

Digital Rights Management and Fair Use: Rethinking the Legal Balance

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Access rights have been greatly affected by the extensive integration of Digital Rights Management (DRM) technology into digital content ecosystems, therefore generating worldwide legal and policy discussions. Although DRM is praised as a tool against piracy, it progressively reduces legitimate fair use, especially in research, education, and artistic expression, even if it is required. Under the cover of DRM, this report points to important legal gaps whereby copyright enforcement violates user rights and stifles free expression and creativity. Important decisions reflecting increasing judicial conflict include *Sony Corp. of America v. University of Technology, Sydney* (Australia) and *321 Studios v MGM Studios* (U.S.). Combining doctrinal study with empirical observations gleaned from 60 Google Form survey responses from researchers and content providers in India, the United States, and the EU, this study used a hybrid methodology. Comparative legal study covers the U.S., India, and the EU. It looks into fair use/fair dealing theory, court interpretations, and conflict with DRM enforcement. Results draw attention to India's policy void and the court's reluctance to give user rights top priority. In order to balance rights with DRM systems in the digital age, the study suggests doable legal changes and a rights-balancing framework.

Keywords: Copyright Law, Digital Rights Management, Digital Millennium Copyright Act (DMCA), Fair Use, Information Access, Policy Framework

Suppose a university professor is preparing an online course in digital economics. To explain central concepts, the professor wants to use brief passages from an e-book that is under DRM protection. Despite the obviously educational use, the fact that purchasing the entire book raises costs and restricts access to knowledge. Similar tensions surface in cases such as *Studios v MGM Studios (U.S.)* and *Used Soft GmbH v Oracle (E.U.)*,¹ where aggressive enforcement of Digital Rights Management (DRM) systems has curtailed academic freedom and access to educational resources.

What is DRM and Why does it Matter?

Digital Rights Management is the name given to the technical measures, encryption, access controls, watermarking, password protection, and other code-based limitations, intended to keep digital works from being copied or disseminated in unauthorized ways. Initially created to counter widespread Internet piracy, DRM allows rights holders to set who is authorized to use a work, on what devices, and for how long. From as diverse an array of platforms as e-book retailers, streaming services, and software sellers, DRM is used to

protect intellectual property.² Industry organizations like the U.S. Chamber of Commerce estimate that Internet piracy costs the American economy tens of billions of dollars every year,³ which explains why creators and distributors spend so much on these safeguards.

But DRM's technology locks do more than prevent pirates. They sometimes trump statutory user rights, fair use in the United States, fair dealing in India and the Commonwealth, or the specific exceptions established in the European Union. Since DRM is automatic, it can render legally allowed uses like quotation, classroom copying, or disability adaptations into insignificance that it would be fair use or fair dealing in most legal systems, the digital locks on the e-book make sharing even a chapter technically impossible under anti-circumvention laws. Students must therefore

Additionally, DRM systems generally monitor how content is accessed, triggering privacy issues, as the case studies of unauthorized surveillance episodes in Greece and Zambia identified. Where protection overshoots, paying subscribers can be deterred, and the public interest in accessing knowledge is stifled.

Particularly with the development of digital content ecosystems, the junction between Digital Rights

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Management (DRM) and the fair use theory has produced strong scholarly debate in recent years. While DRM safeguards copyright holders, academics generally contend that it frequently undercuts legally approved fair usage, particularly in public access, education, and research areas.⁴

Among the early detractors of DRM, Jessica Litman claims that such technologies “lock up” digital content and supersede guaranteed user rights protected under copyright law.⁵ Pamela Samuelson argues similarly that DRM tilts the legal balance in favour of rights holders, therefore reducing the significance of legislative exclusions such as fair use.⁶ Scholars like Neil Weinstock Netanel have cautioned following the passage of the “*Digital Millennium Copyright Act, 1998*” (DMCA), the anti-circumvention clauses make it almost impossible to perform fair usage without breaking the law.⁷

Although the Information Society Directive (2001/29/EC) similarly requires protection of technological measures in the European Union, it just provides possible exceptions to member states, therefore negating user rights.⁸ The decision in *UsedSoft GmbH v Oracle International Corp.*¹ underlined legal uncertainty on digital exhaustion, therefore supporting worries regarding DRM's hegemony over user rights. Researchers like Guy Pessach contend that the EU structure often increases DRM protections while relegating fair usage to a secondary, non-enforceable function.⁹

India offers a special case: Sections 65A and 65B of the Copyright (Amendment) Act, 2012, criminalize circumventions and changes of rights management information.¹⁰ The law is hazy, nonetheless, on matching these clauses with Section 52, which offers fair-dealing exceptions. Critics of this discrepancy, including academics like Arul George Scaria, have pointed out how DRM enforcement might undermine fair dealing, especially in the classroom.¹¹

Lawrence Lessig's theoretical contributions, which first proposed the notion of “code is law”, highlight how DRM technologies essentially replace private restrictions with extrajudicial access regulators, therefore substituting for legislative copyright balances.¹² DRM privatizes copyright enforcement, therefore reducing judicial control and public interest protections, according to Niva Elkin-Koren as well.¹³

Though increasing, empirical studies on DRM-fair use conflict nevertheless remain few. By examining qualitative data gathered from 60 respondents from

academic, artistic, and research backgrounds, whose comments confirm that DRM often limits legitimate, transforming use, this research helps to close that legal gap. Particularly, the difficulty in extracting, exchanging, or remixing materials for non-commercial or educational creative reasons underscores more general complaints that present DRM schemes unduly support market domination.

All things considered, the research reveals a recurring theme: DRM often reduces fair use even if it is meant to lower piracy. Generally speaking, academics agree that legislative and technological changes are required to restore balance in digital copyright law and support the fundamental objectives of free expression and invention. This paper aligns with the Access to Knowledge (A2K) movement, which frames user rights as positive entitlements rather than mere exceptions. Building on Lessig's ‘code is law’ thesis and Elkin-Koren's critique of privatized enforcement, the analysis adopts a user-rights perspective: DRM is not merely a technical tool but a form of private legislation that can erode constitutional guarantees of speech and education.

The paper used a mixed approach combining empirical and doctrinal legal research methods. Supported by pertinent case law, it looked at U.S. (DMCA), Indian (Copyright Act, 1957), and European (InfoSoc Directive) DRM and fair use rules.

