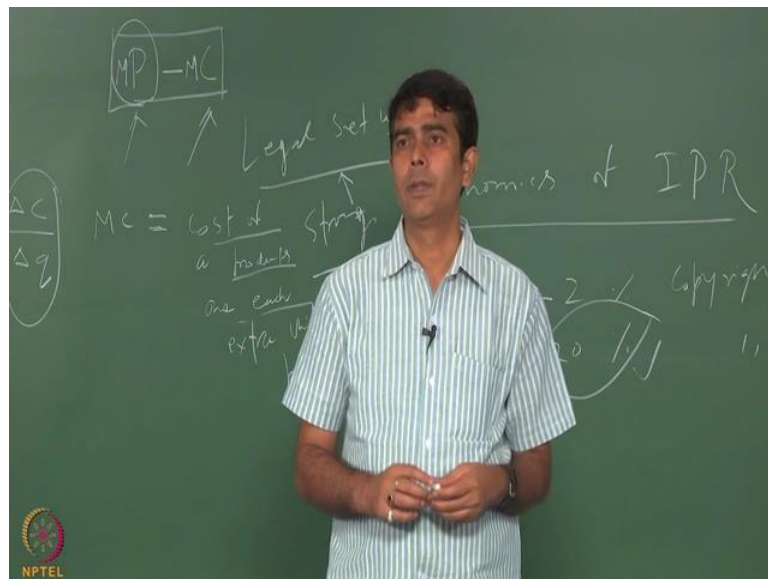


Economics of IPR
Prof. Nalin Bharti
Department of Humanities and Social Science
Indian Institute of Technology, Patna

Module – 02
Lecture – 01
Economics of Copyrights

Let me begin the discussion on Economics of IPR. Till now we have seen that intellectual property right is one of the important rights today and we have also seen that how it has been globalized very fast in recent decades. The need for intellectual property rights is understood by develop, developing and under develop countries today and firms are trying hard in different countries to motivate the researchers, inventors to come out with the new ideas and new innovations and it is important to understand that what is economics behind this intellectual property rights.

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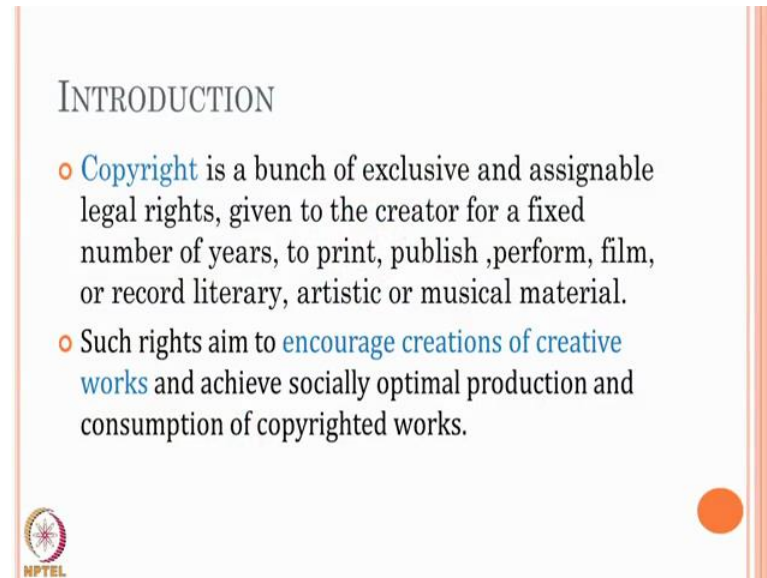


So, the entire discuss on which we are going to have today is on Economics of IRP and that includes the almost every part of, every types of intellectual property rights.

So, today we are going to discuss the discussion on Economics of 'Copy Right'. Why 'Copy Right' is important? Why copyrights are in well demand? And the how to protect that, and what is the benefits of protecting the 'Copy Rights' in the world today? What benefits the copy writer or copyright holders are having? and what happens when

somebody really infringe the copyrights or violates the copyrights, then what type of loss an individual or the innovator creator is having in terms of a copyrighted material.

