



## Long Comment Regarding a Proposed Exemption Under 17 U.S.C. § 1201

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### ITEM A. COMMENTER INFORMATION

The Electronic Frontier Foundation (EFF) is a member-supported, nonprofit public interest organization devoted to maintaining the traditional balance that copyright law strikes between the interests of rightsholders and the interests of the public. Founded in 1990, EFF represents over 35,000 dues-paying members, including consumers, hobbyists, artists, writers, computer programmers, entrepreneurs, students, teachers, and researchers, who are united in their reliance on a balanced copyright system that ensures adequate incentives for creative work while promoting innovation, discouraging censorship, and enabling broad and equal access to information in the digital age.

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### ITEM B. PROPOSED CLASS ADDRESSED

We submit these comments in support of Proposed Class 11: Computer Programs—Jailbreaking. EFF petitions the Librarian to clarify that a “smart television” in this exemption need not have an integrated display screen, to make it clear that the exempted class includes computer programs on *devices that are primarily designed to display software applications on a screen, including applications that stream video delivered via the Internet, where such devices connect to but are not physically integrated into a display*. Alternatively, we ask the Librarian to grant an exemption for such devices that is equivalent to the existing exemption for smart TVs.

### ITEM C. OVERVIEW: THE PROPOSED CLASS IS WELL-DEFINED AND CONSISTENT WITH PRIOR CLASSES THAT ENABLE INNOVATION

The Register has recommended exemptions for jailbreaking of personal computing devices in each of the last four triennial rulemakings. In this cycle, the Register should recommend that the screenless smart TV devices in the proposed class also be exempted from the ban on circumvention. These devices are functionally equivalent to the class granted in 2018 for smart

**Privacy Act Advisory Statement:** Required by the Privacy Act of 1974 (P.L. 93-579)

The authority for requesting this information is 17 U.S.C. §§ 1201(a)(1) and 705. Furnishing the requested information is voluntary. The principal use of the requested information is publication on the Copyright Office Web site and use by Copyright Office staff for purposes of the rulemaking proceeding conducted under 17 U.S.C. § 1201(a)(1). NOTE: No other advisory statement will be given in connection with this submission. Please keep this statement and refer to it if we communicate with you regarding this submission.

TVs (renewal of which has not been opposed), except that they do not integrate a screen into the same device as the processor and network adapter. As the Register has twice concluded,<sup>1</sup> the ability to install and remove applications of the user's choosing from a smart TV does not infringe copyright, nor increase infringement of other works. Likewise, jailbreaking does not infringe, nor lead to infringement, when the computing hardware is housed in a separate device from the display, as with the Apple TV, Roku, or Fire Stick. The opposition commenters do not even attempt to distinguish the proposed class from the previously granted Smart TV class, because they cannot.

Instead, commenters DVD CCA et al. ("DVD CCA") and the Motion Picture Association et al. ("MPA") misstate the scope of the proposed class. Far from covering "all video transmission devices,"<sup>2</sup> the proposed expansion covers only a narrow category of devices that is well understood in the marketplace: devices that run a variety of applications, with a primary purpose of streaming video from the Internet for display on a television screen, and which are not integrated into other types of devices such as Blu-Ray players or game consoles.

These commenters, along with commenter ACT, also raise legal arguments regarding infringement that have been repeatedly rejected by the Register. No change in the law has occurred, nor were facts presented, that would justify accepting those arguments here. Modifying device firmware for the purpose of enabling the addition or removal of software from the device is a fair use. And as with smartphones, tablets, smart watches, voice assistants, and physically integrated smart TVs, the ability to jailbreak non-integrated smart TV devices does not increase infringement of other works in any meaningful way.

As with these other devices, there is a robust community of developers who write innovative applications for jailbroken smart TV devices.<sup>3</sup> But owners are hindered in their use of these applications by the potential for Section 1201 liability. Their lawful use of those devices and their firmware to install and run alternative applications is adversely affected by the ban on circumvention.

#### **ITEM D. REPLY TO OPPOSITION COMMENTS**

##### **1. The Standard For Decision in this Rulemaking is Adverse Effect on Non-Infringing Uses.**

Congress mandated that "[t]he Librarian *shall* publish any class of copyrighted works for which the Librarian has determined, pursuant to the rulemaking conducted under subparagraph (C), that *noninfringing uses* by persons who are users of a copyrighted work *are, or are likely to be, adversely affected*, and the prohibition contained in subparagraph (A) shall not apply to such

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<sup>1</sup> 2015 Register's Recommendation at 215, 2018 Register's Recommendation at 7 (noting renewal of exemption).

<sup>2</sup> MPA Comments at 2.

