

## Book Review

# An Innovation-Based Road Map for Legal Reform

Michael Carrier

**Innovation for the 21st Century: Harnessing the Power of Intellectual Property and Antitrust Law**

Oxford University Press • 2009

### Reviewed by Sean Gates

In 2003, the Federal Trade Commission analyzed the patent system through the lens of competition. The resulting report developed a set of ten recommendations aimed at improving the patent system.<sup>1</sup> The report generated considerable interest. In fact, the following year the National Research Council of the National Academies issued a report with similar recommendations.<sup>2</sup>

In *Innovation for the 21st Century*, Professor Michael Carrier<sup>3</sup> uses the lens of innovation to develop his own ten recommendations. Like the FTC and NRC reports, Carrier recommends changes to the patent system. But unlike those reports, Carrier does not limit his recommendations to one area of law. Instead, he applies an innovation lens broadly to copyright and antitrust law as well as to patent law, recommending reforms to protect and promote innovation in all three areas.

Carrier believes that certain trends in the U.S. legal system threaten innovation. He aims to reverse those trends. As he puts it:

[The book] offers ten ambitious proposals to foster innovation. The proposals address generic drugs, BlackBerry devices, valid patents, peer-to-peer (P2P) software, and countless other cutting-edge challenges. They promise to improve our patent system. They show how copyright law can promote innovation and not quash fledgling technologies. And they illustrate how antitrust can incorporate innovation, particularly in the pharmaceutical industry.<sup>4</sup>

To lay the groundwork for his proposals, Carrier gives his readers primers on innovation, intellectual property, antitrust, and the interaction of intellectual property and antitrust. In the primer on interaction between intellectual property and antitrust, Carrier starts with the often-told historical account of how the interaction swung from virtually complete immunity for intellectual property owners, through the nadir of antitrust law's treatment of intellectual property—the Department of Justice's "Nine No-Nos"—to the development of the 1995 IP Guidelines.<sup>5</sup> He then touches on more

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<sup>1</sup> FED. TRADE COMM'N, TO PROMOTE INNOVATION: THE PROPER BALANCE OF COMPETITION AND PATENT LAW AND POLICY (2003), available at <http://www.ftc.gov/os/2003/10/innovationrptssummary.pdf>.

<sup>2</sup> National Research Council of the National Academies, A Patent System for the 21st Century (2004).

<sup>3</sup> Professor Carrier teaches at Rutgers University School of Law–Camden. His academic focus is the antitrust and intellectual property laws, and his works on the intersection of those laws are widely published.

<sup>4</sup> MICHAEL A. CARRIER, INNOVATION FOR THE 21ST CENTURY: HARNESSING THE POWER OF INTELLECTUAL PROPERTY AND ANTITRUST LAW 1 (1st ed. 2009).

<sup>5</sup> *Id.* at 73–82.

recent issues, such as the U.S. and EU *Microsoft* cases, innovation markets, standard-setting activities, patent pools, and reverse-payment settlements.<sup>6</sup> Carrier's purpose is to set the stage for his proposals; thus, his treatment of these issues is only cursory.

More important is Carrier's primer on innovation. The "centerpiece" of the book is the "relationship between innovation and the patent, copyright, and antitrust laws."<sup>7</sup> Carrier defines innovation as consisting of "the discovery, development, and commercialization of new and improved products and processes,"<sup>8</sup> and he breaks down innovation into four stages: (1) discovery or invention; (2) development, i.e., the activities necessary to transform the invention into a marketable product; (3) entrepreneurship and investment, which are aspects of commercialization; and (4) diffusion, by which the product spreads through the market.<sup>9</sup> Carrier's proposals affect each of these stages.

