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President's referral regarding case G 3/08

Dear Sirs:

I submit an amicus curiae brief regarding the above-identified referral.

General observations

The following observations are based on my personal and professional confidence that the worldwide system related to patents as it is in force today, including the European Patent Convention, was intended to be open to any concept or teaching that enriches the professional knowledge of a person skilled in the art in any field of technology. It is my understanding that any such concept or teaching that could, in principle, achieve this enrichment, is considered an invention in the sense of Art. 52(1) EPC, which concept or teaching is then eligible for an assessment regarding its

patentability with regard to novelty, inventive step and industrial application.

Having stated which concepts and teachings are in general open to be tested with regard to their patentability, there are other concepts and teachings which, due to their nature, cannot enrich the professional knowledge of the person skilled in the art in principle and thus cannot constitute an "invention". Some of these exclusions that are particularly prominent are listed in Art. 52(2) EPC in connection with Art. 52(3) EPC and intend to provide a guideline as to which concepts and teachings are fundamentally incapable of enriching the professional knowledge of the person skilled in the art. To make a very simple comparison, like a device made of solid lead is incapable in principle of serving as a personal life vest, an "aesthetic creation as such" is incapable of representing an invention.

I picked "aesthetic creations" as an example, because there is a good common understanding on what is the difference between "aesthetic creations" and "aesthetic creations as such". This becomes very evident with the example of a "good-looking surface". While the corresponding person skilled in the art would not find an enrichment of his/her professional knowledge in the mere fact of having a good-looking surface, the aesthetic creation as such, he/she may find a contribution to his/her professional knowledge in the way this particular surface can be obtained or in specific characteristics/effects of the surface, e.g. a very good diffusion. In other words, staying with the example of the aesthetic creation, the person skilled in the art will look for something that goes beyond the aesthetic creation as such that could, in principle, be able to enrich his/her professional knowledge. If the aesthetic creation contains nothing more than the aesthetic effect as such, there is nothing left that could comprise an invention.

The same considerations apply to all exclusions listed in Art. 52(2),(3), including "programs for computers as such". This means, while the person skilled in the art will not find a contribution to his/her professional knowledge in a computer program as such, a computer program can contain or represent a concept or a teaching that goes beyond the computer program as such and is viewed by the person skilled in the art as a potential contribution to his/her professional knowledge.

To give a practical example: In order to establish a secured connection over the Internet, an exchange of encryption keys is necessary. Today, first a set of asymmetric encryption keys is exchanged, then a symmetric key. The generation and the exchange of these keys is performed based on a computer program. Now, assuming that there is an improved concept or teaching for reducing the time for exchanging these keys: The mere presence of a sequence of lines containing various characters, the computer program as such, cannot contribute to the professional knowledge of the person skilled in the art.

However, beyond the computer program as such further information can be conveyed, e.g. a specific concept or teaching regarding the creation of the prime numbers involved, a speedy acknowledgement/confirmation sequence or how the need for asymmetric keys is eliminated. In other words, everything in a computer program that goes beyond the computer program as such, has, as a matter of principle, the capability to carry or represent an invention in the sense of Art. 52(1) EPC thus not being excluded under Art. 52(2),(3) EPC.

In summary, the following forms the basis for the answers to the questions:

- Any concept or teaching, in particular regardless whether it is "hardware" or "software", that is viewed by the person skilled in the art as being capable, as a matter of principle, of contributing to his/her professional knowledge, constitutes an invention in the sense of Art. 52(1) EPC.

- The exclusions under Art. 52(2),(3) EPC represent those concepts and teachings which are not capable, as a matter of principle, of enriching the professional knowledge of the person skilled in the art.

- The fundamental concept of the exclusions under Art. 52(2),(3) EPC is consistently applied to all exclusions, whether it is a computer program, an aesthetic creation, a mathematical method, etc.

- The limitation "as such" intends to leave room on purpose for any additional aspect going beyond "as such", since such aspect can have, in principle, the capability to convey or represent an invention.

Proposed responses to the questions

Question 1

My proposal for this answer is: **yes**. This proposal is given under the premise that the question does not relate to the inclusion of the literal wording "computer program", but rather to the fact that the claimed subject-matter makes clear that a computer program is the explicitly intended scope of the claim.

The reasoning is based on the straight-forward requirement that the test, whether a "program for computers as such" is claimed, can only be made if the intended scope of the claim is explicitly directed at a computer program at all. Vice versa, if the scope of the claim is not clearly directed at a computer program, a "program for computers as such" cannot be present.

Question 2(a)

My proposal for this answer is: **no**. This answer is given under the premise that for a claim that contains only a computer program as such, the mere statement is made, either that the computer program is executed on a computer or that the computer program is stored on a data storage medium. The reasoning is that for the same reasons why a computer program as such cannot represent a contribution to the professional knowledge of the person skilled in the art, stating the more than obvious fact that a computer program is executed on a computer or stating that a computer program is stored on a storage medium cannot, as a matter of principle, contribute to the professional knowledge of the person skilled in the art.

However, it should be noted that for very particular cases there could be an additional concept or teaching that goes beyond the mere execution of a computer

program on a computer or beyond the mere storing of a computer program on a storage medium which could be viewed by the person skilled in the art as a contribution to his/her professional knowledge. This means, while for most cases mentioning the use of a computer or a storage medium would not avoid an exclusion under Art. 52(2),(3) EPC, there can be particular cases where this general rule would not apply.

