COPYRIGHT AND INNOVATION: RESPONSES TO MARKS, MASNICK, AND PICKER

MICHAEL A. CARRIER*

In this piece, I respond to the comments on my article, “Copyright and Innovation: The Untold Story,” offered by Steven Marks of the Recording Industry Association of America (RIAA), Mike Masnick of Floor 64 and Techdirt, and Randal Picker of the University of Chicago Law School.

I begin by noting how Marks’s response overemphasizes old business models and insufficiently appreciates the synergy between technological and creative innovation, while offering an ironically upbeat assessment of new technologies the record labels tried to quash and a newfound unsupported interpretation of the Constitution. I then explain how Picker’s emphasis on an ideal solution that would maximize copyright-related distribution innovation runs aground on the realities of copyright enforcement today. Finally, I highlight Masnick’s recounting of the themes I described in my article in settings ranging from ringtones to videogames to cable television alternatives.

CREATIVE AND TECHNOLOGICAL INNOVATION: THE ROAD NOT TAKEN

At the heart of my article is the effect of copyright law and enforcement on technological innovation, which is the forgotten stepchild in today’s debates over theft and piracy. Marks laments that I “assume[] that the only type of innovation is technology,” but he (1)

---

* Professor of Law, Rutgers School of Law – Camden. Copyright © 2013 Michael A. Carrier.
2. Steven M. Marks, Debunking the “Stifling Innovation” Myth: The Music Business’s Successful Transition to Digital, 2013 Wis. L. REV. ONLINE 21, 22. Marks criticizes the “myriad anonymous assertions” in my article and claims that I “admit[]” that the statements are “speculative.” Id. at 21 n.3. In fact, however, I never state, or even imply, that the statements are speculative. Wishing that I did does not make it true.

In addition, many of the respondents were more than willing to give their names, but I decided it would be more effective to have all quotes anonymous. To make absolutely certain that the quotes were accurate, I sent all thirty-one interviewees every quote I planned to use from them. Twenty-eight confirmed the quotes or offered minor suggestions to make them more accurate. The final three never responded, but the Wisconsin Law Review reviewed these and ensured (based on recordings of the interviews) that they were accurate word for word and in the context of the overall
fails to consider that technological innovation can enhance creative innovation, (2) assumes that file sharing automatically reduces demand for music, and (3) overestimates the contributions of the “copyright” industries.

First, “[e]ven if new technologies threaten an existing business model in the short term, they promise to make copyrights more valuable by creating new markets and models in the long run.” The labels, however, were not (and still seem not) able to recognize the synergy between creative and technological innovation, perhaps for some of the reasons I relayed in the article, including a reliance on “retailers, lawyers, bonuses, and (consistent with the ‘Innovator’s Dilemma’) an emphasis on the short term and preservation of existing business models.”

In the article, I offer numerous examples of innovators—stifled by the record labels—that offered technologies designed to comply with the Napster decision that could have led to greater use of creative works. One developed a service “‘completely legal to the letter and to the spirit’ of the law,” but “still ‘got hit across the head with a hammer.’” Another “offered a service that was ‘able to block close to 100%’ of the files the labels requested” but still faced the RIAA’s “‘ultimatum’ that ‘you cannot have any of our material being downloaded on our website—100%.’”

A third offered a “first of kind” service in putting “compliance procedures in place,” developed the service to conform with the Digital Millennium Copyright Act (DMCA), “had significant interest from top-tier VCs,” and offered the labels “an offer of a blank check,” but was shut down because “the labels ‘just wanted us dead.’” And a fourth explained that it was “Spotify five years ago,” that it “based everything on the law,” but that “[e]very time” it issued a press release, “the next day the RIAA would call.” And once the RIAA realized “[o]h my God, responses. And to be clear, the quotes were consistent across the range of respondents, which included CEOs and vice presidents from the labels and RIAA such as Ted Cohen, Kevin Conroy, Alby Galuten, Jim Griffin, Larry Kenswil, Hilary Rosen, Jay Samit, Paul Vidich, Dick Wingate, Phil Wiser, and Strauss Zelnick. See Carrier, supra note 1, at 960–62.


