

Does India Need Digital Rights Management Provisions or Better Digital Business Management Strategies?

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The Copyright (Amendment) Act 2012 has introduced some digital rights management (DRM) provisions in the Indian Copyright law. While a comparative analysis of the new DRM provisions with similar legislation in the US and the EU shows a relatively better approach that reduces the detrimental effects posed by DRM provisions, the critical question that this study poses from a law and economics perspective is whether India really needs such legislation. The study argues that the new DRM provisions are against the interests of India for three major reasons. First, the legislature has adopted the legislation without engaging in a proper cost-benefit analysis of the DRM provisions in India. Second, the nature of piracy in India currently does not warrant such legislation. Third, the new DRM provisions will create a para-copyright regime, defeating some of the basic objectives of copyright protection. The study argues that the need of the time is better digital business management strategies and a better enforcement of the rights already guaranteed under the copyright law, rather than adoption of new DRM provisions under the copyright law.

Keywords: Piracy, DRM, WCT, WPPT, anti-circumvention measures, Copyright (Amendment) Bill 2012, Copyright (Amendment) Act 2012, copyright law, contributory infringement, Indian film industry, law and economics

One of the most important changes made by the recent Copyright (Amendment) Act, 2012 is the introduction of specific provisions for protecting the technological measures applied by the copyright holders (hereinafter referred to as 'DRM provisions').¹ As is evident from the statement of objects and reasons in the Copyright (Amendment) Bill, 2012 as well as the debates in the Parliament, the DRM provisions were introduced primarily with the objective of facilitating India's membership in the WIPO Copyright Treaty (WCT) and the WIPO Performers and Phonograms Treaty (WPPT).² While the drafters of the new provisions appear to be under the firm belief that harmonization of the Indian Copyright law with the two WIPO Internet treaties is necessary and desirable for India to extend adequate protection for copyrighted material in digital India, this article questions this assumption. This article examines the desirability of the new DRM provisions from a law and economics perspective and highlights some of the important welfare implications. As film industry is one of the strongest proponents of the DRM provisions, this article also takes a closer look at the piracy in the Indian film industry to examine

the general nature of information piracy in India and analyses whether the nature of piracy in India justifies the new DRM provisions.

This article is structured as: A brief introduction followed by a historical and contextual analysis of the new DRM provisions. A comparative analysis of the new provisions with similar provisions in the US and the EU, to help comprehend the new provisions from a comparative perspective. A critical analysis of the new DRM provisions in India is attempted in the third section by looking at some of the important economic issues to be considered, the nature of online piracy in India, and some of the detrimental effects of creating a para-copyright regime. The article concludes with a few suggestions.

Evolving an Indian Version of WIPO DRM Provisions

The emerging digital technologies and Internet have opened enormous possibilities for copyright owners to reach a far wider audience. They have also helped in recording copyright related transactions in a more accurate manner, thereby moving the world to a (possibly) more extensive 'pay and use' copyright system. But the digital technologies have also assisted easier and faster unauthorized accessing and copying

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of copyrighted products, without much deterioration in their quality. In response to this growing threat and to make best use of the opportunities provided by the digital world, the DRM technologies evolved. DRM technologies enable the copyright owners to gain better control over their works by allowing users only the categories of access/ use permitted by the copyright owners.³ Some of the commonly encountered DRM applications in our daily digital life include requests for user authentication to enter a database, prevention of copying contents of a CD/ document, and locking the use of a digital product to a particular device or region. Some of the commonly used tools that enable such DRM applications include encryption and watermarks.⁴ But like most other technologies, DRM technologies are also not fool-proof and many of the DRM technologies have been subject to circumvention.⁵ The World Intellectual Property Organisation (WIPO) brought forward two Internet treaties in the year 1996, representing the concerns of the international community to this emerging digital challenge. They are the WIPO Copyright Treaty (WCT) and the WIPO Performers and Phonograms Treaty (WPPT).⁶

Article 11 of the WCT and Article 18 of the WPPT obligate the contracting parties to take 'adequate' legal measures and 'effective' legal remedies against the circumvention of 'effective' technological measures used by the right holders. Similarly, Article 12 of the WCT and Article 19 of the WPPT obligate the contracting parties to take 'adequate and effective' legal remedies against unauthorised tampering of rights management information and certain dealings with works or copies of works with the knowledge that the electronic rights management information in those works have been tampered without authority. While these provisions have provided sufficient scope for flexible transposition of the spirit of these treaties into national legislation of contracting states, the general trend witnessed, particularly from the chief supporters of the treaty like the United States and the European Union, has been to take an approach highly in favour of right holders and information industries.⁷

