

ENGLISH LEARNING FOR CURIOUS MINDS



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Episode #159

Patents

18th May, 2021

[00:00:00] Hello, hello, hello, and welcome to English Learning for Curious Minds by Leonardo English, the show where you can listen to fascinating stories and learn weird and wonderful things about the world at the same time as improving your English.

[00:00:22] I'm Alastair Budge and today we are going to be talking about patents.

[00:00:27] Patents are a way for inventors, and for companies to protect their inventions for a fixed period.

[00:00:35] Exploring the idea of patents is fascinating, as it raises several questions: how to [incentivise](#)¹ scientific and technological progress?

[00:00:46] What actually is the value of an idea?

[00:00:49] Should we change these laws, and under what conditions, if millions of lives are [at stake](#)²?

¹ make someone want to do something, encourage

² in danger

Patents

[00:00:56] I guess I should start by saying that this isn't legal advice, but rather an exploration of this weird and wonderful world, with a few fun examples thrown in [for good measure](#)³.

[00:01:10] Right, with that out of the way, let's get started.

[00:01:14] We are all [beneficiaries](#)⁴ of the inventions of other people.

[00:01:19] From the phone or computer you're listening to this on through to the microwave oven, from the traffic light to the USB [socket](#)⁵, our lives are infinitely better and easier thanks to the inventions of other people.

[00:01:34] It does seem strange to think that almost everything we use in our day to day lives was invented by someone, somewhere, and at some point in history.

[00:01:45] And in the vast majority of these cases—and we'll come on to discuss several of these in due course—that person would have got a patent.

[00:01:55] The best way to think about what a patent is, and what it does, is to [encourage](#)⁶ society to keep inventing things.

[00:02:04] The idea goes something like this.

³ in addition to what has already been said

⁴ people who receive advantages and help from something

⁵ a piece of electrical equipment into which another parts fits

⁶ make someone want to do something

Patents

[00:02:07] An inventor, or a company, might spend many years, and in the case of a company, vast amounts of money developing an invention.

[00:02:17] Perhaps it's a new drug, perhaps it's a new type of computer, or it might just be something a bit less [life-changing⁷](#).

[00:02:25] Let's say it's a [device⁸](#) that [scratches⁹](#) your back at the same time as it plays music.

[00:02:31] In all of these cases, there has been a large amount of time, effort, and money, or a combination of all of them, invested in this new invention.

[00:02:42] The person or the company wouldn't like the idea that anyone can just come along and copy it.

[00:02:48] A patent is the tool that protects them against this.

[00:02:52] By the way, if I were American, I'd say 'patent', but let's stick with the British pronunciation.

[00:02:59] So, I can apply for this [marvellous¹⁰](#) patent, but what does it actually do?

⁷ having a strong effect on people's lives

⁸ a machine made for a particular purpose

⁹ rubs one's body lightly with something sharp

¹⁰ extremely good and pleasing

Patents

[00:03:06] [Contrary to popular belief¹¹](#), it doesn't actually stop people from copying me.

[00:03:11] All it does is say that I have a legal right to go to court if someone else makes and sells my invention, for a period of typically from 10 to 30 years.

[00:03:25] So, if I have invented this fantastic [back-scratching¹² device](#) that also plays music, if I manage to get a patent for it, then it doesn't necessarily mean that you can't make it, it just means that if you start making it and selling it, then I can take you to court and [sue¹³](#) you.

[00:03:44] The idea behind patents, the [rationale¹⁴](#) for them existing, is so that the inventor is given a fixed period of time to allow them to make money from it.

[00:03:55] A sort of [time-limited¹⁵ monopoly¹⁶](#) on their invention.

¹¹ despite what most people believe

¹² rubbing one's back lightly with something sharp

¹³ take legal action against a person

¹⁴ a set of reasons

¹⁵ for a specific period of time

¹⁶ complete control of a product market

Patents

[00:04:00] This is both to [reward](#)¹⁷ them for their invention, and also so that they can make enough money to reinvest in new research, to make new inventions, and for the world to generally be a better place.

[00:04:15] The other, related reason for patents is that they actually require the inventor, or the company applying for the patent, to provide very clear instructions about how someone else can make this object.