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But before the doing that we must, we must understand that what is basically the copyright? Copyright is a bunch of exclusive and assignable legal rights given to a creative for a fixed number of years to print, publish, and perform or to a film, or to recorded literary, artistic or musical material. Such rights aims to encourage creation of creative works and it also achieve socially optimal, production and conjunction of copyright works.

So, in brief, we can say that copyright is not a single rights, but it is a collection of rights, which has given to creators for a specific period of time, which is related to print and related to the publication, related to the performance, related to the film record literary materials, artistic and musical materials.

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ECONOMICS OF COPYRIGHTS

- Normally, supply of copyright material is positively related with copyright protection, while the demand for copyright material is negatively related with copyright protection.
- Too much protection leads to excess supply of copyright products than demand.
- Too little protection leads to an excess demand for copyright products than supply.
- Demand & Supply of copyright materials:
 - Demand side is affected by several factors:
 - a) Willingness of consumers to pay for the copyrighted products
 - b) Copyright infringement



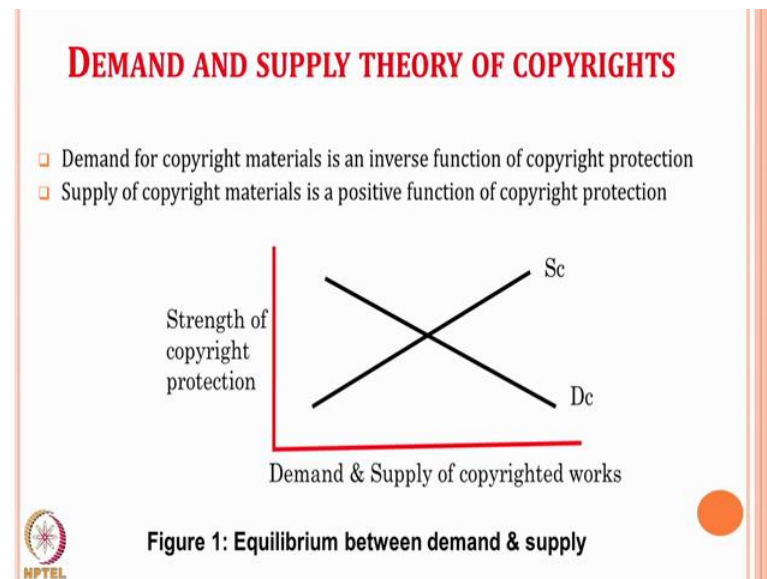
So, when we discuss about what are basically the economics of copyrights. Normally supply of copyright materials is positively related with copyright protection, while the demand for copyright materials is negatively related with the copyright protection. So, if you have too much protection in the society that leads to the excess supply of copyright products in demand. It means that if my copyrighted, if my work is having a good protection in an economy will, love to supply artistic work, literally work, in a very positive way but if we have too little protection that will certainly leads to an excessive demand for copyright products than supply.

But if you have a very weak protection system of copyrighted material in that case instead of more supply, you will have more demand for the copyrighted material because, the demand in the sense that supplier will not be too much having the incentive to supply the copyright material, because they knew that protections are not available for the copyrighted material. But as a consumer of the copyrighted material, one will certainly have more demand for those materials because very less amount of money maybe demanded for those consumers, because protection is not in favor of the supplier of the copyright material.

So, demand and supply of copyright materials: in case of demand side we have different factors continuity to the demand draft copyrighted material - one is the willingness of consumers to pay for the copyright products, the second is the copyright infringement. If

economy provides more and more facility for the infringing those copyright material, then the consumer will demand such material, because they are free to violate the copyright material protection. At the same time if consumer are ready to have paying capacity for the copyrighted products, then demand of such materials will be also very high.

