Chapter 7

Conclusions, Recommendations and Future work
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Recalling earlier discussion

During the course of the discussion in the previous chapters, a wide area was traversed not only on the subject matter of the current research but also a myriad of related issues. It was seen that though the origin of the law of Copyright lay in the author’s rights, with the advent of technology in the form of the Guttenberg Printing Press, the focus of the law shifted from the author to the investors in technology. Thus, the law incorporated the property concept as applicable to even copies of books in so far as the right in the work was seen to be transferable. With the introduction of the Statute of Anne in 1709-10, these rights were reverted to the author but remained amenable to the transfer for a consideration.

In the initial years of economic investigations into Copyrights, no distinction was made between tangible and intangible aspects of property in creative works. However, Plant (1934) established that there was a special nature to books in that their production entailed a large fixed cost and a small marginal cost of making copies. It was Landes and Posner (1989) who brought into the economic analysis of Copyright a theoretically rigorous construct to explain how various aspects Copyright law, including copying, would work.

The subject matter of Copyright was seen to encompass a wide variety of works ranging from literary to music, to films and onwards to broadcasting and performances. In addition, the entire realm of software industry was also included under the chapeau of literary works protected by Copyright. With the inclusion of software into the definition of literary works, all digital formats of Copyrightable works stood included in the scheme of Copyrights. It also was seen that use of the Internet as a medium enabling handling of digital Copyright work was in the natural progression of technology. This brought with itself a large number of legal and economic issues, both theoretical and practical. On the theoretical side, for example, it introduced a zero time lag between the first and the subsequent copies obliterating the first mover advantage that the author – rightholder in physical copies would normally
have had. This changed the time dimension in all theoretical analysis. Further, with negligible or no loss in quality, digital copies on the Net were as close substitutes as is possible. Secondly, on the practical side, with this time dimension gone, it was now possible to make immediate, simultaneous and multiple copies on the Internet. This made the job of enforcement difficult because ex-post action against infringer would not bring succour to the rightholders.

During the course of the discussion, after the survey of literature, two specific gaps in the current body of knowledge in the Indian context could generally be identified. It was found that there was little India-specific theoretical exposition of the Economics of Copyrights. While it could be argued that theories are not location-specific, it can be counter-argued that most of the theorising on the Economics of Copyright today comes from the contexts of the developed countries.

Secondly, there was no detailing of the practical aspects of copying and its next stage offshoot – piracy. It may be recollected that a mention was made of the estimate of the extent Copyright piracy in India made by the National Productivity Council in 1999, which was beset with some conceptual and data problems at that time. Further, Liang and Sundaram (2011)\textsuperscript{181} did provide anecdotal references on piracy of entertainment medium but there was still scope for more rigorous analysis of the drivers of piracy.

Therefore, there developed a need to identify the character of the market for legitimate and pirated products. At this stage, a conscious attempt was made to focus on entertainment goods, i.e. Copyright works, which were normally addressed towards satisfaction through the direct use of human senses. Within this framework, it was recognised that the penetration of the Internet in India was constrained by low degree of home computer availability (less than 10%) and narrow bandwidth on telephony, both of which reduced access to net-based copies of Copyright works classified as entertainment goods. Further, it was seen that one specific set of entertainment goods, viz. electronic games using a combination of proprietary and non-proprietary hardware and software was not yet accessible to significantly large

\textsuperscript{181} Op. cit.
number of Indian users.

Thus, conceptually the focus of the research of understanding the Indian context of economics of Copyright piracy was kept on physical copies of Copyright works in music and films. The conceptual framework was now ready and the objective of the current research was identified as the following:

“To examine the issues which sustain consumer demand for physical copies of pirated music and films so as to identify appropriate approach towards protecting economic interests of the rightholders in such goods.”

To meet this objective a set of research questions were formulated answers to which would provide the basis for establishing the conclusions of the research. These questions were as given below:

1. The impact of demographical features of an Indian user of Copyright works on her decision to choose legitimate or pirated products;
2. Whether, the access to legitimate product was restricted in any manner by factors such as price, market segregation and attitude;
3. The acceptability by Indian users of the preventive technology that the rightholders might use to protect illegal access to his rights;
4. Attitude towards and acceptability of legal enforcement, under the law of the rights of the holders of Copyrights.