Carrier also distinguishes between various types of innovation: (1) discrete and complex (the latter typically requiring access to multiple intellectual property rights); (2) radical and incremental; (3) disruptive and sustaining; and (4) user and manufacturer innovations.<sup>10</sup> Carrier focuses special interest on disruptive innovations—those that "displace existing business models by creating simpler, more convenient, and cheaper products that appeal to new or less-demanding customers."<sup>11</sup> Examples of such innovations include Google, which disrupted directories such as Yellow Pages, and Intuit's TurboTax, which disrupted personal income tax preparation services. He also focuses on user innovations—those created by users of the product (for which open source software may be an example).<sup>12</sup> Carrier's proposals regarding copyright law focus on disruptive and user innovations.

The most difficult impediment to innovation-focused legal reform, according to Carrier, is the inability to measure the benefits of innovation. This inability has led economists, antitrust courts, and scholars to focus primarily on "the more measurable unit of price" and to promote allocative instead of dynamic efficiency<sup>13</sup>—in other words, the measurement problem has caused policy and decision makers to focus on maximizing static welfare while ignoring long-run welfare that takes into account the impact of innovation over time. Carrier seeks to right this wrong:

My goal in this book is to erect a sustained focus on innovation that ranges across IP and antitrust law. To be sure, my innovation spotlight often will not be as precise as one shining on price. Innovation has too many characteristics to be reducible to a single metric. But at least the project shines a second light. Given the importance of innovation to economic growth, such action is vital.<sup>14</sup>

With this as his foundation, Carrier launches into his wide-ranging proposals.

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<sup>6</sup> *Id.* at 87–97.

<sup>7</sup> *Id.* at 22.

<sup>8</sup> *Id.* at 19.

<sup>9</sup> *Id.* at 20.

<sup>10</sup> *Id.* at 26.

<sup>11</sup> *Id.* at 27.

<sup>12</sup> *Id.* at 29.

<sup>13</sup> *Id.* at 30–31.

<sup>14</sup> *Id.* at 31.

## Copyright

Carrier offers three proposals for copyright law. The first is to reform the legal test for secondary infringement liability by makers of dual-use technologies, i.e., technologies (such as VCRs, CD burners, and peer-to-peer (P2P) file sharing software) that may be used for both legitimate and infringing uses. He notes that dual-use technologies can “create revolutionary new forms of interaction and entertainment”<sup>15</sup>—in other words, they can be disruptive innovations. The courts, however, have created legal rules that impede the creation of such technologies by deviating from the Supreme Court’s test in *Sony v. Universal City Studios*,<sup>16</sup> which precluded secondary liability if the product is “merely capable of substantial non-infringing uses.”<sup>17</sup> Carrier recounts the P2P trilogy of *Napster*, *Aimster*, and *Grokster*, showing how the courts (including the Supreme Court) have imposed secondary copyright infringement liability on proprietors of P2P software, despite the presence of substantial non-infringing uses.<sup>18</sup> In *Napster*, the Ninth Circuit “sidestepped the *Sony* question, finding that, even if Napster were capable of substantial non-infringing use, its actual knowledge [of infringing use] was sufficient to impose liability.”<sup>19</sup> In *Aimster*, the Seventh Circuit required an estimate of the respective magnitude of infringing and non-infringing uses, adding “its own gloss to *Sony* by stating that actual (as opposed to a potential) non-infringing use was needed to avoid liability.”<sup>20</sup> And in *Grokster*, the Supreme Court refused to resolve how *Sony* applies to P2P software, holding that distributing a device with the object of promoting infringing use is sufficient for secondary liability.<sup>21</sup>

Carrier contends that the deviation from *Sony* creates potential for legal liability that stymies the development of dual-use technologies, which may stimulate creativity (the very thing copyright law is designed to do).<sup>22</sup> He blames the courts’ misdirection primarily on what he calls the “innovation asymmetry”—the costs of infringement are more apparent than the benefits of non-infringing uses, leading the courts to undervalue the benefits.<sup>23</sup> He points out that dual-use technologies are “evaluated in their infancy when their capabilities can barely be discerned,” and worries of the “silent consequences of vanquished technology and the carcasses of innovators strewn on the side of the technology highway.”<sup>24</sup>

Carrier quickly deflects the arguments made by content providers that dual use technologies will stymie creativity and decimate artists’ income. He gives a rather amusing history of the doom-and-gloom claims by those providers, ranging from predictions by sheet music publishers that player pianos would result in “a marked deterioration in American music and musical taste” to the MPAA’s claim that “the VCR is to the American film producer and the American public as the

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<sup>15</sup> *Id.* at 106.

