# ANTI-CIRCUMVENTION LAWS CIRCUMVENTING THE CONSUMER'S RIGHT TO REPAIR? ADVOCATING A REPAIR EXCEPTION IN THE INDIAN COPYRIGHT LAW

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**Abstract**

The 'right to repair' movement primarily aims to empower consumers to own their lawfully purchased products completely. It favours consumers in multiple ways: breaking the manufacturers' monopoly on the repair market, preventing repair limitation, securing consumers' repair choices and so forth. However, anti-circumvention laws pose significant impediments to the global 'right to repair' movement, which seeks to make easier and cheaper for consumers to fix their products. Product manufacturers not only use their exclusive rights under the copyright law to restrict the access to copyrighted repair manuals and other related information, but also impede repair by using technological protection measures, commonly known as digital locks, to restrict the access to the software code embedded in the digital devices. Any circumvention of these digital locks to repair faulty products invites circumvention liability. Jurisdictions like United States and European Union have recognised 'repair' as an exception to circumvention liability, *albeit* rather inadequately. With the repair movement gaining impetus in one of the largest consumer markets in the world, an absence of a repair exception under the anti-circumvention laws in India is an alarming concern. In this regard, the present paper seeks to advocate a new repair exception under the Indian anti-circumvention laws in order to balance the rightsowners' interests in favour of compelling public interest in allowing repair activities for social, economic and environmental benefits. Against this backdrop, the paper seeks to (i) highlight the repair specific impediments posited by the technological protection measures, (ii) analyse the anti-circumvention laws under US, EU and Indian jurisdictions and (iii) identify the lacuna in the repair exception formulated under the US and EU laws.

## I Introduction

RIGHT TO REPAIR is a global movement aimed at promoting consumer autonomy, environmental sustainability and free competition in the repair market.[1] It includes giving consumers a choice to repair their products on their own using common tools or to have them repaired through independent repairers of their choice at reasonable costs.[2]This new-age consumer right has become indispensable not only to remedy the anti-competitive practises adopted by the Original Equipment Manufacturers (OEMs)

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1 Karin Bradley and Ola Persson, "Community Repair in the Circular Economy – Fixing More Than Stuff" 27 *Local Environment* 1321(2022).

in controlling repair, but also to promote sustainable consumption of products, reduction of e-waste and a key tool towards achieving a circular economy.[3] With products getting more complex by the day, OEMs are increasingly taking advantage of this product complexity to stymie the repair movement by using varied restrictive ways. Manufacturers have adopted the culture of 'planned obsolescence', whereby they produce consumer goods that rapidly become obsolete by adopting strategies like frequent changes in design, use of non-durable materials and terminating the supply of replacement parts.[4] Many manufacturers also maintain an authorized network of repair shops, and compel the consumers to either get their product repaired from these authorised outfits at exorbitant prices or run the risk of losing the right to claim product warranty.[5] Consequently, the consumers find it easier and cheaper to replace the damaged product, than to repair it amidst the increasing restrictive tactics adopted by the OEMs in curtailing independent repair.[6]

Keeping these tactical gambits aside, OEMs are also increasingly using their Intellectual Property (IP) rights, especially copyright, in restricting 'repair'.[7] The manufacturers generally refrain from publishing copyright protected repair manuals, schematics and other diagnostic tools.[8]Inversely, when the consumers or the independent repairers spread the repair related knowledge by posting information online, OEMs issue cease-and-desist letters or take down notices to counter them.[9] In this manner, the OEMs use their exclusive rights under the copyright law to restrict the access to repair

2 Daniel Moore, "You Gotta Fight for Your Right to Repair: The Digital Millennium Copyright Act's Effect on Right-to-Repair Legislation" 6 *Texas A and M Law Review* 509 (2019).

3 Mo Chatterji, "Repairing – Not Recycling – Is the First Step to Tackling E-waste from Smartphones. Here's why",*World Economic Forum*, July 19, 2021, *available at:* https://www.weforum.org/agenda/2021/07/repair-not-recycle-tackle-ewaste-circular-economy-smartphones/(last visited on Dec. 25, 2024).

4 Kyle Wiens, "The Shady World of Repair Manuals: Copyrighting for Planned Obsolescence", *Wired*, Nov. 12, 2012, *available at:*https://www.wired.com/2012/11/cease-and-desist-manuals-planned-obsolescence/(last visited on Dec. 25, 2024).

5 Leah Chan Grinvaldand Ofer Tur-Sinai, "Intellectual Property Law and the Right to Repair" 88 *Fordham Law Review* 63, 66(2019).

6 Renske van den Berge, Lise Magnier and Ruth Mugge, "Too Good to Go? Consumers' Replacement Behaviour and Potential Strategies for Stimulating Product Retention" 39 *Current Opinion in Psychology* 66 (2021).

7 Anthony D. Rosborough,LeanneWiseman and Taina Pihlajarinne, "Achieving a (copy)right to Repair for the EU's Green Economy" 18 *Journal of Intellectual Property Law and Practice* 344, 346 (2023).

8 A "Right to Repair" Movement", *The Economist*, Sep. 30 2017 *available at:* https://www.economist.com/business/2017/09/30/a-right-to-repair-movement-tools-up(last visited on Dec. 25, 2024).

9 Leah Chan Grinvald, "Policing the Cease-and-Desist Letter"49 *University of San Francisco Law Review* 411 (2015).

manuals and other related information, predominantly on the digital platform.[10] Furthermore, with the advent of technology, a large proportion of consumer goods have become embedded with software codes to operate the digital functions of the device.[11] Consumer items ranging from kitchen appliances, smartphones, cameras, television, farm tractors *etc.* require the copyrighted computer code to function.[12] To repair such devices, access to the integrated software code is required. Nonetheless, to restrict the access to the copyright protected software code, the copyright owners often use Technological Protection Measures (TPMs) or commonly known as digital locks, to prevent the unauthorised access to these computer codes.[13] TPMs are different types of technologies used to control access to copyright content and prevent users from committing digital piracy,[14] which include access control TPMs such as cryptography, passwords, digital signatures, digital water marks *etc.* and also copy control TPMs such as serial copy management systems, scrambling systems and so on.[15] Other than restricting access to the copyrighted computer code, TPMs are also used to restrict unauthorized usage and dissemination of protected works such as repair manuals and other diagnostic codes over the online platform.[16] These TPMs provide an extra layer of protection to the copyright owners to impede repair.[17]

Although OEMs adopt very sophisticated and sound technological tools to prevent unauthorized access to the copyrighted software code and repair related information, the technological measures so employed are not 'tamper proof' in nature.[18] Computer programmers using smart technologies can break open such tactfully designed digital locks.[19] To counter such acts of tinkering, removing, disabling or circumventing the

10 *Supra* note 7.

11 Dave Green, "The role of Copyright in Software Embedded in Everyday Devices". *Microsoft*, Feb. 17, 2016, *available at:* https://blogs.microsoft.com/on-the-issues/2016/02/17/role-copyright-software-embedded-everyday-devices/ (last visited on Dec. 25, 2024).

12 Anthony D. Rosborough, "Unscrewing the Future: The Right to Repair and the Circumvention of Software TPMs in the EU" 11 *Journal of Intellectual Property, Information Technology and Electronic Commerce Law* 30 (2020).

13 Nicholas A. Mirr, "Defending the Right to Repair: An Argument for Federal Legislation Guaranteeing the Right to Repair" 105 *Iowa Law Review* 2393, 2401 (2020).

14 Alankrita Mathur, "A Reflection upon the Digital Copyright Laws in India" 25 *Journal of Intellectual Property Rights* 5, 10 (2020).

15 *Ibid.*

16 Anthony D. Rosborough, "Zen and the Art of Repair Manuals: Enabling a participatory Right to Repair through an autonomous concept of EU Copyright Law"13 *Journal of Intellectual Property, Information Technology and Electronic Commerce Law* 113 (2022).