It was seen that the piracy did infringe the rights of reproduction and distribution of the holders of Copyright. However, what needed to be seen was whether piracy was inevitable or whether it could be addressed by a mix of measures which would include, but not be limited to, enforcement, such as pricing strategy and marketing strategy.

Through a countrywide survey of responses of three classes of stakeholders, viz. consumers, retailers and producers of Copyright work to set of questions, 8 hypotheses as formulated in Chapter 4 were tested. These hypotheses were:
Hypothesis 1. The demand for pirated goods is affected by:

(k) age;
(l) geographical location of the consumer
(m) profession of the consumer;
(n) education levels; and
(o) levels of income

Hypothesis 2. In the case of market for physical copies of music and films, change in price causes consumers to switch to substitutes.

Hypothesis 3. Demand for pirated goods is affected by the quality of the goods.

Hypothesis 4. Lack of access to legitimate goods has an impact on levels of piracy [i.e. Consumers would go for the cheaper pirated goods than legitimate goods even if the latter were easily accessible because they would be more expensive].

Hypothesis 5. The market for pirated goods is segregated from the market for legitimate goods.

Hypothesis 6. Technological measures used by producers to protect their copyright are effective tools against piracy.

Hypothesis 7. Effective enforcement is likely to decrease piracy.

Hypothesis 8. Enforcement against production and distribution of pirated goods has greater impact on reducing piracy.

The major findings from the data collected and analysed are briefly revisited below.

It was found that the respondents exhibited different cross-price elasticities when judged on the anvil on the five demographic variables of age, location,
professional status, educational qualification and income. Thus, all these demographic variables were found to be significant in their impact on the response of the consumers to changes in prices of both legitimate and pirated goods. Consumers were seen to switch from legitimate to pirated products and the reverse in differing scenarios of price changes.

In the case where the prices of legitimate products were falling or prices of pirated products were rising, the consumers exhibited a tendency to substitute legitimate for pirated goods. On the other hand when the prices of legitimate products were rising or prices of pirated products were falling, the consumers were seen to substitute pirated for legitimate goods. While this was the general trend for both music and film products, there was some difference in consumer reaction in the context of the two products. The response to price changes was seen to be more muted in the case of music products than in the case of film.

It was also found that the markets for legitimate goods and pirated goods appeared to be segregated. As such, the substitution that was visible had two distinct features. One; the consumers were seen to be substituting markets rather than the products in the same market. Since perfect substitutability between the two products did not exist despite positive cross-price elasticity, this result was to be expected in a situation of market segregation. Two; the consumers were seen to prefer legitimate products and were even willing to pay a mark-up over the pirated product for this preference.

Further, on the basis of the responses received, it was possible to develop a model to show the pre-disposition towards the piracy. If the demographic features of age, location, professional status, education level and income were to be pre-specified, then this model could be used to generate the probability of finding a respondent with those features who would also choose a pirated product.

The second set of results examined the role of quality and non-price (i.e. physical) accessibility in consumer decision making. In this case, it was seen that consumers valued quality in choosing a legitimate product in the case of films. However, in the case of music quality was not one of the determinants in the choice of legitimate music products. On accessibility consideration, it was found that when
legitimate products were not physically accessible consumers were driven to access pirated products. Thus, choice of a pirated product was driven also by lack of access to legitimate products.

The third set of results look at the acceptability of the consumers towards the adoption of technological protection measures (TPMs) by the rightholders. The results revealed that the consumers did not object to the use of TPMs but were not confident that these TPMs would not be circumvented. Since it was likely that the cost of adoption of TPMs would be passed on to the consumers of legitimate products, if these TPMs were found to be easily circumvented then the consumers of legitimate products would be paying a premium on the product for no reason. Given the negative cross-price elasticities, this would result in some consumers substituting pirated for legitimate products and thus decrease in revenues with increased costs.

