

Before the

**U.S. COPYRIGHT OFFICE
LIBRARY OF CONGRESS**

In the matter of exemption to prohibition on circumvention
of copyright protection systems for access control technologies

Docket No. 2014-07

Submitted on Behalf of Petitioner Institute of Scrap Recycling Industries, Inc.

**Proposed Class 11:
Unlocking—Wireless Telephone Handsets**

Joseph Dollin
Brian Weissenberg
Certified Law Students
Phil Malone
Jef Pearlman
Counsel for Petitioners

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Petitioner Institute of Scrap Recycling, Inc. (“ISRI”) submits this comment in response to the Copyright Office’s Notice of Proposed Rule Making¹ (“NPRM”) in support of Proposed Class 11 and respectfully asks the Librarian of Congress to exempt this class of works from 17 U.S.C. § 1201(a)(1)’s prohibition on the circumvention of access control technologies for the period 2015-2018.

I. Commenter Information

Petitioner ISRI is a Washington, DC-based trade association representing more than 1,600 companies—ranging from small, family-owned businesses to large, multi-national corporations—operating at more than 3,500 facilities in the United States and 34 countries worldwide. ISRI members are manufacturers and processors, brokers, and industrial consumers of scrap commodities, including ferrous and nonferrous metals, paper, electronics, rubber, plastics, glass, and textiles.

The U.S. electronics recycling industry has shown tremendous growth over the past 10 years. This maturing segment of the scrap recycling industry provides a boost of approximately \$19.2 billion, including exports of \$1.45 billion, to the U.S. economy (up from less than \$1 billion in 2002) and employs more than 45,000 full time employees (up from 6,000 in 2002).²In 2011, the U.S. electronics recycling industry processed more than 4.4 million tons of used and end-of-life electronics equipment.³ More than 70 percent of the collected equipment is manufactured into specification grade commodities—including scrap steel, aluminum, copper, lead, circuit boards, plastics, and glass. These valuable commodities are then sold to basic materials manufacturers in the United States and globally as raw material feedstock for new products, such as steel, copper, aluminum, plastic, and glass.

Electronics recyclers also repair, refurbish, and resell (recyclers) functioning electronics equipment as used products into domestic and international markets. Recyclers also provide a number of logistical services, like collection, storage, and transportation, as well as scrubbing hard drives of sensitive personal and commercial data. While only 20-30% of the overall volume of devices received by recyclers is sent for reuse, repair, and remanufacturing, the majority of revenue stems from such use. According to a U.S. International Trade Commission report,⁴ in 2011, the total domestic market was valued at \$19.2 billion with reused technological devices, such as wireless cellphones and tablets, accounting for \$14.9 billion.

The industry is driven not only by cell phones originally purchased by individuals, but also by equipment collected from businesses and commercial interests, comprising up to 75 percent of the market on a volume basis. The electronics recycling industry is poised to meet the anticipated increased demand for more used products and specification grade commodities.

¹ Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies, 79 Fed. Reg. 73,856 (Dec. 12, 2014) (to be codified at 37 C.F.R. pt. 201).

² See *The Scrap Recycling Industry: Electronics*, ISRI, <http://www.isri.org/docs/default-source/commodities/fact-sheet--electronics.pdf?sfvrsn=6> (last visited Feb. 4, 2015).

³ *Id.*

⁴ Used Electronics Products: An Examination of U.S. Exports, Inv. No. 332-528, USITC Pub. 4,379 (February 2013) (Final).

ISRI advocates on behalf of its members on a variety of important issues directly and indirectly impacting the recycling industry in Washington, DC, state capitals across the U.S., and internationally.

Petitioner may be contacted through the above-identified counsel.

II. Proposed Class 11: Unlocking—Wireless Telephone Handsets

*Proposed Class: Computer programs, in the form of firmware or software, that enable wireless telephone handsets to connect to a wireless telecommunications network, when circumvention, including individual and bulk circumvention for used devices, is initiated by the owner of any such handset, by another person at the direction of the owner, or by a provider of a commercial mobile radio service or a commercial mobile data service at the direction of such owner or other person, solely in order to enable such owner, family member of such owner, or subsequent owner or purchaser of such handset to connect to a wireless telecommunications network when such connection is authorized by the operator of such network.*⁵

This copyrighted work sought to be accessed, “computer programs, in the form of firmware or software, that enable wireless mobile devices to connect to a wireless telecommunications network,” is, like other computer programs, a “literary work” under 17 U.S.C. § 102.

III. Overview of Proposed Exemption

Petitioner seeks an exemption to the DMCA’s prohibition against circumvention of technological measures that control access to computer programs that enable wireless devices to connect to wireless communications networks—a process commonly referred to as “unlocking.”⁶ These computer programs can be used, reprogrammed, adapted, or replaced in order to allow the device to connect to the network of a different provider. However, mobile devices typically contain a technological measure that prevents access to these programs and thereby “lock” the device onto an initial provider’s network and prevent it from being connected to another network.

Without a 1201 exemption, owners of mobile devices, including consumers, family members, and legitimate recyclers, refurbishers, and remanufacturers (collectively, “recyclers”) of used devices are substantially adversely affected in their ability to make a variety of noninfringing uses of those devices and the software they contain. Recyclers are unable to engage in noninfringing unlocking of devices for the benefit of consumers who are buying or selling used devices; consumers are denied the ability to use their devices on the network of their choice and denied the full benefit of choosing

⁵ Petitioner notes that several other petitioners have included proposed class definitions. ISRI does not object to these other definitions, as long as it is clear that the final definition includes the features described herein, including permitting bulk unlocking and unlocking of unsubsidized devices.

⁶ This comment seeks an exemption under Proposed Class 11 for wireless telephone handsets. Petitioner is submitting a separate, substantially similar comment for an exemption for all-purpose tablet computers (under Proposed Class 12), given the NPRM’s direction that each comment be limited to discussing one class of works. However, Petitioner believes that the substance of the noninfringing uses, adverse effects, and other components of the requests for exemptions for both categories of devices are substantially similar and could properly be combined in a single class and comment.

or selling used devices; consumers have more difficulty using their devices when they travel; and competition between new and used devices and between networks is reduced.

In each of the last three § 1201 rulemakings, the Register has recommended and the Librarian has approved exemptions for phone unlocking, though each has been increasingly narrow. After public outcry regarding the very limited 2012 exemption, Congress responded by enacting the Unlocking Consumer Choice and Wireless Competition Act (“Unlocking Act”),⁷ which repealed that exemption, substituted the 2010 exemption, and directed the Register to consider proposals for cell phone and other device unlocking as part of this current rulemaking.⁸ The Unlocking Act also specified, and made permanent, that the circumvention it restored, as well as future unlocking exemptions, may be initiated by “the owner of the handset or device, by another person at the direction of the owner, or by a provider of commercial mobile radio or data services to enable such owner or a family member to connect to a wireless network when authorized by the network operator.”⁹

Petitioner’s requested exemption is substantially similar to that specified by Congress in the Unlocking Act. Circumvention “by the owner” of a mobile device or by another “person at the direction of the owner” includes by circumvention by recyclers of used devices, who are themselves lawful owners of those devices. These recyclers engage in individual or bulk circumvention for the purpose of unlocking those devices so they can then be connected to the wireless network chosen by the recycler or by a subsequent owner. To avoid confusion on this point, the proposed class requested in this comment explicitly states that the circumvention permitted includes individual and bulk circumvention of used devices in order to enable the owner, and subsequent owners, to connect to a network of their choice, although Petitioner believes this authority is already fully encompassed by the language of the Unlocking Act.

In response to a 2013 “We The People” petition asking that unlocking be again made legal,¹⁰ the White House concluded that using a mobile device on another network is “common sense, crucial for protecting consumer choice, and important for ensuring we continue to have the vibrant, competitive wireless market that delivers innovative products and solid service to meet consumers’ needs.”¹¹ More importantly, the response stressed that this common sense approach is “*particularly important for secondhand or other mobile devices that you might buy or receive as a gift, and want to activate on the wireless network that meets your needs—even if it isn’t the one on which the device was first activated. All consumers deserve that flexibility.*”¹² Congress, in passing the Unlocking Act, contemplated that the exemption it restored would include bulk unlocking of used devices, with the bill’s House sponsor, Rep. Goodlatte, stating, “this legislation is not intended to

⁷ Pub. L. No. 113-144, 128 Stat. 1751 (Aug. 1, 2014); *see* Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies, 79 Fed. Reg. 55687 (September 17, 2014) [hereinafter NOI] at 55689 n.8 (“Congress enacted the Unlocking Act after public calls for a broader exemption than that provided in the 2012 rule.”).

⁸ Unlocking Act § 2(a); *see* NOI at 55688-89.

⁹ Unlocking Act §§ 2(a), (c); *see* NOI at 55688.

¹⁰ Make Unlocking Cell Phones Legal petition (January 24, 2013), *available at* <https://petitions.whitehouse.gov/petition/make-unlocking-cell-phones-legal/1g9KhZG7>.

¹¹ *Official White House Response to “It’s Time to Legalize Cell Phone Unlocking”*, *available at* <https://petitions.whitehouse.gov/response/its-time-legalize-cell-phone-unlocking>.