17 *Ibid.*

18 Lisa P. Lukose and Alankrita Mathur, "Managing 'Digital Rights Management' Systems Legally: Comparative Analysis of Legal Provisions in India, US, and South Korea" 13 *KLRI Journal of Law and Legislation* 50,62 (2023).

19 *Ibid.*

TPMs, countries around the world have incorporated 'anti-circumvention laws' into their copyright regimes,[20] to render the act of TPM circumvention illegal and in some jurisdictions even criminal. Consequently, unauthorized access to copyrighted software code, needed for repairing digital devices is not only difficult, but attractsimprisonment for consumers.[21]

The anti-circumvention laws find expression in the World Intellectual Property Organization (WIPO) Internet Treaties, namely, WIPO Copyright Treaty, 1996 and WIPO Performances and Phonograms Treaty, 1996 which together make up the 'WIPO Internet Treaties.' Articles 11 of WCT and 18 of WPPT (which are same in content and text) oblige the contracting parties to accord effective legal protection against circumvention of TPMs adopted by creators to prevent unauthorised access to their copyrighted works. These provisions provide considerable leeway to the member countries in determining the type of TPM protection they want to offer under their national anti-circumvention laws.[22] Taking advantage of this flexibility, divergent approaches have been adopted by various jurisdictions under their respective domestic regimesin enumerating the kind of legal protection and legal remedies against circumvention of TPMs. For instance, under the Indian anti-circumvention laws, criminal liability is provided for TPM circumvention whereas the US laws provide for both civil and criminal liabilities.[23] Nevertheless, in order to balance the creator's interest in preventing access to the copyrighted material on one hand and the public interest in accessing the copyrighted work on the other, some specific exceptions have been explicitly listed under most anti-circumvention laws.[24] Regrettably, majority of jurisdictions do not exempt circumvention for the purposes of repair. India, for example, does not provide for a 'repair exception' against TPM circumvention.

The reason for not conceptualising an exception to circumvention liability for repair purposes can presumably be accorded to the considerably limited proportion of consumer products that came with embedded software codes ten or twenty years back, when these anti-circumvention laws were originally drafted.[25] These products were generally mechanical or electrical and did not require the embedded computer code to function. However, today, the digital transformation of the consumer goods has resulted in proliferation of software-enabled devices to unprecedented levels. The inclusion of the integrated software, and potentially TPMs to protect this

20 *Ibid.*

21 *Supra* note 12 at 26, 28.

22 Venugopal K. Unni, "Indian Copyright Law and Anti-Circumvention Provisions: can a please-all regime meet the global yardsticks?" 10 *Journal of Intellectual Property Law and Practice* 336, 340 (2015).

23 *Supra* note 18 at 82.

24 *Supra* note 22 at 340.

25 *Supra* note 12 at 28.

copyrighted software, has substantially reduced the consumer's ability to repair the faulty device.[26]

As a matter of fact, right to repair movement seeks to remove or substantially reduce major impediments diminishing the repairability of modern consumer products.[27]These impediments range from anticompetitive practises adopted by the OEMs, unconscionable contract prohibitions against independent repair, planned obsolescence, increasing product complexity and so on.[28] Nevertheless, as highlighted, repairing the digital device requires access to the copyrighted software and any act of tinkering or circumvention of the TPMs adopted to impede such access will result in attracting liability under the stringent anti-circumvention laws. With burgeoning proportions of consumer devices coming with integrated software, it becomes imperative to carefully deliberate on the impediments posed by anti-circumventions laws to inhibit repair.

Conceding that the repair movement is spreading its wings worldwide and the stringent anti- circumvention laws have the potency to impair repair globally, the main concern of the paper is to analyse anti-circumvention laws under the Indian copyright regime which can effectively curtail the repair movement in one of the largest consumer markets in the world. Very limited (if any) literature is available on the tremendous power held by anti-circumvention laws in impeding repair, especially in the Indian context. Nevertheless, some guidance can be drawn from comparator jurisdictions notably, the US and the EU, where repair advocates have actively proposed the need of extensive repair exceptions under their national anti-circumvention regimes. Despite being pioneers in introducing the access restrictive anti-circumvention laws within the statutory scheme of their national copyright regimes and having arguably the most stringent TPM protection laws, US and EU have not completely ignored the need to exempt repair from circumvention liability. For instance, in 2018, the Librarian of Congress of the US (partially) addressed the concerns of repair advocates by promulgating a repair exception against circumvention liability under its triennial rule making power.[29] These rules were applicable to specific enumerated electronic products and permitted TPM circumvention for accessing 'computer programs' that are contained in and control the functioning of a product, provided that circumvention is a necessary step to allow the diagnosis, repair or lawful modification of the product.[30]

26 *Ibid.*

27 Rahel Philipose, "Explained: What is the 'Right to Repair' movement?", *The Indian Express*, July 14, 2021*available at:* https://indianexpress.com/article/explained/explained-what-is-the-right-to-repair-movement-7400287/(last visited on Dec. 10 2024).

28 Paola Rosa-Aquino, "Fix, or Toss? The 'Right to Repair' Movement Gains Ground", *The New York Times*, Jan. 23, 2020, *available at:* https://www.nytimes.com/2020/10/23/climate/right-to-repair.html(last visited on last visited on Dec. 10 2024).

29 37 C.F.R. § 201.40 (2019)*available at:* https://www.govinfo.gov/content/pkg/FR-2018-10-26/pdf/2018-23241.pdf (last visited on Nov. 30, 2024).

30 *Ibid.*

This repair exception was renewed for another period of three years in 2021 and was extended to almost all types of consumer electronics.[31] EU also provides a non-mandatory repair related exception under the EU Information Society Directive (InfoSoc Directive).[32] The exception permits circumvention of TPMs for access to literary works, including repair manuals on the online platform, for repair purposes.[33] A detailed analysis of these exceptions, which has been undertaken in this article, suggests that these repair exceptions are inadequate and leave much to be desired.

On the other hand, as noted above, the Indian copyright regime completely lacks an analogous provision permitting TPM circumvention for repair purposes. In this vein, the paper analyses the need and desirability of a new repair exception under the Indian TPM protection laws. For this purpose, it is pertinent to compare the Indian anti-circumvention laws with that of US and EU to learn from their experiences (and mistakes).

## II International framework of anti-circumvention laws and their repair implications

Today, majority of consumer products ranging from home appliances, farm tractors, televisions to mobile handsets are embedded with copyrighted computer code.[34]This software code not only controls a wide variety of functions of these products, but is also essential to diagnose the underlying fault in the digital device.[35] Software TPMs are further used to co-activate or co-verify the replacement parts and installation of these parts without activation renders the entire product inoperative.[36] For instance, iPhone users often complain that when they get their screen replaced from a third-party repairer, the Face ID functionality of their handsets gets completely disabled.[37]

31 Adi Robertson, "The US Copyright Office just struck a blow supporting the Right to Repair", *The Verge*, Oct. 27, 2021, *available at:* https://www.theverge.com/2021/10/27/22747310/us-copyright-office-dmca-section-1201-exemption-rulemaking-report (last visited on Dec. 13, 2024).

32 Council Directive 2001/29/EC of 22 May 2001 on the harmonization of certain aspects of copyright and related rights in the Information Society, 2001 OJ L167/10 (InfoSoc Directive), art.5 (3)(l).

33 *Ibid.*

34 *Supra* note 11.

35 *Supra* note 13 at 2397, 2398.

36 *Supra* note 12 at 31.

37 Miles Brignall, "'Error 53' fury mounts as Apple Software update threatens to kill your iPhone 6", *The Guardian*, Feb. 5, 2016, *available at:* https://www.theguardian.com/money/2016/feb/05/error-53-apple-iphone-software-update-handset-worthless-third-party-repair(last visited on Dec. 17, 2024).

iPhone screens have a small microcontroller that needs to be paired with the newly replaced chip in order to enable the Face ID functionality, and this is only possible with the help of a secret software which is only available with authorised repairers.[38]These third-party screen components are made incompatible with the iPhone and sometimes, consumers even stand a chance of losing their handset warranty.[39] Even if the third-party repairers find a way out to successfully disable, tinker or circumvent these secret software's protected by TPMs, any such act of circumventing is outlawed under the anti-circumvention laws.

