

Patents Registry
Intellectual Property Department
Hong Kong SAR Government
Patents Examination Guidelines

Section 4: Exclusions from patentability

Patentable inventions

- 4.1. Section 9A(1) of the Ordinance sets out the requirements that must be fulfilled by a patentable invention. Accordingly, there must first be an “invention”, and if there is an “invention” then it must satisfy each of the conditions for patentability (i.e. novelty, inventive step and industrial application).
- 4.2. Section 9A(2) of the Ordinance expressly excludes the following subject-matter or activities from being “inventions” (collectively referred to as “**excluded subject-matter**”):
- (a) a discovery, scientific theory or mathematical method;
 - (b) an aesthetic creation;
 - (c) a scheme, rule or method for performing a mental act, playing a game or doing business, or a program for a computer; and
 - (d) a presentation of information.
- 4.3. The aforesaid exclusion is however subject to section 9A(3) of the Ordinance to the effect that the exclusion is only applicable to the extent to which a patent or patent application relates to the excluded subject-matter as such. In other words, a claim is unpatentable if it amounts to no more than any of the excluded subject-matter.

Three-step test

- 4.4. Each case must be determined on its own fact as to whether a patent application solely involves any excluded subject-matter. In this connection, our examiners would generally adopt a three-step approach having regard to the guidance and reasoning in Emotional

Perception AI Ltd v Comptroller General of Patents, Designs and Trade Marks [2026] UKSC 3.

- 4.5. In *Emotional Perception*, the UK Supreme Court held that the approach adopted in *Aerotel Ltd v Telco Holdings Ltd* [2007] RPC 7 should no longer be followed, and that the “any hardware” approach, as endorsed by the EPO Enlarged Board of Appeal in *Bentley Systems (UK) Ltd/Pedestrian Simulation (G1/19)*, should be adopted in determining whether a claimed invention, notably a computer-implemented invention, relates to an eligible “invention”.
- 4.6. The first step, also known as the “patent eligibility hurdle”, presents a very low threshold to clear. Such step is essentially an assessment on whether the claimed subject-matter as a whole qualifies as an invention under section 9A(1) of the Ordinance without falling under the excluded subject-matter listed in section 9A(2) of the Ordinance. This assessment is made without reference to the prior art. The words “as such” under section 9A(3) of the Ordinance are taken to imply that just one technical feature of the claimed subject-matter is sufficient to confer eligibility. Our examiners will raise an objection under section 9A(2) of the Ordinance if, and only if, a claimed invention does not involve any technical means.

Example

A claim directed to a computer-implemented invention avoids exclusion under section 9A(2) merely by referring to the use of a computer, a computer-readable storage medium, or other technical means.

- 4.7. Once the first hurdle is cleared, the next stage is to undertake the “intermediate step” to identify the features of the claim which contribute to, or interact with, the technical character of the invention, viewed as a whole.
- 4.8. The third step is to assess whether the invention is new, then whether it involves an inventive step by considering only those features which do so contribute to or interact with the technical character of the invention. For guidance on assessment of novelty and inventive step, please refer to sections 1 and 2 of these Guidelines respectively.

Excluded subject-matter

Discovery and scientific theory

- 4.9. “Discovery” refers to new findings which ascertain existing facts of nature and such is not patentable.

Example

The discovery of the photosensitive property of silver halide is not patentable. If, however, that property is put to practical use, it may constitute a patentable invention. Therefore, a patent may be granted for the process to produce a photographic film (a practical application of the photosensitive property of silver halide) and the photographic film itself. Similarly, a substance extracted from nature which is found to have a therapeutic effect (such as antibiotic) may be patentable.

- 4.10. The distinction between an invention and a discovery was explained by Whitford J in *Genentech Inc’s Patent* [1987] RPC 553 as follows:

“It is trite law that you cannot patent a discovery, but if on the basis of that discovery you can tell people how it can be usefully employed, then a patentable invention may result. This in my view would be the case, even though once you have made the discovery, the way in which it can be usefully employed is obvious enough. Let me take an example: you discover that a length of iron treated in a certain way will always point to the north. The way in which you can use this discovery to make a direction finding instrument may well be obvious art, based on your discovery you could get a patent for it.”

- 4.11. The approach in *Genentech Inc’s Patent* was upheld by *Kirin-Amgen Inc v Hoechst Marion Roussel* [2005] RPC 9 where the then House of Lords considered that a DNA sequence of a gene was not an invention on its own (this was considered to provide information only) but the process of extraction and isolation of a gene and the material when obtained by this process could both be patentable.