¹² *Id.* (emphasis added).

impair unlocking related to . . . *used phones by legitimate recyclers or resellers,*”¹³ and the final version of the Act removing prior language that had appeared to exclude bulk unlocking.¹⁴

IV. Technological Protection Measure and Methods of Circumvention

The Register has recognized in each of the last three rulemakings that computer programs, in the form of software or firmware, that enable wireless devices to connect to a wireless telecommunications network typically are protected by a technological protection measure (“TPM”) or “lock.” Those basic facts have not changed and remain true today. These locks, embedded in the device’s firmware or software, prevent the mobile device owner from gaining access to the settings that control the networks to which the device will connect, thereby preventing the device from being unlocked for the purpose of connecting to a different wireless telecommunications network than the one for which the device was originally used.¹⁵

The wireless telecommunication network providers use various types of locks to restrict the device to the respective network. There are at least four commonly used phone locks:

1. **Service provider code (SPC) lock** is typically used on code division multiple access (CDMA) devices. The SPC is unique to the device and is generated by using the device’s electronic serial number and the carrier’s algorithm. Unless the code is obtained, the user is blocked from programming the device to work on another network.
2. **System operator code (SOC) lock** is assigned to a carrier. Unless the code programmed into the device matches the code of the carrier, the devices remain locked and the code cannot be reprogrammed for use on a different network.
3. **Band order locking** restricts devices to operate on certain frequencies.
4. **Subscriber identity module (SIM) lock** is built into the devices and restricts the devices to only accept certain international mobile subscriber identities (ISMI). ISMIs can be restricted by country code, network code, or device.

The primary purpose of these locks is to keep the wireless device locked to its original carrier and prevent its owner from using it to access alternative, competing carriers’ networks. The specific type of device lock in place does not alter the analysis in this comment; for any device locks protected by a TPM, lawful circumvention is necessary to allow the device’s owner to unlock the device and use it on another carrier.

The NPRM asks commenters also to describe the methods of circumvention to show their nature and basic operation. First, it is important to recognize that while there are multiple ways locked devices may be unlocked, as described below, the circumvention methods remain fundamentally the same for each.

¹³ See 160 Cong. Rec., H1910 (daily ed. Feb. 25, 2014) (colloquy on House floor just before passage of H.R. 1123) (emphasis added).

¹⁴ Unlocking Consumer Choice and Wireless Competition Act, H.R. 1123, 113th Cong. § 2(c)(2) (2014) (“Nothing in this subsection shall be construed in any rulemaking commenced on or after the date of enactment to permit the unlocking of wireless handsets or other wireless devices, for the purpose of bulk resale, . . .”).

¹⁵ See, e.g., Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies, 75 Fed. Reg. 43,825, 43,830 (July 27, 2010) (codified at 37 C.F.R. 201.40) [hereinafter 2010 Final Rule].

Devices may be unlocked without circumvention in several ways: First, a device may be unlocked with a *model*-specific code. By entering this code, a user can access built-in settings that control the network lock and make appropriate changes to disable the lock. This type of unlocking is only available in the less-common case where the device’s operating system has this functionality built in and the codes for a given model are publicly available. Second, devices may be unlocked with a *device*-specific code. This involves the cooperation of the original carrier, as the user must obtain permission to unlock his or her individual device. As discussed in Section VI.B, carriers may apply their own policies (or make arbitrary choices) in deciding whether to grant such permission. Historically, this type of unlocking was performed by the user entering a device-specific unlocking code, obtained from the carrier, into the device itself. More recently, carriers and manufacturers have been shifting to “cloud locks,” in which the device contacts a server, owned by the carrier or manufacturer, which provides the unlocking code directly if and only if approval has been given.¹⁶ For example, most iPhones can be unlocked by connecting the device to iTunes and receiving from Apple (if it so chooses, consistent with its policies) a token to decrypt an encrypted token that controls the lock on the device, thus permitting the user to connect to other networks. Finally, as noted below in Section VII.B, the software on some devices simply does not have the built-in capability to perform carrier unlocking.

At a fundamental level, unlocking *without* using the above methods—which generally require the assistance of (and are subject to interference from) the carrier or manufacturer—is the same for each of the above types of locks: the device owner uses software tools to alter the settings that keep the device restricting to a single carrier. Occasionally, this software does not need to circumvent any TPMs in order to change the device settings. Many phones, however, contain TPMs designed to make it difficult to access these settings without carrier assistance. In these cases, the tools must circumvent these TPMs in order to get access to the locking settings. This can be accomplished in a number of ways.¹⁷ In some cases, external software can circumvent the TPM and directly change the relevant setting or cause the device to run code to change the setting—usually by modifying a variable or replacing a short piece of code. In others, the operating system of the device must be temporarily altered to permit new software to run on the device itself and modify the relevant setting; typically, the software is then returned to its original condition. In either case, the software often must make use of security defects in the device in order to run software or make changes that the carrier and manufacturer have not approved. But it does not matter whether the device would “normally” be unlocked via a device-specific code or cloud-based permissions, or even whether the phone does not come with software to control the locking; for the purposes of § 1201, the circumvention process remains the same.

V. Noninfringing Uses: Unlocking, Including Bulk Unlocking, Does Not Implicate any Copyright Interests, Is a Fair Use Under § 107, and Is Noninfringing Under § 117

¹⁶ Separately, some manufacturers implement “device locks” that prevents access to the entire device, typically if it is lost or stolen or if it is resold without being first unlocked. *See, e.g.*, Find My iPhone Activation lock, <http://support.apple.com/en-us/HT201365>.

¹⁷ Examples of third-party tools include ultraSn0w and Universal Advance Unlocker. *See, e.g.*, Cody Lee, *Ultra Sn0w Update for iOS 6.1*, IDOWNLOADINGBLOG.COM (Feb. 7, 2013), <http://www.idownloadblog.com/2013/02/07/ultrasn0w-updated-for-ios-6>; Informer Technologies Inc., *Universal Advance Unlocker*, SOFTWARE.INFORMER.COM, <http://universal-advance-unlocker.software.informer.com>.

Modifying the software within a mobile device for the purpose of unlocking the device for use on another carrier involves a process that generally does not infringe the copyright in any copyrightable work. Unlocking also qualifies as a noninfringing fair use under 17 U.S.C. § 107. Unlocking also is noninfringing under 17 U.S.C. § 117.

A. Accessing a Device's Firmware to Unlock the Device Does Not Implicate § 106 Rights

As the Register and Librarian determined in previous rulemakings, and Congress effectively concurred in the Unlocking Act, using the software or firmware on a telephone handset to unlock that device does not infringe any rights under 17 U.S.C. § 106, and the purpose of the TPM is to lock consumers into a particular network rather than to protect copyright interests. Thus, modifying the locking software is not a use that infringes or implicates copyright in the first instance. Although Petitioner's comment addresses each of the issues and answers each of the questions specified in the NPRM, we note that the absence of "copyright infringement or . . . an activity that in any way implicates copyright infringement or the interests of the copyright holder"¹⁸ in unlocking should alone constitute sufficient grounds for the proposed exemption without any further showing. Unlocking simply is not a copyright issue and should not be a § 1201 issue.

As the Register correctly recognized in her 2010 recommendation:

[T]he primary purpose of the locks is to keep consumers bound to their existing networks, rather than to protect the rights of copyright owners in their capacity as copyright owners. . . . Because there appear to be no copyright-based reasons why circumvention under these circumstances should not be permitted, the Register recommends that the Librarian designate a class of works similar to the class designated in 2006. The designated classes, both [2006 and 2009], simply reflect a conclusion that *unlocking a mobile phone to be used on another wireless network does not ordinarily constitute copyright infringement and that Section 1201(a)(1), a statute intended to protect copyright interests, should not be used to prevent mobile phone owners from engaging in such noninfringing activity.*¹⁹

The Librarian, in the 2006 Final Rule, reached a similar conclusion about the non-copyright purposes of handset locks, technology protection measures ("TPMs") that have "nothing whatsoever to do with the interests protected by copyright," finding that a user who unlocks a wireless handset to connect is not

engaging in copyright infringement or in an activity that in any way implicates copyright infringement or the interests of the copyright holder [and that] the access controls do not appear to actually be deployed in order to protect the interests of the copyright owner or the value or integrity of the copyrighted work; rather, they are used by wireless carriers to limit the ability of subscribers to switch to other carriers,

¹⁸ Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies, 71 Fed. Reg. 68472, 68476 (Nov. 20, 2006) (formerly codified at 37 C.F.R. 201.40) [hereinafter 2006 Final Rule].

¹⁹ Recommendation of the Register of Copyrights in RM 2008-8, Rulemaking on Exemptions from Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies, 152-153 (June 11, 2010) (emphasis added) [hereinafter 2010 Recommendation], *available at* www.copyright.gov/1201/2010/initial-ed-registers-recommendation-june-11-2010.pdf.

a business decision that has nothing whatsoever to do with the interests protected by copyright.²⁰

These conclusions reflect that software or firmware modifications necessary to unlock a device are, by their nature, noninfringing. For instance, unlocking via modification of a few digits in the underlying firmware to make a device operable on another network does not implicate protectable work. Those functional portions of the firmware are “uncopyrightable data that the computer program interacts with in order to perform a particular task . . . [and] such changes do not constitute copyright infringement.”²¹ The Register in 2010 aptly characterized these digits as functional variables and analogized those variables to the song “Happy Birthday”—while the name used in the song, like the variables or digits, may change, the underlying, protectable song (firmware) remains unchanged and continues to function.²²

B. Unlocking a Mobile Device is a Fair Use Under § 107

To the extent a circumvention method implicates any § 106 rights, accessing and altering the firmware on a mobile device for the purpose of switching carriers qualifies as a fair use and is therefore noninfringing under 17 U.S.C. § 107. The Copyright Act requires consideration of four factors to determine if a use is fair use, including: (1) the purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes; (2) the nature of the copyrighted work; (3) the amount and substantiality of the portion used in relation to the copyrighted work as a whole; and (4) the effect of the use upon the potential market for or value of the copyrighted work.²³ All four fair use factors weigh strongly in favor of mobile device unlocking being a fair use.

