

**ROAD MAP FOR PATENT CREATION  
PATENT SEARCHING AND ANALYSIS  
Lecture 06**

A very warm welcome in the first module week2 of the Course, roadmap for patent creation, titled“Patent searching and analysis”

In this module we will be discussing one the advanced area in IPR that is patinformatics or patent analytics In earlier module we have given you little idea about the patinformatics and as it is very important area with reference to research, we have included one dedicated module on it.

when we say patent we can divide this domain broadly into three categories.

- **Patent Searching and analytics**
- **Patent drafting & prosecution and**
- **Patent litigation**

Patent searching and analysis is the area where patent analysts dig out the related patents from the huge number of patent documents and then analyse it based on the objective of the activity. Patent drafting & prosecution is the area where patent attorney or patent agent draft the patent document and also take care of prosecution. Here the prosecution is timebound. Patent agents and lawyers interact with patent office at various stages of patent prosecution which involves first application or patent filing, then reply to the first examination report, then hearing etc. Patent litigation is the third vast area. Here lawyers help the patent owners to get their rights or to enforce their rights.

so these are three important broad areas when we consider

patent ...patent analysis, patent drafting and patent prosecution and the third patent litigation. Now how exactly patent analysis works... Here patent analyst use the search strategy ..it is very skillful job as you have take out very relevant patent documents ...we say this job is like searching a needle in haystack. This is not exaggeration...this is the fact as patent analyst have to pool very relevant patent may be 1 or may be 3000 or like depending the objective of the activity. Why such a range I am giving...because...when we have to prepare landscape the number may be large but when we are doing novelty search that number is generally very low..a single patent is also enough to invalidate patent under consideration...we will not go in details of that now...Just we will keep in mind that it is a very skillful job.

Now once you have pooled the data in excel sheet or any format you are comfortable the process of analysis starts Thus from raw data ..relevant data is pooled and it is analysed ...analysis may be presented in the form of venn diagram, technology mapping technology trend analysis aureka mapping/ themescape mapping anything...depending on the patent database you are using or if you are creating the report manually... citation tree These are a few representative examples shown in this slide...there are many more ways to represent the data and it depends on the objective of the activity...

Now you will what is importance of this whole activity....this importance we can present in very simple way as below...

- **Who** –here this information in the patent will help you to know details about inventors, companies, attorneys, cited/citing parties, this information will be useful in HR point of view or may be useful to decide on collaborations or technology transfer activity..so it depends on the user how to use this information in the patent document
- The next is information about when exactly particular thing occurred...
- **When** – so the information in the patent document can be used to know the Invention trends, assignment history ..if there is any dispute and if so what are the chronological activities happened related to it... the information regarding the publication, the information regarding the research activities

Then the third one is where ...the location Geographical location ..about the inventor....this is something which gives you information about the geographic or regional strength with respect to particular technology..Organizations use this information very effectively for establishing collaborations ...with this information about location you can do geomapping for the project you are interested.

Then the information about how...What are the different approaches or ways used in the particular experiments..what are the effects of that approach ..what are advantages and disadvantages of that approach...this information may help you decide on your approach to solve the problem....The analysis may help you to give motivation...you explore various applications of the technology ...probably that may help you to apply it in your research to improve the results ..your thinking may broaden by knowing the details in the patent documents and new opportunities can open up to explore....this information may help you in investment decisions also ....

Thus in short patent analytics can give the answers to

- **Who**
- **When**
- **Where**
- **How**
- **Why**

Now we will go in little more details ...So 2clickraw data pooled by patent analysts and this is useful in business and R & D information..

Creative thinking and problem solving You will say how patent analytics can be helpful in the creative thinking ....In patent analytics you dig out related patents in your domain..browsing through this may help you to know the upcoming interesting facts in your domain...this reading and then pattern of development may give you some ideas about the domain or project in which you are working....thus this will help you to think differently and help you in problem solving...