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So, both the point is important one can really see the diagram here which relates the relationship between the strength of copyright protection and the demand and supply of copyrighted works we find that the movement, we have a very strong copyright protection, we are finding that the demand for copyright material which is indicated here by the D_c is lower compared to, when we have a very liberal or very weak copyright protection system we have more demand and for the copyrighted material. Where we are finding that the moment we have a very strong copyright protection system, we have a very high level of supply of copyright material which is indicated in this diagram as the S_c .

So, the demand for copyright material and the supply of copyright material is not working in the same direction, the demand for copyrighted material is inverse function of copyright protection, where the supply of copyright material is a positive function of copyright protection. So, an economy, a society will certainly have equilibrium between the demand of copyright material and the supply of copyright material and there will be

a, equilibrium point where the strength of copyright protection, will match the demand and supply of the copyrighted works. So, this particular diagram shows the both demand and supply factors which is active in the copyright protection and this gives us some idea that there is a, Economics working behind the copyright.

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BREADTH AND DURATION OF COPYRIGHTS.....

- Supply side is affected by:
 - a) Earnings from copyright royalties
 - b) Copyright law
 - c) Copyright collectives (collective organization of copyright holders)
- Two dimensions of copyrights: Breadth & Duration
- **Breadth of copyrights**
It refers to the uses to which copyright material can be put without authorization.
- **Duration of copyrights**
It refers to the years for which the rights of an author/owner is protected. Generally it includes life + 60 years in India



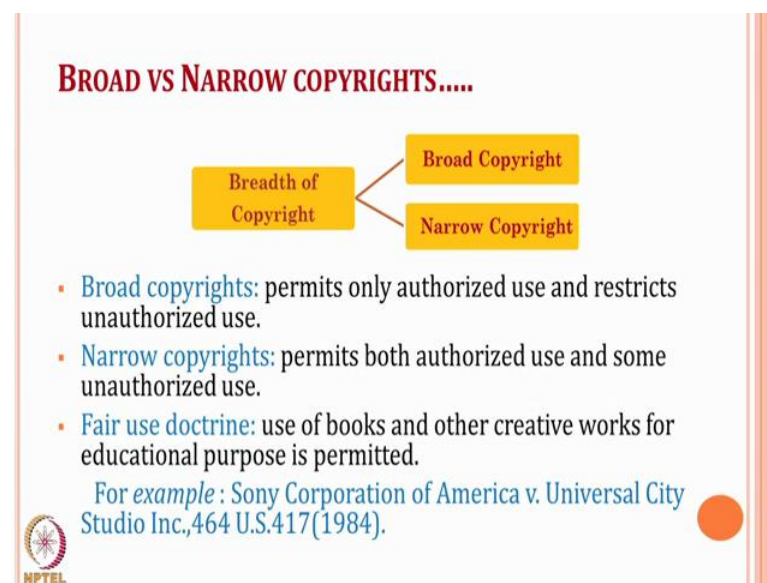
When we see the supply side, in supply side earnings from the copyright royalties is one of the issue today, if the earning is very less in that case, copyright protection or the supply of copyright protection will not be too much because if I am getting, suppose if I am getting only 2 percent of my copyrighted work or if I am getting 20 percent of the copyrighted work certainly in the, this is condition A and this is condition B. Certainly in condition B we will have more incentive to go for the copyright material, because the supply of copyright material will be much better in case of higher royalty, not in case of lower royalty which is 2 percent.

So, the second point is the copyright laws what type of legal set up you are having in the country? Whether you have strong set up, or you have a very liberal set up or weak setup so if a country is having very a strong legal set up, it means that you are in the position to control the infringes motivation to copy the material and ultimately you are in the position to control the infringement of the copyright material as a supplier, as a creator, as an artist or as writer I will be very happy to supply my copyright material, if my royalty is very high and if the legal set up is really strong.

So, apart from this collective organizations of copyright holders, if copyright holders are having a very good organization, or we can say very good interaction, they will certainly have a good voice to have a the protection of their copyrighted material, apart from that there are 2 important point also to understand the economics of copyright: one is the breadth of copyrights. It refers to the use to which copyright material can be put without authorization and duration of copyright.

