

FIRST DRAFT**Evaluating the Extension of the DMCA to Durable Goods Aftermarkets: *Lexmark International, Inc. v. Static Control Components, Inc. & Chamberlain Group, Inc. v. Skylink Technologies, Inc.***

The advent of the Internet brought with it the specter of digital piracy. Infringers had at their disposal an efficient means for replicating and distributing copyrighted works. Concerned by this prospect, content industries, such as software and movie companies, began protecting their works via encryption and other digital techniques.¹ However, these protective measures were subject to various forms of circumvention.² The content industries thus lobbied Congress to create legal protections for their digital protection measures.³

Congress responded by enacting the Digital Millennium Copyright Act (DMCA)⁴ in 1998. Among other things, this legislation prohibits the circumvention of technological measures that “control[] access to a work protected under” the Copyright Act.⁵ But while this broad language functions as the shield that the content industries desired, unrelated industries have now wielded it as a sword.⁶

In two recent cases, manufacturers of durable goods used the DMCA in an attempt to stifle competition in the aftermarket setting. In *Lexmark International, Inc. v. Static Control Components, Inc.*,⁷ a laser printer manufacturer sued a supplier of toner cartridge refurbishing equipment under the DMCA, seeking an injunction against the defendant’s marketing of a microchip that circumvented a “secret handshake” between authorized toner cartridges and the

¹ See Peter S. Menell, *Envisioning Copyright Law’s Digital Future*, 46 N.Y.L. SCH. L. REV. 63, 134 (2003).

² *Id.*

³ *Id.* at 133.

⁴ Pub. L. No. 105-304, 112 Stat. 2860 (1998) (codified in scattered sections of 5, 17, 28, and 35 U.S.C.).

⁵ 17 U.S.C. § 1201(a)(1)(A) (2002).

⁶ See Dan Burk, *Anticircumvention Misuse*, 50 UCLA L. REV. 1095, 1135-36 (2003).

⁷ 253 F. Supp. 2d 943 (E.D. Ky. 2003).

plaintiff's printers. Similarly, in *Chamberlain Group, Inc. v. Skylink Technologies, Inc.*,⁸ a garage door opener manufacturer invoked the DMCA in an attempt to prevent a competing company from selling replacement transmitters.

This Note explores the legitimacy of this new use of the DMCA. Part I outlines the legal and economic contexts in which these new cases arise. Part II describes the *Lexmark* and *Chamberlain* cases, both of which diverge from the archetypal application of the DMCA. Part III evaluates whether the DMCA should be revised in order to prevent this seemingly unintended result. This Note concludes that such revision is desirable.

I. Background

It is necessary to first describe the DMCA landscape in which the *Lexmark* and *Chamberlain* cases lie in order to demonstrate their apparent incongruity. This section shows that the history of the DMCA, both its road to enactment and subsequent application in the courts, deals almost exclusively with the interests of content industries. These industries create and distribute copyrighted works; thus their interests lie in the works themselves. In contrast, laser printer cartridges and garage door opener transmitters are goods that are marketable independent of any ancillary, copyrighted software – consumers are solely interested in the functionality of these items. As further background, this section concludes with a description of durable goods aftermarkets.

A. Historic Development of the DMCA's Anticircumvention Provisions

In 1993, the Clinton Administration assembled the Information Infrastructure Task Force to contend with the effects digital technology had on intellectual property.⁹ After conducting hearings at which content industries and other interested parties testified, this task force issued

⁸ 2003 WL 22038638 (N.D. Ill. 2003).

⁹ S. REP. NO. 105-190, at 2 (1998).

the White Paper – a report that proposed drastic changes to the Copyright Act.¹⁰ One proposed change, which was chiefly inspired by the motion picture industry,¹¹ would have outlawed copyright infringement-enabling devices.¹² This proposal was prompted by the fear that digital piracy would dissuade content industries from marketing their products over the Internet.¹³ Although the 104th Congress considered the legislative suggestions set forth in the White Paper, it did not pass them into law.¹⁴

Shortly after the White Paper failed domestically, its proposals resurfaced in an international setting. At the 1996 diplomatic conference held by the World Intellectual Property Organization (WIPO) in Geneva, the United States proposed an anticircumvention measure similar to that found in the White Paper: if digital piracy in the U.S. was a concern to national lawmakers, it was just as troubling on a worldwide scale due to the global reach of the Internet.¹⁵ The measure as proposed failed, but less-imposing provisions were adopted in both the WIPO Copyright and WIPO Performances and Phonograms Treaties.¹⁶ These provisions merely required that participating countries “provide adequate legal protection and effective legal

¹⁰ See Pamela Samuelson, *The Copyright Grab* (Jan. 1996), at http://www.wired.com/wired/archive/4.01/white.paper_pr.html (last visited Oct. 27, 2003).

