

A Comprehensive Report on Piracy and Proposed Resolution to Reduce Loss Effect

Kaushlendra Sharma

Dept. of Computer Science & Engineering
Christian College of Engineering & Technology
Bhilai, India

Abstract— Deployment and acceptance of prodigious and novel technology in frequent intervals has aided the multimedia arena to grow with a pace and quality, but at the same time it is shackling the real inventors and makers. The increasing rate of piracy like illegal downloads of songs and movies from various websites, selling of pirated version of original work and increasing digital theft had created an illegal market worldwide. The move is capitalizing day by day and heading towards a big loss for the real investors in millions and billions. Antipiracy software's and cyber laws are present in the system to heal them but not able to make impact, the velocity of plagiarism and violation of copy rights is increasing day by day. The paper aims to focus on the issue of loss and its effect incurred by different multimedia industry and software industry in the recent years, also would like to focus on the techniques which is being openly adopted by the intruders to manipulate original work, thus it has become the need of time to examine and abandon this misconduct, keeping this view in center the article proposes an architectural model which can contribute to settle this illegal maneuvers and restrict the loss and effect caused by piracy.

Index Terms—Antipiracy, cyber-laws, intruders, copyrights, plagiarism

I. INTRODUCTION

Undertaking piracy by up keeping the latest technology has developed one of the severe problem in the present time. Indeed, there are real dollars being lost to piracy every year. Soto get a clear picture of the adverse effect done by piracy and to understand it completely the article progresses to understand this delinquent by categorizing the problem in to many sub sections like software piracy, movie piracy, audio piracy and many more, Hollywood, Bollywood and major Software industries are the prime victims of this pirates. It is killing and snatching many jobs per year and also hurting the economy by grabbing the profit which would have been taken by the real makers. Flow of black money in the system is also increasing due to this. India, China, US are the main victims of this crime. Though the Entertainment industry has found out the way to overcome with the loss by expanding its market, globalizing their product and by doing impulsive promotion policy for their product.

A huge marketing strategies has been arrayed on the market so that they can make money from their work. Now a days experts from multimedia industry claim that they have overcome the problem of Piracy by showing the profit figures

But that is only the one side of the scenario. By applying impulsive strategies and huge promotion the movie makers from both Bollywood and Hollywood are now a days able to take out their investment within a week but this figure can

reach to a tall if the proper means can be complied to stop piracy from the market. Software industry is also gaining good figures in dollars by adopting the same strategies of huge promotion and advertisements.

But observing the ratio of viewers watching the cinema and listening to the music have increased exponentially in the last two decades and with those increased number of subscribers the profit figure should be at double than what it is. The marketing way to avoid piracy is applied very smartly, taking example of India if a movie is slated to release for a particular day, huge marketing and promotions policies are applied for it, and is screened at a large number of screens, 3000-4000 in India for a big release, earlier it was only 300-400 when there were no piracy. Also the number of viewer have been increased to almost 3-4 times, currently the strategy is that serve as many viewers as possible within a week, so that they should not go for pirated ones, and also the fact is that after one week every good cinema loses its charm and is not able to attract people to go to theatre, Easy availability of pirated version is the reason for this altered mind set.

Same is the case with music industry also, earlier a good album was doing record selling, but now with listeners getting many folds, the revenue earned by makers and investors was not justified, though everyone claim that their business has been doubled or tripled, but still there is a big scope to increase this business to many folds. Software industry on the other hand had also multiplied its earning. With the advent many small and big companies and institutions the software industry is able to extract good revenues but still there is big scope in this industry also which can take its profit to another level.

Software industry has also applied many techniques to stop piracy and discourage using pirated software but still the market is flooded with the consumers using pirated and cracked version of software, here also the ratio is very important to observe, as now a days every individual is equipped with 2-3 electronic gadgets but hardly of them using licensed and original one, many remedial measures have been brought to encourage for using original product but failed to make impact.

II. LITERATURE SURVEY

As from the report by LEK[2] the major U.S motion picture studios lost \$6.1 billion in 2005 to piracy worldwide, 80 percent of those losses resulted from piracy overseas, 20 percent from piracy in the U.S.62 percent of the \$6.1 billion

loss result from piracy of hard goods such as DVDs, 38 percent from internet piracy. Piracy rates* are highest in China (90 percent), Russia (79 percent) and Thailand (79 percent).The worldwide motion

Picture industry, including foreign and domestic Producers, distributors, theatre’s, video stores and pay-per-view operators, lost \$18.2 billion in 2005 as a result of piracy. The typical pirate is age 16-24 and male. 44 percent of MPA Company losses in the U.S. are attributable to college students. Also, the SOPA and PIPA fights have died down, and Hollywood prepares their next salvo against internet freedom with ACTA and PCIP, it’s worth pausing to consider how the war on piracy could actually be won. Percentage of potential market loss is maximum in china as per the MPAA statistics done in 2005 [5].

