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State Right-to-Repair Laws Need to Respect Federal Copyright Laws: A Constitutional, Legal, and Policy Assessment

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Executive Summary

Various states are considering laws that would mandate that producers of electronic devices provide consumers and repair shops with all the tools and know-how necessary to repair these devices. Proponents of these "right-to-repair laws" argue that consumers should be able to do whatever they want with their devices, whether a smartphone, a smart TV, or a gaming console. Right-to-repair advocates, however, ignore inconvenient facts. These state laws conflict with federal copyright law and are unconstitutional, and they are bad policy as well.

First, as a simple legal matter, the proposed right-to-repair laws are unconstitutional. These laws mandate the disclosure and distribution of the code in the computer programs that make our devices work, such as operating systems, apps, and the "digital locks" that protect these computer programs from unauthorized access and copying. Federal copyright law protects all these computer programs and "preempts" any conflicting state laws under the Constitution.

Second, state right-to-repair laws are wrong as a matter of policy. These laws upset the long-standing balance of rights implemented by federal copyright law. For over 200 years, Congress has enacted copyright laws to secure to authors and innovators the fruits of their creative labors. These laws have properly balanced the rights of creators, the rights of companies that produce and distribute their copyrighted works, and the rights of consumers and the public. As a result, federal copyright law has been a launching pad for the

economic and cultural revolutions in books, movies, music, and now digital games and the internet of things.

Everyone values their electronic devices because copyright law provides the legal foundation for today's thriving digital marketplace. Consumers have access to an incredible selection of movies, music, games, and many other previously unimagined digital goods and services. The same is true for products that consumers have long used and that have become "smart" today, such as phones, TVs, automobiles, and other devices. Overbroad right-to-repair laws fail to acknowledge the legal rights and the underlying policies in federal copyright law that have made all this possible.

Key Takeaways:

- Federal copyright law has long protected the respective rights of creators, innovators, consumers, and the public.
- State right-to-repair laws are unconstitutional because they directly conflict with the careful and time-tested balance of rights in federal copyright law.
- The unprecedented success of the modern digital marketplace and the explosion of "smart" devices today confirm the policy merits and economic value of federal copyright law.
- States should not waste scarce resources by enacting overbroad right-to-repair laws that are unconstitutional and are bad policy.

I. Introduction

The right-to-repair movement has made headlines in recent years as proponents have sought to expand the repair opportunities for consumers of electronic devices. This movement advocates for a seemingly straightforward idea: if you own something, you should be able to modify or repair it however and wherever you see fit. Indeed, many repair proponents suggest that something is not really "owned" unless the ability to repair or tinker with it is completely unencumbered.[1] This view of ownership, of course, is overly simplistic, and it fails to account for the fact that other people have rights too. Everything we own is limited in some way by the legal rights of others. For example, people who own cars cannot run over pedestrians, and people who own baseball bats cannot smash the windshields of other people's cars.

This is true for all of our own physical actions. As legal philosopher and free speech scholar Zechariah Chafee famously noted, "Your right to swing your arms ends just where the other man's nose begins."[2] Right-to-repair supporters tend to focus only on how we can swing our arms, but the law defines the legitimate boundaries of our actions by protecting other people's noses. In this case, the "noses" are the exclusive rights that federal law secures to copyright owners to protect their freedom to define the scope of other people's use and distribution of their copyrighted works—including the right to protect those works by deploying technological protection measures, such as digital locks, that prevent unauthorized access or copying.

Confusingly, right-to-repair advocates have been sending mixed signals when it comes to copyright law. On the one hand, they sometimes acknowledge that repairing electronic devices implicates copyrights in both original works and the digital locks that protect them. In such contexts, they generally characterize copyright law as an improper blockade that must be overcome to promote the public good.[3] On the other hand, they have been lobbying states to implement right-to-repair laws while claiming that their proposed legislation does not conflict with federal copyright law, as enacted under the Constitution's explicit authorization to Congress to secure nationwide copyright protection to authors.[4] These contradictory approaches by right-to-repair advocates are wrong; they cannot have it both ways.

Copyright protection is not an ill-advised hindrance that thwarts the common good. On the contrary, it has long been a central

legal foundation upon which the United States has developed its creative industries and innovation economy that benefit us all. Moreover, states should not—and cannot—ignore federal copyright law in enacting right-to-repair laws. The various bills that states are considering throughout the country would force manufacturers to distribute both their copyrighted computer programs and the keys to the digital locks that protect their copyrighted works against piracy and other unauthorized uses. This raises serious legal and policy concerns because federal law secures to copyright owners the right to control the access, use, and distribution of their works. Under the Constitution, and its interpretation by the Supreme Court over the past two hundred years, states have no power to enact laws that expressly or impliedly conflict with federal law.