First, the purpose of the use is simply to make nominal, functional changes to the carrier locking firmware or software, or to replace it, for the sole purpose of allowing a user to connect the mobile device to another carrier’s network. Several courts have recognized fair use where a party copied software merely to enable software and device interoperability.²⁴ These courts recognize that while software may have expressive (protected) content, modification of that expressive content may be necessary to enable public access to the software’s functional (unprotected) content.²⁵ Moreover, such an alteration is transformative and does not “merely supersede the objects of the original creation”²⁶ because the alteration only changes certain functional portions of the original work and thereafter works *with*, not supersedes, the original software. Such an alteration is transformative

²⁰ 2006 Final Rule at 68476.

²¹ See 2010 Recommendation at 134.

²² See *id.*

²³ 17 U.S.C. § 107(1)-(4).

²⁴ See *Sega Enterprises Ltd. v. Accolade, Inc.*, 977 F.2d 1510, 1520 (9th Cir. 1992) (“Because . . . disassembly is the only means of gaining access to those unprotected aspects of the program, and because Accolade has a legitimate interest in gaining such access (in order to determine how to make its cartridges compatible with the Genesis console), we agree with Accolade.”); see also *Sony Computer Entm’t, Inc. v. Connectix Corp.*, 203 F.3d 596, 602-03 (9th Cir. 2000) (“We conclude that, under the facts of this case and our precedent, Connectix’s intermediate copying and use of Sony’s copyrighted BIOS was a fair use for the purpose of gaining access to the unprotected elements of Sony’s software.”).

²⁵ See, e.g., *Atari Games Corp. v. Nintendo of Am. Inc.*, 975 F.2d 832, 843 (Fed. Cir. 1992) (Any reproduction of protectable expression must be strictly necessary to ascertain the bounds of protected information within the work.).

²⁶ *Campbell v. Acuff-Rose Music, Inc.*, 510 U.S. 569, 579 (1994).

because it “adds something new, with a further purpose or different character, altering the first with new expression, meaning, or message.”²⁷

Here, unlocking “alters the first” software, which locks the phone to a particular mobile carriers, “with a further purpose” of allowing the device to connect to other mobile carriers. Essentially the use that is made has the opposite purpose of the original purpose, a highly transformative action. Even if an unlocking method required making an exact copy of the firmware, “making an exact copy of a work may be transformative so long as the copy serves a different function than the original work.”²⁸ Finally, while the proposed use may be related to a commercial purpose—selling or recycling unlocked phones—that commercial aspect is fairly attenuated from the unlocking use of the firmware or software and does not involve selling copies or derivative works of it other than as a tiny component of a used phone,²⁹ and the public benefit of unlocking is substantial.³⁰

Second, the nature of the copyrighted work is functional software. Works that have strong functional or practical elements are subject to less copyright protection than more creative works.³¹ Indeed, most unlocking methods only involve the highly functional portions of the software—such as carrier code variables—which are not eligible for copyright protection in the first place. With regard to computer programs, “fair use doctrine preserves public access to the ideas and functional elements embedded in copyrighted computer software programs.”³²

Third, unlocking methods, such as reflashing, only interact with certain codes or variables that represent a tiny component of the software stored or embedded on the phone. To the extent an unlocking method creates a derivative work of parts of the software, the changes are limited to the portion of the software that prevents unlocking—while the vast remainder of the software remains undisturbed and allows the device to continue functioning as intended. Moreover, even if an unlocking method must create an interim copy of the software, creating such a copy is a fair use because it is “‘necessary’ to gain access to the functional elements of the software itself.”³³ This factor favors fair use because “no more was taken than necessary.”³⁴

Fourth, unlocking has no negative effect on the market or value for the mobile device’s carrier locking software. Quite the opposite: the ability to lawfully unlock mobile devices likely increases the value of those devices (including the embedded software) because the owner gains the ability to switch to a preferred carrier and because the resale value of the device increases. The modified software at issue here is in no way being offered to the market of phone makers such that it could usurp the original market. Even if unlocking somehow threatened the carriers’ business model of

²⁷ *Id.*

²⁸ *Perfect 10, Inc. v. Amazon.com, Inc.*, 508 F.3d 1146, 1165 (9th Cir. 2007).

²⁹ *See Sega Enters. Ltd.*, 977 F.2d at 1523-1524 (“[W]e conclude that Accolade copied Sega’s code for a legitimate, essentially non-exploitative purpose, and that the commercial aspect of its use can best be described as of minimal significance.”).

³⁰ *Id.* at 1523 (“[W]e are free to consider the public benefit resulting from a particular use notwithstanding the fact that the alleged infringer may gain commercially.”).

³¹ *See id.* at 1524, *citing Baker v. Selden*, 101 U.S. 99, 104 (1879).

³² *Lexmark Int’l Inc. v. Static Control Components, Inc.*, 387 F.3d 522, 537 (6th Cir. 2004), *citing Sony Computer Entm’t, Inc.* at 603.

³³ *Sony Computer Entm’t, Inc.*, 203 F.3d at 602-03, *citing Sega Enters. Ltd.*, 977 F.2d at 1524-26 (amended opinion).

³⁴ *Authors Guild, Inc. v. HathiTrust*, 755 F.3d 87, 98 (2d Cir. 2014), *citing Campbell*, 510 U.S. at 589.

controlling when—and *if*—they will unlock mobile devices and allow consumers the choice of using their phones on competing networks, “copyright law . . . does not confer such a monopoly.”³⁵

C. Unlocking, Including Bulk Unlocking, Is Permitted Under 17 U.S.C. § 117 Because Consumers Own Their Phone Software and Accessing the Software Is an “Essential Step”

Even if the unlocking at issue here did implicate copyright interests and was not noninfringing fair use, it would be lawful under 17 U.S.C. § 117. Specifically § 117(a)(1) permits the owner of a copy of a program to make such a copy or adaptation if it is created “as an essential step in the utilization of the computer program in conjunction with a machine.”³⁶

A mobile device owner, whether they are an individual or a recycler (both of whom own the devices they possess), falls within the § 117 exception when they are the owner of the copy of the software within that mobile device. As the Register recognized in 2012, and as continues to be the case, at least some significant portion of cellular wireless network users own the copies of the software contained within their mobile devices and accessed in the course of unlocking those devices.³⁷ While there remains no uniform legal standard for distinguishing licenses from sales of software, if anything, more mobile device-owners today own their mobile software copies than in 2012. The existence of a substantial subset of mobile device users who clearly own the software on their phones is sufficient to again conclude, as the Register did in 2012, that § 117 permits unlocking.³⁸

Since the most recent DMCA triennial proceeding, several district courts in different circuits have adopted the Second Circuit approach from *Krause v. Titleserv, Inc.* and rejected the more restrictive *Vernor* approach.³⁹ Indeed, the “better view,” endorsed by *Nimmer on Copyright*, is the Second Circuit’s common-sense observation in *Krause*:

[I]t seems anomalous for a user whose degree of ownership of a copy is so complete that he may lawfully use it and keep it forever, or if so disposed, throw it in the trash,

³⁵ *Sony Computer Entm’t, Inc.*, 203 F.3d at 607, citing *Sega Enters. Ltd.*, 977 F.2d at 1523-1524 (“[A]n attempt to monopolize the market by making it impossible for others to compete runs counter to the statutory purpose of promoting creative expression and cannot constitute a strong equitable basis for resisting the invocation of the fair use doctrine.”); see also *Lexmark Int’l Inc.*, 387 F.3d at 545 (“Lexmark’s market for its toner cartridges and the profitability of its Prebate program may well be diminished by the SMARTEK chip, but that is not the sort of market or value that copyright law protects.”).

³⁶ See, e.g., 2010 Final Rule at 43831.

³⁷ Recommendation of the Register of Copyrights in RM 2011-7, Rulemaking on Exemptions from Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies, 93 (Oct. 28, 2012) [hereinafter 2012 Recommendation], available at http://www.copyright.gov/1201/2012/Section_1201_Rulemaking_2012_Recommendation.pdf.

³⁸ Bulk recyclers are owners in the same way as are individual consumers. 2012 Recommendation at 93 (“in view of the legal uncertainty, the record compels a finding that some subset of wireless customers—that is, anyone considered to own the software on their phones under applicable precedent—is entitled to exercise the Section 117 privilege.”).

³⁹ See, e.g., *Princeton Payment Solutions, LLC v. ACI Worldwide, Inc.*, No. 1:13-CV-852, 2014 WL 4104170 at *7 (E.D. Va. Aug. 15, 2014) (“Although the Fourth Circuit has not announced a test for copyright ownership under § 117, the Second Circuit’s reasoning in *Krause v. Titleserv, Inc.*, is persuasive.”); *ZilYen, Inc. v. Rubber Mfrs. Ass’n*, 935 F. Supp. 2d 211, 219 (D.D.C. 2013) (“This Court finds the Second Circuit’s reasoning persuasive.”).

to be nonetheless unauthorized to fix it when it develops a bug, or to make an archival copy as backup security.⁴⁰

While *Krause* addressed ownership in a discrete software program, the same logic applies even more strongly to ownership of the copy of software in a mobile device because that software is essential to the functioning of the device and there is no question that the user or recycler owns the device.