To analyse pragmatic effects, it also included information from a 60-responder using Google Forms, encompassing *IP Researchers* and *Content makers on the digital platforms*. Thematic analysis of the qualitative answers helped to spot tensions between fair use rights and DRM enforcement.

Legal Framework of DRM

National and International Legal Provisions on DRM

DRM technology regulation has changed depending on several legal tools applied at the national and international levels. These DRM clauses generate complicated conflicts with user rights and fair use exceptions, even while they seek to guard copyright holders from digital piracy and illegal use. Key legislative frameworks, including the DMCA (U.S.), WCT (WIPO), EU Directives, and national laws of India, the UK, Canada, and Japan, are examined in this part to show how nations try to combine technological enforcement with access, education, and digital freedom.

Digital Millennium Copyright Act (DMCA), 1998

The Digital Millennium Copyright Act (DMCA), created in 1998, helps protect copyrights in today's

digital era. One of the biggest components of the DMCA is its encouragement of DRM technologies. The technologies are designed to ensure only those who are authorized can access, duplicate, or play digital copyrighted works like music, films, and e-books. The DMCA criminalizes circumventing these DRM measures, which protects creators and distributors such as streaming services and program creators.¹⁴

It's illegal under the DMCA to hack into or disable DRM mechanisms to access copyrighted material without authorization. Any attempt to do this can result in legal repercussions. It's also illegal to create, sell, or provide tools used to bypass DRM so people can gain access to copyrighted material. The law's beneficial effects are felt greatly by businesses offering digital goods since it assists them in fighting piracy and illicit sharing. Individuals who attempt to bypass DRM are subject to harsh repercussions, including legal action, where they may be forced to pay lots of money. For more extreme breaches, criminal charges may apply, with possible fines or even imprisonment. The law has been utilized extensively in landmark court cases to punish people and corporations who tried to circumvent DRM security measures. There are, however, limited exceptions, such as research, security testing, or accessibility adjustments, where bypassing DRM will not be penalized. While the DMCA has been effective, it's also criticized by some as sometimes hindering preservation of old material, adapting technology to assist those with disabilities, or repairing digital appliances.¹⁵ Despite these criticisms, the DMCA remains a cornerstone of copyright protection in the digital space. It maintains DRM implementations intact and punishes those attempting to disable these measures without legitimate purposes.

The WIPO Copyright Treaty (WCT), 1996

The WIPO Copyright Treaty (WCT) and the WIPO Performances and Phonograms Treaty (WPPT) enacted in 1996, were designed to reform copyright norms internationally in order to cope with the widening impact of digital technologies and Internet distribution of copyright works due to the Internet. The accords provide minimum requirements for copyright regulations in countries, thus ensuring adequate protection of works in digital form across memberships.¹⁶

Focusing on Technological Protection Measures (TPMs)¹⁷, WIPO treaties call upon signatory countries

to establish legal protections against acts of circumvention of DRM measures. The treaties also establish legal protections against tampering with or disabling Rights Management Information (RMI), thus enabling copyright owners to track and protect their rights in digital space.¹⁸

The WIPO agreements also emphasize achieving a balance between copyright and users' rights because legislation of countries needs to provide national limitations and exceptions, such as fair use, as well as access by disabled persons, i.e., translation into braille of works.¹⁹ These ideas have shaped DRM rules all over, therefore promoting a structure that balances public interest issues with copyright holder protection.

European Union copyright guidelines

(i) The Information Society Directive (2001/29/EC)-

The Information Society Directive, often known as the Copyright Directive, is a crucial legal framework in the EU for managing Digital Rights Management (DRM). Article 6 of this directive requires the protection of technology that stops people from accessing and copying digital works without permission. It also asks EU countries to set up legal measures to prevent people from getting around these protections, which helps keep digital content safe from illegal use.²⁰

(ii) The Digital Single Market Directive (2019/790)-

The Digital Single Market (DSM) Directive boosts the protection of digital content. It brings in rules about licensing, the responsibilities of online platforms, and fair payment for creators. One key part of this directive is that online platforms must have proper licenses for copyrighted content. This ensures that creators receive fair compensation and that platforms follow copyright laws.²¹

(iii) The Digital Services Act (DSA) and Digital Markets Act (DMA)-

The Digital Services Act (DSA) and Digital Markets Act (DMA) introduce more rules for digital platforms, focusing on transparency and accountability. Although these laws don't specifically target DRM, they affect its environment by encouraging fair use and ensuring major digital companies adhere to ethical standards. By doing this, they help create a more organized and responsible digital market, having an indirect impact on DRM and content protection. Implications for Content Creators and

Digital Service Providers: DRM regulations in the EU strengthen protection for content creators, ensuring their work isn't illegally exploited. These regulations demand licensing and technical safeguards, which help artists, writers, and other creators earn fair compensation in the digital realm.²² For digital service providers, following DRM regulations means securing the necessary licenses, monitoring content sharing, and implementing tech protections. This has transformed digital content distribution, with a shift toward licensed streaming services and subscription-based platforms over traditional downloading.

While this regulatory structure aids in maintaining a controlled digital ecosystem, it also raises concerns about large digital platforms potentially growing too powerful, which could limit both competition and consumer choice.

- (i) European Parliament and Council. (2001). Directive 2001/29/EC on the Harmonisation of Certain Aspects of Copyright and Related Rights in the Information Society.
- (ii) European Commission. (2019). Directive (EU) 2019/790 on Copyright and Related Rights in the Digital Single Market.
- (iii) European Parliament and Council. (2022). Digital Services Act (DSA) and Digital Markets Act (DMA).

(vi) Other Jurisdictional Frameworks:

Beyond the U.S., WIPO, and EU frameworks, several nations have passed national legislation tackling DRM technology and its consequences for copyright enforcement. Though the details vary depending on jurisdiction, generally in settings like fair use, access, and research, these rules try to balance the rights of copyright holders with the interests of users.

India

In India, digital content protection falls under the Copyright Act, 1957 (Amended in 2012). The amendment brought in rules called technological protection measures (TPMs). **Section 65A** makes it illegal to break digital rights management systems. These systems stop people from accessing or copying copyrighted works without permission. **Section 65B** makes it illegal to change or remove rights management information (RMI). RMI keeps copyright data secure. However, Indian law allows

some exceptions. For research, education, and government purposes, you can use the content, ensuring there's a balance between protection and access.