The anti-circumvention laws provide an extra layer of protection to copyright protected software codes and repair related information on the digital platform.[40] The inception of these laws can be traced to the technological revolution brought by the internet of things (IoT), which facilitated rapid reproduction of copyrighted works without loss of quality, fast and easy dissemination and high-density storage devises.[41]On the flip side, these digital technologies made copyrighted content easily vulnerable to piracy and copyright violation a seamless task.[42]Consequently, digital piracy reached unprecedented levels and it became very difficult for the copyright owners to securely deal with their copyright works on the digital platform. To combat the burgeoning levels of digital piracy, copyright owners resorted to DRM technology.[43]DRM refers to the technological management of the copyrighted works on the digital platform.[44]

The main objective and *modus operandi* of DRM is to employ TPMs through which the copyright owners control the access and manner in which the copyrighted works can be used digitally.[45] It restricts sharing, illegal copying or modifying the work in the digital medium beyond the desired limit. Some commonly employed tools include encryption, digital watermarks, digital signatures, authentication, cryptography,

38 Bulbul Dhawan, "Right to Repair Debate fanned again? iPhone 13 loses Face ID functionality after third-party screen replacement", *Financial Express*, Nov 6, 2021, *available at:* https://www.financialexpress.com/life/technology-right-to-repair-debate-fanned-again-iphone-13-loses-face-id-functionality-after-third-party-screen-replacement-2364193/(last visited on Dec. 5, 2024).

39 Damon Beres and Andy Campbell, "Apple Is Fighting a Secret War to Keep You from Repairing Your Phone", *Huffpost*, June 10, 2016, *available at:* https://www.huffpost.com/entry/apple-right-to-repair_n_5755a6b4e4b0ed593f14fdea (last visited on Dec. 10, 2024).

40 *Supra* note 5 at 104.

41 *Supra* note 14 at 5.

42 *Ibid*. See also Paul Ganley, "Digital Copyright and the New Creative Dynamics" 12 *International Journal of Law and Information Technology* 282 (2004).

43 *Supra* note 18 at 54.

44 *Ibid*.

45 S. Sivakumar and Lisa P. Lukose, "Copyright Amendment Act, 2012: A Revisit" 55 *Journal of the Indian Law Institute* 149, 170-171 (2013).

password enablement, and so on.[46] These restrictive measures are widely criticized for destroying the fine balance between the interest of the copyright owners on one hand and public interest in accessing the work on the other.[47] For instance, balancing doctrines such as fair dealing of copyrighted works is restricted as digital locks impede the public in accessing the work for personal use or for educational purposes.[48] TPMs in most cases unnecessarily expand the realm of rights granted to a copyright holder under the copyright law.[49] Moreover, TPMs are often pilloried for being inconsistent with various privacy, antitrust and freedom of speech issues.[50]

This unbridled application of TPMs by copyright owners promoted not only illicit acquisition of copies of protected works, but also pushed hacking and cracking into codes of these digital locks in order to retrieve the TPM protected files.[51] Despite employing sophisticated tools and means, TPMs are not 'tamper proof' and are breakable.[52] To counter such acts of removing, disabling or circumventing TPMs, global copyright laws responded affirmatively to these technological advancements by introducing anti-circumvention laws into the existing copyright regimes.[53] These laws provide legal soundness to the technological measures employed by the right owners and come into picture when the TPMs fails to protect the copyrighted works in the cyberspace.

At the international level, the Internet Treaties of WIPO can be credited for laying down norms for preventing unauthorised access and use of copyrighted works on the digital platform.[54] Article 11 of WCT and 18 of WPPT refereed above in the discussion cast an international obligation to accord effective protection against circumvention of TPMs obliging "*Contracting Parties to provide adequate legal protection and effective legal remedies against the circumvention of effective technological measures that are used by authors/performers in connection with the exercise of their rights under the Treaty or the Berne Convention and that restrict acts, in respect of their works, which are not authorized by the authors concerned or permitted by law*." Undoubtedly, it offers sufficient leeway to the

46 *Ibid.*

47 See Marcella Favale, "Approximation and DRM: Can Digital locks respect Copyright Exceptions?" 19 *International Journal of Law and Information Technology* 306 (2011).

48 See Timothy K. Armstrong, "Digital Rights Management and the Process of Fair Use" 20 *Harvard Journal of Law and Technology* 50 (2006).

49 Megha Nagpal, "Copyright Protection through Digital Rights Management in India: A Non-EssentialImposition" 22 *Journal of Intellectual Property Rights* 224 (2017).

50 *Ibid.*

51 *Supra* note 18 at 65.

52 *Id.*, at 62.

53 See *supra* note 45 at 150.

54 Ian Brown, "The Evolution of Anti-Circumvention law"20 *International Review of Law, Computers and Technology* 239-260 (2006).

Member Nations in drafting TPM circumvention provisions.[55] Flexibility has been given in relation to the definition of effective technological measures, contours of legal protection and legal remedies and even the exceptions available against TPM circumvention.[56] Resultantly, there exists conspicuous differences in the construction and operation of the legal provisions related to anti-circumvention in various jurisdictions such as US, EU, India and others.

## III Anti-circumvention laws in US, their repair implications and the repair exception

The anti-circumvention laws in US owes its origin to the Digital Millennium Copyright Act (DMCA), which was enacted in the year 1998 with a view to implement provisions of WCT and WPPT.[57]As noted earlier, the language used in the Article 11 of the WCT, left enough room for the contracting states to experiment with anti-circumvention law, given its novelty on the international stage. This flexibility was exploited by the US to enact one of the most stringent and elaborate anti-circumvention laws around the whole world.[58]

### Framework of anti-circumvention laws under the DMCA

TPM has been elaboratively defined under section 1201 (a)(3)(B) of the DMCA which stipulates: "*a technological measure 'effectively controls access to a work' if the measure, in the ordinary course of its operation, requires the application of information, or a process or a treatment, with the authority of the copyright owner, to gain access to the work*."[59] A plain reading of the above provision makes it crystal clear that US seeks to protect "*access to the (copyrighted) work*" and not merely the exclusive rights of the copyright owner under the copyright law. As a corollary, protection is afforded to a TPM which prohibits the access to the copyrighted material, without requiring the existence of any underlying copyright. Needless to say, the scope of the provision is very broad, because acts of access control circumvention are outlawed, even if undertaken for purposes that are entirely lawful (e.g., fair use) and authorized by the Copyright Act.[60]

Furthermore, the scope of protection against circumvention of TPMs is broadly conceptualized under the DMCA. To elaborate, other than prohibiting the very act of TPM circumvention,[61] the manufacture, import, sale or trafficking in any technology, product, service, device, component, or part thereof, that is primarily

55 *Supra* note 22 at 340.

56 *Ibid.*

57 *Supra* note 54 at 240, 241.

58 See Pamela Samuelson, "Intellectual Property and the Digital Economy: Why the Anti-Circumvention Regulations need to be revised" 14 *Berkeley Technology Law Journal* 519 (1999).

59 DMCA s. 1201 (a)(3)(B).

60 *Supra* note 58 at 534.

61 DMCA s. 1201 (a)(1)(A).

designed or produced for the purpose of circumventing an access control TPM,[62] is also prohibited. Moreover, even if the said technology, product or device has not been primarily designed for the purpose of circumventing a TPM, but has only limited commercially significant purpose or use other than to circumvent a TPM,[63] or is marketed for use in circumventing,[64] the same is also outlawed under the DMCA. Furthermore, trafficking in tools that circumvent TPMs that effectively protect a right of a copyright owner in a work or portion thereof, is also prohibited.