Krause: The non-exclusive factors articulated in *Krause* support this common-sense observation for mobile device software or firmware. These factors, noted in the Register's 2010 Recommendation, include: (1) whether substantial consideration was paid for the copy; (2) whether the copy was created for the sole benefit of the purchaser; (3) whether the copy was customized to serve the purchaser's use; (4) whether the copy was stored on property owned by the purchaser; (5) whether the creator reserved the right to repossess the copy; (6) whether the creator agreed that the purchaser had the right to possess and use the programs forever regardless of whether the relationship between the parties terminated; and (7) whether the purchaser was free to discard or destroy the copy anytime it wished.⁴¹

First, purchasers of mobile devices pay considerable prices, such as in up-front and/or monthly subsidy payments, to mobile carriers for ownership of their devices, which includes the underlying software and firmware the devices require to be operable; no one would spend hundreds of dollars for an inoperable piece of hardware.⁴² Second, each copy of the software is created for the sole benefit of the owner of the mobile device on which it is stored since it is used only on that device by that owner to connect to the network; that particular copy could not benefit anyone else. Third, it does not appear that carriers customize software for particular owners or users of a mobile device. Fourth, the copies of the software are stored on the mobile device owned by the user or recycler, not on some remote server controlled by the carriers.

Fifth, there is no credible evidence that carriers reserve in any meaningful way the right to repossess the copy of the software because purchasers remain free to—and do, by the millions—discard, destroy, give away or sell their mobile device and, along with them, the copy of the software embedded or stored on them. Indeed, while the boilerplate terms and conditions of some carriers purport to reserve the right to revoke a user's software license,⁴³ there is no indication that any carrier requires or has ever required a subsequent purchaser—before transfer—to wipe the device's software, return the phone to the carrier for software extraction, or otherwise deactivate the copy of the software on the mobile device. Instead, millions of phones are sold or transferred without any relicensing or replacement of their software whatsoever.

Sixth, it appears that no carrier agreement suggests that a device owner would not be able to keep and use the software indefinitely. While some carriers reserve the right to terminate service to a

⁴⁰ Melville B. Nimmer, *Nimmer on Copyright*, 2-8 § 8.08, citing *Krause v. Titleserv, Inc.*, 402 F.3d 119, 123 (2d Cir. 2005).

⁴¹ 2010 Recommendation at 126; *Krause*, 402 F.3d at 124.

⁴² While some handsets may be subsidized by the carriers compared to unlocked versions, carriers recoup this subsidy either through a purchaser's (a) completion of his contract or (b) payment of early termination fees.

⁴³ See, e.g., Sprint Terms & Conditions, Software License, SPRINT,

https://shop2.sprint.com/en/legal/os_general_terms_conditions_popup.shtml (last visited Jan. 27, 2015).

purchaser, Petitioner is not aware of any reported case or instance where, upon service termination, the copy of the firmware or software on the device was requested for return, deleted, deactivated, or otherwise made inoperable. Seventh, there is simply no evidence and no reason to believe that any carriers actually restrict, or have ever interfered with, a purchaser's freedom to discard or destroy her phone *and* the software on it.

Thus, six of the seven *Krause* factors support the conclusion that a device's owner also owns the software or firmware on that device.

Vernor: Even if the more restrictive standard articulated by the Ninth Circuit in *Vernor v. Autodesk, Inc.*,⁴⁴ were to be applied, the licenses offered by the mobile carriers do not meet the three required criteria and the device owner should remain the owner of the software on that device. First, it is far from clear that all U.S. carriers specify that a user is granted a license to the software in their mobile device. While some major carriers' terms of use specify that a license is granted, there are over 100 U.S. carriers⁴⁵ that may offer different terms of use. Under any scenario, similar to the finding of the Register in 2012, at least a subset of mobile device owners will own the copies of the software in their devices.⁴⁶ Second, the purported licenses do not *significantly* restrict the user's ability to transfer the software;⁴⁷ in practice purchasers remain free to sell or otherwise dispose of their devices on which the software resides and millions have done so.⁴⁸ Third, at least some carriers do not impose "notable" use restrictions beyond general prohibitions of infringement of intellectual property rights or use of their services for abusive or illegal activity.⁴⁹ Such use restrictions can hardly be called "notable," especially since the remaining uses allowed are expansive.⁵⁰ Indeed, just as the Register noted in 2012, "none of the agreements cited appear to contain restrictions as stringent as those in *Vernor*."⁵¹

Essential step: The second prong of § 117(a)(1) is easily satisfied by unlocking. Even if accessing the software or firmware to unlock the device onto another mobile service provider were deemed to require making an "adaptation," of the copy of that software, such adaptation plainly is an "essential

⁴⁴ 621 F.3d 1102, 1111 (9th Cir. 2010).

⁴⁵ Derek Khana, *Unlocking Petition Makes Legislative History*, TECHCRUNCH (Aug. 5, 2014), <http://techcrunch.com/2014/08/05/unlocking-petition-makes-legislative-history>; *see also* List of GSM and CDMA Networks and Carriers in the US, <http://www.ebay.com/gds/GSM-and-CDMA-Guide-/1000000009189079/g.html> (last visited Feb. 3, 2015).

⁴⁶ 2012 Recommendation at 93.

⁴⁷ *Id.* (emphasis added).

⁴⁸ For example, while Verizon purports to own the software copy on the devices it sells, it freely offers a program reset code if a user wishes to use his non-SIM card device on another carrier. *Verizon Customer Agreement*, VERIZON WIRELESS, https://www.verizonwireless.com/b2c/globalText?textName=CUSTOMER_AGREEMENT&jspName=footer/customerAgreement.jsp (last visited Jan. 27, 2015).

⁴⁹ T-Mobile Terms & Conditions, 18. * Misuse of Service or Device; 20. * Intellectual Property, T-MOBILE, https://www.t-mobile.com/Templates/Popup.aspx?PAsset=Ftr_Ftr_TermsAndConditions&print=true (last visited Jan. 27, 2015); Sprint Terms & Conditions, Prohibited Network Uses, SPRINT, https://shop2.sprint.com/en/legal/os_general_terms_conditions_popup.shtml (last visited Jan. 27, 2015).

⁵⁰ *See, e.g.*, Sprint Terms & Conditions, Prohibited Network Uses, SPRINT, https://shop2.sprint.com/en/legal/os_general_terms_conditions_popup.shtml (last visited Jan. 27, 2015).

⁵¹ 2012 Recommendation at 92 fn. 504, *citing* 621 F.3d at 1104-05 (describing activation codes and license tracking); *id.* at 1105 (describing "required destruction of copies of previous versions" of the software).

step in the utilization of the computer program in conjunction with a machine.”⁵² There is no other way to unlock the firmware for use with another mobile service provider besides circumventing the TPM and making appropriate changes to the software to unlock the device. Thus, any temporary adaptations made during the unlocking process are an “essential step” to use the computer program (device software) in conjunction with a machine (the device) to unlock the device.

As the Register correctly concluded in 2012—for the second time:

[m]odifications to the firmware or software on the phone may be necessary to make the device functional with another service and better serve the legitimate needs of the consumer. From a copyright perspective, these individual changes benefit the purchaser despite the fact that some wireless carriers would like to have complete control over the device by restricting its use to their service. But this was precisely the concern that was expressed in many parts of the CONTU Report – that protection for computer programs had the capacity to lead to anti-competitive practices and that the use of copyright in computer programs was a means to that anti-competitive end.⁵³

The conditions that warranted this conclusion continue to exist today and it remains true and persuasive.

Thus, § 117 plainly applies to consumers or recyclers unlocking the wireless devices they own, individually or in bulk. To the extent the process of unlocking makes an exact copy of the carrier locking software or firmware, or simply “flips (uncopyrightable) switches” built into the software to remove the carrier lock and unlock the phone, the phone can be resold or otherwise transferred by the owner consistent with § 117(b). Further, to the extent that any adaptations made during the process of unlocking are temporary—as is often the case—they are not transferred and do not interfere with the phone owner’s ability to lawfully resell the device under that section.

Unlocking Act: Finally, the Unlocking Act expressly provides that circumvention of a TPM to unlock a mobile device “may be initiated by the owner of any such handset or other device.”⁵⁴ This language demonstrates Congress’s recognition that lawful owners of a mobile device or their agents have the legal right to circumvent a technological measure to unlock their phone for use on the carrier of their choice. The Unlocking Act makes no mention of the owner of the device’s underlying software. The Act should properly be read as Congress’ determination that the unlocking that Petitioner seeks here should be lawful, whatever the precise legal ownership status of software and firmware on the unlocked devices.

D. Legitimate Bulk Unlocking of Used Devices Is Equally Noninfringing and Warrants Equal Coverage Under the Requested Exemption

The NPRM asks commenters to address the practice and market effects of “bulk circumvention” (or unlocking), and whether the exemption should address “bulk circumvention.”

⁵² 17 U.S.C. § 117(a)(1).

⁵³ 2012 Recommendation at 93, *citing* 2010 Recommendation at 137.

