

Control of the Aftermarket Through Copyright
Lexmark v. Static Control Components

In an anticircumvention rulemaking hearing before the Copyright Office,¹ the current Register of Copyrights asked a question of the former Register of Copyrights, who was representing Lexmark International, Inc. (“Lexmark”):

MS. PETERS: Could you respond to Mr. Greenstein’s parade of horribles of, you know, the ball point pen, . . . the car; all of the items in commerce that could in fact be controlled by a computer program so that the original manufacturer is the only one who can do replacement parts?

MR. OMAN: This is, in my view, speculation.²

Mr. Oman, understandably, was arguing that the only question at hand was the particular dispute between his client and Static Control Components, Inc. (“SCC”) regarding SCC’s sale of microchips that enabled the reuse of Lexmark’s toner cartridges. However, broad questions of policy regarding control of interoperability and the availability of replacement parts for almost any item of commerce were in fact on the line. The same type of copyright enforcement scheme at issue in the controversy between Lexmark and SCC could be used to require consumers to buy gas from the same company that sold their cars, compact discs from the same company that sold their stereos, and milk from the same company that sold their refrigerators.

Lexmark, a manufacturer and supplier of printers and the toner cartridges that function with those printers,³ and SCC, a manufacturer and supplier of parts to the toner cartridge remanufacturing industry,⁴

1. See Copyright Office Hearing, Docket No. RM 2002-4 (May 9, 2003), available at <http://www.copyright.gov/1201/2003/hearings/transcript-may9.pdf>. Under the Digital Millennium Copyright Act (“DMCA”), 17 U.S.C. § 1201(a)(1)(C)–(D) (2003), the Librarian of Congress, at the recommendation of the Register of Copyrights, issues three-year exemptions to the basic anticircumvention provision of the DMCA for classes of works where there would otherwise be adverse effects to the users of copyrighted works from application of the provision. This hearing was to consider such an exemption for the types of works at issue in *Lexmark Int’l Inc. v. Static Control Components, Inc.*, 253 F. Supp. 2d 943 (E.D. Ky. 2003).

2. Copyright Office Hearing, Docket No. RM 2002-4 (May 9, 2003), available at <http://www.copyright.gov/1201/2003/hearings/transcript-may9.pdf>.

3. See Complaint at 2–3, *Lexmark* (No. 02-571-KSF), available at http://www.eff.org/Cases/Lexmark_v_Static_Controls/20030108_lexmark_v_static_control_components.pdf.

4. See Memorandum in Opposition to Motion for Preliminary Injunction at 1, *Lexmark* (No. 02-571-KSF), available at http://www.eff.org/Cases/Lexmark_v_Static_Controls/20030213-OppositionBrief.pdf.

are fighting a fierce battle in courts and other government fora. At stake for the litigants are profits. Also at stake are consumer choice in the toner cartridge market, the potential for reuse and recycling in this and other markets, and the very structure of the market for interoperable goods. The dispute has attracted wide attention, as evidenced by the seven amicus briefs filed at the preliminary injunction stage,⁵ and is being conducted in multiple fora. SCC has appealed a preliminary injunction issued by the Eastern District of Kentucky, which prohibits SCC from selling its reuse-enabling microchips, to the Sixth Circuit.⁶ It has also appeared before the Copyright Office to seek an exemption to the Digital Millennium Copyright Act ("DMCA") from the Librarian of Congress,⁷ filed an antitrust complaint against Lexmark,⁸ and obtained legislation in its home state of North Carolina outlawing contracts that prohibit the remanufacture of toner cartridges.⁹

Generally, once a toner cartridge is empty, it can be refilled by a third-party remanufacturer. Consumers have their cartridges remanufactured because it is less expensive than purchasing a new car-

5. Briefs were filed by the Automotive Aftermarkets Industry Association, the Automotive Parts Rebuilders Associations Basel Action Network, the Computer and Communications Industry Association, the Grass Roots Recycling Network, International Imaging Technical (a remanufacturer), Silicon Valley Toxics Coalition, and a group of law professors, all available at http://www.eff.org/Cases/Lexmark_v_Static_Controls/ (last visited Nov. 1, 2003).

6. See Notice of Appeal as to Preliminary Injunction, *Lexmark* (No. 02-571-KSF).

7. The Register of Copyrights has recommended against an exemption for SCC, reasoning that the existing statutory reverse engineering exception discussed in note 19, *infra*, is a more robust scheme than a limited copyright office exemption and that it better balances Congress' competing concerns. See Recommendation of the Register of Copyrights in RM 2002-4; Rulemaking on Exemptions from Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies, Memorandum from Marybeth Peters, Register of Copyrights, to James H. Billington, Librarian of Congress at 172-88 (Oct. 27, 2003), available at <http://www.copyright.gov/1201/docs/registers-recommendation.pdf>.

