

Patent Search For Engineers and Lawyers
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Lecture – 20
Invalidity Search

Welcome to the lecture on Patent Validity Search. In this lecture we will take up the aspect of when an invalidation search is taken up particularly from the point of view of a defendant in a suit for patent infringement.

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The slide is titled "How to perform a invalidity search?". It is divided into two main sections. The top section is titled "Invalidation of a patent – Defendant in a patent infringement suit". Below this, it lists two steps:

- Step 1 : Identify the claim(s) of the patent that you need to invalidate
 - Do the claims direct to a product/process/system or a combination of any of these?
- Step 2: Identify the prior art for the claims that you want to challenge
 - In depth search for prior art from patents (not identified by the patent examiner)
 - In depth search for prior art from non patent literature and other relevant sources

A green callout box on the right side of the slide contains the text: "Make sure that you have understood the purpose for the invalidity search". At the bottom right of the slide, there is a small video inset showing a woman in a purple sari. At the bottom left, there are two logos: the Indian Institute of Technology Kharagpur logo and the Rajiv Gandhi School of Intellectual Property Law logo.

So, how do you perform an invalidity search? The first step is to look at the claims and dispute. In this case there could be one claim or many claims that one is looking at in validating and those needs to be selected out and then identifying the subject matter in relation to those claims. The step 2 is about identifying the prior art in relation to the claims that you want to challenge.

The difference between the validity search to invalidity search in case where a defendant takes up is not limited to just the prior art, well the patent owner is typically looking at prior art from the point of view of the novelty and you know inventive step in those considerations. But in the case of where the invalidated search is taken up by a defendant this has other facets to keep in mind.

So, prior art is certainly a consideration, but beside the prior art the defendant will be looking at potentially the prosecution history, was it a scenario where a dependent claim in prosecution became later on an independent claim and was granted. Was it the case that the patent examiner did not allow certain claim terms to be taken in that particular way in which case prosecution history provides important information on already the case of where a patent would have otherwise already got limited.

So, a defendant is potentially looking at the prosecution history information or the file history information in relation to the claims which are under challenge. Besides other grounds of revocation are already available under each law, so those can be combined very effectively. So, often it is not just one ground that is taken up for invalidating a patent one would; obviously, take up either novelty or non obviousness together. If one can take up novelty the issue of lack of novelty, lack of the non obviousness and also lack of sufficiency of disclosure.

So, when you strike a patent you strike it on the novelty, but then you additionally tag in the aspects of lack of inventive step, lack of sufficient description; so, just to strengthen the challenge in relation to a particular patent application the patent grant. So, therefore, so here in this kind of a search there is a consideration for factors even beyond the prior art which are to be considered.

So, therefore, it is also important to make sure to know the purpose of the invalidity search. So, in a threatened litigation scenario is one we are looking at a failed licensing scenario may potentially put the parties into a case of a lawsuit. So, you are in anticipation of preparation for that is where you may be looking at an invalidity search.

The context of invalidity search will be subtly different for certain areas of inventions for instance in the pharmaceutical area and in the biotechnology area one needs to take into consideration the patent term extension. So, the total period of grant is countered with the patent extension period, so that is where the consideration is and of course, in many countries you have linkage. So, patent linkage is one important consideration where you looking at it from the considerations of the not only the patent law you are also taking into consideration the aspect of the drug law.

Since litigation is a strategy one needs to take into consideration some of these aspects when you are looking at patents. Today the area of a computer related inventions are also

coming under a big challenge and a lot of code battles are being taken up in relation to patents. The implementation of those inventions are in different contexts. So, looking at evidentiary considerations there are important many a time patents use mathematical expressions and if you are looking at a prior art for a looking at that mathematical expression the patent itself may not give the equation. But one needs to make out in some sense that these are the ingredients or the application of that particular equation.