By not becoming a contracting party to the WIPO Internet treaties, India had strongly resisted the temptations of joining this TRIPS+ legislative approach till recently. However, the new amendments to the Indian copyright law show the changing attitude from the side of the Indian legislature, though not many details are available in the public domain

regarding the real motivation behind this radical shift. The two new provisions, Sections 65A and 65B, added to the copyright legislation in India may facilitate the entry of India to the WIPO Internet treaties. While the first provision (Section 65A) deals with protection against circumvention of technological measures, the second provision (Section 65B) deals with protection of rights management information. According to the Section 65A(1) relating to protection of technological measures, if any person circumvents an *effective* (emphasis added) technological measure used for the purpose of protecting any of the rights conferred under the Copyright Act, with the *intention* (emphasis added) of infringing such rights, s/he shall be punished with imprisonment which may extend up to two years and shall also be fined. However, the Section 65A(2)a of the Copyright Act explicitly mentions that the provision shall not prevent any person from doing anything referred to therein for a purpose not expressly prohibited by the Copyright Act. The same provision also allows third parties to facilitate circumvention, provided s/he maintains a complete record of the details of the person and the purpose for which circumvention was facilitated. Apart from this, the anti-circumvention provision also specifically exempts circumvention of technological measures for the purpose of certain activities like encryption research, lawful investigation, security testing of a computer system or a computer network with the authorization of its owner or operator, protection of privacy, and measures necessary in the interest of national security.⁸

When one reads the anti-circumvention provision along with the exceptions enumerated, three major implications of the legislative approach become obvious. Firstly, by limiting the application of the anti-circumvention provision to cases of intentional infringement, the legislator has used a fairly high bar for invoking actions based on this provision. Secondly, as the exception provision clearly mentions, if the circumvention was for a purpose not expressly prohibited by the Copyright Act (for example, exceptions allowed under the Copyright law), the anti-circumvention provision will not apply. Thirdly, the legislature also allows circumvention with the help of third parties, provided certain procedural conditions are met. The significance of these three aspects will be better understood, when one reviews the US and the European approach to anti-circumvention provisions.

According to Section 65B(i) of the Act, if any person knowingly removes or alters any rights management information without authority, s/he shall be imprisoned for up to two years and shall also be fined. Similar punishments are also prescribed for persons who distribute, import for distribution, broadcast or communicate to the public, copies of any work or performance without authority, knowing that the rights management information has been removed or altered without authority as per Section 65B(ii). The provision also specifically mentions that the criminal remedies provided are in addition to the civil remedies already provided under the Copyright Act for the copyright owners in such works. There are two factors which need to be highlighted: First, when compared to the provisions relating to protection of technological measures, the provisions relating to protection of rights management information takes a far more rigid approach. This is visible from the absence of any explicit exceptions under the provision. Second, by explicitly mentioning the additional availability of civil remedies, the provision on protection of rights management information shows a stricter approach, compared to the provision against circumvention of technological protection measures.

Both the provisions relating to protection of technological measures and rights management information illustrate a carefully drafted legislation meant to satisfy the minimum requirements of the WCT and the WPPT. They are also remarkable for not providing broad protection to subjects generally outside the purview of copyright protection.

Analysis of the Indian DRM Provisions from a Comparative Perspective

To recognize the significance of the minimalist approach taken by the Indian legislature with respect to DRM, one may have to see the provisions in comparison with some other jurisdictions that have implemented the provisions of the WCT and the WPPT. The DRM provisions in the US and the EU may be considered for this purpose. These jurisdictions are chosen not only for their prominent role in the evolution of the WCT and the WPPT, but also for their comparatively longer experience with DRM provisions.⁹

The DRM provisions proposed under the WIPO Internet treaties were implemented in the United States through the Digital Millennium Copyright Act (DMCA), in the year 1998 (ref 10). One of the most

important factors that distinguish the DMCA from other DRM legislation is that it attempts to make a distinction between protection for measures that control access to a work and protection for measures that control use of a work.¹¹ Interestingly, the DMCA access control provisions not only outlaws the actual circumvention of access control measures placed on a work, but also aims to prevent preparatory activities like manufacture and distribution of tools that are primarily meant for facilitating circumvention of access control.¹² On the other hand, the anti-circumvention provisions relating to protection of usage control measures prohibit only preparatory activities.¹³ The DMCA also outlaws tampering of rights management information and dealing in such works with the knowledge that the rights management information has been tampered.¹⁴ The explicit exemptions provided under the DMCA are very narrow in scope and they are provided for the purposes of encryption research, law enforcement and security related government activities, reverse engineering, and acquisition assessment for non-profit libraries, archives, and educational institutions.¹⁵ Though the DMCA has delegated some powers to the Librarian of Congress to periodically make rules for allowing specific exemptions, a review of the exemptions made so far in this regard shows that its scope of application is very narrow.¹⁶

The DMCA provides civil as well as criminal remedies for violations of anti-circumvention provisions.¹⁷ The civil remedies provided under the DMCA include not only injunctions to prevent or restrain further violations, but also allows the right holders to receive either actual damages and any profits attributable to such violation or statutory damages.¹⁸ While the criminal remedies under the DMCA are limited to wilful violations and to cases where the violation was for the purposes of commercial gain or private financial gain, the punishments prescribed are imprisonment for a period of up to 5 years and/ or a fine of up to US\$ 500,000 (ref 19). In cases of repeated violations, the punishments will increase to imprisonment for a period of up to 10 years and/ or a fine up to US\$ 1,000,000 (ref 20).