The last set of results pertained to acceptability of enforcement in the eyes of the consumers as well as the retailers and the producers. The basic feature that emerged was that the capability of the enforcement agencies to control piracy was not in doubt. However, all the stakeholders held a similar view that the police were themselves mixed up in the entire game of piracy and thus despite possessing the capability to tackle piracy, the police lacked the will to curtail it. Further, the consumer-respondents also stated that the focus of enforcement should on production and distribution and not end use of the pirated product. The foregoing discussion yielded some insights into the way piracy in India operated. Liang and Sundaram (2011) have detailed many anecdotes from real life situations related to piracy and market for pirated products. The discussion above, however, reveals more theoretical and statistically consistent insights regarding piracy.

It was seen that though the consumers appeared to be statistically pre-disposed towards choosing pirated products, from their actual switching behaviour, it was clear that they preferred to choose legitimate product and were even willing to pay a mark-up over the price of the pirated product for this choice. This led to the conclusion that price was indeed the biggest barrier to access legitimate product. This position was verified with two other elements of the data.

a. Generally individual consumer respondents were seen to be able to distinguish
between legal and illegal activities as well as make the correct choice between such activities;

b. The retailers of legitimate (and possibly pirated goods) uniformly saw price as the main reason for purchase of pirated products and higher income as the main reason for choosing legitimate product. This fact reinforces the point made by Liang and Sundaram (2011).

Therefore, the results show that the consumer operates under a situation where her choice is influenced by certain intrinsic demographic characteristics as well as external influences. On the pecuniary side, she is also subject to constraints of income and the price set she faces for all commodities in the market. Her switching behaviour between legitimate and pirated product also reveals her aspiration to choose legitimate product at the first available opportunity. Similarly, the product quality and product accessibility to her also influence her judgement. Further, depending upon how comfortable she is, she switches markets to choose between legitimate and pirated products. She does not mind producers taking action to protect their rights but is wary of the increase in prices, such measures may bring about. She is aware of the competence of the police in preventing piracy but is disdainful of their intent to control piracy. She believes that enforcement action would be more effective against producers and distributors of pirated products rather than against end users.

Policy implications

Specific policy implications arise from the results of the analysis and the discussion recounted above.

Price was seen to be the most important determinant of consumer choice between legitimate and pirated products. This means the most effective strategy to tackle piracy would necessarily have to be based on prices. It was seen that the consumers were seen to make decisions on the basis of absolute prices. It was further seen that they did not temper their decisions based on quality because lower quality was acceptable at lower prices. Thus, price-based strategy would either have to be based on decreasing the prices of the legitimate product or increasing the prices of the pirated products. Given that, ceteris paribus, the consumers have a preference for
legitimate products if the price is right, decreasing the price of legitimate products would be to such an extent as to bring it within such range that the consumers are enticed into paying a mark-up on the price of the pirated product to access the legitimate product. The alternate price based strategy would require recourse to strong enforcement interdiction so as to drive the costs of the pirate higher by a large margin thus driving the prices of pirated products also higher. This would, of course, lead to a large amount of pent-up demand in the market for physical copies of films and music and thus a heightened risk of increase in piracy in case of any decrease in the intensity of enforcement. As our analysis reveals that the markets are indeed segregated on account of the price, then no amount of enforcement can force the consumers, constrained by the price as they are, to buy legitimate products. Of course, Liang and Sundaram (2011) found strong evidence of market segmentation (and possibly market segregation) in India. In fact, this situation also revealed that there was a tipping point beyond which price was the most important determinant of choice and factors such as quality did not play a role in choice thereafter. This conclusion finds support from Harbaugh and Khemka (2001). Maffioletti and Ramello (2004) found evidence of demand withholding under increased enforcement. Chen and Png (2003) suggested enforcement should be according to the type of consumer, i.e. one size fits all approach might not yield desired results. It may be recalled that consumers tended to recognise shops as purveyors of legitimate products and footpaths as the places where vendors of pirated products operated from. Thus, the dividing line of recognition was seen to be thin. It was also posited that there was a likelihood that the consumers might slip on the side of illegitimate behaviour because of their inability to distinguish between legitimate and pirated products and this might lead to leakage from the legitimate end of the market. Therefore, effectiveness of enforcement would require the ability to distinguish between genuine mistakes of the kind identified above and genuine piracy. This would require a level of sophistication that would appear to be beyond the capability of most enforcement agencies, including in India, who are wont to use one-size-fits-all approach. In addition, as seen earlier, enforcement is resource intensive, administratively burdensome, legislatively complicated and, therefore,
expensive. Newer legislations directed specifically at enforcement of IPRs have been seen to be especially so\(^\text{182}\). As such, relying solely on enforcement would not be a viable solution.

