

Ethics in Engineering Practice
Prof. Susmita Mukhopadhyay
Vinod Gupta School of Management
Indian Institute of Technology, Kharagpur

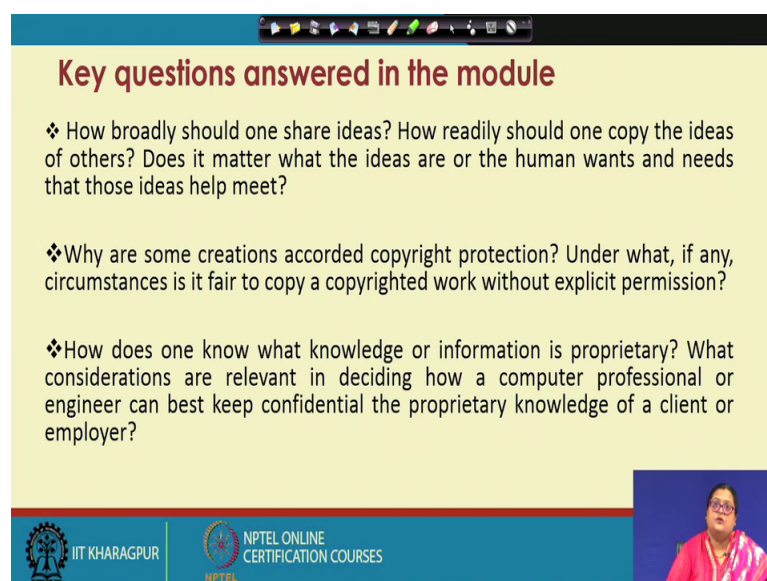
Lecture - 34

Key Questions - relating to Rights and Responsibilities regarding Intellectual property rights

Welcome to today's session, today we will be discussing some Key Questions, which are relevant to the discussion on Intellectual property rights and the Rights, and Responsibilities regarding Intellectual property rights. In the earlier sessions we have discussed about intellectual property rights, the different types of intellectual properties and for which we have patents maybe copyrights, we have discussed about trade secrets also. And many other aspects related to it. In this session we are going to take up some detailed issues, which may be in the other sessions we could not discuss in details.



So, in this session we are going to focus on some critical questions with related to intellectual property rights, and we are going to again focus on some cases and we will try to see in each of those cases, what are the intellectual properties involved and what are the rights and responsibilities with regard to it. So, let us see: what are the key questions that we are going to discuss in this module.


(Refer Slide Time: 01:35)



Key questions answered in the module

- ❖ How broadly should one share ideas? How readily should one copy the ideas of others? Does it matter what the ideas are or the human wants and needs that those ideas help meet?
- ❖ Why are some creations accorded copyright protection? Under what, if any, circumstances is it fair to copy a copyrighted work without explicit permission?
- ❖ How does one know what knowledge or information is proprietary? What considerations are relevant in deciding how a computer professional or engineer can best keep confidential the proprietary knowledge of a client or employer?

