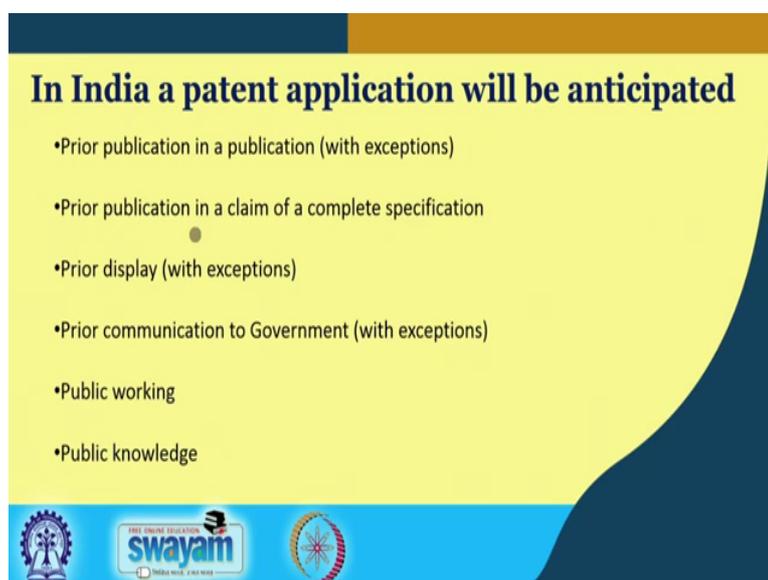


Patent Search For Engineers and Lawyers
Prof. M. Padmavati
Rajiv Gandhi School of Intellectual Property Law
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Lecture – 17
Types of patent Search (Contd.)

Welcome to the continuation lecture on the aspects of novelty.

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So, it is important to understand the statutory purpose or the statutory conditions in relation to anticipation. For instance, if you look at the Indian Patent Act; Patent Act, 1970, a patent application will be anticipated if there is a prior publication and there are certain exceptions where we have the grace period. So, for instance if you have already published your application your data as a journal publication you have 1 year time by when you should actually go and file a patent application.

So, within 1 year if you file you can avail what we call the grace period. Similarly, you may have disclosed that into the proceedings of a particular journal society, again you have within 1 year you should be actually filing a patent application. Then the second category is what we call the prior publication in relation to a claims of a complete specification. Remember we discussed about that publications can come in 2 categories one is the patent literature and the other is the non patent literature. So, in this case when we say that the prior publication is by claim of a complete specification; here we mean

that the prior publication is a patent application. So, if there is already a prior patent which discloses the same invention then no longer your invention is novel.

The third category is what we call the prior display. Here also there are certain exceptions. So, a prior display in an exhibition would defeat the novelty of the invention. The exception is in the case where the disclosure is there within one year you are moving with a patent application or there is a letter to the controller that soon the patent application is being followed up by. There are certain governmental clauses by which communications the government will not mean anticipation under the law.

Inventions are acquired by the government for public purpose. So, such display of invention, such use of invention for the purpose of assessing invention in the public will not mean anticipation in the case of an invention. Public working is one category which will also mean case of anticipation. So, if the invention is publicly worked the subject matter of the invention may be not novel any longer. If there is already prior public knowledge on the invention then again the invention will no longer be novel.

So, these are the categories of which will amount to what we call anticipatory art in relation to a given invention.

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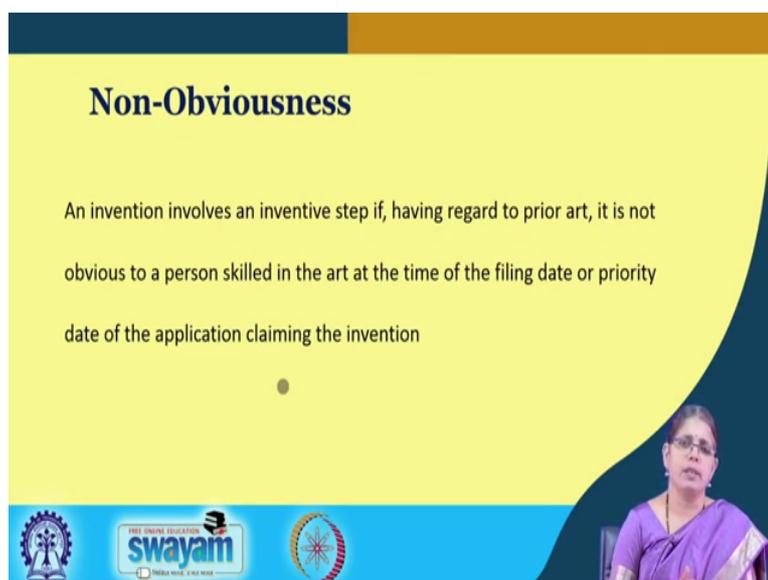