¹¹ See Pamela Samuelson, *The U.S. Digital Agenda at WIPO*, 37 VA. J. INT’L L. 369, 410 (1997).

¹² See INFORMATION INFRASTRUCTURE TASK FORCE WORKING GROUP ON INTELLECTUAL PROPERTY RIGHTS, INTELLECTUAL PROPERTY RIGHTS AND THE NATIONAL INFORMATION INFRASTRUCTURE, app. 1 at 6 (Sept. 1995), available at <http://www.uspto.gov/web/offices/com/doc/ipnii/appena.pdf>. The proposed legislation reads:

No person shall import, manufacture or distribute any device, product, or component incorporated into a device or product, or offer or perform any service, the primary purpose or effect of which is to avoid, bypass, remove, deactivate, or otherwise circumvent, without the authority of the copyright owner or the law, any process, treatment, mechanism or system which prevents or inhibits the violation of any of the exclusive rights of the copyright owner under section 106.

Id.

¹³ *Id.* at 10, available at <http://www.uspto.gov/web/offices/com/doc/ipnii/front.pdf>.

¹⁴ S. REP. NO. 105-190, at 4 (1998).

¹⁵ See Samuelson, *supra* note 11, at 410-14.

¹⁶ See *id.* at 414-15.

remedies against the circumvention of effective technological measures” used to protect copyrighted works.¹⁷

Although U.S. copyright law already provided sufficient protection and remedies to satisfy the low standards adopted in the two WIPO treaties, the Clinton Administration submitted an extensive draft legislation under the premise of ratifying the treaties.¹⁸ The legislation included anticircumvention provisions similar to those proposed in the White Paper.¹⁹ After conducting hearings at which content industries again testified and exerted great influence, Congress revised the draft legislation and eventually enacted it as the DMCA.²⁰ This time, the anticircumvention provisions survived. All legislative history of the DMCA indicates that Congress’s purpose in enacting these provisions was to protect content owners, such as movie studios, book publishers, and recording agencies, from digital piracy.²¹

B. Anticircumvention Under the DMCA

Congress composed the anticircumvention measures of the DMCA as a set of blanket prohibitions tempered by several narrow exceptions. The primary prohibition set forth in § 1201 is against the act of circumventing “a technological measure that effectively controls access to a work protected under [the Copyright Act].”²² This prohibition creates a new right in a copyrighted work: the right of access.²³ In explaining this right, Congress adopted the analogy of breaking into a locked room to obtain a copy of a book; it is the act of breaking in that is

¹⁷ WIPO Copyright Treaty, art. 11, adopted Dec. 20, 1996, at <http://www.wipo.int/clea/docs/en/wo/wo033en.htm>; WIPO Performances and Phonograms Treaty, art. 18, adopted Dec. 20, 1996, at <http://www.wipo.int/clea/docs/en/wo/wo034en.htm>.

¹⁸ See, e.g., Burk, *supra* note 6, at 1103; Pamela Samuelson, *Intellectual Property and the Digital Economy: Why the Anti-Circumvention Regulations Need to Be Revised*, 14 BERKELEY TECH. L.J. 519, 530-32 (1999).

¹⁹ See Samuelson, *supra* note 18, at 531-34.

²⁰ *Id.*

²¹ See *infra* Part III.A.

²² 17 U.S.C. § 1201(a)(1)(A) (2000).