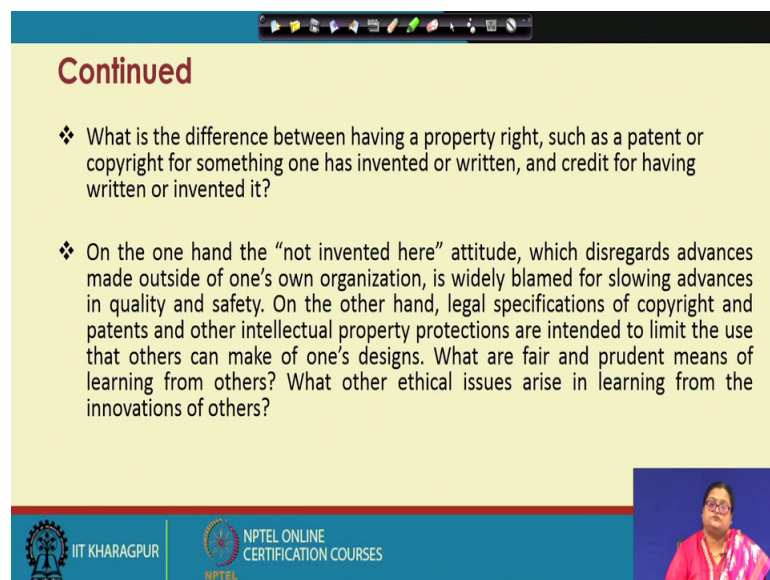
 IIT KHARAGPUR |  NPTEL ONLINE
CERTIFICATION COURSES



So, the first key question that we will be discussing here is: how broadly should one share ideas? How readily one should copy the ideas of others? Does it matter what the ideas are or the human wants or needs that those ideas help meet? This will be a focus of discussion for key question number 1. In key question 2 we are going to discuss what are the some creations, that are accorded copyright protection. Under what if any circumstances is it fair to copy a copyrighted work without explicit permission.

In key question 3 we are going to discuss about: how does one know what knowledge or information is preparatory? What considerations are relevant in deciding how a computer professional, or an engineer can best keep confidential the proprietary knowledge of a client or employer?

(Refer Slide Time: 02:59)



Continued

- ❖ What is the difference between having a property right, such as a patent or copyright for something one has invented or written, and credit for having written or invented it?
- ❖ On the one hand the “not invented here” attitude, which disregards advances made outside of one’s own organization, is widely blamed for slowing advances in quality and safety. On the other hand, legal specifications of copyright and patents and other intellectual property protections are intended to limit the use that others can make of one’s designs. What are fair and prudent means of learning from others? What other ethical issues arise in learning from the innovations of others?

IIT KHARAGPUR | NPTEL ONLINE CERTIFICATION COURSES

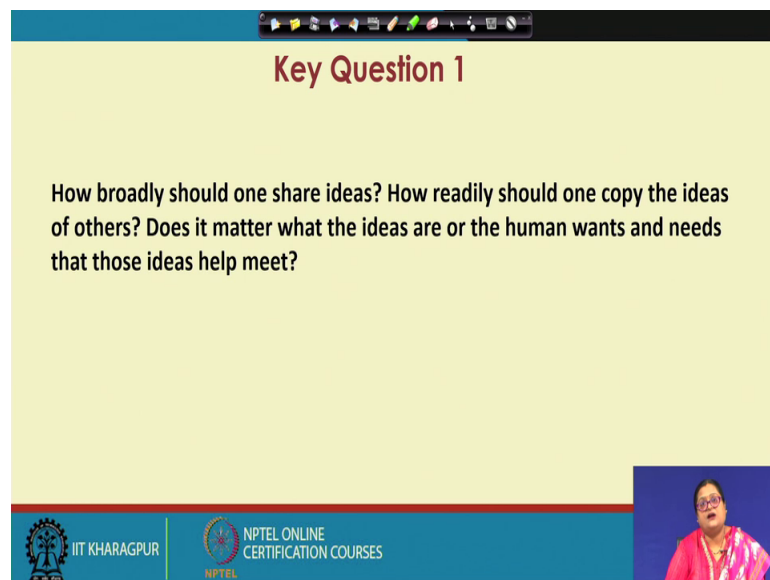
In key question 4 we are going to discuss on what is the difference between having a property right, such as a patent or copyright for something, one has invented or written and credit for having written or invented it? In 5 were going to discuss like on the one hand there is known invented here attitude, which it is regards the advances made outside ones own organization.

So, the other hand there is a legal specific issues of copyrighted patents. And other intellectual protections are intended to limit the use that others can make of ones design. So, if there is a like restrictions on both sides, then what are the best and prudent means from learning from others because we understand we can grow only, when like we can

like disseminate our knowledge. And also we share our knowledge and also we have we can learn from others.

So, what are other ethical issues that may arise in learning from the invention of others. So, these will be the main key questions which will be covered in this section. So, you understand like you can understand like this in this module, we are going to take up some critical questions and do a detailed discussions of those critical questions, where do you find that you have to reflectively think of the issues and go for the maybe pros and cons analysis through, all the pillars of like ethical decision making that you have and then come to a best possible solution for the problem at hand.