8. SCC filed the antitrust complaint in the Middle District of North Carolina. The magistrate found that the antitrust claims were compulsory counterclaims, under Rule 13 of the Federal Rules of Civil Procedure, to the Lexmark-initiated suit in Kentucky, and recommended dismissal without prejudice so that the allegations could be heard in the Eastern District of Kentucky. See *Static Control Components, Inc. v. Dallas Semiconductor Corp.*, No. 1:02CV1057, 2003 WL 21666582 (M.D.N.C. July 16, 2003). In a related suit brought against Lexmark under California's unfair competition statute by the Arizona Cartridge Remanufacturers Association, summary judgment was granted for Lexmark. See *Ariz. Cartridge Remfrs. Ass'n v. Lexmark Int'l, Inc.*, No. C 01-4626, slip op. (N.D. Cal., Sept. 30, 2003), available at <http://www.supportacra.org/ACRA-Order-Judgment.pdf>.

9. The law provides that "[a]ny provision in any agreement or contract that prohibits the reusing, remanufacturing, or refilling of a toner or inkjet cartridge is void and unenforceable as a matter of public policy. Nothing in this section shall prevent any maintenance contract that warrants the performance of equipment under the contract from requiring the use of new or specified toner or inkjet cartridges in the equipment under contract." 2003 N.C. Sess. Laws 386.

tridge.¹⁰ Remanufacturing means fewer sales of Lexmark's new cartridges, so Lexmark is interested in discouraging third-party remanufacture and in selling new cartridges in place of remanufactured ones, or in capturing the remanufacturing market for itself. In order to improve its position in the toner cartridge market, Lexmark developed and sold toner cartridges with a two-pronged system that consisted of (1) a shrink-wrap customer agreement, and (2) a technological measure. Lexmark offered customers a choice of two pricing/control schemes: they could purchase a new toner cartridge for a reduced price on the condition that they returned the empty cartridge to Lexmark, or they could pay an increased price to buy a cartridge that could be refilled without returning it Lexmark.¹¹ The technological measure consisted of a microchip on each type of cartridge that reflected the pricing scheme.¹² Once the low cost cartridge was empty, the microchip prevented the cartridge from operating with the printer if the cartridge had been refilled.¹³ For the high-priced cartridge, the microchip contained no such disabling feature.¹⁴

Customers who purchased the low price cartridges often did not return them to Lexmark, and instead sent them for remanufacturing. Customers were able to do so despite the technological measure because SCC developed a replacement microchip that allowed the remanufactured cartridges to function.¹⁵ Lexmark sued SCC, alleging infringement of its copyrighted program that resides in the cartridge microchip (the "toner loading program"), and that SCC circumvented a technological measure that prevents access to a copyrighted computer program which resides in the printer (the "printer engine program"),¹⁶ in violation of the DMCA.¹⁷ Lexmark successfully sought a

10. See Letter from Ralph Oman, Dechert LLP, to David O. Carson, General Counsel, Copyright Office 14–15 (Aug. 11, 2003), available at <http://www.copyright.gov/1201/2003/post-hearing/lexmark.pdf>.

11. See *Lexmark Int'l, Inc. v. Static Control Components, Inc.*, 253 F. Supp. 2d 943, 947–48 (E.D. Ky. 2003).

12. See *id.*

13. See *id.*

14. See *id.* The parties made conflicting contentions about the availability of the high-cost cartridges and the firmness of the pricing scheme once a customer indicated that he wished to purchase the refillable cartridge. SCC contends that it is in practice quite difficult to obtain refillable cartridges. See Complaint at 9–15, *Static Control Components, Inc. v. Dallas Semiconductor Corp.*, No. 1:02CV1057, 2003 WL 21666582 (M.D.N.C. July 16, 2003), available at http://www.sccinc.com/special/oemwarfare/pdf_lawsuit/amended_complaint.pdf.

15. See *Lexmark*, 253 F. Supp. 2d at 955.

16. The cartridge-based program approximates the amount of toner left in the cartridge. The printer-based program controls various operations of the printer such as paper feed, paper movement, motor control, fuser operation and voltage control. *Id.* at 948–49.

