an important role in copyright policymaking in general and in resolving content-technology disputes in particular. Joseph Liu describes this trend as follows:

More generally, the role of the Librarian of Congress (and the Copyright Office within the Library of Congress) under this

Colleen V. Chien, *Patent Amicus Briefs: What the Courts' Friends Can Teach Us About the Patent System*, 1 U.C. IRVINE L. REV. 398 (2011).

⁸⁹ See Rai, *supra* note 50, at 1123 ("[T]he court system does not have the resources to evaluate fully complicated questions of economic policy."). But note that the Copyright Office does not actually employ any economists in substantive policy roles.

⁹⁰ See Chayes, *supra* note 87, at 1311-12.

⁹¹ See, e.g., Pamela Samuelson, *The Google Book Settlement as Copyright Reform*, 2011 WIS. L. REV. 479, 515-16.

⁹² See Crane, *supra* note 54, at 308-09.

⁹³ See Joseph P. Liu, *Regulatory Copyright*, 83 N.C. L. REV. 87, 94 (2004) ("The Copyright Office's role was primarily ministerial and involved little or no substantive policymaking.").

approach is far greater. The new role not only encompasses recordkeeping, but also involves serving as an expert advisor to Congress on copyright matters (for example, providing technical advice and reports, and reviewing and drafting proposed legislation), rate setting and distribution of funds for certain compulsory licenses, and in some cases even substantive rulemaking.⁹⁴

As an expert agency, the Copyright Office has the capacity to engage in substantive rulemaking.⁹⁵ The Copyright Office also intervenes in litigation, offering its substantive interpretation of the law and even urging the DOJ to take certain positions in recent constitutional litigation relating to copyright.⁹⁶ It can also offer perspective on broader policy initiatives, such as reform of licensing in the music industry.⁹⁷ Finally, the Copyright Office has expertise in the area of statutory rate-setting.⁹⁸

From an informational perspective, the Copyright Office can take advantage of rulemaking proceedings to solicit a great deal of information from a variety of interested parties. As experts in copyright law, the Copyright Office staff may ask better questions and assimilate the data more effectively than either politicians or district court judges when faced with a content-technology dispute.⁹⁹ The information might be assembled and analyzed with more transparency and integrity than with other governmental institutions, because the Copyright Office operates under the strictures of the Administrative Procedure Act, which entails procedural safeguards such as abuse-of-discretion review by appellate courts.¹⁰⁰ But agency rulemaking has its informational

⁹⁴ *Id.* at 104 (footnotes omitted).

⁹⁵ See Arielle Singh, *Agency Regulation in Copyright Law: Rulemaking Under the DMCA and Its Broader Implications*, 26 BERKELEY TECH. L.J. 527 (2011).

⁹⁶ The Copyright Office played this role, for example, in *Golan v. Holder*, 132 S. Ct. 873 (2012), and *Capital Records, Inc. v. Thomas-Rasset*, 799 F. Supp. 2d 999 (D. Minn. 2011).

⁹⁷ *Copyright Office Views on Music Licensing Reform: Hearing Before the Subcomm. on Courts, the Internet, and Intellectual Property of the S. Comm. on the Judiciary*, 109th Cong. 16 (2005) (statement of Hon. Marybeth Peters, Register of Copyrights, U.S. Copyright Office); see also Brian Sanchez, *The Section 115 Mechanical License and the Copyright Modernization Act: The Hardships of Legislating Music Industry Negotiations*, 17 DEPAUL-LCA J. ART & ENT. L. & POL'Y 37, 75–76 (2006).

⁹⁸ See, e.g., Public Performance of Sound Recordings, 65 Fed. Reg. 77,292, 77,294–95 (Dec. 11, 2000) (to be codified at 37 C.F.R. § 201) (describing the Copyright Office's expertise with statutory licensing).

⁹⁹ Cf. Michael Burstein, *Rules for Patents*, 52 WM. & MARY L. REV. 1747, 1787 (2011) (stating, in the context of advocating a regulatory approach to patent law, that “related to the problem of information gathering is the challenge of bringing the right expertise to analyze and understand that information” and concluding that agencies fare better than courts on this score); Eric Schwartz, *The Role of the Copyright Office in the Age of Information*, 13 CARDOZO ARTS & ENT. L.J. 69, 78 (1994) (asserting the Copyright Office's expertise on questions of copyrightability).

¹⁰⁰ Cf. Benjamin & Rai, *supra* note 48, at 303–04 (describing how the standards of the Administrative Procedure Act apply to policymaking by the Patent and Trademark Office).

drawbacks, too. Scholars of administrative law have criticized agency rulemaking as inefficient and ineffective.¹⁰¹ All forms of capture are of concern with agencies. But a particular concern, given our information-focused perspective, is the problem of informational capture: agencies often limit themselves to the data and the perspective of the entities they regulate.¹⁰² In the specific context of the Copyright Office, scholars have noted that the agency faces limits in its fact-finding abilities.¹⁰³ Finally, there have been flaws in the arbitration panels that the Copyright Office has supervised in rate-setting proceedings. We discuss the problems with webcasting regulation in detail in Section II.D below.

4. Federal Communications Commission

As the primary telecommunications regulator, the FCC is bound to make decisions that affect copyright policy, because of the inextricable links between communications media and the copyrighted works distributed over those media.¹⁰⁴ One classic example of the intersection between copyright law and communications law comes from cable regulation. Over the course of the 1960s and 1970s, television broadcasters used FCC regulation as a way to obtain copyright-like rights in their broadcast signals—and ultimately slow down the development of cable.¹⁰⁵ A more recent example demonstrates that the FCC's authority over copyright policy is limited. With its proposed broadcast flag regulation, the FCC attempted unsuccessfully to force technologists (television manufacturers) to participate in a copyright enforcement scheme.¹⁰⁶ The positive and negative attributes of agency rulemaking discussed in the previous subsection with respect to the Copyright Office also apply to the FCC. Although the FCC has more

¹⁰¹ See, e.g., Jody Freeman, *Collaborative Governance in the Administrative State*, 45 UCLA L. REV. 1, 3 (1997) ("Regulation is currently under attack from all quarters as inefficient, ineffective, and undemocratic. That the rule-making process is ossified, that implementation is inconsistent, and that enforcement is at best sporadic are by now uncontroversial claims.").

¹⁰² See, e.g., Steven Croley, *White House Review of Agency Rulemaking: An Empirical Investigation*, 70 U. CHI. L. REV. 821, 834 (2003) (explaining the informational capture thesis).

¹⁰³ See Aaron Perzanowski, *Evolving Standards and the Future of DMCA Rulemaking*, 10 J. INTERNET L. 1, 21 (2007) ("The Copyright Office, of course, possesses neither the institutional competence nor the authority to determine on its own, in a non-judicial proceeding, which uses are noninfringing.").

¹⁰⁴ See Weiser, *supra* note 51, at 12 ("[T]he federal courts are unlikely to be the sole battleground for the future of copyright policy. In particular, there are a number of developments that suggest that the FCC and other actors will play an important role in regulating content in the digital age.").

¹⁰⁵ See Wu, *supra* note 1, at 315–19.

¹⁰⁶ See *Am. Library Ass'n v. FCC*, 406 F.3d 689, 703–05 (D.C. Cir. 2005) (holding that the FCC did not have jurisdiction over broadcast transmissions once they reached consumers' set-top boxes).

power than the Copyright Office within its sphere of jurisdiction, it still suffers from the drawbacks of agency rulemaking and from a poor track record justifying its actions in appellate litigation. Nonetheless, the FCC is an important government institution involved in copyright policy.

5. Antitrust Agencies

The Department of Justice plays three key roles in copyright law. The first is copyright enforcement, through criminal investigations and prosecutions.¹⁰⁷ The second is defending constitutional challenges to copyright statutes.¹⁰⁸ The third is antitrust enforcement. The Antitrust Division of the DOJ has pursued important prosecutions related to copyright law over the decades, from ASCAP¹⁰⁹ to Microsoft.¹¹⁰ Antitrust investigations offer the power of an agency with economic and econometric expertise collecting relevant information about market conditions. Moreover, antitrust can serve as a way to police private arrangements.¹¹¹ From an information-focused perspective, these are important benefits. On the other hand, antitrust enforcement can be slow and overly reactive, retrospective rather than prospective.

The Federal Trade Commission (FTC) can also play a role in copyright law, particularly to the extent that copyright law and consumer protection concerns overlap.¹¹² In general, the DOJ and FTC have not been a major source of copyright policy, but some commentators have seen potential in both antitrust agencies' capacity for monitoring competition.¹¹³

¹⁰⁷ Four additional agencies also have some responsibility for copyright enforcement: the Copyright Office, the U.S. Customs Service, the Office of the U.S. Trade Representative, and the Department of Commerce. Trudy S. Martin, *Vicarious and Contributory Liability for Internet Host Providers: Combating Copyright Infringement in the United States, Russia, and China*, 27 WIS. INT'L L.J. 363, 383 (2007). In some content-technology disputes, government enforcement could play a role, but we will not focus on that possibility in this Article.

¹⁰⁸ Marybeth Peters, *Constitutional Challenges to Copyright Law*, 30 COLUM. J.L. & ARTS 509, 509 (2007) (mentioning the DOJ's role in defending constitutional challenges, and the Copyright Office's cooperation).

¹⁰⁹ *United States v. Am. Soc'y of Composers, Authors, & Publishers*, 1940-1943 Trade Cas. (CCH) ¶ 56,104 (S.D.N.Y. 1941).

¹¹⁰ Paul J. Heald, *Mowing the Playing Field: Addressing Information Distortion and Asymmetry in the TRIPS Game*, 88 MINN. L. REV. 249, 301-04 (2003) (describing the Microsoft case as an example of DOJ antitrust enforcement against a copyright owner).

¹¹¹ Cf. Herbert Hovenkamp, *Competition for Innovation* 14-15 (Feb. 1, 2012) (unpublished manuscript), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2008953.

¹¹² See, e.g., Michelle R. Hull, *Sports Leagues' New Social Media Policies: Enforcement Under Copyright Law and State Law*, 34 COLUM. J.L. & ARTS 457, 488 n. 210 (2011) (discussing an FTC decision on copyright warnings).

¹¹³ See Matthew Fagin, Frank Pasquale & Kim Weatherall, *Beyond Napster: Using Antitrust Law to Advance and Enhance Online Music Distribution*, 8 B.U. J. SCI. & TECH. L. 451, 519 (2002).

6. Other Executive Branch Institutions

Finally, we must mention the possibility of other executive branch institutions becoming involved in copyright policy. Starting with President Theodore Roosevelt's criticisms of the composer trusts, the President can use either his bully pulpit or more behind-the-scenes methods to influence copyright policy. One prominent example involved the Clinton White House, the Department of Commerce, and the Patent and Trademark Office (PTO), led by Assistant Secretary of Commerce and PTO chief Bruce Lehman, crafting copyright enforcement policy in the 1990s.¹¹⁴ Another more recent example is the effort of President Obama's "copyright czar," Victoria Espinel, and her office, in securing voluntary agreements between credit card companies and copyright owners and between online advertising companies and copyright owners.¹¹⁵ These efforts were aimed at enlisting additional participants in the struggle to secure greater copyright enforcement online. At the same time, the United States Trade Representative has been negotiating the controversial Anti-Counterfeiting Trade Agreement (ACTA).¹¹⁶ These alternative institutions for copyright policy within the executive branch have the potential benefit of flexibility in how they gather information and convene private parties to negotiations. But the interventions by these institutions have often suffered from a lack of transparency.

In this survey of the government institutions involved in copyright policy, we have focused on the capacity of each institution to generate, gather and make use of policy relevant information. In Part II of the Article, we turn to the case studies that illustrate the ways in which these institutions operate in combination and the effect of different institutions' timing as they become involved in content-technology disputes.

II. CASE STUDIES

In this Part we apply our theoretical framework to four case studies of content-technology disputes: publishers and composers versus piano roll manufacturers; ASCAP (the performing rights organization for

¹¹⁴ See LITMAN, *supra* note 1, at 89–96.

¹¹⁵ See Peter S. Menell, Design for Symbiosis: Promoting More Harmonious Paths for Technological Innovators and Expressive Creators in the Internet Age 4 (Jan. 31, 2012) (unpublished manuscript), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1995598.

¹¹⁶ Michael Geist, ACTA's State of Play: Looking Beyond Transparency, 26 AM. U. INT'L L. REV. 543, 544 (2011) (noting the problem of transparency before discussing other critiques of the agreement).

publishers and composers) versus radio broadcasters; motion picture studios versus VCR manufacturers; and record labels versus webcasters. Section D, which is on webcasting, is especially detailed. Unlike the other controversies, the long-running dispute between record labels and webcasters has not previously been the subject of a comprehensive, up-to-date study of the many instances of government intervention. Each case study demonstrates the explanatory and normative usefulness of the information-focused perspective on copyright policy we advocate.

A. *Publishers and Piano Roll Manufacturers*

The dispute between publishers (along with the composers and songwriters whose copyrights they owned or administered) and piano roll manufacturers can be thought of as the first modern content-technology dispute.

1. A Timeline of the Publisher–Piano Roll Dispute

In 1895, several powerful publishers organized under the umbrella of the Music Publishers Association.¹¹⁷ Various threats to their main revenue source, sales of sheet music, had emerged—particularly the player piano and the phonograph.¹¹⁸ The Music Publishers Association provided a vehicle for the publishers and composers' efforts at lobbying for legislative changes that would grant them control over the so-called "mechanical" reproductions of musical works that player pianos and phonographs were capable of making. Congress and the Register of Copyrights began discussing a copyright reform bill in 1901 to clean up various problems and inconsistencies in the statute.¹¹⁹

Meanwhile, starting in 1902, certain publishers and one of the player piano companies, Aeolian, agreed to exclusive licensing deals.¹²⁰ Under the terms of these agreements, Aeolian would have the sole right to produce piano rolls featuring recorded performances of the licensor

¹¹⁷ See SANJEK & SANJEK, *supra* note 1, at 22. This body still exists today. See MUSIC PUBLISHERS ASSOCIATION OF THE UNITED STATES, <http://www.mpa.org> (last visited Sept. 9, 2012).

¹¹⁸ See Alex S. Cummings, *From Monopoly to Intellectual Property: Music Piracy and the Remaking of American Copyright, 1909–1971*, 97 J. AM. HIST. 659, 662–63 (2010).

¹¹⁹ See LITMAN, *supra* note 1, at 38.

¹²⁰ While many scholars have noted the existence of these licenses to Aeolian, only one source marks the date of the first license to Aeolian at 1902. Richard J. Spelts, Comment, *Battle over the Compulsory License: Mechanical Recording of Music*, 36 U. COLO. L. REV. 501, 503–04 (1964). Other sources imply that the date of the licenses might have been later. See, e.g., Theresa M. Bevilacqua, Note, *Time to Say Goodbye to Madonna's American Pie: Why Mechanical Compulsory Licensing Should Be Put to Rest*, 19 CARDOZO ARTS & ENT. L.J. 285, 290 (2001).

publishers' musical works. Eighty-seven publishers, representing hundreds of thousands of musical works, licensed Aeolian. The combination of the leading player piano company and dozens of publishers' catalogs eventually led Congress and the President to have antitrust concerns.¹²¹ Whether Aeolian and the music publishers had in fact achieved a position of market dominance is unclear.¹²² Aeolian was the exclusive licensee of a vast musical catalog, but, on the other hand, another 117 publishers, representing an even larger number of musical works, chose not to license Aeolian.¹²³

As the issue of mechanical rights lingered, the Librarian of Congress finally convened a conference in 1905, inviting copyright owners, librarians, and unions, but leaving out the technologists.¹²⁴ President Theodore Roosevelt also became involved, giving a 1905 speech in favor of sweeping copyright reform.¹²⁵ Negotiations in Congress stalled in 1906 and 1907; different versions of the legislation emerged, but no bill was passed at that time.¹²⁶ President Roosevelt made more specific comments targeted at the publishers and Aeolian in 1907, referring to a "giant music monopoly" in a public statement.¹²⁷

Meanwhile, the publishers and Aeolian decided to pursue a strategy of litigation against the unlicensed piano roll manufacturers. Aeolian financed the lawsuit against its competitor Apollo, apparently as a condition of its exclusive licenses.¹²⁸ The federal trial court ruled against the publishers in 1905.¹²⁹ The Court of Appeals for the Second Circuit affirmed the trial court's decision almost exactly a year later in 1906.¹³⁰ Recall that negotiations over new copyright legislation were in the process of stalling at that point in the timeline; in 1907, a member of the House of Representatives suggested that Congress wait for the Supreme Court's decision.¹³¹

¹²¹ See Howard B. Abrams, *Copyright's First Compulsory License*, 26 SANTA CLARA COMPUTER & HIGH TECH. L.J. 215, 220 (2010) (reporting the number of licensed publishers and the number of works controlled).

¹²² Michael J. Meurer, *Vertical Restraints and Intellectual Property Law: Beyond Antitrust*, 87 MINN. L. REV. 1871, 1908 & n.221 (2003).

¹²³ See Abrams, *supra* note 121 (reporting the analogous numbers for unlicensed publishers).

¹²⁴ See LITMAN, *supra* note 1, at 39.

¹²⁵ Randy S. Kravis, Comment, *Does a Song by Any Other Name Still Sound As Sweet?: Digital Sampling and Its Copyright Implications*, 43 AM. U. L. REV. 231, 272 n.252 (1993).

¹²⁶ See LITMAN, *supra* note 1, at 39–40.

¹²⁷ SANJEK & SANJEK, *supra* note 1, at 22.

¹²⁸ PAUL GOLDSTEIN, *COPYRIGHT'S HIGHWAY: FROM GUTENBERG TO THE CELESTIAL JUKEBOX* 51–53 (2003); Abrams, *supra* note 121, at 219.

¹²⁹ *White-Smith Music Publ'g Co. v. Apollo Co.*, 139 F. 427 (S.D.N.Y. 1905), *aff'd* 147 F. 226 (2d Cir. 1906), *aff'd*, 209 U.S. 1 (1908).

¹³⁰ *White-Smith Music Publ'g Co. v. Apollo Co.*, 147 F. 226 (2d Cir. 1906).

¹³¹ H.R. REP. NO. 25133 (1907).