[00:04:28] So, while on the one hand, it [prevents](#)¹⁸, or at least [discourages](#)¹⁹, other people from copying it for a fixed period, once that period of time is up, once it is finished, anyone can copy it relatively easily because they have the information about how to do so right there in the patent.

[00:04:52] This takes us very nicely on to two other points, firstly the [origin](#)²⁰ of the patent, and secondly the law about how you can actually apply, and be awarded a patent.

[00:05:05] So, the [origins](#)²¹.

¹⁷ to give something to someone for achieving something

¹⁸ stops someone from doing something

¹⁹ makes someone not to want to do something

²⁰ the beginning of something

²¹ the beginning of something

Patents

[00:05:07] The word ‘patent’ comes from the Latin, patere, which means to ‘lay open’, or to make available for public [inspection](#)²².

[00:05:16] This is exactly what a patent is doing.

[00:05:19] It isn’t just saying “I have a special invention and you can’t make it”, it’s saying “this is my invention, this is exactly how it works, but you aren’t allowed to make it for a [specified](#)²³ period of time”.

[00:05:33] Now, how do you actually get a patent?

[00:05:36] What actually qualifies as being so new and special that it deserves the legal protection to not be copied?

[00:05:45] The law varies in different countries, and there are different types of patents, but for something to be patentable, for you to be able to get a patent, it generally needs to meet 5 different [criteria](#)²⁴.

[00:06:00] First, it must fit into a category of something that can be patented. Not everything can.

[00:06:07] New drugs, new tools, new types of software, even new business methods can be patented.

²² careful examination

²³ particular

²⁴ requirements or standards

Patents

[00:06:14] Art, for example, can't.

[00:06:16] A theory can't, and nor can any kind of [abstract²⁵](#) process.

[00:06:22] Secondly, it has to be new.

[00:06:26] This might sound obvious, but you can't patent something that is already known about.

[00:06:32] Thirdly, it needs to be what's called "[inventive²⁶](#)".

[00:06:36] It can't be obvious to someone.

[00:06:39] For example, you might say that my music-playing [back-scratching](#) tool is new and inventive, and that you wouldn't have thought of it, or perhaps you wouldn't.

[00:06:50] Fourthly, it needs to be what is defined as 'useful', but 'useful' here doesn't mean what useful normally means.

[00:07:00] It doesn't mean that it has to be of great benefit for mankind, otherwise, my music-playing [back-scratcher²⁷](#) might not meet the [criteria](#).

²⁵ existing as an idea only

²⁶ bringing new ideas and being original

²⁷ a machine that rubs one's back lightly with something sharp

Patents

[00:07:08] But rather, that you can show that it works, and it isn't just an [unproven](#)²⁸ theory.

[00:07:15] I couldn't, for example, patent a helicopter that can travel at 10,000km an hour if I have no way of explaining how I would actually get it to work.

[00:07:27] It might be 'useful' in the traditional sense of the word, but it isn't 'useful' in the patent sense, because I can't show how to actually make it.

[00:07:37] And the final requirement, in the US at least, is that it has to be something that is new and hasn't been [on sale](#)²⁹ before, it hasn't been sold before.

[00:07:49] So, these are the [criteria](#) that your invention normally needs to meet.

[00:07:54] As you can see, there is quite a lot of [room for interpretation](#)³⁰. It's certainly not black and white.

[00:08:02] I should add that the process of getting a patent can be [time-consuming](#)³¹ and expensive, involving lots of lawyers and different [fees](#)³².

²⁸ not tried and tested

²⁹ on the market for sale

³⁰ a phrase meaning that people can understand the matter in different ways

³¹ taking a lot of time

³² money paid for a service

Patents

[00:08:12] So it's not the sort of thing that you should do unless you know it's going to be worth it.

[00:08:17] Indeed, these [fees](#) can easily be more than \$10,000, and this is only to have the legal defence in case someone copies it.

[00:08:27] In the vast majority of cases, especially with [smaller-time](#)³³ inventors who are convinced that their creation is going to make them a millionaire, they end up spending much more money on the patent application than their invention ever brings in sales.

[00:08:43] And by vast majority, 97% of patents that are [filed](#)³⁴ never actually get back the cost of [filing](#)³⁵ the patent.

[00:08:52] I can remember a colleague from an early job who was convinced that he had invented an amazing way to stop the wires for your headphones getting [tangled](#)³⁶ in your pocket.