²³ See Jane C. Ginsburg, *Copyright Legislation for the “Digital Millennium”*, 23 COLUM.-VLA J.L. & ARTS 137, 140-43 (1999).

prohibited.²⁴ As this right is independent of the rights that inhere in the copyrighted work itself, some have dubbed it “paracopyright.”²⁵

The language of this first prohibition is further defined within the statute itself: “to ‘circumvent a technological measure’ means to descramble a scrambled work, to decrypt an encrypted work, or otherwise to avoid, bypass, remove, deactivate, or impair a technological measure without the authority of the copyright owner.”²⁶ A clarification of what is meant for a technological measure to “effectively control[] access to a work” is also provided,²⁷ but the Act is silent on the meaning of the crucial word in the provision: “access.”²⁸

The DMCA further prohibits the trafficking of tools used to circumvent two different classes of technological measures: those that control access to a copyrighted work (i.e., those that protect paracopyright), and those that protect “a right of a copyright,” such as the right to reproduce or distribute.²⁹ An example of the two types of tools prohibited by these provisions would be, respectively, those that give users access to a password-protected file and those that defeat the “copy-protection” features on second generation music CDs.³⁰ In either case, the Act dictates that “[n]o person shall manufacture, import, offer to the public, provide, or otherwise traffic in any technology, product, service, device, component, or part thereof” that “is primarily designed or produced for the purpose of circumventing,” “has only limited commercially

²⁴ See H.R. REP. NO. 105-551, pt. 1, at 17 (1998).

²⁵ See 3 NIMMER ON COPYRIGHT § 12A.18[B], at 12A-186 (2002).

²⁶ 17 U.S.C. § 1201(a)(2)(A) (2000).

²⁷ *Id.* § 1201(a)(2)(B).

²⁸ See *Lexmark Int’l, Inc. v. Static Control Components, Inc.*, 253 F. Supp. 2d 943, 967 (E.D. Ky. 2003); JESSICA LITMAN, DIGITAL COPYRIGHT 144 (2001).

²⁹ 17 U.S.C. § 1201(a)(2), (b) (2000).

³⁰ See ELECTRONIC FRONTIER FOUNDATION, UNINTENDED CONSEQUENCES: FIVE YEARS UNDER THE DMCA 2 (Sept. 24, 2003), at http://www.eff.org/IP/DRM/DMCA/unintended_consequences.pdf.

significant purpose or use other than to circumvent,” or is marketed for circumventing a technological protection measure.³¹

The exceptions to these broad prohibitions are highly specific, and even vary between the access and anti-trafficking prohibitions.³² In general, there are limited exceptions for libraries and law enforcement agencies, for reverse engineering, encryption research, and security testing activities, and for the protection of both minors and personal privacy.³³ Furthermore, the DMCA instructs the Librarian of Congress to periodically conduct rulemaking proceedings to determine which legitimate activities are adversely affected by the access prohibition set forth in § 1201(a)(1)(A).³⁴

C. Representative Cases

Only a few cases have interpreted the anticircumvention provisions of the DMCA since its enactment in 1998. However, all such cases prior to *Lexmark* involved content industries, and were thus the type of case contemplated by Congress when enacting the DMCA. Several of these cases are briefly outlined here.

In *Universal Studios, Inc. v. Corley*,³⁵ a group of eight motion picture studios sought to enjoin Internet web site owners from posting a computer program known as DeCSS.³⁶ This program circumvented CSS, which is the encryption system that protects digital versatile disks (DVDs).³⁷ The studios were concerned that DeCSS opened the way for digital pirates to make and distribute unauthorized copies of their movies over the Internet.³⁸ The Second Circuit

³¹ 17 U.S.C. § 1201(a)(2), (b) (2000).

³² See Burk, *supra* note 6, at 1104-05.

³³ 17 U.S.C. § 1201(d)-(j).

³⁴ *Id.* at § 1201(a)(1)(C)-(E).

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upheld an injunction based on the legal finding that DeCSS violated the anti-trafficking provisions of the DMCA.³⁹

*United States v. Elcom Ltd.*⁴⁰ represented the first criminal case brought under the DMCA pursuant to § 1204.⁴¹ ElcomSoft, the defendant company, marketed software used for removing copying and distribution restrictions from digitally formatted books.⁴² The government contended that the marketing of such software violated the anti-trafficking provision in § 1201(b) of the DMCA.⁴³ Many saw this as a prime example of the type of case for which the DMCA was enacted.⁴⁴ Nonetheless, a jury ultimately acquitted the defendant.⁴⁵