A similar picture of DRM laws could be seen from Europe also. The copyright law in Europe is not yet completely harmonized at the community level and there are still considerable differences in the approaches taken by different member states of the European Union with regard to copyright law.

The Information Society Directive of 2001 was a major attempt aimed at copyright harmonization within the community and it had also mandated all the member states to bring DRM regulations in the national legislation of member states.²¹ While the transposition of the DRM provisions under the Information Society Directive to different member states shows diverging approaches of implementation, it will be sufficient for the purposes of this paper to take a closer look at the provisions prescribed in the Directive itself.²²

Article 6 of the Information Society Directive makes it obligatory for the member states to provide adequate legal protection against the circumvention of effective technological measures, if the person concerned is engaged in circumvention with the knowledge, or with reasonable grounds to know, that s/he is pursuing that objective.²³ The Directive also specifically outlaws many preparatory activities of commercial nature, with regard to circumvention of technological protection measures.²⁴ The outlawed activities include manufacturing, importing, advertising, and even possessing for commercial purposes, circumvention devices, products or provision of services.²⁴ By providing very broad definitions for the expressions 'effective' and 'technological measures', the Information Society Directive has virtually extended anti-circumvention protection to nearly all kinds of access/ use protection measures in existence today.²⁵ The overall effect is a considerably widened reach of anti-circumvention laws, similar or even broader to that of the DMCA. Article 7 of the Directive also outlaws tampering of rights management information and dealing in such tampered works, when the person concerned is engaged in such acts with the knowledge or reasonable grounds to know that s/he is inducing, enabling, facilitating or concealing infringement of copyright or database rights through such actions.

The Directive is also characterized by an extremely narrow casted exception provision for the anti-circumvention protection measures under Article 6(4) of the directive. Unlike the new Indian DRM provisions or the DMCA, the Directive does not give exceptions for any specific groups. As is evident from the provision, the member states can interfere for ensuring the legitimate use of exemptions provided under their national copyright legislation, only in the absence of 'voluntary measures' taken by right holders, including agreements between right holders

and other parties concerned. Making things far more complicated for the users in the digital world, even the limited exception provided by the Directive will be overridden by the actual contractual terms for interactive online services.²⁶

The review of implementation of the DRM provisions prescribed under the Information Society Directive in different member states shows that member states have taken diverging approaches for implementation.²⁷ While some member states have restricted the protection to instances of copyright infringement, some member states have protected the technological measures *per se*.²⁷ It is also interesting to see that none of the member states have provided an express right for users to circumvent the technological measures for non-infringing purposes.²⁷ As is evident from the procedural mechanisms installed by different member states, users who want to make use of any legitimate copyright exceptions may have to approach the designated authorities, and in some cases the courts directly, in the absence of voluntary agreements with the right holders.²⁸ This in turn reflects a highly disturbing picture of how the legitimate exceptions to copyright infringement, used to balance the rights of copyright holders with that of copyright users, are distorted by the new DRM regime in Europe.

As one could see from a comparative analysis of the new DRM provisions in India with the DRM provisions in the US and the EU, the breadth of the new DRM provisions in India are less extensive compared to both the DMCA and the Information Society Directive. But this may not be without a reason. The DRM provisions in the US and the EU have been in existence for around a decade now and this has provided a great learning opportunity for many other nations to see how draconian and anti-progressive DRM provisions can be, in many real life situations.²⁹ This includes serious transgressions over freedom of speech, scientific research, competition in the market, and most importantly, fair use/ fair dealing principles, which balance the copyright system between the interests of the copyright owner and that of the public.³⁰ While the number of cases that have reached the courts might be limited, organisations like Electronic Frontier Foundation have recorded a fairly large number of such transgressions.³¹ Some of the cases that have come up under the anti-circumvention provisions even show the attempts made by some firms to extend the

anti-circumvention provisions for preventing competition in technologies like garage door openers and ink cartridges.³² This was certainly never the intention of the legislators while drafting those DRM provisions. However, such examples of abuse of broad DRM provisions can have the positive externality of influencing the legislative process in jurisdictions like India and this is reflected in the comparatively less harmful approach taken during the drafting of the Indian DRM provisions.

Why the New DRM Provisions are a Bad Step for India?

Comparative analysis of the new Indian DRM provisions with similar provisions in the US and the EU certainly shows that the Indian legislature is taking a minimalist approach with regard to DRM measures. While the minimalist approach taken is laudable, the critical question one may ask is whether India needs even those provisions? Even more decisively, one may ask whether India should really seek a membership in the WIPO Internet treaties. This section highlights three major factors to be considered in this regard. They are not mutually exclusive factors, but have many overlapping properties.