So, let us understand the relationship between the prior art the invention and what is the aspect of novelty that comes into picture. So, we discussed that references will disclose

all the subject matters of the claimed invention or a consideration to look at when we are looking at the prior art. If it forms a part of the prior art that is it is anticipated your invention is no longer novel. So, the threshold for this is identity; that means, all those features of an invention must be present in one single disclosure which means it can be either one prior publication, one prior patent, one prior public working, one prior public use or in traditional art.

So, it should be the disclosure should be in one single place and in that case we say identity is met. So, here you can see on the screen. So, the overlap is complete. It is a mirror image. So, one single disclosure identity is met there is no longer novelty in relation to your invention.

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Non-Obviousness

An invention involves an inventive step if, having regard to prior art, it is not obvious to a person skilled in the art at the time of the filing date or priority date of the application claiming the invention

The second important criteria after the assessment of novelty is what we call non obviousness. An invention may be new, but may be obvious. So, the second criteria is as important in relation to inventions. So, when we assessing for patentability criteria the second criteria, that comes into picture is what is the aspect of non-obviousness. How do you determine non-obviousness? It is a degree, it is a metric. There are two different inquiries that we take up for non-obviousness: one is what we call the objective criteria the other is what we call the subjective criteria.

The objective criteria is that every invention must represent a technical advance and we say technical advance it must be a technical advance with respect to the prior art. So, this

is the objective criteria that every invention must meet a technical advance. And, the subjective criteria is that such a technical advance must be not obvious to the person who is skilled in that particular area. So, we have this concept of person skilled in the art which means the subjectivity of that technical advance is looked at from the point of view of a person who is skilled in that art.

What does it appear to a person who is skilled in that art? Does a person skilled in the art field that, well, the invention is actually not obvious. There is a surprising value. There is a great remarkable difference between the prior art and the invention. This is indeed something very remarkable in which case the invention goes out goes through the threshold of what we call the subjective inquiry. So, there are different factors that are used for determination of non-obviousness which has come out from the different case loss worldwide.

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Inventive Step

Indian approach:

Sec (2) (1) ja of the Patents Act 1970 – "inventive step" means a **feature** of an invention that involves **technical advance** as compared to the existing knowledge or **having economic significance or both** and that makes the invention **not obvious to a person skilled in the art;**

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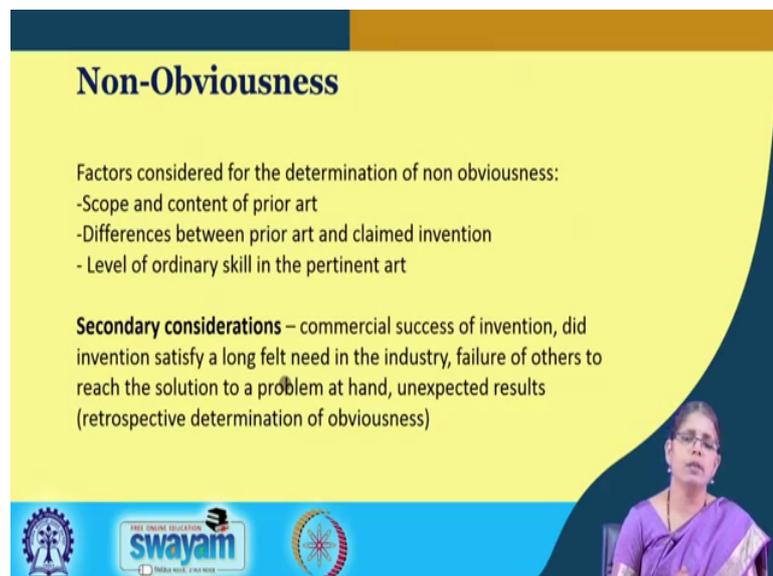
In the case of the Indian Patent Act inventive step is defined. So, inventive step and non-obviousness are used synonymously in some sense. In India we call it inventive step that every invention must have inventiveness. When we mean inventiveness what does the law tell us? The law defines the inventive step under the Indian patent act it is defined under Section 2 1 ja; it means that a feature of an invention that involves technical advance as compared to that of the existing knowledge.