(Refer Slide Time: 05:10)



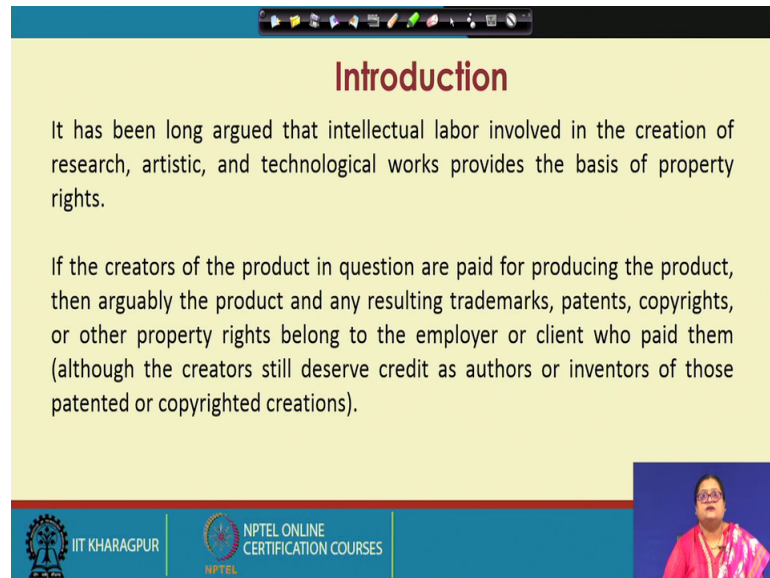
Key Question 1

How broadly should one share ideas? How readily should one copy the ideas of others? Does it matter what the ideas are or the human wants and needs that those ideas help meet?

IIT KHARAGPUR | NPTEL ONLINE CERTIFICATION COURSES

So, we will begin with a key question 1 so, which is how broadly one should share ideas? How ready name one should copy the ideas of others? Does it matter what the ideas are or the human wants and means that those ideas help to meet?

(Refer Slide Time: 05:27)



Introduction

It has been long argued that intellectual labor involved in the creation of research, artistic, and technological works provides the basis of property rights.

If the creators of the product in question are paid for producing the product, then arguably the product and any resulting trademarks, patents, copyrights, or other property rights belong to the employer or client who paid them (although the creators still deserve credit as authors or inventors of those patented or copyrighted creations).

IIT KHARAGPUR | NPTEL ONLINE CERTIFICATION COURSES

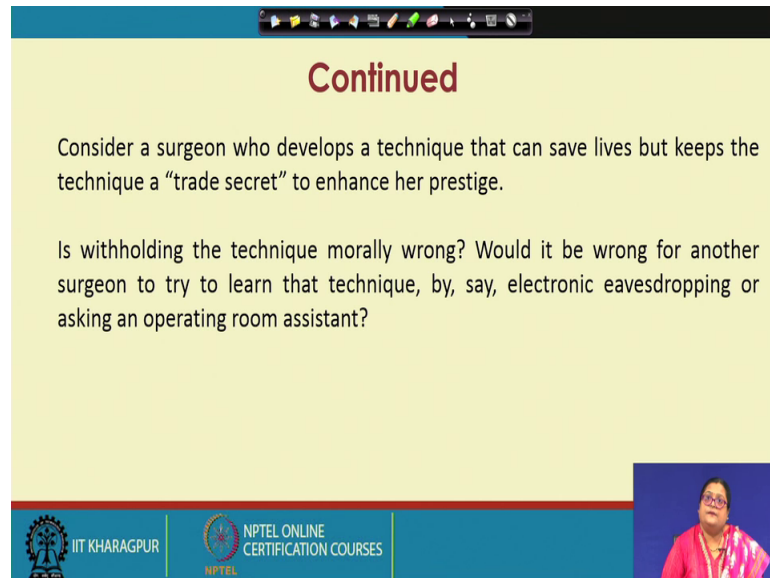
What we find over here is like it has been long argued like, the research intellectual labour which is involved in a designing for a research artistic, or any technological work the intellectual labour, which is involved in the creation of these things provides the basis for property rights. Because, we have invested our energy because, we have invested our knowledge and expertise on the subject and the in creation of the research and artistic work.