On February 24, 1908, the Supreme Court decided *White-Smith Music Publishing Co. v. Apollo Co.*,¹³² which held—affirming the lower courts’ decisions on the issue—that piano rolls did not infringe the composers’ copyrights. The opinion relied on a formal distinction, consistent with the decisions of previous courts, between sheet music and mechanical reproductions. Contrasts between sheet music, visible “to the eye” so that a human can play compositions, and piano rolls, “part of a machine” that plays music, appear throughout the opinion.¹³³ But the Court also emphasized the statutory nature of copyright, as opposed to a right based in common law or natural law.¹³⁴ But Justice Day’s majority opinion emphasized that Congress must amend the Copyright Act for piano rolls to infringe composers’ copyrights.¹³⁵ Justice Holmes, in a concurring opinion, advocated that Congress do just that.¹³⁶

The committees responsible for intellectual property in both the House and the Senate jointly held hearings in March 1908, very soon after the Supreme Court’s ruling. In the process, Congress encouraged the publishers and piano roll companies to negotiate a solution, finally including the technologists in the discussion.¹³⁷ Private deliberations continued for another year. Finally, on March 4, 1909, President Roosevelt signed the Copyright Act of 1909 into law.¹³⁸ Section 1(e) of the Act included a compromise between the publishers and the piano roll companies. Piano rolls were now to be infringing copies of compositions.¹³⁹ But the piano roll companies would get the benefit of a compulsory license. They could manufacture piano rolls of compositions without prior permission, and had only the obligation to pay \$0.02 per copy.¹⁴⁰

¹³² *White-Smith Music Publ’g Co. v. Apollo Co.*, 209 U.S. 1 (1908).

¹³³ *Id.* at 12–14, 17 (references to “the eye”); *id.* at 12–14, 18 (references to a “machine” or “mechanism”).

¹³⁴ *Id.* at 15 (“In the last analysis this case turns upon the construction of a statute, for it is perfectly well settled that the protection given to copyrights in this country is wholly statutory.”); see also *id.* at 19 (Holmes, J., concurring) (“[Copyright] is a right which could not be recognized or endured for more than a limited time and therefore, I may remark, in passing, it is one which hardly can be conceived except as a product of statute, as the authorities now agree.”).

¹³⁵ *Id.* at 18.

¹³⁶ *Id.* at 20 (Holmes, J., concurring) (“On principle anything that mechanically reproduces that collocation of sounds ought to be held a copy, or, if the statute is too narrow, ought to be made so by a further act, except so far as some extraneous consideration of policy may oppose.”).

¹³⁷ LITMAN, *supra* note 1, at 40.

¹³⁸ Pub. L. No. 60-349, 35 Stat. 1075 (1909) (amended 1976).

¹³⁹ *Id.* § 1(e) (establishing a right “to make any arrangement or setting of it or of the melody of it in any system of notation or any form of record in which the thought of an author may be recorded and from which it may be read or reproduced”).

¹⁴⁰ *Id.* That same compulsory license exists today, more or less, with a different price and a procedure to update the price. See 17 U.S.C. § 115(a)(2) (2006).

2. The Compulsory Licensing Legacy of Piano Rolls

Why did the Supreme Court decide *White-Smith* in the way that it did? One view is that the Court actually believed in a formal distinction between sheet music and piano rolls as different technologies. Another suggestion is that the Court harbored antitrust concerns about Aeolian, which were left unstated in the opinion but animated the result.¹⁴¹ We would also emphasize the Court's deference to Congress and its recognition of the importance and difficulty of the issue.¹⁴² From an informational perspective, taking all three of these rationales together makes the decision seem quite logical. This was truly a new legal issue, with the future path of the recording industry still uncertain. A decision for the publishers might have foreclosed further negotiation with piano roll companies other than Aeolian, given the background worry about monopoly. A decision for the piano roll manufacturer, however, seems more likely to have spurred continued negotiations. Victory improved the bargaining position of the technologists in this dispute, but the Court's opinion and Justice Holmes's concurrence sent a strong signal that it expected Congress to weigh in.¹⁴³ And as it happened, Congress had four different solutions still pending at the negotiating table.¹⁴⁴

So what were Congress's policy goals in 1909, and why did it choose the property rights allocation that it did? One explanation is that Congress was concerned mainly about the threat of monopoly presented by the publishers trying to license only to Aeolian.¹⁴⁵ Another explanation would be that Congress found compulsory licensing appealing on its own merits. But it does not appear, at least in any source we reviewed, that Congress understood that the compulsory license would allow for "cover versions" of compositions to be made

¹⁴¹ See Jane C. Ginsburg, *Copyright and Control over New Technologies of Dissemination*, 101 COLUM. L. REV. 1613, 1622-23 (2001) ("The Court may have suspected that the music publishers were endeavoring either to prevent the distribution of a new format that competed with sheet music, or, equally perniciously, to control the market for phonogram recording equipment and phonograph players."); see also Wu, *supra* note 1, at 302 ("One cannot help noticing that the effect of the decision was to place a limit on the market power of the effective owner of the 'intellectual conception,' namely, the incumbent industry.").

¹⁴² *White-Smith Music Publ'g Co. v. Apollo Co.*, 209 U.S. 1, 9 (1908) (describing the issue as having "considerable importance").

¹⁴³ Cf. Pablo T. Spiller & Emerson H. Tiller, *Invitations To Override: Congressional Reversals of Supreme Court Decisions*, 16 INT'L REV. L. & ECON. 503 (1996).

¹⁴⁴ LITMAN, *supra* note 1, at 39-40.

¹⁴⁵ Section 115 *Compulsory License: Hearing Before the Subcomm. on Courts, the Internet and Intellectual Property of the H. Comm. on the Judiciary*, 108th Cong. 6 (Mar. 11, 2004) (statement of Hon. Marybeth Peters, Register of Copyrights), available at <http://judiciary.house.gov/legacy/92480.PDF> ("Congress, however, was concerned that the right to make mechanical reproductions of musical works might become a monopoly controlled by a single company. Therefore, it decided that rather than provide for an exclusive right to make mechanical reproductions, it would create a compulsory license . . .").

freely once a song had been recorded once. Although the compulsory license has been a boon to many musicians' creativity,¹⁴⁶ that was not Congress's goal in 1909. A better explanation is that Congress simply sought to reach a compromise between two competing interests that it saw as legitimate: the publishers' and composers' interest in compensation and the piano roll manufacturers' interest in growing and profiting from the nascent recording industry.¹⁴⁷ But it is crucial to recognize that the solution did not come from Congress; it came from private negotiations that Congress encouraged and monitored.¹⁴⁸ This was a vigorous dispute between copyright owners and technologists. Congress was eager for the dispute to be resolved and for the parties to negotiate a solution between themselves, perhaps with some supervision and prodding from legislators.

We do not mean to take an overly optimistic view of the resolution of the publisher–piano roll dispute. Procedurally, Congress's method of legislating by inviting (and later pushing) parties to bargain developed an unfortunate tendency. In ensuing decades, Congress continued to allow copyright owners to negotiate over legislation privately without the presence of all interested parties, such as new technologists or the general public, repeating the mistake it made in 1905 and 1906 by leaving out the piano roll manufacturers.¹⁴⁹ Intervention in content–technology disputes by Congress cannot catalyze private negotiations if Congress is willing to let one side craft the legislation without input from other stakeholders. A sensible, information-focused approach to copyright policy requires that the government institutions seek to acquire reliable information from and about all relevant parties to content–technology disputes.

Other commentators have criticized Congress's substantive approach to property rights allocation in the piano rolls conflict. On this view, Congress erred by imposing a compulsory license,¹⁵⁰ setting the price arbitrarily,¹⁵¹ and failing to build in adjustment for inflation.¹⁵² These critiques have some force. But they underemphasize the fact that the publishers *agreed* to the compulsory license. And they ignore the useful role of government in resolving the licensing dispute and

¹⁴⁶ See, e.g., MCLEOD & DICOLA, *supra* note 29, at 225–28.

¹⁴⁷ See Ginsburg, *supra* note 141, at 1626–27 (describing Congress's motivation as a compromise). Apparently the Senate favored the copyright owners' perspective, but the House also saw value in the development of a recording industry. *Id.*

¹⁴⁸ See LITMAN, *supra* note 1, at 40.

¹⁴⁹ *Id.* at 46–48.

¹⁵⁰ See, e.g., Merges, *supra* note 28, at 1299.

¹⁵¹ See, e.g., I. Trotter Hardy, *Copyright and "New-Use" Technologies*, 23 NOVA L. REV. 659, 699–700 (1999).

¹⁵² *Recording Indus. Ass'n of Am. v. Copyright Royalty Tribunal*, 662 F.2d 1, 4 (D.C. Cir. 1981) ("The inadequacy of the two-cent rate after half a century of economic change had long been recognized.").

avoiding monopolization. The compromise has lasted, with some alterations, for over a century. This makes the length of the dispute seem shorter in retrospect, even though it dragged on longer than necessary. Congress and the courts, operating independently, made choices that eventually pushed the relevant parties to the bargaining table. The Supreme Court's approach set Congress up to encourage and monitor more fruitful private negotiations. Each institution refrained from outlawing the new technology and gathered information as the social value of the recording industry became more and more apparent with each passing year.¹⁵³ Congress and the courts acted when knowing enough about the new technology's value, and promoted a compromise that is less than perfect but has allowed both publishers and the recording industry to profit for over 100 years.

B. ASCAP and Radio Broadcasters

The 1909 Copyright Act included a provision that extended the relatively new public performance right to non-dramatic musical works.¹⁵⁴ By 1913, prominent composers and songwriters had begun talking about organizing in order to collect royalties based on this new right.¹⁵⁵ The composers maintained their concern about new media cutting into sales of sheet music.¹⁵⁶ In 1914, the American Society of Composers, Arrangers, and Publishers officially incorporated.¹⁵⁷ Thus, the story of the content-technology dispute between composers and radio stations began with Congress expanding the composers' property rights, and was followed soon after by the composers creating a private organization that would specialize in collecting upon that right.

1. Precursors to the ASCAP-Radio Dispute

Over the next few years, ASCAP used the judicial system to establish the meaning and extent of the public performance right. The earliest cases concerned hotels, restaurants, and cabarets.¹⁵⁸ The

¹⁵³ See SANJEK & SANJEK, *supra* note 1, at 23 (describing the growth in phonograph sales).

¹⁵⁴ The 1897 copyright statute referred to a performance right in "any dramatic or musical composition." Act of Jan. 6, 1897, ch. 4, § 4966, 29 Stat. 481, 481-82; *see also* White-Smith Music Publ'g Co. v. Apollo Co., 209 U.S. 1, 16 (1908) (discussing the statute). But the only three actions brought under the "musical" prong dealt with use in professional theater. SANJEK & SANJEK, *supra* note 1, at 37.

¹⁵⁵ SANJEK & SANJEK, *supra* note 1, at 38.

¹⁵⁶ See JOHN RYAN, *THE PRODUCTION OF CULTURE IN THE MUSIC INDUSTRY: THE ASCAP-BMI CONTROVERSY* 15-16 (1985).

¹⁵⁷ SANJEK & SANJEK, *supra* note 1, at 38.

¹⁵⁸ *Herbert v. Shanley Co.*, 242 U.S. 591 (1917) (holding performances of musical works in

subsequent battle was even larger, against the movie industry. The initial concern of the composers was to collect on the music played live to accompany silent films. But the concern would eventually shift from the theater owners to the movie studios, once films began to incorporate sound. Litigation between the composers and the movie industry came out in ASCAP's favor.¹⁵⁹

In 1922, the FTC opened the first antitrust investigation into ASCAP's activities. The investigation was resolved that year, with no charges brought against ASCAP.¹⁶⁰ Soon after, the DOJ conducted an investigation that lasted from 1924 to 1926, but with the same result.¹⁶¹ But the file was only closed with respect to the charges related to licensing "places of amusement"; the charges related to radio were left unresolved, and thus, the DOJ kept its file open.¹⁶² These early antitrust investigations show that three government institutions had already been deeply involved in ASCAP's early development: Congress, the courts, and the antitrust agencies. So throughout the looming dispute with radio, all parties would have been aware of the availability of these policy tools. ASCAP has existed under the shadow of the threat of antitrust investigation and enforcement for almost all of its existence.

2. The ASCAP-Radio Dispute and Antitrust Scrutiny

The opening salvo in the battle with radio came in 1922, during the same year that the motion picture industry sought action by the FTC. Thus, ASCAP found itself fighting active battles on two crucial fronts (movies and radio) just after settling things with the hotel, restaurant, and cabaret owners. The initial demand from ASCAP to the radio stations was phrased in terms of lost revenue. ASCAP's position was that radio owed them annual fees approximately equal to the difference between yearly sheet music sales before radio and yearly sheet music sales after radio's emergence.¹⁶³ This would become a recurring theme for copyright owners in content-technology disputes that is still used in

hotels or restaurants are public performances for profit even if money is not charged at the door); *John Church Co. v. Hilliard Hotel Co.*, 241 U.S. 655 (1916) (granting certiorari in a case later decided in the same opinion as *Herbert v. Shanley*).

¹⁵⁹ See *Harms v. Cohen*, 279 F. 276 (E.D. Pa. 1922) (holding motion picture exhibitors' defense that ASCAP violated the Sherman Act must fail).

¹⁶⁰ See SANJEK & SANJEK, *supra* note 1, at 50, 81 (describing FTC as giving ASCAP a "clean bill of health"); see also RYAN, *supra* note 156, at 33.

¹⁶¹ See SANJEK & SANJEK, *supra* note 1, at 81; RYAN, *supra* note 156, at 33.

¹⁶² RYAN, *supra* note 156, at 93 (stating that this fact about the investigation remaining technically open is "generally not known").

¹⁶³ *Id.* at 32 ("ASCAP let it be known that it was seeking to obtain at least \$1 million per year from radio, the amount of income [from sheet-music sales] it felt had been lost each year because of the effects of the new medium.").

the present day. When the radio stations resisted, ASCAP launched a series of lawsuits analogous to the earlier lawsuits against the hotels, restaurants, and cabarets. From 1923 to 1931, ASCAP enjoyed three victories in court.¹⁶⁴ The last of these established that multiple radio stations broadcasting the same performance committed multiple infringements.¹⁶⁵

As ASCAP pursued its litigation strategy in the courts, the radio stations lobbied Congress for changes to the Copyright Act. The radio stations organized for these efforts by forming the National Association of Broadcasters (NAB) in 1923.¹⁶⁶ The NAB was—and is—a trade association that includes two factions whose interests sometimes coincide and sometimes clash: the networks (including their owned and operated stations) and the independent stations (which might or might not carry network programming).¹⁶⁷ In Congress during the mid-1920s, the NAB first pursued a complete exemption from the public performance right. As a second-best outcome, the NAB sought a compulsory license akin to the mechanical license of the 1909 Act that the phonograph companies enjoyed.¹⁶⁸

By 1932, the vast majority of radio stations in the U.S. had acquired ASCAP licenses.¹⁶⁹ But that was merely a *détente* in a longer war. The 1932 license included a change that was disadvantageous to many radio stations. Prior to 1932, the ASCAP license required each radio station to pay a flat fee based on the percentage of broadcast time spent playing music. But in 1932 ASCAP instituted blanket licensing. At that point, radio stations still had to pay an annual “sustaining fee.” On top of that, each station would pay a percentage of its revenue in return for a blanket license to publicly perform all ASCAP-administered compositions—regardless of the percentage of music played that came from ASCAP.¹⁷⁰ A more subtle but also crucial aspect of the license was the fact that ASCAP demanded information from radio stations about what music the stations played, but supplied no information in return about the exact contents of its catalog. This aspect of the business arrangement between ASCAP and radio kept ASCAP publishers,

¹⁶⁴ *Buck v. Jewell-Lasalle Realty Co.*, 283 U.S. 191 (1931); *Jerome H. Remick & Co. v. Am. Auto. Accessories Co.*, 5 F.2d 411 (6th Cir. 1925); *M. Witmark & Sons v. L. Bamberger & Co.*, 291 F. 776 (D.N.J. 1923).

¹⁶⁵ *Buck*, 283 U.S. at 197–98.

¹⁶⁶ *SANJEK & SANJEK*, *supra* note 1, at 50.

¹⁶⁷ See *RYAN*, *supra* note 156, at 85–87 (describing differing interests of networks and independents in deciding whether to accept an ASCAP licensing proposal).

¹⁶⁸ Senator Dill’s draft bill in 1926 included an odd provision—its compulsory licensing scheme would have been entirely prospective. Retrospectively, the radio stations would have owed zero royalties for previous years. The bill did not pass. *Id.* at 35.

¹⁶⁹ *SANJEK & SANJEK*, *supra* note 1, at 161 (describing the three year contract between ASCAP and radio achieved in 1932).

¹⁷⁰ *RYAN*, *supra* note 156, at 37.

composers, and songwriters apprised of market trends and use of non-ASCAP competitors' music. Meanwhile, both radio stations and the antitrust agencies remained in the dark about exactly what compositions ASCAP owned.¹⁷¹

In 1934 the DOJ reopened its investigation into ASCAP and filed a formal complaint.¹⁷² (Recall that the DOJ's file had technically been kept open since 1926.) Areas of anticompetitive concern included: the flat fee, the behavior of ASCAP agents, collusion with the publishers to raise mechanical royalties well above the statutory rate, restricted access to radio, and higher prices to local advertisers.¹⁷³ The investigation went some distance inquiring into ASCAP's business practices. But with a new license between ASCAP and radio signed in 1935, the investigation did not result in charges and went inactive officially in 1936. Another key reason the investigation fizzled was the departure of Warner Bros. from ASCAP in 1935 and its subsequent return a few months later.¹⁷⁴ During the period in 1935 and 1936 that Warner was not part of ASCAP, it was untenable to claim that ASCAP had a monopoly, due to the size and economic importance of the Warner catalog.¹⁷⁵

When the antitrust investigation stalled, the broadcasters took an ultimately fruitless turn toward using state law. On a parallel track, in October 1939, the radio broadcasters formed their own performing rights organization with non-ASCAP composers and songwriters: Broadcast Music, Inc. (BMI).¹⁷⁶ This came in response to delaying tactics on the part of ASCAP as both sides prepared for negotiations in anticipation of the expiration of the 1935 contract. Many composers and songwriters in particular genres—country music, and rhythm and blues—had been disadvantaged within ASCAP, had their membership delayed by years, or simply found themselves left out of ASCAP.¹⁷⁷ So there were plenty of musical works to fill a rival catalog. The new organization had predecessors in its attempt to offer competition to ASCAP.¹⁷⁸ But BMI was the first competitor to thrive—and it has survived to this day. Negotiations between ASCAP and radio came close to breaking down in early 1940.¹⁷⁹ With BMI in place, the radio broadcasters gradually reduced their dependence on ASCAP music

¹⁷¹ *Id.* at 38 (explaining ASCAP's informational advantage).

¹⁷² *Id.* at 94.

¹⁷³ *See id.* at 50–52 (summarizing the areas of antitrust concern).

¹⁷⁴ SANJEK & SANJEK, *supra* note 1, at 153–54.

¹⁷⁵ RYAN, *supra* note 156, at 94.

¹⁷⁶ *See generally* SANJEK & SANJEK, *supra* note 1, at 175–83 (describing, in the definitive history of BMI by the organization's official historians, the first two years of BMI's existence).

¹⁷⁷ *See* RYAN, *supra* note 156, at 65–71 (discussing issues about ASCAP's membership practices).

¹⁷⁸ *See id.* at 23 (describing a rival society started by the motion picture theatre companies in 1922).

