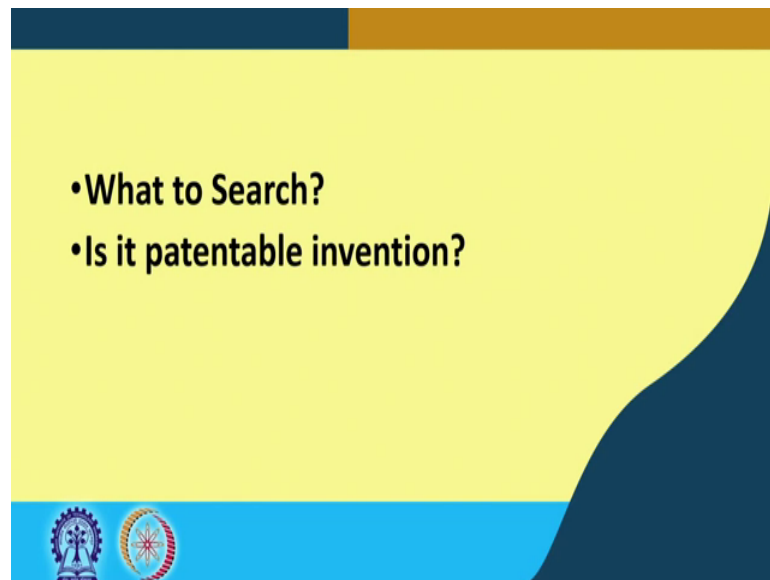


Patent Search For Engineers and Lawyers
Prof. Shreya Matilal
Rajiv Gandhi School of Intellectual Property Law
Indian Institute of Technology, Kharagpur

Lecture – 03
Patentability- Novelty- I

Today's lecture we will be looking at the Patentability requirements and specifically we will be focusing on the Novelty doctrine of patent law because novelty is the heart of patent system. It is the heart of the national patent system it is also the heart of the international system which is now regulated by patent corporation treaty.

(Refer Slide Time: 00:51)




Now, before that actually we need to understand that what if this is a course on patent search for lawyers and engineers. Now, the moved questions is this what is that to search for? Now the, we need to search this is actually a lawyer or a person having technological knowledge, he or she needs to search whether an invention is patentable or not. And in order to understand what is patentable we need to look into the Indian law in this regard which tells us that what are the criteria's that must be fulfilled to make an invention patentable.

(Refer Slide Time: 01:35)

Invention

- Patent is granted for an invention.
- Invention means a solution to a specific problem in the field of technology.
- An invention may relate to a product or process.



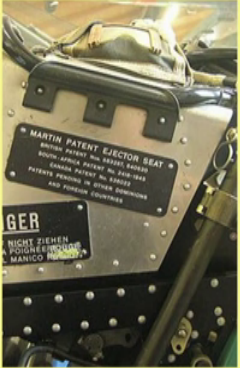

Now, at the outset we will find, we just we need to know that patent is granted only for an invention and to be very precise from a very general point of view invention means a solution to a specific problem in the field of technology. So; that means, they has to have a problem with the pre existing technology and if someone provides a solution to that problem, it would be considered as an invention. Now, we all already know that we have seen from the previous lecture that in invention may be with regard to a product or it can be also with regard to a process.

(Refer Slide Time: 02:21)

Discovery vs. Invention

Reynolds v. Herbert Smith & Co. Ltd.,
20 RPC 123 at 126 (1903)

- Discovery adds to human Knowledge, only by disclosing something.
- Invention also adds to human knowledge, but not merely by disclosing something.
- Invention suggest an act to be done, which results in a new product, or new result or a new process, or a new combination of old product or old result.

Now; so far as before we get in to the legal provision in this regard, let us try to understand that what makes an invention different from discovery.

Now, say for example, when Einstein wrote discover the famous equation by which energy and matter can be converted to, a energy can be converted into matter and matter can be converted into energy, it was already pre existing in nature. He made a discovery of the natural principles which were existing. But an invention is actually therefore, a discovery is also adding to human knowledge, but when it comes to invention; invention also is something which basically contributes to the human knowledge, but it is actually it not merely discloses something.