So, there are challenges actually one when one takes up an invalidity search there are challenges in every area now if you look at it from that standpoint. We discussed about the evidence of use is one consideration. So, many a time this becomes a big bottleneck also in terms of looking at the invalidity search.

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The slide is titled "Invalidity search and Patent transactions" and features a yellow background with a dark blue header and footer. A central white box contains a list of five bullet points. To the right of this box are two blue callout boxes. In the bottom right corner, there is a small video inset of a woman in a purple sari. The footer contains two logos: the Indian Patent Office logo and the Indian Intellectual Property Rights logo.

Invalidity search and Patent transactions

- Invalidity analysis is important in IP due diligence process
- Assessment of patent portfolio is imperative in a buy or sell scenario
- Acquisition of patents
- Patent monetization
- Fixing appropriate royalty/licensing mechanism

Consider prosecution history aspects

Inequitable conduct link with invalidity search

The third area which is again important in relation to why invalidity searches are performed is the area of patent transactions. As we all are aware that the one of the important aspect of a patent right it is ability to be to be used as a property. Patent is a bundle of rights and so therefore, it has the notion of property rights. One can actually license out inventions one can sell a patent.

So, then when you are looking at a whole series of a portfolio of patents it becomes this scenario becomes even more predominant. Patents can be transacted in various ways, buying and selling of patents is actually quite normal. Today we talk about companies selling out their entire patent portfolio, we are looking at patents as an important part of

the assets of a particular company. So, when companies are merging, companies are acquiring this is an important asset which is also a consideration and patents often are worth a few million dollars given that in the transactions patents form an important part.

So, there are several reasons why an invalidity search is very relevant for a patent transaction and this forms what we call the integral part of an IP due diligence process. So, in a buy or seller meet in relation to patents, the first thing that comes into picture is what is the strength of a particular patent? Is it prone to attack on the context of lack of novelty lack of inventive step and all of that in which case a licensee will potentially be affected.

So, another important aspect is that when patents are being transacted the value of patents is realized from the point of view of the licensing fee. So, the patent is essentially invalid you are paying for a patent which is a bad patent therefore, conducting an invalidity search is important before you get into the negotiation table. So, therefore, assessing the strength of a patent becomes the first consideration which means then the it could be an assessment of a single patent or a assessment of an entire portfolio of patents in a buy or sell scenario.

Many a time it is also about acquiring patents, change of ownership in relation to patents. You do not want to be in a scenario where you are ending up owning a bad patent a patent which is inherently not valid. So, before you actually go to a negotiation table, or you are looking at acquiring it is important to conduct the invalidity search to assess patent quality from the standpoint of prior art and other considerations which are possible.

That helps you to prepare well for transacting in relation to patents. Many a time in this entire negotiation it is possible that the patent price comes down, the outcomes of court litigation largely reflect. Scenarios where in the world we have seen that the value of patents have come down wherever the patents have been invalidated and often as a lost, led to a loss of value to a company.

So, while patents are so safeguarded very well it is also important to take into consideration that the patent can be attacked on many instances. So, doing a good invalidity search is essential to go prepared to the table for negotiation. Similarly from

the point of view of a buyer a buyer has a better negotiating advantage if the buyer has assessed the value of the patent on the patent portfolio.

So, therefore, these things are again take into consideration again not only the prior art part, but all the other aspects of the relevance of that patent. In fact, in many cases patent invalidity searches are closely followed by what we call inequitable conduct searches. So, if there are any in equitable conduct issues that are there with respect to a particular patent those get immediately flagged.

Now what do we mean by an inequitable conduct issues? It is the, during the prosecution of a particular patent application it is possible that the owner has not the patentee the applicant has not been compliant with certain aspects of the submissions. So, this can potentially raise inevitable conduct, if the patent if the applicant has had the knowledge of the prior art, but not submitted. Because in many jurisdictions prior art submission is a mandatory requirement in some other jurisdictions it is not. So, wherever there is a clear cut prior art submission which is mandatory and noncompliance of that can raise the issue of inequitable conduct.