While any consumer will prefer a product for free instead of one with a positive price, the literature surveyed did not reveal any evidence of price acting as a barrier to access in developed country markets. On the other hand the evidence from chapter 5 showed the price was a major determining factor in the choice of pirated products over legitimate products. The segregation of markets evidenced from the analysis in chapter 5 was also on account of price, albeit, some role for income and related quality preference was also seen. While there might be an opportunity for price discrimination for the monopolist, Alvisi (2002) suggests that the monopolist might not have an incentive for product differentiation without piracy.

Secondly, the evidence from literature regarding illegal download and file-sharing showed that access, to both legitimate and pirated Copyright works, was not a barrier in developed countries. In the case of India, however, lack of access was shown to be an important factor in the decision in favour of choosing pirated products. The corroborating evidence was given in the response of the retailers that confirmed that lower prices and easy access were major reasons for the choice of pirated products over legitimate products.

Another interesting insight from the research so far was that both the stakeholders on the revenue side of the value chain of Copyright products, viz. producers and retailers were apathetic towards the loss of revenue that piracy would cause them. By contrast, the consumer appeared to be making reasoned and deliberate choices between pirated and legitimate products, influenced not only by price of the products in question but also their own demographic characteristics. Additionally, their choices were also affected by their aspiration to purchase legitimate products for which they were willing to pay a mark-up.

Thus, the policy perspective that emerges from the current research is that an overly emphatic enforcement regime is not likely to substantially enhance the

\(^{182}\) Refer the Malaysian Optical Disc Law case cited in Chapter 3 ante.
volume of sale of the legitimate products. On the contrary, by closing down access to entertainment goods at the pirated lower end of the market such an enforcement regime may only postpone the pent-up demand from opening newer, informal and perhaps illegal channels of accessing entertainment goods. This echoes the conclusion of Maffioletti and Ramello (2004).

The Moser Baer and the Sa Re Ga Ma\(^{183}\) experiments show the role of judicious mix of marketing and pricing strategies can have in tackling piracy. The response of the industry was also on account of the fact that enforcement was not effective. What is important to recognise here is that the industry took the initiative on account of the failure of the enforcement regime to address the basic issue of equitable access which was seen to be the main driver for demand for pirated products. This is a possible area for further investigation especially because newer informal and illegal modes of providing Copyrighted entertainment content have now come to the fore even for those consumers who do not have access to the Internet, e.g. mobile chip downloads that respondents had shown a preference for during the survey.

It may be recalled that before the TRIPS Agreement came into existence, the major international instruments in the field of Copyrights were the Berne\(^{184}\) and Rome\(^{185}\) Conventions at the WIPO and the Universal Copyright Convention\(^{186}\) at the UNESCO. None of these conventions had any specific measures on enforcement of rights. In fact, while the TRIPS Agreement harmonised the legislative standards for protection of IP on the basis of the extant international instruments in all forms of IP, it also went further and introduced provisions on enforcement of rights in an international instrument on Intellectual Property Rights for the first time. The Preamble to the TRIPS Agreement recognised the need for new rules and disciplines concerning enforcement as an integral part of the effort to protect IPRs in the context

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\(^{183}\) See Annex 4.6

\(^{184}\) Berne Convention for the Protection of Literary and Artistic Works, 9 September 1886

\(^{185}\) International Convention for The Protection of Performers, Producers of Phonograms and Broadcasting Organisations, 26 October 1961