It refers to the years for which the rights of an author or an honor are protected. Generally it includes life plus 60 years in India and in different country, there are different years added with a life. So, if we see the demand and supply side of the copyright material we find that it is not so simple to supply the copyrighted material if we have the very, very low level of royalty or very weak copyright law or very weak inter connection of the copyright holders.

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The second point which is also important here is the broad versus narrow copyrights, which is one of the important points for the economy to implement and if we have the Broad copyright which permits only authorized use and restricts unauthorized use somewhere. We have finding in some of the books that no part of those this book can be reproduced, no part of any chapter will be reproduced it means, that it comes under the Broad copyright and the copyright owner or holder is restricting you to any such

unauthorized use if you wish to copy a chapter, or a you want to really have the want to use that book in a different form.

If you want reproduce it in a different form, you first take the license from the copyright owner you are not authorized to do that, but in some book we are finding that the author or the owner is permitting you for authorizing you to use the certain part of that book, not the whole book, but the certain part of book the author tries copy holder copyrighter is authorizing you to use that so it means that you have the narrow permit or you have the narrow copyright, you are authorized use not the entire book, but the certain part of that book.


So, there is a fair use doctrine, especially in the books and some of the publish material though use of books and other creative works for educational purpose is permitted as long as, you are making the photo copy, for your own reading at home or in the hostel you can do that, but the moment you are, or anybody is publishing that book, the same title published by a different press in a country or same book is presented through the electronic material or through the help of the IT sources, IT tools that is not really the authorized use of copyrighted material or that is not the fair use of the copyrighted material.

So, one of the important case which I would like to highlight is the Sony Corporation of America versus the Universal City Studio and Universal City Studio, complained against Sony Corporation of America, for a serial which was for a television program which was Tele-casted in 1984, and the Universal had this complaint that due to the video tape recording system Sony Corporation of America should be penalized, because of the marketing of video tape recording system, some of the individuals were able to record the Tele-casted material and this is the gross valuation of copyrighted material. But the US court especially, the district court is not able to support Universal City Studio, because they are not in the court has given the verdict that it is not true that Sony Corporation of United States is really responsible for any copyright violation because the entire recording was done for the purpose of seeing this program again at home there was no marketing and no business involve in recording those materials.

So, this is the fair use of the copyrighted material this is not unfair use of copyright material. So, this is one of the interesting case for more detail you can again see this

particular case details through one of my link, which I will provide you after the as a part of this lecture in the last.

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DURATION OF COPYRIGHTS

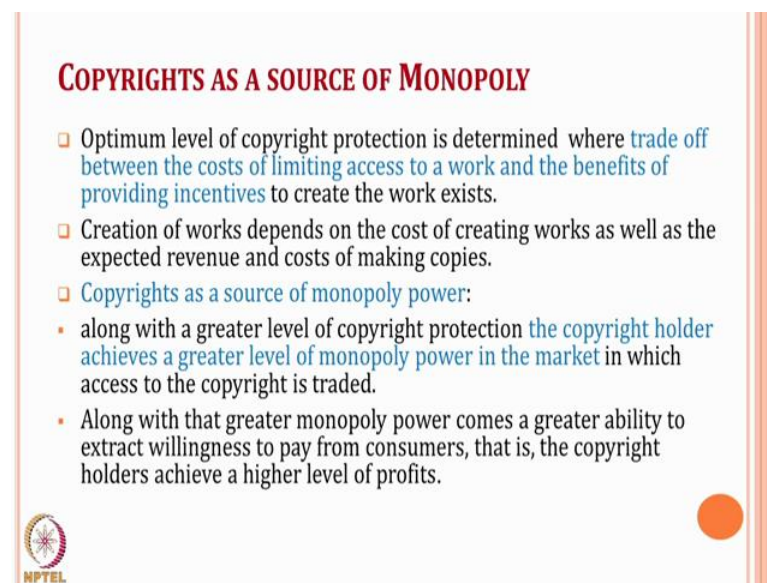
- Duration of copyrights involves variety of problems. *Tracing cost* is one of them. It is cost of searching among other creative works that the ideas do not match with someone else ideas.
- *Copyright in the digital age*: copying of materials became cheap and easy and protection of copyrights became difficult.
- In India the duration is *life +60 years*.
- Copy right duration in Us is *life +70 years*.
- Generally optimal level of copyright protection is provided with limited duration and relatively narrow breadth.