¹⁷⁹ *Id.* at 87.

starting as early as April of 1940.¹⁸⁰ The broadcast networks NBC and CBS began instituting quotas of non-ASCAP music for certain programs.¹⁸¹

In May of 1940, the DOJ reopened its investigation once again. This time around, subpoenas produced a wealth of information that ASCAP had previously kept from radio stations and the DOJ: names of licensees, names of members, and even names of applicants. On December 26, 1940 the DOJ announced criminal proceedings against ASCAP—and the radio broadcasters and BMI as well.¹⁸² This increase in pressure led BMI to sign a consent decree on January 28, 1941.¹⁸³ ASCAP signed a similar consent decree just a month later on February 26, 1941.¹⁸⁴ The broadcasters had complained that suing them and BMI had made agreements less likely,¹⁸⁵ but within two months the DOJ had applied enough pressure to avoid trial and achieve settlement with both performing rights organizations.

The consent decree had less favorable terms for ASCAP than it had enjoyed previously. It gave ASCAP a lower percentage of radio stations' revenue as a licensing fee. It restricted ASCAP to non-exclusive licenses from its members (among other reforms internal to the organization). And it required ASCAP to offer licensees the option of "per piece" licensing in addition to the blanket license. Independent broadcasters won an important concession, achieving a switch to "payment at the source," in which the network originating a program had to pay ASCAP, not the affiliates.¹⁸⁶ Perhaps the worst aspect of the outcome for ASCAP was the birth of a viable competitor in BMI. Over the decades, both performing rights organizations' consent decrees have been modified—most importantly, eliminating the "per piece" option in the 1950 amended decree. But both consent decrees remain in place, supervised by the U.S. District Court for the Southern District of New York.¹⁸⁷

¹⁸⁰ *Id.*

¹⁸¹ *Id.* at 87–88.

¹⁸² SANJEK & SANJEK, *supra* note 1, at 182.

¹⁸³ RYAN, *supra* note 156, at 96–97.

¹⁸⁴ *Id.* at 98.

¹⁸⁵ *Id.* at 96 ("Outraged, the networks accused the Justice Department of eliminating any possibility of a truce with ASCAP . . .").

¹⁸⁶ *Id.* at 97–99.

¹⁸⁷ See Crane, *supra* note 54; Jonah A. Knobler, *Performance Anxiety: The Internet and Copyright's Vanishing Performance/Distribution Distinction*, 25 CARDOZO ARTS & ENT. L.J. 531, 545 (2007) (describing the operation of the "ASCAP Rate Court" in the Southern District of New York).

3. Assessing the Government's Role in Private, Collective Licenses

Sociologist John Ryan has described ASCAP at its birth as “a private organization for the enforcement of a public law.”¹⁸⁸ As ASCAP developed—and as it waged battle with the radio broadcasters from 1922 until 1941—several government institutions played a role in shaping it. Congress made ASCAP possible by extending the public performance right to musical works in the first place and continued to exert some pressure on the organization through hearings. Court rulings defining the scope of the public performance right gave ASCAP leverage over radio and prevented the state legislatures from getting involved. And the antitrust agencies, in particular the DOJ, repeatedly put pressure on ASCAP to reach licensing deals with the radio broadcasters. As Ryan puts it, ASCAP was “constantly faced with the possibility that a decision will be reversed, that the law will somehow be reinterpreted, or that it will lose the support of the enforcing agency.”¹⁸⁹ Through this process ASCAP’s centralizing efficiency was maintained, but its potential monopoly power was curbed.

Government institutions provided the cauldron in which private licensing deals between ASCAP and radio took place and the fire that made sure those deals got done. Congress and the courts vindicated the interests of composers in receiving compensation for their work, forcing the radio networks and stations to negotiate. But the DOJ kept applying the heat, opening and re-opening antitrust investigations that forced ASCAP to offer more reasonable terms to the broadcasters. Contrary to the customary modern portrayal of ASCAP and BMI as private solutions to a transaction-cost or negotiating problem,¹⁹⁰ the historical record clearly reveals that ASCAP and BMI have always been the hybrid products of both public and private ordering. With the courts continuing to exercise a supervisory role for over seven decades, we think this assertion is undeniable and important. Court supervision prevents ASCAP or BMI not just from gouging users with unreasonable rates, but also from withholding too much information from policy makers. It is with the aid of government institutions that ASCAP and BMI have thrived to become the exemplary licensing solution they are. To be sure, these organizations have their flaws, but achieving the result of two large performing rights organizations (and a third, smaller

¹⁸⁸ RYAN, *supra* note 156, at 17.

¹⁸⁹ *Id.* at 124.

¹⁹⁰ Merges, *supra* note 28, at 1299 (“This Article studies a number of *privately established* organizations in the intellectual property field that have operated successfully without statutory compulsory licensing. Patent pools and collective copyright licensing organizations such as ASCAP and BMI collect rights from diverse sources and price them for sale to users.” (emphasis added)).

competitor in SESAC) was not a bad outcome of the DOJ's efforts back in the 1920s, 1930s, and early 1940s.

Throughout this important, two-decade episode in the music industry's history, obtaining information was crucial. At the beginning of this content-technology dispute, policy makers did not have good information about the nature of radio as a medium; commercial advertising had not yet arrived for radio as of 1922. Without information about radio's revenue model, and without more years of information on composers' sales of sheet music, policy makers could not have known what sort of deal to push the parties towards. In 1932 and 1935, ASCAP and radio managed to reach their own deals privately, with the specter of new legislation or antitrust enforcement lurking in the background. At that time, policy makers knew that radio was here to stay, that it made money commercially, and that the composers would earn less revenue without radio-licensing fees. But the policy makers did not know that negotiations were impossible. Only in 1939 and 1940, with the birth of BMI and the ensuing boycott of ASCAP, did it appear that the parties had reached an impasse. At that point, with the help of subpoenas, the DOJ acquired the information it needed to push the parties to a negotiated solution. In sum, the government institutions involved in the ASCAP-radio dispute appear to have played an imperfect, somewhat messy, consistent, and ultimately beneficial role in ensuring that radio listeners would have access to all musical works and that composers and songwriters would receive compensation.

C. *Movie Studios and VCR Manufacturers*

The introduction of the VCR as a mass-market consumer item in the mid-1970s is an important chapter in the recurring conflict between content owners and the developers of new technology.¹⁹¹ The conflict itself was straightforward: copyright owners and broadcast networks sought to maintain control of their programming; whereas electronics manufacturers sought to meet the consumer demand for convenience and flexibility offered by the new technology.

Critically for our analysis, the content owners sought to test the legality of the VCR very early in its development. The Sony Betamax went on sale in 1975; a year later Universal City Studios, Inc. and Walt Disney Productions filed a lawsuit alleging that Sony Corporation, the

¹⁹¹ The first cassette home VCR was made available in the United States in 1972, however it was not a commercial success. The Sony Betamax model home VCR was introduced in 1975. See Brief of National Retail Merchants Ass'n, as Amicus Curiae, Supporting Appellees, Sony Corp. of Am. v. Universal City Studios, Inc., 464 U.S. 417 (1984) (No. 81-1687). The VCR is also referred to as a Video Tape Recorder or VTR in the cases cited herein.

manufacturer of the device, was responsible for any copyright infringement made possible by the new machine.¹⁹² The timing of the challenge has led to *Sony Corp. of America v. Universal City Studios, Inc.* acquiring significance far beyond the specific technology at issue in the case. *Sony* was, in effect, the test case determining how the Court would deal with technology/content conflicts where the development, uses, benefits, and potential harms of a nascent technology are unknown.

The Supreme Court's decision in *Sony* has two distinct components: the first examined whether consumer time-shifting of broadcast television for later viewing was fair use or copyright infringement;¹⁹³ the second concerned the manufacturer's liability for a technology which had both infringing and noninfringing uses.¹⁹⁴

1. The Implications of *Sony* for Content-Technology Disputes

The *Sony* decision has three implications for the content distributor/technology-maker divide. First, *Sony* sets an important precedent as to how courts should deal with emerging technology and uncertain harms. The majority in *Sony* differed from the dissent by holding that the harm attributed to a new technology must be proven and cannot merely be assumed.¹⁹⁵ Specifically, in relation to the fair use doctrine, the majority held that non-commercial consumer time-shifting of free-to-air broadcast television was fair use because the plaintiffs had offered no convincing evidence of market harm, then or in the future.¹⁹⁶

The plaintiffs in *Sony* argued that the VCR would cause a number of harms. Primarily they argued that the availability of pre-recorded programs would substitute for first run television, repeats, and even theatrical exhibition and film rental.¹⁹⁷ Content owners also worried that time-shifting might interfere with the measurement of television audiences and would thus impair the networks' abilities to sell those audiences to advertisers.¹⁹⁸ The district court and a majority of the

¹⁹² *Sony*, 464 U.S. at 458.

¹⁹³ See *id.* at 475-98 (discussing the application of the fair use doctrine in copyright law).

¹⁹⁴ See *id.* at 439-56 (examining whether the *Sony* Betamax is capable of substantial noninfringing uses).

¹⁹⁵ See *id.* at 451 ("What is necessary is a showing by a preponderance of the evidence that some meaningful likelihood of future harm exists.").

¹⁹⁶ *Id.* at 450-51.

¹⁹⁷ *Id.* at 452-53. Film rental here does not refer to the market for home video rental, which did not exist at the time of the district court trial in *Sony*.

¹⁹⁸ *Id.* Less tangibly, the plaintiffs also fretted that use of the *Sony* Betamax would cross "invisible boundaries" and that "the copyright owner has lost control over his program." *Universal City Studios, Inc. v. Sony Corp. of Am.*, 480 F. Supp. 429, 467 (C.D. Cal. 1979), *aff'd in part, rev'd in part*, 659 F.2d 963 (9th Cir. 1981), *rev'd*, 464 U.S. 417 (1984).

Supreme Court rejected these alleged harms as unproven and unlikely.¹⁹⁹ Content owners were unable to convince the district court that Sony's Betamax posed a serious threat to advertising revenue, partly because, on the then-current state of the technology, editing out ads during recording or skipping over them during playback was not particularly feasible.²⁰⁰ The Betamax of the late 1970s and early 1980s was equipped with a pause button and a fast-forward control, but these were clunky mechanical devices which if used with any frequency, degraded the quality of the magnetic tape. To edit ads while recording required watching those same ads with great attention. To skip ads during playback required jumping back and forward with great imprecision to land at the right spot such that it was often easier to just watch the commercials.²⁰¹

In retrospect, the content owners' attempted quick strike against the perceived dangers of the VCR was blunted by its preemptory nature—content owners could not prove the damage they feared the VCR would inflict.²⁰²

Sony's second legacy in terms of content-technology disputes is the legal safe harbor from secondary liability for copyright infringement.²⁰³ Identifying consumer time-shifting as fair use did not fully resolve the legal controversy in *Sony*. Surveys conducted by both the plaintiffs and the defendant indicated that, although the primary use of the VCR was time-shifting, a significant portion of consumers also used the device to build personal libraries of copyrighted material, something the majority and the minority of the Court regarded as infringement.²⁰⁴ Accordingly, the *Sony* Court also addressed the liability of a technology manufacturer for foreseeable infringement by users.²⁰⁵ The majority of the Court held

199 See *Sony*, 464 U.S. at 452–55 (citing and approving the district court's decision that home time-shifting was fair use); *Universal City Studios*, 480 F. Supp. at 466–67 (holding the alleged harm from time-shifting did not justify an injunction). The Supreme Court went on to reason that “respondents failed to demonstrate that time-shifting would cause any likelihood of nonminimal harm to the potential market for, or the value of, their copyrighted works.” *Sony*, 464 U.S. at 456.

200 See *Universal City Studios*, 480 F. Supp. at 468 (rejecting plaintiffs' speculations as to Betamax users' avoiding of advertisements and the resulting effect on advertisement revenue).

201 It is important to recognize that although the majority was unwilling to simply assume that the harms suggested by content owners would come to pass, it did not set the bar especially high. The majority did not require the plaintiffs to show with certainty that future harm would result, it merely required “showing by a preponderance of the evidence that *some* meaningful likelihood of future harm exists.” *Sony*, 464 U.S. at 451.

202 *Id.* at 454–56.

203 See Sverker K. Högborg, *The Search for Internet-Based Doctrines of Secondary Liability in Copyright Law*, 106 COLUM. L. REV. 909, 921–24 (2006) (discussing the Supreme Court's decision in *Sony* as creating a safe harbor against contributory infringement liability).

204 *Sony*, 464 U.S. at 423–24.

205 See *id.* at 439–42 (reasoning that if vicarious liability was to be imposed on petitioners, it must rest on the fact that they sold equipment with constructive knowledge of the fact that their customers may use the equipment for unauthorized uses).

that “the sale of copying equipment, like the sale of other articles of commerce, does not constitute contributory infringement if the product is widely used for legitimate, unobjectionable purposes. Indeed, it need *merely be capable of substantial noninfringing uses.*”²⁰⁶

The substantial noninfringing use test, or the “Sony safe harbor” as it has come to be known, has been an important and controversial feature of copyright law ever since.²⁰⁷ A number of academics have criticized Sony for its failure to give technologists any incentive to reduce the extent of illegal use of their products once the substantial noninfringing use threshold has been satisfied.²⁰⁸ These critics would prefer, presumably, an assessment equivalent to the Hand Formula in negligence, which holds that a duty is breached if the burden of precaution is less than the expected loss due to a failure to take precautions.²⁰⁹ If a corporation has a duty to ensure its VCRs will not cause electrocution, why not impose a duty to prevent copyright infringement? Turning the Sony safe harbor into a balancing test would be more efficient in a world of swift, cheap and unerring adjudication—namely, in a world where courts possessed good information about the costs and benefits of a technology. Balancing in copyright, however, cannot be exact because statutory damages inflate the harm part of the equation in the actors’ respective utility-maximization problems. Moreover, in the real world—where threats of litigation are used strategically, litigation itself is slow and expensive, and fact finders struggle to understand technological issues and avoid hindsight bias—a balancing test exposes technology developers, even those acting in the upmost good faith, to substantial risks.²¹⁰ Inventors and entrepreneurs complain that they have no way of knowing what a court will make of

²⁰⁶ *Id.* at 442 (emphasis added).

²⁰⁷ The exact contours and correct application of the Sony safe harbor have been extensively litigated in connection with peer-to-peer file sharing software. See *Metro-Goldwyn-Mayer Studios, Inc. v. Grokster, Ltd.*, 545 U.S. 913, 931–34 (2005) (analyzing the lower courts’ application of the Sony rule); *In re Aimster Copyright Litig.*, 334 F.3d 643, 649–55 (7th Cir. 2003) (applying the Sony safe harbor test to determine the extent to which Aimster was a contributory infringer); *A&M Records, Inc. v. Napster, Inc.*, 239 F.3d 1004, 1020–22 (9th Cir. 2001) (applying the Sony safe harbor test to impose contributory liability when linked to demonstrated infringing use of the Napster system).

²⁰⁸ See, e.g., Randal C. Picker, *Copyright As Entry Policy: The Case of Digital Distribution*, 47 ANTITRUST BULL. 423 (2002).

²⁰⁹ *United States v. Carroll Towing*, 159 F.2d 169, 173 (2d Cir. 1947); see, e.g., Brief of Amici Curiae Kenneth J. Arrow et al. in Support of Petitioners at 2–3, *Grokster*, 545 U.S. 913; see also RICHARD A. POSNER, *ECONOMIC ANALYSIS OF LAW* 164 (1998) (NO. 04-480).

²¹⁰ Andrew J. Lee, *MGM Studios, Inc. v. Grokster, Ltd. & In re Aimster Litigation: A Study of Secondary Copyright Liability in the Peer-to-Peer Context*, 20 BERKELEY TECH. L.J. 485, 507 (2005); see also Lisa M. Mottes, Note, *The Need for Federal Preemption of State Tort Claims in the Context of “New Drugs” and Premarket-Approved Medical Devices*, 41 SETON HALL L. REV. 723, 756 (2011) (noting that the Food and Drug Administration preemption of state tort claims can encourage litigation “because the threat of liability and expensive litigation arguably deter the development of new technology”).

their infringement-mitigation attempts by the time a case goes to trial.²¹¹ Under a balancing test, technology developers must predict the second-guesses of judges and juries as to technology and also attempt to forecast the evolution of markets and business practices.

The *Sony* majority's adoption of a safe harbor for emerging technology rather than a least-cost-avoider balancing test indicates a preference for clear thresholds of liability over an idealized (and possibly illusory) optimization of incentives.²¹² The *Sony* safe harbor is a clear rule in the sense that it provides technology developers with an ex ante assurance that, as long as the substantial noninfringing use threshold has been met, distribution of their product will not trigger massive copyright liability.²¹³

The exact boundary of the substantial noninfringing use test is debatable: for example, reasonable people may well have concluded that Napster's marginal capacity for legitimate uses was in fact *insubstantial*. However, not all uncertainties are created equal. New technology will almost inevitably pose unknowable future harms and benefits; any test requiring a technology developer to mitigate the latter while maximizing the former creates not just uncertainty, but profound uncertainty. In contrast, while the borderlands of the substantial noninfringing use test may be disputed, there is a clear field beyond the border where the legality of a new device cannot be seriously disputed. In practice, technology developers may have to over-shoot the substantial noninfringing use mark to be completely confident, but the point is that such confidence is possible.²¹⁴ This confidence comes at a potential cost because it is possible that, once satisfied that they have crossed the substantial noninfringing use threshold, technology providers who could do more to restrain consumer copyright infringement would rest on their laurels.

Reflecting on the *Sony* decision some twenty years later in *Grokster v. MGM*, Justice Breyer indicated that the majority in *Sony* was well aware of this trade off and settled upon the *Sony* safe harbor precisely because the rule was "strongly technology protecting."²¹⁵ Justice Breyer argued that, in view of uncertainty of any balancing test and the "limitations facing judges where matters of technology are concerned," it was important to have a rule that gave new technology breathing space to develop and thus, for emerging technologies, the mere capability of a substantial noninfringing use would be enough to shelter

²¹¹ Matthew Sag, *Beyond Abstraction: The Law and Economics of Copyright Scope and Doctrinal Efficiency*, 81 TUL. L. REV. 187, 221–22 (2006).

²¹² *Id.*

²¹³ *Grokster*, 545 U.S. at 957 (Breyer, J., concurring).

²¹⁴ See *infra* notes 244–249 and accompanying text.