But it suggest something and act to be done which resolves in a new product or a process and or a new combination of old product and the old results. So, what is the distinction? The distinction is this that a discovery is a mere understanding of a principle which is existing and it is a disclosure of that principle. Whereas, when it comes to invention it is also a mechanism of disclosing something, but that disclosure does have a tangible concrete result and which is in the form of a product or which is in the form of a new process.

(Refer Slide Time: 04:03)

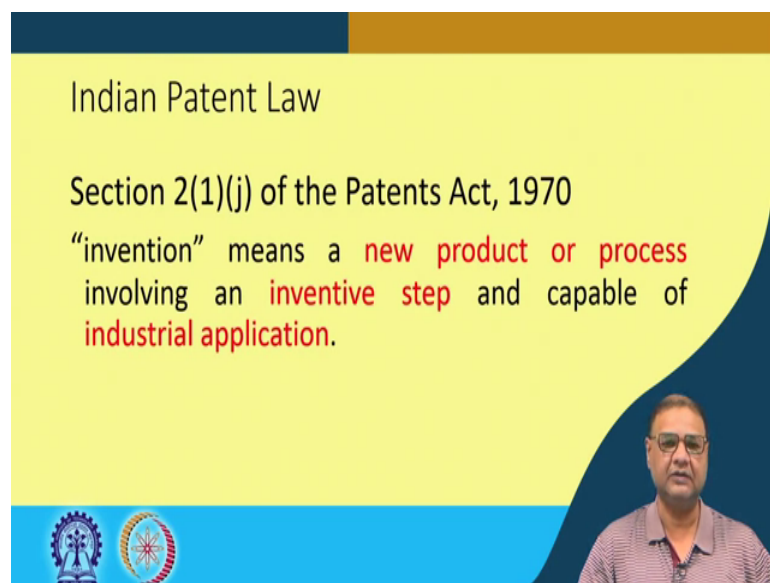


Now, the legal provision before in India is governed by international obligation of India. We in to India is a member of World Trade Organization. Now, this WTO treaty it is actually the WTO treaty has come into existence on 1st January 1995 and prior to WTO the GATT system was there and which was actually which was in existence since 1947.

Now, this WTO agreement it deals with intellectual property and there is an annexure to the WTO agreement and this annexure is called trade related aspects of intellectual property rights which forms annexure 1 c to the WTO agreement. And then section article 71 clause 1 of the WTO of trips agreement. It states that actually the members of the WTO they are bound to give patents in respect of inventions in all fields of technology. Irrespective of the fact whether it is a product or a process, but it must have certain criteria; what are the criteria that the product or the process, it must be new, it should involve an inventive step and then it should be capable of industrial application.

Now, there is a footnote which is appended to article 27 and that footnote in fact, says that inventive step is equal to should be considered as obviousness and industrial application should be considered as usefulness.

(Refer Slide Time: 05:59)

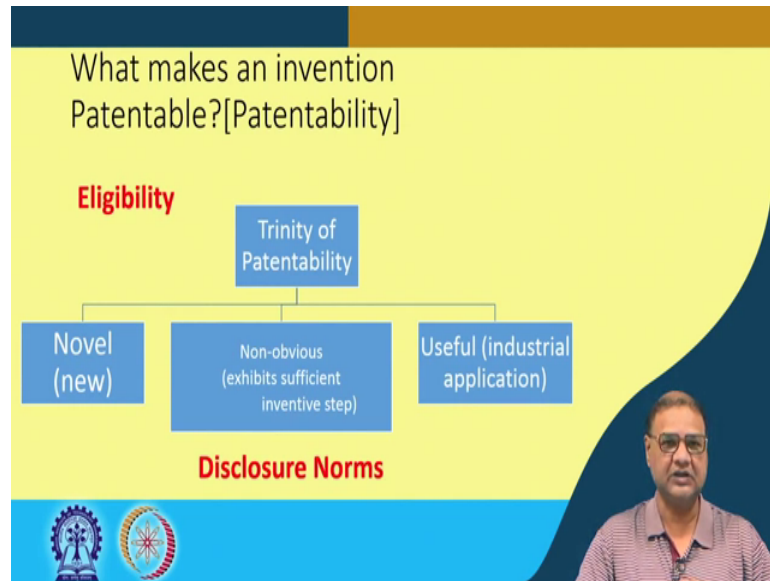


Now, with this regard, so in any law which we make in India it has to be in tandem with the India's; it has to be in tandem with India's obligation towards WTO and pursuant to that we have a definition of an invention in our Patent Act.