4. Carrier, supra note 1, at 891.


6. Carrier, supra note 1, at 908.

7. Id. at 909.


10. Id. at 946.
they’ve threaded the needle,” they “went absolutely ape-shit and that’s when the personal lawsuit . . . came.”11

These services were carefully designed to comply with *Napster* and copyright law. And they could have opened new markets and fostered creativity. Yet even now, as Marks reveals, the RIAA looks at “companies [that] tried to architect services around the court’s decision” and believes that “none of these new services and technology meant any money for creators.”12 In a nutshell, that sentence synthesizes the industry’s continued blindness to the potential synergies between technological and creative innovation.

In addition to the services that could have forged new markets for creative works, the unswerving path of history marching forward ensures that we cannot know exactly what innovations (and accompanying creativity) we might have lost. Even though, for example, we “see pieces of . . . things [like Spotify] now,” we “would have seen much more advanced implementations . . . if the innovation was free to go further.”13 The labels, for example, could have “create[d] stronger connections with fans” such as exclusive interviews and backstage access.14 Or services could have been created like those developed in the setting of e-books, where there is a “relationship with the author” and a “social reading environment.”15

Thinking even more broadly, perhaps the industry could have created “all-you-can eat [music] buffets” and provided “membership in forums, discounts on t-shirts, tickets, [and] posters.”16 It could have capitalized on the “psychology of ‘sharers’” by “encourag[ing] people to find and upload obscure and out-of-print audio,” which could have been rewarded through “discounted memberships, back-stage passes, artist access and the most important prizes: minor fame, street-cred, and a custom avatar.”17 Or it could have encouraged “interaction with music journalists, . . . contests for album [and] t-shirt art, . . . [and] prizes for mashups.”18 In short, the labels failed to embrace numerous opportunities to connect with fans, which could have fostered creativity in multiple dimensions.

11. *Id.* at 947.
14. *Id.* at 952.
15. *Id.*
17. *Id.*
18. *Id.*
Second, Marks assumes that peer-to-peer (P2P) downloading harms creativity by reducing demand for music. But several studies have shown that downloaders actually purchase more music than those who do not use these services. For example:

- A study by The American Assembly at Columbia University found that U.S. P2P users purchase 30% more digital music than non-P2P users and that “German P2P users buy nearly 3 times as much digital music as their non-P2P using peers.”

- A report from think tank Demos/Ipsos Media showed that “consumers who admit to illegally downloading and sharing music also spend an average of £77 on music each year,” £33 more than those “who claim not to use P2Ps to source music illegally.”

- A report by BI Norwegian School of Management concluded that “those who said they download illegal music for ‘free’ bought ten times as much legal music as those who never download music illegally.”

Third, Marks contends that “[n]umerous studies have demonstrated the value of copyright industries to the economy.” But these studies typically rely on flawed assumptions and overbroad categories. For example, Marks cites a 2011 report by the International Intellectual Property Alliance that concludes that the value contributed to U.S. Gross Domestic Product (GDP) by “core” copyright industries was roughly

19. See also Piracy Impact Studies, RIAA, http://www.riaa.com/keystatistics.php?content_selector=research-report-journal-academic (last visited May 21, 2013) (asserting that “[m]usic theft is a real, ongoing and evolving challenge,” and that “[d]igital sales, while on the rise, are not making up the difference”).