²¹⁵ *Grokster*, 545 U.S. at 957 (Breyer, J., concurring).

them from secondary liability for the alleged infringements of end-users.²¹⁶ The *Sony* decision reflects an awareness of the information constraint courts operate under with respect to new technology and a calculation that any gains made for copyright owners by virtue of a higher standard of care would be outweighed by the costs imposed on innovation.²¹⁷ As Justice Breyer notes, VCRs, compact disc burners, digital video recorders, MP3 players, Internet search engines, and peer-to-peer software have all benefited from the *Sony* safe harbor.²¹⁸

The *Sony* decision also has significant implications for content-technology disputes for a third reason. As discussed already, *Sony* is both copyright policy and innovation policy. Furthermore, to the extent that copyright governs who is allowed to enter the market for new technologies of production, reproduction and dissemination, the *Sony* ruling is also competition policy.²¹⁹

Copyright law establishes and orders a complex set of incentives for the creation and distribution of expressive works, such as books, music, movies, and software. However, copyright is not merely the law of the book; it is also the law of the printing press. Copyright law plays a substantial role in regulating the technologies of creation and distribution.²²⁰ If the Supreme Court had held Sony Corporation liable for user infringement, it could have given content owners an effective veto over the development of the VCR.²²¹ This does not mean that we would not have anything like the VCR in our households, but it might not have included a record button.²²² Alternatively, Congress could have instituted a compulsory license for home taping with a levy against the machines, as in Germany.²²³

If the Supreme Court had adopted a balancing test in *Sony*, it would have, in effect, asked potential new entrants to make their

²¹⁶ *Id.* at 958.

²¹⁷ See Jessica Litman, *The Story of Sony v. Universal Studios: Mary Poppins Meets the Boston Strangler*, in *INTELLECTUAL PROPERTY STORIES* 375 (Jane C. Ginsburg & Rochelle Cooper Dreyfuss eds., 2006) ("I recognize the delicate balance we must make between protection of the copyright owner and encouragement of new technology." (quoting Justice O'Connor)).

²¹⁸ *Grokster*, 545 U.S. at 957 (Breyer, J., concurring).

²¹⁹ See generally Picker, *supra* note 208, at 425 (discussing *Sony*'s impact on entry policy).

²²⁰ See *id.* at 430–32 (discussing the evolution of gatekeeping roles in distribution and creation).

²²¹ Assuming the other branches of government did not legislate to the contrary.

²²² See generally Robin A. Moore, *Fair Use and Innovation Policy*, 82 N.Y.U. L. REV. 944, 944–45 (2007) (stating that in ruling on *Sony*, "the fate of the VCR's 'record' button was in the hands of the United States Supreme Court"); Fara Tabatabai, *A Tale of Two Countries: Canada's Response to the Peer-to-Peer Crisis and What It Means for the United States*, 73 FORDHAM L. REV. 2321, 2369 (2005) (arguing that although the *Sony* Court did not impose restrictions on the "evolution of controversial technology[,] . . . Sony could have easily avoided the entire litigation by removing the record button from its VCR").

²²³ Glynn S. Lunney, Jr., *Fair Use and Market Failure: Sony Revisited*, 82 B.U. L. Rev. 975, 976 n.4 (2002) (telling the story of the German legislation).

product design decisions as though they were vertically integrated subsidiaries of the entertainment industry. This would have had a substantial effect on the development of the technology because incumbents and new entrants face very different incentives with respect to the development of new technology. Companies that are heavily invested in the status quo are often disinclined to pursue superior new technologies that will disrupt an existing market.²²⁴ This is not because they fail to recognize the potential of the new technology, but rather because they appreciate that the new technology will cannibalize the market share of existing offerings.²²⁵ In Greek mythology, the Delphic oracle foretold that one of Kronos's children would dethrone him. Kronos, anxious to thwart the prophecy, ate his children as soon as they were born.²²⁶ As Tim Wu explains, "[a]nd so derives the *Kronos Effect*: the efforts undertaken by a dominant company to consume its potential successors in their infancy."²²⁷ In the eyes of content industries, almost every significant new technology of reproduction and distribution has the potential to disrupt existing business models. Properly understood, the VCR was not a threat to content, so much as the existing business model of paying for free content distribution by bundling it with advertising. The film and television industry resisted the VCR in the 1970s for the same reasons that the Radio Corporation of America—as a vertically integrated content distributor and incumbent technologist—resisted Frequency Modulation (FM) radio in the 1930s.²²⁸

Content owners have routinely opposed new technologies of reproduction and distribution regardless of their net benefits to society because those new technologies challenge existing business models.²²⁹ The *Sony* majority recognized this problem and responded with the pro-technology safe harbor. As Justice Breyer notes, the *Sony* decision "thereby recognizes that the copyright laws are not intended to

²²⁴ While his discussion focuses on the nature of business decisions in regulated environments, Boies's commentary on the abhorrence with which regulated companies and agencies view the possibility of emerging competition is nonetheless useful here. See, e.g., David Boies, *Deregulation in Practice*, 55 ANTITRUST L. J. 185, 188–89 (1986) ("There is a third element that tends to affect the nature of business decisions in a regulated environment That desire is simply to maintain the status quo, a disinclination for innovation. Innovation is a source of new competition.").

²²⁵ CLAYTON M. CHRISTENSEN, *THE INNOVATOR'S DILEMMA: WHEN NEW TECHNOLOGIES CAUSE GREAT FIRMS TO FAIL* (1997); see also Edward Lee, *Technological Fair Use*, 83 S. CAL. L. REV. 797, 824 (2010) (arguing that startup technology companies are important sources of innovation); Fred von Lohmann, *Fair Use as Innovation Policy*, 23 BERKELEY TECH. L.J. 829, 844–53 (2008) (summarizing Christensen's argument in the context of VCRs).

²²⁶ WU, *supra* note 5, at 24–25.

²²⁷ *Id.* at 25.

²²⁸ *Id.* at 125–33.

²²⁹ See Picker, *supra* note 208, at 457 (identifying the DVR's emergence as another example of the way in which the move from analog to digital technology alters transaction costs and puts pressure on the preexisting business model); see also WU, *supra* note 5.

discourage or to control the emergence of new technologies, including (perhaps especially) those that help disseminate information and ideas more broadly or more efficiently.”²³⁰

2. The VCR: The Harm That Never Was

The *Sony* majority did not accurately foresee how VCR technology would develop as a result of its decision, but neither did Hollywood. The VCR did not kill content; for several decades it made it more profitable than ever. In 1981 the head of the Motion Picture Association of America (MPAA) told Congress “the VCR is to the American film producer and the American public as the Boston strangler is to the woman home alone.”²³¹ And yet, through the 1980s, 1990s, and the 2000s MPAA members earned a significant proportion of their revenues from VCR, DVD, and BluRay Disc sales.²³² Congress did eventually enact a provision in the DMCA to require that new VCRs comply with copy control technology.²³³ But this provision probably arrived too late to have much effect to protect copyright owners’ revenue or to chill technology. Home video sales are now declining in the face of digital delivery,²³⁴ but even after thirty years it remains a major source of studio revenue.²³⁵

Although the VCR, and later the DVR, have challenged the traditional free-to-air broadcasting model, these devices have actually increased the value proposition offered by cable TV and premium

²³⁰ *Metro-Goldwyn-Mayer Studios, Inc. v. Grokster, Ltd.*, 545 U.S. 913, 957 (2005) (Breyer, J., concurring).

²³¹ *Home Recording of Copyrighted Works: Hearings on H.R. 4783, H.R. 4794, H.R. 4808, H.R. 5250, H.R. 5488, and H.R. 5705 Before the Subcomm. on Courts, Civil Liberties, and the Admin. of Justice of the H. Comm. on the Judiciary*, 97th Cong. 8 (1982) (statement of Jack Valenti, President, Motion Picture Association of America, Inc.).

²³² According to the MPAA, there was a \$24.9 billion market for DVDs and VHS tapes in the United States alone in 2005. MOTION PICTURE ASS’N OF AM., 2005 U.S. PIRACY FACT SHEET 5 (2005), available at filmpiracy.wikispaces.com/file/view/USPiracyFactSheet.pdf. According to Digital Entertainment Group, combined home video sales were \$13.9 billion in 1999, \$20.7 billion in 2003, peaked at \$21.8 billion in 2004, and fell from \$21.0 billion in 2008 to \$18.8 billion in 2010. See *DEG Year-End Home Entertainment Reports*, Digital Entertainment Group, <http://www.degonline.org/> (follow “News” link in banner; then follow “New Releases” link) (last updated Aug. 3, 2012).

²³³ 17 U.S.C. § 1201(k)(1)(A) (2006).

²³⁴ The real challenge to the broadcast model is not commercial avoidance—it is digital distribution through Internet streaming services and Internet downloads. Amazon and Netflix currently offer a wide range of content via subscription streaming services; Amazon and AppleTV allow users to pay for permanent individual downloads; and Hulu.com and Tv.com offer internet streaming supported by target advertising.

²³⁵ As Fred von Lohmann notes: “The VCR made possible the home video market, a market which today generates more than double the revenues collected at the box office . . .” von Lohmann, *supra* note 225, at 840–41.

channels such as HBO. The ability to time-shift programming makes it worthwhile to pay more for programming. So rather than consumer paying very indirectly through advertising, they now pay somewhat more directly through cable companies. Thus the decline in traditional broadcast markets is offset by the growth in pay-television subscriptions.²³⁶ Indeed, renting out DVR equipment has also proved to be a valuable side-business for the cable companies.

Even in the face of DVR technology, the free-to-air model may not completely unravel. The average American spent over thirty-two hours a week watching television according to recent figures. An estimated 111.3 million U.S. households watched the 2012 Super Bowl, a drop from the record of 116 million U.S. households, which is partly explained by the 2.1 million online viewers of the game.²³⁷ Advertising-supported broadcast television has retained a viable core because people seem to like to watch programs at the same time as everyone else is seeing them.²³⁸ Broadcast television has also responded to the challenge of the VCR by running advertisements that work at high speed and moving ads directly into programs via product placement.²³⁹

3. *Sony* in Retrospect: The Surprising Virtues of Uncertainty and Delay

The substantial noninfringing use standard in *Sony* contains a surprisingly productive form of ambiguity. The rule appears to be set at a much lower threshold than the simple least-cost-preventer balancing test from tort law. A cost-benefit balancing test would require a technology developer to take active steps to prevent third-party infringement of intellectual property rights up to the point of zero marginal social return. In contrast, *Sony* merely requires of a substantial noninfringing use to exonerate the defendant, perhaps even just the possibility of such a use. However, given some uncertainty as to the content and application of the *Sony* safe harbor and the substantial risks of injunctions and statutory damages for copyright infringement, technology developers may be naturally drawn to over-compliance. Ironically, the substantial noninfringing use test combined with uncertainty and risk aversion may actually skew conduct closer to the

²³⁶ See *The Great Survivor*, *ECONOMIST*, Apr. 29, 2010, at 12–13 (“Pay-television subscriptions grew by more than 2m in America last year.”), available at <http://www.economist.com/node/16009155>.

²³⁷ Brian Stelter, *Youths Are Watching, but Less Often on TV*, *N.Y. TIMES*, Feb. 8, 2012.

²³⁸ According to *The Economist*, “[g]ive them devices that allow them to record and play back programmes easily, and they will still watch live TV at least four-fifths of the time.” *The Great Survivor*, *supra* note 236, at 13.

²³⁹ *Id.*

socially optimal balance than the least-cost-preventer rule that aims at the social optimum directly.²⁴⁰

The impact of Sony's blurred edges can be seen in the development of the DVR. Both ReplayTV and TiVo launched their DVRs at the 1999 Consumer Electronics Show in Las Vegas. While the ReplayTV DVR could be programmed to skip commercials entirely, TiVo took a less aggressive stance and programmed its device only to allow fast-forwarding.²⁴¹ The ReplayTV 4000 allowed users to share programs with others via the "Send Show" feature, thus enabling people to watch premium content for free. Several television networks, including ABC, NBC, CBS, Disney, and Paramount Pictures, sued the manufacturer of the ReplayTV device; the manufacturer agreed to discontinue the commercial skip and send show features.²⁴² The manufacturer eventually filed for bankruptcy and sold its DVR technology, and the new owner has dropped the redistribution feature.

The ReplayTV DVR may have been able to shelter under Sony's two key holdings: that time-shifting broadcast television was fair use and that a manufacturer will not be held liable for user copyright infringement where the device has a substantial noninfringing use.²⁴³ However, from a business perspective, TiVo was probably right to take a more conservative approach that made commercials easier to avoid but did not guarantee the destruction of advertising-supported broadcasting overnight. The development of the DVR provides an interesting illustration of self-restraint in the face of uncertainty.

²⁴⁰ Legal delay and legal uncertainty may be productive in that enabling rule makers (courts or congress) to assess the true impact of a new technology and create better rules. See Depoorter, *supra* note 16, at 1844 (arguing that legal uncertainty results because the general social and economic ramifications are typically unknown when a new technology is introduced). Due to copyright law's inability to keep pace with the new technological developments, uncertainty is constantly accompanying copyright law. See generally John E. Calfee & Richard Craswell, *Some Effects of Uncertainty on Compliance with Legal Standards*, 70 VA. L. REV. 965 (1984) (noting the uncertainty with which parties subject to a standard typically understand what behavior is required of them).

²⁴¹ TiVo does feature an undocumented thirty-second skip feature for the technology-savvy.

²⁴² Amended Complaint for, inter alia, Direct, Contributory, and Vicarious Copyright Infringement, *Paramount v. ReplayTV, Inc.*, No. CV 01-9358FMC(EX), 2002 WL 1315811 (Apr. 26, 2002), available at http://w2.eff.org/IP/Video/Paramount_v_ReplayTV/20011121_paramount_amd_complaint.pdf ("ReplayTV Amended Complaint"); see also Maribel Rose Hilo, Note, *TiVo and the Incentive/Dissemination Conflict: The Economics of Extending Betamax to Personal Video Recorders*, 81 WASH. U. L.Q. 1043, 1045 (2003) (citing the network television studios' 2001 lawsuit); Eric A. Taub, *ReplayTV's New Owners Drop Features that Riled Hollywood*, N.Y. TIMES, July 21, 2003, at C3.

²⁴³ DVR legality is an open question. See von Lohmann, *supra* note 225, at 834 ("Do the private copies made by . . . TiVo owners fall within the scope of the fair use doctrine? Without litigation leading to reported federal court rulings, the question is extremely difficult to answer."); Ethan O. Notkin, Note, *Television Remixed: The Controversy over Commercial-Skipping*, 16 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 899, 937 (2006) ("As has been demonstrated, the legality of commercial-skipping continues to be uncertain."). Note also that the fair use argument in favor of the send show feature is not persuasive.

When the Apple iPod was released in late 2001, it enabled users to store “a thousand songs in your pocket,” but for most popular music, there was, at the time, no authorized way to obtain MP3 versions of those songs. The recording industry was implacably opposed to peer-to-peer file sharing and strongly suggested that it regarded “ripping” compact discs to MP3 as copyright infringement.²⁴⁴ Apple relied on precedent suggesting that consumer format shifting from CD to MP3 was a fair use.²⁴⁵ It also relied on that fair use as the substantial noninfringing use required under *Sony*. The law helped Apple to be indifferent to the accusation that iPods were mostly filled with pirated MP3’s from peer-to-peer sites such as Napster.²⁴⁶ However, even though critics have railed against the iPod on this basis,²⁴⁷ it should not be overlooked that Apple took several steps beyond what was required to reduce the infringing use of iPods. Most significantly, Steve Jobs’s concerns about music piracy led Apple to change the iPod’s design so that music could only be synced from a single computer to a single iPod and not the other way around.²⁴⁸ In other words, Apple deliberately impeded the ability of the iPod to act as a music-sharing device. Less significantly, Jobs also decreed that the iPod would have a transparent sticker over the screen commanding “Don’t Steal Music.”²⁴⁹

Another example of the surprising benefits of uncertainty comes from the world of peer-to-peer file sharing. It is hard to tell whether Napster gave much thought to the legal consequences of the wave of illegal peer-to-peer file sharing it unleashed in 1999. If it had, it probably assumed that its service was protected from contributory liability under the shelter of *Sony*’s substantial noninfringing use safe harbor. Although

²⁴⁴ See, e.g., *Gracenote, Inc. v. Musicmatch, Inc.*, No. C 02-3162 CW, 2004 WL 1918889, at *4 (N.D. Cal. Aug. 26, 2004) (discussing ripping tracks from CD’s); *Recording Indus. Ass’n of Am. v. Diamond Multimedia Sys., Inc.*, 29 F. Supp. 2d 624, 631 (C.D. Cal. 1998) (detailing the process by which an MP3 file is ripped from an audio CD and stored on a computer’s hard drive).

²⁴⁵ See *Recording Indus. Ass’n of Am. v. Diamond Multimedia Sys., Inc.*, 180 F.3d 1072, 1079 (9th Cir. 1999) (“Rio [a portable MP3 player] merely makes copies in order to render portable, or ‘space-shift,’ those files that already reside on a user’s hard drive . . . Such copying is a paradigmatic noncommercial personal use.”).

²⁴⁶ See Andy McCue, *iPod Users Are Music Thieves Says Ballmer*, SILICON (Oct. 4, 2004), <http://www.silicon.com/management/cio-insights/2004/10/04/ipod-users-are-music-thieves-says-ballmer-39124642/> (“The most common format of music on an iPod is ‘stolen.’”); see also *Universal Music to Apple: iPods Are “Repositories for Stolen Music” So Give Us a Cut of Your Profits!*, DVORAK UNCENSORED (Nov. 30, 2006), <http://www.dvorak.org/blog/2006/11/30/universal-music-to-apple-ipods-are-repositories-for-stolen-music-so-give-us-a-cut-of-your-profits/> (“[T]hese digital music player devices are just repositories for stolen music, and they all know it,” Morris was quoted as saying at the time. ‘So it’s time to get paid for it.’” (quoting UMG’s chief executive Doug Morris) (alterations omitted)).

²⁴⁷ *Id.*

²⁴⁸ STEVEN LEVY, *THE PERFECT THING: HOW THE IPOD SHUFFLES COMMERCE, CULTURE, AND COOLNESS* 49 (2006).

²⁴⁹ *Id.*

peer-to-peer file sharing software in general is clearly capable of substantial noninfringing uses,²⁵⁰ the Ninth Circuit held that “Napster’s actual, specific knowledge of direct infringement render[ed] Sony’s [sic] holding of limited assistance to Napster.”²⁵¹ As the court explained, Napster’s centralized indexing of music files made it aware of the availability of specific infringing material on the Napster system. The company’s failure to purge this material from its system meant that it knew of and thus contributed to direct infringement.²⁵²

After Napster came a new generation of peer-to-peer sites, including Grokster and Streamcast. These new services learned the specific lesson of *A&M Records v. Napster, Inc.*—avoid a centralized file structure that would allow for identification and removal of offending material—but failed to learn the general lesson that the Sony safe harbor can’t be invoked as a pretext to shield a deliberate program of infringement. In apparent conformity with *Napster*, the district court in *MGM Studios, Inc. v. Grokster, Ltd.* held that, absent any specific information that identifies infringing activity, the defendants could not be liable for contributory infringement merely because the structure of the system allows for the exchange of copyrighted material.²⁵³ The court recognized that “Defendants may have intentionally structured their businesses to avoid secondary liability for copyright infringement, while benefitting financially from the illicit draw of their wares,” but it declined to “expand existing copyright law beyond its well-drawn boundaries” to remedy this problem and called for “additional legislative guidance” from Congress instead.²⁵⁴

Confronted with substantial evidence of the harm that file sharing was doing to the music industry,²⁵⁵ and the defendants’ evident “purpose to cause and profit from third-party acts of copyright infringement,”²⁵⁶ the Supreme Court forged a new doctrine of

²⁵⁰ See *Metro-Goldwyn-Mayer Studios, Inc. v. Grokster, Ltd.*, 545 U.S. 913, 954 (2005) (Breyer, J., concurring) (recognizing the “significant future market for noninfringing uses of Grokster-type peer-to-peer software”).