The Patent Act 1970 as amended and updated it gives an definition of invention. The definition is very simple, but actually it lays down the constituent element of an invention that makes an invention patentable. What it says? That it says that in invention as I will read it out from the definition itself.

Invention means a new product or a process involving an inventive step and capable of industrial application. So, anything which is actually first of all which is a, if it is a product or process it is a material patent is available, but it must be it must actually involve it must be a new product. Secondly, it must involve an inventive step and thirdly it must be capable of industrial application.

(Refer Slide Time: 07:13)



So, from this definition what we will derive we will call it the trinity of patentability and this trinity of patentability is actually it has come from India's international obligation and this trinity is the well established understanding of patent law in almost in all countries. Now, before that actually we need to also understand that it is possible that a particular invention in a particular jurisdiction say a particular inventions relating to atomic energy as we will see in the next slide it is not patentable in India.

So, even if an invention although it is qualifying all the criteria's of patentability, but still it may not be patentable because it is not eligible for patent protection in a particular jurisdiction. And then after say ones we check whether it is patentable within India or within a specific jurisdiction where we intend to file a patent application. The next thing what needs to be addressed is this that whether it does have the patentability criteria's or not. The things, the criteria's, the requirements that make something patentable that must be there and this is the trinity of novelty, non obviousness and usefulness.

In addition to that while submitting the patent application we have to also comply with the national law with regard to the disclosure norms. So, disclosure norms whether how the written application should be done, how it should be written, what would be the formatting of the claim portion, where exactly the property right resides all these has to be mentioned in the is mentioned in the rationale law and the rules they are created they are under and by which the disclosure norms are basically being described.

(Refer Slide Time: 09:18)

In India Patentability of an Invention may be tested at four different stages during the term of a Patent

- Examination Stage [Sections 12 and 13]:** On a Request filed with the Controller of Patents.
- During Pre-Grant Opposition Stage [Section 25(1)]:** On the basis of a representation filed before the Controller.
- Post-Grant Opposition Stage [Section 25(2)]:** On a Notice of Opposition filed with the Controller.
- Revocation [Section 64]:** On a Petition filed before the Appellate Board or the High Court as counter-claim in an infringement action.

The slide features a yellow background with a blue and orange header. At the bottom left, there are logos for the Indian Patent Office and the Department of Industrial Property. On the right side, a small inset image shows a man in a striped shirt speaking.

But now; so far as the patentability is concerned, patent the requirements of patentability is something which is actually which is required at the stage of grant law of the patent and it is something which would be basically which can be both the patent holder during the entire life time of the patent. And this patentability criteria, the criteria of novelty, the criteria of subject matter eligibility, the criteria of non obviousness and all these criteria's it can be raised at different stages of the grant and as well as the life of the patent.

Now first of all, the first initial test stage where this the patentability issues are being raised is the; obviously, the examination in stage when a person has filed an application for patent. He is seeking a patent grant from the government, the patent examiner may raise issues and there are issues can also be raise raised by the patent office and with regard to the novelty portion and in certain cases may be with regard to the non obviousness issues.

And even when it is the issues or of, what you call patentability can be raised by someone, who wants to oppose a patent grant and that is under section 25 1 of the Patent Act. And then from the date of grant within 1 year there is a window period within that window period even post grant opposition can also be filed. And after that one year from the date of grant, then throughout the life of the pressure life of the patent the revocation of anyone who wants who thinks that this the patent does not qualify, does not have those criteria's of patentability he or she can apply for revocation of patent. And this revocation petition can be filed before the intellectual property appellate board IPAB or before the High Court as a counter claim in an infringement suit.