23. Marks, supra note 2, at 22.
$932 billion and that the value added by the “total” copyright industries was more than $1.62 trillion.\textsuperscript{24}

The problem with these figures is that they define the industries too broadly. For example, core industries “include newspapers and periodicals, motion pictures, recorded music, radio and television broadcasting, and computer software.”\textsuperscript{25} More than 73% of the revenue generated by foreign sales is contributed by software,\textsuperscript{26} with less than 5% contributed by the industry at the center of this discussion: music.\textsuperscript{27}

Even worse, the “total” copyright industries are defined with such liberty as to make a mockery of the whole enterprise. These “copyright industries” include fabric, jewelry, furniture, toys and games, transportation services, telecommunications, wholesale and retail trade, and makers and distributors of CD players, TV sets, VCRs, computers, blank recording material, and paper.\textsuperscript{28} It defies any notion of common sense to include these categories in the “copyright industry.”

In short, creativity can be bolstered by technological innovation. But Marks’s failure to address technologies that the labels stifled in their cribs and downloaders’ frequent music purchases (not to mention overaggressive estimates of creative contribution) ignores much of the equation.

**Losses to the Labels But Gains to Musicians**

Further underscoring the deficiencies in Marks’s notion of creativity is the difference between promoting creativity among musicians (which is flourishing) and the limited version of creativity offered by the labels. In focusing on the latter, several of Marks’s arguments reveal an attitude beholden to the past. He states that record companies “are a critical part of the creative process” since they “scout hundreds of thousands of artists, help develop repertoire for recordings, and actively participate in the recording process.”\textsuperscript{29} This may have been crucial in the late twentieth century, but is not today as amateur musicians engage in the various stages themselves, raising money on Kickstarter,\textsuperscript{30} creating music

\begin{flushleft}
\textsuperscript{25} Id. at 8.
\textsuperscript{26} Id. at 17 tbl.A.5 ($98.6 billion of $134 billion).
\textsuperscript{27} Id. ($6.48 billion of $134 billion).
\textsuperscript{28} Id. at 8.
\textsuperscript{29} Marks, supra note 2, at 22.
\end{flushleft}
through GarageBand and Pro Tools, distributing and promoting songs on YouTube and Twitter, marketing through Topspin, selling music and merchandise through Bandcamp, and collecting royalties through CD Baby Pro.

Mike Masnick has discussed numerous examples of musicians that have created their own distribution models, connecting with fans and giving them a reason to buy. A few include:

- **Imogen Heap**, which weaves into songs fans’ contributions, including sounds, images, and “5-word moments of clarity.”

- **Flaming Lips**, which rewards those buying concert tickets with download codes to songs, as well as links to downloads of shows attended.

- **Amanda Palmer**, who in three experiments in one month totaling ten hours, made $19,000 from Twitter (compared with “absolutely nothing” from 30,000 record sales) after creating a “Friday Night Losers T-Shirt,” hosting a webcast.
auction, and offering access to a recording studio event for the first 200 fans to request access.\textsuperscript{39}

- Josh Freese, a drummer who offers, for varying levels of payment, drum lessons, visits to museums or Disneyland, clothes from his closet, his Volvo station wagon, service as a personal assistant, a spot on tour with him, or personal songs.\textsuperscript{40}

- Jill Sobule, who similarly offers, for various levels of payment, access to shows for a year, names mentioned on a “thank you” song,” concerts at individuals’ houses, or the chance to sing on an album.\textsuperscript{41}

Musicians, in other words, are planting a thousand flowers of creativity, as expressed not just in the music itself but in the connections generated with fans. In my article, I explained how “the labels’ emphasis on litigation and neglect of their customers threatened the ‘magic around music.’”\textsuperscript{42} Instead of looking to forge creative, lasting, and meaningful connections like actual musicians are doing today, they “just attack[ed] everything” in engaging in a “war on all new technology.”\textsuperscript{43}

The problem confronting the labels is that they are only “middlemen,” and “on the Internet, the middlemen get squeezed out.”\textsuperscript{44} One respondent in the interviews explained that, as a result of “hemorrhaging revenues,” the labels “react[ed] negatively, almost like a cornered animal.”\textsuperscript{45} The fact that creativity and innovation are increasingly taking place outside the twentieth-century record-label model does not mean the end of creativity or innovation. In fact, it could mean the opposite.