[00:09:05] He spent thousands of dollars on a patent, and I don't think he ever sold a single set of headphones.

³³ less important, minor

³⁴ submitted or presented to be placed on record

³⁵ submitting or presenting something to be placed on record

³⁶ twisted or turned into a messy mass

Patents

[00:09:12] Of course, with the arrival of wireless headphones, I think he'll probably remain in the 97%.

[00:09:19] But when it comes to patents and making money, there are three main categories of people who make money from them.

[00:09:26] Firstly, the lawyers, of course.

[00:09:29] Patent attorneys are expensive, and they will be very happy to help you [file](#)³⁷ a patent, for a [sizable](#)³⁸ [fee](#)³⁹, of course.

[00:09:38] Secondly, the large companies who are making [groundbreaking](#)⁴⁰ discoveries, and need to patent their inventions to stop their competitors from stealing them, or who are buying patents from other companies.

[00:09:50] Companies such as Google, Apple, or big pharmaceutical companies want to [recoup](#)⁴¹ the costs of their research.

³⁷ submit or present something to be placed on record

³⁸ large

³⁹ money paid for a service

⁴⁰ new and bringing change

⁴¹ regain, earn back

Patents

[00:09:59] Other companies buy patents directly from an inventor, if they think they will be able to make more money from producing the product than the cost of paying for the patent.

[00:10:10] A great example of this is for a product that I'm sure you will have used at one point in your life, and perhaps you are even holding one now.

[00:10:20] A man called Laszlo Biro sold his invention to the Bic company for today's equivalent of \$2 million dollars back in 1945.

[00:10:30] The invention?

[00:10:32] The [ballpoint pen](#)⁴², or the biro, or a bic.

[00:10:36] It might have seemed like a good deal for Laszlo Biro, but it was an even better deal for Bic, which has gone on to sell over 100 billion pens, and benefited greatly from having this early advantage of the patent to sell these pens.

[00:10:54] Now our third category of people who make money from patents is a category that you might not expect.

[00:11:01] This is the category of the 'patent troll'.

[00:11:05] Now, a troll is a nasty animal that lives under a bridge and makes people pay for crossing it.

⁴² a pen with a small metal ball at the end

Patents

[00:11:13] It has also become the **term**⁴³ for an anonymous person who insults people on the internet.

[00:11:20] When it comes to patents, a troll is something very different, although perhaps **nastier**⁴⁴ than the animal version and the internet version.

[00:11:30] A patent troll is normally an individual or a company who either creates or buys different patents, with the **express**⁴⁵ intention of **threatening**⁴⁶ other people and companies with **lawsuits**⁴⁷ and making money that way.

[00:11:47] A patent troll company might own hundreds or thousands of patents, and wait until it sees a company with a **vaguely**⁴⁸ similar invention to something that it already has a patent for.

[00:11:59] It sends this company **threatening** letters, saying that they have **infringed**⁴⁹ on its patent, and that it will take them to court.

⁴³ a word used to describe something

⁴⁴ even worse or more unpleasant

⁴⁵ clearly stated and intended

⁴⁶ expressing the intent to harm someone

⁴⁷ problems or cases brought to a law court

⁴⁸ not clearly expressed

⁴⁹ broken the law regarding their rights

Patents

[00:12:07] The costs of going to court for a patent dispute are typically anywhere from 1 to 5 million dollars, in the US that is, and so these companies will typically [settle](#)⁵⁰, they will agree to not go to court, and they will agree to pay the patent troll to go away.

[00:12:28] Even if they know that they might win in court, they would rather pay a few hundred thousand dollars and avoid going to court than know that they would spend several million and have a court process that would take months or years to complete.

[00:12:44] You might think, is this really a problem?

[00:12:48] In the US it certainly is.

[00:12:50] Patent trolls are estimated to cost US businesses 29 billion dollars every single year.

[00:12:58] In the EU patent trolls aren't quite so much of a problem, because the legal system requires the side that loses to pay the other side's legal [fees](#). In the US, this isn't the [norm](#)⁵¹, and each side has to pay its own legal [fees](#).

[00:13:15] This means that there is a much bigger [disincentive](#)⁵² to go to court in the US because even if you win the court case, you'll still end up having to pay millions in legal [fees](#).