United Kingdom

In the UK, the Copyright, Designs and Patents Act of 1988 (CDPA) is key to digital content protection. Over time, it had updates to match technological changes. Before Brexit, the UK followed EU rules like the Information Society Directive and the Digital Single Market Directive to strengthen DRM protections. UK law makes bypassing DRM measures illegal. Digital service providers must maintain these protections. That said, there are exceptions for access. Libraries, archives, and schools can use DRM content non-commercially. After Brexit, the UK will still follow similar DRM laws, but might adjust its rules differently from the EU.

Canada

The Copyright Act (Bill C-11, 2012) strengthens digital content protection. Bill C-11, introduced in 2012, has a cariole. Section 41 criminalizes going around DRM. It prevents individuals and corporations from defeating technological measures of protection (TPMs) restricting access to copyrighted material. Legislation in Canada mirrors its counterpart in the United States, namely, the Digital Millennium Copyright Act (DMCA), symbolizing Canada's commitment to intellectual property rights. There are, however, exceptions of significant importance. They are research, testing of security, and access by people with disabilities, granting some room when implementing DRM regulations.

Japan

Japan's legislation protecting digital content is robust, under the Copyright Act and the Unfair Competition Prevention Act. The acts strictly prohibit defeating DRM mechanisms and impose harsh punishment against illegal access or dissemination of protected content. They also deal with concerns such as piracy of programs and decrypting encryption on digital content. Japan's regulations are rigid even in the absence of immediate copyright infringement, demonstrating their resolve to protect digital content.

The Doctrine of Fair Use: Concept and Application

Fair use is a fundamental principle of copyright law. It allows individuals to copy a limited amount of

copyrighted material without asking permission beforehand. The principle is crucial because it maintains a balance between creators' rights and the public interest in using these works for such activities as criticism, comments, news reporting, teaching, educational purposes, and research. The manner in which fair use operates varies by nation, as each nation has its own legislation.

Legal Framework of Fair Use across Different Jurisdictions

United States

The rules about fair use are found in Section 107 of the Copyright Act of 1976. This law sets out four points to decide if a use is fair or not-

The reason and way the work is being used, including if it changes the work or makes money from it.

The type of work that is copyrighted.

The amount of the work that is used and how significant that part is to the whole work.

The impact of the use on the market value or potential sales of the copyrighted work.

U.S. courts have a big role in how these four points are interpreted and used in different cases. Their decisions help fair use grow and adapt with time and changing situations.

European Union

The European Union manages copyright laws through the Copyright Directive (Directive 2001/29/EC), which is different from the United States. The EU does not have a wide-ranging fair use rule like the U.S. Instead, it has a specific list of allowed exceptions and limitations. This list includes the use of copyrighted material for quotations, criticisms, news reporting, and educational purposes.

India

Under Section 52 of the Copyright Act, 1957, the more limited legal concept of "fair dealing" in India reflects the doctrine of fair use. Section 52 enumerates specific lists of particular exceptions to copyright infringement, including usage for personal or private use (including research), criticism, review, reporting current events, court cases, and instructional purposes.²³ Unlike the U.S. "fair use" policy, which allows a more flexible, factor-based evaluation, India's approach is restricted and goal-specific, therefore limiting court discretion in unexpected circumstances.

Commonly known as the DU Photocopy Case, the *University of Oxford v Rameshwari Photocopy Services*²⁴ is a pivotal Indian case. Under Section

52(1)(i), the Delhi High Court decided here that photocopying textbook excerpts to compile course packs for university students amounted to fair dealing. Particularly given India's socioeconomic context, the Court noted that copyright enforcement had to be weighed against the right to education and the public good.

The Kerala High Court decided in *Civic Chandran v Ammini Amma*²⁵ that sections of a copyrighted play used in a counter-play with a critical message did not amount to infringement. Fair trade must, the court underlined, allow critical participation and societal criticism. Likewise, the Delhi High Court authorized limited use of copyrighted material in a news section in *Super Cassettes Industries Ltd. v Hamar Television Network Pvt. LTD.*,²⁶ finding it reasonable given the right to cover current events.

India's fair-dealing theory suffers significant structural constraints even with these progressive decisions. First of all, the closed-list approach limits its relevance to developing fields such as parody, satire, artificial intelligence-generated material, and remix culture. Second, the law lacks a balancing test similar to the U.S. model, which takes into account elements including market damage and transforming usage. Third, especially in the digital sphere, uneven court interpretations of Section 52 have generated legal confusion.

Though Indian courts have shown a readiness to extend the scope of fair dealing, the statutory framework remains inflexible and under-inclusive. Including a hybrid model that combines explicit exclusions with a fair use-style balancing test allows a more complex and fair approach in handling modern copyright issues.

United Kingdom, Canada, and Australia

The United Kingdom uses a strict approach to fair dealing. It only permits use in certain areas like research, criticism, and news reporting. Canada's Copyright Act has specific exceptions under fair dealing, too, keeping things well-organized.

In 2017, Australia changed its rules to allow more flexible fair use, making them more similar to the U.S. system.²⁷

Critical Reflection of Legal Framework of Fair Use across Different Jurisdictions

Although the U.S. fair use theory promotes judicial creativity and better fits digital-age concerns, most other countries, including India and the EU, remain entrenched in strict statutory formulations. Legal

adaptability is limited by this relative rigidity, especially when copyright law interacts more and more with quickly developing digital technology. A shift toward hybrid models combining flexible judicial criteria with enumerated exceptions could provide a more balanced approach, providing both protection of creators' rights and accommodation of reasonable public purposes like education, commentary, and invention.

Judiciary's View on Fair Use

Fair use (or fair dealing) is greatly shaped by judicial interpretations, which also modify the theory to fit technical changes and socio-cultural reality. Defining its extent and using both flexible and strict criteria depending on national legal philosophies and statutory design has mostly been dependent on courts throughout different countries.

*Google LLC v Oracle America, Inc.*²⁸ (U.S. Supreme Court, 2021)

Dealing with Google's usage of Oracle's Java API code in its Android operating system, this is among the most important recent decisions regarding Google's use of the code, the U.S. Supreme Court said, fair usage. Emphasizing the transforming power of Google's use, repurposing the code in a new computing environment, the Court concluded that it had no effect on the possible market for Oracle's product. This ruling strengthened a technologically sensitive view of fair use, especially pertinent in relation to functional works and software.