\textsuperscript{40} Masnick, \textit{The Future of Music Business Models}, supra note 36.

\textsuperscript{41} Id.

\textsuperscript{42} Id.

\textsuperscript{43} Id.

\textsuperscript{44} Id. at 932.

\textsuperscript{45} Id.
A Win by Napster Could Have Led to an Innovative Industry

Marks also is not able to see why a finding for Napster would have led the service to “voluntarily negotiate[] licenses.” And that is a position often taken. But one of the reasons I conducted my study was to see if this conventional wisdom was correct. And my findings were consistent across respondents from technology companies, venture capital firms, and the recording industry that a ruling for Napster “would have . . . forced the labels and the innovators to come together and come up with a real solution.”

After winning the Napster case, the labels decided to “play hardball” and “suck everybody dry as much as’ they could,” while becoming “more entrenched” and “more difficult to deal with.” The labels had “no coherent way to directly stop the piracy” but relied on “the precedent” that gave them “the illusion” that they could “stop it.” They always put “one guy at the top of the hit list,” such as “Napster, KaZaA, Grokster, LimeWire, and Grooveshark.” But just like the whack-a-mole carnival game cannot be won, the same goes for the attempt to litigate every threatening service out of business.

If the labels had lost the Napster case, they would have had no choice but to adapt. They could have partnered with Napster to create an authorized service with terms (similar to those discussed in the parties’ negotiations) by which Napster would have made an upfront payment and submitted monthly fees for each user, and the labels would have received, in addition to these payments, “really good statistics about where the money needed to go” on account of centralized-file-sharing’s ability to “allow[] content holders to observe the use of copyrighted works.” Or the labels could have competed with Napster, offering better-quality downloads and an experience similar to that offered by musicians connecting with fans today. Either way, they would have been forced to innovate rather than acting under the illusion that they could “put the genie back in the bottle” through whack-a-mole litigation.

46. Marks, supra note 2, at 24.
47. Carrier, supra note 1, at 910–11.
48. Id. at 910.
49. Id. at 911.
50. Id. at 920.
51. Id. at 912.
52. Id. at 911.
PRAISING THE LIVING MOLE

Fortunately for us, the labels were not completely successful in their crusade to litigate out of existence every new service. It is ironic, though, that after trying to kill these services, the RIAA is now basking in their glory. In fact, it is pointing to the industry’s efforts in “building and investing in new platforms and configurations,” and favorably comparing today’s “wide variety of products and services” to the limited offerings of the 1990s.53

It would be nice if the labels played a meaningful role in contributing to these technologies. Even better, it would have been nice if the labels weren’t trying to destroy these technologies at every turn. To the contrary, the flourishing of technologies came in spite of the labels’ efforts to stymie them. They tried to quash the first mp3 player (and thus would have blocked the iPod if they had been successful in their lawsuit against Rio).54 They targeted music lockers in their suits against mp3.com and mp3tunes.com.55 And they sued the numerous services described above.56

Even when the labels do not sue the companies, they “cripple the[m] by demanding such advances and guarantees that they go belly up,” with the result that they “killed virtually every company.”57 The labels can “change their minds at any time.”58 “As soon as the companies are profitable,” the labels “suck companies dry until they don’t have a model that will work.”59 In one case, the respondent’s company “ended up shutting down because the labels just kept taking more and more.”60

It is nice to see, though, that the labels are basking in their digital success. Perhaps we should keep this in mind the next time cries that the sky is falling reverberate through the halls of Congress and the media.61

53. Marks, supra note 2, at 23.
54. See Recording Indus. Ass’n of Am. v. Diamond Multimedia Sys., Inc., 180 F.3d 1072, 1073, 1081 (9th Cir. 1999).
56. See supra notes 6-11 and accompanying text; see also CARRIER, supra note 3, at 132–33 (describing bankruptcies and shutdowns suffered by 321 Studios, RecordTV.com, Scour.com, and SonicBlue as a result of copyright lawsuits).
57. Carrier, supra note 1, at 947.
58. Id. at 954.
59. Id. at 956.
60. Id.
61. Marks’s claims of success don’t persuasively apply to venture capital, in particular his critique of my conclusion that venture capital funding in the digital music arena fell after the Napster decision. Marks, supra note 2, at 23–24. He points to a
A FAILED RESTART OF CONSTITUTIONAL INTERPRETATION