17. 17 U.S.C. § 1201(a) (2003).

preliminary injunction in the Eastern District of Kentucky, and SCC has appealed that decision to the Sixth Circuit Court of Appeals.¹⁸

Four doctrinal areas are central to analysis of the instant controversy: (1) the limits of copyrightable subject matter — whether Lexmark can copyright all or part of the software at issue; (2) the doctrine of fair use — whether, if Lexmark is entitled to copyright the software at issue, SCC is nonetheless entitled to use all or part of that software without Lexmark's consent under certain circumstances or for certain purposes; (3) copyright misuse — whether Lexmark has used its copyright in certain ways that are contrary to the balance established by the copyright laws; (4) statutory interoperability restrictions and exceptions thereto — whether the DMCA's ban on circumvention of technological measures that control access to copyrighted works applies here, and if so, whether the DMCA exception that allows circumvention in order to achieve interoperability with independently created programs is also applicable.¹⁹ Thus far, only one ruling has

18. See Notice of Appeal as to Preliminary Injunction, *Lexmark* (No. 02-571-KSF).

19. Circumvention of a technological measure is allowed if the circumventor is doing so to make a program that she has independently created (and which does not infringe a copyright) interoperable. Circumvention is not allowed when the circumventor is merely accessing the material protected by the technological measure. See Digital Millennium Copyright Act, 17 U.S.C. § 1201(f) (2003).

(1) Notwithstanding the provisions of subsection (a)(1)(A), a person who has lawfully obtained the right to use a copy of a computer program may circumvent a technological measure that effectively controls access to a particular portion of that program for the sole purpose of identifying and analyzing those elements of the program that are necessary to achieve interoperability of an independently created computer program with other programs, and that have not previously been readily available to the person engaging in the circumvention, to the extent any such acts of identification and analysis do not constitute infringement under this title.

(2) Notwithstanding the provisions of subsections (a)(2) and (b), a person may develop and employ technological means to circumvent a technological measure, or to circumvent protection afforded by a technological measure, in order to enable the identification and analysis under paragraph (1), or for the purpose of enabling interoperability of an independently created computer program with other programs, if such means are necessary to achieve such interoperability, to the extent that doing so does not constitute infringement under this title.

(3) The information acquired through the acts permitted under paragraph (1), and the means permitted under paragraph (2), may be made available to others if the person referred to in paragraph (1) or (2), as the case may be, provides such information or means solely for the purpose of enabling interoperability of an independently created computer program with other programs, and to the extent that doing so does not constitute infringement under this title or violate applicable law other than this section.

(4) For purposes of this subsection, the term "interoperability" means the ability of computer programs to exchange information, and of such programs mutually to use the information which has been exchanged.

addressed these four doctrines and the underlying issues — the injunction issued in *Lexmark* by the District Court of the Eastern District of Kentucky.

In granting the preliminary injunction, Chief Judge Forester made several findings. First, Lexmark is the owner of copyrights on both the toner loading and printer engine programs.²⁰ Second, the toner loading program contains protectable creative expression because of the creative choices made by Lexmark during its development.²¹ Third, there is a separate authentication sequence — the “technological measure” for DMCA analysis — that consists of communication between the printer and the microchip on the cartridge and that prevents unauthorized functioning of the toner cartridge and access to the programs, but that is separate from the programs.²² Fourth, this separate authentication sequence can run whether or not the toner loading program is on the cartridge microchip, which means that it is possible to operate the toner cartridge without the toner loading program.²³

The court rejected SCC’s “fair use” defense that the toner loading program also functioned as another authentication sequence, secondary to the authentication sequence identified as such by the court.²⁴ If SCC’s argument had been accepted, then the toner loading program may have been a functional element, the copying of which would have been fair use. SCC’s argument was based on the fact that the toner loading program contains a “checksum” process, and if any of the toner loading data is altered without a proper change in the checksum, the cartridge will not function in the printer.²⁵ While acknowledging that “[i]t would be extraordinarily difficult to determine the existence and the location of the checksum value . . . without any contextual information to assist in determining the meaning and significance of the bytes on the microchips,”²⁶ the court focused on the fact that “[c]hecksum operations are a commonly used technique to ensure

Id.

20. *Lexmark*, 253 F. Supp. 2d at 948–52.

21. *Id.*

22. *Id.* at 947, 952.

23. *See id.* at 952.

24. *Id.* at 953–54.

25. *See id.*; *see also* Memorandum in Opposition to Motion for Preliminary Injunction at 9–12, *Lexmark* (No. 02-571-KSF), available at http://www.eff.org/Cases/Lexmark_v_Static_Controls/20030213-OppositionBrief.pdf. A checksum is a “computed value which depends on the contents of a block of data and which is transmitted or stored along with the data in order to detect corruption of the data. The receiving system recomputes the checksum based upon the received data and compares this value with the one sent with the data. If the two values are the same, the receiver has some confidence that the data was received correctly.” HYPERDICTIONARY, at <http://www.hyperdictionary.com/dictionary/checksum> (last visited Nov. 1, 2003).