*Andy Warhol Foundation for the Visual Arts, Inc. v Goldsmith*²⁹ (U.S. Supreme Court, 2023)

Unlike *Google v Oracle*, this last case reduced the scope of transformative application. The Supreme Court decided that, when Warhol licensed a picture for commercial publication without authorization, his transformation of it into a silkscreen portrait did not constitute fair use. Transformative usage, the Court stressed, cannot supersede commercial substitution. This choice brought more attention to the business goal of secondary usage, therefore influencing media recontextualization, artists, and AI-generated alterations.

*Imagine Marketing Pvt. Ltd. v Exotic Mile and Anr.*³⁰ (Delhi High Court, 2022)

The Delhi High Court recently decided on the usage of comparison advertising, including copyright-

protected images and descriptions in an Indian context. The court reiterated that, should it not mislead consumers or compromise the original work, limited and reasonable use of copyrighted content in comparative settings can qualify as fair dealing. This ruling increases the court's judicial application of fair dealing to commercial and advertising spheres.

DU Photocopy Case³¹ (2016, India)

The Delhi High Court considered copyright in schools. Several publishers sued a university's photocopy shop for handing out course materials. The court decided that copying materials for education was fair dealing as it benefited the public and didn't seriously harm the textbook market. The case increases the ambit of Section 52 of the Act by providing a wide interpretation of the provisions, considering the welfare aspect.

DRM v FAIR USE: The Legal Conflict

Imagine a situation where a student who is visually impaired needs to use an e-book for school. The e-book is locked with something called DRM, which stops tools that read the text out loud from that student. Even though the law says changes can be made for this situation under fair use, DRM often stops these rights, leaving the student unable to use the book. This situation highlights the ongoing struggle between DRM rules and fair use. Sometimes, the laws and technology meant to protect content actually prevent people from using their legal rights, causing problems with how knowledge is shared and questioning how the copyright law works.

Relation between Sections 52, 65A, and 65B of the Copyright Act, 1957

The Doctrine of Fair Dealing is really important for maintaining a balance between free speech and innovation. Section 52 of the Indian Copyright Act is in line with Art. 19(1)(a) of the Indian Constitution, which protects freedom of expression. It allows for some exceptions for activities like research, private study, criticism, reviews, and reporting news. The aim of Section 52 is to make sure copyright laws do not block creativity or the sharing of knowledge. However, DRM often disrupts these legal uses. Sec. 65A makes it illegal to bypass DRM, with penalties that could include up to two years in jail. Sec. 65B also punishes the removal of rights information, making fair use harder to achieve in education and research.

These regulations are meant to stop illicit duplication but may also hamper legal usage.³²

In *Author's Guild v Google Inc.*,³³ Google scanned an enormous number of books to build a huge virtual library. The Authors Guild sued, claiming it was copyright infringement. The court decided in Google's favour, deeming it a fair use because it enhanced public access to knowledge without destroying the original market. The case illustrates how fair use helps spur innovation as well as culture, something which DRM often restricts.

Similarly, in the case of *Kelly v Arriba Soft*³⁴, a search engine employed thumbnail versions of copyrighted images without authorization. The court concurred that this usage was used for a different purpose and was essential to technological advancement, upholding the notion that competition as well as access are supported by fair use. Nonetheless, DRM can foreclose these types of uses, even if a court may rule them to be fair.

Balancing Copyright and Public Interest

The DRM provisions of the Copyright Act are presently criticized as too harshly enforced with little thought to their wider economic and societal impact. The aggressive penalties, including imprisonment, may come across as excessively harsh. A less harsh punishment, such as fines or a warning, may serve as an adequate deterrent against illegal activity without excessively penalizing people seeking to exercise their legal rights. To spur innovation while also maintaining public interest, there needs to be a balance when enforcing DRM with the adoption of Fair Dealing under Section 52. It implies amending copyright law to take into consideration creators' rights, but also keeping in mind so as not to hamper fair use rights through over-restrictive mechanisms. Finding this balance is vital for promoting knowledge sharing, cultural exchange, and fair access to information in today's digital world.³⁵

Empirical Analysis on DRM and Fair Use Conflicts

For the purpose of this research work, the authors have conducted a survey with the help of a Google form questionnaire titled "Survey on Digital Rights Management and Fair Use" to collect the insights of Academic/Researcher and Content creators (Artist, Musician, Filmmaker, Writer, Developer, etc.). On the basis of data collected from 60 responses, the authors have been able to understand the challenges and issues regarding the legal balance between Digital Rights Management and Fair Use of Copyrighted Content in a more practical aspect.

Bifurcation of the Respondents based on their Profession

Figure 1 depicts the designations of the respondents. As per the pie chart, the survey questionnaire was filled by the majority of academicians/researchers who were experts in the domain of intellectual property, which is 86%, and 14% were content creators, which includes artists, musicians, filmmakers, writers, developers, etc.

Instances where the Respondents Face the DRM Restrictions

Figure 2 depicts the situations where the respondents face the DRM restrictions while trying to use a screen recorder for creating a copy of any documentary, historical, or cultural notes. The objective behind this question in the questionnaire is to analyse the number of respondents who faced the DRM restriction and the knowledge of the respondents about DRM. As per Fig. 2, the majority of the respondents (80.7%) have faced the DRM