Lack of Proper Economic Analysis Regarding the Need/Potential Impacts of DRM Provisions in India

One of the most important steps that any legislature must undertake before engaging in a legislative process is to conduct a proper economic analysis of the need as well as the impact of the proposed legislation in society. Economic analysis of law can provide invaluable insights as to how the changes in law will influence the behaviour of different actors in the society.³³ Laws are instruments aimed at achieving important social goals and economic analyses will help to predict the effects of laws on efficiency also.³³ While economic analysis of law has not in general received its due attention in the Indian law making scenario, subjects like copyright law certainly deserve a rigorous analytical analysis, considering their far reaching implications in the society.³⁴

If one looks at the legislative background of the new DRM provisions in India, it can be seen that the provisions have not been subject to proper economic analysis regarding both the need as well as the impact of those provisions on the country/copyright based industries in India. This is very much evident from the statement of objects and reasons in the Bill introduced in the Parliament.² It focuses primarily on the desire

to comply with the WIPO Internet treaties and also expresses the firm belief that adherence to those two treaties is necessary for protecting the copyrighted material in India over digital networks like Internet.² A careful analysis of the impact of the DRM provisions on social welfare is highly necessary to avoid serious long term negative consequences for the Indian society. Even the question of seeking membership in TRIPS-plus treaties like WCT and WPPT should be subject to such analyses, as the welfare implications are high. A detailed cost-benefit analysis will be helpful in this regard and this section highlights some of the positive as well as the negative implications to be considered in this regard.

One may first look at some of the possible positive implications. The first aspect to be considered is the possible effect of incentivising the industry to produce more creative works, by reducing the possibilities of unauthorized reproductions of those works. The economic argument here is very closely related to the basic economic rationale behind copyright law.³⁵ From the eyes of an economist, copyright law is created primarily to address a market failure.³⁶ It is a fact that the fixed costs involved in producing creative works like movies or music are often very high, while the marginal costs for reproduction of the same works are often negligible.³⁷ The relative non-excludability of use and non-rivalrous character in consumption give most creative products the character of public goods, once created.³⁸ The (potential) users may consume those works without making any payment to the creators (in economic terms, 'free riding problem') and the creators will not be able to recoup their investments in those products.³⁹ As a result, the creators will have little incentive to produce such goods and the overall result will be sub-optimal level of production of such works in the society.⁴⁰ Copyright law aims to address this market failure by providing certain exclusive rights to the creators, for a specific period of time.³⁵ The monopolistic power offered by law allows the creators to recoup their investments and make reasonable profits, by selling their product above their marginal costs for reproduction.³⁷ Thus copyright law acts as an incentive for creation of more works in the society. While this basic economic rationale for copyright protection is applicable to both digital and non-digital works, one may note that many digital technologies have undermined the traditional protection fences around copyrighted works. Moreover, unlike non-

digital copies, most digital copies are perfect substitutes for original works. The new DRM provisions may help the copyright law to address the market failure explained above in the contemporary digital transactions context.

Another economic argument that could favour providing legal protection measures against circumvention of DRM technologies is that it can help the right holders to engage confidently in better price discrimination strategies. The term 'price discrimination' refers to charging consumers different prices for the same goods/services or charging different prices for similar goods/services of the same producer, but where the price choices are unrelated to the costs.⁴¹ As most of us know, the willingness to pay for goods/ services differs considerably among consumers. For example, the willingness to pay for a cinema ticket might be different among cinema consumers. Price discrimination strategies allow producers to charge different prices to consumers, according to their maximum willingness to pay.⁴² This can help not only to increase the revenues of the producer, but also reduce deadweight losses in the society as price discrimination can help the products reach a wider market.⁴¹ But two essential requirements to engage in price discrimination are the possibility to identify the differences in willingness to pay and also the possibility to prevent arbitrage from the side of consumers. In other words, it is not only important for the right holders to identify the differences in willingness to pay among consumers, but it is equally important to ensure that a consumer with higher willingness to pay will not consume the product marketed for the consumer with lower willingness to pay. The DRM technologies can help to meet this challenge by delivering products that suits the needs of different types of consumers and prevent arbitrage.⁴⁴ For example, a consumer may be interested or has the purchasing capacity for just one song rather than an entire album/ collection of songs. With the help of DRM technologies, the content providers will be able to deliver the required song to the consumer and also enforce the conditions of using that song.⁴⁵ Both the consumer as well as the producer will benefit under such circumstances. By making the products reach a wider population, the deadweight loss is reduced and the result is an overall increase in welfare.⁴⁴ As most technological protection measures are fallible, providing some legal protection to those technological measures may be necessary to help the right holders engage confidently in price discrimination strategies.