So, then it that is where you can claim like it is our property and from there and that like from that sense of like working for it, like investing our time and energy and knowledge into it a sense of entitlement or right develops. So, if the producer of the creator is who has developed these things are paid for producing the product, then we can argue like the product and any resulting trademarks, patents, copyrights or other property rights belong to the employer or the client who paid them. Because, you have worked for others and you have you have been paid for your work and you have produced as per the demands of the others or specification given by others.

So, we can tell like them you can argue that for the penny trademark patent or copyright. So, our other property rights belongs to the employer or the client, but still there is the creators still have deserve the credit as the authors or inventors of those patented or copyrighted creations. So, even we can understand there are two different layers over here, even if the patent or the copyright we can argue it belongs to the person, who has

paid for it, but still the inventor or the author deserved the due credit as the author or the inventor who has like as a creator of that product.

(Refer Slide Time: 08:14)



Continued

Consider a surgeon who develops a technique that can save lives but keeps the technique a “trade secret” to enhance her prestige.

Is withholding the technique morally wrong? Would it be wrong for another surgeon to try to learn that technique, by, say, electronic eavesdropping or asking an operating room assistant?

IIT KHARAGPUR | NPTEL ONLINE CERTIFICATION COURSES | NPTEL

So, like we can argue over here, again we can like debate over here is like, if your surgeon who has developed a technique, or to save lives what keeps the technique as a trade secret to enhance his or her prestige. So, should we tell like withhold the technique is wrong, or like would it be wrong for another surgeon to try to like learn about the techniques come like eavesdrop into it electronic eavesdropping or asking an operating room assistant.

So, what we find over here if you go to the in depth of the discussion of this, issue which has been stated over here. The duty of the surgeon is to save life of mankind that is the profession which the surgeon has like that is the oath that the surgeon has taken. Now, wait it may be so, that she has developed a particular technique that saves life.

So, and keeping it as a trade secret to enhance her prestige, we may tell like this is not something which is a virtuous nature of the person, because if I respect my profession and if I respect though my duty to the mankind, which is like my duty is to save life. And if I have genuinely developed a particular technique, which is saving life for people, then this knowledge needs to be shared. So, that like others can get benefit of it.

So, instead of withholding this technique as a trade secret to enhance one prestige and maybe to charge more money for these things, this knowledge this sergeant could very well share it to the community to the same professional community through like research papers, published and trying. So, in those cases sherry as she could claim the authorship of these things and share it with others, but reserving something which is directly connected to the life saving of the person is not something which you can tell like, this is justified.

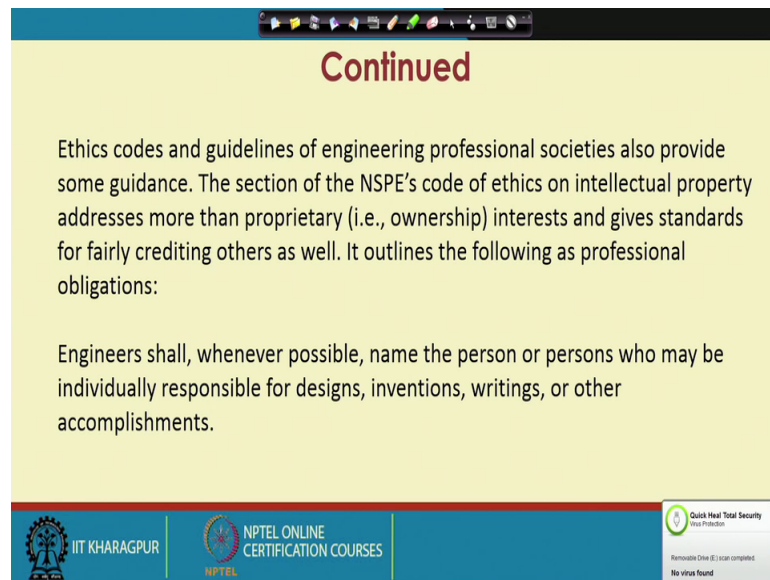
If it would have been something like maybe it is like, you are developing some cola or you are cooking something and there are certain ingredients that you do not want to like share it with others and you want to keep it as a trade secret maybe it is different, but when it is something which is linked with your saving the life of people and the intensity is so, high. The impact of your action is so, high like it can save life for people, they may be weak it may not be very ethical for the surgeon to reserve this knowledge to herself as a trade secret, but she can very well spread that knowledge claiming authorship of the paper or the developer of a particular technique.