- 4.12. Scientific theories are a more generalized form of discoveries, and the same principle as set out above for discovery applies, i.e. an application of a scientific theory may be patentable.

Example

The theory of semiconductivity is not patentable, but semiconductor devices applying such theory and processes for manufacturing those devices are patentable subject-matter.

Mathematical method

- 4.13. A useful guidance on the meaning of “mathematical method” is given by T0208/84 in which the EPO Board of Appeal defined a mathematical method as one which “*is carried out on numbers and provides a result in numerical form.*”
- 4.14. A mathematical method *per se* is not a patentable subject-matter, but a method involving the use of technical means (e.g. a computer) may be patentable.
- 4.15. For the purposes of carrying out the intermediate step as referred to in section 4.7 above, a mathematical method may contribute to the technical character of an invention by being applied in a field of technology and/or by being adapted to a specific technical implementation so as to achieve efficiency gains (T 2330/13).

Aesthetic creation

- 4.16. Aesthetic creations are creations which by their shape or design influence the (aesthetic) perception of spaces, colours or sounds. If a claimed invention is limited to such an effect, it is considered not to be technical and therefore not patentable.
- 4.17. This exception to patentability applies if the features in the claim relate solely to the aesthetic or artistic effect. The claimed inventions can be patentable if the use of colours and other aesthetic means at least serves a technical purpose.

Example

The pattern of a tyre tread may have both an aesthetic aspect and a technical aspect in providing improved channeling of water. However, if a particular colour of the tyre serves an aesthetic purpose only, such purpose itself is not patentable, neither in a product nor in a process claim.

Scheme, rule or method for performing a mental act

- 4.18. Schemes, rules and methods for performing mental acts relate to instructions for the human mind. They do not have an immediate effect on nature but it is necessary that schemes, rules and methods are transformed by a human mind into something which has an effect on nature.

Examples

(a) rules for sorting data or documents

(b) methods of designing a product

- 4.19. It has been held in Halliburton Energy Services Inc's Applications [2012] RPC 12 that the mental act exclusion is to be interpreted narrowly and does not extend to those schemes, rules or methods which are merely capable of being performed mentally. In other words, the mental act exclusion only covers those schemes, rules or methods that are carried out by “purely mental means.”

Scheme, rule or method for playing a game

- 4.20. The meaning of “game” was considered by Warren J in IGT v The Comptroller General of Patents [2007] EWHC 1341 (Ch):

“In the physical world, it is (usually) possible to describe a game in words and to set out its rules in writing. The rules of a game are not restricted to what a player may or may not do; some rules may set the physical constraints of a game. Thus the rules of most sports will set out the rules about physical location (e.g. size of pitch or court, size of ball or racket) as well as the rules of play (e.g. permitted interactions with a ball, offside rules, scoring and the like). There may be schemes or methods of play

which do not form part of the rules (e.g. methods of card play designed to enhance the player's chances of success). In these cases, it is straightforward to identify the rules of the game, for the game is really defined by its rules. And, once the rules of the game have been set, players may be able to develop successful stratagems — methods of play — for playing the game better than others.”

Scheme, rule or method for doing business

- 4.21. Subject-matter or activities which are of a financial, commercial, administrative or organisational nature fall within the scope of a scheme, rule or method for doing business. Examples of them include banking, billing and accounting activities, marketing and advertising activities, business research and planning, and designing a workflow for a business process.

Program for a computer

- 4.22. As to the meaning of “computer” and “program for computer”, it was considered in *Emotional Perception* that what characterises a computer as a physical machine is its functionality, not the specific technology used to achieve that functionality. Likewise, the term “program” should be interpreted correspondingly to mean a set of instructions capable of being followed by a computer of any kind, to produce desired manipulations of data. Applying these interpretations to the underlying facts, the court in *Emotional Perception* found that an artificial neural network (ANN), a model inspired by the human brain that can engage in machine learning, is a “program for a computer”.
- 4.23. Section 9A of the Ordinance has the effect of excluding the patentability of computer programs “as such”. Accordingly, a computer program with technical character does not fall under the exclusion, as it is more than a computer program as such.
- 4.24. In *Emotional Perception*, it was decided that although an ANN is a program for a computer, the claims refer to a database for storing data files, a communications network and a user device – all of which require or constitute hardware that is sufficient to show that

the subject-matter of the claims has technical character and is not to a computer program “as such”.

Presentation of information

- 4.25. Any invention that is defined solely by the content of the information is not patentable, regardless of how it is represented.
- 4.26. The Court of First Instance of the Hong Kong SAR has affirmed that a claimed invention may fall outside the exclusion if it is not solely characterised as information *per se*, such as a claim of a colour television signal which inherently comprised the technical features of the television system in which it was being used (*Koninklijke Philips Electronics N.V. v Wealthful Technology Ltd.* [2002] HKEC 740).