\(^{186}\) Universal Copyright Convention as signed at Geneva on 6 September 1952
of trade\textsuperscript{187}. Further, the TRIPS Agreement contained a large number of articles\textsuperscript{188} on enforcement of rights wherein the contours of the desired enforcement regimes were laid down. The main feature of this regime was the need to have deterrent provisions in the relevant laws (including of the law of Copyright) of the member countries to discourage recurrence of infringements\textsuperscript{189}. In addition, the footnote to Article 51\textsuperscript{190} also defined the term ‘pirated copyright goods’ in the context of the Agreement which term had not been mentioned in any other multilateral international instrument. In fact, this emphasis on enforcement as a deterrence for future infringements was repeated in the two Internet Treaties, viz. the WCT\textsuperscript{191} and WPPT\textsuperscript{192} as well, albeit in a much less insistent manner, despite the fact that the latter treaties were based in the WIPO\textsuperscript{193} and the not in the WTO, the home of the TRIPS Agreement. Thus, what is seen is that enforcement of rights was made an integral part of international IP law in the post TRIPS era.

The recent plurilateral effort in the form of the ACTA\textsuperscript{194} is yet another step in the direction of upgrading and consolidating enforcement standards. The fact that the ACTA finds a mention in the Special 301 Report of the USTR is also indicative of the extent to which the US has bought into the process. Similarly, the TPP\textsuperscript{195} initiative

\footnotesize{\textsuperscript{187} Extract from the Preamble to the TRIPS Agreement:
"Recognizing, to this end, the need for new rules and disciplines concerning:
...(c) the provision of effective and appropriate means for the enforcement of trade-related intellectual property rights, taking into account differences in national legal systems;..."}

\footnotesize{\textsuperscript{188} Part III of the Agreement comprising 21 Articles from Art 41 to 61 deal with the subject of enforcement of IPRs.}

\footnotesize{\textsuperscript{189} Refer Article 41 for example which states:
"...1. Members shall ensure that enforcement procedures as specified in this Part are available under their law so as to permit effective action against any act of infringement of intellectual property rights covered by this Agreement, including expeditious remedies to prevent infringements and remedies which constitute a deterrent to further infringements."}

\footnotesize{\textsuperscript{190} Refer note 115 supra}

\footnotesize{\textsuperscript{191} Article 14 of the WIPO Copyright Treaty, 1996}

\footnotesize{\textsuperscript{192} Article 23 of the WIPO Performances and Phonograms Treaty, 1996}

\footnotesize{\textsuperscript{193} It is interesting to note that the mandate of the WIPO as mentioned in the Agreement the United Nations and the World Intellectual Property Organization of 1974, does not mention anything about legislating on enforcement as being the responsibility of the WIPO.}

\footnotesize{\textsuperscript{194} The Anti-Counterfeiting Trade Agreement; See Chapter 1 page 19}

\footnotesize{\textsuperscript{195} The Trans-Pacific Partnership; See Chapter 1 page 20}
also has a substantial US interest riding on it. The plurilateral efforts cannot be underestimated as a limited club initiative. In fact, already there are apprehensions being sounded by the civil society about the two initiatives being slowly but surely converted into an acceptable international standard for all bilateral agreements between the members of the two instruments and third countries, especially developing countries including LDCs\(^{196}\). The extension of the enforcement focus to bilateral agreements between different countries or blocs is already there to be seen. These agreements, generally, tend to go beyond the TRIPS standards\(^{197}\).

While the TRIPS Agreement itself was an effort in setting up minimum standards as the benchmark for all national legislations on IPRs, the inclusion of enforcement provisions in the Agreement was a considerable upward scaling of the standards from the then existing international regime. The recourse to Dispute Settlement Understanding (DSU) that is available under the WTO considerably enhances the power and reach of the Agreement regarding enforcing its provisions. However, the ratcheting up of the standards has not ceased after TRIPS. Subsequent to TRIPS, there have been at least four substantive international treaties, viz. the WCT, WPPT, the Patent Law Treaty and the Singapore Treaty on Law of Trademarks which have raised the bar on protection of IPRs. At present, in the field of Copyrights, there are two more instruments in various stages of negotiation at the WIPO – for the protection of broadcasting organisations and for the protection of audiovisual performers. Of course, the discussion for an instrument for international protection of traditional cultural expressions is also at an advanced stage.