Advocates for the right to repair downplay the key economic and social benefits of copyright law for creators, the creative industries, and the public because these facts contradict the policy narrative that anything standing in the way of the right to repair is not in the public interest. This policy narrative fails to recognize that copyright law promotes the public good by protecting the private rights of authors. The remarkable success of the digital marketplace over the past two decades confirms that copyright law is doing its job and doing it well. Federal copyright law protects the computer programs at the heart of our electronic devices, the digital locks that prevent piracy, and the incredible content that we enjoy on our devices. We love our electronic devices because copyright makes them roar.

For the states, copyright law is even more important as a matter of constitutional law. While academics and lobbyists may advocate for a state law irrespective of federal laws, state governments do not have the luxury of ignoring federal law. States cannot enact laws that conflict with the rights secured to authors under the federal Copyright Act. In adopting federal legislation to secure copyrights, as authorized by the Constitution, Congress balanced the relevant interests between copyright owners and users of their works. States do not have the power in the American system of federalism to decide that Congress struck the wrong balance in its copyright laws.

This policy memo fills in the gaps that repair supporters have left out of the legal discussions at the state level about federal copyright law and the right to repair. First, it briefly explains the basics of copyright law, as well as the longstanding understanding from the Founders to the modern Supreme Court that copyright protection serves the public good. Second, it describes the nature of digital locks, their essential role in furthering the legal and policy goals of copyright in protecting creative works, and how the digital marketplace flourishes today as a result. Lastly, it addresses the massive elephant in the room that right-to-repair lobbyists seem to simply wish does not exist—the fact that state laws that conflict with federal copyright law are unconstitutional under the American system of federalism.

II. Copyright Law Promotes the Public Good

The Copyright and Patent Clause of the U.S. Constitution grants Congress the power "to promote the progress of science… by securing for limited times to authors… the exclusive right to their respective writings."[5] This is the foundation of our national copyright system. It is noteworthy that the Founders included this express delegation of power to Congress to enact copyright laws along with the other enumerated powers granted to Congress in the new Constitution. Thus, according to the Founders, federal copyright law was on par constitutionally with Congress's other significant legislative powers, such as the power to create an army and navy, to create courts to decide legal disputes, to regulate interstate commerce, to coin money, and to declare war.

It is also significant that the Copyright and Patent Clause is in the Constitution as originally ratified by the Founders in 1788—before the ratification of the Bill of Rights in 1791. Many drafters of the Constitution were in the First Congress,

such as James Madison, whom historians and legal scholars have identified as the "Father of the Constitution,"[6] and the First Congress quickly enacted the Copyright Act of 1790. The Founders clearly understood that protecting the rights of authors goes hand in hand with protecting individual liberties like freedom of speech, as expressly secured in the First Amendment in 1791, the year after the enactment of the first federal copyright law. The Founders recognized that copyright is essential to a flourishing society; they saw it as key to both creative expression and free speech. Indeed, as the Supreme Court explained in 1985, "the Framers intended copyright itself to be the engine of free expression."[7]

The Copyright and Patent Clause is also remarkable insofar as it sets forth both the means and ends of Congress's power, while the other power-granting clauses list only the ends, such as creating an army and navy or coining money. In the Copyright and Patent Clause, the means are the "exclusive right" secured to "authors" in their "writings." An "exclusive right" is a property right, and copyright includes such classic rights as making and distributing one's property.[8] The Constitution also refers broadly to "writings," which include original works of authorship that are "the fruits of intellectual labor"[9]—such as the computer programs written today by coders. The end or goal that Congress is authorized to pursue is the progress of "science," the eighteenth-century term for "knowledge" that the Founders saw as benefitting society. The Constitution thus recognizes a logical connection between the rights of authors and the public good.

Today, this fundamental legal and policy connection between copyright and the public good may seem confusing at first blush. After all, how does giving authors an "exclusive right" to control the reproduction and distribution of their works increase our collective knowledge and advance the public good? The answer is simple: copyright law embodies the principle that the best way to advance the public interest is by empowering authors to pursue their private interests.[10] As James Madison famously wrote in the *Federalist Papers*, essays published between October 1787 and April 1788 that explained the nature and function of the various provisions of the new Constitution, the "public good fully coincides… with the claims of individuals" in copyright law.[11] The federal government secures to authors exclusive rights—property rights—as a reward for their creative labors *and* as an incentive to profit in the marketplace from the dissemination of their works.[12]

The modern Supreme Court has nicely framed this key insight of the Founders and the Constitution's authorization to Congress to create a federal copyright system: the "profit motive is the engine that ensures the progress of science."[13] Copyright protection incentivizes authors to create new works that disseminate more knowledge more broadly. This is the same insight that economists have long recognized in real property: securing a property right in the fruits of one's labors incentivizes farmers to spend time planting, growing, and harvesting crops. Both authors and farmers are incentivized precisely because they can sell their resulting products—the work or the wheat—in the marketplace. Thus, authors and farmers have the legal and economic means to make a living from their respective work, and their labors redound to our collective success. They produce more, foster a growing economy, and ultimately contribute to a flourishing society. In other words, when authors and farmers get paid for their labors, everybody wins.

