

Der Fachmann

In den Bestimmungen mancher Patentgesetze, welche die erfinderische Tätigkeit betreffen, wird auf den Fachmann Bezug genommen. Dies ist allerdings nicht in jedem Patentgesetz der Fall. Beispielsweise im Art. 1 CH-PatG ist vom Fachmann keine Rede. Dies bedeutet, dass man auch ohne Bezug auf den Fachmann entscheiden kann, ob eine neue Lösung auf einer erfinderischen Tätigkeit beruht oder nicht. Aber für jene, welche wissen möchten, wie es gemäß der vorliegenden Lehre um den Fachmann bestellt ist, können wir hier das Wissen und das Können des Fachmanns ebenfalls beschreiben. Das Wissen des Fachmanns umfasst ohne Abstriche alles, was zum Stand der Technik gehörte, welcher am Prioritätstag der beurteilten Lösung bestand. Dies bedeutet, dass der Fachmann nicht nur die Ausbildung der zu diesem Stand der Technik gehörenden technischen Mittel, sondern auch jene Wirkungsfähigkeiten dieser kannte, welche bei diesen technischen Mitteln im genannten Zeitpunkt bereits bekannt waren. Dies lässt sich anhand des Resultates einer Recherche im Stand der Technik unter Beweis stellen. Damit werden Diskussionen über den Umfang des Wissens des Fachmanns überflüssig. Die Grenze zwischen den naheliegenden und den nicht naheliegenden Lösungen liegt ausschliesslich innerhalb des Könnens des Fachmanns. Folglich kann der Fachmann sowohl naheliegende als auch nicht naheliegende neue Lösungen schaffen. Dies ist in einer ausgezeichneten Übereinstimmung beispielsweise mit Art. 56 EPÜ, mit Art. 103 US-PatG usw. Es kommt bloß darauf an, ob die geprüfte Lösung unter die Definition einer naheliegenden Lösung bzw. unter die Erfindungsdefinition fällt oder nicht, je nach dem, welche dieser Definitionen man im geprüften Fall anwendet.

Schlussbetrachtungen

Sicherlich wird es viele Leser überraschen, wie logisch überschaubar die Zusammenhänge auf dem Gebiet der erfinderischen Tätigkeit sind. Wenn man diese Zusammenhänge kennt, dann ist die Situation auf diesem Wissensgebiet wirklich relativ einfach.

Die Prüfungsweisen von Erfindungen, welche auf den besprochenen Definitionen basieren, liegen, wie dargelegt, im Rahmen der geltenden Vorschriften, und zwar sogar von mehreren Staaten. Bei diesen Prüfungsweisen handelt es sich daher nicht um andere Prüfungsweisen als bisher, wie dies manche meinen. Diese Prüfungsweisen sind alternativ anwendbar, weil sich die Erfindungsdefinition durch Negation der Definition einer naheliegenden Lösung ergab. Für die Prüfer im Patentamt und für die Patentanwälte dürfte die auf der Definition einer naheliegenden Lösung basierende Prüfungsweise zweckmäßiger sein. Für Gerichtsfälle dagegen dürfte die auf der Erfindungsdefinition beruhende Prüfungsweise zweckmäßiger sein.

Wenn man den Inhalt der übrigen bereits publizierten Arbeiten des Autors dieses Beitrags mitberücksichtigt, dann kann man wohl mit Recht sagen, dass das Gebiet der erfinderischen Tätigkeit ein wissenschaftlich erschlossenes Wissensgebiet ist. In der Tat gibt es noch weitere Zusammenhänge innerhalb dieses sehr umfangreichen, neuen aber vor allem faszinierenden Wissensgebiets erfinderische Tätigkeit. Die bereits veröffentlichten Zusammenhänge dürften den Lesern ermöglichen, sich in der derzeitigen offiziellen Beurteilungsweise von Erfindungen besser zu orientieren. Durch diesen Vorsprung am Wissen und Können dürften sie auf diesem Gebiet erfolgreicher agieren können als jene, welche diese Lehre ignorieren.