So, that you can others can also gain advantage of and that is how the field develops, coming to the second surgeon who like would it be wrong for the surgeon to try to learn the technique by say electronic eavesdropping or asking an operating room assistant. So, it is nothing wrong in learning from someone, but the means taken for learning like electronic like electronic eavesdropping, or asking an operating room assistant maybe bribing that out person also to get that knowledge is something which is not ethical.

If we find like the first surgeon has to reserve something as the trade secret and, also the second surgeon is trying to learn about that technique he or she can always maybe write to that person try to assist that person, but taking our life different route in the kinds of electronic eavesdropping, or asking the operating room assistant to share that knowledge the means taken for learning here is not something which is justified. So, if we tell like who is wrong maybe both of them are wrong to some extent in the way that they have perceived the problem or the way that they have executed their action.

So, regarding this like in the case of surgeons; so, we need to follow some guides codes and what we find over here, like ethics codes and guidelines of engineering professional societies, also provide some guidance regarding it.

(Refer Slide Time: 14:44)



Continued

Ethics codes and guidelines of engineering professional societies also provide some guidance. The section of the NSPE's code of ethics on intellectual property addresses more than proprietary (i.e., ownership) interests and gives standards for fairly crediting others as well. It outlines the following as professional obligations:

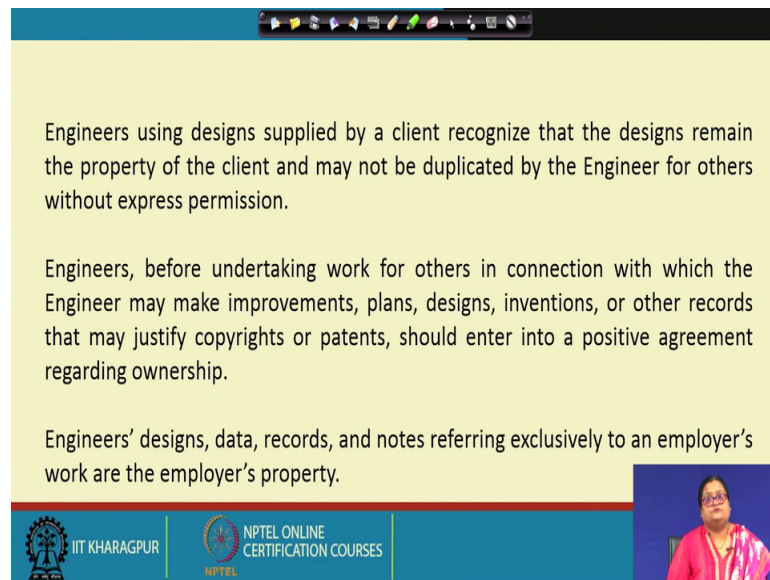
Engineers shall, whenever possible, name the person or persons who may be individually responsible for designs, inventions, writings, or other accomplishments.

IIT KHARAGPUR | NPTEL ONLINE CERTIFICATION COURSES | Quick Heal Total Security Virus Protection
Removable Drive (E:) scan completed
No virus found

So, the section of the NSPE's code of ethics on intellectual property, addresses more than proprietary interest and gave standards for fairly crediting others as well. So, it like outlines the following as professional obligations, engineers shall whenever possible name the person or persons, who may be individually responsible for designs inventions writings or other accomplishments. So, the case that we discussed in the earlier case may be the question. So, this is a beginner matter of trust, trustworthiness respecting others contribution and like intention to share the knowledge like. The first person if the first surgeon in this case, if she is afraid like my intellectual property is going to get stolen nobody is going to refer to me as the author.

If they are going to learn from me so, from that fear only the person is trying to restrict the knowledge, but if there is an ethical guideline, if there is an ethical code which guides like. The developer the creator should always be credited with due recognition for the products the techniques that they have developed and, it is like every person who was individually responsible the design, invention, writing or other accomplishments should be credited for their contribution. And while referring and we can tell like, we can always use it with that reference acknowledgement and then maybe develop on that to bring further developments in those techniques.