<sup>3</sup> EFF First Round Comments at 11-13.

users with respect to such class of works for the ensuing 3-year period.”<sup>4</sup> Similarly, subparagraph (C) provides that the inquiry is “whether persons who are users of a copyrighted work are, or are likely to be in the succeeding 3-year period, adversely affected by the prohibition under subparagraph (A) in their ability to make noninfringing uses under this title of a particular class of copyrighted works.”

The rulemaking exemptions have long been understood to grant freedom to operate for all persons who satisfy their requirements. DVD CCA proposes a new requirement that only persons named in the rulemaking can benefit from it.<sup>5</sup> This proposal contradicts the statutory language stating that “such” users (not, for instance, “those” users) are exempt under the rulemaking exemptions. The most straightforward reading is that “such users” are “users of a copyrighted work.” DVD CCA’s novel restriction would also create repetitive and unnecessary work for the Copyright Office as every would-be beneficiary relitigates the issues, and would exacerbate the harm caused by an overbroad ban on circumvention by forcing every user to anticipate their needs three years in advance and to hire their own attorneys. The process already depends upon the goodwill and free labor of dozens of public interest lawyers at nonprofits and law clinics to vindicate the rights of users; the Register should decline the invitation to adopt a new theory that serves no purpose except to impose new costs and traps for the unwary for those seeking to exercise their rights.

## **2. Firmware for Smart TV Devices Is A Well-Defined Class of Works.**

Smart TVs are broadly understood to be televisions that, in addition to passively displaying video, can run a variety of software applications, primarily applications that stream video from the Internet. Devices like the Apple TV, Roku, and Fire Stick transform a passive display into a smart TV. These “streaming media players” inhabit a well-defined product category. For example, retailers Best Buy and Amazon list “streaming media players” as a department on their websites, while Walmart has a “streaming devices” department.<sup>6</sup>

This class does not encompass devices that integrate Smart TV functionality into other types of devices such as DVD players, Blu-Ray players, and game consoles, because streaming video from the Internet is not the primary purpose of these devices. This distinction is well understood in the marketplace. Best Buy, for example, advises customers seeking streaming devices “to check if

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<sup>4</sup> 17 USC 1201(a)(1)(D) (emphasis added).

<sup>5</sup> DVD CCA Opp’n Comments at 4.

<sup>6</sup> Best Buy, “Streaming Media Devices,” <https://www.bestbuy.com/site/tv-home-theater/streaming-media-devices/pcmcat161100050040.c?id=pcmcat161100050040> (accessed Mar. 10, 2021); Amazon, “Streaming Devices for TV,” [https://www.amazon.com/s?k=streaming+devices+for+tv&rh=n%3A1266092011%2Cn%3A13447451&dc&crd=IBURHUUXE29J&qid=1615399400&rnid=2941120011&sprefix=streaming+devices+%2Caps%2C235&ref=sr\\_nr\\_n\\_2](https://www.amazon.com/s?k=streaming+devices+for+tv&rh=n%3A1266092011%2Cn%3A13447451&dc&crd=IBURHUUXE29J&qid=1615399400&rnid=2941120011&sprefix=streaming+devices+%2Caps%2C235&ref=sr_nr_n_2) (accessed Mar. 10, 2021); Walmart, “streaming devices,” [https://www.walmart.com/search/?cat\\_id=3944\\_77622\\_7549938\\_1229631\\_1085065&grid=true&query=streaming+devices](https://www.walmart.com/search/?cat_id=3944_77622_7549938_1229631_1085065&grid=true&query=streaming+devices) (accessed Mar. 10, 2021).

you already own a multimedia player that can stream content, like a gaming console, smart Blu-ray player, smart television, or DVR/streaming player.”<sup>7</sup> But the retailer places these products in departments other than the “streaming media player” department.

Set-top boxes that receive video from FCC-regulated multichannel video programming distributors such as cable or satellite (devices that are generally leased from MVPDs rather than sold) are likewise not included because they primarily receive video from sources other than the Internet.

DVD CCA and MPA misstate the proposed class in an attempt to portray it as something other than a narrow subset of works. But neither the definition of the proposed class nor the paradigmatic examples given include the specific devices referenced by these commenters, let alone “any device that connects to a TV display,”<sup>8</sup> or “all video transmission devices.”<sup>9</sup>

### **3. The Proposed Uses Are Non-Infringing Fair Uses.**

Opposition commenters’ principal legal argument is one that the Register has consistently rejected. Contrary to these commenters’ claims, long-standing legal precedent supports the conclusion that jailbreaking personal computing devices by modifying their firmware is not an infringement of copyright. In her 2018 Recommendation, Acting Register Temple wrote:

As proponents note, previous Registers have concluded that enabling a device’s operating system to interoperate with other programs is a favored purpose under the first fair use factor. Indeed, the Acting Register notes the long history of exemptions for jailbreaking granted in prior rulemakings. Nothing in the record suggests that jailbreaking a voice assistant device is materially different in purpose and character from jailbreaking those other types of devices.<sup>10</sup>

The Acting Register also renewed the exemption for jailbreaking smart TVs that was first granted in 2015.<sup>11</sup> The purpose of jailbreaking non-integrated smart TVs is identical to the purpose of jailbreaking physically integrated smart TVs.