Essentially, scope of anti-circumvention laws in US is highly elaborative and prohibits not only the acts of circumvention of access controls, but also bans trafficking in circumvention of both access control and copy control technologies. As a result, multiple repair implications follow from these stringent anti-circumvention laws. For instance, consumer will be liable if he disables a TPM or a digital lock protecting the embedded software, the access of which is needed to carry out the repair of his own digital device. Further, circumventing the TPM which protects the access to the copyrighted repair manual in the digital platform, also attracts civil liability. In addition, if the consumer takes the services of an independent repairer, who disables the digital lock wilfully and for commercial gain, the repairer may even be criminally liable. Moreover, trafficking or selling anti-circumvention devices (even if needed for repair purposes) attracts criminal liability. Adding to the long list of repair restrictive anti-circumvention provisions, sections 1201(a)(2) and 1201(b) further prohibit the distribution of information about the ways to disable a digital lock. This prevents repair shops from posting content onlineand distributing information related to disabling digital locks as the same can make distributors criminally liable, if they distribute such information wilfully and for commercial gain.[65]

Notwithstanding the extensive protection being afforded against circumvention of TPMs, the DMCA has recognised some limitations or exceptions to these anti-circumvention laws. DMCA provides seven very specific exceptions to anti-circumvention liability: exemptions in favour of non-profit libraries, archives and educational institutions;[66] activities pertaining to law enforcement intelligence, lawful investigation *etc*.;[67] lawful reverse engineering;[68] encryption research;[69]special exceptions

62 *Id.*, s. 1201 (a)(2)(A).
63 *Id.*, s. 1201 (a)(2)(B).
64 *Id.*, s.1201 (a)(2)(C).
65 *Supra* note 5 at109.
66 *Supra* note 59, s. 1201 (d).
67 *Id.*, s. 1201 (e).
68 *Id.*, s. 1201 (f).
69 *Id.*, s.1201 (g).

in cases of preventing minors to have access to certain contents online;[70] activities for protecting 'personally identifying information';[71] and permitted security testing.[72]

Moreover, the "fair use exception", a foundational doctrine which facilitates a wide range of unauthorized uses permissible to consumers under the traditional American Copyright Law, is not effectively applicable to anti-circumvention laws under the DMCA in practise.[73]Perhaps factors such as providing extensive protection against TPM circumvention, combined with broad conceptualization of the 'technical measure' to include even the 'access control' of the copyrighted works and ineffective application of the fair use exception against circumvention liability, renders the anti-circumvention laws of the US particularly strong. Fortunately, DMCA's section 1201 (a)(1)(C) contains a safety valve which grants the Librarian of Congress an important rulemaking power to promulgate additional exemptions to these strong anti-circumvention laws.[74] Under this provision, the Register of Copyrights can make suggestions to the Librarian, who may either accept them or reject them after considering a number of factors laid out by the statute.[75] If the Librarian, after considering the relevant factors, determines that an exemption should be granted to the suggested uses, it may grant the exemptions for a period of three years, which can be further renewed.[76]

**The triennial repair exception**

Utilising this triennial rule making power, the Librarian gave in to the rightful demands of the repair advocates in the US to recognise repair as a legitimate exception to

70 *Id.*, s. 1201 (h).

71 *Id.*, s. 1201 (i).

72 *Id.*, s.1201 (j).

73 Dan L. Burk, "Anticircumvention Misuse" 50 *UCLA Law Review* 1095 (2003). The author remarks that the application of anti-circumvention laws has gone much further than the scope of copyright and requirements of WIPO Internet Treaties. They have threatened the permitted privileges of users (such as fair use) under traditional copyright law and a technological infringer need not infringe any of the exclusive rights of copyright holders to violate § 1201. See YiJun Tian, "Problems of Anti-Circumvention Rules in the DMCA and More Heterogeneous Solutions" 15 *Fordham Intellectual Property Media & Entertainment Law Journal* 749, 774-778 (2005).

74 *Supra* note 59, s. 1201 (a)(1)(C).

75 *Ibid.*

76 *Supra* note 59, s. 1201 (a)(i)(C) lists the following factors for the Librarian of Congress to review when considering whether or not to grant the exemptions: (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.

circumvent the TPMs.[77] In 2018, the Librarian adopted exemptions to the DMCA provision that prohibits circumvention of technological measures that control access to copyrighted works.[78] The relevant exception which was initially valid from 2018 to 2021 is stipulated as:[79]

> Computer programs that are contained in and control the functioning of a lawfully acquired motorized land vehicle such as a personal automobile, commercial vehicle or mechanized agricultural vehicle, except for programs accessed through a separate subscription service, when circumvention is a necessary step to allow the diagnosis, repair or lawful modification of a vehicle function, where such circumvention does not constitute a violation of applicable law, including without limitation regulations promulgated by the Department of Transportation or the Environmental Protection Agency, and is not accomplished for the purpose of gaining unauthorized access to other copyrighted works.
>
> (emphasis supplied)

Moreover, this exception was extended to devices such as lawfully acquired smartphones, home appliances or home systems such as a refrigerator, thermostat, 1VAC, or electrical system, when the circumvention was necessary for repair or maintenance.[80] Fortunately, these exceptions were further renewed in January, 2021 for another three years and even expanded the scope of the repair exception to cover all consumer electronics (with a couple of small carveouts for certain vehicle systems and parts of video game consoles).[81]

While these triennial exemptions to repair (2018 exemptions and the subsequent 2021 exemptions) are exciting news for the American repair movement, as they provide greater freedom to individual consumers to repair their digital devices, the repair advocates are taking these exceptions with a pinch of salt. The repair advocates have highlighted notable downsides to these exceptions.[82] At the onset, these exceptions are temporary and only last for three years (although they can be renewed further). Other than being a mere short-term fix, the exemption only permits the act of circumvention for repair purposes. The trafficking in circumvention tools is not exempted for repair purposes. As a result, although a consumer or an independent

77 *Supra* note 5 at 105.

78 37 C.F.R. s. 201 (2019)*available at:* https://www.govinfo.gov/content/pkg/FR-2018-10-26/pdf/2018-23241.pdf(last visited Mar. 18, 2025).

79 *Ibid.*

80 *Ibid.*

81 37 C.F.R. s. 201 (2021), *available at:* https://www.govinfo.gov/content/pkg/FR-2021-10-28/pdf/2021-23311.pdf(last visited on Mar. 18, 2025).

82 *Supra* note 5 at 105-109.

repairer is allowed to circumvent the TPM for repairing a digital device, he would have to first code or design his own circumvention device, before the repair process. Distributing or selling these circumvention devices is not exempted, which prevents average users and even most above-average users from performing repairs. Even the diffusion of information relating to how to disable a digital lock, is not exempted.

In addition to these limitations, it is worth noting that under the current provisions of section 1201 of the DMCA, the Librarian does not have the power to grant an exception regarding the 'trafficking' of TPM circumvention tools. Sections 1201 (a)(2) and 1201 (b), are the relevant provisions which cover the prohibition against trafficking in TPM circumvention tools. There is no analogous provision (similar to the DMCA's section 1201 (a)(1)(C)) in DMCA which allows for exemptions to be adopted against trafficking liability. In order to provide an exemption from the DMCA anti-trafficking provisions, legislative action by the Congress is required that could revise the law to exempt 'trafficking' of vital TPM circumvention software.[83]

The concern regarding the above-mentioned exemption is further heightened by the fact that it does not exempt the consumers or the independent repairers from circumventing the TPMs that protect the access to copyrighted repair manuals in the digital platform. The said exemption only covers circumventing of TPMs, which protect access to the embedded computer program. Resultingly, if a consumer circumvents the TPM employed by a copyright owner or an OEM, in order to gain access to the repair related information such as the copyrighted repair manuals, schematics, *etc.*, even for the purposes of repair, he is not exempted from circumvention liability.In sum, the triennial exception provides only a partial repair exception to TPM circumvention laws and leaves much more to be desired.[84]

## IV Anti-circumvention laws in EU, their repair implications and the repair exception

EU does not have a unitary Union wide legislative framework for copyright protection. Rather, copyright law in EU consists a fragmented patchwork of 13 Directives and 2 Regulations, encompassing variety of subject matters. EU's approach to anti-circumvention law is also fragmented and is not dealt under a single Directive. Rather, based on the subject matter of protection, anti-circumvention laws are bifurcated under two distinct Directives. *Firstly,* Directive 2009/24/EC(Software Directive),[85] which deals with the anti-circumvention laws protecting 'computer programs'. It replaced the Directive 91/250/EEC of 14 May 1991 (1991 Software Directive) on the legal protection of computer programs and is a consolidated version of the 1991

83 *Ibid.*

84 *Supra* note 13 at 2408-2409.