<sup>16</sup> 464 U.S. 417 (1984).

<sup>17</sup> INNOVATION FOR THE 21ST CENTURY, *supra* note 4, at 110.

<sup>18</sup> A & M Records, Inc. v. Napster Inc., 239 F.3d 1004 (9th Cir. 2001); *In re Aimster Copyright Litig.*, 334 F.3d 643 (7th Cir. 2003); *MGM v. Grokster*, 545 U.S. 913 (2005).

<sup>19</sup> INNOVATION FOR THE 21ST CENTURY, *supra* note 4, at 116.

<sup>20</sup> *Id.* at 117.

<sup>21</sup> *Id.* at 117–18.

<sup>22</sup> For an economic view of the *Sony* test, see WILLIAM M. LANDES & RICHARD A. POSNER, *THE ECONOMIC STRUCTURE OF INTELLECTUAL PROPERTY LAW* 117–22 (2003).

<sup>23</sup> INNOVATION FOR THE 21ST CENTURY, *supra* note 4, at 128–29.

<sup>24</sup> *Id.* at 144.

Boston strangler is to the woman home alone.”<sup>25</sup> In addition to these historical anecdotes, Carrier goes through an extended discussion of the creativity-innovation trade off involved in P2P technologies, concluding that the trade off decidedly favors allowing dual-use technologies to avoid secondary copyright liability.<sup>26</sup> Examining the legal tests in depth, Carrier contends that “the future of innovation—and thus our economy and livelihoods—depends on a return to *Sony*.”<sup>27</sup>

Unlike many of his proposals, however, Carrier does not give a roadmap for how to implement his recommendation. He calls for a return to the *Sony* test for secondary copyright liability, but he does not discuss how to get there. Given the decisions in *Napster*, *Aimster*, and the Supreme Court’s decision in *Grokster*, it is not clear whether Carrier’s proposal requires legislative action to amend the Digital Millennium Copyright Act (DMCA), whether the lower courts may implement his proposal despite the case law, or whether another decision by the Supreme Court is required. Many of Carrier’s arguments were made to the Supreme Court in the *Grokster* case. Thus, it may be that legislative action is needed, but Carrier does not provide guidance on this issue.

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Carrier’s second proposal for copyright law would limit statutory damages to cases of direct infringement, precluding such damages for secondary infringement liability. To support this proposal, Carrier turns to legislative history to demonstrate that Congress recognized the need for limits on statutory damages.<sup>28</sup> He then uses real-world examples of how incumbents use the threat of statutory damages, which mandate certain damages for every act of infringement, to destroy businesses based on innovative technologies.<sup>29</sup> For instance, Carrier recounts how the threat of statutory damages doomed MP3.com and a service offered by XM Radio that allowed subscribers to record and store broadcasts. By limiting secondary liability to actual damages, Carrier contends his proposal would “allow technology innovators to make reasonable business decisions based on manageable levels of legal risk,” and that such innovators would no longer “face a corporate death penalty at the hands of unpredictable and unjustified legal standards and remedies.”<sup>30</sup>

The final copyright-related proposal focuses on limiting claims under the DMCA. The DMCA was enacted to prevent copyright “piracy” by prohibiting acts and the distribution of tools used for circumvention of digital protections for copyrighted materials. Carrier contends that the DMCA has been co-opted to protect aftermarket sales of mechanical devices, such as printer cartridges and garage door openers, that incorporate trivial (but copyrighted) software.<sup>31</sup> This use of the DMCA has restricted reverse engineering, which “has long played a central role in limiting IP.”<sup>32</sup>

In this case, Carrier clearly spells out how to implement his proposal: by amendment to the DMCA. Carrier would limit DMCA claims to instances in which the “expressive copyrightable features of a product protected by a [technological protection measure] play an essential role in the demand for the item” and the plaintiff would suffer a direct negative market effect.<sup>33</sup> His proposal

<sup>25</sup> *Id.* at 107.