(Refer Slide Time: 11:34)

Patentable Subject Matter (Eligibility)

Section 3: What are not inventions

- The mere discovery of a new form of a known substance which does not result in the enhancement of the known efficacy of that substance. **Sec 3(d)**
- a method of agriculture or horticulture. **Sec 3(h)**
- any process for the medicinal, surgical, curative, prophylactic diagnostic, therapeutic or other treatment of human beings. **Sec 3(i)**
- plants and animals in whole or any part thereof other than micro organisms. **Sec 3(j)**
- a mathematical or business method or a computer programme *per se* or algorithms. **Sec 3(k)**

Section 4. Inventions relating to atomic energy not patentable

The slide features a yellow background with a blue and orange header. A small inset image shows a man speaking. At the bottom, there are logos for the Indian Patent Office and the Department of Industrial Property, Government of India.

Now, with this actually let us look into; let us have a kind of snipped view of the patentable subject matter in Indian law. To be very precise as we have seen that since article 27 of the trip settlement says that patent has to be granted in respect of all technologies irrespective of the field of technology. Therefore, patent if it qualifies the test of invention, it patent has to be granted. But we have created a specific list enumerating the items that are not patentable and sometime those provisions are debated issues.

But still we have those provisions and some of the key provision I will mention before I move to the doctrinal understanding of the novelty. First of all it says section three of the Patent Act contemplates that a mere discovery of a new form of a known substance

which does not result in the enhancement of the known efficacy of that substance is not patentable

Suppose you we have a new, we know a substance which is known for which is known to the world for a long time and then suddenly if we come out with a kind of new form of that product and that new form no way enhances the what you call the efficacy of that product, in that case the patent cannot be short in India.

Now, it also says that a method of agriculture or horticulture is not patentable. Further the process of medical treatment or process of what you call diagnosis or process of therapy therapeutic and other treatment of human beings these are also not patentable in India. Now, the other important what we call exclusion is plants and animals in whole or any part thereof other than micro organisms are not patentable in India.

We have seen in America law the famous case of harvard oncomouse where in certain jurisdiction harvard oncomouse was actually given patent protection. So, the in fact, it is a patent in respect of an animal, but in India such kind of patent should be not, will not be available since the patent statutes specifically says that patents are not available in respect of plants and animals.

However for new varieties of plant, we have a separate legislation which is called plant periods Plant Variety Act we have and that Act actually a plant be the can seek protection under that Act. Then the key the most important factor is this that a mathematical formula or a business method or a computer programme per se is not patentable in India. To be very precise actually if you look into the other jurisdiction particularly in USA we will find that today all computer programs are in fact, actually protected by patent.

Now, see computer programme consist of the high level language which is the source code and then actually it is transformed; it is actually transmitted into an executable format which is called the object code. So, far as copyright is concerned, copyright law protects both source code and object code of a computer programme, but copyright law does not protect the functionality; whereas, the patent law would; obviously, be protecting the functionality.

So, let me explain it with the help of a simple example. Suppose a well known cook has written a book that how to make Hyderabad biryani. Now, so far as the English text is

concerned by the language is concerned by which we he has written the text, that English text that language is protected by copyright, but the method of making new type of Hydrabadi biriyani which is disclosed in that book is not protected by copyright law.

So, this functionality part of making new type of biriyani is not protected by copyright law and if he has gone to patent office and got a patent in respect of that he would be able to prevent others from following the process mentioned in his book and preparing biriyani following the process. However, the problematic issue is this that what is computer programme per se with regard to this there are different interpretations coming up.

But in general we will say that a computer program per se means, a computer programme actually which he has a physical element in one and that can be patented in India, otherwise a computer programme as such as it exist it cannot be patented in India. In addition to that section 4 of the Patent Act also mix it with crystal clear that an invention relate into atomic energy will not be patentable.