Question 2(b)

My proposal for this answer is: **no**. The reasoning is that the term "technical effect" is sometimes understood as an effect in the physical world outside of the computer or, at least, outside the computer's core that comprises processor and memory. I consider this understanding of the "technical effect", however, too limiting, since even effects inside the computer's processor or memory can be viewed by the person skilled in the art as a contribution to his/her professional knowledge.

Rather, it needs to be evaluated whether any aspect is present that could, due to its nature and as a matter of principle, be fundamentally able to contribute to the professional knowledge of the person skilled in the art. In particular, any feature or effect that is present in the context of any computer program, is fundamentally unable to enrich the professional knowledge of the person skilled in the art. Therefore, the addition of any feature that is always present in the context of a computer program, e.g. the previously mentioned use of a computer or the storing on a storage medium, will not avoid an exclusion under Art. 52(2),(3) EPC. Vice versa, any feature or effect that does not necessarily apply to any computer program carries the potential of conveying or comprising an enrichment to the professional knowledge of the person skilled in the art and thus would not be excluded under Art. 52(2),(3) EPC.

Question 3(a)

My proposal for this answer is: **no**. As explained above with reference to the "technical effect" I perceive the understanding of "physical entity in the real world" to be too limited at times. Taking again the example of the secured Internet connection, the person skilled in the art might well find a contribution to his/her professional

knowledge if he/she is shown how the prime numbers for the encryption keys can be generated more effectively. For any real-life implementation, the prime numbers would be generated using the computer's processor and its integrated cache memory. Such a concept or teaching goes beyond "programs for computers as such" and would therefore be eligible for an evaluation regarding patentability.

If the interpretation of the term "physical entity in the real world" develops over time in a sense that e.g. the computer's processor or memory are considered to be such entities, assessing the presence of a corresponding "technical effect" could become a viable solution. However, as long as there is a tendency that this entity lies outside the computer or at least outside the computer's core, it should be assessed whether the claimed subject-matter has the fundamental capability to carry or comprise aspects that could, in principle, enrich the technical knowledge of the person skilled in the art.

Question 3(c)

My proposal for this answer is: **no**. This answer is given under the premise that "independent of any particular hardware" is not limited to computer hardware, which would always have e.g. a processor and a memory, but intends to encompass any kind of hardware, including hardware that lacks processor and memory. If this premise is correct, having effects that are fully independent of any particular hardware, are not linked to a physical entity in the real world and thus cannot obtain a technical character in this manner. Yet, the technical character could be obtained by other means.

In case the stated premise is not correct, it should be noted that if an effect is independent of any particular computer hardware, such would not automatically preclude this feature from contributing to the technical character. The reasoning is that any computer hardware is able to perform operations, e.g. at least simple mathematical calculations, and is able to store data. Therefore, a feature can contribute to the technical character of a claim even without specifying a particular computer hardware.

Question 4(a)

My proposal for the answer is: **no**. While it is my perception that a significant amount of computer programming involves technical considerations, there is no such rule that technical considerations are necessarily involved. In particular, high-level programming languages are able to fully hide the technical background for certain areas of programming tasks, so that situations are perceivable where a computer is programmed without knowing the actual technical background.

Question 4(c)

My proposal for this answer is: **no**. The reasoning for this answer is that the presence of a single technical effect in a claim is sufficient and does not require a "further" technical effect. If the question of a single technical effect were discussed, then the considerations above apply: Requiring the presence of a technical effect is deemed acceptable, if such an effect is asserted even if it is confined to the computer's core. If the perception remains that the technical effect needs to take place outside the computer's core or even outside of the computer, then the technical character should be looked for in any aspect or feature that can, in principle, provide a contribution to the professional knowledge of the person skilled in the art.

Conclusion

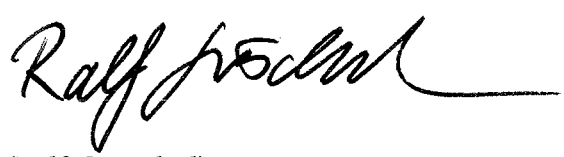
The assessment as to whether a certain concept or teaching is open to patentability at all and the question of whether an invention fulfills the requirements of patentability are fundamentally different. The assessment of whether a computer program as such is present, intends to identify whether a computer program could provide a contribution to the professional knowledge of the person skilled in the art or whether it is just an accumulation of lines of characters which by themselves could not provide such contribution. As soon as such a contribution is possible in principle, the subject-matter would be considered an invention in the sense of Art. 52(1) EPC and would be eligible for being tested with regard to its patentability.

In order to identify "programs for computers as such", any subject-matter directed at a computer program could be subjected to the following test that combines aspects of the "contribution approach" and of the "technical character approach":

1. It is assessed whether the claimed computer program contains a concept or a teaching that could – at least in principle – represent a contribution to the professional knowledge of the person skilled in the art. (Features that are present for any computer program would be unable to offer this capability.) If no such concept or teaching is present, a computer program as such is present.

2. If such concept or teaching is identified, it is assessed whether there is a contribution to a technical effect, wherein the technical effect can take place in the physical world, including the computer's core and the computer's periphery. If no such technical effect is identified, a computer program as such is present.

While it is my hope that these thoughts will be considered in the decision making process, I would like to point out that it is my main hope that the Enlarged Board of Appeal's answer that will point out how a consistent assessment can be made and how ultimately those subject-matters that make a contribution to the professional knowledge of the person skilled in the art are identified, regardless of whether it is "hardware" or "software".



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