⁵⁴ Unlocking Act § 2(c)(2).

The requested exemption should apply equally to circumvention carried out by individual owners and that carried out in bulk by recyclers such as ISRI's members.

Bulk unlocking is no different than individual consumer unlocking at the copyright level,⁵⁵ but is significantly different on the level of consumer benefit. Bulk unlocking allows recyclers to increase the prices consumers receive when they sell their used mobile devices, removing the current price disparity between locked versus unlocked devices, without burdening consumers with the cumbersome, frustrating, often-unsuccessful, and sometimes-impossible task of unlocking the phones themselves.⁵⁶ This results in a greater variety and number of unlocked devices for consumers to choose from and more devices remaining operational and available in the marketplace. It also results in increased valuable competition between new and used devices and between wireless networks. As the White House noted upon passage of the Unlocking Act, its goal in reinstating the unlocking exemption was "to ensure copyright law does not undermine wireless competition."⁵⁷

Treating bulk unlocking by legitimate recyclers as lawful to the same extent as individual unlocking is an important means of ensuring these goals. The exemption proposed here is necessary to permit recyclers to engage in bulk unlocking of lawfully acquired devices without the uncertain and difficult process of trying to obtain carrier permission or requiring each individual or corporate seller to navigate complex and burdensome carrier procedures or technical workarounds as prerequisites to accepting the device. Without a § 1201 exemption, wireless network providers can thwart these consumer benefits and restrain competition by refusing to unlock devices, unlocking devices only for individuals, or imposing significant limits on how many devices can be unlocked and under what circumstances.⁵⁸

The Librarian of Congress explained under the 2010 determination, which approved the exemption that was later reinstated by the Unlocking Act, that:

The type of commercial activity that would be permitted would be the resale of used handsets after the owners of the handsets have used them and then given or sold them to somebody else, who then resells them just as a used bookstore sells used books.⁵⁹

⁵⁵ It would generally involve the same methods used to unlock a single mobile device, just on a larger scale.

⁵⁶ Declaration of Chris Sullivan, President & Chief Executive Officer, Gazelle (attached to comment of eBay, Inc., and Gazelle, Inc.) at ¶8-10 [hereinafter Sullivan Declaration].

⁵⁷ Office of the Press Secretary, Statement from the President on Unlocking Consumer Choice and Wireless Competition Act, WHITEHOUSE.GOV, <http://www.whitehouse.gov/the-press-office/2014/07/25/statement-president-unlocking-consumer-choice-and-wireless-competition-a> (last visited Jan. 27, 2015) (emphasis added).

⁵⁸ For example, prior to October 2013, AT&T limited the total number of devices an individual could unlock to five, and stipulated that an individual could not unlock more than one device in twelve months. *See, e.g., Request a Device Unlock for Your AT&T Mobile Devices (Phones and Tablets)*, AT&T, http://wayback.archive.org/web/20141118085611/http://www.att.com/deviceunlock/client/en_US (November 18, 2014). Similarly, T-Mobile currently limits the number of devices that can be unlocked to two per line in twelve months. *See, e.g., Unlock Your Mobile Wireless Device*, T-MOBILE, <https://support.t-mobile.com/docs/DOC-1588> (last visited Jan. 22, 2015).

⁵⁹ 2010 Final Rule at 43,831-32.

Recyclers must be free to circumvent wireless device carrier locks in bulk in order to most efficiently buy and sell used devices, like used bookstores buy and sell books, without the need to rely on carriers.

Congress, for its part, contemplated that the exemption it restored would include bulk unlocking of used devices. In the final wording of the version of the Unlocking Act that became law, negotiators removed strongly criticized language⁶⁰ from the House bill that might appear to limit bulk unlocking⁶¹ and replaced that language with a general savings clause that contained no suggestion of precluding bulk unlocking by resellers.⁶² It is essential to ensure that any new unlocking exemption permits legitimate recyclers to unlock lawfully acquired wireless devices for the benefit of consumers and the recyclers businesses, whether it is done individually or in bulk.

E. Petitioner Seeks an Exemption for “Used” Devices

The NPRM also asks whether the exemption should be limited to “used” handsets, and, if so, what would qualify a handset as “used.”

Petitioner’s member companies purchase or receive donated used handsets. They seek to prolong the life of mobile devices through refurbishing, resale, or recycling. Importantly, ISRI members do not purchase new, unused handsets from carriers or retailers, but rather only used handsets from prior individual or corporate owners. While Petitioner’s comment seeks only an exemption for unlocking of used devices, Petitioner would not oppose a broader exemption that permitted unlocking of new devices under appropriate circumstances.

Petitioner proposes that “used” be defined for purposes of this proposed exemption as:

a wireless telephone handset that has been lawfully acquired and activated on the wireless telecommunications network⁶³ of a carrier.

The Register’s 2010 Recommendation defined “used” somewhat more narrowly, as:

a mobile phone that has been activated with the carrier or provider that sold the phone at a subsidized price and that the person activating the phone must actually have used on the carrier’s network.⁶⁴

⁶⁰ See Corynne McSherry, *The Wrong Tool for the Job: Cell Phone Unlocking Bill Creates New Problems*, ELECTRONIC FRONTIER FOUNDATION (Feb. 23, 2014), <https://www.eff.org/deeplinks/2014/02/wrong-tool-job-cell-phone-unlocking-bill-fixes-wrong-problem-and-creates-new-ones>.

⁶¹ See Unlocking Consumer Choice and Wireless Competition Act, H.R. 1123 § 2(c)(2), 113th Cong. (2014) (“Nothing in this subsection shall be construed in any rulemaking commenced on or after the date of enactment to permit the unlocking of wireless handsets or other wireless devices, for the purpose of bulk resale, . . .”); *but see* 160 Cong. Rec., H1910 (daily ed. Feb. 25, 2014) (in colloquy on House floor just before passage of H.R. 1123, the bill’s sponsor Rep. Goodlatte stated that “this legislation is not intended to impair unlocking related to family plans consisting of a small number of handsets or of used phones by legitimate recyclers or resellers.”) (emphasis added).

⁶² Unlocking Act § (d)(1) (“Except as expressly provided herein, nothing in this Act shall be construed to alter the scope of any party’s right under existing law.”).

⁶³ “Wireless telecommunications network” as defined in S.517—Unlocking Consumer Choice and Wireless Competition Act § (e)(2).

This definition, however, is too limited for current wireless device market conditions. It does not include instances where a carrier has sold a device at full price rather than at a subsidized price and the lawful purchaser of that device subsequently chooses to sell or give it away.⁶⁵ The four largest U.S. carriers, AT&T, Verizon, T-Mobile, and Sprint, all now offer handsets at a non-subsidized rate. T-Mobile was the first to announce this in December 2012,⁶⁶ and more recently AT&T has confirmed that 40% of their customers are not part of a subsidy model.⁶⁷ As pricing models shift but carrier locks persist, the definition of “used” handsets must be adapted to reflect that shift.

Importantly, Petitioner’s focus on unlocking of used mobile devices, and the proposed definition of “used” above, eliminates any concern about phone traffickers misusing the proposed exemption. Traffickers purchase new, typically low cost handsets that are either subsidized or prepaid,⁶⁸ then unlock the handsets and sell them in the United States and or other countries without the handset ever being activated on a network or the subsidy being repaid. Petitioner and its members do not condone this type of activity. The definition of “used” proposed here includes the requirement that a phone have been “activated on the wireless network” in order to exclude this sort of arbitrage from the scope of the requested exemption.⁶⁹ The Register in 2010 concluded that similar limitations “ensure that the designation of this class will not benefit those who . . . purchase *new* mobile phone handsets at subsidized prices and, without actually using them on the networks of the carriers who market those handsets, resell them for profit.”⁷⁰

VI. Adverse Impact

Without a § 1201 exemption, owners of mobile devices, including consumers and legitimate recyclers and remanufacturers of used devices, have been and are substantially adversely affected in their ability to make what are legitimate noninfringing uses. Recyclers are unable to engage in noninfringing individual or bulk unlocking of devices for the benefit of consumers who are selling or buying used devices, consumers are denied the ability to use their devices on the network of their choice and denied the full benefit of choosing or selling used devices, and competition between new and used devices and between networks is reduced.

At worst, recyclers have no option but to purchase, possibly refurbish, and then resell handsets that remain locked to a particular carrier, reducing consumer choice and lowering the value of the

⁶⁴ See 2010 Recommendation at 169.

⁶⁵ See, e.g., <http://www.att.com/wireless/iphone/#fbid=Bf31b70t7eQ> (last visited Feb. 5, 2015).

⁶⁶ See Phillip Dampier, *Wireless Carriers’ Dream Come True: The End of the Phone Subsidy; T-Mobile May Start Trend*, STOPTHECAP.COM (Dec. 11, 2012), <http://stopthecap.com/2012/12/11/wireless-carriers-dream-come-true-the-end-of-the-phone-subsidy-t-mobile-may-start-trend>.

⁶⁷ See *AT&T’s Management Discusses Q1 2014 Results—Earnings Call Transcript* at 7, SEEKINGALPHA.COM (Apr. 22, 2014), <http://seekingalpha.com/article/2155773-at-and-ts-management-discusses-q1-2014-results-earnings-call-transcript>.

⁶⁸ See, e.g., <http://www.tracfone.com>.