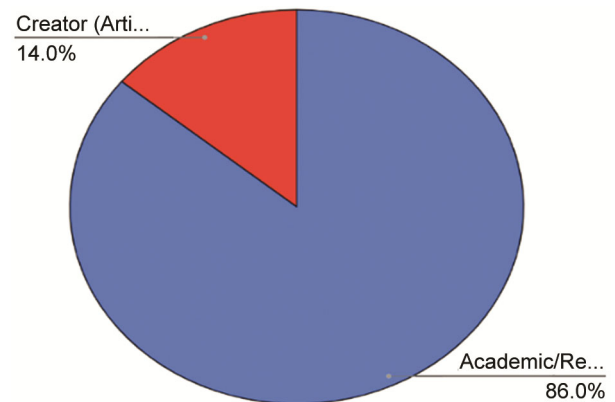


Fig. 1 —Designation of the Respondents

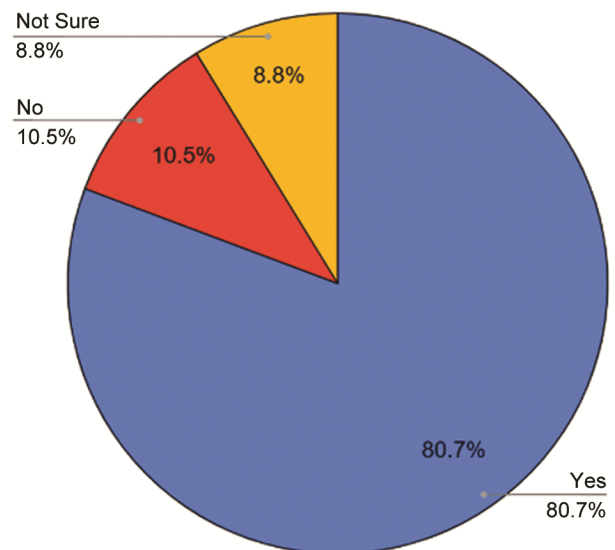


Fig. 2 —Situation where respondents face DRM restrictions

restrictions and are aware of it, while 8.8% are not sure, and 10.5% have never faced the DRM restrictions nor have knowledge about it.

Figure 3 shows how frequently the respondents face the DRM restrictions while performing their daily tasks. As per the data collected, the majority of respondents (56.1%) occasionally face the DRM restrictions followed by 21.1% frequently face the DRM restrictions, followed by 19.6% rarely face the restrictions, and 3.5% have never faced the DRM restrictions.

The above data shows that most of the respondents have occasionally faced the DRM restrictions while performing their daily tasks. As the data is collected from academicians/researchers, and content creators who heavily consume the digital content, a conclusion can also be drawn from this data that not every digital content is protected by DRM, even though that content is copyrighted, as copyright is an automatic protection that starts from the date that the work comes into existence.

In the above Fig. 4, the bar graph shows the categories of digital content where the respondents face the DRM restrictions generally while performing their usual activities. As per the data collected, the majority of the respondents (61.4%) are facing DRM restrictions while accessing movies and TV shows, followed by 47.4% of the respondents facing DRM restrictions while

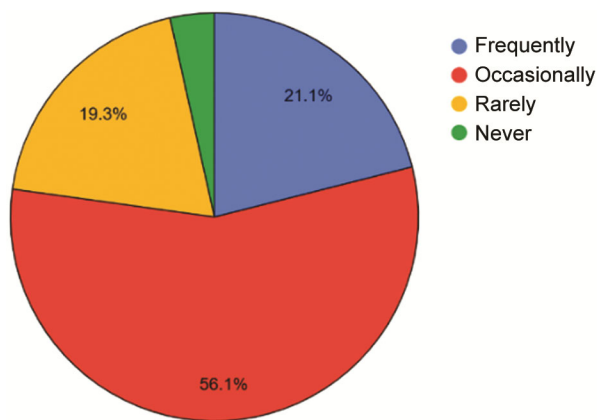


Fig. 3 — Frequency of the interaction of the respondents with DRM restrictions

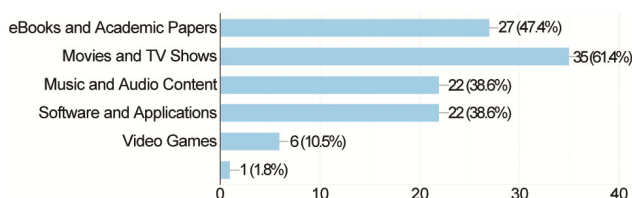


Fig. 4 — The type of content in which respondents frequently face DRM restrictions

accessing eBooks and academic papers. This presents a big challenge, especially in academic and research environments where freely using, sharing, and copying copyrighted materials is crucial for education. Many publishers and digital content providers use DRM to stop people from copying, sharing, or printing parts of eBooks and research materials. This goes against the intent of Section 52 of the Indian Copyright Act, which allows for some exceptions in the use of material for education, research, and other non-commercial purposes.

Understanding of the Respondents of the Concept of Fair Use

In the above Fig. 5, the pie chart shows the percentage of respondents' knowledge of whether they are aware of the concept of fair use. As shown in the above Fig. 5, the majority of respondents (74.1%) are aware of the concept of fair use, whereas 24.1% of the respondents are somewhat aware of fair use, but they need more clarification on fair use, and only 1.7% of the respondents are unaware of the fair use concept.

DRM v Fair Use

In the above Fig. 6, the pie chart shows the responses received from the respondents on the question of whether they are restricted by DRM while accessing the digital content for legitimate fair use. The majority of 72.4% of the respondents have faced

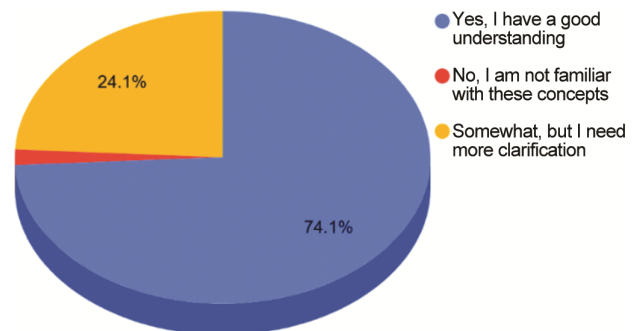


Fig. 5 — Respondents' understanding of the concept of fair use

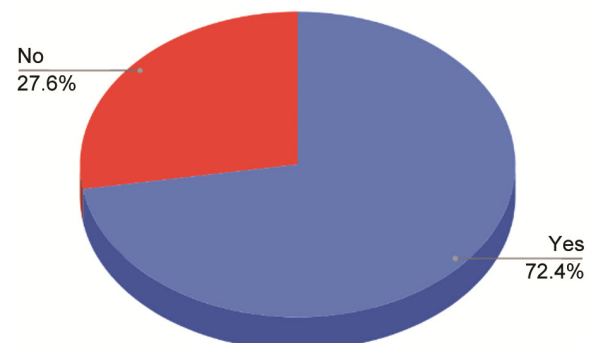


Fig. 6 — Respondents face DRM restrictions while having fair use of the digital content

the issue that DRM restricted their right of fair use for a legitimate purpose, whereas 27.6% of the respondents have never faced DRM restriction while accessing digital content for fair use.