26. *Lexmark*, 253 F. Supp. 2d at 954.

data integrity when data is transmitted from one point to another²⁷ in deciding against characterizing the toner loading program as an authentication sequence.²⁸

Table 1: The Court's View of the Software		
COMPONENT	FUNCTION	LEGAL STATUS
Printer engine program	Resides on printer, controls print functions, communicates with cartridge	Copyrighted, copy-rightable expression
Toner loading program	Resides on cartridge, estimates toner level, function of checksum process not access control	Copyrighted, copy-rightable expression, not transformed into an unprotectable functional element through the checksum
Authentication sequence	Prevents unauthorized access	Access control measure, circumvention of which is a violation of 17 U.S.C. § 1201(a)

The court rejected SCC's other defenses on the following bases: First, the reverse engineering exception under § 1201(f) of the DMCA did not apply because the circumvention enabled interoperability not with an independently created computer program, but rather with Lexmark's copyrighted toner loading program.²⁹ Second, SCC's defense of copyright misuse failed because SCC presented no basis for an antitrust violation by Lexmark.³⁰ Third, SCC's argument that Lex-

27. *Id.* at 953.

28. *See id.* at 950. Whether or not the toner loading program is an authentication sequence matters because under *Sega Enters. Ltd. v. Accolade, Inc.*, 977 F.2d 1510 (9th Cir. 1992), it is fair use to copy an authentication sequence that serves to prevent interoperability.

29. *See Lexmark*, 253 F. Supp. 2d at 970–71; *see also supra* note 19 (discussing the independent creation requirement).

30. "To establish copyright misuse, a defendant must establish either '(1) that [the plaintiff] violated the antitrust laws, or (2) that [the plaintiff] illegally extended its monopoly beyond the scope of the copyright or violated the public policies underlying the copyright laws.'" *Lexmark*, 253 F. Supp. 2d at 966 (alterations in original) (quoting *Microsoft Corp. v. Compuserve Distributions, Inc.*, 115 F. Supp. 2d 800, 811 (E.D. Mich. 2000)). In rejecting SCC's defense, the court noted that it was virtually identical to the defense rejected by the court in *Sony Computer Entertainment America, Inc. v. GameMasters*, 87 F. Supp. 2d 976 (N.D. Cal. 1999) (finding no misuse where plaintiff's complaint was a sound construction of

mark's position was environmentally unsound was unconvincing because Lexmark has a remanufacturing program for "all of its used . . . cartridges."³¹ Fourth, SCC's consumer welfare argument failed because of the court's lack of sympathy for consumers who wanted to have their cartridges refilled by a third-party remanufacturer despite having previously received an upfront discount conditioned on returning used cartridges to Lexmark.³²

Having rejected SCC's defenses, the court found the issuance of a preliminary injunction to be proper based on Lexmark's copyright infringement and DMCA claims.³³ Regarding infringement, SCC admitted that on its replacement microchips it copied Lexmark's toner loading program and inserted a program that circumvented Lexmark's authentication sequence.³⁴ Because of the finding that the toner loading program was not an authentication sequence, the court determined that this copying likely constituted infringement as it "went beyond that which was necessary for compatibility because SCC could have achieved a valid authentication sequence and a valid checksum operation without engaging in the verbatim copying" of the programs.³⁵ In other words, SCC could have written its own version of the nonessential components.

With respect to Lexmark's DMCA claim, the court found a preliminary injunction warranted under all three tests for liability in § 1201(a)(2) as SCC's microchips (1) were designed to circumvent

the DMCA). *GameMasters* is a poor precedent, however, because (1) the court did not consider whether the DMCA was intended to change the result in *Sega*; and (2) the case settled after the preliminary injunction issued, so the issue was not fully explored. *See infra* text accompanying note 43.

31. *Lexmark*, 253 F. Supp. 2d at 972. That Lexmark's return program is as good for the environment as third-party remanufacturing was disputed by SCC and the amicus environmental groups. Remanufacturing is more environmentally friendly than recycling, and in the United States Lexmark only remanufactured and sold 1,872,000 of the 3,127,209 cartridges that were returned to it from 1997, when it began offering a discount in return for an agreement to return the cartridge, until April 2003, when the information was provided. *See* Letter from Ralph Oman, Dechert LLP, to David O. Carson, General Counsel, Copyright Office 14–15 (Aug. 11, 2003), available at <http://www.copyright.gov/1201/2003/post-hearing/lexmark.pdf>. It is unclear what particular legal significance could be imported to the SCC's environmental argument even if the court had accepted it.

32. *See Lexmark*, 253 F. Supp. 2d at 973.

33. *See id.* at 974. "In considering Lexmark's Motion for a Preliminary Injunction, four factors [were] considered: (1) Lexmark's likelihood of success on the merits; (2) whether Lexmark [would] suffer irreparable harm if the injunction is not issued; (3) the public interest; and (4) the possibility of substantial harm to others." *Id.* at 957 (citing *Forry, Inc. v. Neundorfer, Inc.*, 837 F.2d 259, 262 (6th Cir. 1988)).