So, technical advance; that means, primary consideration that is the objective inquiry must be met. Look at the later part of the section it says or having economic significance or both; that means, there are inventions which are having technical advance; there are inventions which could be not so technically advanced, but have high economic value; there are some other inventions which could be having both.

So, India has given threshold for the non-obviousness to take into consideration economically important inventions; so, many of the inventions which represent economic significance can be brought under the purview of this particular provision. So, what are those sort of inventions? An invention may be produced by reduced number of steps, it may be a low cost invention, it may be environmentally safe, it could be energy efficient, it could be biodegradable. So, these all come under the purview of what we call economic significance.

And, such an invention must not be obvious to a person skilled in the art. Here the person skilled in the art is the person who has general information or general technical expertise in that particular area. In the case of patents when an examiner is looking at patent applications, the examiner becomes the person with that skill in the art.

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Non-Obviousness

Factors considered for the determination of non obviousness:

- Scope and content of prior art
- Differences between prior art and claimed invention
- Level of ordinary skill in the pertinent art

Secondary considerations – commercial success of invention, did invention satisfy a long felt need in the industry, failure of others to reach the solution to a problem at hand, unexpected results (retrospective determination of obviousness)

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Let us understand the other important considerations in relation to non-obviousness when we look at the prior art how do we look at the consideration of a prior art to be relevant

for the purposes of the inquiry into non-obviousness. The factors which are considered art one is the nature and scope of the particular prior art.

So, here we come into the context of that is it a pertinent art or is it not a pertinent art? There here you see a lot of decisions vary in different courts. In many cases inventions need to be from the pertinent art area, in many other cases it is just not the pertinent art the intervention, the process used could be completely different in a different area, but can be applicable with respect to other inventions. So, the processes can be actually relevant for across invention areas which means they are not so pertinent art can also be the consideration. So, the nature and scope of the prior art is one concentration.

The second part is what we call the difference between the prior art and the invention how far is the distance between the prior art and the invention. So, is the invention overlap complete or how much is the overlap between the invention and the prior art. The third consideration is the skill in the pertinent art. So, this is where the metrics are in relation to the subjective inquiry. So, how much of skill is there in the person who is examining the document for the purposes of non-obviousness. So, this is again a very subjective inquiry.

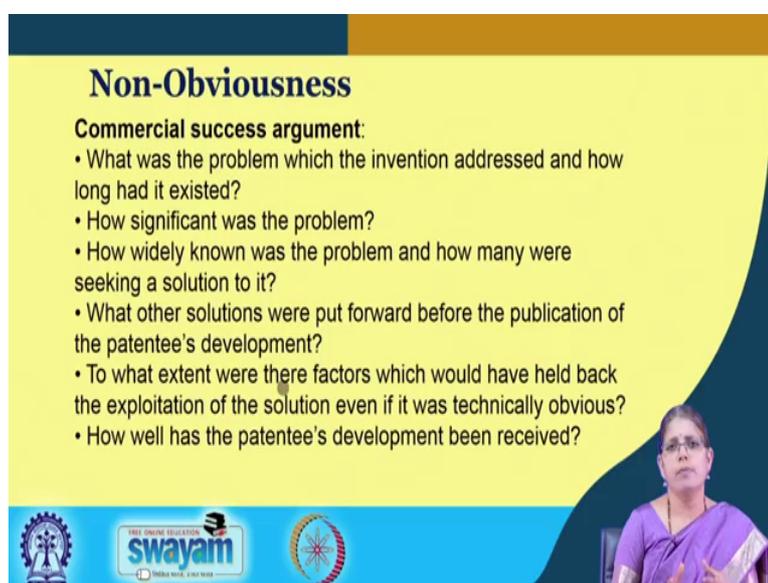
As we move into complex arts today we are in the area of multidisciplinary technologies, trans-disciplinary technologies, so, the level of skill in art has become more like a peer reviewer. And, in the areas of nanotechnology today we speak about artificial intelligence one needs to be a person skilled in the art, ordinary skill would not be sufficient. So, therefore, this subjective inquiry must be looked at it from the point of view of the skill of the person who is looking at that particular document for assessing for the purposes of non-obviousness.