The data above shows that DRM rules greatly affect fair use rights. This highlights the need to reconsider DRM policies to ensure they don't unfairly limit fair use rights while also protecting copyrighted digital content. It's crucial to find a balance that safeguards intellectual property but also promotes the sharing of knowledge. This balance is vital for supporting education, research, and creativity in the digital world.

In the above Fig. 7, the pie chart depicts the view of the respondent on the question of whether DRM effectively protects copyright owners or unfairly limits the fair use rights. As per the responses received, the majority of the respondents chose "a balance is needed" between the DRM and the fair use, followed by 36.2% chose that DRM fairly protects the copyrighted work of its owners, and 12.1% of the respondents are of the view that DRM unfairly restricts the fair use right of the person accessing the digital content.

These responses mentioned in the above paragraph show that there is a need to find a fair way to handle Digital Rights Management (DRM). Policymakers and content creators should collaborate to create solutions that protect intellectual property. At the same time, they must ensure they don't make it difficult for those with legal rights to access digital content. Their goal should be to protect creators' work while respecting users' needs and rights.

Figure 8 shows the responses received on the question of what challenges they faced due to DRM. The majority (70.2%) of the respondents faced the challenge of limited access to digital research papers, movies, and eBooks due to DRM, followed by 45.6% of the respondents who face challenges due to the inability to legally share excerpts for educational and creativity purpose, whereas 33.3% of respondents are facing difficulty in archiving academic recourses to future research due to DRM, and 28.1% of the respondents are facing issue of increased cost due to DRM protected content.

Figure 9 shows the responses received on the question of whether DRM restrictions impacted your ability to conduct data-driven research using digital content. The majority (71.9%) believed that 'Yes' DRM

restrictions have impacted their ability to conduct data-driven research using digital content, whereas 28.1% believed 'No' it does not impact their ability to conduct data-driven research using digital content.

Figure 10 shows the responses received on the question of whether they believe fair use protections should be strengthened in copyright law to counter DRM limitations on academic use and productivity of digital content creators. The majority 75.6% of the respondents believes that 'Yes' fair use protections should be strengthened in copyright law to counter DRM limitations on academic use and productivity of digital content creator, whereas 22.4% of the respondents are "Not Sure" and 1.7% of the respondents believes that 'No' there is no need to

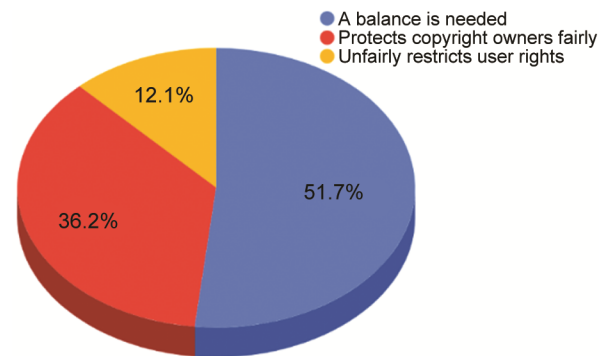


Fig. 7 — Respondent's view on whether DRM effectively protects copyright owners or unfairly limits the fair use rights

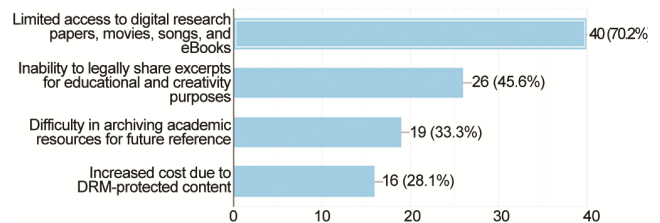


Fig. 8 —The challenges faced by the respondents while accessing the digital content due to DRM restrictions

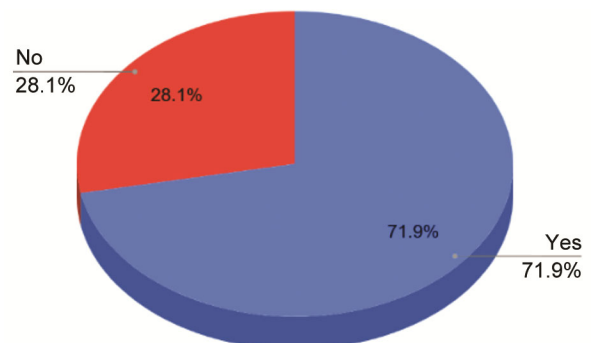


Fig. 9—Number of respondents whose data-driven research is impacted due to DRM restrictions

strengthen the fair use provision to counter DRM restriction.

The responses show that the majority of the respondents consider DRM restrictions as a violation of their right to fair use of the digital content in a legitimate way, and arrived at the conclusion that there is a need to strengthen the fair use provision to counter DRM restrictions.

Figure 11 shows the responses received to the question of what the primary concerns are regarding

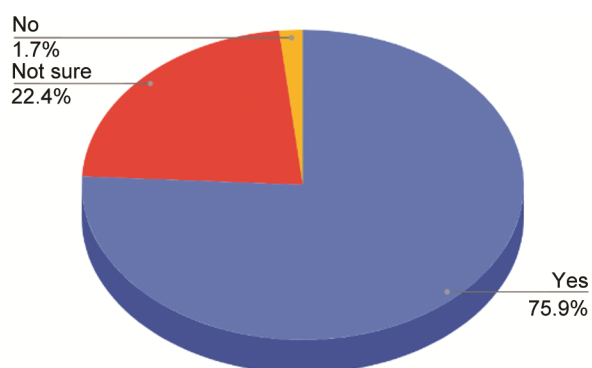


Fig. 10 —Respondent's view on whether fair use protections should be strengthened to counter DRM restrictions on academic and digital content use