⁵⁰ reach an agreement

⁵¹ accepted and normal way of doing things

⁵² something that makes people not to want to do something

Patents

[00:13:29] I should add that there are movements to try to change the legislation around patent trolls in the US, but they are moving pretty slowly.

[00:13:38] By now I hope you will have a decent idea of what patents do, why they can be useful, and what some of the issues with patents can be.

[00:13:47] Now it's time to explore the question of the justification for patents, and if there is ever a right to essentially [waive⁵³](#) the patent, to say “this time it doesn't count, and anyone can copy my invention”.

[00:14:02] For things like new software, and—[dare I say it⁵⁴](#), my musical [back-scratcher](#)—there isn't really a case for it.

[00:14:11] People and companies have invested thousands of hours and millions of dollars in creating this invention, so it is only fair, the argument goes, that they are allowed to be the first ones to benefit from it.

[00:14:26] But what about when there is something that is so [beneficial⁵⁵](#) to mankind that people are dying because only one, or a handful of, companies can produce it?

[00:14:36] To give you a specific example, the COVID-19 vaccines.

⁵³ stop demanding something one has a right to, let something free for all to use

⁵⁴ used when you are saying something others might not like

⁵⁵ very helpful and useful

Patents

[00:14:41] [As it stands](#)⁵⁶, these companies that invested in developing the vaccines have the right to patent them.

[00:14:48] What is actually in the vaccines, and the manufacture of them is the relatively easy part, and companies all over the world could start to produce vaccines for their unvaccinated population and start the vaccination process.

[00:15:04] But they legally aren't allowed to do it, so they have to wait.

[00:15:09] There is pressure from a variety of public health campaigners for governments to [waive](#) these patents, for them to allow other companies to copy the vaccine, to speed up the process.

[00:15:23] At the time of writing this episode, the UK is blocking this, as is the US.

[00:15:29] Of course, from a legal point of view, these pharmaceutical companies are doing nothing wrong.

[00:15:36] AstraZeneca and Johnson & Johnson are supplying the vaccine at the price it costs them to make it, they aren't making a profit.

[00:15:45] But they have evidently invested a lot of money in developing it, so should they be allowed to have a [monopoly](#) on its production, even though from a public health point of view there would be a large benefit from allowing it to be produced all over the world?

⁵⁶ in the present circumstances, as things are now

Patents

[00:16:01] [As it stands](#), many countries especially in the developing world, in the global south, will have to wait years for COVID vaccines, despite the technology already existing.

[00:16:13] For those that say that the patents should be [waived](#)⁵⁷, the argument is that this is a global health problem, not a national health problem.

[00:16:22] A country isn't safe until the world is safe, and thus there is a strong [incentive](#)⁵⁸ to temporarily change the legislation to allow the manufacture of vaccines to be sped up.

[00:16:36] It should be said that just because something is invented it doesn't need to be patented.

[00:16:42] Indeed one of the first [polio](#)⁵⁹ vaccines, which was first used in 1954, wasn't patented.

[00:16:50] In an interview a year later, its creator, a man called Jonas Salk, was asked about it.

⁵⁷ set free for everyone to use

⁵⁸ something that makes someone want to do something

⁵⁹ a serious disease

Patents

[00:16:57] Why was there no patent for this vaccine that was going to go on to save tens of millions of lives, and could no doubt have made him and his company hundreds of millions of dollars?

[00:17:08] The interviewer asked him who owned the vaccine, and he responded, “Well, the people, I would say. There is no patent. Could you patent the sun?”

[00:17:19] Salk isn’t the only example of someone who has, in effect, donated their invention to the world, allowing anyone to use it and produce it.

[00:17:29] The World Wide Web, which was created by Tim Berners-Lee, has no patent.

[00:17:35] Matches, which were first invented in the 1820s, had no patent.

[00:17:40] The [emoticon⁶⁰](#), an invention that you perhaps might consider less important, also had no patent, as did the karaoke machine.

[00:17:50] These are all inventions that were given to the world [free of charge⁶¹](#), for anyone to start making right away.

[00:17:58] And, so the argument goes, COVID vaccines should [follow their lead⁶²](#).

⁶⁰ a representation of a facial expression used in texts

⁶¹ without having to pay

⁶² do the same as they did

Patents

[00:18:03] Patents might sound dry and boring, unless you are a lawyer, but when we [unpack](#)⁶³ them, I think you'll agree that they are fascinating.