Contrary to the claims of right-to-repair advocates, copyright is not a monolithic legal system that disregards the rights of others. Copyright law has built-in limitations that respect the equal rights of other people to their own property and liberty interests. Since copyright secures exclusive rights in expression, copyright is also limited to ensure respect for everyone's free speech interests. When copyright protects an author's work, for example, the law explicitly limits the exclusive rights to protect only the original expression that comprises the work that the author created.[14] Copyright does

not protect the facts and ideas that the author expressed in the work; these instantly become free for everyone to use.[15] This important limitation promotes the progress of science—learning and knowledge—by allowing others to build on the uncopyrightable facts and ideas that copyrighted works contain.

Likewise, the fair use doctrine allows others to copy, use, and distribute otherwise protected expression under certain circumstances, such as for educational use or social commentary—at least when the use does not interfere with the market for the original work.[16] For instance, recording over-the-air broadcasts with a DVR for personal in-home viewing is fair use because it is unlikely to cause market harm,[17] but copying educational materials extensively and selling the copies is not fair use because it harms the market.[18] Finally, and most importantly, the Copyright and Patent Clause requires that copyright be secured only for "limited times," which ensures that works enter the public domain once the copyright term expires.[19] In sum, copyright law is not a rigid system that robs the public interest by unjustly enriching authors; as with all legal doctrines, copyright secures the rights of authors by respecting the equal rights and liberties of third parties. This balance advances the good of everyone—the creators and users who comprise the public writ large.

III. Digital Locks Foster a Flourishing Digital Marketplace

As with all justly earned and legally secured property rights, creators could not achieve exclusive control over the fruits of their labors without protection against theft or unauthorized interference by others. Over the past two hundred years, society has steadily advanced at a historically unprecedented pace—from printing presses to mimeographs to photocopiers to digital files easily created and transferred via mobile devices. At each of these technological and economic leaps forward, copyright law has adapted to ensure proper protection of a creator's "exclusive right" against infringement, just as the laws securing other types of property rights have adapted to similar technological and economic changes.

In 1980, for example, Congress resolved some confusion among programmers, companies investing in new digital products and services, commentators, and judges over whether computer code constitutes an original work secured by copyright. Following its historical practice of extending copyright protection to new forms of creative works given technological advances, Congress clarified that a computer program is copyrightable by enacting the Computer Software Copyright Act.[20] Similarly, Congress recognized in the 1990s that the existing federal law had to be amended to ensure continued protection against the latest forms of digital infringement. Without these legal protections, copyright could not serve its function of providing a legitimate platform for investments and commercial innovation in the development of new digital markets.[21] To keep copyright law up to speed in the evolving digital realm, Congress enacted the Digital Millennium Copyright Act (DMCA) in 1998.[22]

The drafters of the DMCA understood that copyright owners would be reluctant to distribute their works digitally, given the ease with which millions of people could copy and distribute the works using a computer, a modem, and a connection to the internet (then provided over telephone lines for most people).[23] To prompt creators to market their existing works online and to create new works and new forms of creative entertainment, the DMCA secures protection in computer programs that act as digital locks—limiting access to and reproduction of copyrighted works.[24] Like longstanding legal bans on lock-picking tools used solely to circumvent the locks protecting one's home, one's car, or one's valuables stored in a safe, the DMCA safeguards the new digital locks that protect songs, movies, video games, and other copyrighted works in digital format from unauthorized access and infringement.[25]

It is important to recognize that Congress did not create the DMCA on a lark; it enacted the DMCA after years of studies, hearings, and active debates among stakeholders. These extensive processes led representatives from more than 150 countries to adopt two international treaties requiring protection for digital locks.[26] These treaties were crucial for the United States given the global nature of the internet and the importance of safeguarding the rights of American copyright owners abroad. The DMCA promotes two mutually enforcing goals: fostering the growth of digital commerce for consumers and creating opportunities for creators to profit from and recoup their investments.[27] Congress sought to establish a flourishing digital ecosystem that would benefit copyright owners and consumers alike with new online products and services, such as online gaming worlds and streaming platforms.