⁶⁹ Petitioners also note that there is no reason for concern under this definition for phones initially sold at lower prices where the full cost is subsidized through a fixed-period contract with the carrier, even where the initial owner of the phone chooses to sell or give it away before the expiration of the contract. While the requested exemption would allow such used phones to be unlocked, the carrier would still recover the full price of the phone through enforcement of its contract with the initial buyer, related early termination fees, and similar mechanisms.

⁷⁰ 2010 Recommendation at 43,831-82 (emphasis added).

handsets to the seller and the recyclers. At best, recyclers, or the consumers from whom they lawfully obtain used devices, are forced to depend on the whims of carriers to assist in unlocking those devices or to provide unlocking codes so the devices can be used on other networks. This is a highly inferior alternative to the ability to unlock in bulk, since such carrier cooperation is voluntary and cannot be counted on; is uncertain, often expensive and time-consuming; and is frequently unsuccessful. The lack of an exemption allowing unlocking has thus had, and will continue to have, significant adverse impacts on recyclers and consumers.

A. The Absence of an Unlocking Exemption Has Forced Consumers to Resell Their Devices for Significantly Lower Prices, Has Reduced Consumer Choice and Wireless Competition, and Has Adversely Affected Recyclers' Ability to Meet Consumer Demand and Obtain the Full Value of the Devices They Resell

Without an exemption allowing unlocking of wireless devices, recyclers' only option for unlocking since 2012 has been to rely on voluntary unlocking by carriers. But while some carriers provided some assistance with unlocking requests when the previous exemption was in place, that cooperation decreased after the Copyright Office narrowed the unlocking exemption in 2012. A striking example is a policy change by AT&T after the last triennial. In response to the Copyright Office's decision—and public push back—AT&T noted that the decision would have “very little impact on AT&T customers,” but reminded the public that the Librarian did not exempt unlocking for bulk recyclers.⁷¹ Then, in early October 2013, AT&T abruptly changed its unlocking policies to make it even more difficult or impossible for bulk recyclers to obtain unlock codes.⁷² Not surprisingly, this policy change reportedly caused at least one lawful reseller to close its business.⁷³ The policy and its adverse impacts have continued since 2013, as lawful recyclers continue to struggle to receive unlock codes for used AT&T mobile devices.⁷⁴

Recycler Gazelle, Inc.,⁷⁵ for example, reports that, “in the fourth quarter of 2013 alone, the change in the AT&T unlocking practices had a severe negative impact on Gazelle's revenue and Net Income. The lower prices being paid for our pre-owned phones led directly to lower payments being made to the customers who sold us their phones.”⁷⁶ Gazelle also reports that the prices it and its competitors are able to offer to consumers selling their devices “have declined sharply, and have remained significantly lower than the price Gazelle can offer for an unlocked phone, or for a phone that Gazelle knows it can unlock upon the request of the selling consumer.”⁷⁷

Another recycler, HOBI International, Inc., reports that the company previously worked with two carriers to gain unlocking of mobile devices. After the 2012 exemption, one carrier refused to

⁷¹ Joan Marsh, *Bottom Line: We Unlock Our Customer's Devices*, ATT PUBLIC POLICY BLOG (Mar. 8, 2013), <http://www.attpublicpolicy.com/wireless/bottom-line-we-unlock-our-customers%E2%80%99-devices>.

⁷² Sullivan Declaration at ¶ 6; Ben Lovejoy, *Apparent Block on Mass Unlocking of AT&T iPhones Hits Resale Industry*, 9TO5MAC.COM (Nov. 14, 2013), <http://9to5mac.com/2013/11/14/apparent-block-on-mass-unlocking-of-att-iphones-hits-resale-industry>.

⁷³ Lovejoy, *Apparent Block on Mass Unlocking of AT&T iPhones Hits Resale Industry*.

⁷⁴ Sullivan Declaration at ¶ 6.

⁷⁵ Gazelle purchases phones and other mobile devices that, pursuant to carrier agreements with consumers, are eligible for resale by that consumer. See www.gazelle.com.

⁷⁶ Sullivan Declaration at ¶ 2.

⁷⁷ *Id.* at ¶ 7.

continue unlocking HOBİ's used mobile devices for resale. Because those devices remained locked to a particular carrier, HOBİ found that prices for mobile devices dropped \$25 across the board, reducing the price that individual owners could receive for their used devices, harming consumers and bulk recyclers alike. HOBİ reports one example of a deal it had secured to resell over 10,000 used, lawfully acquired mobile devices; after the carrier began refusing to provide HOBİ unlock codes, HOBİ was forced to sell the locked devices for only \$85 each instead of the \$125 it would have received for an unlocked phone. HOBİ lost roughly \$400,000 on this deal alone.⁷⁸

Recyclers such as ISRI member companies have worked in the past with carriers to unlock mobile devices and remain willing to do so going forward.⁷⁹ Their efforts to do so, however, are largely unsuccessful and their customers and their business are being directly harmed as a result. Recyclers uniformly report that they cannot resell a mobile device for its full value, since devices locked to certain carriers are worth less. Without the ability readily to unlock those lawfully purchased devices, recyclers must pay less to the large portion of consumers who sell their mobile devices in a locked state and must receive less when they resell those devices.

B. Current Carrier Unlock Policies Do Not Obviate, But Rather Highlight, the Need for an Exemption for Bulk Circumvention

While the four major wireless carriers in 2013 adopted voluntary unlocking policies⁸⁰ under pressure from the public and the FCC,⁸¹ those policies leave major obstacles to bulk and individual unlocking and do not obviate the need for an unlocking exemption. American wireless providers other than these four are not parties to the CTIA letter, and the large majority of them do not offer unlocking services, particularly for popular mobile devices like Apple's iPhone.⁸² Some key unlocking policies of the four major carriers include:

⁷⁸ In addition to the impact of carrier locks, manufacturer device locks such as the Apple's Find My iPhone Activation lock (<http://support.apple.com/en-us/HT201365>) are increasingly problematic for legitimate recyclers. One recycler, The Wireless Alliance (<http://www.thewirelessalliance.com>), reports that the number of device-locked iPhones it has received recently has grown exponentially. While almost none have been reported stolen, and most are in working condition, Wireless Alliance is unable to access the devices at all due to the lock and so is unable to refurbish or resell them. Where sellers or donors to charitable entities or other drop off programs do not first disable the device lock, the lock renders the device unusable and unable to be resold for anything other than scrap.

⁷⁹ See, e.g., Sullivan Declaration at ¶ 7.

⁸⁰ See, e.g., CTIA—The Wireless Association, Letter re Carrier Unlocking Voluntary Commitment (Dec. 12, 2013) [hereinafter CTIA letter], available at <http://www.ctia.org/docs/default-source/fcc-filings/ctia-letter-on-unlocking.pdf>.

⁸¹ Jon Brodtkin, *US Carriers Agree to Unlock Customers' Phones After Pressure from FCC*, ARS TECHNICA (Dec. 12, 2013), <http://arstechnica.com/business/2013/12/us-carriers-agree-to-unlock-customers-phones-after-pressure-from-fcc>.

⁸² *Wireless Carrier Support and Features for iPhone*, APPLE, <http://support.apple.com/en-us/ht1937> (last visited Jan. 29, 2015) (see USA: "Carrier Offers Unlocking" column).

	AT&T ⁸³	T-Mobile ⁸⁴	Verizon ⁸⁵	Sprint ⁸⁶
Required Delay	<p>Postpaid: account active for at least 60 days.</p> <p>Prepaid: account active for at least 6 months.</p> <p>Early Upgrade: must wait 14 days “buyer remorse” period.</p>	<p>Monthly plan: active for at least 40 days.</p> <p>Prepaid: active for more than 1 year (subject to some exceptions).</p>	<p>3G Prepaid Phone-in-the-Box:</p> <ul style="list-style-type: none"> restricted for use with Verizon’s Prepaid service for 6 months, and locked to Verizon for 12 months after activation. 	
Restrictions on Bulk Unlocking		User has requested no more than 2 mobile device unlock codes per line of service in the last 12 months.		Current or former Sprint customer can provide the phone number or account number for the device.
“Escape Hatch”	“[R]eserves the right to alter this unlocking policy at its discretion without advance notice.”	“[M]ay request proof of purchase or additional information in its discretion and certain other exceptions may apply.”		“This unlocking policy is subject to change at Sprint's discretion without advance notice.”
Other Notable Restrictions				Sprint cannot unlock many devices, including iPhones.

Critically, none of these policies accommodate bulk unlocking. The CTIA letter explicitly limits the carriers’ voluntary unlocking to their “customers, former customers and individual owners of eligible devices.”⁸⁷ T-Mobile effectively prohibits bulk unlocking by limiting mobile device unlock codes to two devices per line per year. AT&T’s current practices, have made it much more difficult—if not impossible—for bulk recyclers to obtain unlock codes for lawfully acquired

⁸³ *Mobile Device Unlock Support Guide*, AT&T, <http://www.att.com/esupport/article.jsp?sid=KB425914> (last visited Jan. 22, 2015).

⁸⁴ *Unlock Your Mobile Wireless Device*, T-MOBILE, <https://support.t-mobile.com/docs/DOC-1588> (last visited Jan. 22, 2015).

⁸⁵ *Device Unlock Policy*, VERIZON WIRELESS, <http://www.verizonwireless.com/aboutus/commitment/safety-security/device-unlocking-policy.html> (last visited Jan 22, 2015).