So, but 2 important point the Breadth or the Duration of copyright, Duration of copyright involves variety of problems. Tracing, tracing cost is one of them. It is the cost of searching among other creative works that the idea do not match with someone else idea. So, Duration means, copying of material which is one of the problematic and very challenging thing today because we are more digitized, we are living in a more digitized world today and it is easy to copy the material which is available in the book form or in the matching form or even in the electronic form and not only it is easy to copy, but it is also easy to circulate it to the entire global consumer today.

So, the resent case of Uda Punjab one of the film which was in debate, we heard that before the sensor board or before the our court was suppose to take the decision the film was pirated and it was sent to the global consumer so this is one of the major challenge today, that how copyright protection will be traced out because tracing cost is a very high cost who is copying, who is using what type of devise for copying the material. It is not very very easy for any copyright owner to search and to trace out, but if the some of the forms are ready to trace out and if they are having the evidence then there is really a very huge violation of copyright, copyright material infringing of tools rights are not really good as long as it is unfair.


So, in India the duration is life plus 60 years, in US it is life plus 70 years. Generally optimum level of copyright protection is provided with limited duration and relatively Narrow Breadth. So, more you have duration, a person or the author or the creator is safer, because they are not having really challenged for many many years for the protection even after the death the family or the creator's relatives are getting the benefits of copyright protection.

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COPYRIGHTS AS A SOURCE OF MONOPOLY

- Optimum level of copyright protection is determined where trade off between the costs of limiting access to a work and the benefits of providing incentives to create the work exists.
- Creation of works depends on the cost of creating works as well as the expected revenue and costs of making copies.
- Copyrights as a source of monopoly power:
 - along with a greater level of copyright protection the copyright holder achieves a greater level of monopoly power in the market in which access to the copyright is traded.
 - Along with that greater monopoly power comes a greater ability to extract willingness to pay from consumers, that is, the copyright holders achieve a higher level of profits.



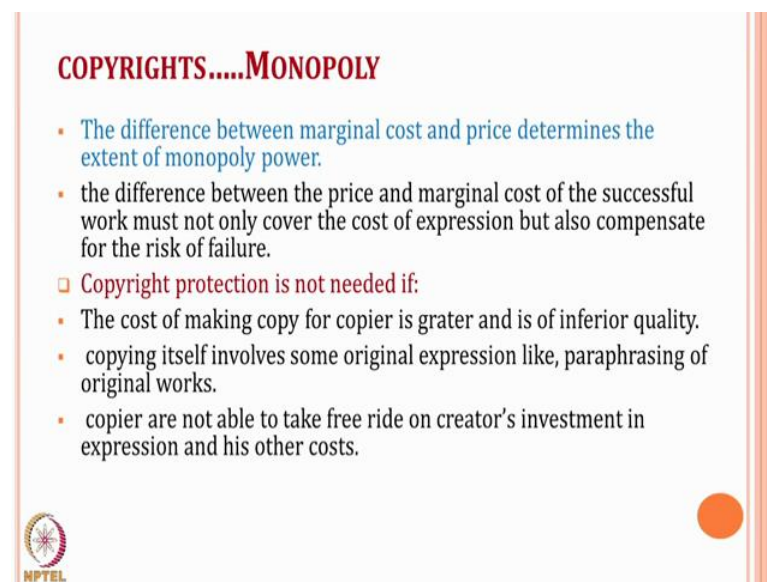
So, is Copyright is Source of Monopoly? Economist has debated that it is a Source of monopoly one of the right which gives you monopoly over your work certainly. It gives us the monopoly over the creation of our work and the entire nation of intellectual property rights are closed to the monopoly practice, because the moment you are the owner, the final owner of your material you are really one of the monopolist in the sense that you have the entire command over the protection of those items entire command over the production, distribution, price and everything.