Whereas traditional copyright protections are enforceable through lawsuits that are filed *after* the infringement has already taken place, the DMCA protects digital locks in order to prevent infringement from happening in the first place. These digital locks—sometimes called technological protection measures (TPMs) or digital rights management (DRM)—come in two varieties: access controls and copy controls. Access controls govern the means of accessing a copyrighted work, such as the encryption Dish Network uses for its satellite transmissions, the password protection to log in to the Netflix streaming service, or the code that verifies the authenticity of a disc inserted into an Xbox video game console. Copy controls prevent users from copying a work once they have accessed it, like the code in a DVD drive on a desktop computer that prevents users from copying movies onto their hard drives.

The DMCA imposes liability on someone who hacks a digital lock to access a copyrighted work without authorization.[28] As the legislative history puts it, hacking an access control is "the electronic equivalent of breaking into a locked room in order to obtain a copy of a book."[29] The DMCA also imposes liability for distributing the tools used by others to hack access controls or copy controls—the digital locks that prevent unauthorized accessing or copying of copyrighted works.[30]

However, the DMCA still implements the same balance of creator and user rights that one finds in the copyright laws reaching back to the first Copyright Act of 1790. For example, the DMCA does *not* create liability for merely bypassing a copy control when the user already has authorized access to the work that it protects. This preserves the free speech interests of users who might engage in fair use of that work—a point driven home by the DMCA's explicit provision that it has no effect on the fair use doctrine.[31]

Congress further recognized that digital locks might sometimes impede other legitimate uses of copyrighted works that have nothing to do with piracy. Thus, to encourage socially beneficial uses of works protected by digital locks that promote the public good as much as copyright, Congress created permanent exemptions to the DMCA for activities such as law enforcement, reverse engineering, encryption research, and security testing.[32] Moreover, Congress realized that adjustments to these exceptions would be necessary as technologies continue to evolve—the technological evolution that was the progenitor of the need for the DMCA itself. Thus, the DMCA establishes an administrative procedure for creating temporary exemptions via regulations that the Librarian of Congress enacts every three years. These regulations create safe harbors from DMCA liability for some non-infringing activities that may be adversely affected by the DMCA's prohibition against hacking access controls.[33]

IV. The Digital Marketplace Thrives Because of Copyright and the DMCA

Policy advocates and lobbyists campaigning for state right-to-repair legislation rarely acknowledge any of the benefits of copyright law or the nature of the property rights that it

grants to authors. This omission is telling given that reliable and effective copyright protection is a primary reason the digital marketplace flourishes today. It is an understatement to say that Congress was prescient in protecting the exclusive rights secured to creators, as well as the digital locks they use to control access to and reproduction of their works, in the digital world. As discussed above, copyright law rewards the productive labors of creators with property rights—the "exclusive right" that the Constitution identifies as the means of promoting the public good. Just as the property rights in the fruits of a farmer's labors benefit everyone, copyright protection in the fruits of a creator's labors benefits everyone as well. Today's thriving digital marketplace is confirmation that copyright law is working as intended.

Copyright law is the legal foundation and launching pad upon which the explosion of the digital marketplace for creative works rests. The computer programs that make our electronic devices run—firmware, software, operating systems, applications—are copyrighted works. The content that we enjoy on our computers and mobile devices—books, movies, television shows, songs, photographs, video games—are copyrighted works as well. The spectacular growth of streaming services—including Netflix, HBO Max, Amazon Music, and Sirius XM—that deliver this content to our devices is due to the digital locks that protect against piracy. Consumers have an incredible selection of electronic devices to choose from and a near-endless supply of digital content to enjoy. And the best part is that copyright law makes it possible for the people who create these wonderful things to make a profit. Without copyright law (and other intellectual property laws), our smartphones, tablets, and smart TVs would be overpriced paperweights.

By way of example, the thriving video game industry today demonstrates the key role of safeguarding digital locks to benefit consumers, thwart infringement, and promote creativity. Video game consoles and devices use digital locks to provide users with a secure platform that connects them with other players online while protecting the integrity of the gaming experience.[34] Digital locks also prevent pirated games, movies, sound recordings, and other digital content from being played on these devices, thus ensuring that copyright protection for game makers, content creators, and software developers continues to incentivize the creation and dissemination of new digital works that promote the public good. The need to support gaming platforms with digital locks is not merely theoretical; sophisticated criminals around the world engage in continuous, ongoing efforts to sell circumvention devices that hack these locks in order to benefit from the distribution of pirated gaming content worth tens of millions of dollars.[35] The protection of digital locks in gaming devices benefits consumers with great content at reasonable prices while compensating the copyright owners who create that content with a fair return for their labors.

Advocates for state right-to-repair legislation, however, assert that digital locks serve a different function. Instead of reflecting the continued protection of creators' rights as balanced against the property and free speech rights of users, they assert that electronic device manufacturers simply seek to make it more difficult for consumers to repair their devices. On this view, digital locks do not *lock out* pirates like a lock on a door locks out a burglar; they instead serve only to "lock in" customers to specific devices or repair services.