34. *See Lexmark*, 253 F. Supp. 2d at 955.

35. *See id.* at 960. Copying more than what was necessary for compatibility means that the copying was not limited to the unprotectable functional elements. *See supra* note 28 and accompanying text.

Lexmark's authentication sequence, (2) had limited purpose other than to do so, and (3) were marketed for that purpose.³⁶

The court's finding that SCC's copying of the program likely constituted infringement because the toner loading program was not technically required for interoperation is questionable as the court failed to correctly apply the appropriate legal standard in finding that the toner loading program did not function as an authentication sequence. The court noted that SCC's copying of the toner program was not absolutely necessary for interoperability because the cartridge would work with no toner loading program at all, *provided there is an understanding of the checksum process*.³⁷ However, the court also determined that the existence and location of the checksum process were extremely difficult to determine.³⁸ Therefore, although the court was correct in that theoretically SCC could replace the toner loading program with another simple program or no program at all, the absolute necessity of and practical difficulties in gaining an understanding of the checksum process make replacing the program realistically impossible. Lexmark itself has indicated that it does not expect that anyone will do so, presumably because the checksum process is so well hidden.³⁹ As a result, while the toner loading program is conceptually severable from the functioning of the cartridge, it is not severable in practice.

Similar to the holding in *Sega Enterprises Ltd. v. Accolade, Inc.*, the high level of difficulty in separating the expressive content of the toner loading program from its intertwined checksum function should have led to a finding that because copying content is strictly necessary

36. Digital Millennium Copyright Act, 17 U.S.C. § 1201(a)(2) (2003) states:

No person shall manufacture, import, offer to the public, provide, or otherwise traffic in any technology, product, service, device, component, or part thereof, that —

(A) is primarily designed or produced for the purpose of circumventing a technological measure that effectively controls access to a work protected under this title;

(B) has only limited commercially significant purpose or use other than to circumvent a technological measure that effectively controls access to a work protected under this title; or

(C) is marketed by that person or another acting in concert with that person with that person's knowledge for use in circumventing a technological measure that effectively controls access to a work protected under this title.

Id.

37. *See Lexmark*, 253 F. Supp. 2d. at 954, 960.

38. *See id.* at 950–54.

39. *See* Letter from Ralph Oman, Dechert LLP, to David O. Carson, General Counsel, Copyright Office 16 (Aug. 11, 2003), available at <http://www.copyright.gov/1201/2003/post-hearing/lexmark.pdf>.

for functioning, such copying is not infringement.⁴⁰ In an attempt to prove that the functional component and expressive components of Accolade's code were separable, Sega introduced evidence at trial of actual non-copying workarounds, created by a Sega engineer, of the code in question in that case.⁴¹ The Ninth Circuit rejected the sufficiency of the evidence introduced by Sega and held that in addition to demonstration of the actual possibility of a non-copying solution, "[w]hat is also needed is proof that knowledge of the alternate method exists or is readily available to knowledgeable persons in the industry."⁴² Following *Sega's* example of analysis of the practical, and given the extreme difficulty in separating the toner loading program from the checksum process, the court in *Lexmark* should have treated the toner loading program as necessary for functioning and thus SCC's copying of the program as fair use.

Though the court incorrectly rejected SCC's fair use defense, if we assume *arguendo* that the infringement holding *was* correct, then the court reached the proper result on the DMCA claim. If, hypothetically, it were practically possible to substitute another program or no program, then the court would have been correct in determining that the toner loading program is not necessary for functioning, and SCC's copying of the toner loading program would be infringement. Because § 1201(f) of the DMCA allows circumvention in order to facilitate interoperation only with an independently created computer program, it cannot apply where the interoperating program infringes copyright, as a finding of infringement precludes a finding that the program was independently created. Therefore, SCC would also be in violation of § 1201(a) of the DMCA because its microchip did circumvent a technological measure that controlled access to a copyrighted program.

A more troubling question is whether SCC would have violated the DMCA even if the court, following *Sega*, had accepted SCC's fair use defense. While the copying would be allowed under traditional copyright law, the copied software might still not be an independently created program, and would therefore not qualify for the § 1201(f) exemption. The DMCA does not contain an explicit exception for circumvention for purposes of fair use; indeed, this has been a central complaint of the DMCA's critics.⁴³ However, an argument could be

40. 977 F.2d 1510 (9th Cir. 1992). The *Sega* court's holding that there was no infringement in such circumstances was based on fair use. However, the court in also noted that *Sega's* code was so short that it was probably unprotected under the words and short phrases doctrine. *See id.* at 1521–27. In *Lexmark*, the court already made a preliminary finding of copyrightability of the toner loading program, but failed to conduct this analysis in light of the program's necessity for interoperability. *See* 253 F. Supp. 2d. at 958.