EPO examination practice in relation to Computer-Implemented Inventions, in particular, Computer-Implemented Business Methods

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1. INTRODUCTION

This article presents the practice of the EPO, based on DG3 decisions like T641/00 (Comvik), T173/03 (Ricoh) and T258/03 (Hitachi) concerning business method applications.

We will consider four fictitious examples of an application with a single claim and a short description in order to explain how the technical content of the application as a whole may influence the prosecution of the examin-

ation. In the next section the four exemplary claims and the accompanying descriptions are presented. Then in the subsequent section the expected course of action of the EPO examiner is outlined and explained. For each claim, from example 2 onwards, the features that have been added or modified compared to the preceding version are underlined. The technical content of each example increases incrementally with respect to its predecessor.

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2. EXAMPLES

Example 1

Claim

A method of controlling access to content by a user, the method comprising:

the user requesting a content
accessing said requested content
accessing regulatory information defining at least one regulation that applies to the requested content and to geographical information relating to the user
determining whether said at least one regulation is fulfilled
if said at least one regulation is fulfilled, providing the requested content to the user.

Description

Providing access to information has become one of the major issues in our world.

It has generally been considered desirable that access to published sources of knowledge or information should not entail excessive costs. For example access to books in a library is normally given for free or in return for a small annual fee. These annual fees never cover the costs for buying new books and storing and managing the existing stock of books. A library or any comparable information keeping and sharing system needs the financial support of institutions or a sponsor or has to dramatically increase its fees with the risk of restricting the accessibility of information.

In summary, there is a conflict between the wish to voluntarily share knowledge and the need for funds in order to keep the knowledge up to date and publicly accessible. Resolving that conflict is a typical problem with which any manager of a shared information repository is confronted.

The present application solves that problem by means of regulatory information defining at least one regulation that applies to the requested content and to geographical information relating to the user.

According to the invention, the borrowing fee to access a book in a library depends in the first instance on the book itself but the total amount charged is determined by taking account of the nationality of the user. Thus, different fees apply to different users wanting to borrow the same book. If the user originates from one of the 30 poorest countries in the world, then he will be required to pay less than a user coming from one of the other countries, or he may even be allowed to borrow the book for free. If, on the other hand, he originates from one of the 10 richest countries, he will be required to pay more than average. In this way we ensure that access to information is enabled independent of the user's financial resources. By adapting the fee structure to the users, the information keeping and sharing system can also manage its revenue in an efficient way.

In practice this can be achieved by furnishing the personnel of a library with a list of countries indicating the tariff applicable for each country. The user just has to present his passport and the applicable fee will be

determined in accordance with the book requested and the nationality of the user.

Example 2

Claim

A computer implemented method of controlling access to content *in a computer* by a user, the method comprising:

the user requesting a content
accessing *in a first database* said requested content;
accessing *in a second database* regulatory information defining at least one regulation that applies to the requested content and to geographical information relating to the user; and
determining whether said at least one regulation is fulfilled
if said at least one regulation is fulfilled, providing the requested content to the user.

Description

Providing access to information has become one of the major issues in our world.

It has generally been considered desirable that access to published sources of knowledge or information should not entail excessive costs. For example access to books in a library is normally given for free or in return for a small annual fee.

The development of computer technology has nowadays made it possible to access books or newspapers article in libraries via a computer.

This new service has increased the costs of the library and requires financial support. Normally a fee is charged depending on the type of information and the amount of information seen by the user. In some cases, the fee may be expensive, for example if the type of information to be seen by the user is important, and this may inhibit access for users with limited financial resources.

Resolving the conflict between the desire to share knowledge voluntarily and the need to provide funds for equipping the libraries with this technological infrastructure, is the problem that has to be addressed.