(Refer Slide Time: 17:03)



Engineers using designs supplied by a client recognize that the designs remain the property of the client and may not be duplicated by the Engineer for others without express permission.

Engineers, before undertaking work for others in connection with which the Engineer may make improvements, plans, designs, inventions, or other records that may justify copyrights or patents, should enter into a positive agreement regarding ownership.

Engineers' designs, data, records, and notes referring exclusively to an employer's work are the employer's property.

IIT KHARAGPUR | NPTEL ONLINE CERTIFICATION COURSES | NPTEL

So, engineers using designs, supplied by a client recognize that the designs will mean the property of the client and may not be duplicated by the engineer for others without express permission. So, this is another of the ethical codes, where the if you are using a design which is given by a particular client, we have to understand that the design remains the property of the client. And you cannot duplicate it for others without getting permission from the plant.

So, engineers before undertaking work for others in connection with which like the engineer may make improvements plans the designs inventions. So, more other records which mean like bring to a question of copyrights of patents, should enter into a positive agreement with the original copyright holder original patent holder regarding ownership. So, this we have to understand. The engineers if develops any design data records etc which are referring to exclusively to an employers work at the employers property. So, sometimes why we are discussing this at length like sometimes, we are confused about like can we claim for a copyright or it is it our intellectual property or not.

So, in this phase what you are discussing like that, if the employer has paid for certain design and you have developed for it then the copyright the patent for it right, these intellectual property rights remains with the client the employer, who has asked you who has supplied you the design for it. So, if that particular engineer is going to work for others so, then before ad if that person is going to do some development on it so, do you

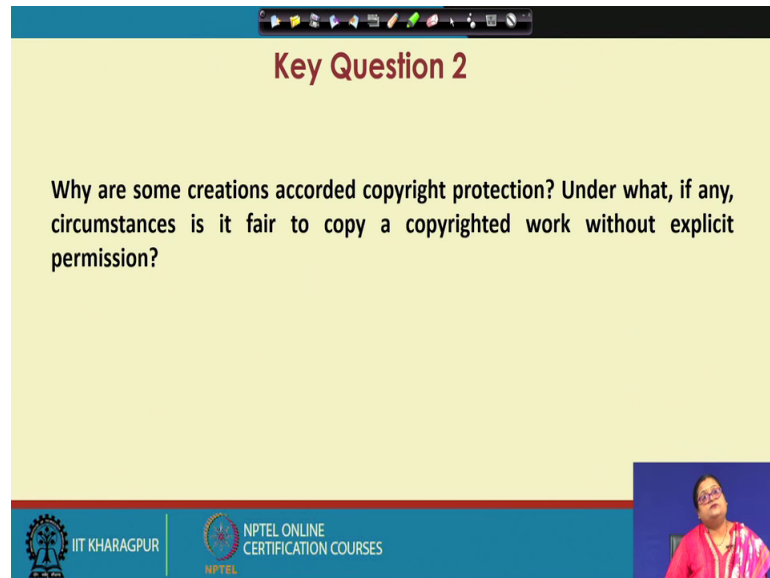
have to seek the permission of the applied. So, also for before like I ended undertake any project and I you have to come into a particular agreement, with the client regarding positive agreement regarding which part of the design is the clients property.

And what are the nature of developments that you have made and how much improvement you have made what new like perspectives that you have given to it. So, should that remain as the employers property, or you can like claim as that as your ownership and you can claim that part of the improvement as your own property. So, these type of positive agreements needs to be done between the engineers and for the clients for whom they start working.

So, whatever the engineer is design which may be done, which is like referring if the engineer is developing any design data records and notes, which is referring exclusively to the employers work, then these are the employers property. So, because it is related to the employers work, but if it is some fundamental changes in the design the person is making some fundamental changes in the or inventions or its making or using other records and other things.

So, you need to like clarify these facts before, you start entering into work with others like, which part which part of the design that I am doing like which are the design, which is exclusively done for the employers and like if based on that maybe I am bringing in more referring to more data more sources and then I am trying to really sell replant develop something on of my own. So, should that also be the employers property intellectual property or the engineer can claim an ownership for that regarding that, before entering into the work they should come into a positive agreement with a person whom they would be working with.