<sup>26</sup> *Id.* at 119–30.

<sup>27</sup> *Id.* at 145.

<sup>28</sup> *Id.* at 149–53.

<sup>29</sup> *Id.* at 153–60.

<sup>30</sup> *Id.* at 160.

<sup>31</sup> *Id.* at 184–90.

<sup>32</sup> *Id.* at 197.

<sup>33</sup> *Id.* at 193.

would thus require only a narrow amendment, clearly focused on preventing the application of the DMCA to software “that plays a peripheral role in a functional, unprotected end product.”<sup>34</sup> The proposal would therefore not impact other applications of the DMCA.

## Patents

Carrier offers four proposals for patent law reform. The first follows the well-trodden path of suggesting a post-grant opposition system for patents. According to Carrier, such a system would provide a quicker and less expensive means to determine validity than litigation, target the most valuable patents (those asserted to be used in actual products), allow the patent office to access better information, reduce uncertainty, reduce the number of invalid patents, and promote innovation.<sup>35</sup> Recognizing that many others (such as the FTC and NRC reports) have called for a post-grant opposition system, Carrier proposes a number of details, including the required threshold showing, limits on when an opposition could be brought, the validity matters subject to review, the required evidentiary showing, the venue for the opposition, the type of proceeding, whether the requesting party must disclose its identity, and the estoppel effect of the opposition.<sup>36</sup> Carrier’s proposal thus builds on and fleshes out the proposals of others.

The second patent law proposal would limit injunctive relief for patent infringement. Expanding on the Supreme Court’s 2006 *eBay* decision,<sup>37</sup> Carrier’s proposal seeks to limit the ability of non-practicing entities (NPEs) to obtain injunctions. In this Carrier is hardly alone. The ability of NPEs (sometimes called trolls) to obtain injunctive relief for patent infringement has been the subject of considerable debate.<sup>38</sup> According to Carrier, the *eBay* Court’s test for injunctive relief suffers from a lack of predictability and some lower courts have focused on unhelpful factors. Building on *eBay*, Carrier therefore offers a four-part framework for courts to evaluate whether injunctive relief is appropriate.<sup>39</sup>

His framework first focuses on whether the patentee competes with the infringer, reasoning that competition demonstrates irreparable harm and that injunctive relief is more appropriate in this circumstance to protect incentives to innovate.<sup>40</sup> Next, the framework considers whether the infringing component is related to the core functionality of the defendant’s product, i.e., do consumers demand the product because of the infringing component? If not, damages are more likely an adequate remedy, which would reduce the risk of holdup by NPEs whose patented inventions are incorporated as one small component of a product.<sup>41</sup> In balancing the parties’ hardships, Carrier would focus on whether the patented invention is a core component of the plaintiff’s product and whether the defendant can modify its product to avoid infringement.<sup>42</sup> Carrier notes that NPEs are unlikely to satisfy the test because of the focus on the patented invention being core to the plaintiff’s product. Finally, the framework considers the public interest, which is served when injunctive

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<sup>34</sup> *Id.*

<sup>35</sup> *Id.* at 205.

<sup>36</sup> *Id.* at 213–28.

<sup>37</sup> *eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388 (2006).

<sup>38</sup> *See, e.g.*, Mark Lemley & Carl Shapiro, *Patent Hold-Up and Royalty Stacking*, 85 TEX. L. REV. 1991 (2007).

<sup>39</sup> INNOVATION FOR THE 21ST CENTURY, *supra* note 4, at 244–50.

<sup>40</sup> *Id.* at 244–45.

<sup>41</sup> *Id.* at 246–48.