⁸⁶ *Unlock your Sprint Device*, SPRINT, http://www.sprint.com/legal/unlocking_policy.html (last visited Jan. 22, 2015).

⁸⁷ CTIA letter at 3 (preamble).

devices.⁸⁸ Thus, rather than obviating the need for circumvention for bulk unlocking, these policies increase that need.

Second, these policies are *voluntary* and presumably can be revoked or changed at any time. Some carriers even include explicit disclaimers to that effect: for instance, AT&T provides that it “reserves the right to alter this unlocking policy at its discretion without advance notice.”⁸⁹ Without an unlocking exemption, carriers are free to make their policies more restrictive, or to eliminate them altogether, with little or no consequence, leaving Petitioners and others without the ability to unlock for another three years.⁹⁰ Indeed, the Unlocking Act demonstrates that Congress recognizes that mobile device unlocking is a lawful consumer right, not an unreliable “privilege” subject to the whims of each carrier.

Third, there is no guarantee that, even if an owner of a device meets all stated requirements, the carrier will unlock the device. Each major carrier policy charted above includes an “escape hatch” that likely permits the carrier to refuse to unlock a phone for any reason. For example, even if an owner meets all of T-Mobile’s unlocking requirements, “T-Mobile may request proof of purchase or additional information in its discretion and certain other exceptions may apply.”⁹¹ Likewise, AT&T and Sprint *may* unlock devices purchased by third parties, but may not—they offer no guarantees.

Fourth, these policies are often complex, cumbersome, and unreliable to navigate in practice, preventing even individual consumers from succeeding in unlocking their mobile devices. Gazelle estimates that in 2014 “29 percent of customers who began the process of selling a phone to Gazelle failed to complete it because of the complexities of the unlocking process.”⁹² As one frustrated AT&T customer put it to Gazelle, “AT&T says the device IS unlocked but I am tired of the hassle.”⁹³ “In addition to direct costs to the consumer,” declares Gazelle President Chris Sullivan, “Gazelle’s extensive efforts and outreach to encourage customers to complete the process and to help them to do so add to Gazelle’s costs overall, unnecessarily impacting Gazelle’s ability to offer prices competitive with those offered by carriers for trade-in.”⁹⁴ At least ten percent of customers who attempt to unlock their phones and sell their devices to Gazelle contact Gazelle for assistance with the unlocking process.⁹⁵

⁸⁸ *Id.* at ¶ 6.

⁸⁹ *Consumer Device Unlock Portal*, AT&T, <https://www.att.com/deviceunlock> (last visited Jan. 27, 2015).

⁹⁰ For instance, Sprint’s unlocking policies were not publically available—if at all—on its “Legal/Regulatory & Consumer Resources” site in 2012 and 2013, after the previous exemption was not renewed. *Compare Unlock Your Sprint Device*, SPRINT, http://www.sprint.com/legal/unlocking_policy.html (last visited Jan. 22, 2015) with *Legal/Regulatory & Consumer Resources*, ARCHIVE.ORG, <https://web.archive.org/web/20121027110959/http://www.sprint.com/legal/index.html> (Oct. 27, 2012) and *Legal/Regulatory & Consumer Resources*, ARCHIVE.ORG, <https://web.archive.org/web/20130118060816/http://www.sprint.com/legal/index.html> (Jan. 18, 2013).

⁹¹ *Unlock Your Mobile Wireless Device*, T-MOBILE, <https://support.t-mobile.com/docs/DOC-1588> (last visited Jan. 27, 2015).

⁹² Sullivan declaration at ¶ 8.

⁹³ *Id.* at ¶ 10, #10819.

⁹⁴ *Id.* at ¶ 8.

⁹⁵ *Id.* at ¶ 8; note that the carrier unlocking process for phones and tablets is the same.

Fifth, carrier unlocking, even when it happens, also is unpredictable and slow. While many carriers advertise quick unlocking, Gazelle finds that actual carrier unlocking times range from two to 60 days.⁹⁶ Moreover, there is a strong presence of dissatisfied customers trying unsuccessfully to unlock their phones. Gazelle estimates that “[f]orty percent of customers contacting Gazelle for assistance report failure and /or belief that their phone remains locked due to an error by AT&T.”⁹⁷ “This is incredibly frustrating,” wrote one AT&T customer, “as I followed the exact procedures outlined by AT&T and seconded by Gazelle. The phone said it had been unlocked successfully. After waiting for two weeks to get it unlocked in the first place from AT&T now it is for some reason still locked.”⁹⁸ Likewise, one T-Mobile customer bemoaned that “I’ve done everything they said, they’ve put the request through and then I got an email stating they can’t process the request. The email doesn’t say why not and nor can any rep.”⁹⁹

Finally, these policies often do not apply to certain consumers who are willing to fully repay the subsidized price of their devices through paying Early Termination Fees or otherwise. Both AT&T and T-Mobile appear to require certain devices to remain on the carriers’ network for a minimum period of time before switching carrier networks regardless of when or how the device was paid for. Once the carrier has been paid for its device subsidy, there is no reason the phone should not be able to be unlocked, and the consumer free to choose a new carrier—yet some policies prevent exactly that. The Unlocking Act had it right: as long as customers “have complied with their contracts,” the White House declared in announcing the Act, “consumers will now be able to enjoy the freedom of taking their mobile service -- and a phone they already own -- to the carrier that best fits their needs.”¹⁰⁰ That freedom must be maintained for both consumers and bulk recyclers.

C. Availability of Unlocked Mobile Phones Is Not a Viable Alternative to Circumvention

An increasing number of wireless devices—though far from all—are now being sold unlocked.¹⁰¹ The gradual emergence of this option, however, does not reduce or eliminate at all the need for consumers and bulk recyclers to be able to lawfully unlock the millions of devices previously sold that are currently locked, or the large number that will continue to be sold locked. ISRI members currently receive hundreds of thousands of devices that were previously owned and are locked. For example, Gazelle reports that in 2014 alone they received nearly a half million phones, 74% of which were locked to a carrier.¹⁰²

The fact that unlocked devices are beginning to appear on the new device market does nothing to eliminate the loss of choice and value caused by the inability to unlock the millions of recent-model devices that have already been sold to consumers and could be resold on the secondary market. This dramatic imbalance of locked to unlocked devices will not change significantly over the next three

⁹⁶ *Id.* at ¶ 9.

⁹⁷ *Id.* at ¶ 8.

⁹⁸ *Id.* at ¶ 9, #000377.

⁹⁹ Codycarreras, *Questions Regarding a T-Mobile Unlock*,

http://www.reddit.com/r/tmobile/comments/2srxy/questions_regarding_a_tmobile_unlock (last visited Feb. 4, 2015).

¹⁰⁰ *Answering the Public’s Call*, THE WHITE HOUSE BLOG (Aug. 1, 2014 12:28 PM EST),

<http://www.whitehouse.gov/blog/2014/08/01/answering-publics-call>.

¹⁰¹ Apple, for example, was recently reported to begin selling unlocked versions of its newest mobile devices. *See*

Stephanie Mlot, *Apple Now Selling Unlocked iPhone 6, 6 Plus*, PCMAG (Jan. 6, 2015 9:33 AM),

<http://www.pcmag.com/article2/0,2817,2474654,00.asp>.

¹⁰² *See, e.g.*, Sullivan Declaration at ¶6.

years before the next Triennial. Thus, the unlocking exemption remains essential to consumers and recyclers.¹⁰³

VII. All Relevant Statutory Factors Weigh in Favor of Granting an Exemption for Bulk Unlocking

17 U.S.C. § 1201(a)(1)(C) directs the Copyright Office to evaluate the following factors when considering an exemption:

- (i) the availability for use of copyrighted works;
- (ii) the availability for use of works for nonprofit, archival, preservation, and educational purposes;
- (iii) the impact that the prohibition on the circumvention of technological measures applied to copyrighted works has on criticism, comment, news reporting, teaching, scholarship, or research;
- (iv) the effect of circumvention of technological measures on the market for or value of copyrighted works; and
- (v) such other factors as the Librarian considers appropriate.

On balance, these factors weigh strongly in favor of granting the proposed exemption.

A. (i) *The Availability for Use of Copyrighted Works*

The exemption would not make copyrighted works—in particular, software on a mobile device—less available. Mobile device manufacturers did not stop manufacturing mobile devices embedded with this software as a result of past unlocking exemptions, and they will not do so in response to a new exemption. Rather, consumers will have access to more new and used devices, which will contain and use an increasing number and variety of software programs and applications. In fact, the proposed exemption may actually *increase* lawful access to copyrighted works, since unlocking—especially bulk unlocking—makes more wireless devices and their software available to a broader range of purchasers. Some of these purchasers might not have bought a new device or been able to afford to keep using their existing device with their original carrier. Indeed, one study found that overall mobile app usage recently increased 76% in one year alone.¹⁰⁴ Likewise, use of apps on mobile devices in 2014 continued to vastly surpass general Internet use on mobile devices by 86% to 14%.¹⁰⁵

Third, an unlocking exemption—a bulk unlocking exemption in particular—will open up access to mobile software and devices for those who otherwise cannot afford newer models with additional

¹⁰³ In the extremely unlikely event that carriers and manufacturers were to begin selling *all* devices unlocked, an exemption would have no negative effects, as there would be no devices in need of unlocking.