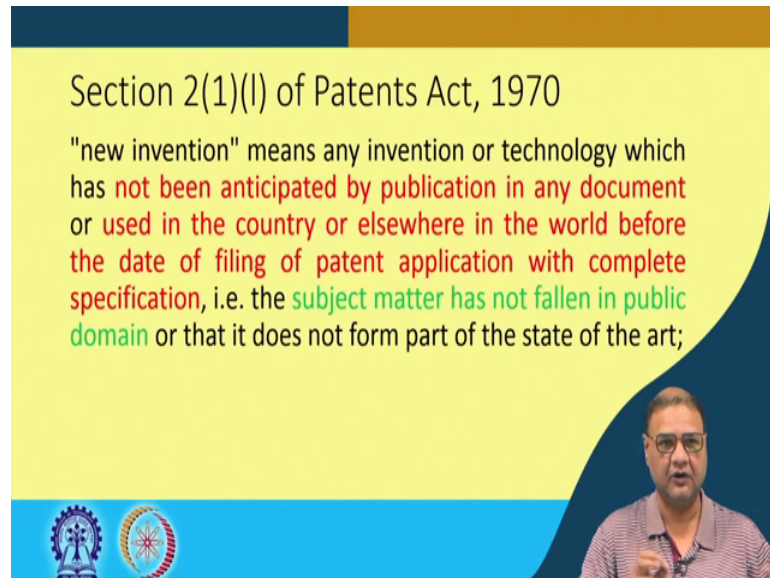
(Refer Slide Time: 17:24)



Now, with this let us look into what does this novelty means; what does this novel newness means? At the outset I just want to tell you that it is not possible for someone to come out with a novel invention every day. However when we look into the patent filing statistics coming from different jurisdiction we will file that every year huge number of

patents are being filed. Therefore, see if novelty is something which no one has done it before in that case the patent office would be having no other work.

(Refer Slide Time: 18:13)

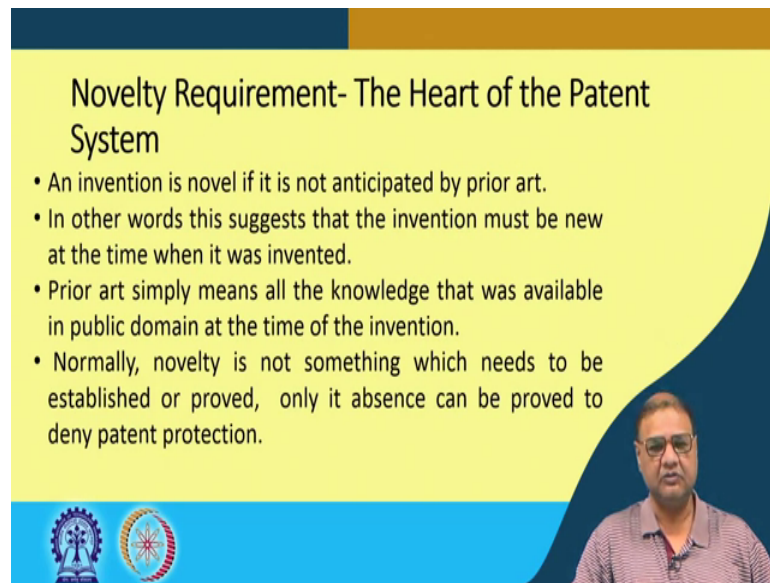


But novelty we need to understand it from the perspective of law and the concept of novelty is a techno legal concept. Now, first we will start with the definition of novelty and in India we have a definition and that is involved it in section 2 1 I of the patent act.

Now, the 2 1 I of the patent act what it says that actually I will read the provision and then we will try to understand that what are nuances and intricacies of the provision and what is the ambience scope of this provision. Now, to be very precise new invention means an any invention or technology which has not been anticipated by publication in any document or used in the country; that means, in India or elsewhere means elsewhere in the world.

Elsewhere in the world before the date of filing of patent application with complete specification, that is then the explanation comes the subject matter has not fallen in public domain or that it does not form part of the state of the art. So, the definition of the novel, the definition of new invention which is nothing but the definition of novelty; it says that it should not be anticipated by prior publication in any document or used in the country elsewhere. So, we in fact, adopted a kind of global novelty rather than a tutorial novelty which is valid only in India.

(Refer Slide Time: 19:57)



Novelty Requirement- The Heart of the Patent System

- An invention is novel if it is not anticipated by prior art.
- In other words this suggests that the invention must be new at the time when it was invented.
- Prior art simply means all the knowledge that was available in public domain at the time of the invention.
- Normally, novelty is not something which needs to be established or proved, only its absence can be proved to deny patent protection.