This allegation of customer lock-in does not reflect commercial reality. Numerous product features and many legal and economic variables contribute to the design of a digital device beyond its repairability—including piracy, quality, privacy, legality, safety, reliability, security, portability, efficiency, cost, functionality, durability, sustainability, and aesthetics, to name just a few. The unprecedented success of the Apple ecosystem, for instance, stems from more than just its functional and reliable technologies; it also comes from Steve Jobs's famously fanatical obsession with

aesthetics. As with all commercial products and services, the design of a digital device is defined by numerous and diverse factors.

Digital locks are an essential part of a comprehensive business strategy in finding the right balance—the commercial sweet spot—among numerous considerations that protect the interests of producers while benefiting and enhancing the experience for customers. More plainly, manufacturers are not in the business of making their consumers angry in a marketplace chock-full of fierce competition; they are in the business of giving consumers the best possible experience. Creators and manufacturers of digital devices, computer software, and copyrighted works have no reason to make repairs unnecessarily difficult or expensive for their customers (whom they wish to keep as customers).[36] They instead seek to find the point of equilibrium that maximizes the benefits to all involved—a complicated task that requires significant effort and years of experimentation while adjusting to constantly changing market conditions.

Some advocates for a right to repair, like the Electronic Frontier Foundation (EFF), have also argued that digital locks represent an unconstitutional restriction on free speech. But these allegations have consistently failed when the EFF and other parties have made them in court. The EFF was one of the first policy organizations to challenge the constitutionality of the DMCA shortly after its enactment, arguing that the law violated its clients' First Amendment right to distribute computer code that hacked the digital locks on DVDs.[37] The court rejected this argument wholesale. It found that digital locks protect copyrighted works against piracy—a valid governmental interest that is "unquestionably substantial"—and that the DMCA legally secures federal rights "unrelated to the suppression of free expression."[38] The EFF continues to play this same constitutional argument against the DMCA to this day—and courts continue to reject it as they did over twenty years ago.[39]

In rejecting these arguments rooted in appeals to the "public interest," courts recognize that it is really copyright laws' protection of original works of authorship and the digital locks that secure them that advance the public good.[40] The public good of copyright protection and of digital locks undergirds the thriving online digital marketplace, bringing innovative products and services to hundreds of millions of people around the world. Beyond failing to recognize that copyright laws serve the public interest and do not conflict with constitutional rights to free speech, right-to-repair advocates fail to recognize other important constitutional issues, such as the conflict between state right-to-repair laws and federal copyright law. As we will explain in the next section, this conflict leads to the inevitable conclusion that state right-to-repair laws are unconstitutional.

V. Overbroad State Right-to-Repair Laws Are Unconstitutional

In lobbying for state legislation to create a right to repair, advocates misunderstand the doctrine of federalism—the system of government created by the Founders in which states and the federal government must not impede each other's respective powers. Unfortunately, the right-to-repair laws that states are currently considering do impede constitutionally authorized federal powers. If states enact these laws, the result will only be expensive litigation with the unavoidable result that courts will hold that state right-to-repair laws unconstitutionally interfere with the federal system of copyright protections that the Constitution authorizes Congress to enact—and that Congress has enacted dating back to 1790 with the first Copyright Act.

The Repair Association, which claims to "enjoy the backing of some of the world's most powerful activists,"[41] has drafted model legislation (the Digital Fair Repair Act) that it explicitly asserts does not present a "copyright issue."[42] Many state legislatures are now using it as a template for their own right-to-repair laws. For example, the Virginia legislature is currently considering a bill (the Fair Repair Act) that it has

explicitly based on the text of the Repair Association's Digital Fair Repair Act.[43] The Digital Fair Repair Act and the state bills based on this model legislation justify their mandate in a state's power to enact consumer protection laws. States certainly have the power to enact consumer protection laws, but this power does not permit states to adopt explicit statutory directives that violate or otherwise interfere with the core protections provided to copyright owners by Congress under federal law.

This constitutional issue is broader than the legal and policy justifications for copyright law, and thus it requires explaining the doctrine of federalism and how the proposed state right-to-repair laws violate this fundamental constitutional doctrine. As discussed in an earlier section, the Constitution grants Congress the power to enact nationwide copyright laws; the Supreme Court has recognized that this delegation of power to Congress "was clearly to facilitate the granting of rights national in scope."[44] This echoes James Madison's point in the *Federalist Papers* that the "States cannot separately make effectual provisions" for copyright protection.[45] But the Repair Association's model legislation disregards all of this, pretending instead that states are free to disrupt the balance that Congress has already struck between copyright owners and the users of their copyrighted works.