41. *See id.* at 1531.

42. *Id.*

43. *See, e.g.*, Electronic Frontier Foundation, *Unintended Consequences: Five Years Under the DMCA* (Sept. 24, 2003), at http://www.eff.org/IP/DRM/DMCA/20031003_

made based on the “work protected under this title” language of DMCA § 1201(a) that DMCA liability will not attach if the circumvention is aimed at enabling fair use, because copyright does not “protect” copyrighted work against fair use.⁴⁴ While this interpretation might be applauded by DMCA skeptics, it has not yet been adopted by a court considering the issue.

Notwithstanding the accuracy of the court’s determination on the question of fair use, the court too quickly dismissed SCC’s defense of copyright misuse.⁴⁵ As related by Chief Judge Forester: “To establish copyright misuse, a defendant must establish either ‘(1) that [the plaintiff] violated the antitrust laws, or (2) that [the plaintiff] illegally extended its monopoly beyond the scope of the copyright or violated the public policies underlying the copyright laws.’”⁴⁶ However, in dismissing SCC’s argument because it presented no basis for an anti-trust violation, and in presuming that any enforcement of a valid copyright is not misuse, Chief Judge Forester read the second prong out of the definition of misuse.⁴⁷

In the course of hearing copyright cases, courts must routinely determine what is beyond the scope of copyright from a subject matter perspective, but it is harder to determine when the use of a valid copyright effectively extends the monopoly beyond copyright or violates public policies underlying the copyright laws. Chief Judge Forester sought to avoid making this determination by expressing his ostensibly role-appropriate judicial reluctance to impute policy intent to

unintended_cons.php. The counterargument is that the DMCA, which establishes a regime governing technological control measures and countermeasures, would devolve back into the basic copyright law, with liability based on the substantive use of the material in addition to circumvention of access controls.

44. See *supra* note 36.

45. Indeed, a commentator has seen this case as a paradigmatic abuse of copyright and anticircumvention law because of Lexmark’s clear intention to use copyright to control the market for a durable good. See Dan L. Burk, *Anticircumvention Misuse*, 50 UCLA L. REV. 1095, 1100 (2003) (“Yet this claim has nothing to do with the pirating of music or other copyrighted content; rather, it is a fairly naked attempt to suppress competition in the market for printer ink cartridges.”). While Professor Burk is correct in characterizing Lexmark’s conduct as an attempt to suppress competition, the conduct does have something to do with the pirating of copyrighted content, because it is the forced copying of the toner loading program that allowed Lexmark to bring this case into the realm of copyright and anticircumvention law. The defense of copyright misuse is fairly new; it was first recognized in 1990 in *Lasercomb America, Inc. v. Reynolds*, 911 F.2d 970 (4th Cir. 1990) (holding that misuse existed where a software licensing agreement prevented licensee from participating in the creation of a class of software). See generally 4-13 NIMMER ON COPYRIGHT § 13.09 (2003).

46. *Lexmark Int’l, Inc. v. Static Control Components, Inc.*, 253 F. Supp. 2d 943, 966 (E.D. Ky. 2003) (alterations in original) (quoting *Microsoft Corp. v. Compuserve Distributions, Inc.*, 115 F. Supp. 2d 800, 811 (E.D. Mich. 2000)).

47. See *Lexmark*, 253 F. Supp. 2d at 966.

Congress contrary to the clear meaning of the statute.⁴⁸ According to this argument, if the law says on its face that Lexmark is entitled to a copyright remedy, there is a strong argument for not reading into the statute a copyright misuse defense. While phrased in terms of judicial restraint, Chief Judge Forester's elimination of the second prong of the test actually upsets the existing congressional balance.

Properly applied, the second prong of the test suggests that a finding of copyright misuse is warranted in this case. Copyright law authorizes monopolies in (1) literary works; (2) musical works, including any accompanying words; (3) dramatic works, including any accompanying music; (4) pantomimes and choreographic works; (5) pictorial, graphic and sculptural works; (6) motion pictures and other audiovisual works; (7) sound recordings; and (8) architectural works.⁴⁹ It does not authorize monopolies in refills of toner cartridges. Leveraging a legitimate copyright over a software program to obtain a monopoly in ink refills for a class of toner cartridges extends the monopoly beyond the scope of copyright.