One final tool the RIAA employs is a new interpretation of the Constitution. Marks smuggles in an author-centered, labor-rights theory under shadow of a six-page conclusory “article” written by lawyers for the RIAA that seeks to recast the Intellectual Property Clause after two centuries, jettisoning its well-established utilitarian justifications. The least bit of attention sheds light on the failure of this attempt.

The article, written by Paul Clement, Viet Dinh, and Jeffrey Harris, ignores the text of the Constitution, which supports utilitarianism in seeking “[t]o promote the Progress of Science and useful Arts.” It also stitches together its own tailor-made version of history, conveniently cut off at the Constitutional Convention. It “explores” (in a few pages) English copyright law and copyright under the Articles of Confederation. But why focus on the Articles of Confederation when evidence from the Constitutional Convention is available?

If the authors had been interested in actually examining the Framers’ intent, they could have wrestled with Professor Dotan Oliar’s seventy-five-page article on the Intellectual Property Clause. They then would have discovered more relevant evidence of historical finding that investment increased in the “media and entertainment” sector, but that is a far broader universe than the digital music I examined, ranging widely to encompass “movies, music, consumer electronics such as TVs/stereos/games, sports facilities and events, recreational products or services[, and online] providers of consumer content [including] medical, news, education, and legal.” PriceWaterhouseCoopers, MoneyTreeReport: Industry Definitions, PWCMONEYTREE, https://www.pwcmoneytree.com/MTPublic/ns/nav.jsp?page=definitions (last visited May 15, 2013). Nor does Marks’s discussion of investments in 2011 and 2012 contravene my findings of the “lost decade” after the 2000 Napster decision. See Carrier, supra note 1, at 916.

64. U.S. CONST. art. I, § 8, cl. 8.
65. Clement et al., supra note 63, at 3–6.
understanding. In particular, they would have seen the rejection of proposals by James Madison and Charles Pinckney that “did not include language relating to the promotion of progress in science and useful arts” and that would have given Congress plenary patent and copyright powers.68

Even the two “copyright” cases the authors cite in their introduction do not support their point. The first, Mazer v. Stein,69 bolsters utilitarianism by making clear that “copyright law . . . makes reward to the owner a secondary consideration” in “afford[ing] greater encouragement to the production of literary (or artistic) works of lasting benefit to the world.”70 The second case, Davoll v. Brown,71 a patent case (not copyright, as the authors claim) supports utilitarianism, as was made clear by the phrase the authors omit, which addressed the role of patents in encouraging efforts “useful[] to the community.”72

THE PERFECT SOLUTION AS THE ENEMY OF THE GOOD

In contrast to the record labels, Professor Randal Picker attempts to craft “more tailored rules to better balance protection of copyrights and innovation.”73 He laments, however, that I do “not really say much about how one would write a copyright statute with distribution innovation in mind.”74

My article, however, showed that it would be the record labels that would enforce any such tests in the digital music arena, with “requirements for ‘reasonable’ actions . . . quickly devolv[ing] into additional hurdles that the labels would exploit in moving to deny summary judgment and to prolong litigation.”75 That is the most plausible conclusion of my study that highlighted respondents’ views of vagueness as a weapon. As I relayed in the article:

68. Id. at 1776.
70. Id. at 219.
71. 7 F. Cas. 197 (D. Mass. 1845).
73. Randal C. Picker, Copyright and Technology: Déjà Vu All Over Again, 2013 WIS. L. REV. ONLINE 41, 43.
74. Id. at 42.
75. Carrier, supra note 1, at 949.
One record label official who considers himself a “content person” admitted that “if there is lack of clarity in an area, I am going to defend it to the most aggressive interpretation based on my rights.” In the end, “it’s always going to ultimately end up in favor of the content owners” since they “are going to have more resources and capability to hold the line in a way that’s most favorable to them.” In fact, the “lack of clarity” in the law “is holding back innovation right now.”