In *RealNetworks, Inc. v. Streambox, Inc.*,⁴⁶ the plaintiff offered software to consumers that enabled Internet streaming of audio and video files encoded in a special digital format.⁴⁷ Defendants marketed software that bypassed a “Secret Handshake” authentication sequence required for accessing these files, and further permitted users to make unauthorized copies of the files.⁴⁸ The court determined that the plaintiff was likely to prevail under both of the anti-trafficking provisions of the DMCA.⁴⁹

D. Durable Goods Aftermarkets

Many durable goods manufacturers are dependant on the aftermarkets of their products to turn a profit, and are thus highly protective of these markets.⁵⁰ Durable goods are products that

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are usable for a relatively long time, such as machinery, automobiles, or household appliances.⁵¹ Aftermarkets are markets for goods or services used in connection with durable goods, but purchased after the initial investment in the good itself.⁵² Manufacturers of durable goods evaluate not only the initial sales of a product, but also to the aftermarket of that product when determining its pricing and profitability; their focus is on the full lifecycle of the product.⁵³

As a result, manufacturers often sell a primary product, such as a laser printer, at or below cost, but inflate the prices of aftermarket goods, such as ink cartridges.⁵⁴ Because these manufacturers wish to exclude rival companies from driving down aftermarket prices, they often employ anticompetitive measures to do so; thus antitrust and intellectual property monopoly rights disputes arise frequently in the context of durable goods aftermarkets.⁵⁵ It is thus unsurprising that durable goods manufacturers would exercise the new rights granted under the DMCA in an attempt to stifle aftermarket competition.

II. Cases Extending the DMCA

From the inception of the DMCA, commentators anticipated that the broadly worded provisions would be used anticompetitively by those for whom the provisions were unintended.⁵⁶ Although the initial cases brought under the DMCA did not fulfill this prediction, two such cases were eventually filed.

A. Lexmark International, Inc. v. Static Control Components, Inc.

1. Background

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Lexmark International, Inc. (“Lexmark”) is a major competitor in the laser printer industry.⁵⁷ In 1997, Lexmark instituted a new marketing strategy known as the Prebate program whereby consumers could obtain an up-front rebate on laser printer toner cartridges by agreeing to return used cartridges to Lexmark for remanufacturing.⁵⁸ In order to ensure consumer compliance with the terms of this agreement, Lexmark began installing microchips on Prebate cartridges that would cause printers to malfunction when the cartridges were refurbished by someone other than Lexmark.⁵⁹

In early 2001, Lexmark introduced a new line of microchips for Prebate cartridges used in its T520/522 and T620/622 printers. These chips contained copyrighted software known as the Toner Loading Program that monitored the amount of toner remaining in a cartridge. The printers themselves contained copyrighted software known as the Printer Engine Program that controlled various printer operations, such as paper movement and motor control. The functioning of either program first required the successful completion of an authentication sequence between the microchips and printers.

Static Control Components, Inc. (“SCC”) manufactures, among other things, microchips and component parts for refurbished toner cartridges. By October of 2002, SCC had developed the Smartek microchip for use with remanufactured Prebate cartridges.⁶⁰ This microchip mimicked the authentication sequence to allow interoperability between Lexmark printers and Prebate cartridges refurbished by unauthorized parties.⁶¹ Although SCC had independently

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reverse engineered and determined how to bypass the authentication sequence, it unknowingly made wholesale copies of the Toner Loading Program on its Smartek chips.⁶²

On December 30, 2002, Lexmark brought suit and moved for a preliminary injunction against SCC. Lexmark claimed that SCC's Smartek chips infringed its copyright in the Toner Loading Programs, and that distribution of the chips violated the § 1201(a)(2) anti-trafficking provision of the DMCA. The court held an evidentiary hearing on the motion on February 7, 2003, and issued the requested injunction on February 27, 2003.

2. Analysis

The district court first concluded that Lexmark's claim to copyright infringement was likely to prevail on the merits. Prior to filing suit, Lexmark had obtained Certificates of Registration from the Register of Copyrights for its Toner Loading Program. This constituted *prima facie* evidence of copyright validity which SCC was unable to rebut. The finding of validity, coupled with SCC's admission that it had made wholesale copies of the program on its Smartek chips, led to the court's ruling of infringement. SCC raised the defense of copyright misuse, contesting Lexmark's use of copyright to secure an exclusive right in the aftermarket for durable goods that was not expressly granted by copyright law. But the court rejected this defense, holding that copyright law *does* provide for such rights under the DMCA.