(Refer Slide Time: 22:42)



Key Question 2

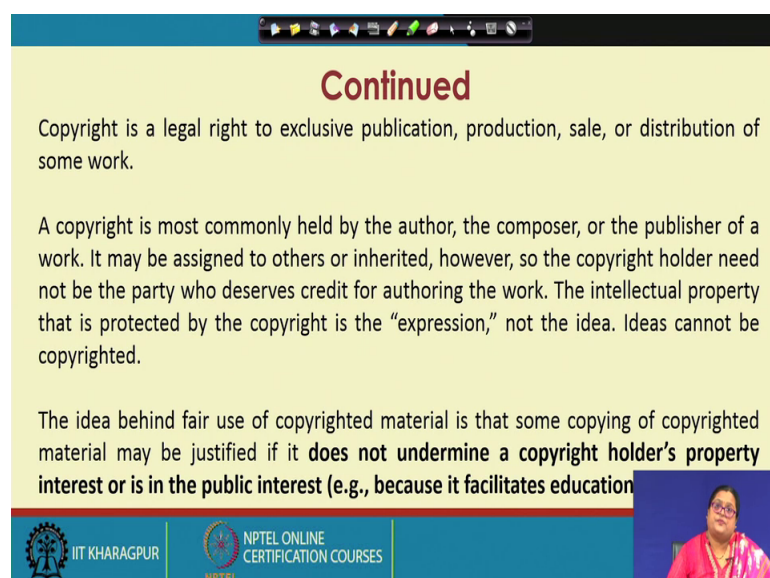
Why are some creations accorded copyright protection? Under what, if any, circumstances is it fair to copy a copyrighted work without explicit permission?

IIT KHARAGPUR | NPTEL ONLINE CERTIFICATION COURSES

The slide features a yellow background with a blue header and footer. The header contains the title 'Key Question 2' in red. The main text is in black. The footer includes the IIT Khargapur and NPTEL logos. A small video inset in the bottom right corner shows a woman in a pink shirt speaking.

Now, we will discuss the key question 2 so, like: why are some creations accorded copyright protection? Under what, if any circumstances is it fair to copy a copyrighted work without explicit permission? So, this question itself means sound like contradictory like, you in the first part maybe we are arguing we trying to ask like what are the some creations which can be given a copyright protection. And we are also trying to discuss here some special carnations, where we find it is fair to copy a copyrighted work without even asking for explicit permission, will try to answer this question, with a reflective thought process.

(Refer Slide Time: 23:35)



Continued

Copyright is a legal right to exclusive publication, production, sale, or distribution of some work.

A copyright is most commonly held by the author, the composer, or the publisher of a work. It may be assigned to others or inherited, however, so the copyright holder need not be the party who deserves credit for authoring the work. The intellectual property that is protected by the copyright is the “expression,” not the idea. Ideas cannot be copyrighted.

The idea behind fair use of copyrighted material is that some copying of copyrighted material may be justified if it **does not undermine a copyright holder's property interest or is in the public interest (e.g., because it facilitates education**

IIT KHARAGPUR | NPTEL ONLINE CERTIFICATION COURSES

The slide features a yellow background with a blue header and footer. The header contains the title 'Continued' in red. The main text is in black. The footer includes the IIT Khargapur and NPTEL logos. A small video inset in the bottom right corner shows a woman in a pink shirt speaking.

So, what is copyright is copyright is the legal right to exclusive publication, production, sale or distribution of some work, it is the right for exclusive publication production sale or distribution of some work. So, what we find copyright is most commonly held by authors composers, or publisher of a work it, the copyright may be transferred it may be inherited or it may be transferred.

It may be inherited or it may be transferred however so, what happens when that copyright is inherited or it is transferred, it may not always be like the copyright holder is the person, who has the credit for authoring the work like. Suppose a movie is made on some work literary work. And then what happens the movie maker the producer has to buy the copyright from the original author the writer the playwright whoever it is. So, and then the copyright life passes on to the producer of the movie, that does not mean the producer of the movie has himself or herself authored the storyline authored, the a story based on which this movie is going to be made.