[00:18:12] Through patents, we ask ourselves questions about what ownership actually means, what actually is an invention, and how should we [incentivise](#) people to invent new technologies and create medicines that save lives.

[00:18:28] Patents exist, theoretically speaking, to help all of us.

[00:18:32] They are, of course, imperfect.

[00:18:34] The business of patent trolls is a dirty one indeed, and in many cases an invention isn't just one person, or one company, but tens, hundreds, or thousands of people around the world all working towards a common goal.

[00:18:50] The question we need to ask ourselves is whether there are times that an invention is too important to be patented, and if so, whether now is one of those times.

[00:19:03] OK then, that is it for today's episode on the [mysterious](#)⁶⁴, but fascinating, world of Patents.

[00:19:12] I hope it's been an interesting one, and that you've learnt something new.

⁶³ analyse, examine closer

⁶⁴ strange

Patents

[00:19:16] As always, I would love to know what you thought of this episode. I know that we have some lawyers as members, and I wonder if we have any patent lawyers. If so, I would love to know what your professional opinion of this is.

[00:19:29] And even if you aren't a lawyer, I would love to know what you think.

[00:19:33] Should the companies making the COVID-19 vaccines [waive](#) their patents on them, and allow for them to be mass-produced by anyone?

[00:19:43] Let's get the conversation started.

[00:19:45] You can head right into our community forum, which is at community.leonardoenglish.com and get chatting away to other curious minds.

[00:19:54] You've been listening to English Learning for Curious Minds, by Leonardo English.

[00:20:00] I'm Alastair Budge. You stay safe and I'll catch you in the next episode.

[END OF EPISODE]

Key vocabulary

Word	Definition
Incentivise	make someone want to do something, encourage
At stake	in danger
For good measure	in addition to what has already been said
Beneficiaries	people who receive advantages and help from something
Socket	a piece of electrical equipment into which another parts fits
Encourage	make someone want to do something
Life-changing	having a strong effect on people's lives
Device	a machine made for a particular purpose
Scratches	rubs one's body lightly with something sharp
Marvellous	extremely good and pleasing
Contrary to popular belief	despite what most people believe
Back-scratching	rubbing one's back lightly with something sharp

Patents

Sue	take legal action against a person
Rationale	a set of reasons
Time-limited	for a specific period of time
Monopoly	complete control of a product market
Reward	to give something to someone for achieving something
Prevents	stops someone from doing something
Discourages	makes someone not to want to do something
Origin	the beginning of something
Origins	the beginning of something
Inspection	careful examination
Specified	particular
Criteria	requirements or standards
Abstract	existing as an idea only
Inventive	bringing new ideas and being original
Back-scratcher	a machine that rubs one's back lightly with something sharp

Patents

Unproven	not tried and tested
On sale	on the market for sale
Room for interpretation	a phrase meaning that people can understand the matter in different ways
Time-consuming	taking a lot of time
Fees	money paid for a service
Smaller-time	less important, minor
Filed	submitted or presented to be placed on record
Filing	submitting or presenting something to be placed on record
Tangled	twisted or turned into a messy mass
File	submit or present something to be placed on record
Sizable	large
Fee	money paid for a service
Groundbreaking	new and bringing change
Recoup	regain, earn back
Ballpoint pen	a pen with a small metal ball at the end

Patents

Term	a word used to describe something
Nastier	even worse or more unpleasant
Express	clearly stated and intended
Threatening	expressing the intent to harm someone
Lawsuits	problems or cases brought to a law court
Vaguely	not clearly expressed
Infringed	broken the law regarding their rights
Settle	reach an agreement
Norm	accepted and normal way of doing things
Disincentive	something that makes people not to want to do something
Waive	stop demanding something one has a right to, let something free for all to use
Dare i say it	used when you are saying something others might not like
Beneficial	very helpful and useful
As it stands	in the present circumstances, as things are now
Waived	set free for everyone to use

Patents

Incentive	something that makes someone want to do something
Polio	a serious disease
Emoticon	a representation of a facial expression used in texts
Free of charge	without having to pay
Follow their lead	do the same as they did
Unpack	analyse, examine closer
Mysterious	strange

We'd love to get your feedback on this podcast.

What did you like? What could we do better?

What did you struggle to understand?

Let us know in the forum community.leonardoenglish.com