So, the optimum level of copyright protection is determined by the trade of between the cost of limiting access to a work and the benefit of providing incentives to create the works, work exists so the creation of work depends on the cost of creating works as well as the expected revenue and cost of making copies. So, Copyright is a source of monopoly power because along with a greater level of copyright protection, the copyright holder achieve a greater level of monopoly power in the market in the sense

that it has access to the copyright material which will be traded not only within the country, but outside. So, along with greater monopoly power comes to greater ability to extract willingness to pay from the consumers that is the copyright holders achieve a high level of profit.

So, knowing this factor that copyrighted material is the soul property of that particular owner. The owner of may be the writer, owner may be the artist. owner may be the musician or in that case it is up to the owner to really extract the amount of amount of payment from the consumer and really consumers are not having any choice if they really want those material, if they really wants to consume those material.

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COPYRIGHTS.....MONOPOLY

- The difference between marginal cost and price determines the extent of monopoly power.
- the difference between the price and marginal cost of the successful work must not only cover the cost of expression but also compensate for the risk of failure.
- Copyright protection is not needed if:
 - The cost of making copy for copier is greater and is of inferior quality.
 - copying itself involves some original expression like, paraphrasing of original works.
 - copiers are not able to take free ride on creator's investment in expression and his other costs.

NPTEL

So, the difference between the marginal cost and price determines the extent of monopoly power. So, if the marginal cost as we have seen that marginal cost is the cost is the cost of a product on each extra unit of production. So, cost of a product on each extra unit of production is the marginal cost means any change so the marginal cost is nothing as we have seen in the previous lecture also nothing except the delta change in cost by delta change in the quantity. So, if we have a change in the quantity we might be having the change in the cost and if a person has already produced book written a book and it is produced by a publisher, there is (Refer Time: 22:32) much change in the cost of the production because the author has already produced a product and even if with one extra unit of the production there is not going to change much in the cost because the any

artistic work or because any literally work or any artist any other art or any other book is already out, already published and there is in to be (Refer Time: 23:03) much added continuation from the artist side to add the value because it is already, already published it is already out.


So, since there is (Refer Time: 23:14) much cost adding here there is (Refer Time: 23:16) much cost adding here. So, you have also the capacity to decide the price that is another point to make you the monopoly power so the difference between the price the difference between the price and the cost or you can say the marginal cost and marginal price for each unit price for each unit cost you are having a huge difference because your cost is going to decline with a large level of production, but your price is not going to decline because you know that you are the monopoly and you are going to continue in the market for our for years and years, because you have the monopoly over the product for life plus 60 years or life plus 70 years.

So, that will certainly give you more and more revenue and that is the that is the economics working with the copyright, but the copyright protection is not needed if the cost of making copy for copy, copier is greater and if the inferior quality or copying itself involves some original expressions like paraphrasing of the original works and copier are not able to take free right on creators investment in expression and is other cost.

So, all depends on what type of protection you are having what type of Narrow copyright Narrow copyright authorization you are giving to the to the producer, to the producer of the copyright material, the reproducer of the copyright material and also what type of punishment what type of tracing instrument you are having if you have really all those instruments with you probably copyright protection will be will be a costlier Fair and the generally if your technology is not good, if the certain country is not really having more advanced technology to copy the product.

Even after the copying the product the quality of the product is inferior there will not any market for your product because nobody wants to really see a film which has not been copied properly, but people will really go for the those items which is really copied properly or maybe they will they will prefer the legal item not the illegal and informal item.