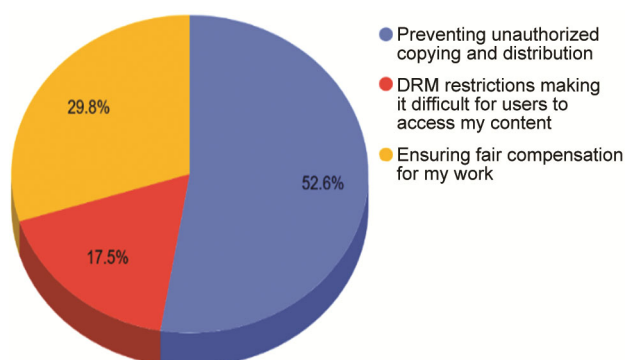


Fig. 11—Respondent's concerns about DRM in their digital content

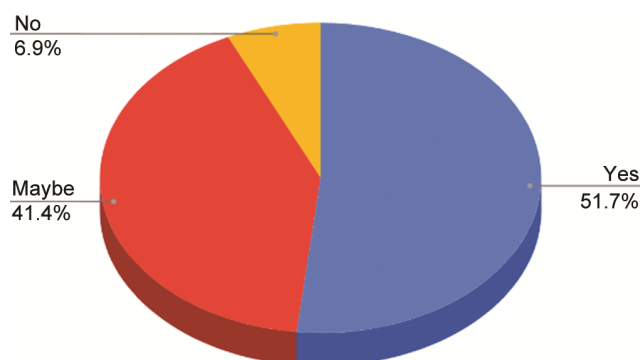


Fig. 12—Respondent's view about having an alternative to DRM

DRM and its content. The majority (52.6%) of the respondents were concerned for preventing unauthorized copying and distribution of their digital content, that why they opt for DRM, whereas 29.8% of the respondents opt for DRM so that with the help of DRM, they can ensure fair compensation for their work, and 17.5% of the respondents are of the view that DRM restrictions makes it difficult for users to access their content, which may limit the reach of their digital content.

The above pie chart (Fig. 12) shows the responses received to the question of whether you support alternative copyright protection models such as Creative Commons or open licensing instead of DRM. The majority (51.7%) of the respondents believe that 'Yes' there should be an alternative copyright protection model, such as Creative Commons or open licensing instead of DRM, whereas 41.4% of the respondents are "maybe", and 6.9% of the respondents believe that 'No' there is no need for any alternative copyright protection model.

Impact of DRM on Knowledge Access and Innovation

DRM is the technical safeguards put in place by copyright holders to regulate the use, modification, and dissemination of digital materials. Although DRM is meant to stop illegal access and piracy, its effects go much beyond copyright protection. This part of the research paper will look at how DRM affects artists and open-source innovation, as well as academic and research institutions, libraries, and archives.

Effects on Academic and Research Institutions

Access to scholarly resources, scientific publications, and data sets is mostly dependent upon academic and research organizations. But DRM can seriously restrict access to, the capacity to get, and distribute knowledge.

Access Restraints and Subscription Policies

Many academic publishers restrict how these materials might be accessed and utilized by enforcing DRM on digital textbooks, research journals, and e-books. Researching between universities is challenging for subscription-based access to digital libraries since DRM limitations generally impede copying, printing, and sharing. DRM may impose restrictions even in cases where institutions pay high licensing costs, including:

- (i) Limiting the concurrent user count
- (ii) Forbidding research-related text and data mining
- (iii) Imposing time-based access restrictions
- (iv) Impact on cooperation and research

DRM prevents seamless information sharing among academics, hindering cooperative research projects. Although text mining and data analysis are common tasks for researchers, DRM constraints almost make automated data extraction from digital resources practically impossible.

Furthermore, access to DRM-protected content may be hampered by academics in poor or underdeveloped nations, hence widening the knowledge gap between well-funded and underfunded academic communities.

Fair Use and Academic Freedom Issues

Fair use concepts sometimes contradict DRM enforcement since they allow the limited use of copyrighted materials for educational and research purposes. Many DRM systems supersede fair use rules, which leaves legal questions for teachers and researchers trying to use copyrighted content for approved academic use, as held in the DU photocopy case. This has a chilling effect whereby institutions might refrain from employing particular resources because of legal consequences, therefore limiting academic freedom.

DRM and Its Challenges for Libraries and Archives

Maintaining knowledge and guaranteeing its availability for the next generations depends much on libraries and archives. But DRM seriously complicates these organizations' capacity to acquire, loan, and archive digital materials.

Lending and Inter-library Loan Restraints

Lending books and materials to users is one of the library's basic purposes, but limiting the renting of digital books and periodicals, DRM muddies this process. Many publishers enforce rigorous license agreements that restrict the number of times an e-book may be leased, demand extra costs for every loan, or apply "self-destructing" files that expire after a designated period or become inaccessible. These limits impede libraries' capacity to grant fair access to information.³⁶

DRM also profoundly affects interlibrary loan services, which let libraries share resources with one another. Under current legal systems, traditional print books can be borrowed freely, but DRM usually stops digital items from being shared between institutions, therefore undermining the cooperative character of library systems.

Archiving and Conservation Difficulties

Libraries and archives have the first duty in the long-term preservation of digital resources. Still, DRM makes it challenging to preserve and archive digital collections. Commonly occurring when publishers stop supporting older works, digital files with DRM could become unavailable should the authentication servers be closed. Furthermore, endangering digital preservation efforts is the libraries' legal breaking of DRM safeguards to move digital content to new formats.³⁷

Effects on Open Knowledge Programs and Public Access

Libraries are gates to public knowledge; DRM sometimes limits their capacity to offer free access to cultural and instructional materials. Open knowledge projects, including digitizing historical records and supporting open-access publishing, face great challenges when DRM is involved. DRM's limitations run counter to libraries' goal of democratizing knowledge and guaranteeing free public access to information.³⁸

Implications for Independent Creators and Open-Source Innovation

DRM affects not just big companies but also independent creators, inventors, and the open-source movement, therefore influencing all aspects of life. Although DRM is meant to guard intellectual property, it can potentially limit technical advancement and discourage innovation, which is also one of the objectives behind enacting IP laws.

Obstacles for Self-Directed Artists

Independent writers, musicians, and filmmakers frequently use digital channels to take ideas and distribute their creations. Large companies control DRM systems; hence, independent producers have little influence over how their work is handled and sold. Some important problems include:

- 1) Restricted licenses that limit artists' capacity to freely share their own works.
- 2) Platform dependency, whereby creators have to follow e-book platform and streaming service DRM rules.

Models of revenue-sharing that support big publishers over individual content creators. All this results in a power disparity whereby independent artists have to follow tight DRM rules or run the risk of losing access to important distribution channels.