The present application solves that problem by storing and accessing regulatory information in a database, said regulatory information describing at least one regulation that is related to the requested content and to geographical information related to the user.

According to the invention, the fee to access an article stored in a computer database depends in the first instance on the article itself but the total amount charged is determined by taking account of the nationality of the user. Thus, different fees apply to different users wanting to access the same article.

If the user originates from one of the 30 poorest countries in the world, then he will be required to pay less than a user coming from one of the other countries, or he may even be allowed to access the article for free. If, on the other hand, he originates from one of the 10 richest countries, he will be required to pay more than average.

In this way we ensure that access to information is enabled independent of the user's financial resources. By adapting the fee structure to the users, the information keeping and sharing system can also manage its revenue in an efficient way.

In practice this can be achieved by providing the computer with a second database including fee information depending on the article requested and the nationality of the user. The user has just to enter his passport data as proof of his nationality via a user interface into the computer.

This nationality information will be stored by the computer and the fee will then be automatically determined in accordance with the regulatory information stored in this second database.

Example 3

Claim

A method of controlling access to *requested* content by a user *that is available on a content server* comprising the steps of

- (a) *receiving a request* for content from a user
- (b) *accessing in a first database* said requested content;
- (c) *accessing in a second database registration information relating to the geographical location of the user;*
- (d) *accessing regulatory information in a third database defining at least one regulation that applies to said requested content and to said geographical location of the user;*
- (e) *determining whether said at least one regulation is fulfilled by the request;*
- (f) *if the request fulfilled said at least one regulation, retrieving the requested content from the content server and transmitting the requested content to the user; or*
- (g) *if the request is determined to not comply with the at least one regulation then not providing the requested content to the user*

Description

Providing access to information has become one of the major issues in our world.

The Internet has allowed the development of information keeping and sharing systems using world-wide accessible content servers. Such systems either rely on voluntary contributions and offer free access or else they are dependent on the contributions of highly specialised experts who expect to be paid for their knowledge in which case access to information resources is only permitted after payment of a fee depending on the quality of the information. A disadvantage of the first alternative may be the lack of quality of the freely available information, and a shortcoming of the second alternative is that the relevant information is only accessible to the users who are able to pay for it. In summary, there is a conflict between the desire to share knowledge in an open manner and the need for funds in order to keep the knowledge up to date and publicly accessible.

Resolving that conflict is a problem which confronts any manager of a shared information repository.

The present application solves that problem by using a plurality of databases for storing and accessing the requested content, the geographical location of the user and regulatory information.

According to the invention, the fee to access an article stored on a content server depends in the first instance on the article itself but the total amount charged is determined by taking account of the nationality of the user. Thus, different fees apply to different users wanting to access the same article.

If the user originates from one of the 30 poorest countries in the world, then he will be required to pay less than a user coming from one of the others countries, or he may even be allowed to access the content for free. If, on the other hand, he originates from one of the 10 richest countries, he will be required to pay more than average.

By doing so, we ensure that access to information is independent of the user's financial resources. By adapting the fee structure to the users, the information keeping and sharing system can also manage its revenue in an efficient way.

In practice, this can be achieved by asking the user to register and to enter his physical address in the system.

In addition to a first database for holding the requested content, a second database is used to store all addresses of the registered users.

A third database will include regulatory information, e.g. the fee to be paid by the user taking into account his location and the content he wants to access.

The content will be delivered if the regulation is complied with, e.g. if the corresponding fee is paid.

The content server will be adapted in order to include three databases, a registration unit and all other technical means necessary for the implementation of the present invention.