Not only this, the other aspects where non-obviousness gains an important the ground is the aspect of what we call secondary considerations. So, there are inventions which do not represent technical advance, but are very valuable to the market are very important for implementation in relation to environment are highly energy efficient. They are not technically advanced, but still have a lot of value. Should they be given as patents? Yes, possibly so, because they provide value from the point of view of market. So, these come under what we call the secondary considerations under obviousness; non-obviousness determination.

So, there are small changes to an invention which can lead to greater commercial success. Such improvements to inventions bring in changes to the market, bring a lot of value addition to the market and so, therefore, warrant to be patents. So, this is determined by what we call the long felt need. If there has been a long felt need in the industry and someone has actually worked on it and come about with an improvement of an invention one needs to recognize they such inventions under the purview of what we call secondary consideration.

So, many a times when you look at inventions, you have this surprising value, unexpected results something which is known for a particular function has a completely different function which is deciphered. So, when the compound is not new, but its function is totally new the question is it open for patenting in some jurisdictions is not open for patenting, but in others yes, it is. So, some of these surprising results are also important for a consideration in relation to determining the non-obviousness of an invention.

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Non-Obviousness

Commercial success argument:

- What was the problem which the invention addressed and how long had it existed?
- How significant was the problem?
- How widely known was the problem and how many were seeking a solution to it?
- What other solutions were put forward before the publication of the patentee's development?
- To what extent were there factors which would have held back the exploitation of the solution even if it was technically obvious?
- How well has the patentee's development been received?

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All of these factors have been determined based on several case laws across different parts of the world. So, one of the important considerations in relation to moving a particular invention which comes under secondary consideration is what we call the commercial success argument. It comes under the following different ways. So, how long did the problem exist and what is the change that the inventor did to come about

with this invention. And, sometimes the problem could have been very grave, but no one worked on it the inventor was able to solve it.

Today we know that different forms of an existing substance are not patentable under the Indian Patent Act, but they are patentable in other jurisdictions. The ease of use of certain compounds, the ease of use of certain devices, they are different the applications of those could be coming under the purview of what we call the commercial success argument. The patentee must have provided some other alternate solutions to a given invention. So, those are again a consideration and to what extent the art in the area in the prior art there has been difficulty in resolving a particular invention.

The resolution itself and the and the use of an invention itself can come under the purview of what we call secondary success argument many a time the under the secondary considerations when inventions come into the market they become huge hugely popular. So, how well the invention has been received is also one consideration that comes in order to determine the non-obviousness in relation to an invention.

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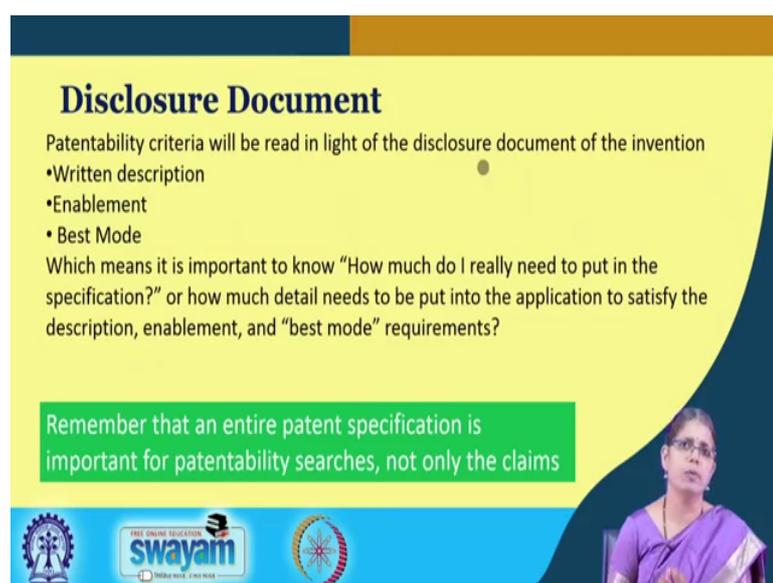
So, how is the non-obviousness inquiry different from the novelty inquiry? In both the cases novelty and non-obviousness we are considering prior art, but we are dealing with prior art in a different way in case of novelty and non-obviousness. For novelty it is identity that is it should reside in one single place. Let us imagine that the invention is

novel; that means, all of those features are not there in one single prior art, one single disclosure. Novelty is there the invention is novel.