To hold in this case that Lexmark's conduct constitutes copyright misuse does not require trolling the depths of the legislative history or squinting at the hazy outlines of congressional intent. There is ample authority for the proposition that "interpretations of a statute which would produce absurd results are to be avoided if alternative interpretations consistent with the legislative purpose are available."⁵⁰ Absurdity exists here because a would-be competitor in the toner market is precluded from competing based on Lexmark's inclusion of a 37–55-byte toner loading program on the cartridge. Though Lexmark is ostensibly seeking to protect content, allowing it to do so is creating a situation where a would-be competitor, who would be just as happy to use its own content or absolutely no content,⁵¹ is prevented from doing so. As a result any such firm is also prevented from competing in the toner market by Lexmark's intertwining of the content with functional measures. Preventing SCC from making toner cartridges inter-

48. "When a statute is unambiguous, resort to legislative history and policy considerations is improper." The plain meaning of the DMCA is clear and it would be inappropriate for the Court to consider the legislative history in an effort to determine the 'true' congressional intent." *Lexmark*, 253 F. Supp. 2d at 967 (citations omitted).

49. 17 U.S.C. § 102 (2003).

50. *Griffin v. Oceanic Contractors, Inc.*, 458 U.S. 564, 575 (1982); *see also* *Great-West Life & Annuity Ins. Co. v. Knudson*, 534 U.S. 204, 217 (2002) ("It is, however, not our job to find reasons for what Congress has plainly done; and it is our job to avoid rendering what Congress has plainly done . . . devoid of reason and effect."); *Hagar Co. v. Helvering*, 308 U.S. 389, 394 (1940) ("All statutes must be construed in the light of their purpose. A literal reading of them which would lead to absurd results is to be avoided when they can be given a reasonable application consistent with their words and with the legislative purpose.").

51. Recall the finding that given a proper understanding of the checksum process, the cartridge would function with no toner loading program. *See Lexmark*, 253 F. Supp. 2d at 954, 960.

operable where SCC has no interest in and would like to avoid copying Lexmark's toner program is extending Lexmark's monopoly beyond the scope of copyright into the non-copyrightable toner market.

A finding of copyright misuse here would be consistent with the precedent of *Alcatel USA, Inc. v. DGI Technologies, Inc.*, in which the Fifth Circuit held that a manufacturer of telephone switching equipment was using the enforcement of the copyright on software inside of microprocessor cards to prevent competitors from developing compatible microprocessor cards.⁵² Because the plaintiff was using its copyright in the software to obtain a monopoly in the uncopyrighted hardware, the court held that the copyright misuse defense was applicable.⁵³

Chief Judge Forester's analysis of Lexmark's copyright claim leaves room for an interpretation under which Lexmark may use the copyright laws to prevent remanufacture of its toner cartridges. The defense of copyright misuse exists precisely to bar such an interpretation from becoming the law. The reason that the defense is young is that it has only recently become feasible to implement the technology required to make interoperability-preventing systems like Lexmark's cost effective. If the practice is allowed here, it may be replicated elsewhere.⁵⁴

Though copyright law should preclude Lexmark's aim, there are some policy arguments in support of Lexmark's position that SCC should be barred from manufacturing the microchips at issue in this case. For instance, a reliance argument can cut in Lexmark's favor, as the company sells both discounted non-reusable cartridges and non-discounted reusable cartridges, and customers know up-front what they are getting.⁵⁵ Indeed, there is a contractual agreement between

52. 166 F.3d 772, 794–95 (5th Cir. 1999) (“Despite the presence of some evidence . . . that DGI could have developed its own software, there was also evidence that it was not technically feasible to use a non-[Alcatel] operating system because the switch has a ‘common control’ scheme in which each microprocessor card in a network of such cards runs the same operating system. Hence, without the freedom to test its cards in conjunction with [Alcatel’s] software, DGI was effectively prevented from developing its product, thereby securing for [Alcatel] a limited monopoly over its uncopyrighted microprocessor cards.”).

53. *See id.*

54. For example, the two amicus briefs submitted by the automotive aftermarket industry groups evidence concern that automobile manufacturers could adopt this technology to prevent aftermarket manufacturers from making replacement parts for automobiles. *See* Automotive Aftermarket Industry Association Amicus Brief, *Lexmark Int’l, Inc. v. Static Control Components, Inc.*, 253 F. Supp. 2d 943 (E.D. Ky. 2003) (No. 02-571-KSF), *available at* http://www.eff.org/Cases/Lexmark_v_Static_Controls/AAIA_Automotive_AftermarketIndustryAssociation.pdf; Automotive Parts Rebuilders Association Amicus Brief, *Lexmark* (No. 02-571-KSF), *available at* http://www.eff.org/Cases/Lexmark_v_Static_Controls/APRA_AutomotivePartsRebuildersAssociations.pdf.