As the Register has repeatedly determined, the decisions in *Sony v. Connectix* and *Sega v. Accolade* continue to guide the application of fair use to software, including in the jailbreaking context. Opposition commenters attempt to distinguish these cases on the basis that they did not involve modification of the reverse-engineered source code. This distinction relies on irrelevant differences of fact and is unsupported by case law. The derivative works right, just like the reproduction right, is limited by fair use. And contrary to opponents’ arguments, software modification is an eligible form of fair use.

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<sup>7</sup> Best Buy, *supra* n.6.

<sup>8</sup> DVD CCA Comments at 5.

<sup>9</sup> MPA Comments at 2.

<sup>10</sup> 2018 Register’s Recommendation at 169.

<sup>11</sup> 2018 Register’s Recommendation at 7.

In one recent example, a court held that a modification of Apple’s iOS was fair use, relying on *Connectix* and *Sega*.<sup>12</sup> Corellium developed a product that “virtualizes” the Apple iOS, which means it enables users to run Apple’s iOS software “on hardware it is not ordinarily meant to run on.”<sup>13</sup> In order to do this, the Corellium product has to modify iOS, producing new software that “derives from a combination of Corellium’s code and Apple’s iOS code.”<sup>14</sup> The court found this use transformative, rejecting Apple’s argument that Corellium “merely modifies iOS and ‘offers the software in a different medium.’”<sup>15</sup> The court explained that Corellium’s modification of the code to add new features and benefits was a transformative use, not a mere repackaging of Apple’s software.<sup>16</sup> Like the software modification in *Corellium*, the modifications that would be covered by the proposed exemption would expand the utility of Smart TV devices, serving the goals of copyright.<sup>17</sup>

Likewise, in *Evolution, Inc. v. SunTrust Bank*, it was fair use for defendant to incorporate copyrighted code into a derivative work to enable the derivative work to function with existing data structures.<sup>18</sup> Since the functionality of embedded software is constrained by the existing hardware design and needs to interoperate, it is to be expected that derivative works will make fair use of existing code elements.<sup>19</sup>

Finally, Section 117 specifically protects adaptation when the “adaptation is created as an essential step in the utilization of the computer program in conjunction with a machine and that it is used in no other manner.”<sup>20</sup> This provision both protects the activities in the proposed class and demonstrates that they serve the purposes of copyright law such that they and similar uses ought to be considered fair use (whether or not they fall into the bright-line Section 117 safe harbor).

Regarding the fourth fair use factor analysis, DVD CCA and MPA argue that smart TV devices should be considered equivalent to game consoles. In 2012, the Register opined that jailbreaking of game consoles is not fair use because jailbroken console firmware “can no longer serve as a

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<sup>12</sup> *Apple Inc. v. Corellium, LLC*, No. 19-81160-CIV, 2020 WL 8642269, at \*15 (S.D. Fla. Dec. 29, 2020).

<sup>13</sup> *Id.* at \*4.

<sup>14</sup> *Id.* at \*6.

<sup>15</sup> *Id.* at \*10.

<sup>16</sup> *Id.*; see also *id.* at \*11 (citing *Sony Comput. Entm’t, Inc. v. Connectix Corp.*, 203 F.3d 596, 599, 606 (9th Cir. 2000)).

<sup>17</sup> See *id.* at \*10; see also 2018 Recommendation at 169 (recognizing that functionality-enhancing nature of jailbreaking favors a fair use finding).

<sup>18</sup> 342 F. Supp. 2d 943, 956–57 (D. Kan. 2004).

<sup>19</sup> *Computer Assocs. Int’l, Inc. v. Altai, Inc.*, 982 F.2d 693, 709–10 (2d Cir. 1992).

<sup>20</sup> 17 U.S.C. § 117; see *Krause v. TitleServ, Inc.*, 402 F.3d 119 (2nd Cir. 2005).

secure platform for the development and distribution of legitimate content.”<sup>21</sup> The implication is that rightsholders will not provide audiovisual content to jailbroken game consoles, impairing the value of the consoles and their firmware.