The slide features a yellow background with a dark blue curved shape on the right side. At the bottom left, there are two circular logos: one with a gear and a figure, and another with a sun-like pattern. A video inset of a man with glasses and a microphone is positioned in the bottom right corner of the slide.


Now, see to be very precise this novelty requirement this is the heart of the patent system and it also performs very important economic function and we will try to understand those aspects. First of all an invention is therefore, not novel if it is and if it is anticipated by prior art. So, if an invention is novel; that means, in order to actually have a novelty the invention must be something in respect of which there should not be any prior art.

So; that means, the invention must be new at the time when it was invented and we will create an working definition of prior art for this right and this what does it mean? That it means simply all knowledge that was available in the public domain at the time of the invention. And the most important factor is this that novelty is not something which needs to be established or proved, but the lack of novelty is a ground for denial of patent.

(Refer Slide Time: 21:24)

Social Cost of Patent and Novelty

- A great deal of social cost is involved during the period of patent protection as the protection results in underutilization of the patented process or product.
- Monopoly pricing of the patented product or process create deadweight loss (allocative inefficiency).
- The novelty requirement ensures that further social cost is not incurred for something for which social cost had already been incurred earlier.



Now, how the patent system the novelty doctrine in patent law performs a economic function a kind of what you called how it reduces the social cost we need to understand. Now, whenever a monopolistic pricing level is fixed suppose a person has come out with a product and since that product is not available in the market, he would be charging a monopoly price in respect of that product. Now, this monopoly price is arbitrarily fixed and we have seen in the last lecture that this actually a part of it is also used for the purpose of recouping the expense which the patent owner has made in research and development of the product.

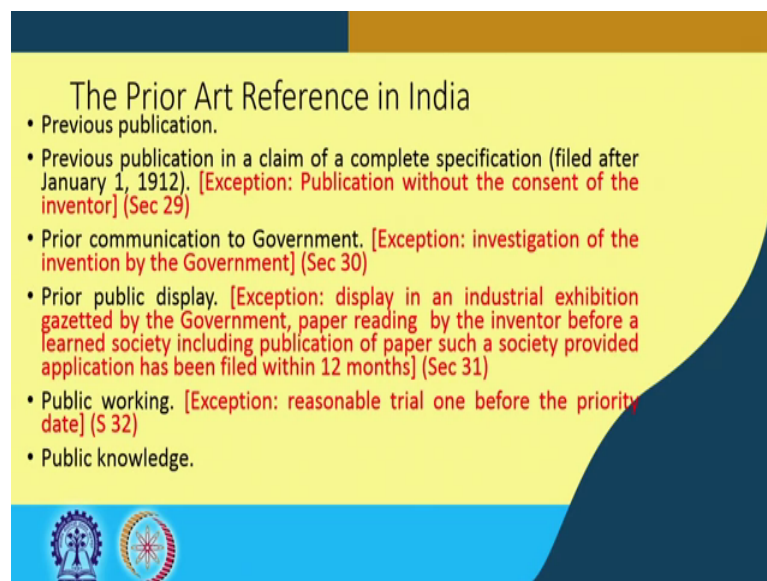
Now, there is a social cost involved. What is the social cost? Number 1 first of all when the product of the process is patented by the patent owner there is an under utilization of the patent product and the patent process. Because by having those what you called monopoly alike rights under section 48 of the Patent Act. The patent holder would be preventing others from making and using those process. So, even if I want to if and if someone wants to use that process he cannot utilize it till the patent is valid.

Then secondly, as I have mentioned that the price of the product or price of the process is basically it is arbitrarily fixed and therefore, there are individuals who want to have that product. But he or she cannot approved to have that because of this monopoly pricing and as a result of this a deadweight loss has been created and this is actually this is the highest example of allocating inefficiency in patent.

Now, therefore, what does it happen, what does it do? Number 1, it novelty requirement it ensures that anything which has already available in public domain a patent holder by through a patent does not take it back to his individual own private domain and charge a monopoly price to the society.