So, the if you are a copyright holder there is not me like, you also have the credit for authoring the work the copyright like, if the original author dies, then what happens the copyright is inherited by the his members who are there in the family. And then if in this case the movie make the producer wants to make a movie and the original author is dead, then they have to ask for the family members for the like transfer of the copyright.

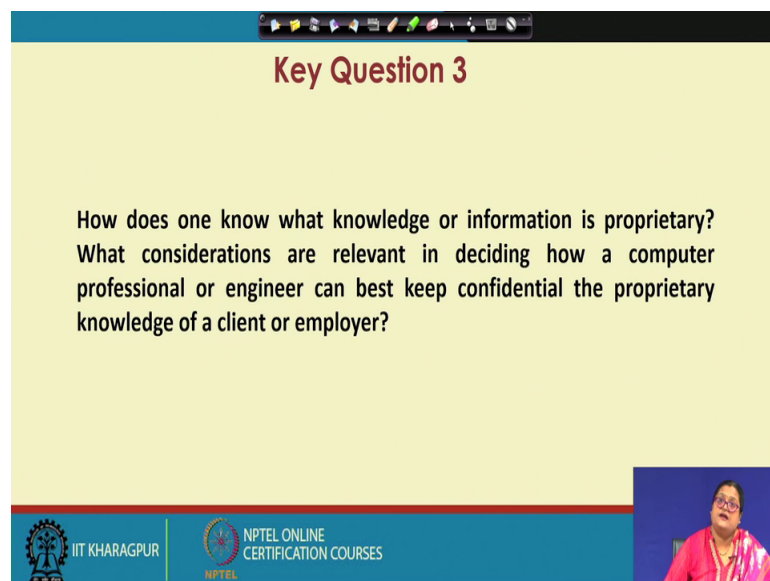
So, copyrights can be inherited like in this case the family members have inherited the copyright from the original author and it can be transferred also. So, the intellectual part of the intellectual property, which is transformed like which is protected by the copyright over here is the expression of the idea not the idea itself. The ideas cannot be copyrighted, the idea of being which is, therefore the fair use of the copyrighted material is that it somebody using the copyrighted material may be justified, if it does not undermine a copyright holders property interest first or it is in the interest of greater public.

So, what we find in the may be given at the end of the many books like, it can be reproduced with permission, or it can be reproduced in cases without permission also only for the purpose of education. But, not making like because it facilitates education for the greater public interest but cannot be used for it by the person, for other person for all benefits monetary benefits.

So, if a part of the copyrighted material so, it also like comes to question can we reproduce the entire part entire thing together, together all there are certain parts which we can reproduce, which is like. So, that it does not undermine the copyright holders property interest so, if you are just going to copy the photocopy the whole book and you are going to sell it in a lower price maybe it is going to like have an effect on the copyright holders property interest, but if like some pages you photocopy. And then you are like using it for your education purpose class teaching purposes, maybe it is not like putting a negative effect of the copyright holders property interest and it is used in the public interest also.

So, in that cases it is like a fair use of the copyrighted material. And you can like someone to some extent copy of the copyrighted material, but a question mark again is to what is the upper limit to it. So, what are what is that portion that you may copy, that you may be produced which is not violating the copyright.

(Refer Slide Time: 29:30)



Key Question 3

How does one know what knowledge or information is proprietary?
What considerations are relevant in deciding how a computer professional or engineer can best keep confidential the proprietary knowledge of a client or employer?

IIT KHARAGPUR | NPTEL ONLINE CERTIFICATION COURSES

And because it is not like harming the copyright and the property of the property right of the person and you can use it for public interest also. So, these talks of a sense of balance these talks of some guidelines given also. So, that we can understand what is the upper threshold beyond which if we do we are beyond which if you are copying definitely so, we are violating the copyright.

In the next key question will be taking up like: how does one know what knowledge or information is proprietary? And how what considerations are relevant in deciding how a computer professional keep best confidential information in the proprietary knowledge of the client and employer? And, we are going to take up more two interesting key questions in the next module.

Till then, thank you.