<sup>42</sup> *Id.* at 248–49.

relief is denied in cases where the patented invention serves a peripheral role in the demand for the product but is served by granting such relief in cases of willful infringement.

Carrier's proposal is largely driven by a desire to take the threat of injunctive relief away from NPEs. In making his proposal, however, Carrier does not engage with those who contend that such a rule would under-reward innovation.<sup>43</sup> Given the book's focus on innovation, the absence of any interaction with this literature is disappointing. Carrier instead focuses on the impact on manufacturers of infringing products, which of course impacts innovation. But the book does not address the potential that NPEs and the rewards they offer may add to the overall amount or rate of innovation.

Carrier's third and fourth patent law proposals are very narrow and involve issues only in the biotech industry. His third proposal deals with patented biotechnology research tools. He demonstrates that current law does not allow the use of these tools for experimental use.<sup>44</sup> The resulting "anticommons" supposedly threatens innovation.<sup>45</sup> Carrier thus offers three "future" proposals to remedy the situation,<sup>46</sup> but he recognizes that none are currently necessary because the market has largely solved the issue.<sup>47</sup> In fact, the book cites to several empirical studies that show the patenting of biotechnology research tools has had almost no effect on research projects and no negative impact on innovation.<sup>48</sup> Carrier attributes these results to the ubiquity of licensing of these tools and "a regime of informal norms, or socially enforced rules" governing the relationship between tool users (universities) and patent holders (industry).<sup>49</sup>

The empirical research regarding the effect of patenting research tools on research projects is especially interesting. The patent and antitrust literature is filled with theoretical concerns about the impact of the dispersed rights holders on innovation. For instance, concerns about royalty stacking and patent holdup are used to justify a number of policy proposals. But empirical evidence regarding the effects of these issues is largely lacking. Here, Carrier cites market evidence that the theoretical concerns have not materialized, forcing the development of alternative explanations for firm behavior. This evidence may have broader implications outside the biotechnology arena.

Carrier's final patent law proposal deals with material transfer agreements in biotechnology research. Among other dangers, according to Carrier, reach-through provisions in such agreements threaten innovation.<sup>50</sup> He thus proposes that federal agencies impose and universities adopt certain requirements from a uniform biological material transfer agreement.

## Antitrust

Carrier's three antitrust law proposals are more modest than those for copyright and patent law. He attributes this to advances in antitrust law that recognize innovation concerns, e.g., the adop-

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<sup>43</sup> See, e.g., Vincenzo Denicolò et al., 4 J. COMPETITION L. & ECON. 571 (2008) (using an error-cost framework to find that the holdup theory justifying categorical limitations on injunctive relief for NPEs is likely to result in substantial false positives); John M. Golden, "Patent Trolls" and Patent Remedies, 85 TEX. L. REV. 2111 (2007).

<sup>44</sup> INNOVATION FOR THE 21ST CENTURY, *supra* note 4, at 254–61.

<sup>45</sup> See, e.g., SUZANNE SCOTCHMER, INNOVATION AND INCENTIVES 142–43 (2004).

<sup>46</sup> INNOVATION FOR THE 21ST CENTURY, *supra* note 4, at 268–77.

<sup>47</sup> *Id.* at 261–67.

<sup>48</sup> *Id.* at 261–67.

<sup>49</sup> *Id.* at 264–65.

<sup>50</sup> *Id.* at 283–84.

tion of innovation market analysis by the antitrust enforcement agencies and the judicial recognition that innovation is a concern in antitrust analysis.<sup>51</sup> In fact, Carrier concludes that “antitrust only needs three recommendations to improve its treatment of innovation.”<sup>52</sup>

Carrier’s first antitrust proposal involves innovation market analysis. While recognizing the limits and criticisms of innovation market analysis, Carrier makes the case for the application of this analysis in the pharmaceutical industry. Carrier thus offers a new test for the evaluation of pharmaceutical mergers involving innovation markets.