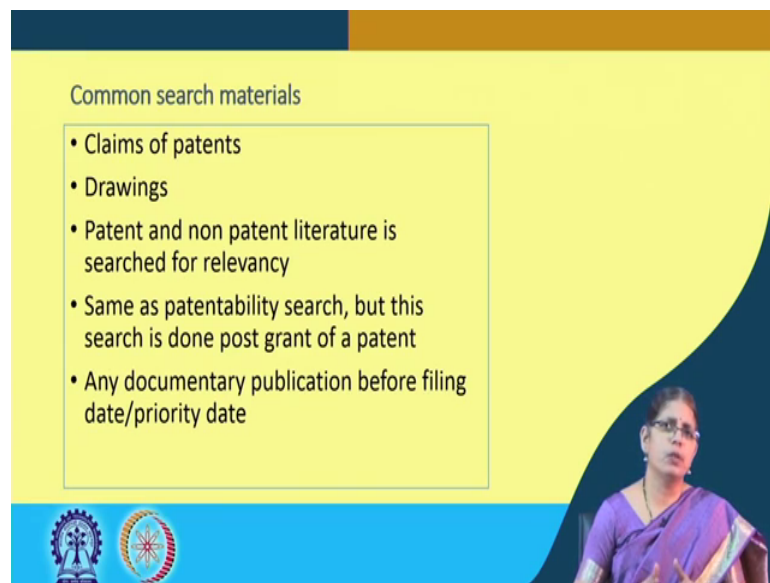
Similarly, the foreign documents filing requirement can is mandatory if those are not filed it is possible that a certain claims have not been awarded by other patent office's that information is potential to the prosecution of a patent at a given patent office. And deliberate non submission of that will again raise a inequitable conduct.

So, when an invalidity search is being taken into consideration that information becomes a potential place for the buyer to negotiate that there is something doubtful about your patent is what the buyer would raise to the seller. So, patent prosecution history is a very important consideration in this case as well. Today patent documents become a potential place for starting of investment and one patent can lead to setting up of a large enterprise.

So, when someone is investing so many million dollars worth of money on a bad patent what ensures entails in the entire process is something which is not worthwhile. So, for patent monetization also the invalidity search becomes a important consideration. Now during the licensing mechanism to understand the value of a particular patent application it is also important to assess the validity. And so therefore, the looking at the option of the invalidity search becomes appropriate to fix the value of the royalty or the type of licensing mechanism.

So, your negotiating ability becomes better if you could bring in this aspect that well there are other patents which are more useful than this particular patent. So, why is it that I need to pay more for this patent? So, one can actually go into that kind of ability to negotiate if you have done the invalidity search well.

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Common search materials

- Claims of patents
- Drawings
- Patent and non patent literature is searched for relevancy
- Same as patentability search, but this search is done post grant of a patent
- Any documentary publication before filing date/priority date

So, when we come to the common search materials that are available for a patent validity or an invalidity search they could vary subtly. But essentially one is looking at the claims of patents we are looking at the non patent literature drawings patent images become also very important from the point of you of looking at the considerations of a disclosure. And then since the this search is done post grant the ingredients of what we do for patentability search are somewhat similar and any documentary evidence available which can potentially invalidate a patent can be used for the patent validity or invalidity searches.

