

Case G3/08: Referral under Art. 112(1)b) EPC by the President of the EPO (Patentability of programs for computers) to the Enlarged Board of Appeal, pending under Ref. N° G 3/08.

Our vision is for the European Information and Communication Technologies (ICT) industry become the most vibrant in the world - and the European Parliament shared this vision, when it made the necessary amendments to the directive on computer-implemented inventions during its first reading on 24 September 2003.

Patents on software provide obstacles to knowledge-based industries by making computers less secure, less reliable and by preventing competition on a basic level. Lack of competition and uncalculable legal risks raise the cost of ICT and cost jobs across the entire industry, for which the enablement through software is a major innovation driver, as highlighted in the UNCTAD Information Economy Report 2007-2008.

The grant of a software patent is not on the individual computer program, but its underlying idea, while the source code is protected by copyright. The result is a case where a stacking of exclusive rights results in overregulation, incurring an anti-innovative effect on software that Microsoft chairman Bill Gates described in an internal memo in the early 90s as:

“If people had understood how patents would be granted when most of today’s ideas were invented, and had taken out patents, the industry would be at a complete standstill today.”

A recent Report on International Patent Law presented at WIPO’s 13th Standing Committee on Patent Law provided the economic rationale for the patent system, allowing evidence based innovation impact assessments. As highlighted in the report, there are three primary economic benefits the patent system can provide:

- addressing market failure: when the market fails to provide innovation in an area
- growing the public domain: by putting knowledge into the field of public domain
- disseminating knowledge: to others in the field and promoting follow-up innovation.

Exclusive rights such as patents are granted to provide incentives to innovate. To address inefficiencies of market power created by such exclusive rights, a number of mechanisms are provided in the patent system, such as the patentability or disclosure requirements.

„Nevertheless, granting full exclusive rights in all circumstances may not always

meet the goal of promoting innovation and enhancing the public welfare. Consequently, in many, if not all, patent laws, the scope of the enforceable exclusive rights is carefully balanced with the interests of other parties, who may be prevented from using the patented invention for a limited period of time.“

(SCP13, EXCLUSIONS FROM PATENTABLE SUBJECT MATTER AND EXCEPTIONS AND LIMITATIONS TO THE RIGHTS, # 9)

The rationale for exceptions and limitations should loosely be based on the ancient wisdom of “primum non nocere”, the knowledge that action can be more harmful than inaction, that inclusion of an area in the patent system can result in less innovation than its exclusion. It should be the overarching principle to maximise innovation, and the economic rationale for patenting provides us with the background to understand when we would be well advised to follow this principle and avoid regulation through patents.

The application of this analytical rationale in the policy setting process would allow to assess which areas can benefit from patents, and where more innovation can be had by excluding an area from the patent system. In parallel to the “Berne three-step test” this can be summarised into a “three step test for inclusion in the patent system”.

As highlighted, the economic rationale for patents is based on providing incentives in cases of market failure, disclosure of knowledge into the public domain, as well as technology transfer, commercialisation, and diffusion of knowledge. The “three step test for inclusion in the patent system” should therefore be based on demonstrated market failure to provide innovation, demonstrated positive disclosure from patenting, and effectiveness of the patent system in the area to disseminate knowledge.

As also highlighted, these criteria allow for an assessment of the usefulness of the patent system for each area individually. It follows that areas in which these benefits do not materialise lack an economic rationale for patenting. An example for such an area is software, which had no innovative market failure prior to the introduction of patents, in which patents are useless for disclosure of new ideas, and in which legal counsels suggest that developers do not study patents in order to avoid claims of intentional infringement.

Another problem is that the timing of patents is suited for industrial material production and dissemination, an infinitely more slow-paced industry than computer software. As a result, any patent that would have been considered groundbreaking in the days of the Commodore 64 would still be subject to exclusive rights today, where the C64 is primarily found in museums.

By definition, the patent system evolves with the technical advancements that ceaselessly bring new technical creations into our lives. The patent system, therefore, constantly faces

the question as to whether and how it can adapt itself to new technologies.

„Certain questions are a matter of interpretation of existing laws, for example, whether a new technological creation falls under the definition of “invention” under the applicable patent law. However, one of the fundamental questions is, from a public policy perspective, and with a view to improving public welfare, whether such new subject matter should be covered by patent protection or not. Or should it be addressed through another protection mechanism?“

(SCP13, EXCLUSIONS FROM PATENTABLE SUBJECT MATTER AND EXCEPTIONS AND LIMITATIONS TO THE RIGHTS, # 33)

„Generally speaking, the choice of exclusions from patentable subject matter is carefully determined taking into account two aspects which are closely related: one aspect is whether a given invention should be excluded from protection with a view to discourage innovation.