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ECONOMIC JUSTIFICATION OF COPYRIGHTS PROTECTION

- A. In present age, the expansion of market for copies and development of technology has created more need for copyright protection.
- B. Without copyright protection, disincentive to create work is generated due to uncertainty or risk of failure.
- C. Without protection, disincentive to circulate the works widely.
- D. Copyright protection prevents free riding on the author's expression.
- E. Less incentive with regard to the timing of taking various decisions.
- F. disincentive to engage in prepublication advertising.

□ Greater copyright protection encourages the creation of new works by reducing copies while lesser protection encourages the creation of new works by reducing the cost of creating them. The effect of these two must be balanced to promote economic efficiency.



So, what is basically the Economic Justification of Copyrights Protection? One of the Justifications is the expenses of the market for copying and development of technology has created more need for copyright Protection today as we have seen that more we are technologically fit more we have the chances for the copyright infringement. So, that suggests us to really have a very strong copyright Protection because without copyright Protection disincentive to create work is generated due to uncertainty or the risk of failure.

So, as author, as a musician, as a creator, what is our incentive? our incentive is the royalty, our incentive is the a strong legal set up if such incentives are not available as a author, as a singer, as a musician, our time which we have invested to produce a book which we have invested to produce a music album which we have produced to come out with the a film with lots of investment in terms of time and money that will have a very high risk because that is not going to be a success full example because lots of risk of failure is involved and uncertainty is involved.

So, Copyright Protection is justified because to curtail those uncertainty and risk it is important to have a very high degree of protection available because without protection disincentive to circulate the works is also very wide because you might be having a very great chance to get the revenue from the world, from the market, but due to the low protection the entire cost which was involved during the production is giving you a very

costly, costly conditions because you are not able to really control your product because with the help of technology the product is circulated all over the world which very low cost the point which copyright material involves a huge cost in terms of time and investment, in terms of money but ultimately there is no cost of circulating those materials to the world when it goes out with a single click on computer.

You do not have any command to control the circulation of those materials if somebody wants to upload your upload a film produced or may be released after some time, but produced, but not released. And if it is going out you have a huge market waiting outside who wants to have those film without paying that. So, a very high level of danger is involved. So, the economic justification of copyright protection is one can see here. So, because it stops a very strong protection system stops the free riding problem.

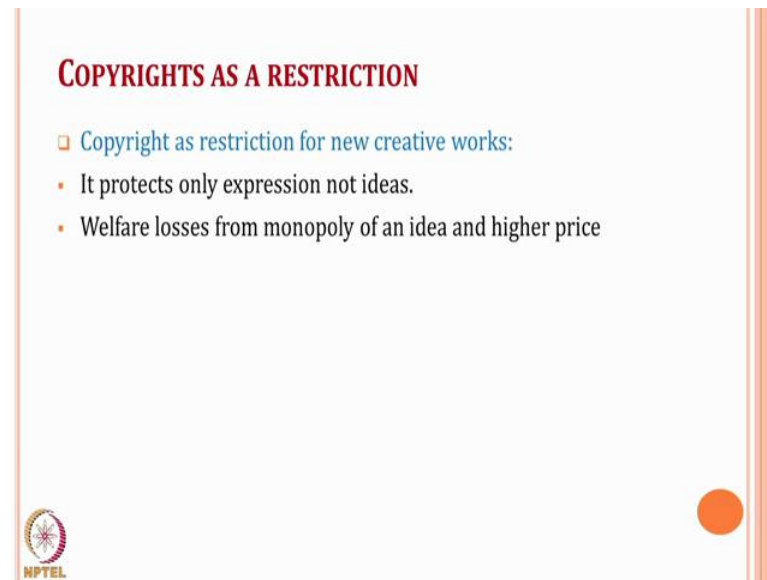
Otherwise, everybody wants to enjoy the enjoy film, everybody wants enjoy the music, everybody wants to enjoy the reading of a new book, but nobody wants to pay for it because if with the help of technology, with the help of electronic tools these things may be circulated these things may be uploaded and everybody wants to enjoy it without paying for it.