Other exclusions

Public order (“ordre public”) or morality

- 4.27. Section 9A(5) of the Ordinance expressly excludes inventions the publication or working of which would be contrary to public order (“ordre public”) or morality from being patentable. There is however a proviso under the provision to the effect that the working of an invention is not to be regarded as contrary to public order or morality only because it is prohibited by any law in force in the Hong Kong SAR. This means that an invention may still be patentable, e.g. if it is only a product which cannot be lawfully used or marketed in the Hong Kong SAR but can be lawfully manufactured in the Hong Kong SAR for export to another place/country elsewhere in which its use/marketing is legal.
- 4.28. The exclusion from patentability on the ground of public order (“ordre public”) or morality, amongst others, would be taken into account by the Registrar in examining an application for a standard patent (O) under section 37U of the Ordinance.
- 4.29. In examining an application for a standard patent (R), the Registrar has power under section 37 of the Ordinance to refuse to record a designated patent application under section 20(1) of the Ordinance or to register a designated patent under section 27 of the Ordinance if the Registrar considers that the invention the subject

of the application is not a patentable invention by reason of section 9A(5) of the Ordinance.

- 4.30. Likewise, in examining an application for a short-term patent, the Registrar is empowered by section 124 of the Ordinance to refuse to grant the patent if the Registrar considers that the invention is not patentable by reason of section 9A(5) of the Ordinance.
- 4.31. Each case must be determined objectively on its own facts as to whether the publication or working of an invention is to be regarded as contrary to ordre public or morality. Our examiners need to take into account all the circumstances, including whether there is any law in force prohibiting the publication or working of the invention in question. One also needs to bear in mind that what is to be regarded as contrary to morality may change over time according to changes in social attitudes and behaviours.
- 4.32. Examples of inventions against which an objection under section 9A(5) of the Ordinance may be raised include—
- (a) an invention the publication or working of which is considered as contrary to the interests of national sovereignty, unity, territorial integrity, security or reputation (notably constituting an offence under *The Law of the People's Republic of China on Safeguarding National Security in the Hong Kong Special Administrative Region* and/or the *Safeguarding National Security Ordinance* (Instrument A305));
 - (b) an invention consisting of technology designed to cause mass destruction or casualties (e.g. nuclear weapons or anti-personnel mines); and
 - (c) a biotechnological invention involving processes for the cloning of human beings, processes for modifying the germ line genetic identity of human beings, or use of human embryos for industrial or commercial purposes.
- 4.33. In T 356/93, the concept of public order (“ordre public”) was accepted as covering the protection of public security and the physical integrity of individuals as part of society, and encompassed the protection of the environment.
- 4.34. In relation to contrary to morality, the dividing line will be drawn to distinguish between an offence which amounts only to distaste on the one hand (which will not be considered as contrary to morality)

and an offence which would justifiably cause outrage, or would be the subject of justifiable censure as being likely to significantly undermine current religious, family or social values on the other (which will be considered as contrary to morality). In the latter, the outrage or censure must be within an identifiable section of the public to the extent that a higher degree of outrage or censure amongst a small section of the community is required for reaching the threshold but that a lesser outrage or censure amongst a more widespread section of the public is capable of doing so.

- 4.35. In making such determination, our examiners will generally apply the concept of a right-thinking member of the public. In this connection, a right-thinking member, even though not being outraged personally, is able to objectively assess whether or not the invention in question is calculated to cause “outrage” or “censure” amongst a relevant section of the public. In other words, it does not matter whether the examiner finds the invention personally acceptable or not.

Plant or animal variety, and essentially biological process

- 4.36. An invention which is claimed as a plant or animal variety is not patentable under section 9A(6)(a) of the Ordinance. However, an invention with a claim that is not confined to a particular plant or animal variety may be allowed.
- 4.37. While plant varieties are not patentable, the Plant Varieties Protection Ordinance (Cap. 490) provides plant breeders (or the owners of the variety) the legal means to apply for proprietary rights over cultivated plant varieties they have bred or discovered and developed. Interested persons can obtain further information from the Office of the Registrar of Plant Variety Rights of the Agriculture, Fisheries and Conservation Department.
- 4.38. An essentially biological process for the production of plants or animals is also not patentable under section 9A(6)(b) of the Ordinance. However, if the claimed subject-matter is a microbiological process or the products of such a process, it will not be excluded from patentability under the proviso to section 9A(6)(b) of the Ordinance.