²⁵¹ *A&M Records v. Napster, Inc.*, 239 F.3d 1004 (9th Cir. 2001). Note that the district court had proclaimed a standard of *commercially significant* noninfringing uses. See *A&M Records, Inc. v. Napster, Inc.*, 114 F. Supp. 2d 896, 916–18 (N.D. Cal. 2000), *aff’d in part, rev’d in part*, 239 F.3d 1004 (9th Cir. 2001).

²⁵² *A&M Records, Inc. v. Napster, Inc.*, 239 F.3d 1004, 1022 (9th Cir. 2001).

²⁵³ *Metro-Goldwyn-Mayer Studios, Inc. v. Grokster, Ltd.*, 259 F. Supp. 2d 1029, 1036 (C.D. Cal. 2003) (citing *Napster, Inc.*, 239 F.3d at 1021 (citing *Sony Corp. of Am. v. Universal City Studios, Inc.*, 464 U.S. 417, 442–43 (1984))).

²⁵⁴ *Id.* at 1046.

²⁵⁵ The true extent of this harm continues to be disputed. Compare Felix Oberholzer-Gee & Koleman Strumpf, *The Effect of File Sharing on Record Sales: An Empirical Analysis*, 115 J. POL. ECON. 1 (2007) (finding that file sharing has had only a limited effect on record sales), with Stan J. Liebowitz, *File Sharing: Creative Destruction or Just Plain Destruction?*, 49 J.L. & ECON. 1, 9 (2006) (finding a significant effect).

²⁵⁶ *Metro-Goldwyn-Mayer Studios, Inc. v. Grokster, Ltd.*, 545 U.S. 913, 941 (2005). The

inducement-based liability of copyright infringement. Borrowing a concept from patent law, the Court held that “one who distributes a device with the object of promoting its use to infringe copyright, as shown by clear expression or other affirmative steps taken to foster infringement, is liable for the resulting acts of infringement by third parties.”²⁵⁷ Those who induce infringement are pushed out from under the *Sony* umbrella.

The judicial response to peer-to-peer file sharing illustrates some of the flexibility of what is effectively a common law standard. Courts have refined the application of *Sony* over the years in response to new information about the potential blind spots of the rule itself and new information about the costs and benefits of new technologies.

D. *Record Labels and Webcasters*

This case study focuses on “non-interactive” streaming of recorded music over the Internet, which is a rather clumsy way of saying webcasting in the now familiar sense of Internet radio services such as Pandora or Live365.com.²⁵⁸

1. The Quagmire of Webcasting Royalty Arbitration

Congress has adopted four different frameworks for determining the terms and conditions of the compulsory licenses needed for Internet radio webcasting over the past fifteen years. In 1998, Digital Millennium Copyright Act set up a process of arbitration under the jurisdiction of the Copyright Arbitration Royalty Panel.²⁵⁹ The mechanics of arbitration were overhauled in 2002 under the Small Webcaster Settlement Act,²⁶⁰ and again by the Copyright Royalty and Distribution Reform Act of 2004.²⁶¹ Still dissatisfied with the lack of inter-industry

Court went on to reason “each company showed itself to be aiming to satisfy a known source of demand for copyright infringement,” which the Court recognized as “indicat[ing] a principal, if not exclusive, intent on the part of each to bring about infringement.” *Id.* at 939. Further, “evidence of the distributors’ words and deeds going beyond distribution as such shows a purpose to cause and profit from third-party acts of copyright infringement.” *Id.* at 941.

²⁵⁷ *Grokster*, 545 U.S. at 919. Whether the Court framed the inducement doctrine correctly is another question, but beyond our current scope.

²⁵⁸ Also referred to as webcasting, but that term is commonly used in a more general sense as well.

²⁵⁹ Digital Millennium Copyright Act of 1998, Pub. L. No. 105-304, 112 Stat. 2860.

²⁶⁰ Small Webcaster Settlement Act of 2002, Pub. L. No. 107-321, 116 Stat. 2780; *see also* Vanessa Van Cleaf, Note, *A Broken Record: The Digital Millennium Copyright Act’s Statutory Royalty Rate-Setting Process Does Not Work for Internet Radio*, 40 STETSON L. REV. 341, 365 (2010) (outlining Congress’s passing of the SWSA and its effects on webcasters).

²⁶¹ Copyright Royalty and Distribution Reform Act of 2004, Pub. L. No. 108-419, 118 Stat.

compromise, Congress enacted the Webcaster Settlement Act of 2008,²⁶² followed shortly by the Webcaster Settlement Act of 2009.²⁶³ At the heart of each of these schemes was an “agree or arbitrate” model that sought the efficiency of a compulsory license but with responsibility for rate-setting pushed back to the affected parties, if only they could agree. Our view is that government intervention in Webcasting has largely been a failure (or perhaps a string of failures, followed by marginal success). Making this claim necessitates a detailed review of the history of the webcasting rate-setting process. This review highlights a number of salient lessons for government intervention to resolve content-technology disputes that we summarize at the end of this Section.

2. Digital Performance Right in Sound Recordings Act—An Uncertain Foundation

In the early 1990s the recording industry began to understand that perfect digital reproduction and efficient Internet distribution were a threat to its business model grounded in physical distribution.²⁶⁴ The industry warned Congress “digital delivery would siphon off and eventually eliminate the major source of revenue for investing in future recordings” and that “[o]ver time, this [would] lead to a vast reduction in the production of recorded music.”²⁶⁵ Responding to these concerns, in 1995, Congress passed the Digital Performance Right in Sound Recordings Act (the DPRSRA), adding a limited exclusive right in the performance of sound recordings “by means of a digital audio transmission” to the bundle of rights in section 106 of the Copyright Act.²⁶⁶

The 1995 legislation was a significant change in the law. Prior to the DPRSRA, a public performance of recorded music implicated only the copyright in the musical composition;²⁶⁷ recording artists and

2341.

²⁶² Webcaster Settlement Act of 2008, Pub. L. No. 110-435, 122 Stat. 4974.

²⁶³ Webcaster Settlement Act of 2009, Pub. L. No. 111-36, 123 Stat. 1926.

²⁶⁴ *Digital Performance Right in Sound Recordings Act of 1995: Hearing on H.R. 1506 Before the Subcomm. on Courts & Intellectual Prop. of the H. Comm. on the Judiciary*, 104th Cong. 34 (1995) (statement of Jason Berman, Chairman and CEO, Recording Industry Association of America).

²⁶⁵ *Id.*; see also BRUCE A. LEHMAN, INFO. INFRASTRUCTURE TASK FORCE, INTELLECTUAL PROPERTY AND THE NATIONAL INFORMATION INFRASTRUCTURE: THE REPORT OF THE WORKING GROUP ON INTELLECTUAL PROPERTY RIGHTS 221–25 (1995), available at <http://www.uspto.gov/web/offices/com/doc/ipnii/front.pdf> (advocating a sound recording performance right).

²⁶⁶ Digital Performance Right in Sound Recordings Act of 1995, Pub. L. No. 104-39, 109 Stat. 336 (codified as amended at 17 U.S.C. § 106(6) (2006)).

²⁶⁷ These rights are often retained by individual songwriters and are commonly administered by collective rights organizations, principally administered by ASCAP and BMI.

producers received no compensation for the performance of the sound recording as such. The DPRSRA gave the copyright owners of sound recordings a digital performance right, but subjected that right to important exceptions and, in certain cases, to a compulsory licensing regime.²⁶⁸ The DPRSRA was drafted at a time when the recording industry realized that people might want to stream individual songs over the Internet instead of owning them, but before the industry understood the full potential of Internet radio.²⁶⁹ Unconstrained by the expense and oversight that comes with obtaining a broadcasting license from the FCC, Internet radio had the potential to remake radio. Webcasting was made possible by the growing number of businesses and households connected to the Internet and by technical advances in the digitization of music that made more efficient use of bandwidth.²⁷⁰ In 1995, RealNetworks released a proprietary audio format, RealAudio, that was suitable for streaming audio in relatively low bit-rates and made it possible to 'broadcast' over the internet to listeners connected by dialup modems.²⁷¹ The DPRSRA was targeted at new subscription music services offered by cable, satellite, and Internet service providers. But it did not seem to envisage the significance of Internet radio—namely, non-subscription services supported by advertising.

Under the DPRSRA, "nonsubscription digital audio transmissions" were treated the same as terrestrial radio stations and were exempt from the digital audio transmission right.²⁷² In contrast, "noninteractive" subscription digital transmissions were subject to a compulsory

See Erich Carey, Note, *We Interrupt This Broadcast: Will the Copyright Royalty Board's March 2007 Rate Determination Proceedings Pull the Plug on Internet Radio?*, 19 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 257, 264 n.32 (2008) (discussing royalty payments to musical composition copyright owners as typically handled through blanket licenses and administered by ASCAP, BMI and others).

²⁶⁸ Digital Performance Right in Sound Recordings, 109 Stat. 336.

²⁶⁹ "[C]ertain types of subscription and interaction audio services might adversely affect sales of sound recordings and erode copyright owners' ability to control and be paid for use of their work." H.R. REP. NO. 104-274, at 13 (1995).

²⁷⁰ See generally Joseph E. Magri, *New Media—New Rules: The Digital Performance Right and Streaming Music over the Internet*, 6 VAND. J. ENT. L. & PRAC. 55, 55–56 (2003) (noting the general increase in Internet access as leading to increase in webcasting); see also ROGER E. BOHN & JAMES E. SHORT, GLOBAL INFO. INDUS. CTR. UNIV. OF CAL., SAN DIEGO, HOW MUCH INFORMATION? 2009 REPORT ON AMERICAN CONSUMERS 19 (2009) ("Ten years ago 40 percent of U.S. households had a personal computer, and only one-quarter of those had Internet access. Current estimates are that over 70 percent of Americans now own a personal computer with Internet access, and increasingly that access is high-speed via broadband connectivity.").

²⁷¹ See Jesse A. Bland, Note, *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, 175 (2011) ("Shortly after the DPR[SR]A was enacted [in 1995], the first technology for streaming audio—RealAudio—was developed and released by Progressive Networks. Thus webcasting was born, meaning it was now possible to make digital audio transmissions over the internet.").

²⁷² See 17 U.S.C. § 114(d)(1) (1994 & Supp. II 1996).

license,²⁷³ and interactive subscription services (i.e., music on demand) were not eligible for the compulsory license.²⁷⁴ Thus in 1995, the situation was as follows:

	Non-Subscription	Subscription
Non-Interactive	Exempt	Compulsory License
Interactive	Exempt	Must Negotiate

The recording industry soon realized its oversight and began lobbying for yet another revision to the Copyright Act to bring non-subscription webcasters within the scope of its newly acquired digital performance right.²⁷⁵ Thanks to a last-minute addition to the 1998 Digital Millennium Copyright Act (DMCA) the category of digital performance right exempt services was limited to “nonsubscription broadcast transmission[s].”²⁷⁶ Webcasting was no longer exempt from the digital performance right. Moreover, the DMCA also expanded the definition of the term “interactive service” to include those that are “specially created for a particular individual.”²⁷⁷ This alteration made

²⁷³ *Id.* § 114(d)(2).

²⁷⁴ *Id.* § 114(d)(3)(C); see *Arista Records, LLC v. Launch Media, Inc.*, 578 F.3d 148, 150–51 (2d Cir. 2009) (analyzing the DPRSRA and its requirements as to interactive and noninteractive subscription services); Lydia Pallas Loren, *Untangling the Web of Music Copyrights*, 53 CASE W. RES. L. REV. 673, 692 (2003) (explaining under the DPRSRA, interactive services were subject to voluntary licensing only).

²⁷⁵ See Kimberly L. Craft, *The Webcasting Music Revolution Is Ready to Begin, as Soon as We Figure Out the Copyright Law: The Story of the Music Industry at War with Itself*, 24 HASTINGS COMM. & ENT. L.J. 1, 12 (2001) (discussing the recording industry’s reaction to the Copyright Act). The RIAA also argued that non-subscription webcasters were in fact already subject to sound recording royalties by virtue of section 112 of the Act. See *id.* at 19–20 (identifying the RIAA’s arguments regarding webcasters’ subjection to royalty payments); see also Jane C. Ginsburg, *Copyright Legislation for the “Digital Millennium,”* 23 COLUM. J.L. & ARTS 137, 167 (1999) (analyzing the Copyright Act’s 1995 amendments and the resulting creation of a multi-tiered system).

²⁷⁶ 17 U.S.C. § 114(d)(1)(A) (emphasis added). Under the statute, a broadcast transmission was defined as “a transmission made by a terrestrial broadcast station licensed as such by the Federal Communications Commission.” *Id.* § 114(j)(3).

²⁷⁷ *Id.* § 114(j)(7) (defining an “interactive service” as a service “that enables a member of the public to receive a transmission of a program specially created for the recipient, or on

the status of Internet radio fundamentally uncertain because it raised the question of whether services offering playlists customized according to an individual user's ratings of songs, artists, and albums would qualify for the section 114 statutory license.

In early 2000, a group of webcasters petitioned the Copyright Office to resolve this uncertainty (in their favor) and urged it to rule that "a service is not interactive simply because it offers the consumer some degree of influence over the programming offered by the webcaster."²⁷⁸ The Copyright Office declined this request in a letter dated November 21, 2000, stating blandly that due to the "rapidly changing business models emerging in today's digital marketplace, no rule can accurately draw the line demarcating the limits between an interactive service and a noninteractive service."²⁷⁹ Thus webcasters had to negotiate for licenses and participate in arbitration without any clear idea of which box they fell into.

	Non-Subscription, Broadcast Transmission	Non- Subscription, Non-Broadcast	Subscription
Non- Interactive	Exempt	Compulsory License	Compulsory License
Interactive	Exempt	Must Negotiate	Must Negotiate

request, a transmission of a particular sound recording, whether or not as part of a program, which is selected by or on behalf of the recipient."); *see also* *Arista Records*, 578 F.3d at 155 (reviewing legislative history of section 114).

²⁷⁸ Public Performance of Sound Recordings: Definition of a Service, 65 Fed. Reg. 33,266, 33,266 (May 23, 2000). The webcasters acted through their lobbying arm, the Digital Media Association (DiMA). *See* Petition of Digital Media Association (DiMA) for Rulemaking In Re: Section 114 Definition of Interactive Service, Docket No. RM 2000-4 (Apr. 17, 2000), *available at* <http://www.copyright.gov/carp/DiMApetition.pdf>; *see also* *Arista Records*, 578 F.3d at 156.

²⁷⁹ Public Performance of Sound Recordings: Definition of a Service: Petition for Rulemaking, Denial Correction, 65 Fed. Reg. 78,434, 77,332 (Dec. 11, 2000) (codified at 37 C.F.R. § 201), *available at* <http://www.copyright.gov/fedreg/2000/65fr77330.pdf>; *see* *Arista Records*, 578 F.3d at 156.

3. Webcasting I

In keeping with the agree-or-arbitrate model, the DMCA initially created a six-month negotiation period for copyright owners and potential licensees to privately determine royalty rates for webcasting.²⁸⁰ The legislation provided that if no agreement was reached at that time, the Librarian of Congress would convene a Copyright Arbitration Royalty Panel (CARP) to determine rates on a “willing buyer-willing seller” standard.²⁸¹

Although the first proceedings under this regime were intended to establish royalties for the period 1998–2000, the complexity of the issues and the number of participants led the Copyright Office to consolidate proceedings with respect to the first and second licensing periods.²⁸² And so the first CARP proceeding actually determined rates for 1998–2002.²⁸³ On February 20, 2002, the panel submitted its report to the Copyright Office proposing rates and terms for webcasting.²⁸⁴ The report came after forty-one days of hearings, seventy-five witnesses, 15,000 pages of transcript, thousands of pages of exhibits, a thousand pages of post-hearing briefs, and two additional days of legal arguments.²⁸⁵ The CARP’s ultimate recommendation was that webcasters would pay 0.14 cents per song.²⁸⁶ The CARP based these

²⁸⁰ 17 U.S.C. § 114(f)(2)(A).

²⁸¹ *Id.* § 114(f)(2)(B). See generally *Beethoven.com LLC v. Librarian of Cong.*, 394 F.3d 939, 942 (D.C. Cir. 2005).

²⁸² See Order Granting Consolidation of Proceedings at 2, *In re Digital Performance Right in Sound Recordings and Ephemeral Recordings* (Library of Cong. Dec. 4, 2000) (Docket Nos. 99-6 CARP DTRA, 2000-3 CARP DTRA), available at <http://www.copyright.gov/carp/114schedule.html>.

²⁸³ See *id.* (“Since these will be consolidated proceedings, the CARP will be establishing rates and terms for two periods (1998–2000 and 2001–2002) based upon the evidence presented for each of the two periods.”).

²⁸⁴ U.S. COPYRIGHT OFFICE, LIBRARY OF CONGRESS, REPORT OF THE COPYRIGHT ARBITRATION ROYALTY PANEL TO THE LIBRARIAN OF CONGRESS (2002) [hereinafter CARP REPORT], available at www.copyright.gov/carp/webcasting_rates.pdf.

²⁸⁵ See *Copyright Royalty Arbitration Panel Recommends Statutory License Fees for Internet Transmissions of Music Recordings*, 23 ENT. L. REP., at 45 (Mar. 2002), available at <http://elr.carolyn.net/BI/v23n10.pdf>. It is also worth noting that:

Under the current system, the Copyright Office convenes three-member panels of independent arbitrators to review cases as they arise. The panels hold trial-like proceedings, and then make recommendations to the Register of Copyrights and the Librarian of Congress, who oversee the office. But complex cases can drag on for months, and because arbitrators are paid as much as \$400 an hour, some proceedings can cost more than \$1 million. Another complaint is that each panel may use different criteria in setting rates, which some participants complain leads to inconsistencies in outcomes and makes it hard to set precedents.

Andrew Caffrey, *E-Commerce (A Special Report): The Rule—Rules & Regs*, WALL ST. J., Sept. 12, 2002, at R13.