The next important thing is that it is possible that you can combine the different prior arts to achieve the invention in which case we are looking at using different multiple prior arts combining them to get the invention. So, when you combine these different prior arts and get the invention this is where we come in to combining multiple prior arts. When you combine multiple prior arts or mosaic – mosaicking is one concept which we talk about under the obviousness quite determination. So, when all of those are combined to get the invention we say obviousness is met; that means, this invention features overlap with individual different aspects given in the prior art. Together the invention is achieved.

So, yes invention is novel, but it is obvious; that means, these features have been disclosed already in the prior art. So, what happens in such a case if identity is met there is no novelty; if the multiple prior arts are combined and you get the invention in that case again there is no the invention is obvious which means the second criteria in relation to obviousness is met. So, understanding how to do the search in relation to novelty and the search in relation to determining obviousness is very important from understanding these basic concepts.

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Disclosure Document

Patentability criteria will be read in light of the disclosure document of the invention

- Written description
- Enablement
- Best Mode

Which means it is important to know “How much do I really need to put in the specification?” or how much detail needs to be put into the application to satisfy the description, enablement, and “best mode” requirements?

Remember that an entire patent specification is important for patentability searches, not only the claims

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And, to that extent we look at where do we look at when we when we need to determine patentability? The entire document serves for the purposes of determining novelty or the non obviousness. So, therefore, patentability criteria are read in light of the disclosure. When it comes to patent application specifically when patent is the prior art in that case the considerations in relation to disclosure norms are important that is there are three different types of disclosure norms which we have discussed in the very first week written description, enablement and best mode.

So, what this brings us to is to understand how much of information should be actually presented in a document. And so therefore, this determination is also important to look at for the assessment for the patentability criteria. So, an entire patent specification is available for doing the patentability search. Often as a patent search or you would look at when you are looking at a prior patent document to defeat the novelty, you are looking particularly only at the claims, but remember claims are read in light of the specification.

So, if you are really looking at the interpretation of the meaning on the of the terms in the claims, one needs to go back to the basic written description part of the invention. So, keeping in mind claims and the written specification part is important for the determination of novelty and non-obviousness.

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Utility and relation to disclosure norms

Specific utility- Utility that is specific to the subject matter claimed. This contrasts with a *general* utility that would be applicable to the broad class of the invention.

A claim to a polynucleotide whose use is disclosed simply as a "gene probe" or "chromosome marker" would not be considered to be specific in the absence of a disclosure of a specific DNA target. A general statement of diagnostic utility, such as diagnosing an unspecified disease, would ordinarily be insufficient absent a disclosure of what condition can be diagnosed

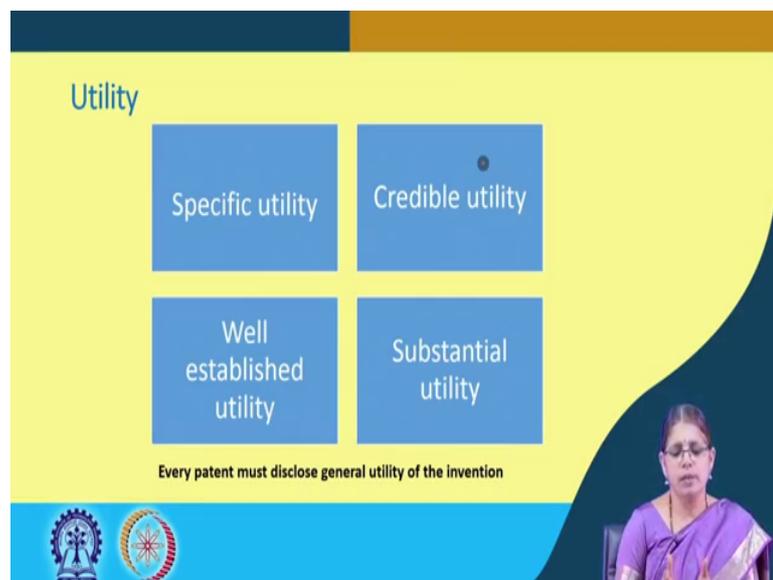
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The third criteria is utility. So, we have discussed the aspects of novelty, non-obviousness, the third criteria in patentability criteria is utility. And, utility is important

from the point of view of the determining the patentability of inventions. There are different utility norms present worldwide in relation to inventions the four different types of utilities that are present in relation to patent documents. Every patent document must disclose general utility; that means, every invention should be potentially capable of being used in the industry, every invention must be fundamentally useful.