EFF disputes this claim, and the fourth factor analysis it engenders. But assuming *arguendo* that this logic holds true for game consoles, it still would not apply to streaming video. Rightsholders today license the streaming of high-resolution video to numerous devices, such as personal computers, on which users can add and remove applications or modify the operating system.<sup>22</sup> Rightsholders also license video for display on devices such as smartphones, despite these devices being subject to lawful jailbreaking for over a decade.<sup>23</sup> And rightsholders license content for distribution through integrated Smart TVs via Internet streaming, a platform that has been subject to lawful jailbreaking since 2015. Notwithstanding their expressed preference for a “carefully considered and implemented content protection ecosystem” that prevents device owners from installing new applications, consumers’ ability to install applications does *not* affect rightsholders’ willingness to provide content. Therefore, jailbreaking does not impair the value of device firmware as a “platform for the development and distribution of legitimate content.”<sup>24</sup> Also regarding the fourth factor, ACT denies but does not rebut the argument that there is no likely effect on the market for streaming device firmware. Smart TV devices are not sold as bare metal waiting for a separate purchase of operating firmware; they are sold with a copy of the firmware, and the copyright holder receives compensation.

Even if someone decided to infringe smart TV firmware and distribute it, a person would need to own the correct hardware device for it to work. The economics of firmware markets and infringement simply do not have the properties of digital-only copying; they do not pose a substantial risk of substitution-based harms.

To be sure, a firm that holds the keys to what competitive software may be used on a Smart TV device can use that leverage to extract monopoly rents, but that anticompetitive interest is contrary to the goals of copyright law. Interoperability is favored under the law even if a would-be monopolist may make less money thanks to the competition. *See, e.g., Sony*, 203 F.3d at 596 (9<sup>th</sup> Cir. 2000).

#### **4. The Proposed Class Will Not Encourage Infringement.**

In at least three prior rulemakings, the Register has concluded that the ability to jailbreak personal computing devices does not meaningfully increase infringement of other works. This

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<sup>21</sup> 2012 Register’s Recommendation at 44.

<sup>22</sup> For example, Netflix, an MPA member company, streams video programming to browsers on personal computers.

<sup>23</sup> Netflix, Amazon, Hulu, and many other streaming video apps are available on the iOS and Android mobile platforms.

<sup>24</sup> DVD CCA Comments at 14. Opponents also overlook the value of Smart TV firmware as a platform for distributing content they do not produce or control, such as amateur and independent video distributed via the Internet.

includes integrated smart TV hardware. One reason for this is that, as discussed in EFF’s first round comments, audiovisual content streamed from the Internet can be and often is subjected to separate technical protection measures that are outside the scope of this proposed class. In 2018, the Register found the presence of separate TPMs on streaming media to be significant in determining that an exemption has no meaningful impact on infringement.<sup>25</sup>

Software installed on personal computing devices like Smart TV devices can of course have both lawful and unlawful uses. But no court has held that the mere ability to install applications of one’s choice on a device increases infringement. In suggesting otherwise, MPA misrepresents the holdings of the *TickBox* and *DragonBox* cases. Both of those cases involved devices that did not simply “allow[] users to perform many of the functions of a computer or tablet on their television set or other monitor.”<sup>26</sup> Rather, these devices were pre-configured by the defendants to link to and deliver infringing video streams.<sup>27</sup> Absent these configurations, Kodi and other open-source media player applications are lawful products with significant non-infringing uses. Moreover, Kodi and similar applications can also be installed on smartphones, tablets, and personal computers. While the opposition commenters may prefer a world without open-source, freely configurable media players, they have not shown that the ability to use such players on Smart TVs is a significant driver of infringement.

### **5. The Ban on Circumvention Inhibits Substantial Innovation in Smart TV Applications.**

In first-round comments, EFF described the innovation already taking place for Smart TV hardware in the jailbreaking community, or new uses that are contemplated but inhibited by the ban on circumvention. These include enabling compatibility between Smart TV devices and other hardware, enhancing user privacy by installing VPN software, and enabling the use of software written for other platforms.<sup>28</sup> Although MPA cherry-picks the record of significant non-infringing uses for jailbreaking in order to dismiss their significance, this innovation is as important to Smart TVs as it has been to smartphones. Because the ban on circumvention is suppressing these important innovations, the Register should recommend clarifying or expanding the Smart TV exemption.

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<sup>25</sup> 2018 Register’s Recommendation at 184 n. 1121 (citing 2015 Recommendation at 215).

<sup>26</sup> MPA Comments at 4.

<sup>27</sup> *Universal City Studios Prods. LLLP v. TickBox TV LLC*, No. CV 17-7496-MWF (ASX), 2018 WL 1568698, at \*9 (C.D. Cal. Jan. 30, 2018) (defendant “preloaded the Device with third-party themes that provided easy access to copyrighted content”);

*Netflix Studios, LLC v. Dragon Media Inc.*, No. CV 18-230-MWF (ASX), 2018 WL 7891027, at \*1 (C.D. Cal. Dec. 21, 2018) (“the Dragon Box presented a ‘curated selection of various illicit addons . . . which function by searching repositories of content across the Internet and returning links to sources of infringing content.’”).

<sup>28</sup> EFF First Round Comment at 11-13.