BIZCOMMUNITY

What is not patentable in South Africa? Part 1

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Intellectual property (IP) refers to the creations of the human mind and has been increasingly recognised through the years for the value it brings to the development and growth of society. IP laws encourage the continued growth and contributions of intellectual property by providing the creators protection for their intellectual creations.

Image source: Rabia Elif Aksoy – 123RF.com

There are several IP laws for protecting various intellectual property, such as patents, designs, trade marks, and copyright. Each IP law defines the requirements for obtaining protection and exclusions from protection. For example, in South Africa, the South African Patents Act 57 of 1978 (Patents Act) mentions specific subject matter that is not patentable.

The basic requirements for patentability is that an invention must be: new in that it must not be disclosed to the public in South Africa or internationally in any form (eg. oral or written form or use); inventive in that it must not be obvious to a person skilled in the area of technology of the invention; and it must be capable of being used or applied in trade or industry or agriculture.

The Patents Act states that the following is not patentable:

1. a discovery;
2. a scientific theory;
3. a mathematical method;
4. a literary, dramatic, musical, or artistic work, or any other aesthetic creation;
5. a scheme, rule, or method for performing a mental act, playing a game, or doing business;
6. a program for a computer;
7. the presentation of information;
8. inventions that encourage offensive or immoral behaviour;
9. plant and animal varieties;
10. methods of medical treatment;

11. inventions contrary to natural laws;
12. inventions contrary to the law; and
13. certain nuclear energy and materials inventions.

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This is the first article in the series of two articles, focusing on points 1 to 5 above.

This is quite a long list, however the exclusions above might not be the end of patentability for an invention. There is a provisio in the Patents Act, which states that the invention is only excluded to the extent to which it relates to the exclusions above. There has been no case law in South Africa to provide guidance on the practical use of the provisio. Other jurisdictions, such as Europe, have similar exclusions to South Africa, and our courts may be influenced by the case law in these countries. The commonality between the jurisdictions is protection can be obtain if the invention contributes a 'technical character or effect' having regard to the invention as a whole and does not simply relate to the exclusion itself.

So why is there a list in the Patents Act excluding particular inventions from patentability? Is there a way to protect inventions that, at first glance, seem to be "upatentable"? Let us have a closer look.

1. A discovery

A discovery relates to something that already exists, and it has now been discovered. Examples of discoveries that are unpatentable are: the new hominin species (eg. Homo naledi); coronavirus disease; and the Higgs boson.

Although these discoveries are not patentable, a new invention related to a discovery could be. For example, a scientist may be able to determine the species based on the DNA from a hominin fossil, and that method of identifying a species based on the analysis of DNA could be patentable.

Dotting I's and crossing T's when it comes to trade marks and NFTs

Darshan Moodley and Aniqa Bawa 24 Mar 2022

A vaccine developed to prevent a new coronavirus disease is patentable.

The "Higgs boson" is one of the elementary particles that make up the Standard Model of particle physics and is associated

with the Higgs field. Although the Higgs boson is not patentable, the Hadron Collider - which is a particle accelerator that accelerates the speed of particles close to the speed of light, thereby producing massive particles upon collision aimed at predicting different theories of particle physics - is patentable.

2. A scientific theory

A scientific theory is used to explain facts or phenomena in the natural world and repeatedly confirmed through experiments or observation. This ties in with a discovery, but it requires research and experiments to prove the scientific theory. Examples of scientific theories that are unpatentable are: Einstein's theory of gravity; laws of thermodynamics; Newton's law of motion; and string theory.

Inventions implementing practical use of the scientific theories producing a technical effect are patentable, such as a quadcopter drone which is known as an Unmanned Aerial Vehicles, can have a multitude of embodiments that can be patentable, including being able to be suspended in the air, input controls for flying the drone, collision detection systems and autopilot.

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The James Webb Space Telescope is a space telescope designed to study astronomy and cosmology, such as the first galaxies in the universe and is patentable because it improves infrared resolution and sensitivity of the telescope to detect objects that are too old and distant.

3. A mathematical method

Mathematics is concerned with number, quantity and space, i.e. is abstract science. A mathematical method is a formula, i.e., a set of instructions and is linked to a scientific theory. Examples of unpatentable mathematical methods are: statistics; calculus; and trigonometry.

An invention comprising a mathematical method that contributes to a technical effect is patentable. For example, a quadcopter drone, or James Webb Space Telescope mentioned above is patentable.

4. A literary, dramatic, musical, or artistic work or any other aesthetic creation

This form of intellectual property is protected by the Copyright Act 98 of 1978 (Copyright Act). For example, books, play, and paintings are unpatentable.

Even though the aesthetic creation itself is not patentable, an invention having a technical effect and producing the aesthetic creation is patentable. For example, a 3D printer prints physical objects such as a sculpture, based on a three-dimensional model, or improvements in musical instruments.

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5. A scheme, rule, or method for performing a mental act, playing a game, or doing business

A scheme, rule, or method for performing a mental act or playing a game relates to steps or methods performed mentally, ie. in the human mind. For example, methods for playing monopoly, scrabble, and chess are unpatentable.

Board games and their pieces for monopoly, scrabble, or chess are patentable.

A scheme, rule, or method for doing business typically relates to the operational process of a business. For example, a method of increasing client profile by having a client event is unpatentable as there are no technical means and simply involves collecting and analysing information on potential clients, sending invites, and organising a client event.

A patentable method of doing business would be a method that involves a physical object or provides a technical effect, for example, a touchless payment system that improves the payment process by customers.

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From the discussions on points 1-5 above, it is clear that on the one hand, the Patents Act has a long list of exclusions to patentability, but on the other hand, there are caveats to most of the exclusions. An invention needs to be thoroughly assessed to better understand its unique and inventive features. It may well be possible to obtain patent protection for an invention that, at a first glance, appears not to be patentable.

If you are interested in pursuing patent protection for an invention that may fall within one of the exclusions above, consider contacting a Patent Attorney who can assist.

The remainder of points 6 to 13 will be discussed in the second article.

ABOUT THE AUTHOR

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