85 Directive 2009/24/EC of Apr. 23, 2009, on the legal protection of computer programs.

Software Directive, to incorporate the minor amendments it had received over the years. *Secondly,* Directive 2001/250/ EC(InfoSoc Directive), [86] which protects TPMs entailingall other copyrightable subject-matter such as literary works encompassing repair manuals and other repair related copyrightable information.

**Bifurcated approach to circumvention liability**

The 1991 Software Directive was the first and foremost harmonising Directive of the EU in the field of copyright which aimed at harmonising copyright protection to computer programs (including TPM protection to computer programs). Article 7(1)(c) of the 1991 Software Directive (which is identical under the Software Directive) is the relevant provision prohibiting circumvention of technical device applied to protect computer program. It is the sole provision under the Software Directive which directly deals with TPM and its circumvention. It is useful to quote article 7(1)(c)verbatim:[87]

> …any act of putting into circulation, or possession for commercial purposes of, any means the sole intended purpose of which is to facilitate the unauthorised removal or circumvention of any technical device which may have been applied to protect a computer program.

Notably, the above provision does not prohibit the very act of circumvention, rather the supply or commercial possession of any 'means' of TPM circumvention has beenoutlawed. As a corollary, an independent circumvention of a software TPM in order to repair a digital device would not attract circumvention liability. Nevertheless, under the Software Directive, if a commercial repairer sells, supplies or possesses the technical device or means of TPM circumvention, he may be implicated under the anti-circumvention clause. Curiously, no exceptions, whatsoever have been provided against circumvention liability under the Software Directive.

On the other hand, anti-circumvention laws are dealt more comprehensively under the InfoSoc Directive. The InfoSoc Directive was enacted by EU in the year 2001 to fulfil its treaty obligations under the WIPO Internet Treaties. Anti-circumvention laws find expression under Chapter III of the InfoSoc Directive- 'Protection for technological measures and rights management information', which deals with anti-circumvention of TPMs. Article 6 under chapter III substantively deals with TPMs and obligates Member States to provide adequate legal protection against a person who knowingly circumvents any effective technological measure. Other than prohibiting the very act of circumvention, protection is also afforded against certain commercial activities related to TPM circumvention.

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86 Directive 2001/29/EC of 22 May 2001 on the harmonisation of certain aspects of copyright and related rights in the Information Society (InfoSoc Directive).

87 Directive 91/250/EEC of 14 May 1991, on the legal protection of computer programs (Software Directive), art. 7(1)(c).

The scope of anti-circumvention laws under the InfoSoc Directive can be differentiated as being much wider than the Software Directive. Not only the very act of TPM circumvention is prohibited,[88] activities such as sale, manufacture, import, distribution, rental, advertisement for sale or rental, or possession for commercial purposes of devices, products or components or the provision of services which are promoted, advertised or marketed for the purpose of circumvention of, or have only a limited commercially significant purpose or use other than to circumvent, or are primarily designed, produced, adapted or performed for the purpose of enabling or facilitating the circumvention,[89] are also disallowed.

The InfoSoc Directive provides an exhaustive list of exceptions available against circumvention liability. These exceptions, carved out under articles 5(2) and 5(3), are nevertheless non-mandatory in nature, which means Member Nations have an option to pick and choose the exception they want to enact in their national legislations. It is pertinent to note that article 5(3)(l) of the InfoSoc Directive,[90] provides an exception related to repair, which is elaborated in detail latter.

The Software Directive on the other hand, contains no reference whatsoever of any limitation or exception available against anti-circumvention laws under it. Adding to the misfortune, exceptions and limitations available under the InfoSoc Directive are also not applicable under the Software Directive.

**EU repair exception to circumvention liability**

As noted above, article 5(3)(I) of the InfoSoc Directive explicitly provides a repair exception against circumvention liability. It states that Member Nations can make exceptions for "*use in connection with the demonstration or repair of equipment.*"[91]Being optional, the repair exception has been implemented in varying degrees throughout the EU.[92] On one hand some EU Member States have liberally implemented the repair exception in their copyright statutes, on the other hand some have taken an extremely restrictive approach to the exception by including various caveats to its application.[93] Large scale deviations in the potential scope and application of the repair exception are therefore apparent throughout the EU.[94]

88 *Id.*, art. 6(1).

89 *Id.*, art.6(2).

90 *Id.*, art.5(3)(l).

91 *Supra* note 86, art.5(3)(l).

92 Lucie Guibault, "Why Cherry-Picking Never Leads to Harmonisation: The Case of the Limitations on Copyright under Directive 2001/29/EC" 1 *Journal of Intellectual Property, Information Technology and Electronic Commerce Law* 55, 58 (2010).

93 *Supra* note 16 at 123-126.

94 *Ibid.*

Neither the European courts nor the European Council have stepped in to harmonise these divergent approaches to the implementation of the repair exception in various Member States. The recent work of Anthony D. Rosborough, who has vehemently argued for a uniform and broad conceptualisation of the EU repair exception, is noteworthy on this aspect.[95] He has argued his case for a broad interpretative scope of the repair exception for remedying the pressing social, economic and environmental costs brought about by the un-repairability of today's consumer goods.[96] He emphasises on the language used under article 5(3)(l), which permits uses "in connection with" repair, to argue that the repair exception permits a wide range of uses so long as they bear an ancillary or incidental relationship to repair.[97] As a corollary, the repair exception should be interpreted as permitting the use of repair manuals for a whole host of products, devices, and equipment in ways that directly or indirectly facilitate repair activities. However, Rosborough cautions that permissible repair should only be restricted to restorative or ameliorative activities which ensures normal use of the product and should not include entire replacement, voluntary modification, or adaptation of the product.[98] In the wake of the growing repair movement, it is possible that the European Council or the Court of Justice of the EU (CJEU) will clarify the scope of the repair exception in the near future.

Irrespective of the flaws posed by divergent application of the repair exception, an explicit recognition of a repair exception against circumvention liability under article 5(3)(l) of the InfoSoc Directive, is commendable. Pursuant to the exception, the consumers and the repair shops can legally circumvent the TPMs employed to restrict the access of repair manuals, schematics or other copyrighted information on the digital environment. Contrastingly, the circumvention liability under the Software Directive is absolute, as no exceptions whatsoever are available under the Directive. Adding to the woes of the repairers, the repair exception (as well as other exceptions) available under the InfoSoc Directive, is not applicable to the Software Directive. Consequently, circumvention liability under the Software Directive is very stringent as no repair exception is available.

However, it is pertinent to recollect that the Software Directive does not prohibit the very act of TPM circumvention. Thus, if the consumer or an independent repairer circumvents the TPM protecting the imbedded computer code, needed to repair the digital device, no liability is attracted. Nevertheless, as supplying or possessing the means of circumvention for commercial reasons is prohibited, to escape liability the consumer would have to himself devise a tactful circumvention device which could

95 *Id.* at 127-131.

96 *Ibid.*

97 *Id.* at 127-129.

98 *Id.* at 129-131.

circumvent the underlying TPM. This hampers consumers' ability to repair the device, as they may usually not have the skill, time, or will to first devise his own circumvention tool and then to repair his computer embedded equipment on his own. Therefore, lack of a repair exception under the Software Directive can have a devastating effect on the repairability of a software embedded product in the EU.