From the other side, an innovator agreed that, even though “there is so much opportunity in this space,” the “problem” is that it is “so uncertain,” and “the uncertainty is what stops you from trying to approach that space again.”

The harms from vagueness cannot be overstated in this area. For the labels are able to achieve “‘an enormous number of business goals’ from the ‘tremendously effective hammer’ of filing suit.” In particular, these suits have an “absolute chilling effect” against startups.

Professor Picker laments that the Digital Millennium Copyright Act’s safe harbors and the *Sony* test for secondary liability do not depend on the value of the underlying work or infringement facilitated. But any attempt to determine such value would greatly underestimate innovation. When a new technology is introduced, “no one, including the inventor, knows all of the beneficial uses to which it will eventually be put.” The ultimate popular and revolutionary use of numerous inventions—including the telephone, phonograph, railroad, radio technology, electricity, lasers, computer, VCR, and iPod—was not foreseen at the time of creation.

In fact, even if a technology is used for infringement in the short term, that can raise awareness of its potential for noninfringing uses in the long run. Mike Masnick explains that “piracy” provides evidence that

---

76. *Id.* at 945.
77. *Id.*
78. *Id.* at 936.
79. *Id.* at 937.
81. *See id.*
82. CARRIER, *supra* note 3, at 129.
83. *Id.*
“technology had changed in a way that allowed the public to do things they couldn’t do before, which they wanted to do, but which were not allowed by the law or by legacy companies standing in the way.”

Any resolution of the appropriate tradeoff between copyright and innovation should at least pluck the low-hanging fruit of statutory damages and personal liability. No one could plausibly claim that an ideal equilibrium is achieved through today’s rules on statutory damages which, in charging as much as $150,000 per infringing work, quickly add up to millions or even billions of dollars. As one respondent explained, statutory damages are “effectively infinite,” which leads to the result that “when you are charged with statutory damages, ‘you’re dead.’”

The same goes for personal liability, which could wipe out the life savings of investors and innovators, as numerous examples relayed in my article show. One respondent explained that “the lesson from the . . . lawsuits against the ‘Hummer Winblad guys’ was a ‘cautionary tale’ to ‘anyone with a checkbook in the capitalist system.’” Others relayed tales and threats like:

- “It’s too bad you have” children “who are going to want to go to college and you’re not going to be able to pay for it.”
- “[W]e are going to sue you personally” since “we can make all kinds of allegations and it’s your job to prove you’re not infringing” and “the lawsuit is going to cost you between 15 and 20 million bucks.”
- A “process server . . . broke into the office . . . knocked on the door like it was the police,” and did everything to “psychologically intimidate.”

It does not make practical sense to create elaborate frameworks to climb the innovation tree to reach some theoretical ideal that (as enforced by aggressive copyright holders displaying “‘Cro-Magnon’ instinct[s] to control [their] property”) would knock over the tree, including the low-hanging fruit.

85. Carrier, supra note 1, at 941.
86. Id. at 939.
87. Id. at 943.
88. Id.
89. Id.
90. Id. at 934.
The Story Replays Itself Elsewhere

The third respondent in this discussion, Mike Masnick, explains how the story in the digital music arena is replaying itself in other settings. 91

First, the anti-innovation mindset is shown by Ralph Oman, the former Register of Copyrights, who recently supported the content industry in challenging advances in technological innovation. 92 In an amicus brief he filed in the case involving Aereo, the live-television streaming service, Oman suggested that “[c]ommercial exploiters of new technologies” need to “convince Congress to sanction a new delivery system and/or exempt it from copyright liability.” 93