According to Carrier, the agencies “have not considered many relevant factors” with regard to pharmaceutical mergers, and the agencies’ analysis “is harmful,” justifying “unnecessary merger challenges.”<sup>53</sup> He contends that the FTC used innovation market analysis to mistakenly challenge the mergers between Roche and Genentech and between Pfizer and Warner-Lambert. He thus offers a new test in the form of a five-part framework that incorporates the factors missed by the FTC, the first step of which is to evaluate market concentration by focusing on how far along competitors are in the FDA review process. Parting company with the agencies, Carrier would exclude all competitors in the preclinical stage.<sup>54</sup> Second, he would require the agencies to allege a theory of harm, typically involving potential suppression of a research path.<sup>55</sup> Third, the merging firms could offer a defense based on likely entry, which would focus again on the phase in which competitors are in the FDA review process. For instance, Carrier offers statistics that show if two firms are in Phase III of that process, there is an 81 percent chance one of them will enter the market.<sup>56</sup> Fourth, Carrier would allow the merging firms an efficiency defense based on a showing that the merger will increase the likelihood of bringing a product to market: “The most important goal in these cases thus is not to ensure the presence of two products but to increase the likelihood that one product reaches the market.”<sup>57</sup> Lastly, Carrier would allow what he calls a “Schumpeterian defense,” through which a small firm with a promising compound could show that it could not pursue clinical trials absent the merger.<sup>58</sup>

Perhaps the most striking part of the proposal is Carrier’s suggestion to restrict innovation market analysis in the pharmaceutical arena to competitors past the preclinical stage. Yet Carrier does not address whether doing so would really protect R&D in the industry. The most important innovation in the industry may well be in the preclinical phase, during which firms develop the basis inventions—such as new drug compounds—that drive the pharmaceutical industry and have the greatest impact on consumers. Protecting such R&D is the very purpose of innovation market analysis.<sup>59</sup>

Carrier’s second antitrust law proposal focuses on standard setting organizations (SSOs). Citing the benefits of standard setting and the often-rehearsed threat of patent holdup, Carrier

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<sup>51</sup> *Id.* at 292.

<sup>52</sup> *Id.*

<sup>53</sup> *Id.* at 303.

<sup>54</sup> *Id.* at 306.

<sup>55</sup> *Id.* at 307.

<sup>56</sup> *Id.* at 308–09.

<sup>57</sup> *Id.* at 311.

<sup>58</sup> *Id.* at 312.

<sup>59</sup> See U.S. Dep’t of Justice & Fed. Trade Comm’n, Antitrust Guidelines for the Licensing of Intellectual Property § 3.2.3 (1995) (“An innovation market consists of the research and development directed to particular new or improved goods or processes . . .”), available at <http://www.justice.gov/atr/public/guidelines/0558.pdf>.

contends that SSOs exercising monopsony power to bring down royalty rates are unlikely to harm competition.<sup>60</sup> He contends that any effects of depressed rates “tend to be significantly outweighed by more numerous licenses.”<sup>61</sup> Recognizing, however, that potential innovation is at stake, Carrier would allow patentees to “offer evidence of reduced innovation incentives,” but concludes that “in nearly all cases” a showing of reduced incentives “is not likely.”<sup>62</sup> Carrier also rehearses the procompetitive benefits of standard setting and defends several SSO IP rules.<sup>63</sup> Carrier then proposes that all standard-setting activity, with the exception of price fixing of standardized goods, be judged under the rule of reason. While this part of his proposal is not exceptional, he goes on to declare that all SSO activity outside of three areas—patent ambush, boycott, and the exercise of monopsony power that reduces innovation incentives—“should be upheld under the Rule of Reason.”<sup>64</sup>

In making this proposal, Carrier does not discuss the literature challenging the use of patent holdup concerns to justify antitrust rules regarding SSOs.<sup>65</sup> This is particularly interesting given that Carrier earlier relies on empirical evidence showing that the market has virtually eliminated holdup concerns in the biotechnology arena.<sup>66</sup> This clearly implicates the need for further study in this area. As in the biotechnology arena, some have proposed that certain incentives deter patent holdup. For instance, a technology company that is a repeat player may have incentives to avoid enforcing a patent holdup. Carrier, however, does not examine these issues.