## V The 'Right to repair' movement in India

Currently, India lacks a specific repair legislation and right to repair is not formally recognised as a statutory right.[99] However, right to repair is implicitly acknowledged under the consumer's 'right to choose' or the right to seek redressal against unfair trade practice or restrictive trade practices granted under the Consumer Protection Act, 2019,[100] and the said right is violated when there is a monopoly on the methods used for repair.[101]Moreover, the Competition Commission of India, the chief competition regulator, has famously ruled in *Shamsher Kataria* v. *Honda Siel Cars India Ltd.*,[102] that OEM's like Skoda, Mahindra, Nissan and Fiat,which completely restrict the access to spare parts and diagnostic tools coupled with an absolute cancellation of warranty if cars are repaired by independent repairs, completely foreclose the market for independent repairers, create barriers to entry and deprive consumers of any choice in the aftermarket for spare parts and repairs. Further, the agreements in question were also held to contain clauses requiring the authorized dealers to source spare parts only from OEMs or their approved vendors. The Commission noted that such repair restrictive activities result in anti-competitive behaviour under the Competition Act, 2000,[103] and hence is prohibited. The Commission directed the OEMs to (i) enable the consumers to have access to spare parts and also be free to choose between independent repairers and authorized dealers and (ii) enable the independent repairers participate in the aftermarket and provide services in a competitive manner and to have access to essential inputs such as spare parts and other technical information for this purpose, as part of a more competitive eco-system.

To fill this legislative gap, the Indian Government in 2022 established an expert committee headed by Nidhi Khare, who is Additional Secretary to the Department

99 See TR Subramanya and Nidhi Saroj, "Is right to repair one's own good a Consumer Right? An analysis of the changing dimensions of consumer rights in India" 11 *International Journal on Consumer Law and Practice* 182 (2023).

100 Consumer Protection Act 2019, 35 of 2019.

101 *Supra* note 99 at 196.

102 *Shamsher Kataria* v. *Honda Siel Cars India Ltd.* 2014 SCC OnLine CCI 95.

103 Competition Act 2002, Act 12 of 2003.

of Consumer Affairs, to develop an explicit framework for the right to repair.[104] The aim of developing this framework is to empower consumers and product buyers in the local market, to harmonize trade between the original equipment manufacturers and the third-party buyers and sellers, to emphasize on developing sustainable consumption of products and reduction in e-waste.[105] The committee in its first meeting identified the important focus sectors for right to repair. Which included farming equipment, mobile phones or tablets, consumer durables and automobiles.[106]In December, 2022, the Ministry of Consumer Affairs has even launched a right-to-repair portal, which is an online platform to make product maintenance and repair easier.[107] The portal provides consumers an access to a variety of services, including product repair and maintenance, replacement parts, manuals and warranty information.[108]

Right to repair initiative also provides impetus to the laudable LiFE movement (Lifestyle for Environment) in India, which was launched by the Prime Minister of India, Narendra Modi, during the 26th United Nations Climate Change Conference of the Parties (COP26) held in 2021 in Glasgow.[109] The movement aims at replacing the prevalent 'use-and-dispose' economy governed by mindless and destructive consumption with a circular economy, which would be defined by mindful, sustainable and deliberate utilization of the products.[110] This includes the concept of reuse and recycling of various consumer products. Repair was recognised as a critical function of all forms of re-use and even for the sustainable life of the products. A product that cannot be repaired or falls under planned obsolescence, not only becomes e-waste but also forces the consumers to buy new products. It was recognised that the rationale behind right to repair is that when a consumer buys a product, it is inherent that he must own it completely, and should be able to repair and modify the product with ease and at reasonable cost, without being captive to the whims of manufacturers

104 Indian Ministry of Consumer Affairs, Food and Public Distribution, "Department of Consumer Affairs sets up committee to develop comprehensive framework on the Right to Repair", *Press Release*, July 14, 2022, *available at:* https://pib.gov.in/PressReleasePage.aspx?PRID=1841403(last visited on Dec. 19, 2024).

105 *Ibid.*

106 *Ibid.*

107 Goyal launches right-to-repair portal, new premise of National Consumer Helpline, *The Hindu*, Dec. 24 2022 *available at:* https://www.thehindu.com/news/national/goyal-launches-right-to-repair-portal-new-premise-of-national-consumer-helpline/article66301318.ece (last visited on Dec. 10, 2024).

108 *Ibid.*

109 NITI Aayog "PM Launches 'LiFE Movement' for Adoption of Environment-Conscious Lifestyle", *Press Release*, June 5, 2022, *available at:* https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1831364 (last visited on Dec. 10, 2024).

110 *Ibid.*

for repairs.[111] In essence, the public interest in extending right to repair to consumers is particularly important across several dimensions ranging from socio-economic to environmental concerns.

Additionally, the committee noted that over a period of time, OEMs have severely restricted the right to repair. The committee identified some key restrictive tactics adopted by the OEMs that needed to be addressed at the onset. These tactics range from exercising proprietary control over the spare parts, restricting the choice of consumers by forcing them to repair the products only from authorised repair centres at exorbitant prices, planned obsolescence, *etc.*[112] Other than these anti-competitive practises, committee acknowledged that the use of DRM and TPMs, act as a potent tool in the hands of copyright holders to restrict repair.[113] Moreover, OEMs avoid the publication of repair manuals that can help users make repairs easily. The Committee highlighted that the companies should provide complete knowledge and access to manuals, schematics, and software updates for repair purposes.[114]

## VI Anti-circumvention laws in India, their repair implications and the (lack of a) repair exception

In India, anti-circumvention laws protecting TPMs owe its origin to the Copyright (Amendment) Act, 2012 which added section 65A to the Copyright Act, 1957 (the Indian copyright statute). The 2012 amendment was promulgated to incorporate some important provisions dealing with copyright management in the digital world.[115] These modifications were necessitated by unforeseen acceleration in technological innovation with the advent of computers, internet and ICT (Information Communications Technology). The objective of the amendment was also to bring the provisions of the Copyright Act, 1957 in conformity with the two WIPO internet treaties.[116] Curiously, India at the time of promulgating the Copyright (Amendment) Act, 2012 was under no obligation to include TPM provisions (or other provisions related to digital copyright) mandated by the Internet treaties for the simple reason that back in 2012, India had not signed or ratified the Internet Treaties.[117] India ratified the Internet Treaties only on July 18, 2018.

In tracing the legislative journey of including section 65A in the Indian Copyright Act, 1957, it is pertinent to provide a brief overview of the Report of the Parliamentary

111 *Ibid.*

112 *Supra* note 104.

113 *Ibid.*

114 *Ibid.*

115 *Supra* note 45 at 151.

116 See BV Rajasingh "India Enacts Laws to Protect Copyright over Digital Content" 8(4) *Journal of Intellectual Property Law and Practice* 265 (2013).

117 *Ibid.*

Standing Committee in this regard.[118] The Committee invited suggestions and representations from various stakeholders to comment on the proposed TPM provisions (and other provisions of the erstwhile Copyright (Amendment) Bill, 2010).[119]Majority of the stakeholders were of the view that the anti-circumvention provisions as contained under section 65 A were inadequate.[120]

The Indian Broadcasting Federation required more stringent provisions such as increasing the imprisonment term for the first offence from the proposed two years to 3 years, treating all such offences as cognizable and non-bailable and also to shift the burden of proof to the infringer.[121] Further, the Indian Broadcasting Federation and the Business Software Alliance wanted to impose both civil and criminal liability for the act of unlawful circumvention. Stakeholders representing the music industry and film producers opined that the provision needed to be redrafted so as to make the very act of interfering with technological measures punishable and also provide both civil and criminal liabilities.[122] Only Yahoo India represented reservations about section 65A, and cautioned that imposing anti-circumvention provisions might result in exceeding the scope of copyright protection and blocking even legitimate activities which users are otherwise permitted to do under copyright law. Yahoo opined that TPMs can considerably interfere with a consumer's right to 'fair use'.[123]

Despite the joined voice of majority of stakeholders in advocating more stringent provisions against TPM circumvention, the Standing Committee took a firm stance and observed that the international obligation imposed by the WIPO Internet Treaties allowed countries to develop laws to prevent TPM circumvention while keeping in mind the public interest of access to works.[124] The Committee further noted that TPMs often come in the way of fair dealing and have a significant impact on freedom to use work as permitted by law. It also noted the experience of developed countries such as US and EU in developing such laws and the consequent abuse of such laws by right holders, resulting in the blocking of research and inhibition of the development

118 Parliamentary Standing Committee on Human Resources Development, 277th Standing Committee Report on the Copyright Amendment Bill 2010, Nov. 23, 2010, *available at:* https://prsindia.org/files/bills_acts/bills_parliament/2010/SCR_Copyright_Bill_2010.pdf(last visited on March 15, 2025).