55. *Cf.* Constance E. Bagley and Gavin Clarkson, *Adverse Possession for Intellectual Property: Adapting an Ancient Concept to Resolve Conflicts Between Antitrust and Intellectual Property Laws in the Information Age*, 16 HARV. J.L. & TECH. 327 (2003) (arguing that

Lexmark and the purchasers of its discounted cartridges. Although Lexmark has not chosen to enforce the contract with its customers, it could attempt to do so. Therefore, Lexmark should arguably be able to enforce these contracts circuitously, through copyright, against third-party remanufacturers.

This contractual dynamic is reflected in Chief Judge Forester's expressed lack of sympathy for how this injunction will adversely affect the customers who accepted the reduced price cartridge in return for the non-reusability.⁵⁶ However, the injunction issued against SCC, not the customers. The court may also have been exhibiting a lack of sympathy for SCC, which is clearly aware that its microchip sales are dependent on customers breaching their obligation to return used reduced price cartridges to Lexmark.

Regardless of the propriety of SCC taking advantage of the disloyalty of Lexmark's customers, Lexmark should not be able to protect its contractual interests with its customers through technological measures that exceed the scope of copyright law. In fact, Lexmark developed the technological measure at issue precisely because contractual terms were insufficient to shut down the remanufacturing aftermarket since suits against customers probably would have been detrimental to Lexmark's interests.⁵⁷ Without some valid legal explanation to legitimize Lexmark's attempt to monopolize the remanufacturer market through the use of copyright law, there is no tenable reason to hold SCC accountable for the damage caused to Lexmark by disloyal customers.

Another policy argument in favor of Lexmark's position is the company's legitimate reputational and service-related interests in the performance of its products in the marketplace. If remanufactured cartridges cause malfunctions that require service under Lexmark's warranty obligations, Lexmark may bear unfair costs. The company could combat this concern by refusing to service printers that have used remanufactured cartridges, but this may be hard for Lexmark to detect. Similarly, if third-party remanufacturers do a poor job, the poor performance of a toner cartridge may reflect on Lexmark, thereby driving customers away. On the other hand, it seems likely that customers generally know when they purchase a remanufactured

where companies initially allow an independent aftermarket in a product, they should not be allowed to extinguish that aftermarket, because of customers' reliance interest in the lower cost of ownership in a product with independent aftermarket compared to one in which the manufacturer controls all post-sale costs).

56. See *Lexmark*, 253 F. Supp. 2d at 973.

57. Cf. G. Richard Shell, *Suing Your Customers: A Winning Business Strategy?*, KNOWLEDGE@WHARTON (Oct. 22, 2003), at <http://knowledge.wharton.upenn.edu/index.cfm?fa=viewArticle&id=863> (arguing that the recording industry's recent decision to sue individual file sharers is bad for business).

cartridge that it is not from Lexmark and also understand that they are paying a lower price for what may be a lower quality cartridge. Therefore, poor performance might not be imputed to Lexmark.

While Lexmark's concerns are indeed real business problems, once a company's actions are out of the domain of the permitted monopoly of copyright, business practices must conform to the antitrust laws, and arrangements that restrict the aftermarket for purported reasons of quality-control have been found to violate § 3 of the Clayton Act.⁵⁸ Perhaps Lexmark could obtain a special antitrust exemption from Congress by making the case that its policy arguments should trump the concerns that motivated the Clayton Act. The policy arguments are serious, and there should be serious analysis of whether the business climate has changed in a manner that warrants a change in the antitrust regime. An analysis of that argument is beyond the scope of this note. Well within its scope, on the other hand, is the conclusion that copyright should continue to protect the content of, for example, the *Harvard Journal of Law and Technology*, and not the aftermarket for the paper on which it is printed.

58. *See, e.g.*, *Int'l Salt Co. v. United States*, 332 U.S. 392 (1947) (holding that salt machine leases that required the lessees to purchase the salt from the manufacturer were illegal even though the contract specified that the price would be the market price); *IBM Corp. v. United States*, 298 U.S. 131 (1936) (holding illegal a lease that required punch card machine lessees to purchase their blank cards from the manufacturer). Section 3 of the Clayton Act, 15 U.S.C. § 14 (2003), states that:

It shall be unlawful for any person engaged in commerce, in the course of such commerce, to lease or make a sale or contract for sale of goods, wares, merchandise, machinery, supplies, or other commodities, whether patented or unpatented, for use, consumption or resale . . . or fix a price charged therefore, or discount from, or rebate upon, such price, on the condition, agreement or understanding that the lessee or purchaser thereof shall not use or deal in the goods, wares, merchandise, machinery, supplies or other commodities of a competitor or competitors of the lessor or seller, where the effect of such lease, sale, or contract for sale or such condition, agreement or understanding may be to substantially lessen competition or tend to create a monopoly in any line of commerce.