The court then determined that Lexmark's claims under the DMCA were also likely to prevail on the merits. The court began its interpretation of the Act by stating that the plain meaning of its statutory language is clear and therefore any appeal to the legislative history would be inappropriate. After quoting the § 1201(a)(2) anti-trafficking provision and its accompanying definitions provided in § 1201(a)(3)(A)-(B), the court noted that the term

“access” is nowhere defined in the statute and thus the customary, dictionary meaning of the term would apply, namely, the “ability to enter, to obtain, or to make use of.”

Thus interpreting the statute in a strictly textual manner, the court concluded that the Smartek microchips violated each of the three alternative tests for liability under § 1201(a)(2) with respect to both the Toner Loading and Printer Engine Programs. The court determined that the authentication sequence constituted a “‘technological measure’ that ‘controls access’ to a copyrighted work.” Indeed, the sequence “controls access” to two different copyrighted works because a proper authentication sequence is necessary for a printer owner to “make use of” both the Toner Loading and Printer Engine Programs. The court emphasized that the access provided by Smartek chips to both programs was without Lexmark’s authority. The Smartek chips thus violated § 1201(a)(2) in its entirety because SCC specifically developed them to circumvent the authentication sequence, because they had no commercial purpose other than such circumvention, and because SCC marketed them for their ability to circumvent.

Turning to SCC’s defenses, the court again remarked that the clarity of the language of the DMCA prevented any consideration of the congressional intent behind the Act. The court rejected SCC’s assertion that the drafters of the DMCA were only concerned with digital piracy, and thus had not intended such an expansive application of the statute. According to the court, the § 1201(b) ban on tools used to infringe copyrights is sufficient for the prevention of digital piracy, thus SCC’s restricted reading of the DMCA would render the ban on tools used for access in § 1201(a)(2) “mere surplusage.” The court further stated that, as drafted, the DMCA is not limited to copyrighted works that have independent market value, such as books, CD’s, and motion pictures. Rather, any work entitled to protection under the Copyright Act is privy to the DMCA’s anticircumvention provisions.

The court concluded that the reverse engineering exception under § 1201(f) did not apply to the Smartek microchips because they contained verbatim copies of the Toner Loading Program. Section 1201(f) permits the marketing of access-circumventing devices “solely for the purpose of enabling interoperability of an independently created computer program with other programs.” Although the Smartek chips contained independently created software that mimicked the authentication sequence, the Toner Loading Program itself was copied, and therefore not “independently created.”

B. Chamberlain Group, Inc. v. Skylink Technologies, Inc.

1. Background

Chamberlain Group, Inc. (“Chamberlain”) is the leading manufacturer of garage door openers (GDOs) in the U.S. GDOs typically consist of a garage-based receiver and a transmitter that emits a fixed digital code to activate the system. Chamberlain developed a new “Security+” line of GDOs that continually alters the activation code – a system known as “rolling code.” In this system, copyrighted software within the transmitter encodes the transmitted signal with both a fixed identification number and a variable number that changes by a factor of three with each use. Copyrighted software within the receiver determines whether the variable portion of a signal falls within an acceptable range of values and, if so, operates the garage door.

2. Analysis

III. Discussion

Application of the DMCA to durable goods aftermarkets raises concerns for the aftermarket industry as a whole. For example, automobile manufacturers could program copyrighted software to lock out “non-authorized” brake shoes, air filters, or other replacement parts, thereby jeopardizing the multi-billion dollar automobile aftermarket industry. This section

explores whether these concerns are legitimate. It first determines that the *Lexmark* court's strict textual approach to the DMCA was improper. However, now that there is precedent for such an interpretation, revisions to the DMCA are in order. Although misuse doctrines and antitrust law may go a long way to prevent further damage to defendants absent any such revision, these safeguards may prove inadequate. This section concludes that Congress should adopt new exceptions to § 1201.