So, a lot of work goes behind into the patent validity or invalidity searches. This requires a lot of techno legal expertise from the point of view of looking at claims, claim term interpretation, looking at claim scope, mapping of a product to a patent which is called product mapping. So, these become very important because in a threatened litigation scenario a full-fledged analysis of it complete due diligence of this is necessary to now look at what are the next steps in litigation. Should you go ahead with the litigation or

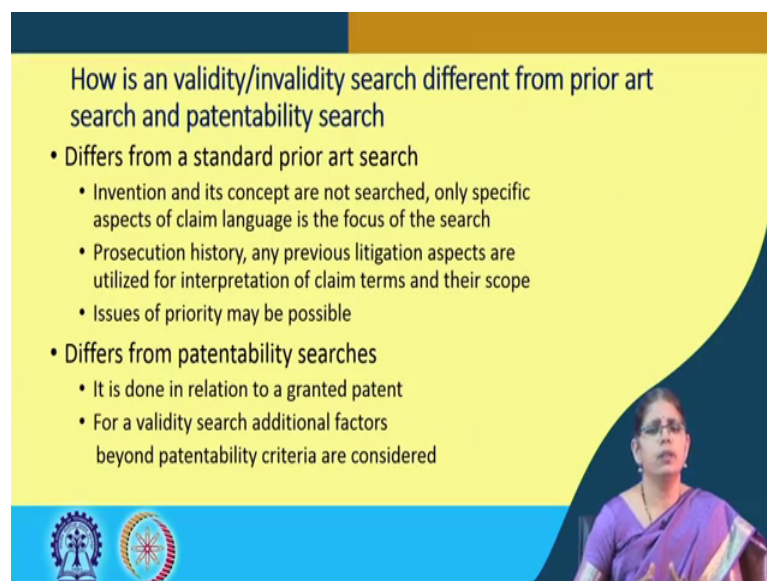
should you settle out of court? What are the other things which are important to move the case further on and build the evidence better.

So, if this area is another area which is a well requires a lot of building of skill in relation to patent search and most companies actually outsource this to specific law firms or agencies which are actually good in different types of invalidity search. Again depending on the area whether it belongs to the; whether the patent belongs to the predictable arts or the unpredictable arts. There could be variations involved in relation to the invalidity search we discussed about the patent term extension which is relevant for a.

So, because of the relevance of other laws in relation to that particular patent in relation to a pharmaceutical or anything like that. One needs to actually strategize the context of the invalidity search sometimes you need to review the entire invalidity search. So, it is again an iterative process sometimes you need to put that on hold and then look at other favorable circumstances.

So, maybe because the you are waiting for an outcome of an existing litigation and then you would like to plan. So, understanding the strategy behind the search becomes very important in the case of invalidation search, because it is again a very broader perspective that one is looking at.

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How is an validity/invalidity search different from prior art search and patentability search

- Differs from a standard prior art search
 - Invention and its concept are not searched, only specific aspects of claim language is the focus of the search
 - Prosecution history, any previous litigation aspects are utilized for interpretation of claim terms and their scope
 - Issues of priority may be possible
- Differs from patentability searches
 - It is done in relation to a granted patent
 - For a validity search additional factors beyond patentability criteria are considered

Let us understand what is the difference between an validity search to a patent ability search because we just completed that in the earlier lecture. There are certain differences between the validity search and the standard prior art search.

Now, in a standard prior art search you are looking at the invention as a whole where you are assessing the invention for patentability in terms of novelty non obviousness and utility. But here in the case of invalidity search you are taking into consideration only certain claims of the invention. So, that is where the entire invention is not involved and not only that you are also looking at the interpretation of certain claim terms and the scope of that in relation to the prior art.