And therefore; so this is performing this is basically in fact, reducing the social cost because if the novelty doctrine is not there anything which is actually already available in public domain or lesser known things in public domain. If an unscrupulous patent holder would basically cover those inventions in his or her patent specification and claim and thereby he or she would be trying to exercise a kind of property right over those product and processes which are publicly available, but because of this check of novelty, what has happened now; a because of this check of novelty what has happened now? The patent holder would not be able to monopolize those products and processes.

(Refer Slide Time: 24:54)



The Prior Art Reference in India

- Previous publication.
- Previous publication in a claim of a complete specification (filed after January 1, 1912). [Exception: Publication without the consent of the inventor] (Sec 29)
- Prior communication to Government. [Exception: investigation of the invention by the Government] (Sec 30)
- Prior public display. [Exception: display in an industrial exhibition gazetted by the Government, paper reading by the inventor before a learned society including publication of paper such a society provided application has been filed within 12 months] (Sec 31)
- Public working. [Exception: reasonable trial one before the priority date] (S 32)
- Public knowledge.

The slide features a yellow background with a blue and orange header. At the bottom, there are two circular logos: one on the left with a gear and a figure, and one on the right with a gear and a sun-like symbol.

Now, when a when someone comes out with an invention and if he or she thinks that it has the it is fulfilling the patent criteria. He or she needs to do a kind of check that whether someone else has done it before or whether there is prior knowledge or prior publication in respect of that invention. Now, there is a reference frame and this reference frame in India is regulated by this statute and there are exceptions to this reference frame and what constitutes this prior art against which the claimed invention has to be compared and contrasted.

To find out whether actually it is new or not there is actually a provision and there are provisions which create exceptions to this. Now, what it includes? This prior art reference in India it includes; number 1, it includes previous publication. This publication may be a journal article it may be a kind of internet material, it is publication in any form. And again we know you know that when in respect of the fact that whether the publication is within the territory of India or outside India because in India since this so, far as novelty is concerned we are applying the global novelty criteria.

Now, the second thing is this that if there is a patent and in that patent there is a claim and that claim is basically with respect to the invention which has been currently claimed by the person who wants to seek the patent. Provided that the claim must be a part of a complete specification and the patent application in respect of which we are comparing the claimed invention that patent application must be filed after 1st January 1912.

There is an exception suppose a somebody publishes his own, somebody has published without the consent of the inventor somebody has published the content of the invention without the consent of the inventor. In that case there is an exception and in that case these publication these prior publication will not defeat the novelty.

Then if you have, if the patentee or somebody else has communicated it to the government, this would also be a part of the prior or reference there is an exception. Suppose if the patentee or the patent applicant has basically disclosed it to the government or communicated it to the government. Because the government wants to do an investigation in regard to the invention; obviously, it would not defeat novelty.

Then prior public display, if somebody has displayed the patented product or the process in public it would also defeat the novelty there are exceptions. Number 1, if the Central Government is organizing an industrial exhibition and then the Central Government comes out with a notification that anyone can display his or her invention. In these industrial exhibition and that would not be defeating the novelty that gazette notification although there is a prior display public display it would not defeat the novelty.

Then if someone is making a kind of paper presentation before learned society and then later on the paper has been also published in the proceedings of the learned society, then also the novelty would not be defeated provided that within a period of 12

months, the person who has displayed the invention or who has presented the paper has filed the patent in an application.

But at the outset anyone would actually basically no one would advise that one should go for a kind of paper presentation or display of the patented invention before the grant, before the filing of the application. So, it is a risky thing and one should not do that, but the law is very clear in this respect.

Now, with the most important one is this actually one can see the patent involves launching a new product and a process is actually a kind of expenditure which patentee has to undertake without knowing that it will work or it will not work. We have seen that there are many patents which were actually up even up to Supreme Court. An inventor or his company where he is working has fought up to the Supreme Court and when it was put to practice in practical use the patent did not work.

So, a patentee can also and can also see before the product is launched that how effective how commercially viable the product is and therefore, he can conduct a kind of reasonable trial and within a period of one year from the vision able trial he has to file the patent application and this is allowed and this would not defeat the novelty. And then if there is a prior public knowledge and that prior public knowledge may be a form of traditional knowledge, may be a knowledge which is available in a traditional knowledge digital library that would also defeat the novelty.