¹⁰⁴ Simon Khalaf, *Shopping, Productivity and Messaging Give Mobile Another Stunning Growth Year*, FLURRY.COM (Jan. 6, 2015), <http://www.flurry.com/blog/flurry-insights/shopping-productivity-and-messaging-give-mobile-another-stunning-growth-year#.VMaPHWR4rzE>.

¹⁰⁵ Sarah Perez, *Mobile App Usage Increases in 2014, As Mobile Web Surfing Declines*, TECHCRUNCH (Apr. 4, 2014), <http://techcrunch.com/2014/04/01/mobile-app-usage-increases-in-2014-as-mobile-web-surfing-declines>.

software capabilities. Petitioner’s clients regularly recycle and resell older model or legacy phones, many of which remain locked by carriers. The ability to circumvent the locking mechanism on a larger scale would allow Petitioner’s clients to sell more unlocked phones, effectively increasing lawful access to mobile devices and their underlying mobile software.

B. (ii) The Availability for Use of Works for Nonprofit Archival, Preservation, and Educational Purposes

The lack on the proposed exemption does not directly bear on the listed activities in factor (ii), but the proposed exemption will not decrease availability of the underlying mobile software for nonprofit archival, preservation, or educational purposes. As discussed in factors (i) and (iv), the proposed exemption may actually increase lawful access to the underlying software for all purposes, including those listed in factor (ii).

C. (iii) The Impact That the Prohibition on the Circumvention of Technological Measures Applied to Copyrighted Works Has on Criticism, Comment, News Reporting, Teaching, Scholarship, or Research

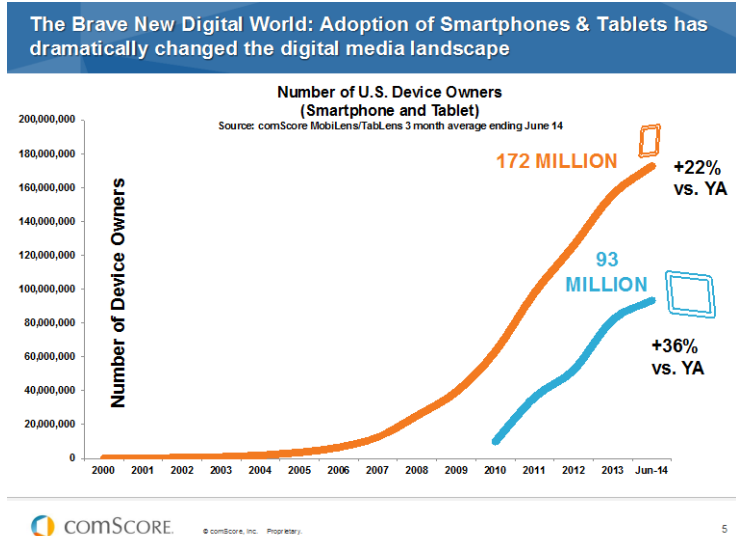
The prohibition on the proposed exemption does not directly bear on the listed activities in factor (iii), except to the extent that broader device and software availability will result in more engagement in the listed activities.

D. (iv) The Effect of Circumvention of Technological Measures on the Market for or Value of Copyrighted Works

The proposed exemption will have no negative effect on the market for mobile software. Device manufacturers are not likely to slow or halt production of mobile software or devices simply because purchasers have greater flexibility to unlock their mobile devices and switch carriers. To the contrary, the proposed exemption may actually *increase* the value and market for the underlying software. This is because mobile devices—previously locked to certain carriers—will have longer lifetimes as their owners can activate their devices on their preferred carrier, or additional value as they can resell the used devices for higher prices. Use of a device on a new carrier or by a new buyer may increase the market value of the underlying software since the owner is likely to purchase more apps or other software to operate in conjunction with the underlying software.¹⁰⁶ This also increases the value of other copyrighted works—namely, the additional apps.

¹⁰⁶ Simon Khalaf, *Shopping, Productivity and Messaging Give Mobile Another Stunning Growth Year*, FLURRY.COM (Jan. 6, 2015), <http://www.flurry.com/blog/flurry-insights/shopping-productivity-and-messaging-give-mobile-another-stunning-growth-year#.VMaPHWR4rzE>.

Second, individuals may choose to purchase more mobile devices, each with embedded copyrighted software, if the freedom to unlock is available. This is particularly true because consumers will be more inclined to sell their used devices to recyclers because they will receive higher prices—before purchasing new mobile devices. Indeed, sales of mobile smartphones in the United States increased by \$5 billion in 2013, and are predicted to increase by \$20 billion this year alone.¹⁰⁷ As the accompanying graph illustrates, mobile device ownership—including smartphones and tablets—has continued to increase dramatically since prior similar exemptions were granted.¹⁰⁸



Finally, there is no indication that the ability to lawfully unlock mobile devices under previous exemptions had any adverse effect on wireless carriers or the availability of copyrighted works. Wireless carrier revenues have steadily increased despite previous similar exemptions.¹⁰⁹ CTIA hails the growth of wireless services, noting that U.S. “mobile data use doubled from 2012 to 2013, and will increase about 650% by 2018.”¹¹⁰ All told, U.S. wireless data use is set to increase by a factor of 400 from 2008 to 2014.¹¹¹ Since 2012 smartphone use in the United States has increased by roughly 40 million users and is estimated to increase by 60 million users to 182 million by the end of 2015.¹¹² Likewise, U.S. smartphone traffic is predicted to increase by 325% by 2018.¹¹³

E. (v) Such Other Factors as the Librarian Considers Appropriate

Unlocking mobile devices is about consumer choice, not copyright. The Register recognized this basic truth in the past,¹¹⁴ as did Congress and the White House by enacting the “common sense” Unlocking Act¹¹⁵ in response to the Register’s 2012 determination and narrower exemptions. As the

¹⁰⁷ *Smartphone Sales in the United States from 2005 to 2015*, STATISTA, <http://www.statista.com/statistics/191985/sales-of-smartphones-in-the-us-since-2005> (Jan. 2015).

¹⁰⁸ *The State of the Mobile Industry*, COMSCORE, <https://www.comscore.com/Insights/Presentations-and-Whitepapers/2014/The-State-of-the-Mobile-Industry> (Sept. 25, 2014).

¹⁰⁹ *Revenue of the Wireless Telecommunications Industry in the United States from 2008 to 2018*, STATISTA, <http://www.statista.com/forecasts/311158/us-wireless-telecommunications-carrier-industry-revenue-forecast-naics-5172> (July 2014).

¹¹⁰ Demand, *Wireless Quick Facts*, CTIA.ORG, <http://www.ctia.org/your-wireless-life/how-wireless-works/wireless-quick-facts> (last visited Jan. 27, 2015).

¹¹¹ *Id.*

¹¹² See *Number of Smartphone Users in the U.S. from 2010 to 2018*, STATISA (Apr. 2014), <http://www.statista.com/statistics/201182/forecast-of-smartphone-users-in-the-us>.

¹¹³ See Demand, *Wireless Quick Facts*, CTIA.ORG, <http://www.ctia.org/your-wireless-life/how-wireless-works/wireless-quick-facts> (last visited Jan. 27, 2015).

¹¹⁴ See, e.g., 2012 Recommendation at 93, citing 2010 Recommendation at 137.

¹¹⁵ *Answering the Public’s Call*, THE WHITE HOUSE BLOG (Aug. 1, 2014 12:28 PM EST), <http://www.whitehouse.gov/blog/2014/08/01/answering-publics-call>.

White House noted in endorsing the Unlocking Act, the Act—like the unlocking sought here—was necessary “*to ensure copyright law does not undermine wireless competition.*”¹¹⁶ According to the White House, this is a “basic consumer freedom,” and the Unlocking Act represents “another step toward giving ordinary Americans more flexibility and choice, so that they can find a cell phone carrier that meets their needs and their budget.”¹¹⁷ Even CTIA praised the Unlocking Act “for providing consumer flexibility.”¹¹⁸ The Unlocking Act was one critical step forward; the Register should not take two steps back.

Promotion of consumer choice is a factor that the Librarian should consider appropriate. The proposed exemption provides that in bulk.

VIII. Conclusion

Petitioner’s members and other recyclers provide important public and economic benefits by efficiently buying, refurbishing, reselling, and recycling devices that they lawfully acquired individually from consumers and in bulk from organizations. In each of the last three § 1201 rulemakings, the exemption for device unlocking has become increasingly narrower, resulting in significant adverse impacts on both consumers and recyclers. Congress and the White House sharply corrected this overly narrow approach through the Unlocking Act. Granting the unlocking exemption proposed here is essential and is warranted by current market conditions and the legal arguments presented in the petition. The exemption will effectuate Congress’s clear intent, promote competition in the wireless device and carrier marketplaces, increase the choices available to consumers, and enable recyclers to again efficiently and economically enable those choices, all without negatively impacting legitimate copyright interests.

¹¹⁶ Office of the Press Secretary, Statement from the President on Unlocking Consumer Choice and Wireless Competition Act, <http://www.whitehouse.gov/the-press-office/2014/07/25/statement-president-unlocking-consumer-choice-and-wireless-competition-a> (last visited Jan. 27, 2015) (emphasis added).

¹¹⁷ *Id.*

¹¹⁸ See CTIA, *CTIA Statement After President Obama Signed the Unlocking Consumer Choice and Wireless Competition Act into Law* (Aug. 1, 2014), <http://www.ctia.org/resource-library/press-releases/archive/unlocking-obama> (last visited Feb. 6, 2015).