That is the basis of patenting, that is it is to promote inventions for public use promote the area of science and technology for public use. So, utility is an important criteria when it comes to determining the patentability. There are different norms used worldwide in relation to determining utility. Generally utility rejections are very low in case of patents, but it is possible because in certain areas the standards of utility are different.

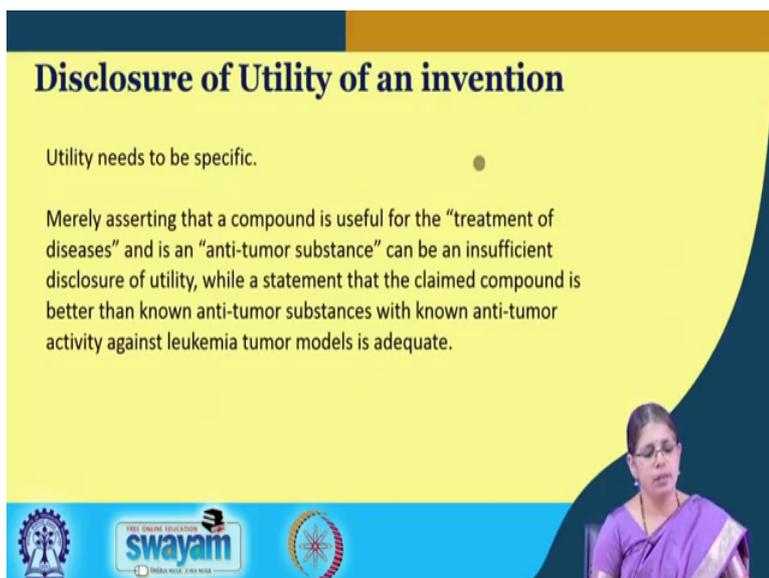
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These are the different forms of utility which are available under the knobs – specific utility, credible utility, well established utility and substantial utility. These norms have been derived by the different cases that have happened in the different jurisdictions. Today, they also form the part of the manual for patent examination and practice. So, they also provide guidance to the examiner to look at the evaluation of utility of a particular patent application. Simultaneously, they also provide the applicant information in relation to understanding where the utility norms could be applicable. Let us understand some of these details in a little elaborate way.

So, when we talk about specific utility we are talking about the utility in specificity. So, it would be insufficient if general information is provided in certain areas. For example, we are talking about a DNA probe; we need to mention the specific target. Similarly, we are talking about an anti a tumour marker we should mention you know directed towards what type of tumours in at least in that specific detail.

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Disclosure of Utility of an invention

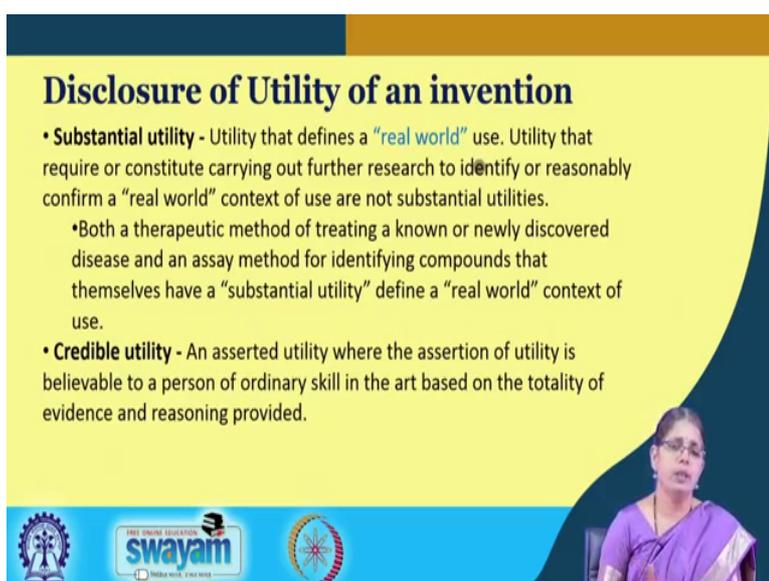
Utility needs to be specific.