Example 4

Claim

A method of controlling access to requested content by a user that is available on a content server comprising the steps of

- (a) receiving a request for content from a user;
- (b) *accessing and comparing content ratings describing the requested content and regulatory information to determine whether the requested content complies with at least one applicable regulation;*
- (c) *if the requested content is determined to comply with the at least one applicable regulation, retrieving the requested content from the content server and transmitting the requested content to the client; or*
- (d) *if the requested content is determined to not comply with the at least one applicable regulation denying access to the requested content; wherein the method steps (a) to (d) are carried out on a proxy server and wherein the proxy server is also arranged to perform the additional step of:*

- (e) *determining a geographic location of the user and, wherein the regulatory information is accessed based on the geographic location of the client.*

Description 4

Providing access to information has become one of the major issues in our world.

The Internet has allowed the development of information keeping and sharing systems using world-wide accessible content servers.

Such systems either rely on voluntary contributions and offer free access, (e.g. Wikipedia) or else they are dependent on the contributions of highly specialised experts who expect to be paid for their knowledge in which case access to information resources is only permitted after payment of a fee depending on the quality of the information.

A disadvantage of the first alternative may be the lack of quality of the freely available information, and a shortcoming of the second alternative is that the relevant information is only accessible to the users who are able to pay for it.

In summary, there is a conflict between the desire to share knowledge in an open manner and the need for funds in order to keep the knowledge up to date and publicly accessible.

Resolving that conflict is a problem which confronts any manager of a shared information repository.

The present application solves that problem by storing and accessing the request content, the geographical location of the user and regulatory information in a plurality of databases.

The present application solves that problem by using a plurality of databases for storing and accessing the request content, the geographical location of the user and regulatory information.

Such systems are already known, see example 3. However, in the prior art system the location of the user was determined using address information entered by the user himself. It became apparent that certain users being aware of the fee charging schedule entered a false address in order to benefit from more favourable conditions.

A supplementary problem to be solved is therefore to provide a system capable of automatically detecting the geographical location of a user and of using this information to automatically determine the applicable fees without any human interaction.

Therefore in accordance with a further preferred embodiment of the present invention the proxy server is arranged to determine the geographic location of the user as detailed below.

[PREFERRED EMBODIMENT WITH PROXY SERVER]

3. EXPECTED COURSE OF ACTION OF THE EPO EXAMINER

Example 1

In this example, it is not possible to identify any technical features or a technical problem to be solved neither in

the claim nor in the description. This application should be refused because its subject-matter is excluded from patentability (Art. 52 (2)-(3) EPC).

According to EPO practice such a refusal does not require any comparison to a specific prior art document and it is therefore to be expected that no document will be cited with the search report.

Example 2

In this example, the claimed subject matter includes technical means. Indeed the technical architecture comprises a computer and two databases. Furthermore, data is entered into the computer and automatically processed. Hence, the claims comprise a mix of technical and non-technical subject-matter.

To carry out an objective and consistent examination of a computer-implemented invention, an assessment is required to determine which aspects of a subject-matter do and which aspects do not contribute to the technical character of the subject-matter as a whole (T0641/00, OJ EPO 2003,352, reasons 7).

In this case, the non-technical part relates to the abstract concept of controlling access to content which corresponds to that set out in example 1 above. Furthermore, the non-technical aspects do not cause a technical effect in their interaction with the clearly technical aspects. Indeed, the data to be processed neither constitute the operating parameters of the underlying computer system nor does they affect the physical/technical functioning of the system.

The closest prior art will be from a technical field and is established on the basis of the technical content identified in the claims and description. In this case, it corresponds to a general purpose computer system having two databases.

The distinguishing features are of a non-technical nature and do not solve any technical problem.

It is mentioned that the possibly innovative concept underlying the application, namely taking into account the nationality of the user for calculating the fee to be paid, is not taken into account for assessing an inventive step because it is not considered to be of a technical nature.

The claimed subject-matter is thus considered to relate to the direct implementation of a non-technical idea on a computer.

Hence, according to EPO practice, such an application should be refused for lack of inventive step (Art. 56 EPC).

Example 3

In this further example, the complexity of the employed technical architecture has increased.