But two critical questions one may ask at this point is whether the right holders will actually engage in price discrimination, even if protection is offered for DRM technologies, and secondly, whether DRM protection provisions are necessary under copyright law to engage in price discrimination? With regard to the first question, that is whether any firm will actually engage in price discrimination if protection is provided for DRM technologies, the answer will be mostly affirmative. For any profit maximizing firm, price discrimination is an invaluable tool to reach more consumers and so firms can reasonably be expected to engage in price discrimination with the help of DRM technologies. The answer to the second question is a bit more complicated. DRM technologies allow better opportunities for the right holders to capture the consumption preferences of consumers accurately and they can also help in delivering the contents tailored to the purchasing capacity of consumers. As no technologies are foolproof, some legal protection for DRM technologies may be necessary for the content holders to confidently engage in business transactions in the digital world. However, how much protection should be provided and whether such protection should be afforded by copyright law are certainly debatable.

Now one may look at some of the possible negative implications of the new DRM provisions on social welfare. The most important among them is the possible tinkering of the balance within the copyright system.⁴⁶ Copyright law in general aims to achieve a balance between two conflicting interests - providing incentives for creators to bring more works to the society and providing access for the society to those works.⁴⁷ Copyright law achieves the delicate balance between these two conflicting interests by limiting the term of protection to a specific period and providing certain specific exceptions for the exclusive rights provided to the copyright owners.³⁵ The fair dealing provisions under the Indian copyright law are a good example in this regard.⁴⁸ For example, the Indian copyright law allows fair dealing with literary, musical, or artistic works for the purpose of research.⁴⁹ The most important economic factor that must have guided the legislator to draft such a fair dealing exception for research is the realization that the transaction costs involved in attaining permission from copyright holders for every research related activities would have been enormous and it would have posed a major hurdle for research activities.⁵⁰ Similar issue of possibly high transaction costs could

be seen in the case of other permitted exceptions also. While the Indian judiciary has laid down certain guidelines as to what constitutes fair dealing, such exceptions have helped to develop a balance within the copyright system.⁵¹ But by extending protection to the technological protection measures that guard access to a copyrighted work, the legislature is risking the balance within the copyright system.⁵²

The proponents of the new Indian DRM provisions may try to point out that those provisions specifically exempts from liability, circumvention for purposes not expressly prohibited by the Copyright Act.⁵³ Theoretically this implies that the circumvention of technological protection measures for a legitimate purpose like fair dealing for research is lawful. This is certainly a laudable step, when compared to DRM legislation in many other jurisdictions. However, by legitimizing the protection of DRM measures within copyright law, the legislature has in effect added transaction costs for the users who want to exercise their legitimate rights. For example, merely because of the express legitimization of anti-circumvention measures under copyright law, many more copyright holders may place their works under access and use controls. Even more importantly, most users of copyrighted products do not have the requisite technical expertise to circumvent the protection measures employed by right holders and they generally rely on third party software for facilitating such circumvention. While the new anti-circumvention provisions provide an exception to make use of the help of third parties for circumvention for a purpose not expressly prohibited by the Copyright Act, the procedural steps prescribed in this regard considerably limits its application.⁵³ First, the prescribed procedural steps impose huge transaction costs for those who want to make use of the help of third parties. Second, it is also practically limited in application, as the liability for the providers of circumvention software which cannot ensure those procedural steps for each circumvention use are not clear. The overall effect is that only very few users will be able to make use of this exception provision for exercising their legitimate rights under the copyright law.

Another equally important issue to be addressed here is the possible impact of the new DRM provisions on innovation and competition within the country. As one could see from the experience of other jurisdictions that have implemented DRM

provisions under copyright law, DRM provisions can be misused by firms to stifle competition and innovation in the market.⁵⁴ Two prominent cases that could very well illustrate such effects are *Lexmark International Inc v Static Control Components Inc* and *Chamberlain Group Inc v Skylink Technologies Inc*.⁵⁵ The facts of *Lexmark International* case show a printer manufacturer attempting to use the anti-circumvention provisions under the DMCA to prevent another firm from marketing toner cartridges. The District Court ruled in favour of Lexmark under the DMCA provisions and the Court of Appeals had to interfere to vacate the injunction granted by the District Court.⁵⁵ Similarly, in *Chamberlain Group* case, one could see a manufacturer of garage door opening systems attempting to use the DMCA anti-circumvention provisions to prevent competitors from entering the market of remote controllers for the garage door opening systems of the plaintiff.⁵⁶ While the Courts might have finally come to the rescue of defendants in both these cases, they represent the serious danger posed by DRM provisions on innovation and competition, particularly on medium and small scale entrepreneurs.