The Founders recognized that creators produce books and other copyrighted works that are printed, sold, and used in *all* of the states. Rather than leaving copyright protection to different (and conflicting) treatment by the various states, they knew creators would require a national copyright system that provided them with uniform protection.[46] The Founders confirmed this belief with their actions. The First Congress enacted the original federal copyright law in 1790, one of the initial pieces of legislation that Congress enacted under the new Constitution. The Constitution's Supremacy Clause explicitly states that any federal law is "the supreme law of the land,"[47] including federal copyright law. Thus, any state law that conflicts with and frustrates the operation and goals of the Copyright Act is unconstitutional.[48] In the legalese used by lawyers, such state laws are "preempted" by federal law, rendering them unenforceable and negated by Congress' contrary decree.

State laws creating a right to repair in digital devices, such as those based on the Repair Association's model legislation, are unconstitutional and unenforceable because their two main provisions directly conflict with the rights secured to copyright owners under federal copyright law. For example, Virginia's proposed Fair Repair Act, which follows the model legislation closely, illustrates this constitutional problem with preemption. The Fair Repair Act mandates that manufacturers of digital devices make their "tools" available to customers and repair shops for fixing these devices.[49] It defines a "tool" as "any software program… used for diagnosis, maintenance, or repair."[50] If a digital device "contains an electronic security lock," the Fair Repair Act further requires the "tools… needed to disable the lock… and to reset it when disabled" be provided to customers and repair shops as well.[51] The authority of states to regulate unfair competition and to protect consumers ostensibly justifies these mandates in the Fair Repair Act.

The power of states to regulate trade practices is not in dispute; the problem is that this valid state power cannot trump equally valid federal powers under the Supremacy Clause. The constitutional trouble with Virginia's Fair Repair Act is that it mandates the distribution and use of computer programs—either copyrighted diagnostic software programs or the keys to the digital locks that protect copyrighted works in electronic devices. The distribution and use of these computer programs—the diagnostic programs and the digital keys—implicate rights secured to copyright owners under federal copyright law.[52] With copyrighted computer programs, copyright owners have the right to give copies away for free, charge whatever price they want for copies, or

even refuse to distribute copies altogether.[53] They also have the right to prevent other people from hacking the digital locks that protect access to their copyrighted works. States may not contradict or otherwise impede individual rights secured under federal law, but the Fair Repair Act would do exactly that.

A state law is preempted and unconstitutional if it conflicts with federal law in one of two ways: "when it is impossible to comply with both the state and the federal law, or when the state law stands as an obstacle to the accomplishment and execution of the full purposes and objectives of Congress."[54] The Fair Repair Act, and the Repair Association's Digital Fair Repair Act that serves as the model for this and other state bills, fails under *both* tests. A copyright owner that exercises its federal right not to distribute copies of its computer programs or the keys to the digital locks that secure its copyrighted works would face liability under these state laws—thus making it "impossible to comply with both the state and federal law." Furthermore, the Fair Repair Act "stands as an obstacle" to the "full purposes and objectives" of the federal copyright system that promotes the public good by securing the rights of authors to distribute their works on their own terms while employing digital locks to prevent unauthorized access or copying.

Courts have recognized repeatedly that federal copyright law preempts state laws enacted pursuant to legitimate police power objectives, such as controlling unfair competition, if these laws conflict with federal copyright law. For example, when Pennsylvania enacted a law requiring motion picture distributors to offer licenses to more than one theater, a court held that it was preempted and thus unconstitutional despite the state law addressing an allegedly unfair trade practice.[55] Maryland also recently enacted a law forcing publishers to license their works to public libraries on terms the state finds reasonable; again, a court held that this law is unconstitutional even though Maryland legitimately acted pursuant to its power to regulate supposedly unfair trade practices.[56] Even against challenges under federal antitrust law, courts have consistently affirmed the rights secured to copyright owners, such as recognizing and enforcing a copyright owner's right to refuse to license its works—including diagnostic computer programs.[57] Any state law that seeks to take away the same federally granted rights would certainly fare no better.

VI. State Right to Repair Laws Are Unwise Policy

The model Digital Fair Repair Act defines as "unlawful" under a state's "fraudulent and deceptive practices act" the refusal of a manufacturer to distribute the copyrighted computer programs for diagnostics or the keys to the digital locks that protect copyrighted works.[58] The states adopting this model legislation have taken up this legal justification. For example, Virginia's Fair Repair Act adds the right-to-repair prohibitions to the extensive list of banned practices under the Virginia Consumer Protection Act.[59] But the listed "fraudulent acts or practices" reveal a profound mismatch between those unfair and abusive trade practices and the acts outlawed by the Fair Repair Act. Unsurprisingly, Virginia's statutory list of prohibited commercial practices are all scenarios in which a businessperson intentionally tricks consumers with fraudulent behavior, such as selling a product with undisclosed defects or the classic bait-and-switch tactic of advertising a high-quality product but offering only a lower-quality or defective product to the consumer in the store. These practices are nothing like a manufacturer selling electronic devices with computer programs that are expressly protected under federal copyright law and digital locks that secure copyrighted works from unauthorized access or copying.