The final proposal deals with reverse payment settlements in the Hatch-Waxman context, which Carrier contends should be presumptively illegal.<sup>67</sup> He bases this proposal primarily on the purposes of the Hatch-Waxman Act.<sup>68</sup> Carrier would “conservatively allow the parties to introduce [rebuttal] arguments that have been offered in the economic literature.”<sup>69</sup> But if judicial experience did not demonstrate the validity of the justification, Carrier would apply per se illegality.<sup>70</sup>

## Conclusion

*Innovation for the 21st Century* is a worthy addition to the antitrust practitioner’s library. The book is easy to read, uses little jargon, gives helpful examples, and explains technical concepts in plain

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<sup>60</sup> INNOVATION FOR THE 21ST CENTURY, *supra* note 4, at 338–39.

<sup>61</sup> *Id.* at 339.

<sup>62</sup> *Id.* at 339.

<sup>63</sup> *Id.* at 340–41.

<sup>64</sup> *Id.* at 343.

<sup>65</sup> See, e.g., J. Gregory Sidak, *Patent Holdup and Oligopsonistic Collusion in Standard-Setting Organizations*, 5 J. COMPETITION L. & ECON. 123 (2009) (arguing that no one has provided a theoretical or empirical foundation for the assumption that the expected social cost of patent holdup exceeds the expected social cost of oligopsonistic collusion); Damien Geradin & Anne Layne-Farrar, *The Logic and Limits of Ex Ante Competition in a Standard-Setting Environment*, COMPETITION POL’Y INT’L, Spring 2007, at 79; Damien Geradin & Miguel Rato, *Can Standard-Setting Lead to Exploitive Abuse? A Dissonant View on Patent Hold-Up, Royalty Stacking and the Meaning of FRAND* (Working Paper Apr. 2006), available at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=946792](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=946792).

<sup>66</sup> Cf. Benjamin Chiao, Josh Lerner & Jean Tirole, *The Rules of Standard Setting Organizations: An Empirical Analysis* (2007) (CEPR Discussion Paper No. DP6141) (concluding that empirical evidence shows that more “sponsor-friendly” SSO rules (i.e., rules that require fewer concessions from patent holders) result in higher quality standards), available at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1133786](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1133786).

<sup>67</sup> INNOVATION FOR THE 21ST CENTURY, *supra* note 4, at 378.

<sup>68</sup> *Id.* at 372; see also Brief of Amicus Curiae Federal Trade Commission, In re Tamoxifen Citrate Antitrust Litigation, No. 03-7641 (2nd Cir. filed Nov. 30, 2005) (arguing that reverse payment settlements undermine the goals of the Hatch-Waxman Act).

<sup>69</sup> INNOVATION FOR THE 21ST CENTURY, *supra* note 4, at 378.

<sup>70</sup> *Id.*

English (though Carrier's language is at times a bit unrestrained).<sup>71</sup> The book describes a series of "hot" issues without overburdening the reader with detail and minutiae. It may thus serve as a launching point for the reader to engage in debate on these issues.

The book, however, is by no means a detailed exposition of the issues. Given the format of the book and the number of issues it addresses, Carrier's goal is to make a strong case for his proposals. The book therefore does not deal directly with opposing arguments. At times it also fails to address implementation issues, but all these issues are minor. Overall, the book is well-written, engaging, and deftly tackles tough issues. It is well worth a read. ●

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<sup>71</sup> For instance, although he states that antitrust law now explicitly recognizes innovation concerns, Carrier claims his book "embarks on a new era in the often-chilly IP-antitrust relationship" and "recognizes, for the first time, that the IP and antitrust laws can have a positive influence on the other." *Id.* at 2. Carrier also states that "we must introduce innovation into copyright, patent, and antitrust law" because "[o]ur livelihoods and our economy demand no less." *Id.* at 14, 384.