²⁸⁶ CARP REPORT, *supra* note 284, at 80. A per song royalty rate refers to the amount paid to

rates on its analysis of a hypothetical “willing seller-willing buyer” marketplace, as supposedly evidenced by agreements negotiated in the marketplace.²⁸⁷

In retrospect, the notion that in a time of technological and legal uncertainty webcasters and the recording industry would manage to arrive at voluntary agreements in lieu of arbitration seems almost naïve. Knowing that they could continue to operate and rely on arbitration, neither side had particularly strong incentives to reach a voluntary agreement.²⁸⁸ The prospects of an agreement were further undermined by the willing seller-willing buyer decision standard under which the CARP operated. The RIAA formed a committee of five major record labels to execute a common strategy for negotiating with prospective licensees.²⁸⁹ The recording industry’s main objective in these negotiations was to establish a favorable track record to use as evidence in the arbitration proceedings—there is every indication that the industry was primarily concerned with arbitration and did not see individual negotiations as a viable alternative.²⁹⁰ But the failure of negotiations cannot be attributed to the recording industry alone. In its review of the CARP report, the Librarian of Congress was also critical of webcasters, noting that “most Webcasters chose not to enter into marketplace agreements, preferring to wait for the outcome of the CARP proceeding in the hope of getting a low rate.”²⁹¹ Even if the recording industry had come to the table, uncertainty and optimism combined to make webcasters resistant to entering into good faith negotiations.²⁹²

This left the CARP with the unenviable task of ascertaining what a willing webcaster and a willing record label would consider to be a fair deal for Internet radio royalties in the face of an almost total absence of real world evidence. The one agreement that the CARP believed was negotiated in good faith between parties on an equal footing was the

play a song once to a single user. The rate of fourteen cents per song translates to a bill of \$18,369 for a station with an average of 100 listeners that plays music twenty-four hours a day, 365 days a year. This is based on the assumption that the average song is four minutes long. See Ira Hoffman, Note, *Pseudo-Interactivity: An Appropriate Rate Scheme for Customizable Internet Radio Services*, 33 CARDOZO L. REV. 1515, 1524 (2011) (noting that many songs average between three and four minutes in length and therefore many Internet radio stations can play roughly sixteen songs per hour). The CARP also recommended that radio stations, who pay nothing to record labels for terrestrial transmissions, would pay seven cents per song. *Id.* at 77–78.

²⁸⁷ CARP REPORT, *supra* note 284, at 80.

²⁸⁸ Determination of Reasonable Rates and Terms for the Digital Performance of Sound Recordings and Ephemeral Recordings, 67 Fed. Reg. 45,240, 45,245 (July 8, 2002) [hereinafter Final Rule] (codified at 37 C.F.R. § 261).

²⁸⁹ *Beethoven.com LLC v. Librarian of Cong.*, 394 F.3d 939, 943 (D.C. Cir. 2005).

²⁹⁰ *Id.*

²⁹¹ Final Rule, *supra* note 288, at 45,246.

²⁹² *Id.*

RIAA-Yahoo! agreement.²⁹³ The panel based its entire assessment of the willing buyer-willing seller standard on this solitary agreement. There are several reasons to doubt the wisdom of this approach. To begin with, Yahoo, one of the leading Internet companies of its time, could hardly be thought to be representative of the emerging Internet radio industry. Moreover, when the only market evidence that exists consists of transactions conducted with at least one eye towards the ensuing arbitration process, these agreements simply cannot be a sound basis for extrapolating what the outcome of a functioning market process would have been.²⁹⁴ The willing buyer-willing seller standard was always going to be difficult for the CARP to implement because the digital audio performance right has never existed independently of the compulsory licensing regime. In light of this fact, the CARP should have looked beyond negotiated agreements for an empirical basis to ground its determination on what the equilibrium of a hypothetical market should be.

The 2002 CARP determination was immediately challenged by webcasters as unworkable.²⁹⁵ They argued that, if approved, the new fees would cause many of them to shut down.²⁹⁶ Internet radio stations received a “stay of execution” from the Copyright Office in May 2002 with the announcement that the Registrar of Copyrights would not accept the panel’s recommendations.²⁹⁷ However, cheers were short-lived. Webcasters were seeking a revenue-based fee roughly equal to what they paid songwriters and publishers, rates that are determined by negotiations with ASCAP and BMI or by rulings of the federal district court in New York that supervises the PRO antitrust consent decrees.²⁹⁸ Although the Library of Congress rejected royalty rates determined by CARP as being arbitrarily high, it only reduced the per-song, per-listener royalty from 0.14 to 0.07 cents.²⁹⁹ Given the information available, this figure was necessarily arbitrary, if not arbitrarily high. The Library of Congress’s final order was met with the same reaction as the

²⁹³ *Id.* at 45,248.

²⁹⁴ See FED. R. EVID. 502 (outlining work product doctrine).

²⁹⁵ See, e.g., *Online Radio Plans “Silent” Protest of Fees*, HOUS. CHRON., May 1, 2002, (Business), at 3 (highlighting the Internet radio stations’ argument that the proposed royalty rates could bankrupt many members of the webcasting industry).

²⁹⁶ David Ho, *Royalty Rates for Internet Radio Rejected; Webcasters Feared Approval of Proposed Fees Would Force Them to Shut Down*, WASH. POST, May 22, 2002, at E2. See also Rob Pegoraro, *They’re Not Treating Webcasters Like Royalty*, WASH. POST, May 26, 2002, at H5 (“If these forecasts are true, most small webcasters would have to shut down, and Web radio would walk the same dreary path of corporate consolidation as commercial FM.”).

²⁹⁷ Michael Dwyer, *The Day the Music Died*, AGE (Melbourne, Austl.), Aug. 9, 2007, at 21 available at <http://www.theage.com.au/articles/2007/08/08/1186530432196.html?page=fullpage>.

²⁹⁸ See *supra* note 187 and accompanying text.

²⁹⁹ See Final Rule, *supra* note 288, at 45,243. The Library of Congress also proposed a downward adjustment—from 9% of the performance royalties paid to 8.8%—to the Ephemeral License Fee. *Id.*

CARP determination—service providers warned that the destruction of internet radio was near,³⁰⁰ and that the ruling “virtually guarantees that Internet radio will consolidate to the point where there’s no distinction between Internet radio and terrestrial radio.”³⁰¹

The unsatisfactory outcome of the first rate setting process appears to have been inexorable given its design. The parties failed to enter into serious negotiations because legal, technological, and market uncertainty combined to make each side believe that its prospects were better in arbitration. The Copyright Office had the opportunity to resolve some of this uncertainty by stating definitively whether individually customized Internet radio stations should be classified as “interactive” or “non-interactive.” Congress had the opportunity to establish a more rational arbitration process by directing the panel to consider parity with the royalties paid by terrestrial radio stations to songwriters. The arbitration proceedings proved to be adversarial, complicated, time consuming, and expensive.³⁰²

The initial CARP process established high prices and an inflexible pricing formula (rigid adherence to pay per song as opposed to revenue sharing) that starved the fledgling Internet radio industry of oxygen.³⁰³ This approach deprived the government and private industry of any opportunity to gather information about the effect of webcasting on music revenues or develop any understanding of the business prospects and market opportunities presented by this new technology.

4. Small Webcaster Settlement Act of 2002

The failure of the rate-setting system was made apparent when Congress enacted the Small Webcaster Settlement Act of 2002 (SWSA).³⁰⁴ The SWSA was motivated by the lack of representation of

³⁰⁰ See Christopher Stern, *Curtain Call for Webcasts?; Some Decry Order to Pay Royalties to Musicians*, WASH. POST, June 21, 2002, E1 (“Thousands of Internet radio stations may find their transmissions financially jammed after the Librarian of Congress yesterday adjusted the royalty fees that the webcasters must pay musicians and record companies for broadcasting their songs online.”).

³⁰¹ Jon Healey, *U.S. Official Cuts Proposed Royalty for Online Music*, L.A. TIMES, June 21, 2002, (Business) pt. 3, at 1 (quoting Kevin Shively, director of www.Beethoven.com) (internal quotation marks omitted).

³⁰² “[T]he CARP system presented perceived problems of continuity, consistency, and expense.” Procedural Regulations for the Copyright Royalty Board, 70 Fed. Reg. 30,901, 30,901 (May 31, 2005).

³⁰³ See generally Karen Fessler, *Webcasting Royalty Rates*, 18 BERKELEY TECH. L.J. 399, 418 (2003) (“This [CARP marketplace] standard, however, proved unworkable . . . [by] creat[ing] a one-size-fits-all approach to setting rates, effectively exposing all webcasters . . . to the same rate structure.”).

³⁰⁴ Small Webcaster Settlement Act of 2002, Pub. L. No. 107-321, § 2(1), 116 Stat. 2780, 2780 (codified at 17 U.S.C. § 114). See generally *Webcaster Alliance, Inc. v. Recording Indus. Ass’n of*

small webcasters in the CARP proceedings and the assessment that such webcasters were unduly disadvantaged by the high per-performance royalty fees that resulted from the first round of arbitration.³⁰⁵ The Act temporarily suspended the CARP fees for small webcasters and noncommercial webcasters and gave the parties an eighteen-month window to negotiate alternative arrangements.³⁰⁶

As with Webcasting I, the SWSA was primarily focused on inducing a negotiated agreement.³⁰⁷ To improve the prospects of negotiation, the SWSA entrenched the position of SoundExchange as the recording industry's representative collective rights organization.³⁰⁸ At this time, SoundExchange was an unincorporated division of the RIAA, however the organization was spun off in September 2003 and is now technically an independent, non-profit organization. Although SoundExchange is often regarded as synonymous with the RIAA, a board comprised of record labels and recording artist representatives controls the organization. SoundExchange distributes royalties to record labels and recording artists under the compulsory license.³⁰⁹ It is the only entity entitled to collect and distribute digital performance royalties on behalf of record labels and recording artists.³¹⁰ Notably, in spite of its monopoly position, SoundExchange negotiates and lobbies on behalf of sound recording copyright owners with no oversight from the antitrust authorities. The Act was structured such that any agreement entered by SoundExchange, in effect, became the industry-wide deal for all small webcasters.³¹¹ To encourage SoundExchange to

Am., Inc., No. C 03-3948 WHA, 2004 WL 1465722, at *5 (N.D. Cal. Apr. 1, 2004) (providing background information on the SWSA).

³⁰⁵ See Van Cleef, *supra* note 260, at 365 (stating that Congress passed the SWSA to address small webcasters' disdain for the 2002 royalty rates).

³⁰⁶ Small Webcaster Settlement Act of 2002, Pub. L. No. 107-321, § 3(1), 116 Stat. 2780, 2781 (codified at 17 U.S.C. § 114).

³⁰⁷ Jon Healey, *Webcasters Free to Reach Deals*, L.A. TIMES, Nov. 16, 2002, (Business) pt. 3, at 3 (noting that according to one Washington insider, "[a]lthough there was a broad consensus in favor of overhauling the way royalties are set, there wasn't enough time late in the session to do that" and that consequently, "[t]he main goal was to clear the way for negotiated settlements, rather than imposing rates and terms on Webcasters").

³⁰⁸ See Final Rule, *supra* note 288, at 45,267. SoundExchange is a nonprofit organization formed by RIAA to administer the statutory licenses in sections 112 and 114 of the Copyright Act. SoundExchange member companies and affiliated record labels account for over 90% of the sound recordings lawfully sold in the United States. See Gretchen McCord Hoffmann, *Recent Developments in Copyright Law*, 12 TEX. INTELL. PROP. L.J. 111, 215 n.923 (2003).

³⁰⁹ See Final Rule, *supra* note 288, at 45,267; see also, Jeffrey Brabec et al., *The Continuing Evolution of U.S. Online/Digital Music Licensing: From Pro's and AOL to MobiTv and the CRB*, in TECHNOLOGY AND ENTERTAINMENT CONVERGENCE 2010: HOT BUSINESS AND LEGAL ISSUES IN "TECHNOTAINMENT" (PLI Intellectual Property, Course Handbook Series 2010).

³¹⁰ Sound recording copyright owners can still agree to direct individually negotiated licenses with webcasters.

³¹¹ *Webcaster Alliance, Inc. v. Recording Indus. Ass'n of Am., Inc.*, No. C 03-3948 WHA, 2004 WL 1465722, at *5-6 (N.D. Cal. Apr. 1, 2004). Although, small webcasters electing not to participate in negotiations with SoundExchange could always adopt the compulsory license

make compromises, the SWSA also provided that any agreement under the Act would not have precedential value under the willing buyer-willing seller standard.³¹² Although this may have made settlements more likely in the short term, this provision exacerbated the information deficiency of future arbitration panels.

There were some successes under the SWSA. SoundExchange negotiated a licensing agreement with a trade association of small webcasters known as Voice of Webcasters (VOW) in late 2002.³¹³ The VOW agreement provided a royalty rate based on a percentage of revenue rather than the Librarian's rates which provides rate per performance.³¹⁴ However, many other small webcasters complained that these rates—either 8% to 12% of revenue or 5% to 7% of expenses—remained unacceptably high.³¹⁵

In 2003, SoundExchange reached a two-year deal on royalties with a small but significant group of webcasters, including Microsoft, AOL Time Warner, RealNetworks, and Yahoo!³¹⁶ The agreement gave webcasters the option of continuing to pay about 0.07 cents per song/per listener or to pay about 11% of revenue from subscription services.³¹⁷ Webcasters viewed the agreement as preferable to arbitration and spending “millions of dollars in a miserable process that's known to yield bad results,”³¹⁸ but not by much. For webcasters, this deal was not a long-term solution, rather it was simply a stopgap to tide them over until Congress was able to once again revisit the rate setting process.³¹⁹

5. Copyright Royalty and Distribution Reform Act of 2004

As anticipated, Congress attempted to reboot the troubled rate-setting process in 2004 with the Copyright Royalty and Distribution

under the Librarian's rates. *Id.* at *6.

³¹² See Carey, *supra* note 267, at 279–80 (“However, the rates and terms of agreements made under the SWSA were to apply only to the time periods specified in those agreements and were to be given no precedential effect in any future rate-setting proceedings.”).

³¹³ See Robert J. Delchin, *Musical Copyright Law: Past, Present and Future of Online Music Distribution*, 22 CARDOZO ARTS & ENT. L.J. 343, 379 (2004) (outlining the December 13, 2002 agreement between SoundExchange and VOW).

³¹⁴ *Webcaster Alliance*, 2004 WL 1465722, at *6.

³¹⁵ Healey, *supra* note 307. Indeed, an alliance of online music broadcasters sued the recording industry claiming that the rates negotiated under the VOW agreement were part of an attempt by the RIAA to unlawfully restrain trade and monopolize the music market. *Webcaster Alliance*, 2004 WL 1465722, at *20–21 (holding that a federal agency's establishment of royalty rates for copyrighted materials bars plaintiff's claims under the filed rate doctrine).

³¹⁶ Jon Healey, *RIAA Reaches Deal on Royalties; The Agreement Brings a Truce in the Bitter Fight Between Webcasters and the Music Industry*, L.A. TIMES, Apr. 4, 2003, (Business) pt. 3, at 3.

³¹⁷ *Id.*

³¹⁸ *Id.* (quoting Jonathan Potter of the Digital Media Association trade group).

³¹⁹ *Id.*

Reform Act (the Reform Act or CRDRA).³²⁰ The Reform Act replaced the CARP with a Copyright Royalty Board (CRB) and replaced the expensive arbitrators with three permanent Copyright Royalty Judges (CRJs) to be appointed by the Librarian of Congress.³²¹ In eliminating the CARP system, the Reform Act of 2004 also largely removed the Librarian and the Copyright Office from further involvement in royalty adjustment proceedings.³²² Congress retained the ‘agree or arbitrate’ structure of the DMCA and the mission of the CRB remained to encourage settlements and, when necessary, resolve statutory-license disputes by setting “reasonable rates and terms” for royalty payments from digital performances.³²³ Proceedings under the CRB remained complex and adversarial.³²⁴

6. Webcasting II

The second rate-setting process (Webcasting II) was initiated by the CRB on February 16, 2005.³²⁵ Following three months of essentially pro-forma failed negotiations, the CRB began hearing testimony and proposals from interested parties.³²⁶ Proceedings under the CRB were just as involved as in the previous CARP process. From May 1, 2005, through November 30, 2006 the CRJs heard forty-eight days of testimony from thirty-eight witnesses and twenty-five rebuttal witnesses.³²⁷

³²⁰ Copyright Royalty and Distribution Reform Act of 2004, Pub. L. No. 108-419, 118 Stat. 2341 (codified in relevant part at 17 U.S.C. § 114(f) (2006)).

³²¹ See 17 U.S.C. § 801, et seq. “The expectation is that the Copyright Royalty Judges, appointed to staggered, six-year terms, will provide greater decisional stability, yielding the advantages of the former Copyright Royalty Tribunal, but with greater efficiency and expertise.” Procedural Regulations for the Copyright Royalty Board, 70 Fed. Reg. 30,901, 30,901 (May 31, 2005). Limits on the Librarian’s power to remove CRJs in 17 U.S.C. § 801(i) were recently declared to violate the Appointments Clause. *Intercollegiate Broad. Sys., Inc. v. Copyright Royalty Bd.*, 103 U.S.P.Q.2d 1337 (D.C. Cir. 2012). Those limitations have now been effectively read out of the statute. *Id.* at 1344.

³²² The Register of Copyrights retained a limited role on questions of law. See 17 U.S.C. §§ 802(f)(1)(A)(ii), (1)(D), (2)(B)(i).

³²³ If parties can agree, rates and terms of a license may be set through voluntary negotiation. *Id.* § 114(f)(3). For all parties that do not agree, the Copyright Royalty Judges conduct adversarial proceedings and issue a determination. *Id.* § 803. The resulting rate changes are retroactive. *Id.* § 803(d)(2).

³²⁴ See *id.* § 803; 37 C.F.R. § 351, et seq. See generally *Intercollegiate Broad. Sys. v. Copyright Royalty Bd.*, 574 F.3d 748, 753–55 (D.C. Cir. 2009) (reviewing CRB procedures).

³²⁵ Blake Holland, *The Winding Stream: Entitlement Theories and Intellectual Property Rights in Emerging Media Technologies*, 35 BERKELEY TECH. L.J. 247, 261 (2010).

³²⁶ Digital Performance Right in Sound Recordings and Ephemeral Recordings, 72 Fed. Reg. 24,084, 24,085 (May 1, 2007) (codified at 37 C.F.R. § 380).

³²⁷ *Id.*

On May 1, 2007 the CRB announced its determination of webcasting royalties for the period beginning January 1, 2006, and ending on December 31, 2010.³²⁸ Just as in Webcasting I, the CRB rejected proposals by webcasters that rates be structured as a percentage of revenue and stuck with a minimum payment per song/per listener formula. The CRB determined that the statutory rate for commercial webcasting per song/per listener should increase from 0.08 cents in 2006 to 0.19 cents by 2010.³²⁹ Under the new regime, all webcasters would also pay a \$500 minimum annual fee for every “station.”³³⁰ The almost three-fold increase in per song webcasting royalties was greeted with predictable dismay. Webcasters complained that the decision “threaten[ed] to silence many, and perhaps most, webcasters.”³³¹ However SoundExchange embraced this result, saying that it saw merit “in culling some of the many thousands of Web stations that sprang to life during the wide-open first years of broadband.”³³² It is interesting to note here that it was SoundExchange making the decision as to whether the market should be in an era of experimentation or consolidation. SoundExchange represents the interests of record labels and recording artists; it does not represent the interests of musicians and composers generally, and certainly not the broader public interest. Neither Congress nor the Copyright Office appeared to have made an affirmative determination about the stage of the webcasting market’s development.