Next is **Prevent duplication of research** This is very very important...when you do research you are investing your time ..if you are phd students you invest your valuable time of 3 to 4 years in the research or sometimes more ... you are investing the resources...if you are working in public organization or private organization so many valuable chemicals instruments etc you are using....so many other important resources you are exploring for your research.... Now in such scenario, it is not good practice that you are working on project or problem something which is already resolved or already extensive work is done to resolve that problem...so if you use patent analytics you will come to know the current state of the art and then you will start from that point...

I have seen examples in educational institutes that students work on the project which is already explored in much details then they get some solution and think of patenting it...when we do search report we show then

that this work is done already and there is no use of filing patent ....many times this happen ..to avoid this duplication it is necessary to use patent analytics...rather all research activity must have mandate to do patent search thoroughly...then the quality of research can be improved....this can be part of literature review in your research....

Then next is **R&D and business strategy** You will how strategy is related to patent analytics....Here the fact is this analysis gives you pretty well idea about domain in your working....so this analysis along with business analytics together can help you decide on further activities in the organization....this is powerful tool to remain competitive in your domain... your visionary look based on patent and business analytics helps you to think very differently than your competitors..

Next is **Technology trends & white space** This patent analytics helps you to give technology trend ..so for example suppose you are working in some x domain...you can take help of patent analyst to check the last 50 years trend in your domain...this trend may help you to decide on further projection in your technology domain. Similarly white space mapping....patent analyst can help you to give the landscape ...by observing this landscape you can find out the areas which are not explored till time... but before that what is landscape ...landscape is nothing but the

analysis of patent and then clustering of the related patent and then establishing relationship between different clusters....so this is like the aureka map or themescape map by Derwent innovation, a patent database... so some databses help you to give this automacally ..generated by machine...however, many times this landscape activity is done manually by patent analysts...So this is about technology trends and white space mapping...

Coming to next now **Bridge the technology gap** How patent analytics will help in this .... interesting na that patent analytics helps you in bridging the technology gap...Here suppose you are working in two different domains ...now you want connect these two domains to create something new which will give synergistic effect...here you can explore these two domains in details and can find out the thread connecting these two technology domains through analysis of patents in these both domains ..such a hint can help you to think over the link and explore the opportunity to invent something very new ....

The next one is **Prevent infringement & litigation** This is vey very important...patent litigation is very costly...and you know the legal law excuses not"...that if you say I was ignorant about it...law will not give you excuse...Hence it is always suggested to do the patent analytics especially if

you are doing any commercial activity using any technology...you may never know that technology is patented...Thus to avoid infringement and litigation it is necessary to do the patent analytics

The next is Technology transfer , Licensing Now how it is useful for this...here as informed earlier in the earlier slide where we have seen

- **Who**
- **When**
- **Where**

I have mentioned this is useful in HR and collaboration activity...how this is helpful...let us take an example...suppose you are working in mechanical engineering domain now in that on a particular problem you are working now when you browse through the patents in that domain you get the information about the who else is working in that domain....through this mapping you can find out who can be benefitted from my invention and then based on that analysis you can think of technology transfer and licensing ....

Now the last one is **Mergers and acquisitions** Here these patent analytics help you in detailed analysis about the strength of the particular organization...so for example if you want to acquire a particular organization then here you can do thorough patent analysis to know the strength of the technology and patent or other IP portfolio to value the organization...we

have seen in last module ROCHE and GENEntech merging ...such activities generally involves patent analytics and checking of IP portfolio strength.....Thus patent analytics can help you in

1. Creative thinking and problem solving
2. Prevent duplication of research
3. R&D and business strategy
4. Technology trends & white spaces
5. Bridge the technology gap
6. Prevent infringement & litigation
7. Technology transfer , Licensing
8. Mergers and acquisitions

With this we come to the end of this session. In the next session , “Patent-Definition”, we will learn about the definition of patent and the criteria for patenting... See you in the next session

thank you!