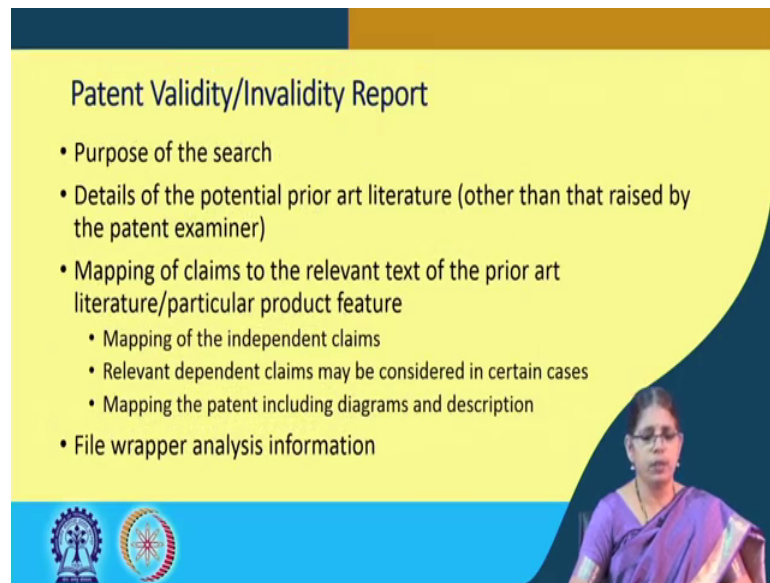
So, it is a very much more specific type of a search which you would do in relation to the invalidity or the validity search. Another important aspect of which is where the difference comes in is the relevance of prosecution history. Any previous litigation on related patents can again be potentially utilized many a time what happens is a patents can be in different types there could be patents of addition, then there are patents of a there is a divisional patents are available.

So, they are part of one and symbol. So, if you are looking at a patent of addition revoking the main patent would mean that they substantially which will may affect the patent of addition. So, there are these considerations one need to also keep in mind which is beyond the purview of just the aspect of lack of novelty or lack of inventive step. The issue of priority itself can be a big question in the case of validity search.

So, therefore, this does not arise typically because the question of the date of invention is a consideration just for in the case of patentability. But since it is validity search is done post grant where a priority issue comes in into picture that becomes an important consideration and a difference which one can realize in relation to the prior art search itself.

There are other differences with respect to the patentability search is that additional factors are a consideration. So, one may be looking at the invention just from the point of view of a not only just the non patent or the patent literature, but additional sources. So, therefore, the unlike the patentability search the purview of the entire validity search is much beyond. So, that is where you can see the differences between the patentability search and the.

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Patent Validity/Invalidity Report

- Purpose of the search
- Details of the potential prior art literature (other than that raised by the patent examiner)
- Mapping of claims to the relevant text of the prior art literature/particular product feature
 - Mapping of the independent claims
 - Relevant dependent claims may be considered in certain cases
 - Mapping the patent including diagrams and description
- File wrapper analysis information

So, what goes into the report of a patent validity or invalidity report we need to take that into consideration. The first most important thing when you present to your client or you prepare a report on that is to define the purpose of the search. Understanding that is very clear we have dealt with two examples in this lecture, then discuss the difference between the prior art and the invention in complete detail.

So, it is like actually writing a complete one page report or a research report on the exact difference between the or the interpretation of the claim terms in relation to the prior art in clear and lucid terms. And the prior are typically which is raised is other than what is raised by the examiner.

The third important thing we need to look at it from when the report is prepared is the section where the discussion happens in relation to the claim mapping to the prior art mapping. So, that claim to prior art mapping starts with the explanation relation to the taking up one claim at a time.

So, you need to mention the claim number particularly the independent claim. So, how this independent claim you know has a counterpart issue with respect to a prior art which is potentially can defeat the novelty of this particular claim or an issue of a case of obviousness and similarly some other aspects of other factors that we have discussed.

It is possible that at times some relevant dependent claims are usually not taken up in a patent validity search. But depending on certain cases certain areas dependent claims also can become a part of the validity search.

Because in many jurisdictions multiple dependent claims are taken up as part of the patent claims in which case this issue can come up where the if the independent claim itself is at is struck off the issue of the validity of the dependent claim does not arise. But however, in certain cases considering dependent claims also is necessary, it is not only important to look at the claim mapping one should also look at the mapping of the description of the invention with respect to the prior art.