A. Legislative Intent

Although the *Lexmark* court adhered to a strictly textual interpretation of the DMCA based on its “unambiguous” and “clear” language, many copyright scholars would disagree with this characterization of the statute. Pamela Samuelson stated that “the anti-device provisions of the DMCA are highly ambiguous and overbroad, raising questions about whether Congress understood the potential for these provisions to undermine circumvention privileges built into the act-of-circumvention provision.” David Nimmer stated that “without the context that legislative history furnishes, the already impenetrable language of the Digital Millennium Copyright Act would become utterly unfathomable.” Such statements seem to justify an appeal to the legislative history to determine whether Congress intended the DMCA to apply to durable goods aftermarket.

There are, of course, limits to the amount of reliance to be placed on legislative history. This paragraph will provide several dangers in relying on legislative history drawn from the Frickey and Nimmer articles.

Nonetheless, the legislative history strongly indicates that Congress meant to proscribe digital piracy while preserving legitimate competition. This paragraph will give numerous quotes from the legislative history that indicate that the purpose of the anticircumvention

provisions was two-fold – to implement the WIPO Treaties (this paragraph will also explain the impetus behind and policy issues considered in adopting the WIPO anticircumvention provisions, perhaps in a footnote), and to protect U.S. copyrighted works in the digital environment. The anti-circumvention provisions were “drafted carefully to target ‘black boxes’ and to ensure that legitimate multipurpose devices can continue to be made or sold.... This provision is designed to protect copyright owners, and simultaneously allow the development of technology.” The desire to preserve competition is evidenced by the discussion of § 1201(f) – the reverse engineering exception.

B. Misuse

As seen in *Lexmark*, the copyright misuse defense is unlikely to prevail in DMCA cases. It is for this reason a legal scholar has proposed that the equitable misuse defense be extended to the anticircumvention provisions. Misuse applies where the ends to which a right, such as paracopyright, is put exceeds the reasonable grant of the right. Based on the prior evaluation of the legislative intent behind the DMCA, it is apparent that the anticircumvention measures were intended to protect independently marketable copyrighted works. Extending the anti-circumvention measures into the realm of durable goods, where the copyrighted software is only ancillary to a product’s desirability, can be classified as a misuse.

C. Antitrust

Antitrust law may also provide protection against misapplications of the DMCA in the aftermarket realm. The day after the *Lexmark* court issued a preliminary injunction, SCC sued Lexmark for antitrust violations.

1. Eastman Kodak Co. v. Image Technical Services, Inc.

A seminal antitrust case. Factually similar to *Lexmark*. Supreme Court ruled that, even absent a dominant market share for a primary product, a manufacturer could still be liable for monopolistic behavior in the aftermarket of that product. Thus, *Lexmark*, although possessing less than half of the laser printer market share, could be liable. *Chamberlain* could be liable independent of this decision since it possessed over 60% of the market share.

2. *Application*

Although *Kodak* makes it easier for companies like SCC or Skylink to get an antitrust ruling, appeal to antitrust law is still less than ideal. Behavior such as *Lexmark*'s Prebate program is likely not considered noncompetitive since other options are available to consumers. There may not even be consumer outcry – certain studies suggest that as long as the primary market is competitive, consumers will still obtain competitive prices in aftermarkets.

D. Revisions to the DMCA

It would have been desirable for Congress to initially keep the broad bans on circumvention and let the courts carve out exceptions. The fair use defense to copyright infringement began as a common law doctrine, and was only later codified as § 107 of the Copyright Act. However, by adopting specific exceptions, Congress created a presumption that any action not listed in the seven statutory exceptions is a violation of § 1201. Pamela Samuelson suggested that Congress should have included a general purpose “or other legitimate reasons” provision because the seven exceptions built into the statute do not exhaust the legitimate reasons to bypass access controls. Even though no such provision was included, Samuelson anticipated that courts would narrow the provisions, but *Lexmark* has proven otherwise.

Congress did anticipate that certain acts of circumvention not enumerated in the statute would be permissible, and thus provided for rulemaking proceedings. SCC proposed certain exemptions... (describe in detail).

Of course any new exception adopted under the Librarian of Congress rulemaking proceedings will still be insufficient since this only applies to § 1201(a)(1). Even if a certain use is exempt from liability under § 1201(a)(1), a manufacturer would still be precluded from trafficking in a device that falls under the exemption. Thus, new legislation needs to be enacted.

IV. Conclusion