Merely asserting that a compound is useful for the “treatment of diseases” and is an “anti-tumor substance” can be an insufficient disclosure of utility, while a statement that the claimed compound is better than known anti-tumor substances with known anti-tumor activity against leukemia tumor models is adequate.

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So, that is what is the specific utility.

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Disclosure of Utility of an invention

- **Substantial utility** - Utility that defines a “real world” use. Utility that require or constitute carrying out further research to identify or reasonably confirm a “real world” context of use are not substantial utilities.
 - Both a therapeutic method of treating a known or newly discovered disease and an assay method for identifying compounds that themselves have a “substantial utility” define a “real world” context of use.
- **Credible utility** - An asserted utility where the assertion of utility is believable to a person of ordinary skill in the art based on the totality of evidence and reasoning provided.

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We come to the other aspect of utility which is called substantial utility. Substantial utility is real world utility which means that it provides a context in relation to its use in the real world context that is where we look at the substantial utility in a particular area. Now, every substantial utility or specific utility must also be credible.

So, the other aspect of utility is what we call credible utility where a person skilled in the art must get a feeling that well, this is obtained through established experimental practice. So, the assertion of utility must be believable. So, a simple example is on earth anything that goes up comes down. So, this is where you can look at the; so, invention will be gravity specific in case it is on earth, unless you have used a material which provides anti gravity properties. So, it should be believable.

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Disclosure of Utility of an invention

- Well-established utility** - If a person of ordinary skill in the art would immediately appreciate why the invention is useful based on the characteristics of the invention (for example, properties or applications of a product or process), and the well-established utility is specific, substantial, and credible.
- Credibility is asserted from the perspective of one of ordinary skill in the art in view of the disclosure and any other evidence of record. The records could be test data, affidavits or declarations from experts in the art, patents or printed publications.

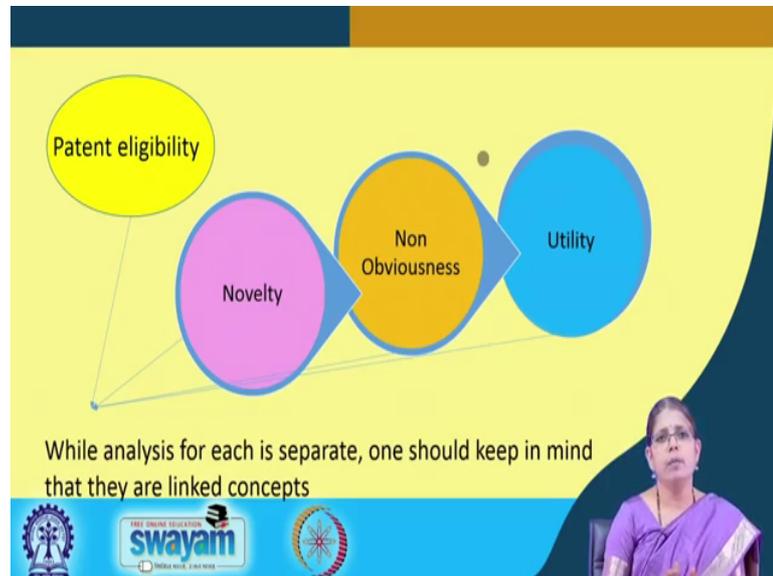
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The fourth form of utility is what we call well established utility. Now, well established utility is that utility which is obtained through established principles and established practices in a given area. So, in those areas where there is not much of research the application of well established utility is not going to be relevant for instance in the area of let us say inventions belonging to some of the areas of artificial intelligence today. You may not have well established utility already there with respect to that, but yes, there must be credible utility, there must be specific utility.

So, it depends on the body of information that is available or the body of established practice when you look at the determination of well established utility. Many

jurisdictions follow the utility principles in order to determine the utility criteria in relation to patentability.

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So, we come to the sum up of this particular lecture where we are talking about patent eligibility is one consideration, novelty, non-obviousness in utility we analyse these as separate concepts in patent law, but remember they are linked. Somewhere essentially the patent eligibility is linked to patentability when it is a new use of a known substance novelty is there in that component. Then we are talking about enhanced properties which have been it is then we are talking about utility of a particular composition.

So, therefore, though we deal with these concepts as a separately for the analysis of each of them they are inherently linked. So, keeping that in mind is very important when we embark on the understanding of the patentability criteria in relation to a given invention.

Thank you.