So, here we take into consideration if any of the diagrams of the invention potentially can defeat the novelty then those become an important consideration. There a a lot of case law where drawings alone constitute to defeating the novelty of an invention in which in some cases courts have ruled that drawing alone can actually be taken up for defeating the novelty of an invention. So, the diagrams in the description and how they are actually what is the relation with the prior art that becomes again an another important part.

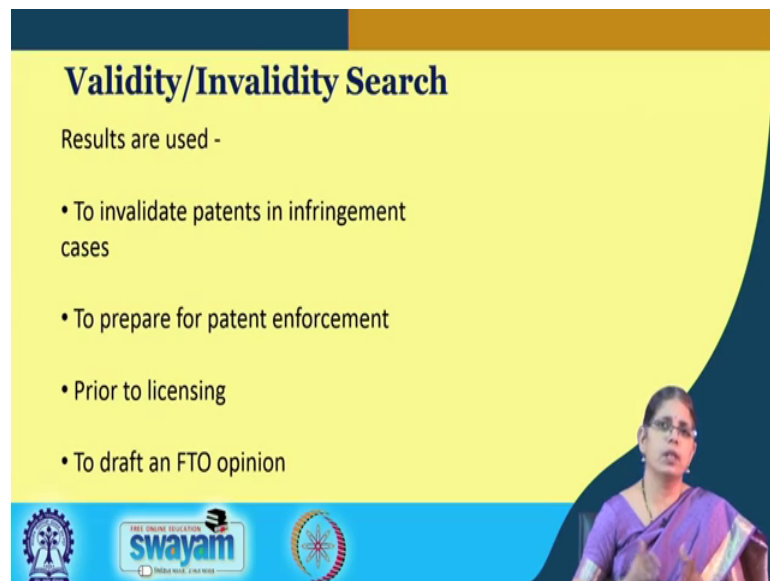
So, laying out the report of the patent validity in this particular fashion we will provide a complete detail of the entire status of that particular patent in relation to the prior art on one hand and other factors in some cases the file wrapper information is important. So, therefore, analysis of that also take is important one must remember that there are different proceedings at the patent office for review of patents post grant.

Today some of the jurisdictions offer more than one proceeding available at the patent offices. They for instance if you look at it from the point of view of the united states USPTO has post the America invents act introduced many different proceedings. One is the inter part review the other is the post grant review. Today the IPR proceeding has become a typical place where a lot of invalidity proceedings are taken up.

So, the question of contesting the validity of a patent in a very short time of 12 months when made available at the patent office becomes a very attractive option, less expensive evidentiary considerations are different. So, therefore, with these different options coming up at the patent office's it has become important to look at it from the point of view of the scope of bringing in the invalidity issues in relation to patents.

Today patent offices are also allowing for pre issuance submissions at the patent office. So, a lot of prior art submissions are being made at the patent offices, and the patents which are of actually are not novel or not meeting the requirements under the given law are actually not going through the patent office or not being allowed as grants. So, with these procedures introduced it has now become a good option and has also become a very important area of practice. So, invalidity and patent validity searches are important from that standpoint.

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Validity/Invalidity Search

Results are used -

- To invalidate patents in infringement cases
- To prepare for patent enforcement
- Prior to licensing
- To draft an FTO opinion

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So, how do you really utilize the results of the patent validity or invalidity search? Planning for in a case of patent infringement planning the litigation it helps in that. So, it provides you the option of looking at how the litigation in what strength can the litigation move forward.

So, from the plaintiff's point of view asserting validity is very important, from the defendants point of view striking off the patent on the important grounds on the main grounds of novelty non obviousness an eligible subject matter it becomes fundamental. So, therefore, the entire search is centered around looking at raising the relevance of prior art to invalidate the patent on those three counts. It is possible that other factors also add to the, these grounds you can bring in multiple grounds.

Today you find multiple defendants in a in patent litigation because of the various procedures that have been opened up at the patent office's many a times it does not

require the defendant to be present during the proceeding at the patent office. So, it is possible that one defendant takes up let us say an IPR proceeding at the patent office whereas, the codefendant is actually looking at the outcome of this to now launch a separate litigation in the code.