If one believes there are few or no benefits to the federal copyright regime and that it represents the censorship and stifling of creativity, then one may believe commercial practices protected by federal copyright law are on par with the unfair competition or abusive trade practices identified in the Virginia

Consumer Protection Act. But this indifference to the benefits of copyright law, or outright negative view of copyright generally, stands in stark contrast to the Constitution and the considered approach that Congress and the courts have taken over the past two hundred years in securing the rights of creators to the benefit of the public. Here, the unbalanced policy approach adopted by right-to-repair advocates and lobbyists, as described earlier in this policy memo, illuminates why they think this is squarely an issue of state unfair competition or consumer protection law—and not one of federal copyright law.

A balanced approach is required before any state should consider adopting a right-to-repair law. The first step in such an approach is to determine whether a problem exists that merits intervention. In a May 2021 report to Congress, the Federal Trade Commission (FTC) concluded, after studying the right-to-repair issue, that "in many instances" copyright protections "do not appear to present an insurmountable obstacle to repair."[60]

The FTC reached this unsurprising conclusion because copyright law already accommodates the right to repair in at least two key respects. First, it does so through its many built-in exceptions that represent Congress's careful balancing of creators' and users' rights in promoting the public good, such as the fair use doctrine and the statutory exception that permits copying of computer programs for maintenance and repair.[61] Second, the DMCA accommodates the right to repair through its specific exemptions from liability for hacking digital locks, such as the exemption granted in October 2021 permitting consumers to bypass the locks on their electronic devices for non-infringing purposes like maintenance and repair.[62] Importantly, this exemption for maintenance and repair is specifically crafted to ensure continued protection of a copyright owner's rights. While it permits consumers to bypass digital locks that control access to copyrighted works for limited non-infringing uses, it neither mandates that copyright owners distribute the keys to their digital locks nor allows others to distribute those keys.

These exceptions and exemptions to copyright protection, which were the product of democratic processes that balance the rights of authors and users, were specifically crafted to ensure that copyright owners retain meaningful protection against widespread infringement. For example, the exemption that now allows consumers to bypass the digital locks on their electronic devices for maintenance and repair came about only after an exhaustive procedure in which proponents of the exemption bore the burden of proof in showing that the digital locks adversely affected their ability to make non-infringing uses of copyrighted works.[63] The Copyright Office recommended this exemption after carefully considering the comments of the various stakeholders, the copyrighted works at issue, and the asserted adverse effects on non-infringing uses.[64] However, the Office did not support extending this exemption fully to video game devices given the risk that circumventing digital locks would harm users and creators alike.[65]

The model Digital Fair Repair Act, by contrast, would in fact mandate the distribution of the digital keys that protect copyrighted works, thus opening the piracy floodgates by rendering digital locks a nullity. This is clearly contrary to the express policy of the copyright laws and the DMCA in securing the fruits of copyright owners' productive labors with respect to their creative works in the digital marketplace. The DMCA exemptions that authorized by Congress do not go even half as far as the ones envisaged by advocates of state right-to-repair laws.

VII. Conclusion

Customers have long repaired their consumer products, from automobiles to light fixtures to classic landline telephones. These products and services have become increasingly and inexorably intertwined with computer technologies. As famous tech innovator Marc Andreessen put the point, "Software is

eating the world."[66] Copyrighted computer programs and the digital locks that protect copyrighted works are in everything from our toasters, refrigerators, and automobiles to our smartphones, computers, and mobile devices. This means any state legislation that seeks to create or expand a right to repair must do so within the constitutional, legal, and policy requirements of the legal system that has secured the rights of creators since 1790: federal copyright law.

If state legislators do not engage in the same careful and rigorous legal and policy analysis of the respective rights of creators and users that the Founders, Congress, and the courts have engaged in for over two hundred years, they risk wasting valuable time and resources in enacting laws that will not pass constitutional muster. For instance, they will fail to recognize that existing copyright law already contains accommodations that protect the right to repair. These accommodations include the fair use doctrine, a statutory exception for copying computer programs during maintenance or repair, and exemptions from the DMCA that permit users to bypass digital locks for certain non-infringing activities—including the maintenance and repair of their electronic devices. Instead, states risk adopting legislation that will coerce creators to distribute their copyrighted works and the keys to the digital locks protecting their works from unauthorized access and copying. Courts will deem these state right-to-repair laws a violation of the federally protected individual rights of copyright owners—striking them down as preempted and unconstitutional.