However, on the side of enforcement of IPRs, the initiatives have moved from the WIPO to the Interpol to the WHO, WCO, etc\(^{198}\). The multiple agency involvement leads to multiple regulatory standards according the type of agency involved.\(^{199}\) This leads to enforcement practices in member states of these separate

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\(^{196}\) See for example online posts on the negotiations at the TPP from Knowledge Ecology International at [http://keionline.org/node/1176](http://keionline.org/node/1176) accessed on 15 July 2011.

\(^{197}\) See Annex 3.1.

\(^{198}\) Muñoz Tellez (2009) *op. cit.*

\(^{199}\) It is interesting to note while the definitive definition of the word ‘counterfeiting’ in the context of the TRIPS Agreement is given by F.N. 14 to Article 51 of the Agreement, the WHO has evolved...
organisations conforming to extended standards which can go beyond the TRIPS standards.

As our results reveal that there is a finite limit to the effectiveness of enforcement in curtailing piracy. Thus the current effort to control piracy through more stringent enforcement standards is an approach that does not appear to be based on a clear understanding of the non-criminal drivers of piracy. The tendency for regulatory overkill without duly addressing the root cause of pent-up demand due to barriers to access copyright works at reasonable prices and equitable terms may not yield the desired results in this area. Further, the efforts of the industry through effective pricing and appropriate windowing shows that non-enforcement based anti-piracy measures can have a substantial impact on the extent of piracy given the revealed predisposition of the consumers to buy legitimate products if the price is right.

In India, the Government has been operating on the basic premise that enforcement of the law on Copyrights has to be in accordance with the international commitments already made including those under the TRIPS Agreement. The efforts of the Government include, inter alia, providing a platform for stakeholders in enforcement of Copyright law in the form of a Copyright Enforcement Advisory Council (CEAC). The CEAC seeks to develop a system of sharing of experience between police officers responsible for enforcement of the Copyright Act, 1957 in all States of the country. Towards this end, it also allows the representatives of rightholders to have a direct interaction with the enforcement officials.

The point that needs making here is that with all the multilateral, Plurilateral, bilateral and domestic processes currently under way regarding another definition in the context of counterfeit drugs which goes beyond just the IP aspect and incorporates even safety standards. The Counterfeit Medicines fact sheet of 2006 states the following, “Counterfeit medicines are part of the broader phenomenon of substandard pharmaceuticals – medicines manufactured below established standards of quality and therefore dangerous to patients’ health and ineffective for the treatment of diseases. The difference is that counterfeits are deliberately and fraudulently mislabelled with respect to identity or source. Counterfeiting occurs both with branded and generic products and counterfeit medicines may include products with the correct ingredients but fake packaging, with the wrong ingredients, without active ingredients or with insufficient active ingredients.” (Italics added)
enforcement of Copyrights, there is a possibility that the form of enforcement may end up taking precedence over the substance of enforcement. The discussion in the foregoing chapters has revealed a few insights into the way piracy works in the context of physical copies of films and music. In broad terms, it was seen that people would prefer buying legitimate copies if the right price was on offer; that there was reason to believe that the market for pirated products and legitimate products were segregated and as such there was low leakage from the upper end of the market, viz. the legitimate products market into the lower end of the market, viz. the market for pirated goods – as such, enforcement against pirated products would most likely not increase the revenues in the upper legitimate end of the market; and lastly, there was little trust in the effectiveness of either TPMs or the police in stopping piracy.

In the backdrop of the enforcement regime already adopted in India and the likely international pressures to conform to international standards of enforcement of Copyrights, it stands to reason that the governing philosophy of enforcement in India would need to be nuanced towards allowing a balance between access and IP protection. Since enforcement is an expensive tool for IP protection, its use cannot be indiscriminate and universal. This is not to say that piracy should be tolerated but some market innovations, such as pricing at near marginal costs, formal lending activities of physical copies of films through efficient and effective renting libraries which pay rent royalties to the rightholders, tactical ‘windowing’ of films, music on demand through cellular phone service providers, etc. can be effective in reducing the price margins between pirated and legitimate products. What can be crucial in the present context is the demonstrated preference for legitimate products that the respondents showed in the survey. The aforementioned market strategies can be effectively harnessed to capture this section of the consumers.