The second aspect relates to the question of whether a given invention should be excluded with the view to a risk of excluding access to the patented technology by third parties. The two aspects are closely related because, on the one hand, there will be no question of access to innovation, if innovation does not exist in the first place. Secondly, if the access to the patented technology is unreasonably hampered, innovation may not be encouraged in an efficient and effective manner.“

(SCP13, EXCLUSIONS FROM PATENTABLE SUBJECT MATTER AND EXCEPTIONS AND LIMITATIONS TO THE RIGHTS, # 31)

The addition is that patent law must advance society rather than inhibit it.

Innovation, when it can be driven by public interest - via public participation as well as via the market - and when it is produced in a way that the public will benefit from it, should be encouraged.

In stark contrast, in the field of software, even small financial, bureaucratic, or legal restrictions would cripple most developers of software because most developers of software are individuals, small or medium sized companies, or companies whose core business is not software development.

The costs, restrictions, and burdens created by the patent system are typically not fully considered. While administrative processes are sometimes necessary, they provide a speed bump to innovation where patents are deployed. Six months is a reasonably short time in some sectors, in Information Technology it is an eternity.

Patents also provide severe obstacles to interoperability and are a prime issue for the creation of Open Standards, which are seminal for the creation of open, competitive markets with low barriers of entry.

Interoperability is also an essential requirement for future trends in IT, which are based on modularity, recombination, and re-use. Only through interoperability will the IT industry be able to sustain its high level of innovation, and only through interoperability will other sectors of economy be able to reap the benefits of ICT-enabled innovation and economies of scale.

FSFE sees a strong public need for interoperability which in all likelihood outweighs the potential innovative effects of patents.

The questions referred are:

1. Can a computer program only be excluded as a computer program as such if it is explicitly claimed as a computer program?

No. A computer program is a computer program regardless of the terminology used to describe it. It would be trivial circumventing Art. 52(2)(c) and (3) by simply avoiding the use of some words.

2.(a) Can a claim in the area of computer programs avoid exclusion under Art. 52(2)(c) and (3) merely by explicitly mentioning the use of a computer or a computer-readable data storage medium?

No. Computers and computer-readable storage mediums are normal and necessary infrastructure for the development and use of computer programs, and suggesting otherwise would constitute an offensive sophism. Their mentioning can no more constitute exclusion than the mentioning of air can constitute an exception on a regulation made on airplanes.

(b) If question 2(a) is answered in the negative, is a further technical effect necessary to avoid exclusion, said effect going beyond those effects inherent in the use of a computer or data storage medium to respectively execute or store a computer program?

A further technical effect would indeed be necessary. Application behaviour does not constitute a technical effect, nor does normal and expected use of a computer and its I/O devices. Any further technical effect would necessarily have to extend beyond the working of a computer.

3.(a) Must a claimed feature cause a technical effect on a physical entity in the real world in order to contribute to the technical character of the claim?

Yes, although normal and expected use of a computer and its I/O devices does not provide sufficient technicality. Using a screen to display output or a loudspeaker to play back audio are typical and expected uses.

(b) If question 3(a) is answered in the positive, is it sufficient that the physical entity be an unspecified computer?

No. A computer is a physical entity, and usual and necessary infrastructure for the use of a computer program, see answer to 2(a).

(c) If question 3(a) is answered in the negative, can features contribute to the technical character of the claim if the only effects to which they contribute are independent of any particular hardware that may be used?

No. That would again be a computer program displaying its effects in the intended execution environment, without which no computer program has any meaningful use. Claim of a particular computing platform is irrelevant in either directions.

4.(a) Does the activity of programming a computer necessarily involve technical considerations?

No. The reverse is almost invariably true. Any software program is the result of programming, which is in essence combining a series of algorithms, and algorithms are mathematics.

Like writing a novel or composing a symphony, writing software can be complex, but complexity does not constitute technicality. It is about solving problems which are logical in nature.

(b) If question 4(a) is answered in the positive, do all features resulting from programming thus contribute to the technical character of a claim?

No result of programming can contribute to the technical character of a claim.

(c) If question 4(a) is answered in the negative, can features resulting from programming contribute to the technical character of a claim only when they contribute to a further technical effect when the program is executed?

No result of programming can contribute to the technical character of a claim, so the technical character of any claim would have to consist in something that is unrelated to the computer program or the computer executing it. Executing a program that provides a predictable result in the most efficient and accurate way is the final goal of programming.