So, you need to have a very high level of protection of those materials because copyright and related copyright related rights are very wide and it is a, bunch of rights which is violated today with help of new way of information technology and digitization and infringes are ready to upload and to use the technology to pirate those materials.

So, to reduce the less incentive with regard to the timing of taking various decisions and disincentive to engage in prepublication advertising are one of the economic justifications of copyright protection. So, if the material is a film is produced in a, longer period which consumes longer period you have more risk involved in that because you have devoted money. And time and you have disincentive to engage in prepublication advertising because you are not (Refer Time: 31:18) if the published material is in the hand of any infringes then what may be the future of those materials.

So, greater copyright protections encourage the creation of new works by reducing copies, while lesser protections encourage the creators of new works by reducing the cost of creating them. The effect of these 2 must be balanced to promote economic efficiency, because the economic justification of copyright is unavoidable.

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COPYRIGHTS AS A RESTRICTION

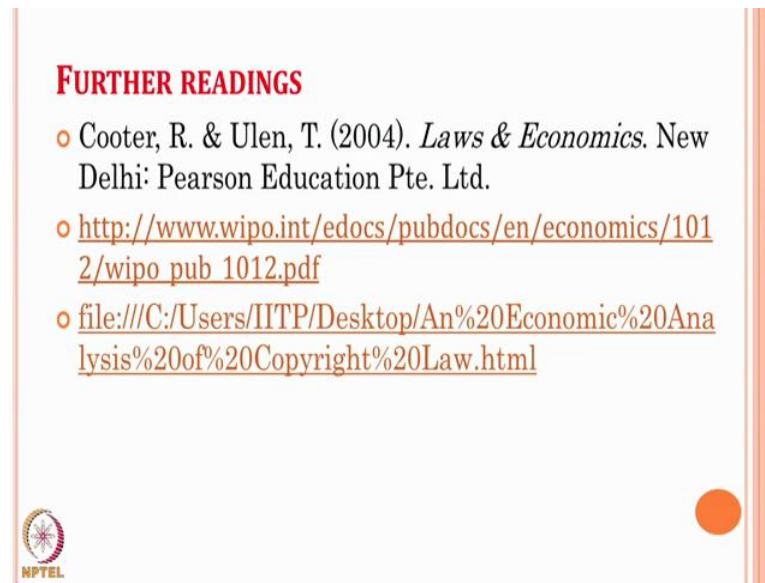
- Copyright as restriction for new creative works:
 - It protects only expression not ideas.
 - Welfare losses from monopoly of an idea and higher price

NPTEL

But, there are certain use that copyright also restricts the new creative works because it protects only the expression not the ideas and welfare loss from monopoly of an idea and higher price it is true that high price is one of the point with the copyright material. But at the same time in some of the copyright material we have we have seen huge cost involved in the production of those items.


So, if the cost is very high the price is not going to be less. But some time it is also the responsibility of the government to find out that whether the prices are monopolized or prices are really high due to the cost involved.

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FURTHER READINGS

- Cooter, R. & Ulen, T. (2004). *Laws & Economics*. New Delhi: Pearson Education Pte. Ltd.
- http://www.wipo.int/edocs/pubdocs/en/economics/1012/wipo_pub_1012.pdf
- <file:///C:/Users/IITP/Desktop/An%20Economic%20Analysis%20of%20Copyright%20Law.html>



So, with this discussion I find that the economics of copyrights are very important today. Because we are having a real demand generated by the different consumers, but at the same time we do have the demand generated by the free writers who do not want to pay for the copyright material. And the moment we have such demands we have to have a very high level of protection. Otherwise, if the protection is really weak the inventors are not going to really get the high level of royalty or the revenue and that is really going to hamper the entire motivation of the artistic or innovative work or the literary and musical work which is one of the very like economic continuations of the human being.

I think this entire discussion will help you to understand that how copyright is one of the important aspect of economics today.

Thank you.