This is not to suggest that enforcement against piracy has no role to play. In fact, the threat of increase in the level of piracy to commercial scale that used to be witnessed in the days of Video cassettes always persists. However, the myriad of tools available with the rightholders today are such that the commercial scale piracy of Indian films and music by organised groups does not appear to be a potent threat in the context of discs of films and music. The role of enforcement would appear to be in
keeping the extent of piracy at levels below commercial scale and outside realm of organised crime. A zero-tolerance policy would appear to be too expensive to be practical and in any case from purely access considerations may lead to situations of frustrated and pent-up demand which would be a potential market for pirated products. Additionally, in the kind of market segregation deduced from the evidence of the current research, stringent enforcement would also increase the risk of little or no incentive to the rightholder to even consider enhancing access for the lower end of the market. The elaborate ‘windowing’ efforts of film producers and exhibitors would be rendered unnecessary to a large extent and thus adversely affect access.

The other issue with upward scaling of enforcement standards is that one of the targets of enforcement regime in any jurisdiction, viz. the consumer, is not a homogenous entity. Some consumers are those who slip into piracy unknowingly because of certain locations specific conditions. It was mentioned in the case of semi-urban settlements that access to legitimate product is circumscribed by the availability of legitimate media in those locations. Thus, per force, the consumer ends up buying infringing media even if price was not a constraint. Another category of consumer is that which has no recourse to alternate legitimate media because of the high price of legitimate access. Such consumers end up buying pirated products due to barriers to access, both physical and price. The alternative available to both these categories of consumers is to forego enjoyment of the content that these media carry. It is the third category of consumer who deliberately and, perhaps, habitually purchases access to pirated media despite not being constrained to, which would be legitimate target of enforcement interdiction. However, the enforcement machinery in most jurisdictions, including India does not have the sophistication to distinguish between the categories. Even where it can, the law does not distinguish between them as a result of which the enforcement agencies do not possess a legally given discretion to take selective action. This inability to distinguish between the categories of infringers can be considered to be regressive. Thus, reliance on enforcement alone for tackling piracy may be a misplaced approach since the existing market for legitimate media might not allow access to a large section of potential consumers, despite the fact that entertainment goods do not qualify as luxury goods.
This would lead to a pertinent question as to what constitutes the optimum level of enforcement. The answer to this question would depend upon the assessment of the exact or a reasonable estimation of the extent of piracy that takes place in the country. As has been seen that the data on piracy as provided by the business interests in copyrights is tenuous because of methodology and coverage problems, it would be difficult to provide concrete figures on this matter. Even the 1999 NPC study was beset with limitations of data and conceptual problems. As such, answer to the question of optimum enforcement level would perhaps be not available at the current stage. It can said, though, that enforcement against piracy of physical copies of films and music would be most effective if conducted against activities conducted at ‘commercial scale’ which carry the potential of causing revenue leakage from the upper segment of the market and at the same time would be indicative of a higher level of organisation of piracy.

In this regard it merits mentioning that some bilateral pressures related to enhancement of legislative provisions to aid enforcement have also been brought to bear on India. A case in point is the oft-repeated exhortation in the Special 301 Report of the USTR which, asking for an Optical Disc Law (ODL), states, “The United States encourages India to take action on its draft optical disc law and generally to combat widespread optical disc piracy.” The suggested ODL would make it mandatory on all producers of optical discs to maintain a Source Identification (SID) Code on all discs produced in the country so that in the event of any piracy (at the stage of ‘pressing’ i.e. imprinting the disc with music or film at the stage of manufacturing of the disc or of ‘burning’ which occurs when the music or the film is burnt into a writable disc) being detected it would be possible to identify the offending manufacturing unit. In this regard, three specific points need to be made:

(a) Unlike in the past when it often agitated for an ODL due to fears that there occurred illegal reproduction at the stage of ‘pressing’ now the industry does not seem to make any case of such copying at the stage of manufacture;
(b) If the piracy occurs through ‘burning’ of discs then the ODL would be rendered ineffective due to the disaggregation in the retail system through which such discs would be procured by any pirate\textsuperscript{200};

(c) The experience of other countries where such ODL were enacted have not been unequivocal successes. The case of Malaysia was often cited by the Special 301 Reports in the past, where such a law was enacted under bilateral influence. However, the law came with substantial administrative burden and was not found to be effective in controlling many forms of piracy. An attempt to combine the intent of this law with a price control regime for optical media to address access issues was thwarted by industry, both foreign and domestic.