Even more dramatic was the effect of the \$500 “administrative charge.” Section 114(f)(2)(B) of the Copyright Act required the CRJs to set a minimum fee for each type of service.³³³ Provided with little evidence of the administrative cost per licensee, the CRB chose to benchmark the administrative fee against the existing deals

³²⁸ A constant feature of webcasting arbitration has been the partial retroactivity of rates. *Id.* at 24,085. The Copyright Royalty Judges issued an initial Determination of Rates and Terms pursuant to 17 U.S.C. § 803(c)(2) and 37 C.F.R. § 353 on March 2, 2007. After further proceedings, the Judges denied all the motions for rehearing. See Order Denying Motions for Rehearing, *In re* Digital Performance Right in Sound Recordings and Ephemeral Recordings, Docket No. 2005-1 C.R.B. D.T.R.A. (Apr. 16, 2007).

³²⁹ Digital Performance Right in Sound Recordings and Ephemeral Recordings, 72 Fed. Reg. at 24,088.

³³⁰ *Id.* at 24,097–98. For noncommercial broadcasters, this minimum fee covered 159,140 aggregate tuning hours (ATH), which is the total number of hours of programming multiplied by the number of listeners per hour. *Id.* at 24,099–24,100. For any month in which a noncommercial broadcaster’s ATH exceeds this threshold, non-commercial webcasters were required to pay the same per-performance rates as the commercial webcasters for the excess ATH. *Id.* at 24,100. See *Intercollegiate Broad. Sys. v. Copyright Royalty Bd.*, 574 F.3d 748, 754 (D.C. Cir. 2009) (summarizing Final Rule and Order, Digital Performance Right in Sound Recordings and Ephemeral Recordings, 72 Fed. Reg. 24,084).

³³¹ *Webcasters and Rising Royalty Fees: Paying the Price for Innovation?*, WASH. POST, Mar. 18, 2007, N2.

³³² *Id.*

³³³ 17 U.S.C. § 114(f)(2)(B).

SoundExchange had negotiated with Yahoo and other major webcasters.³³⁴ The CRJs found SoundExchange's proposal of an annual \$500 minimum per station fee to be reasonable for commercial webcasters.³³⁵ What the judges must have overlooked was that while such a fee would cost an FM radio station simulcasting one channel only \$500, it would cost emerging services such as Live365 and Pandora millions of dollars more. Pandora, for example, allows each listener create multiple personal radio stations based on a recommendation algorithm. Thus Pandora would be charged at least \$500 per listener station in addition to the per song royalties. Live365 and Pandora both predicted that the new fee regime would drive them out of business.³³⁶ This seemingly inadvertent decision penalizing what has turned out to be the most popular Internet radio format underscores the difficulty of regulating in a fast changing marketplace.³³⁷

7. Lobbying, Negotiation, and Litigation Following Webcasting II

Webcasters responded to the new rates with a combined strategy of litigation, lobbying, and negotiation. In addition to the *Arista Records, LLC v. Launch Media, Inc.*, litigation already discussed, a group of webcasters also challenged various aspects of the CRB's ruling and the constitutionality of the appointment of the CRJs.³³⁸ In *Intercollegiate Broadcast System, Inc. v. Copyright Royalty Board*,³³⁹ the Court of Appeals for the D.C. Circuit vacated the CRJ's imposition of a \$500 minimum fee for commercial and noncommercial webcasters on the

³³⁴ See Brian Flavin, *A Digital Cry for Help: Internet Radio's Struggle to Survive a Second Royalty Rate Determination Under the Willing Buyer/Willing Seller Standard*, 27 ST. LOUIS U. PUB. L. REV. 427, 447-48 (2008) (noting the CRB opted to use SoundExchange's interactive webcasting benchmark).

³³⁵ See Carey, *supra* note 267, at 292 ("The CRB also imposed a \$500 minimum fee on each station or channel operated by a webcaster." (internal quotation marks omitted)).

³³⁶ See Mike Musgrove, *Higher Music Royalties Create Static on the Net; Web Radio Stations Sing the Blues to Congress*, WASH. POST, May 19, 2007, at D1 (noting that Live365's costs would increase from \$1.4 million a year to \$7 or \$8 million a year); *Webcasters and Rising Royalty Fees*, *supra* note 331 (noting claims by Pandora that the cost that would drive the company out of business almost instantly).

³³⁷ The Judges do not appear to have understood the implications of their decision. See *Intercollegiate Broad. Sys., Inc. v. Copyright Royalty Bd.*, 574 F.3d 748, 762 (D.C. Cir. 2009) ("[I]n only two footnotes do they appear aware of the possibility of individual licensees paying more than \$500. Even in the Judges' discussion of 'side channels'—which included an example of one licensee being charged \$1000—they do not seem to anticipate the possibility of a webcaster paying hundreds of thousands of dollars or more." (citations omitted)).

³³⁸ Royalty Logic's challenge to the appointment of the Copyright Royalty Judges on the grounds that it violated the Appointments Clause of the Constitution of the United States was dismissed on the grounds that it had forfeited consideration of the issue by not raising it in initial briefing before the court. *Id.*

³³⁹ *Id.*

grounds that it was arbitrary.³⁴⁰ However, the CRB's royalty determinations and its selection of SoundExchange as the exclusive agent to collect and distribute royalties were affirmed.³⁴¹

Paralleling these judicial proceedings, several webcasters pursued private negotiations with SoundExchange. These negotiations were assisted by significant pressure from Congressional figures, including the chairman of the House Judiciary's Subcommittee on Courts, the Internet and intellectual property.³⁴² In June 28, 2007, the House Committee on Small Business convened a hearing to assess the impact of the CRB's royalty rate increases on recording artists and webcasters.³⁴³ In response, SoundExchange offered to let small webcasters with less than \$1.2 million in annual revenue pay a reduced rate based on a percentage of gross revenues.³⁴⁴ This deal, which was concluded in August 2007, allowed qualified small commercial webcasters to pay the same rates they had been paying since 1998.³⁴⁵ In the media, this compromise was directly attributed to the intervention of influential lawmakers in the House and Senate.³⁴⁶

8. Webcaster Settlement Act of 2008

The pressure on Congress in the wake of Webcasting II led directly to the enactment of the Webcaster Settlement Act of 2008 (WSA 2008).³⁴⁷ The aim of the WSA 2008 was to facilitate further negotiated compromises. To this end the WSA 2008 gave SoundExchange the authority to enter into royalty fee agreements with webcasters as an alternative to the rates established under the CRB's decision.³⁴⁸ This effectively changed the institutional design from "agree-or-arbitrate" to "agree, or arbitrate and then try to agree." Three negotiated royalty agreements were made under the authority of the WSA 2008: one with

³⁴⁰ *Id.* at 772. The court remanded the portion of the district court's determination to the CRJ's for further proceedings. *Id.*

³⁴¹ *Id.* at 770–71.

³⁴² News Release, SoundExchange Extends Offer to Small Webcasters (May 22, 2007) (on file with author).

³⁴³ H.R. REP. NO. 110-926 (2009).

³⁴⁴ John L. Simson, executive director of SoundExchange, said at the time, "There's a sense in the music community and in Congress that small webcasters need more time to develop their businesses . . . We look at it as artists and labels doing their part to help small operators get a stronger foothold." Mike Musgrove, *Music Group Offers Some Web Radio Sites a Break*, WASH POST, May 23, 2007, D2.

³⁴⁵ Shaun Assael, *Online and on the Edge*, N.Y. TIMES, Sept. 23, 2007, § 2, at 32.

³⁴⁶ *Id.*

³⁴⁷ H.R. REP. NO. 110-941 (2009) (discussing motivation and noting that "there was substantial controversy concerning a June 2007 Copyright Office Royalty Board decision").

³⁴⁸ See Carey, *supra* note 267, at 307 (outlining the statutory authority the WSA granted SoundExchange).

the Corporation for Public Broadcasting agreeing on rates for NPR, Public Radio International and about 450 public radio stations;³⁴⁹ another with the National Association of Broadcasters dealing with the royalties payable for terrestrial radio simulcasts;³⁵⁰ and a third agreement with a limited number of small webcasters.³⁵¹ SoundExchange was unable to conclude additional agreements with other small and large webcasters within the time allotted by the 2008 WSA.³⁵² Thus, by January 5, 2009, when the CRB announced that it would soon begin the Webcasting III proceedings (to determine rates for the next royalty period running from January 1, 2011 through December 31, 2015), the industry still had not managed to deal with the fallout of the Webcasting II determination.³⁵³

9. Webcaster Settlement Act of 2009 and the “PurePlay Settlement”

In 2009 Congress passed a second Webcaster Settlement Act to allow webcasters and SoundExchange an additional thirty days to reach an agreement over royalties.³⁵⁴ With this additional time, SoundExchange was able to negotiate what is commonly referred to as the “PurePlay Settlement” in July 2009.³⁵⁵ The PurePlay Settlement gave webcasters the option of an alternative rate structure for the period 2006 to at least 2014.³⁵⁶ The details of the new royalty rates depend on webcaster size and business model. Under the agreement, webcasters with significant advertising revenue pay a minimum of 25% of revenue or a per performance fee starting at 0.08 cents and increasing to 0.14 cents by 2015.³⁵⁷ The agreement effectively reduced the rates established

³⁴⁹ Notification of Agreements Under the Webcaster Settlement Act of 2008, 74 Fed. Reg. 9293, 9293-94 (Mar. 3, 2009); see also Andrew Stockment, Note, *Internet Radio: The Case for a Technology Neutral Royalty Standard*, 95 VA. L. REV. 2129, 2149 n.124 (2009) (“These rates apply to 450 public radio webcasters, including Corporation for Public Broadcasting supported stations, NPR and NPR members . . . and others.”).

³⁵⁰ Notification of Agreements Under the Webcaster Settlement Act of 2008, 74 Fed. Reg. at 9294.

³⁵¹ HOUSE REPORT ON THE WEBCASTER SETTLEMENT ACT OF 2009, H.R. REP. NO. 111-139 (2009).

³⁵² *Id.* Note that in mid-2007 SoundExchange indicated that it would agree to cap per stations fees at \$50,000 a year, thus offering a lifeline to Live365 and Pandora, however no agreement resulted from this proffered concession. See Jeff Leeds, *Reprieve on Royalty Increase Being Pursued for Internet Radio*, N.Y. TIMES, July 14, 2007, at C4 (outlining SoundExchange’s offer).

³⁵³ Digital Performance in Sound Recordings and Ephemeral Recordings, 74 Fed. Reg. 318 (Jan. 5, 2009).

³⁵⁴ Webcaster Settlement Act of 2009, Pub. L. No. 111-36, 123 Stat. 1926.

³⁵⁵ Notification of Agreements Under the Webcaster Settlement Act of 2009, 74 Fed. Reg. 34,796, app. A [hereinafter PurePlay Settlement].

³⁵⁶ *Id.* art. 1.2(h).

³⁵⁷ *Id.* art. 4.2(b)(i)–(ii).

by the CRB for calendar years 2006 to 2010 and established rates for calendar years 2011 to 2015 that were lower than the CRB schedule.³⁵⁸ Under the PurePlay Settlement, webcasters with less than \$1.25 million in revenue have the option of paying 12–14% of revenues instead of the 0.19 cents per performance ordered by the CRB in the Webcasting II determination.³⁵⁹ The PurePlay Settlement requires webcasters to provide more information to SoundExchange and to pay an annual minimum fee of \$25,000, redeemable against future royalty payments.³⁶⁰

The PurePlay Settlement was the product of more than two years of drawn-out negotiations in the shadow of legislative intervention.³⁶¹ During these negotiations webcasters and SoundExchange made their case to the media and to Congress. For example, in 2008 Pandora had warned that it was approaching “a pull-the-plug kind of decision” if it was unable to secure a better deal from SoundExchange.³⁶² Not to be outdone, SoundExchange complained that Internet radio stations had done too little to make money from webcasting.³⁶³

The PurePlay Settlement offered a significant lifeline for commercial webcasters.³⁶⁴ However, both SoundExchange and commercial webcasters made it clear from the beginning that this was not a stable equilibrium and that they still hoped to improve upon the terms in the settlement. For its part, SoundExchange has been at pains to emphasize that the reduced rates in the settlement are ‘experimental’ and are not indicative of fair market rates.³⁶⁵ Likewise, while it endorsed the PurePlay Settlement, the Digital Media Association (DiMA) also noted its hope that Congress would return to the issue of digital radio and “level the playing field” between different forms of digital radio.³⁶⁶ DiMA’s position is essentially that this equality is to be achieved by

³⁵⁸ See Claire Cain Miller, *Music Labels Reach Online Royalty Deal*, N.Y. TIMES, July 7, 2009, at B2.

³⁵⁹ PurePlay Settlement, *supra* note 355, art. 4.3(i).

³⁶⁰ *Id.* art. 4.2(b)(i)–(ii); see also Miller, *supra* note 358, at 2. Note, however, that the PurePlay Settlement does not apply to webcaster services for AOL and Yahoo.

³⁶¹ See, e.g., Leeds, *supra* note 352 (reporting on contemplated legislation to reduce webcasting fees and SoundExchange’s suggested terms of agreement); Catherine Rampell, *Web Radio Seeks Resolution; Senate Hearing to Take Up Royalty Fees for Online Stations*, WASH. POST, Oct. 24, 2007, at D2.

³⁶² Peter Whoriskey, *Web Radio Giant Nears “Last Stand;” Pandora, Other Services Struggle Under High Song Fees*, WASH. POST, Aug. 17, 2008, at A1 (quoting Tim Westergren, Pandora’s founder).

³⁶³ *Id.* (quoting Mike Huppe, General Counsel for SoundExchange).

³⁶⁴ See Miller, *supra* note 358, at 2 (forecasting that “Internet radio, once on its deathbed, is likely to survive after all”).

³⁶⁵ See Press Release, SoundExchange and PurePlay Webcasters Reach Unprecedented Experimental Rate Agreement (July 7, 2009), available at http://musicindustrynewswire.com/2009/07/07/min1866_210333.php.

³⁶⁶ Statement from Jonathan Potter, Exec. Dir. of the Digital Media Association (July 7, 2009), available at <http://www.digimedia.org/news/press-releases/157-digital-media-association-comments-on-soundexchange-and-pureplay-webcaster-rate-agreement>.

Internet radio stations paying less and terrestrial radio stations paying more.³⁶⁷

10. Lessons Learned

No one can look back at the successive incarnations of the webcasting agree-or-arbitrate model with satisfaction. Even if one regards the PurePlay Settlement as a positive outcome, the years between the DMCA in 1998 and the settlement in 2009 amount to over a decade of lost opportunity. It is impossible to know what technological and business innovations might have come about in a climate more conducive to investment in that period. Moreover, the PurePlay Settlement is not a stable equilibrium. The rates established under the settlement make the business of Internet radio seemed quite tenuous. Pandora currently spends about *half* of its gross revenues on licensing fees payable to rights owners.³⁶⁸ Reading Pandora, Inc.'s financial disclosures filed with the SEC in conjunction with its recent IPO, it is clear that reverting to CRB rates would render its business model entirely infeasible.³⁶⁹ The settlement rates will expire in 2015 and it is to be expected that companies like Pandora will be looking to Congress, not the recording industry, for a sustainable deal on Internet radio royalties going forward.

On January 5, 2011, the CRB issued its third and most recent statutory-rate determination for the current license period covering 2011 to 2015 (Webcasting III).³⁷⁰ The Court of Appeals for the D.C. Circuit recently declared that decision unconstitutional on Appointments Clause grounds.³⁷¹ Because the court remedied the constitutional problem in a straightforward fashion,³⁷² however, we expect a newly reconstituted CRB to reach a similar decision.

³⁶⁷ In the U.S., terrestrial radio stations pay for the public performance of musical works, but there is no corresponding general public performance right with respect to sound recordings.

³⁶⁸ Pandora Media, Inc., Registration Statement Under the Securities Act of 1933 (Form S-1) (Feb. 11, 2011), available at <http://www.sec.gov/Archives/edgar/data/1230276/000119312511032963/ds1.htm>. Pandora calls these fees "content acquisition costs."

³⁶⁹ *Id.* ("The CRB, which still has rate-making authority over us upon expiration of our agreement with SoundExchange, has consistently established royalty rates that would, if paid by us, consume an unsustainable percentage of our revenue. If we are unable to reach a new agreement with SoundExchange for the period after 2015, it could have an adverse effect on our business, financial condition and results of operations.").

³⁷⁰ Digital Performance Right in Sound Recordings and Ephemeral Recordings, 76 Fed. Reg. 13,026 (Mar. 9, 2011) (to be codified at 37 C.F.R. § 380). The rates are per-performance (per-play) are as follows: 2011—\$0.0019; 2012—\$0.0021; 2013—\$0.0021; 2014—\$0.0023; 2015—\$0.0023. *Id.* at 13,047–48.

³⁷¹ *Intercollegiate Broad. Sys., Inc. v. Copyright Royalty Bd.*, 103 U.S.P.Q.2d 1337, 1343 (D.C. Cir. 2012).

³⁷² *Id.* at 1344.

Webcasting III illustrates the gravitational influence of prior determinations. This latest CRB decision did not take account of the rates negotiated under the PurePlay Agreement. Indeed, to participate in PurePlay, webcasters had to agree to opt out of the Webcaster III rate-setting proceedings.³⁷³ This explains why only one commercial broadcaster, Live365, participated in the 2010 hearings.³⁷⁴

Virtually the only new information the CRB had to go on in Webcasting III was the SoundExchange deals with Sirius XM and the National Association of Broadcasters. However, these agreements were not the product of an undistorted, willing buyer-willing seller marketplace. They were negotiated in the shadow of, and closely track the statutory rates set in, the Webcasting II determination. As well as excluding PurePlay, the CRB does not consider satellite or terrestrial radio licenses as points of comparison.

The agree-or-arbitrate model was flawed in its conception because the parties had little incentive to agree and rational arbitration was predicated on pre-existing agreements as evidence for a willing buyer-willing seller determination. The CARP process and its successors allowed the recording industry (including labels and artists) to negotiate collectively without antitrust scrutiny and substantially reduced the incentives for any individual label or artist to strike a deal with individual webcasters.³⁷⁵ The prospects of a private agreement were also diminished by the considerable uncertainty as to the outcome of the arbitration proceeding—with no real guidance as to the likely outcome, each was free to believe its most optimistic forecast and was thus reluctant to compromise. Because the industry was so new and the parties almost irreconcilable in their views as to the underlying merits of paying any royalties at all, there was virtually no track record for the arbitrators to ground their speculation as to what a willing buyer would offer and willing seller would accept.

