



## Description

Patents have two purposes: awarding rights to the inventor and preventing others from claiming ownership. In research, patents encourage innovation by ensuring that work focuses on new ideas. Patent searching can help researchers to avoid wasting valuable time and money on unoriginal work. This is very important if researchers are planning to apply for a patent themselves.

Patents are famously complex. So how can you carry out a proper patent search? Here, two junior scientists Matthew and Jennifer discuss how to search and read patents effectively.

## Patents: The Basics

*Matthew:* “My supervisor wants me to look into patenting the new product we’re working on. I don’t know where to start. Can you help?”

*Jennifer:* “First, make sure you meet the patent requirements. In the US, for example, your idea must be more than a theory – it must be useful in the ‘real world.’ This is known as ‘reduction to practice.’ This is the step in developing your invention where you create the physical object or carry out the process. Also, your invention must be original.”

## Types of Patents

*Matthew:* “OK, our invention meets those criteria. However, are there different [types of patents](#)?”

*Jennifer:* “Yes. Most inventions are registered as **utility patents**, which cover new or improved products. There are also **design patents**, which cover decorative designs on a product. **Plant patents** protect new types of plant.”

*Matthew:* “I will definitely need a utility patent. Should I go ahead and apply?”

*Jennifer:* “Wait! There are five types of utility patents. The first is **processes**, or methods producing a result. The second is **machines**, for example, a new medical scanner. The third is **articles of manufacture** (components of a final product, like a new type of computer chip.) The fourth is **a composition of matter**, such as a new chemical compound. Moreover, finally, the fifth is **improvements** to any of the first four.”

*Matthew:* “I see. I think I need to look at the first type – the process or methods.”

*Jennifer:* “Your next step is to carry out a thorough patent search, to make sure your invention has not been patented earlier.”

Are you planning to patent your research? [Here is a checklist](#) that will help you in the process!

## Patent Searching: Where to Start?

*Matthew:* “I am ready to start the patent search. What is a good starting point?”

*Jennifer:* “Some patent offices give free access to their data. These include the [European Patent Office](#) and the [US Patents and Trademarks Office](#). For Canada, there is the [Canadian Patents Database](#). However, the search functions are often basic. As a beginner, you might not get the results you need. I suggest starting with [Google Patents](#). This is free and has access to data from seven patent offices. If you find a patent that matches your work, you can stop there. If you don’t, you can move on to a paid service, like [LifeQuest](#).”

## De-coding Patents

*Matthew:* “I’ve started searching for patents, but they are so complicated! I’m worried I might miss something important.”

*Jennifer:* “When I started searching patents, I was given some good advice. There are a few things you need to know. The first is the patent life cycle. When you search, you will see both granted patents and patent applications. It can take years for a patent application to be considered. If it is successful, the patent will be valid for 20 years from the date it was granted.”

*Matthew:* “That’s helpful! What else do I need to know?”

*Jennifer:* “You need to understand patent families. A family is a group of patents that are related by [priority date](#). This is the date the first patent application was made. Patent families are used when the same application is made in several countries. For example, you might decide to file your application through the [World Intellectual Property Organization](#) (WIPO.) WIPO cannot grant patents, but they can give you a priority date. If you apply in one country, you can use the same priority date in future applications. This means – you don’t have to rush, to file applications in different countries at the same time.”

*Matthew:* I'm not sure how this helps?"

*Jennifer:* "You can use patent families to avoid reading the same patent filed in different countries. This can save you much time."

## Search Strategies

*Matthew:* "Now I understand! However, I read that there are around 80-100 million patents worldwide! How can I search them all?"

*Jennifer:* "It's crucial to have a good search strategy. First, take care to choose the right keywords. Remember that words linked to a certain subject can change over time. Inventors might deliberately avoid the most obvious keywords for their product. Try out your keywords with a few test searches. Secondly, you need to narrow your search, Try filtering by title, abstract or date. Finally, make sure to check the 'Claims' section of patents. In this section, inventors must be precise about their product, so you are more likely to get matches for your keywords."

## Reading Patents

*Matthew:* "Each patent is so long! Any tips on how to read them quickly?"

*Jennifer:* "The first tip is to skip the title. Patent titles are often general and do not provide useful information. You can also skim the abstract. Unlike in research articles, patent abstracts are often not a good guide to the content. Go directly to the 'Claims' section. This part describes the actual invention. Study it accordingly."

*Matthew:* "So do I need to read the rest of the patent?"

*Jennifer:* "Only if the claim says that this is the type of patent you are looking for. You can then go on to check the drawings. Sometimes drawings help understand what the patent is about. Then read the specification or description. This section gives background to the invention and more detailed information. Here, I have explained all that I knew about patents. You can gather more information from these [references](#). All the best with your patent application."

Have you done patent searching during your research? What was your experience in patent searching and reading? Please share your thoughts and experiences in the comment section below.

### Category

1. Publishing Research
2. Understanding Ethics

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