\textit{Future work}

The discussions so far now lead to an opportunity to suggest the way forward in this area:

i. While from the producer’s point of view, piracy is a menace which eats into his revenues and breaks the virtuous cycle of creativity – reward – more creativity, the consumer looks at the price barriers she faces in the market for entertainment goods and chooses in favour of better access over lawful actions. Therefore, the producer has to look at a new model that allows better access to entertainment goods for all types of consumers. This may take the form of price discrimination or sacrificing the inelastic part of the demand curve facing him and moving over to a more elastic market to enjoy enhanced revenues. It would be interesting to take Boyle’s (2002) suggestion that a tightly controlled and smaller market needs to be overlooked in favour of a large though leaky market since the revenues in the latter would be much larger. Baumol’s (2005) suggestion to aspire for reasonable feasibility in access would be sage advice.

\textsuperscript{200} During discussions with the Delhi Police it transpired that in case discs with SID codes were found ‘burnt’ with infringing material the lead would still die at the point of retail since no retailer maintains records of individual customers who purchase discs at any point-of-sale. Unless the mode of payment was by credit/debit card, which was highly unlikely in the case of pirate who would be more likely to make cash payments, there would be no way of identifying the purchasers except by direct interdiction at the time of purchase.
ii. The cost of enforcement can be very high. The attendant benefits that accrue to the Enforcement Agency may create vested interests in copying the visible part of the enforcement at high levels. This is borne out by large number of raids conducted by the police at the instance of interested groups against pirates. However, the effectiveness of these raids is low as per the details made available by the NCRB. As such, an occasion arises to revisit the enforcement strategy and focus on the high value pirates who systematically leak out revenues from the upper end of the market.

The producer – distributor of Copyrighted work operates on a range of windows depending upon the way the work is to be communicated to the public. A more consistent and well thought out strategy in ‘windowing’ can significantly reduce the arbitrage opportunities that the pirated thrives on. This aspect requires greater attention from the right holders.

The current research revealed the limits within which it had been conducted. However, interesting areas of possible future research can now be visualised:

i. A system of collecting empirical data on Copyright works which relies on statutorily determined requirement of financial declaration will be the cornerstone of any reasonable research to be conducted. This will also reduce the unsubstantiated figures of lost sales and declining market shares that are normally used by interested groups to further their craze on public enforcement by private rights.

ii. The next big thing in India will soon be Net-based access of Copyrighted work without permission. Already the growth in this area is being visualised at 50% by some industry experts. Given the large denominators of Indian population in absolute terms these numbers could become larger than what has been seen in many other countries. The failure of the legal mechanism to control illegal down load has been well documented in many studies. This provides an
opportunity to examine alternate business models\textsuperscript{201} whereby the right holders would be able to appropriate some part of the consumer surplus generated by such downloads. Thus, appropriation and appropriability of net based access to Copyrighted work appears interesting.

iii. One form of literary works is software. The dynamics of its piracy can be reasonably expected to be different on account of no direct enjoyment being derived from its use. Further, its susceptibility to copying, circumvention of TPMs and Internet-based sharing and downloading is known to be high. A large body of literature in the case of software piracy already exists in the context of the developed world. Similar studies in India have so far been sponsored by the Business Software Alliance which is an association of multinational software firms. Its methodology has been criticised as being secret, flawed and vague. An opportunity presents itself for research in the Indian context especially where the Information Technology Act, 2000 and the Copyright Act, 1957 converge and diverge in their economic impact.

It is hope that this work may be used by other researchers to substantially improve the methodology to find the results and bring about more focus in smaller components of this newly emerging field of economic inquiry.

\textsuperscript{201} Savirimuthu (2007) has strongly stressed on the need for developing new ways of conducting copyright business in Net-based environment.