Nor did the conclusion of the first CARP proceeding do much to resolve that uncertainty. The results of the first arbitration in 2002, and the second in 2007 were so unpalatable that, rather than providing a platform for negotiations, they simply shifted the forum of the conflict

³⁷³ See *FAQ: SoundExchange Agreement With Pureplay Webcasters*, RADIO MAGAZINE (July 10, 2009, 9:59 AM), http://www.radiomagonline.com/IT_technology/streaming/webcaster-royalty-faq-0710/.

³⁷⁴ See *Digital Performance Right in Sound Recordings and Ephemeral Recordings*, 76 Fed. Reg. 13,026, 13,027 & n.4.

³⁷⁵ The labels will experience antitrust scrutiny on another, related front. In March 2012, SiriusXM sued SoundExchange and the American Association of Independent Music (A2IM) for allegedly orchestrating a boycott of SiriusXM's efforts to obtain direct licenses from record labels. See Ed Christman, *SiriusXM Files Lawsuit Against SoundExchange and A2IM, Alleging Licensing Interference*, BILLBOARD, Mar. 28, 2012, <http://www.billboard.biz/bbbiz/industry/legal-and-management/siriusxm-files-lawsuit-against-soundexchange-1006591952.story> (summarizing the complaint).

back to Congress and the courts. Congress appears to have settled on the agree-or-arbitrate model in the hope of catalyzing productive negotiations between the affected interest groups. However, when the outcomes of that process proved to be unsatisfactory, Congress was drawn right back into the conflict from which it had tried to remove itself.

In hindsight, Congress could have established a better foundation for royalty arbitration by initially tying sound recording royalties to the royalties paid to songwriters and then waiting to see what happened. Alternatively, Congress could have allowed Internet radio stations to remain exempt as they were under the 1995 legislation. Instead, the arduous process of arbitration resulted in royalties that were expensive and inflexible. The prospect of continuing congressional intervention may have actually discouraged the recording industry from accepting any compromise earlier in the process.

Instead of monitoring the progression of this new technology and assessing its impact on the recording industry, Congress, the Copyright Office, the various arbitration panels, the recording industry and webcasters proceeded in what was essentially an information vacuum. It is telling that the decision to move from an era of experimentation to one of consolidation was ultimately made by the recording industry. The rates that were ultimately decreed by the various groups of arbitrators were far too high and too inflexible to realistically allow webcasting to survive. As a result, the industry was largely stifled until the PurePlay Settlement of 2009. Because there was very little progress in webcasting between 1998 and 2009, there were few opportunities to observe what the technology was capable of and no real information about the effect of webcasting on music revenues, or the business prospects and technological opportunities of this new technology.

Another lesson that emerges from webcasting is that arbitration may be the worst forum in which to resolve conflicts between established rights owners and the champions of new technology. It is clear that the adversarial nature of the arbitration favored the powerful and experienced recording industry over the initially disorganized and inexperienced webcasters. Webcasters lacked deep institutional experience in lobbying or working with the Copyright Office.

CONCLUSION

Copyright policy is made, broken and remade by a series of conflicts between those with an interest in existing content and those with an interest in new technology. In this Article we have highlighted government's ongoing institutional role in addressing content-technology disputes. As we have explained, it is common to think of

these conflicts as a distributional contest between content and technology (that is, who gets the spoils of new technology applied to old content). But from the perspective of the many government institutions that make copyright policy, these are informational problems. Moreover, the process and substance of copyright policy are linked. Achieving a certain allocation of property rights requires procedures to maintain that allocation. The proper mix of influences from government institutions can catalyze bargains between the content firms and the technology firms. The wrong mix can do the opposite. In this Article we have applied this framework to a century's worth of content-technology disputes: from piano rolls to MP3 players, from the early days of radio to the current state of webcasting. This analysis sheds more light on the past, but it also suggests some lessons for the future.

Controversies between copyright owners and new technologists are not simply resolved by making one-time decisions about the allocation or design of property rights. For example, industry-to-industry compromises and market clearing institutions such as ASCAP—often celebrated as a result of private ordering—do not arise spontaneously. A closer look at what are often described as private ordering solutions reveals significant and usually ongoing government participation, provocation, and monitoring. The baseline allocation of property rights is often just the beginning of a negotiating process. This Article highlights the institutional context of copyright policymaking that is sometimes ignored and often left unstated. Through a series of case studies we demonstrate the multitude of government institutions that can play a role in content-technology disputes, the ongoing nature of government participation in these disputes, and the importance of thinking about these disputes in informational terms.

Conflicts between content owners and technology developers are often conceptualized as two-player games.³⁷⁶ This simplified framework can be a useful analytical tool in some circumstances, but it is incomplete without an account of the role of government. In two-player terms it is evident that inviting or resisting government intervention, alternating between the two, or inviting one part of the government's intervention while resisting another's, is a significant part of the strategy set of both content owners and technology interests. Instead of thinking of content-technology disputes as a two-player game with fixed rules, scholars and policymakers should pay attention to the broader game about what the rules will be. This game has at least three players—content, technology, and the state. Even when a content-technology dispute becomes more or less settled, such as ASCAP's dispute with

³⁷⁶ See, e.g., Oliar, *supra* note 40.

radio broadcasters, the government often remains involved as a monitor.

The recent move by Clear Channel to bargain with record labels perfectly demonstrates the way that government involvement can spur private negotiations toward a solution. In June 2012, Clear Channel reached a deal with one large, independent record label to pay performance royalties for traditional AM and FM radio in return for favorable rates on webcasting royalties.³⁷⁷ U.S. copyright law does not currently contain a general public performance right, only a digital one.³⁷⁸ But Congress has considered bills to institute a general public performance right with increasing frequency, and the bills have crept closer to success.³⁷⁹ In this context—the threat of new legislation—the radio firm reached a deal with one company from the other side of the dispute. Clear Channel CEO John Hogan said: “Well listen, I’m as big a fan as the next guy of elected officials, but I think it’s always a little scary when you look for legislative or regulatory solutions to what should be marketplace solutions.”³⁸⁰ If only Hogan had read this Article, he would see that a legislative tactic—considering legislation—appears to have been instrumental in producing the conditions under which the marketplace solution was reached.

The approach of granting broad copyright rights and specific exemptions, which is so prevalent in the current Copyright Act, has obvious defects from an informational perspective. Congress has no information about the needs of new technologies and new business models and as such can scarcely accommodate changing social needs. This explains why much of the burden of accommodating new technology has fallen on the few open-textured limits on copyright owners’ rights, such as the fair use doctrine or the scope of secondary liability.³⁸¹ Information problems are also a key issue in compulsory licenses and tax-and-subsidy approaches to accommodating new

³⁷⁷ See Ed Christman, *Exclusive: Clear Channel, Big Machine Strike Deal to Pay Sound-Recording Performance Royalties to Label, Artists*, BILLBOARD, June 5, 2012, <http://www.billboard.biz/bbbiz/industry/legal-and-management/exclusive-clear-channel-big-machine-strike-1007226762.story> (describing the deal, although not all terms were made public).

³⁷⁸ See 17 U.S.C. § 106(4), (6) (2006).

³⁷⁹ See Performance Rights Act, H.R. 848, 111th Cong. (2009); Performance Rights Act, H.R. 4789, 110th Cong. (2007). Congress did not pass the 2007 bill. See Laura E. Johannes, *Hitting the Right Notes: The Need for a General Public Performance Right in Sound Recordings to Create Harmony in American Copyright Law*, 35 WASH. U. J.L. & POL’Y 445, 462 (2011). The 2009 bill was voted out of committee, but did not reach a floor vote. See Mary LaFrance, *U.S. Performance Rights in Sound Recordings*, BERKLEE C. MUSIC BUS. J., October 2011, at 1, available at <http://www.thembj.org/2011/10/u-s-performance-rights-in-sound-recordings/>.

³⁸⁰ Glenn Peoples, *Clear Channel’s John Hogan Discusses Big Machine Royalty Deal at Billboard Country Summit*, BILLBOARD, June 5, 2012, <http://www.billboard.biz/bbbiz/industry/digital-and-mobile/clear-channel-s-john-hogan-discusses-big-1007241352.story>.

³⁸¹ See, e.g., *Sony Corp. of Am. v. Universal City Studios, Inc.*, 464 U.S. 417 (1984).

technology. To set an appropriate fee for a compulsory license, Congress must either employ some mechanism to determine what that fee should be or set the rate arbitrarily.

The recent controversy over the Google Books Settlement illustrates our conclusions. Initially, the Google Library Project was focused on data processing and search. Groups of authors and publishers sued Google for scanning books without permission, alleging violation of their reproduction rights. In 2008, Google, the Authors Guild, and a group of leading publishing companies proposed a class action settlement (later amended) which, among other things, would have transformed the Google Library Project into a distribution platform for electronic versions of books.³⁸²

The Amended Settlement Agreement (ASA) was seen as legislation disguised as class action and an intrusion on the policy domain of Congress.³⁸³ This is both an issue of democratic legitimacy and of institutional capacity. Although courts are quick to invoke the dicta from *Sony* that “deference to Congress” is required “when major technological innovations alter the market for copyrighted materials,”³⁸⁴ such incantations may reflect an exaggerated sense of modesty. Where the correct application of existing law is ambiguous, contested, or both, courts can and should make determinations of law in content-technology disputes involving individual parties, even if these disputes will have industry wide ramifications.³⁸⁵ To give just three examples, in cases relating to time-shifting, format-shifting, and file sharing, courts have shown a great capacity to balance the needs of content owners, technology developers, and the public at large.³⁸⁶ However, the ASA would have gone further than the results in such cases. The ASA implicated the rights of large numbers of companies and individuals with diverse interests; the agreement went well beyond clarifying rights, it actually rebalanced and reallocated them.³⁸⁷

Because the ASA was so far removed from the underlying litigation and because its effects were cast so broadly, it was seen by the court, the DOJ, the Copyright Office, and several prominent academics as an undemocratic usurpation of the legislative function.³⁸⁸ The Register of

³⁸² For more background on the controversy, see Matthew Sag, *The Google Book Settlement and the Fair Use Counterfactual*, 55 N.Y.L. SCH. L. REV. 19, 20–23 (2010).

³⁸³ Authors Guild v. Google Inc., 770 F. Supp. 2d 666, 671–72 (S.D.N.Y. 2011).

³⁸⁴ *Sony*, 464 U.S. at 431.

³⁸⁵ See, e.g., *White-Smith Music Publ'g Co. v. Apollo Co.*, 209 U.S. 1 (1908).

³⁸⁶ See *Sony*, 464 U.S. 417; *A&M Records, Inc. v. Napster, Inc.*, 239 F.3d 1004 (9th Cir. 2001); *Recording Indus. Ass'n of Am. v. Diamond Multimedia Sys., Inc.*, 180 F.3d 1072, 1079 (9th Cir. 1999).

³⁸⁷ This is not an adverse comment on the merits of the substantive deal proposed under the ASA.

³⁸⁸ See *Hearing on Competition and Commerce in Digital Books: The Proposed Google Book Settlement Before the H. Comm. on the Judiciary*, 111th Cong. 2 (2009) (statement of Hon.

Copyrights went as far as to say that the Copyright Office was “greatly concerned by the parties’ end run around legislative process and prerogatives.” Judge Chin agreed with these criticisms and held that, with respect to orphan works at least, “the establishment of a mechanism for exploiting unclaimed books is a matter more suited for Congress than this Court.”³⁸⁹ The District Court concluded that it was the wrong institution to decide the policy questions raised in the ASA, partly because the class action mechanism was unlikely to generate enough—or the right kinds of—information. The most significant issue here was lack of representation of different author interests, especially with respect to orphan works and academic authors.

The controversy over the Google Book Project also illustrates how the analysis we have set out can be carried forward. A compulsory license is *one* possible solution to the dispute among publishers, authors, and Google. Our review of webcasting suggests significant risks in this approach and how we could structure a regime to avoid them. The point here is not to provide definitive solutions as to Google Books or any other issue, but rather to show how an information-focused institutional perspective generates insights that would be overlooked in a pure property rights approach or a standard political economy approach.

Congress could create a compulsory license regime to facilitate digitization-search, digitization-display, or both. This step would be welcomed by many, but only if Congress learns the lessons from its quite unsatisfactory experiences with webcasting.³⁹⁰ In this Article we have raised some of the critical design questions without necessarily fully resolving them. The basic design questions in any compulsory license regime are, first, who receives compensation for what uses, and second, at what price.

In terms of the first question, a decision must be made as to whether copyright owners are entitled to compensation for purely non-

Marybeth Peters, Register of Copyrights), available at <http://judiciary.house.gov/hearings/pdf/Peters090910.pdf> (“In the view of the Copyright Office, the settlement proposed by the parties would encroach on responsibility for copyright policy that traditionally has been the domain of Congress. . . . We are greatly concerned by the parties’ end run around legislative process and prerogatives, and we submit that this Committee should be equally concerned.”); Pamela Samuelson, *Google Book Search and the Future of Books in Cyberspace*, 94 MINN. L. REV. 1308, 1358 (2010) (“Use of a class action settlement to restructure markets and to reallocate intellectual property rights, particularly when it would give one firm a de facto monopoly to commercialize millions of books, is arguably corrosive of fundamental tenets of our democratic society.”).

³⁸⁹ *Authors Guild v. Google Inc.*, 770 F. Supp. 2d 666, 677 n.10 (S.D.N.Y. 2011) (“The argument is sensibly made that a nationwide administrative claims processing regime would provide the most secure, fair, and efficient means of compensating victims of asbestos exposure. Congress, however, has not adopted such a solution.” (quoting *Amchem Prods. v. Windsor*, 521 U.S. 591, 628–29) (internal quotation marks omitted)).

³⁹⁰ We do not discount the possibility that reforming statutory damages might be a better path to orphan works reform.

expressive (or non-consumptive) uses of their works such as would be entailed in digitization-search.³⁹¹ One must also decide whether compensation was required for snippet displays of the kind Google currently uses to illustrate its search results. Like the digital audio transmission right, a compulsory license regime for these activities would (in our opinion) actually expand the rights of copyright owners beyond current law. Alternatively, the compulsory license could simply relate to digitization-distribution. The most likely version of this proposal would be limited to orphan works or at least to works whose owners do not affirmatively opt out of inclusion in digitization-distribution databases.

Once the sphere of application of a compulsory license is determined, the question of payment must be addressed. As we have seen in the webcasting context, a badly designed rate-setting process can have disastrous consequences. The design choices here range from a simple fixed fee to a complex arbitration proceeding. The unhappy experience of rate-setting through arbitration for webcasting suggests a number of lessons going forward. First, a decision rule premised on discovering the price that would be set by a hypothetical willing buyer-willing seller market is likely to generate arbitrary results. Given the non-existent market for permissions in orphan works, a willing buyer-willing seller determination would be entirely speculative in this context. This standard would also entirely fail to take account of the public interest in improved access library collections and the public interest in public domain works likely to be mistaken as orphan works. As an alternative, rates could be determined with respect to reasonable expectations, investment backed expectations, fair remuneration, or fair profit-sharing. None of these standards is perfect, and whatever the rate-setting mechanism turns out to be, an explicit consideration of the public interest must surely feature prominently.

Second, the rate-setting process must be designed to encourage the production and collection of useful information. The adversarial design of Webcasting I, II and III left the CRJs (and the arbitrators before them) reliant on the parties for information.³⁹² This was a serious defect in relation to webcasting because it pitted the deep institutional expertise of the recording industry against a decentralized and emerging industry. Relying on an adversarial process in relation to library digitization would be no better than the ASA, which the court rejected

³⁹¹ See Matthew Sag, *Copyright and Copy-Reliant Technology*, 103 NW. U. L. REV. 1607 (2009); Matthew Sag, *Orphan Works as Grist for the Data Mill* 27 BERKELEY TECH. L.J. (forthcoming 2012).

³⁹² Webcasting III was conducted in an even more informationally impoverished environment because the webcasters who accepted the PurePlay deal were not allowed to participate.

for its lack of proper representation. In the orphan works context, we know by definition that certain important interests will not participate.

Third, although the facts are susceptible to multiple interpretations, the balance of evidence suggests that the “agree or arbitrate” framework of webcasting was a failure (or at best, a string of failures followed by a success in the form of the PurePlay Settlement). Moreover, given that the court was unwilling to trust private agreement in the form of the ASA, it would seem inconsistent to trust private agreement in an arbitration context. More importantly, without the orphan works holders, there can be no agreement that binds all the affected parties. From an information-focused perspective, one could say that having the necessary information requires, at a minimum, the participation of all interested parties.

The recent controversy over the Stop Online Piracy Act and the Protect Intellectual Property Act (PIPA)³⁹³ illustrates the usefulness of viewing government intervention as a multi-pronged effort of many institutions that are often uncoordinated. SOPA and PIPA were primarily copyright enforcement legislation, targeting foreign websites and arguably targeting domestic, online intermediaries like credit card companies who process online payments and online advertising companies who sometimes profit from infringing sites. As with the unsuccessful draft bills to deal with player pianos prior to the 1909 Act, SOPA and PIPA were drafted without meaningful input from technologists. In early 2012, technologists staged an Internet blackout day, and the news frenzy was on. Former co-sponsors of the bills backed down almost immediately.³⁹⁴ But picking up the story of getting credit card companies and online advertising companies with Congress’s role is misleading. For over a decade since the DMCA, courts have determined the reach and application of the section 512 safe harbors, allowing intermediaries like credit card companies and online advertising companies to avoid secondary liability.³⁹⁵ Meanwhile, just as Congress was drafting and debating SOPA and PIPA, the Obama administration’s “copyright czar,” Victoria Espinel, was negotiating voluntary agreements to participate in copyright enforcement with those same credit card companies and online advertising companies.³⁹⁶ Perhaps the success of those voluntary agreements should have been measured before Congress pushed legislation.

³⁹³ Stop Online Piracy Act, H.R. 3261, 112th Cong. § 2(a)(2) (2011); Protect Intellectual Property Act of 2011, S. 986, 112th Cong. § 6(b).

³⁹⁴ See Jonathan Weisman, *In Fight Over Piracy Bills, New Economy Rises Against the Old*, N.Y. TIMES, Jan. 19, 2012, at A1.

³⁹⁵ See *Perfect 10, Inc. v. Amazon.com, Inc.*, 508 F.3d 1146 (9th Cir. 2007); *Perfect 10, Inc. v. Visa Int’l Ass’n*, 494 F.3d 788, 795 (9th Cir. 2007).

³⁹⁶ See *supra* note 115 and accompanying text.

On the issue of online enforcement, it is too soon to tell whether this multi-pronged intervention will be successful in pushing the private parties to negotiate a solution, or alternatively whether a government-imposed solution will be crafted successfully. But it is essential to regard the government's role in the dispute between copyright owners and online intermediaries as involving multiple government institutions from all three branches. From that starting point, one can ask what we view as a crucial question: which government institution, or combination of institutions, is most likely to elicit the information one would need to resolve the dispute and reach a socially beneficial solution? In this Article, we hope to have demonstrated the usefulness of asking that question when content-technology disputes arise.