One may ask whether the possibility of misuse can be an argument for negating any legislation. But there are two factors that make the threat posed by the new legislation a serious one in the contemporary Indian context. Firstly, some of the recent judgments from the trial courts in India show serious failures from the side of the courts to recognize the limitations of copyright law and they are seen providing blanket bans in favour of right holders. Passing broad injunction orders against Internet access providers on *John Doe* applications filed by the film producers is just one example.⁵⁷ Risks are high that the same trend of affording over the board protection to non-protected subject matter may continue, if the state goes ahead with the new DRM provisions. Considering the time and costs involved in getting a remedy from the judicial process, the legitimate uses and legitimate users might be the one at the suffering end. Secondly and more importantly, we must also ask whether such a risk to innovation and competition is worth taking for the country at this moment, if we take into consideration the minimal additional benefits that might be brought in by the new provisions. Moreover, one should also take into consideration the impact of the new provisions on the incentives for the industry to innovate and explore

new business models. For example, during a personal interview conducted by the author with the head of the anti-piracy division of one of the leading Bollywood studios, he was asked whether high prices in the legitimate consumption channels (like cinemas and home VCD/DVD) is a serious contributor to piracy in India and whether his company is taking any measures to address the price issue.⁵⁸ His only reply was that they know that pricing is an issue, but they cannot do anything about it, as the costs of content acquisition in the industry are very high.⁵⁸ While it might be true that content acquisition costs are increasing in the industry, such responses are also illustrative of the serious neglect from the side of the industry to innovate new business models. The new DRM provisions may in effect be providing incentives for the firms to continue with their existing business models which are tuned to the pre-digital era.

Finally, one may also take into consideration the economic efficiency of the punishments prescribed under the new DRM provisions. The provisions envisage imprisonment of up to 2 years and a fine for violators.⁵⁹ Criminal remedies like imprisonment are neither advisable nor practical from an economic point of view for offenses like circumvention of technological protection measures. As most economists would agree, incarceration involves substantial costs for the society and it should be opted only in extreme cases. The important economic reasoning behind this argument is that enforcement always involves positive costs and this is particularly high in the case of punishments like incarceration.³³ For example, to imprison more offenders, the state will have to employ more investigators, build new prisons, employ more officers to guard those prisons, etc. As the resources available for any state are limited, no state will be able to achieve cent per cent enforcement of all its laws.⁶⁰ The state will have to prioritise different crimes and decide what type of offenders should be imprisoned. From an economic policy perspective, the state should try to achieve optimal enforcement, which is the point where marginal costs of enforcement get equated with marginal benefits from enforcement.⁶⁰ Any reasonable state should impose incarceration on offenders who might cause physical danger (like murder, rape, etc.) to the society and it should limit the use of incarceration on less injurious crimes. The practical application of this economic principle can be seen, when most copyright related offenders are released on

bail as soon as they are produced before a court, though punishments like imprisonment are prescribed under the Indian copyright law. But the new DRM provisions are advocating the economically and practically inefficient approach of incarceration for violators of the DRM provisions. On the other hand, limiting the punishments to civil remedies or just fines could have provided a far more efficient way of enforcement, as the dead weight costs associated with such remedies are marginal.³³ For example, damages/fines could be directly correlated to the paying capacity of the offender and such remedies might have also provided far more deterrent effect to the potential offenders, than a 'prescribed' remedy like imprisonment for two years, which would never be enforced.

While there could be many more negative and positive implications for the new DRM provisions, the discussion in this sub-section must be an eye-opener for the legislature to make a detailed review of the potential benefits and costs imposed by the provisions. The legislature should allow the new DRM provisions to continue in the Indian copyright law only if the marginal benefits to the society outweigh the marginal costs imposed through those provisions. The preliminary analysis attempted in this sub-section does not indicate such a situation.

A Failure to Understand the Nature of Piracy in India

An equally important factor to be considered is the nature of piracy in India. Piracy in most of the developed countries is committed online and not surprisingly, most of the DRM legislation from the western world can also be seen as drafted with the aim of combating online piracy. On the other hand, piracy within India is still dominated by offline channels like street side vendors and small shops selling pirated products.⁶¹ While some studies sponsored by the Indian film industry have argued that Internet piracy is substantial in India, facts generally rebut this view.⁶²

The most important among the factors that break down the 'online piracy theory' in India are the Internet usage related data in India. First, only 10.7 million households in India have broadband Internet connections, though estimates suggest that there are around 100 million Internet users in India.⁶³ Even among the active Internet users in urban areas, nearly 27% of users are estimated to be accessing Internet from cyber cafes, while nearly 22% of users are