In their seemingly ideologically driven mission, right-to-repair advocates and lobbyists have offered state legislatures a blunderbuss approach to copyright law, free speech, liberty interests, and the public good. There are important legal and policy debates about the boundaries of these respective legal domains. But the advocates and lobbyists for the right to repair assume that such debates have already been decided in their favor. Thus, their legal proposals fail to account for the actual requirements of constitutional law and the reality that federal copyright law is directly implicated. In so doing, they have sowed unnecessary confusion in leading state legislatures down the veritable garden path toward enacting right-to-repair laws that conflict with federal copyright law. Not only will these laws fail a constitutional challenge, but in their unbalanced and one-sided approach to these complex issues, they are simply bad policy.

Endnotes

1 *See*, *e.g.*, Repair Association, *We Have the Right to Repair Everything We Own* ("You bought it, you should own it. Period. You should have the right to use it, modify it, and repair it wherever, whenever, and however you want."), https://www.repair.org/; Electronic Frontier Foundation, *Defend Your Right to Repair (and Tinker, Make, Re-use, or Break)* ("If you can't fix it, you don't own it."), https://www.eff.org/issues/right-to-repair; iFixit, *We Have the Right to Repair Everything We Own* ("Once you've paid money for a product, the manufacturer shouldn't be able to dictate how you use it—it's yours. Ownership means you should be able to open, hack, repair, upgrade, or tie bells on it."), https://www.ifixit.com/Right-to-Repair/Intro.

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3 *See*, *e.g.*, Electronic Frontier Foundation, *Defend Your Right to Repair (and Tinker, Make, Re-use, or Break)* ("More and more, your devices come embedded with software.… Cool, right? Yep... until it breaks and you want to fix it yourself (or take it to a local repair shop you trust).… Then, you have a problem. Why? Copyright."), https://www.eff.org/issues/right-to-repair; Repair Association, *It's Time to Fix the DMCA* ("Copyright laws were originally designed to protect creativity and promote innovation. But now, they are doing exactly the opposite: They're being used to keep independent shops from fixing new cars. They're making it almost impossible for farmers to maintain their equipment. And… they're preventing regular people from unlocking their own cellphones."), https://www.repair.org/copyright.

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5 U.S. Const. art. I, § 8, cl. 8, https://www.law.cornell.edu/constitution/articlei#section8.

6 *See*, *e.g.*, Library of Congress, *Who's the Father of the Constitution?* ("James Madison is known as the Father of the Constitution because of his pivotal role in the document's drafting as well as its ratification."), https://www.loc.gov/wiseguide/may05/constitution.html.

7 Harper & Row Publishers, Inc. v. Nation Enterprises, 471 U.S. 539, 558 (1985), https://scholar.google.com/scholar_case?case=12801604581154452950.

8 *See* 17 U.S.C. § 106 ("[T]he owner of copyright… has the exclusive rights to do and to authorize any of the following: (1) to reproduce the copyrighted work… ; (2) to prepare derivative works… ; (3) to distribute copies… to the public… ; (4)… to perform the copyrighted work publicly; (5)… to display the copyrighted work publicly; and (6)… to perform the copyrighted work publicly by means of a digital audio transmission."), https://www.law.cornell.edu/uscode/text/17/106.

9 Feist Publications, Inc. v. Rural Tel. Serv. Co., 499 U.S. 340, 346 (1991), https://scholar.google.com/scholar_case?case=1195336269698056315.

10 *See*, *e.g.*, Mazer v. Stein, 347 U.S. 201, 219 (1954) ("The economic philosophy behind the clause empowering Congress to grant… copyrights is the conviction that encouragement of individual effort by personal gain is the best way to advance public welfare through the talents of authors[.]"), https://scholar.google.com/scholar_case?case=11977251527545760686; Eldred v. Ashcroft, 537 U.S. 186, 212 n.18 (2003) (noting that "copyright law serves public ends by providing individuals with an incentive to pursue private ones"), https://scholar.google.com/scholar_case?case=12147684852241107557.

11 The Federalist No. 43 (James Madison), https://avalon.law.yale.edu/18th_century/fed43.asp.

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15 *See*, *e.g.*, Eldred v. Ashcroft, 537 U.S. 186, 219 (2003) ("Due to this distinction [between idea and expression], every idea, theory, and fact in a copyrighted work becomes instantly available for

public exploitation at the moment of publication."), https://scholar.google.com/scholar_case?case=12147684852241107557; 17 U.S.C. § 102(b) ("In no case does copyright protection for an original work of authorship extend to any idea, procedure, process, system, method of operation, concept, principle, or discovery, regardless of the form in which it is described, explained, illustrated, or embodied in such work."), https://www.law.cornell.edu/uscode/text/17/102.

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copyright owner under this title[.]"), https://www.law.cornell.edu/uscode/text/17/1201.

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