119 *Ibid.*

120 See Swaraj Paul Barooah, "Disruptive (Technology) Law? Examining TPMs and Anticircumvention Laws in the Copyright (Amendment) Act, 2012" 5 *NUJS Law Review* 583(2012).

121 *Supra* note 118, para 20.3.

122 *Ibid.*

123 *Supra* note 118,para 20.4.

124 *Id.*, para 20.7.

of new technologies.[125] Thereby, taking a moderate and cautious approach, the Committee agreed with the Legislature's approach in proposing limited legislative guidelines and allowing the judiciary to evolve the law based on practical situations, keeping in mind the larger public interest of facilitating access to work by the public. The resultant section 65A is thus less elaborate than its US and EU counterpart, and stipulates thus: [126]

> Any person who circumvents an effective technological measure applied for the purpose of protecting any of the rights conferred by this Act, with the intention of infringing such rights, shall be punishable with imprisonment which may extend to two years and shall also be liable to fine.

To analyse the full scope of TPM implications on the reparability of consumer products, it is indispensable to conduct a brief analysis of the definition of TPMs, scope and contours of TPM protection and exceptions available under the Indian copyright law.

**Definition of TPM**

A simple reading of section 65A reflects that no guidance or illustrations have been provided to define or interpret the term 'effective technological measure'. Section 65A only remarks that the 'effective technological measure' must have been applied for the purpose of protecting any of the rights conferred by the Copyright Act, 1957. The wording of the Indian provision makes it clear that the application of the section is restricted to rights granted under the Indian Copyright Act, 1957. This would mean that the circumvention of even the most sophisticated TPM is not illegal if the underlying content is not protected by provisions of the copyright law, indicating that all the limitations and fair dealing provisions applicable to works in which copyright subsist shall continue under anti-circumvention laws also.[127]

Furthermore, it can be noted that in the absence of any guidance or illustrations on the measures that fall under the ambit of TPMs, the Indian approach seems to keep the provision on TPM as technologically-neutral as possible. The Standing Committee opines that these terms have been consciously left undefined, given the complexities faced in defining these terms in the laws of developed countries.[128] This allows the judiciary to evolve the law based on practical situations, keeping in mind the larger public interest of facilitating access to work by the public.[129] It helps to cover all

125 *Ibid.*

126 Copyright Amendment Act No 27 (2012), s. 65(A)(1).

127 *Supra* note 22 at 339.

128 *Supra* note 118, para 20.7.

129 *Ibid.*

future technological advancements in the field of TPMs and will effectively do away with the need to make continuous amendments in case new technologies come up.[130]

**Scope of TPM circumvention liability**

Article 11 of WCT suggests that the Member Nations have been afforded sufficient flexibility in determining the contours of legal protection they want to provide against TPM circumvention. Section 65A exploits this flexibility and prohibits only the act of TPM circumvention. There is no embargo on the sale, manufacturing, import etc, of the means, technology, services or devices used for the act of circumvention, unlike the corresponding provisions under the EU InfoSoc and Software Directive and the US DMCA.Thus, India takes a narrow stance in proscribing only the circumvention of TPMs (which protects the rights granted under the Indian Copyright Act, 1957) and not the other related commercial activities.

A justification of the same was duly provided by the Standing Committee, which remained unmoved by the considerable demands of the rightsholders in banning the manufacture and sale of devices used for circumvention.[131]The Committee had received various reports from around the world about the abuses committed by copyright owners who incorporated TPMs to deny the general public the rights it was ordinarily entitled to under traditional copyright law, such as the fair dealing provisions. And the only option to enjoy the fair use of these protected works was to circumvent the technology. Consequently, if the manufacture and sale of circumvention devices is outlawed, this would prevent the development of the dual use technology (used to circumvent TPMs restricting fair dealing of the work) and also prevent the enjoyment of fair dealing permitted by law.[132]This would have had a detrimental impact on the public interest in accessing the works.

**Exceptions to circumvention liability**

The TPM circumvention liability under section 65A of the Copyright Act, 1957 is not absolute. The second clause of section 65A permits circumvention under certain special circumstances enumerated therein. *Firstly*, circumvention liability is not attracted if done for a 'purpose' not expressly prohibited by the Copyright Act.[133] This ensures that all the restrictions and limitations to copyright law (including fair dealing) continue to operate even when TPMs are employed. An exhaustive list of fair dealing exceptions to copyright law (and consequently to circumvention liability) are provided under section 52 of the Copyright Act. However, it is pertinent to note that in order to avail exemption from circumvention liability on the ground of fair dealing or other exceptions

130 *Supra* note 22 at 340, 342.

131 *Supra* note 118, para 20.7.

132 *Ibid.*

133 *Supra* note 126, s. 65(A)(2)(a).

under the Copyright Act, any person facilitating circumvention by another person of a technological measure for such a purpose, shall maintain a complete record of such other person including his name, address and all relevant particulars necessary to identify him and the purpose for which he has been facilitated.[134] This proviso places the Indian anti-circumvention provision amongst one of the few anti-circumvention regimes worldwide that explicitly mentions third parties who help circumvention, and seems to exempt them from liability, provided they fulfil certain conditions.[135] This caveat has, however, been criticised for raising serious privacy concerns as this would mean that the circumvention facilitator would have to share personal information of the user.[136]

*Secondly*, circumvention liability is not attracted under six enumerated exceptions namely:- doing anything necessary to conduct encryption research using a lawfully obtained encrypted copy;[137] or conducting any lawful investigation;[138] or doing anything necessary for the purpose of testing the security of a computer system or a computer network with the authorisation of its owner;[139] or operator;[140] or doing anything necessary to circumvent technological measures intended for identification or surveillance of a user;[141] or taking measures necessary in the interest of national security.[142] These enumerated exemptions are exhaustive in nature and no new exceptions have been added since the enactment of the circumvention provision under section 65A. Evidently, no repair exception is available against circumvention liability under the Indian Copyright Act.

## VII Proposing a new repair exception under the Indian anti-circumvention laws

Anti-circumvention laws and the underlying TPM policy play a crucial role inadversely affecting the repairability of new-age products by imposing liability on the acts of circumvention of TPMs, necessary for access to the embedded software or the copyrighted repair manual available digitally. Any proposed framework for regulating the growing consumer right to repair cannot afford to ignore the need of a lawful exception to TPM circumvention liability for repair purposes. A repair exception is necessary not only to achieve social, economic and environmental benefits, but also to balance the interests of the right holders and those of public at large.

134 *Ibid.*

135 *Supra* note 120 at 591.

136 *Ibid.*

137 *Supra* note 126, s. 65(A)(2)(b).

138 *Id.*, s. 65(A)(2)(c).

139 *Id.*, s. 65(A)(2)(d).

140 *Id.*, s. 65(A)(2)(e).

141 *Id.*, s. 65(A)(2)(f).

142 *Id.*, s. 65(A)(2)(g).