estimated to be accessing Internet from their work places.⁶⁴ It is undeniable that both these access points are not the best places to stream or download pirated movies or music. Second, even when we look at the data regarding the users having home Internet connections, it could be seen that the subscription packages adopted by majority of them are not conducive to online piracy. Among the 10.7 million households with Internet connections, around 54% are having a connection speed of 256Kbps or lesser.⁶⁵ Merely 12% of those households have Internet connections with a speed of 1Mbps or more.⁶⁵ All readers who might have attempted to download/stream a movie at least once in their life will know why high speed connections are sine qua non for consumption of movies online. Third, unlimited Internet subscription packages are still unaffordable for the vast most of home Internet users in India and most of the users are tied to limited data packages, wherein users have to pay a substantially high price when consumption goes beyond the subscribed data limit.⁶⁶ As the transfer of media files, particularly video files, involves considerably huge amounts of data, it is rational for consumers not to engage in streaming or downloading of pirated movies/ music using their limited data subscription. Fourth, many Indian ISPs also impose a reduction on the data transfer speeds under their 'fair usage policies', when the user goes beyond a prescribed quantity, even if they had opted for a plan labeled as 'unlimited package'. Finally, one may also note that the data on domestic theatrical revenues of the Indian film industry over the past few years do not show any decrease in revenues corresponding to the increase in Internet connections/ users in India.⁶⁷ All these factors negate the claims of substantial impact from online piracy and the legislator should have taken note of this difference in nature of piracy within India, before venturing for a DRM legislation.

But does this mean Indian movies or music are not getting pirated online? It is a fact that there are many websites offering pirated Indian movies and music online. As most of us know, it is one of the basic principles of economics that it is the demand that drives supply in any market in the long run and so there should be a strong demand for such pirated Indian movies/ music online. As discussed above, it is highly improbable that the primary consumer groups of those products are within the territory of India. The most probable consumers for such movies are the

millions of Indians living abroad. Some of the Indian government estimates suggest that the number of Indians living abroad is more than 20 million.⁶⁸ Though far away from their homeland, their desire for consumption of movies from homeland can remain same.⁶⁹ This is a huge consumer group which has long been neglected by the Indian film and music industry. If one looks at the data from the movie industry, it could be seen that majority of the overseas revenues are attributable to the theatrical revenues in the US, Canada, and the UK.⁷⁰ But the number of movies released in cinemas abroad is negligible when compared to the total number of movies produced in India and total number of Indians living abroad. The industry estimates show that even for big budget movies, the number of prints released internationally are just around 250, while for medium budget films it is just around 100-120 only.⁷¹ The problem is worse in the case of movies from the regional film industries in India, as their marketing and distribution channels are further narrower when compared to Bollywood. The result of this serious neglect of a huge consumer market abroad is surge in demand for pirated products to serve those markets.

A detailed analysis of the working of popular websites providing access to pirated Indian movies also supports this view and three factors may be highlighted here. First, a careful analysis of the chat forums in different pirated movie portals has shown that the forums are dominated by non-resident Indians. Second, if one looks closely at the business models adopted by most of the websites providing pirated content, it could be seen that they are operating from abroad, primarily on donations from the viewers. Most of the donations are also received in US dollars. Third, an investigation of the location of the IP addresses behind most of the prominent websites involved in hosting pirated Indian movies show that they are located outside India, with most of them in the US.⁷²

But how far are these findings relevant for our present discussion? Firstly, if the online piracy of Indian media content is primarily happening abroad, drafting of DRM provisions under the Indian copyright law is never a solution for such piracy, considering the territorial limitations of copyright law. Secondly, the arguments of the industry that online piracy is causing huge revenue losses for the industry are also not correct from an economic point of view. The important reasoning behind this argument is that

the industry was not serving this market, except in the form of some limited theatrical releases. So there are no major sale displacements happening in the present context and hence the revenue losses for the industry from online piracy are limited. Thirdly and most importantly, online piracy of Indian media content abroad is primarily attributable to the failure of the Indian media industry to serve their consumers residing abroad, rather than a failure of existing copyright legislation in India. The industry can and it should make use of new technologies like IP screening to deliver media content for their consumers fast and securely, rather than merely continuing with their present practice of delivering the product through limited number of prints abroad. Some of the very few experiments in this regard have shown the scope and success of such new business models. For example, one of the recent Bollywood movies, *Striker*, was released for the international audience through streaming channels and it is estimated to have collected \$100,000 from streaming websites alone.⁷¹ Producers from the different regional film industries could replicate such experiments at a wider scale.

All these factors make it important for the legislature to recognize the differences in the nature of piracy of the Indian media content from the piracy in many other western nations that have advocated the use of anti-circumvention legislation to protect their media industries. The unique nature of piracy of Indian media content suggests the legislature to take a more cautionary and slower step towards DRM provisions.

Creation of a Para-Copyright Regime

One of the most prominent criticisms against the DRM provisions in general is that they are in effect creating a new para-copyright regime.⁷³ If one looks at the new DRM provisions in India, it could be seen that they are extending the protection to mechanisms that protect a copyrighted work, thereby stretching protection far beyond the traditional boundaries of copyright law. An analogy might help us to better understand the problem conceptually. Imagine for a moment that access and use of a printed book (wherein copyright subsists) is controlled by locking it in a shelf. Merely because the right holder feels that people might infringe the copyright in that book by copying the sentences or through any other use that comes within the domain of the exclusive rights of the copyright holder, should we extend copyright

protection to the lock of that shelf or even to the shelf itself? Wouldn't such an extension of protection take copyright far beyond its original objectives? While no one can deny that breaking of that lock without permission might be a crime under the Indian Penal Code or some other legislation (for example, violation of patent law if the breaking of the lock involved infringement of a patented process), the critical question is whether copyright law should be used for providing protection to such locks? In the digital world, it might be software that performs the task of the traditional lock in the example. But through the new DRM legislation, the legislature is extending copyright protection to the locks and shelves of the digital era.