The second theme involves the industry’s inability to look ahead to new business models rather than drive old models into the ground. Masnick points to the music video games Guitar Hero and Rock Band, which were popular “[f]or a year or two.” 94 But “[r]ather than build on that, the industry did two things: it focused all of its attention on those kinds of games, absolutely flooding the market and making people get sick of the game genre, and [it] demanded much higher royalties.” 95

Masnick also discusses the market for ringtones, where, again, the labels viewed the market as their “savior,” raising rates and “speeding up the eventual crash” of the market instead of “thinking of ways to make other markets more convenient and more about expression.” 96

Much the same can be said of the story I tell. The industry continued to exploit its CD model even though consumers were “tired of overpaying and spending twenty dollars when they only wanted one song.” 97 And they continually ratcheted up the royalties paid by the most successful services until they were unprofitable or bankrupt. 98

Third, Masnick points to the Second Circuit’s decision in Cartoon Network v. CSC Holdings, 99 which refused to impose copyright liability on a remote storage DVR that allowed customers to record and replay television content that existed in a data center run by Cablevision. 100

---

91. Masnick, supra note 84, at 29.
92. Id.
93. Id.
94. Id. at 32.
95. Id.
96. Id. at 33.
97. Carrier, supra note 1, at 907.
98. Id. at 917–19.
99. 536 F.3d 121 (2d Cir. 2008).
100. Masnick, supra note 84, at 34–35.
Masnick points to research by Professor Josh Lerner, who found that venture capital investment in cloud computing firms increased by $728 million to $1.3 billion in the two-and-a-half years after the decision.\footnote{Id. at 35.} Masnick explains how this result was the opposite of the history following the Napster decision, where “[v]enture capitalists wanted nothing to do with any company that it thought might attract the attention of the record labels.”\footnote{Id.}

THE SKY IS (NOT) FALLING

Rather than embracing new business models that could raise all boats, large copyright holders have often cried that the sky is falling.\footnote{See id. at 38.} Masnick synthesizes that “nearly every innovation that the entertainment industry has warned would destroy it due to piracy”—including “radio, television, cable television, the VCR, the DVR, the MP3 player, and Internet video”—has “later turned out to be a huge boost to the bottom line.”\footnote{Id.}

The same story played out in the digital music arena. As one respondent explained, “the labels ‘fought cassettes, eight-track tapes before that, and CDs.’”\footnote{Carrier, supra note 1, at 927.} They “fought every one of those things every step of the way until later they adopted them.”\footnote{Id.} And “[i]ronically . . . the labels ‘made billions more by reselling the same music that was on vinyl’ on eight-tracks and then cassettes and CDs.”\footnote{Id.}

CONCLUSION

It is difficult to pinpoint the precise harms to innovation resulting from aggressive copyright law and enforcement. How can we know what would have happened if a particular technology were not driven into bankruptcy? Or if an investor had not fled an industry? That is why I wrote “Copyright and Innovation.” The story of copyright’s harms to innovation is one that is not immediately apparent but one that is crucial and needs to be explored.

This discussion has allowed me to reply to three very different responses, helping me elaborate upon various aspects of the article. In looking backward at old business models and not sufficiently

\footnote{Id. at 35.}
\footnote{Id.}
\footnote{See id. at 38.}
\footnote{Id.}
\footnote{Carrier, supra note 1, at 927.}
\footnote{Id.}
\footnote{Id.}
appreciating the synergies between creativity and technological innovation, Steve Marks underscores the hurdles that have faced (and continue to face) the record labels. In developing a framework for achieving an ideal resolution of copyright-related distribution innovation, Randal Picker may be unwittingly creating a test vague enough to allow the record labels to use litigation as a bludgeon quashing innovative companies. And in pointing to examples of the same story told through ringtones, video games, and cable television alternatives, Mike Masnick shows the widespread reach of these issues.

In today’s copyright debates centering on piracy and theft, the relationship between copyright and innovation needs all the attention it can get. This discussion will hopefully play a role in nudging the needle in that direction.