According to figures released by the Federation of Indian Chambers of Commerce and Industry (FICCI), the industry loses up to Rs. 16,000 crore per year because of this menace. The US-India Business Council (USIBC) too has released a study adding that apart from the revenue loss, a whopping 8.2 lakh direct jobs are also lost, along with theft in the entertainment industry



The piracy rate is increased from 2% to 43% in short span, just because of the highly demanded PC market in developing countries like INDIA, CHINA, and BRAZIL. As of 2008, piracy practices have reached considerable levels in France, wherein the piracy rate is estimated at 45 % and the calculated loss of income for software developers was about 2.9 billion Euros [6].

III. LOSS EFFECT

Talking about INDIA it is ranked at fourth place in terms of illegal movie downloads. It is very important to understand the effect and loss of piracy and before looking in to the figures, here the paper presents a simple ratio and proportion scheme which will be helpful in analysing problem. This is one of the factor which is being mostly missed by every analyst when they claim that they have overcome from piracy and making profits, the logic of below mentioned equation is to peep in to the scope for future for expansion of business. Furthermore, a report [9][16][18] estimates that 820,000 jobs are lost each year to the media and entertainment industry in India only is : 571,896 of which come from the film segment and 133,434 from music—as piracy squeezes both retailers and producers and results in a reduction of total output.

% increase in viewers/ consumers per year =

$$\frac{\text{No. of viewers opting for original one for that particular year}}{\text{No. of viewers increasing per year}}$$

If we calculate and observe according to the above formula we will observe that the per year consumer is increasing rapidly and a major portion of this was served by the pirated version, if this could be controlled, we can create lac of jobs in the market and could increase the profit of firms also who are putting lots of efforts and their skill on it. It can be simply understood by the relation below that every new customers coming to the market is increasing but the percentage of customer consuming original product is decreasing.

No. of consumer every year ↑

% of consumer every year ↓

TABLE I. LOSS INCURRED BY ENTERTAINMENT INDUSTRIES

Industry		Loss Incurred
Hollywood	Movie	\$6.1 Billion (As Per LEK Consulting)
	Music	\$12.5 Billion
Bollywood	Movie	\$959 Million
	Music	\$250 Million
Software	Software	\$35 million in INDIA (2013-14) as per IDC

Following table depicts the major pirated software used alone in UK [12]. The rate of which is increasing day by day.

TABLE II. LOSS INCURRED BY SOFTWARE INDUSTRIES

S.No	Software	Piracy %
1	Microsoft Office	24%
2	Microsoft Windows	24%
3	Adobe Photoshop	16%
4	Adobe Illustrator	16%
5	Adobe Creative Suite	10%
6	Solid Works	6%
7	SQL	6%
8	Quark	4%
9	AutoCAD	4%
10	Virtual DJ	2%
11	Corel Draw	2%

IV. PROPOSED SOLUTION

The propose model to stop piracy is to create infrastructural set up which could first identify the pirated version, the most popular mechanism of stealing is through the internet, there is a need to develop a coding mechanism such that whenever a device goes online and want to listen music or view movie, they have to acquire a pass code which has to be distributed by the original owners of those work, this strategy is applied to the software industry, but still that has to be strengthen to stop this malpractice.

Applying client server sort of architecture can also be a useful model to apply some constraints, by drafting a mechanism like if a particular device would like to play music then that has to be activated before playing the music and for that there would be a pass code which will be unique.

Eradicating audio/ video piracy completely seems to be a herculean task as of now, yet this can be controlled to some great extent. The data may be encrypted with safe, new and complex algorithms but how can we prevent the recording of audio/ video streams through screen capturing applications or recording applications? So it is better to employ some precautionary measures than the preventive ones, these may be:

- Original should be Robust: We should come up with such a new encryption or audio/ video formats that can retain the 100% quality with the original tracks only.
- Stringent law: In many countries piracy is not considered as the criminal offence so this should be taken care off well and seriously. Like punishing the offenders and banning the piracy business/ websites.
- Cheaper than the Risk: If stiff laws are implemented then there is need to diminish the affordability of these medias, so that people would come to understand that it is better to buy a track rather than putting themselves into risks.
- Satisfiable Services and Lucrative Offers: Companies should come up with good customer services and periodical offers for their customers that would automatically downgrade the piracy business.
- Antipiracy Software: Efforts should be made to make software that could be embedded in to the CD-DVD or on any electronics devices along with data, which could help in abandoning the original work from getting pirated.

These measures will certainly revive the business of entertainment, business and show.

V. CONCLUSION

The crucial need to understand the logic behind this grey market is why it is increasing day by day, no candid reason to justify it. The paper attempt to conclude that the industry has side-lined the problem in spite of resolving it. Considering the profit margins and business figures the trade person has relaxed and were not bothering much, but is apparent from the figures and facts that the current infrastructure is incapable to match the demand supply chain. The demand is more and the industry is not able to cope with it, The concluding point of the paper is to draw the attention to put effort for increasing the number of subscribers and customers to accept and use original version of work, by applying laws and doing the amendments in the existing technology, the percentage of customers can be increased to use original work which will be

helpful in producing jobs, and will also boost the investors without any hesitation.

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