Merely because two international treaties or some jurisdictions have advocated/ extended such protection to the locks of the digital era, India need not take the same path. India can, and it should, stand firmly with the basic objectives of copyright protection and reject the idea of bringing incompatible subject matter within the purview of copyright law. The detrimental effects caused by DRM provisions on freedom of speech and other legitimate rights of users in other jurisdictions that have already implemented DRM measures should help India take an informed decision in this regard.

It is also equally important to note here that the new DRM provisions will take India to TRIPS+ standards. The DRM protection measures are not part of the TRIPS obligations. By unnecessarily (and without due economic benefits to the society) subscribing to the TRIPS+ standards imposed by the WCT and the WPPT, India is diluting its strong position against TRIPS+ standards in other international forums. This is a particularly significant issue, when the world is witnessing more TRIPS+ legislation like Anti-Counterfeiting Trade Agreement (ACTA).⁷⁴ Moreover, subscription of India to such TRIPS+ standards also produces the negative externality of influencing the decision making of many other nations that have not subscribed to these TRIPS+ standards. The fact that there have been only 89 contracting parties so far for both the WCT and the WPPT shows that many nations have been able to withstand the pressures for joining these two treaties.⁷⁵ But if India joins these treaties, this might considerably increase the pressure on the remaining nations, thereby pushing the whole world to a TRIPS+ regime.

Finally, the protection required for firms to engage confidently in digital business transactions could be afforded easily by better and less harmful options. One option from within the copyright realm is to make better use of the contributory infringement liabilities.⁷⁶ If properly used and enforced, this could provide adequate protection for the right holders and at the same time safeguard the legitimate rights of the users. Solutions could also be sought from outside the copyright regime and this includes better use of legislation like the Information Technology Act. With some minor changes in the Information Technology Act, adequate protection could be afforded to the technological protection measures applied for digital works and this would have the benefit of not tinkering with the copyright regime. However, one of the important precautions to be considered while providing such protection under the Information Technology Act is to limit the remedies to civil remedies, for the cost-efficiency reasons discussed earlier. The damages should be flexible and the Judges should have the discretion to decide the amount, based on the gravity of the offense and the actual paying capacity of the offender.

Conclusion

This study shows the need for a careful reconsideration of the new DRM provisions under the Indian copyright law. By including the DRM provisions in the Indian copyright law, without engaging in due economic analysis as to their need as well as consequences, the proponents of the new DRM provisions have risked a reduction in social welfare. The danger is further aggravated by the fact that the new legislation does not even provide a mandatory periodical review of the working of those provisions.

What is required at this point of time is better enforcement of the rights already guaranteed to the copyright holders, rather than importation of new TRIPS+ standards. With better use of existing copyright remedies like doctrine of contributory infringement, India can provide sufficient protection for the right holders in the digital world and ensure that balance of the copyright system is not tinkered. Such an approach would also provide incentives for the right holders to innovate better business management strategies, taking into consideration the changing preferences and needs of consumers in a digital world. Data from a recent international survey,

which compared the willingness to pay for mobile contents among consumers from different countries, should act as further incentive for the right holders to explore new business models. The data shows that the total percentage of respondents who were willing to pay for at least some mobile contents were as high as 65% in India, when compared to 57% from BRIC (Brazil, Russia, India, and China) and 22% from G7 countries.⁷⁷ More interestingly, the percentage of consumers who agreed to the statement that “*No, I would not be willing to pay for access to the site content and would look for the same or similar content elsewhere through a free site*” were as high as 78% in G7 countries and 43% in BRIC, whereas it was just 35% in India.⁷⁷ This provides a strong message to the Indian information industry. Let us not attempt to portray the Indian consumer as a free-rider of information content and use draconian legislation to distance them from legitimate contents. The need of the time is future looking digital business management strategies. Only such measures can win the long battle against piracy and increase the overall welfare in the society.

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- 16 17 U.S.C. § 1201 (a) (1) (B), (C), and (D). The rule-makings in this regard were conducted in the years 2000, 2003, 2006, and 2010. The latest rule-making on 27 July 2010 exempts only six categories of users from the prohibition against access control measures. This includes circumvention of access controls in a legitimately purchased DVD to extract short portions for the purpose of criticism or comment in educational purposes, documentary film making, and non-commercial videos. For the complete list of six classes of uses currently exempted, *Statement of the Librarian of Congress Relating to Section 1201 Rulemaking*, <http://www.copyright.gov/1201/2010/Librarian-of-Congress-1201-Statement.html> (15 March 2012).
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