Stopping the Development of Open-Source and Free Software

Many DRM systems are closed source and protected by anti-circumvention rules, which forbid developers from researching, altering, or enhancing technologies mostly related to software, which may affect the following ways

- 1) It limits the developer's capacity to build on the current software, therefore discouraging innovation or improvement of the existing software.
- 2) It limits user liberties by barring interoperability with other programs, repairs, and changes.
- 3) In the cyber security sector, where researchers must examine proprietary software for security flaws, DRM has proved especially troubling.

Even for justified security research, the Digital Millennium Copyright Act (DMCA) and related legislation in other nations forbid the circumvention of DRM, therefore seriously impeding technical progress.

Limitations and Directions for Future Research

The Study is limited by a small, India-based sample size of only 60 respondents. Specifically, responses from representatives of digital platforms, which are a critical stakeholder in this issue, were not reflected adequately. Comparisons of legal structures must be high-level due to the varying national practices of enforcement and differing cultural environments.

Future studies must utilize a bigger and more diverse sample that encompasses all stakeholders in the digital-content ecosystem and cross-jurisdictional responses. Quantitative analysis could also be applied to measure the economic value of DRM to education and creativity.

Conclusion

The authors have analysed that, although DRM helps to reduce digital piracy, the implementation of DRM sometimes compromises fair use rights, therefore restricting access to knowledge, creativity, and cultural interaction. According to the data collected through the survey, many academics and content creators find obstacles in trying to use DRM-protected materials for transforming and instructional purposes. The conclusion that can be drawn from the survey's results lines up with legal criticisms claiming that anti-circumvention rules, especially under the DMCA, Sec 65A, 65B of the Indian Copyright Act, and related legislative regimes, unfairly benefit copyright holders at the expense of public interest issues.

There is a legal ambiguity fuelling the uncertainty about DRM and the fair use principle, as sometimes court rulings on DRM-related conflicts expose a lack of consistency in balancing fair usage with technological protection policies. While some decisions acknowledge the need for fair use exemption, others have strengthened rigorous anti-circumvention rules prohibiting users from legally exploiting intellectual information.

The authors theoretically emphasize the need to align copyright laws with the objective of knowledge sharing and creative freedom, which is rooted in the ideas of free expression and innovation. The fair use concept shouldn't be made useless by DRM systems enforcing strict access limits. Rather, a balanced strategy is required that combines fair use exemption inside DRM systems and offers consumers unambiguous legal channels to question limiting DRM policies.

The authors recommended certain policy and legal reforms in order to guarantee that digital rights management does not become a tool for too strong content control, but rather a mechanism that respects both copyright protection and users' fundamental rights to knowledge and creativity. Legislators, courts, and technology developers must ultimately coordinate their resolution of the DRM against fair use conflict.

Policy and Legal Reforms for Balancing DRM and Fair Use

Fair use and Digital Rights Management (DRM) still generate significant legal and policy questions at their junction. The following changes are suggested to provide a fair balance between copyright protection and knowledge availability, arranged for methodical understanding and application.

Legislative Reforms

Statutory Fair Use Exceptions to DRM Circumvention

Laws, including the DMCA and related statutes in other countries, should be changed to include unambiguous clauses enabling DRM circumvention for activities under acknowledged fair use. When academics, teachers, reporters, and accessibility activists avoid DRM for legitimate reasons, this would protect them from legal consequences.

DRM-Free Licensing for Specific Use-Cases

For Specific, non-commercial, socially good uses, including academic research, library archiving, and access for people with disabilities, domestic laws should demand that copyright holders provide DRM-

free licenses. This guarantees that technical locks do not unfairly limit lawful users.

Legal Protections for Fair Use Reverse Engineering

Legislation should specifically permit reverse engineering of DRM systems for approved fair use purposes. This can consist of:

- (i) Under anti-circumvention regulations, exemptions for non-infringing reverse engineering.
- (ii) Licensing clauses for approved development and testing.
- (iii) Legal safeguards for researchers revealing excessive security weaknesses or restrictions in DRM systems or whistleblowers.

Temporal Limits on DRM Restrictions

Laws should forbid lifetime DRM protection, especially in cases when works lose commercial value or become public domain. There should be a review system set in place to evaluate whether such a defence is still justified over time.

Institutional Mechanisms

Fair Use Mediation Authority (DRM Ombudsman)

To handle conflicts involving DRM and safeguard fair use claims, a committed regulatory agency or ombudsman ought to be established. This body could:

- (i) Sort conflicts between users and rights holders without going to court.
- (ii) In situations when DRM runs counter to legally accepted fair use, it has the power to render legally enforced decisions.

Certification Framework for DRM Exemption

A mechanism should be developed to certify organizations like libraries, archives, and educational institutions, therefore providing a conditional exemption from DRM limitations for fair use needs.

Creation of a Public Domain Review Board

Especially for works approaching or entering the public domain, a statutory body might routinely evaluate DRM-protected items to decide whether further limitations are justified.

Technological Safeguards

Legal Incentives for Open Licensing Models

Open licensing programs like Creative Commons should be encouraged by governments. To inspire creators to choose DRM-free distribution, these

incentives could be legal, e.g., accelerated copyright registration, or financial, e.g., grants, tax deductions.

Fair Access Infrastructure

Create a neutral digital platform where conflicts over fair use and DRM circumvention may be registered and decided upon, hence improving openness and quick resolution.

International Harmonization

Global Integration of Fair Use within DRM Frameworks

Explicit fair use rights in regard to DRM should be included in international copyright treaties, including WIPO's and TRIPS' controlled ones. This harmonization would guarantee a balanced worldwide digital environment and help avoid too tight digital lock-ins.

These changes seek to guarantee that, even while they continue to defend copyright holders' rights, DRM systems do not unduly impede reasonable use. In the digital age, a balanced legal framework is absolutely essential for encouraging access as well as creativity.

Future Implications of DRM

With the advancement of technologies like AI-generated content, block chain rights management, and decentralized streaming platforms, *i.e.*, *Discord*, will reshape the DRM–fair use terrain. The anticipated and suggested reforms in the Indian Copyright Act and the EU's Digital Markets Act, as well as international trends towards open-access publishing, will increasingly require dynamic exceptions for text and data-mining and adaptive licensing. Digital consumption is migrating to subscription and algorithm-curated delivery, heightening concerns around perpetual control and user monitoring.

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