So, it opens up a plethora of these you know possibilities and so therefore, planning into the entire scenario of patent infringement is itself a very important aspect where you see the value of the validity searches. For a patent owner it is important to prepare for patent enforcement. So, as a patentee one needs to keep into mind that this of strengthening the value of a particular patent. So, for patent enforcement purposes again the patent validity search is important.

Prior to licensing out of inventions both the patent owner conducts the validity search and the licensee potential licensee conducts the invalidity search. So, prior to licensing it is again an important option, also there is a link between patent validity to the freedom to operate. Many a time the issue of patent validity may not arise, but the case of the ability to enter into market will be affected at times because of the other patents that are there. So, again in order to draft a good FTO opinion understanding the validity of a patent also becomes an important consideration. So, that is where we see the link between these two.

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The slide is titled "Outcomes of Validity search" and features a list of six bullet points. In the bottom right corner, there is a small inset image of a woman in a purple sari speaking. The slide has a yellow background with a dark blue header and footer. The footer contains two logos: the Indian Patent Office logo and another circular logo.

- Invalidation of patents
- Claim limitation to avoid issues in patent period
- Assess strength of patents
- Plan for introduction of products into market based on FTO clearance
- Calculation of near expiry period of patents – Relevant for Pharma and biopharma patents
- IP due diligence during buy over/take over/mergers

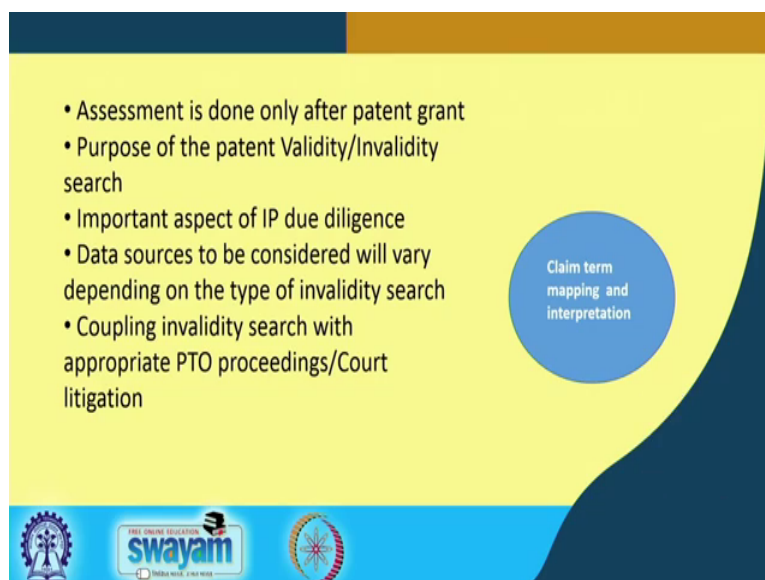
Of course there are; so there are several reasons for which we conduct the validity search. And today in the area of a mergers and acquisitions buying over of a portfolio of

patents, it has become important to look at the aspect of patent validity. Particularly in those industries which where the domain is based on technology value out of you know value taken out of technology for making products and process.

In the case of a pharma and biopharma patents understanding the context of a validity search becomes important from looking at one the reassignment information and second looking at the patent term extension. So, when you are looking at planning out to entry of generics into the market we are potentially waiting for the period of validity to expire in relation to patents. Sometimes you may have a drug with generic application which is a ready and you know that you know this has great value.

One can actually look at even before the expiry of a patent to invalidate the patent and get into the market. So, there are procedures there is a procedure available under the in the US by way of patent linkage where one can invoke the type of patent certification. Such that the generics enter into the market while during patent term, even an invalidation is potentially possible when the patent owner reacts to the challenge which is posed. So, here you have a invalidation suit in the court and the entry of generics. So, this link is available in the case of the form and the biopharma patents.