It comprises a content server, three different databases, data entered in the system, registration of users, some checks and transmission of data.

However, from a technical point of view, this amounts to nothing more than an Internet-based system with means for receiving and storing registration data from a user (e.g. as known from Amazon or eBay).

On the other hand, the claim also incorporates non-technical aspects as set out in example 2.

Following the problem-solution approach, an Internet-based system with means for user registration would be considered as being the closest prior art.

According to EPO practice, the objective technical problem must be one which, in a realistic situation, the skilled person may be asked to solve. The skilled person should be presumed to be an ordinary practitioner in a field of technology (T00641/00, OJ 7/2003, 352, r8).

Furthermore, the objective technical problem must be formulated in such a way that there is no possibility of an inventive step arising from the purely non-technical aspects of the subject-matter (T1053/98, not published in OJ EPO).

In this respect, purely non-technical aspects which define an aim to be achieved in a non-technical field and thus not contributing to the technical character of a disclosed invention, may appear in the formulation of the technical problem in the form of a requirements specification provided to the person skilled in a technical field as part of the framework of the technical problem that is to be solved, in particular as a constraint that has to be met (T0641/00 OJ EPO 2003, 352; T1053/98 not published in OJ EPO).

In this case, the requirements specification provided to the skilled person corresponds to the concept of controlling access to content set out in example 1.

Given the above, the distinguishing features insofar as they are of a technical nature (e.g. additional databases) are considered to follow directly from the non-technical specification requirements.

The claimed subject-matter essentially relates to the direct implementation of a non-technical scheme on an Internet-based system with means for user registration.

The potentially innovative aspect of the application is the same non-technical concept as in the case of example 2 and this is not taken into account for the purposes of assessing inventive step.

The implementation of this concept in an Internet system is not considered to require the exercise of inventive skill.

Hence, in this case the application will also be refused for lack of inventive step (Article 56 EPC).

Example 4

The result of the examination of this application will depend on the content of the description, in particular on the content of the section relating to the „further preferred embodiment“ which has not been elaborated in detail above.

The difference between this case and the preceding one lies in the formulation of an identifiable technical problem.

„A supplementary problem to be solved is therefore to provide a system capable of automatically detecting the geographical location of a user and of using this information to determine the applicable fees without any human interaction“.

The only feature of the current claim which addresses this technical problem is the specification that „the proxy server is also arranged to perform the additional step of determining a geographic location of the user“.

If the description is silent on how the proxy server capable of performing this additional step then the examiner will probably arrive at the opinion that the disclosure is insufficient to enable the person skilled in the art to put the claimed invention into practice and will consequently raise an objection of insufficiency of disclosure (Art. 83 EPC).

If the representative is able to convince the examiner that the skilled person would know how to implement that feature despite the apparent lack of disclosure in the application, then the examiner will probably respond by arguing that, if no specific technical teaching is required in order to implement the underlying non-technical idea (i.e. determining the location of a user), then the subject-matter of the claim does not involve an inventive step.

This effectively returns us to a situation comparable to that of example 3.

If, however, in the part of the description relating to the „further preferred embodiment“, the applicant does in fact disclose technical details of how the automatic determination of the user's location is carried out then, once he has introduced the relevant technical features into the claim, the inventive step will be assessed taking due account of the available prior art.

In such a case, the application is considered to disclose a technical solution to a technical problem and the examiner's findings in respect of inventive step will depend on the cited prior art documents.

In conclusion, if in the part of the description relating to the „further preferred embodiment“, the technical details of the claimed solution are not disclosed, then the application is likely to be refused either due to insufficiency of disclosure (Art. 83 EPC) or due to lack of inventive step (Art. 56 EPC).

4. CONCLUSION

The practice of the EPO is to grant patents for applications for inventions which provide a non-obvious technical solution to a technical problem. As a practitioner you should ensure that all relevant technical details relating to the claimed invention are present in the original filing, at least in the description.