As elaborated, at present 'repair' is not a lawful exception to circumvention liability under the Indian copyright provision. Against this background, the authors propose that a new repair exception be added to the anti-circumvention provision under section 65A of the Copyright Act, 1957. A new repair exception is both necessary and feasible under the Indian copyright regime on various fronts. *Firstly*, as the foregoing demonstrates, considerable leeway is afforded under the Article 11 of WCT and 18 of WPPT in transposition of the anti-circumvention laws into national legislations. These treaties also emphasize the need to properly balance the interests of right-holders and the general public by allowing countries sufficient flexibility in drafting various exceptions or limitations to the circumvention liability. Consequently, a repair exception, which adequately balances these interests is both necessary and in consonance with the treaty mandate.

*Secondly*, at the time of enactment of the TPM protection laws under section 65A of the Indian Copyright Act, 1957, the Parliamentary Standing Committee acknowledged the fact that proliferation in digitally advanced technologies in the future would warrant corrective measures to thwart the misuse of anti-circumvention laws. The Committee observed thus:[143]

> It was pointed out that India was yet to face major problems of circumvention due to low level of penetration of digital technology. Taking note of experience of developed countries in developing laws for prevention of circumvention of technological measures, the Committee agrees with the approach as enshrined in section 65 A to give limited legislative guidelines and allow the judiciary to evolve the law based on practical situations, keeping in mind the larger public interest of facilitating access to work by the public…..The Committee would, however, like to emphasize that a constant watch would have to be kept on the impact of this provision and corrective measures taken as and when required. (*emphasis supplied*).

At the time of drafting section 65A, the legislature could not have predicted the digital revolution that was waiting to unravel in the coming years. Today, circumstances have changed and there has been large-scale penetration of software embedded products into the Indian consumer market.[144] The OEMs are blatantly misusing the anti-circumvention laws to thwart the sustainable practise of repair. Digital India should not be complacent to these developments and the policy makers should promptly provide a repair exception under its anti-circumvention laws.

*Thirdly,* experiences from foreign jurisdictions like US and EU reflect the importance and desirability of a repair exception to circumvention liability. For instance, US has

143 *Supra* note 118, para 20.7.

144 *Supra* note 12 at 28.

provided a repair exception against circumvention of TPMs which restrict the access to the software code, which is necessary for repairing digital devices. However, as discussed, these triennial exemptions to repair (2018 exemptions and the subsequent 2021 exemptions), are not sufficient in addressing the impediments posed by the repair restrictive TPMs. Not only these exceptions are temporary (albeit renewable), but also, they only exempt TPM circumvention and not trafficking in the means of circumvention.

Circumvention laws in the EU also pose substantial restrictions to repairability of new-age digital products as TPMs protect the access to the embedded software code and the copyrighted repair information on the digital platform. The EU circumvention laws are peculiarly complicated by the fact that they span two different Directives- the Software Directive which protects TPMs underlying software works and the InfoSoc Directive which provides elaborate anti-circumvention provisions protecting TPMs underlying other copyrighted works (such as copyrighted repair manuals).

As elaborated before, the circumvention liability under the Software Directive, which prohibits supply and commercial possession of the means of circumvention, is absolute as no exception is available. On the other hand, the InfoSoc Directive, already includes a non-mandatory exception for 'uses in connection with the repair or demonstration of equipment' under article 5(3)(l). Unfortunately, the implementation of the repair exception by the Member States in their national legislations has been significantly inconsistent. Moreover, the substantive meaning of this repair exception has never been interpreted by the courts of the EU.

Keeping the limitations of the repair exceptions under these jurisdictions aside, one thing is evident that these jurisdictions have not ignored the dominant role of anti-circumvention laws in obstructing repair activities and consequently the need of a repair exception to counter such circumvention liability. Likewise, India should not be ignorant of the hindrances posed by its anti-circumvention laws in circumventing the sustainable right to repair. However, given the inadequacies of the above repair exceptions in their respective jurisdictions, a new repair exception, suitable to the Indian scenario, should be introduced under the Indian anti-circumvention law. Nevertheless, in the process of drafting the repair exception, the interests of the right owners should not be completely ignored. Permissible 'repair' should be restricted to restoration of the damaged or defective product which ensures normal use of the device. Repair should not amount to entire replacement, voluntary modification, customisation or adaptation of the product.[145]

Therefore, the authors propose that a new clause (h) canvassing the repair exception be added to sub-section (2) of section 65A of the Copyright Act, 1957. In light of the above discussion, the following amendment is proposed:

145 *Supra* note 16 at 128-129.

*"(h). Doing anything necessary for the sole purpose of maintenance or repair of a legally acquired product.*

*Explanation. — For the purposes of this clause-*

*(i) "maintenance" means the servicing of the product in order to make it work in accordance with its original specifications and any changes to those specifications authorized for that product; and*

*(ii) "repair" means the restoring of product to the state of working in accordance with its original specifications and any changes to those specifications authorized for that product."*

Such a carefully calibrated provision exempts not only circumvention of TPMs which protect the access to computer embedded program, but also access to the copyrighted repair manuals (and other repair-related information) on the digital platform, for the sole purpose of repair or maintenance. Moreover, as noted above, this amendment would rectify the pitfalls of the triennial repair exception in the US which allows circumvention of only those TPMs that control access to embedded computer programs, and if a consumer circumvents the TPM employed by a copyright owner or an OEM, in order to gain access to the repair related information such as the copyrighted repair manuals, schematics, *etc.*, even for the purposes of repair, he is not exempted from circumvention liability. Furthermore, this amendment, in accord with the repair exception under the EU InfoSoc Directive, also allows TPM circumvention for uses in connection with repair of an equipment.

## VIII Conclusion

In the recent years, anti-circumvention laws have emerged as the most potent barrier in restricting the repairability of computer-controlled devices. Not only the access to the embedded software is protected behind the veil of TPMs, but also any act of tinkering or disabling such digital locks attracts circumvention liability. These TPMs further restrict the access to repair manuals and other copyrighted repair information on the digital platform and have the effect of blocking even the legitimate activities which users are otherwise permitted to do under traditional copyright law. As the number of consumer devices relying on the embedded computer code to function has risen to unprecedented levels, so is the power held by the anti-circumvention laws in impeding the sustainable right to repair.

As the preceding discussion indicates, the Indian policymakers have set up a special committee to develop a regulatory framework on the right to repair. Such a regulatory framework, to be efficient, must not ignore the effect of anti-circumvention laws as a major impediment to independent repair. Few jurisdictions, notably US and EU have recognised a repair exception to circumvention liability under their respective legal regimes; the Librarian of Congress in the US has exercised its triennial rule making power to allow circumvention of TPMs that safeguard computer programs which control the functioning of the consumer product. However, this repair exception

other than being temporary, does not allow TPM circumvention for gaining access to the copyrighted repair manuals online and fails to exempt the sale of the circumvention tools necessary to disable the digital locks. The InfoSoc Directive in the EU also allows circumvention of TPMs that protect access to the copyrighted material including repair manuals online, for repair purposes. Regrettably, being optional, the repair exception has not been implemented consistently among the Member States. More importantly, the Software Directive, which prohibits commercial activities related to circumvention of TPMs protecting computer programs, does not provide for a repair exception.

In the light of the above, the paper portrayed the need, justification and urgency to devise a new repair exception to circumvention liability in jurisdictions where such an exception does not exist like the Indian copyright law. The proposed exception would exempt consumers and independent repairers from circumvention liability for repair and maintenance purposes. The proposed exception is not only in consonance with the WIPO Treaty mandate, but it also reflects the legislative intent of the Parliamentary Standing Committee in taking corrective measures against the misuse of the anti-circumvention laws. Moreover, to adequately accommodate the interests of the right owners in protecting their copyrighted works, the suggested exception permits circumvention for repair activities alone that restore the faulty device and not replacementof the entire product. Such a carefully calibrated repair exception can serve as a foundation for future research, to explore the impact of other intellectual property regimes (IPRs) such as patents, trademarks and industrial designs, on the right to repair. This would also ensure that IPRs are not monopolising the repair market by heavily favouring the manufacturers at the cost of consumers.