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- Assessment is done only after patent grant
- Purpose of the patent Validity/Invalidity search
- Important aspect of IP due diligence
- Data sources to be considered will vary depending on the type of invalidity search
- Coupling invalidity search with appropriate PTO proceedings/Court litigation

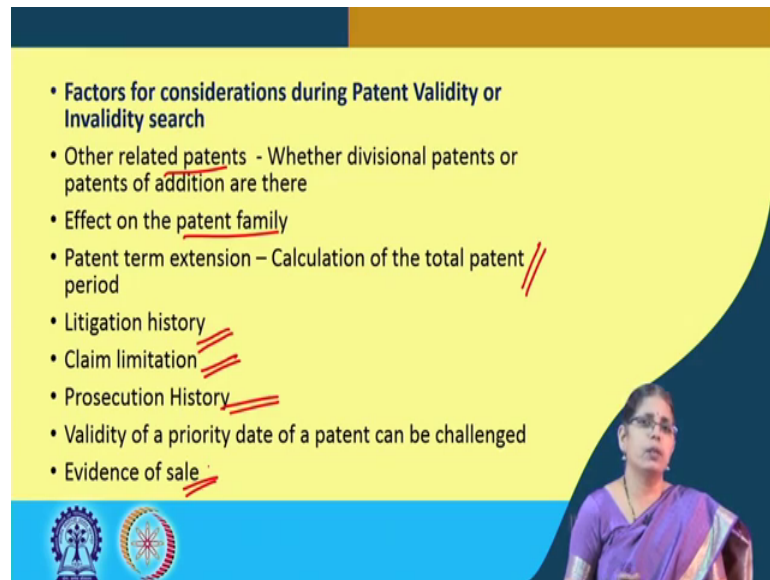
Claim term mapping and interpretation

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So, in summary we have looked at the aspect of why the patent validity and invalidity search is important. This forms an important part of IP due diligence there are various data sources which are considered in case of conducting this search. Coupling this in

relation to either the patent office proceedings or the court proceedings is a strategy and one must keep in mind that here the ability to analyze claim terms, and claim scope interpreting it in relation to a prior art is the expertise one develops when one conducts a validity search.

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- **Factors for considerations during Patent Validity or Invalidation search**
- Other related patents - Whether divisional patents or patents of addition are there
- Effect on the patent family
- Patent term extension – Calculation of the total patent period
- Litigation history
- Claim limitation
- Prosecution History
- Validity of a priority date of a patent can be challenged
- Evidence of sale

So, let us summarize some of the aspects of what are the factors that are considered during the patent validity or the invalidity search. Understanding related patents keeping in mind this is very important from the point of view of looking at the divisional patents or the patents of addition.

What could be the effect on a patent family keep that in mind when you are actually conducting an invalidation search. In the case of pharmaceutical patents calculation of the total period of patent is important before we embark on the search in relation to invalidation because as yet the case of patent term extension applies. Litigation history is important to plan out actually how well one can actually invalidate a patent of a particular competitor or a company.

For patent owners it becomes important to look at the validity search from the point of view of limiting claims. So, and to prevent a future litigation it may be good to limit claims at the patent office. Prosecution history is always something which haunts all patent owners because that is one potential place where a lot of assertion of invalidity

comes in from the point of view of defendant. So, take into consideration prosecution history aspects when you are looking at invalidity search

Priority date itself of a patent can be challenged and so therefore, ascertaining the priority date is an important consideration when you are looking at the search in relation to invalidity. Evidence of sale can be a good defense for validity of a patent. So, therefore, for patent owners keeping in to record the evidence of sale can potentially thwart the aspect of invalidation that can come up in relation to their specific patents.

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There are so some of the references in relation to this particular lecture one can access from the book on patent search for tools and techniques and the patent search workbook developed in this particular course.

Thank you.