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**Datasheet for the decision
of 18 January 2013**

Case Number: T 0942/07 - 3.5.01

Application Number: 01971352.8

Publication Number: 1360608

IPC: G06F 17/30

Language of the proceedings: EN

Title of invention:

ENTERPRISE WEB MINING SYSTEM AND METHOD

Applicant:

Oracle International Corporation

Headword:

Web Mining/ORACLE

Relevant legal provisions:

EPC 1973 Art. 56

Keyword:

Inventive step - (no)

Decisions cited:

T 0133/87, T 1376/07, R 0009/10



**Beschwerdekammern
Boards of Appeal
Chambres de recours**

European Patent Office
D-80298 MUNICH
GERMANY
Tel. +49 (0) 89 2399-0
Fax +49 (0) 89 2399-4465

Case Number: T 0942/07 - 3.5.01

D E C I S I O N
of the Technical Board of Appeal 3.5.01
of 18 January 2013

Appellant: Oracle International Corporation
(Applicant) 500 Oracle Parkway, MS 5op7
Redwood Shores, CA 94065 (US)

Representative: Davies, Simon Robert
D Young & Co LLP
120 Holborn
London, EC1N 2DY (GB)

Decision under appeal: **Decision of the Examining Division of the
European Patent Office posted 5 December 2006
refusing European patent application No.
01971352.8 pursuant to Article 97(1) EPC 1973.**

Composition of the Board:

Chairman: S. Wibergh
Members: P. Scriven
P. Schmitz

Summary of Facts and Submissions

I. The appeal is against the Examining Division's decision to refuse European patent application 01971352.8 on the grounds of a failure to comply with Article 123(2) EPC. Without making it part of the reasons for their decision, the Examining Decision also gave reasons why the subject matter of claim 1 would have been obvious to the skilled person starting from D1 (Mobasher et al., *Automatic personalization based on web usage mining*, Communications of the Association for Computing Machinery, vol. 43, No. 8, August 2000, pages 142 - 151).

II. With the statement setting out the grounds of appeal, the appellant filed a main and two auxiliary requests, and argued in favour of compliance with Article 123(2) EPC as well as the requirement of inventive step. The appellant also requested oral proceedings, if none of the main or auxiliary requests was allowed.

The appellant's arguments with regard to inventive step and D1 can be summarized as follows.

The invention concerned data mining. While that had been successfully applied to single data sources, applications to multiple sources had been less successful. The invention was directed to the mining of data from a number of specified data sources, and the combination of sources was not disclosed in the prior art documents, whether taken singly or in combination. In particular, D1 was concerned with the mining only of web-based data; did not, unlike the present invention, indicate that any data was "selected"; and did not disclose, or even hint at, the integration of a plurality of database tables which was part of the invention.

III. The Board sent a communication under the provisions of Rule 100(2) EPC, in which it explained its doubts regarding

compliance with Articles 83 and 123(2) EPC.

- IV. The appellant responded with further arguments, and by submitting a new main request; the previous requests being maintained as auxiliary requests.

- V. The Board arranged for oral proceedings to take place. With the summons, the Board sent a communication in which it explained its provisional view. Amongst other things, the invention defined in claim 1 according to the main request seemed to be a straightforward and obvious automation of a non-technical method.

- VI. The appellant responded again with further arguments, and by submitting a further new main request. The previous requests were, again, maintained as auxiliary requests. In addition, the appellant requested that the case be remitted to the department of first instance, if the Board maintained its doubts regarding the technical contribution. In the appellant's opinion, the Board's analysis of inventive step differed markedly from the Examining Division's, and there was no reason why, in the present case, the appellant should be deprived of its right to two levels of decision.

- VII. At the oral proceedings, the appellant withdrew the pending main and auxiliary requests, and filed a new main request and a new auxiliary request. The appellant's final requests were that the decision under appeal be set aside, and a patent granted on the basis of claim 1 of the main request, alternatively on the basis of claim 1 of the auxiliary request, filed during oral proceedings before the Board and the further claims still to be adapted, or that the case be remitted to the Examining Division, if the Board maintained its doubts about the technical contribution of the claims, since that constituted an objection which had not been raised

during the first instance proceedings.

VIII. Claim 1 according to the main request reads as follows.

*A computer-implemented method of enterprise web mining comprising the steps of:
collecting data from a plurality of data sources, wherein the plurality of data sources comprises: corporate proprietary account or user-based data, external data, web server data including a web server log file, and web transaction data, and wherein said collecting data comprises:
acquiring data from the plurality of data sources, wherein the acquired data comprises a plurality of different types of data;
selecting data that is relevant to a desired output from among the acquired data;
pre-processing the selected data, wherein said pre-processing includes removing redundant or irrelevant information from the web server log file and performing path completion by linking log file entries in a session and sorting by time; and
building a plurality of database tables from the pre-processed selected data;
integrating the collected data, wherein said integrating includes forming an integrated database comprising collected data in a coherent format;
generating a plurality of data mining models using the integrated collected data; and
generating a prediction or recommendation using one of the plurality of data mining models in response to a received request for a recommendation or prediction.*

IX. Claim 1 according to the auxiliary requests differs only in that the step of "generating a prediction or recommendation"

now reads:

generating a real-time recommendation using one of the plurality of data mining models in response to a received request for a recommendation; and modifying the structure of a web-site to dynamically customise the navigation for a visitor in accordance with said real-time recommendation.

Reasons for the Decision

1. The invention is concerned with "data mining." That is the extraction of patterns from collections of data, especially of patterns which are not evident at first sight. It also concerns the use of extracted patterns for generating predictions or recommendations. An online retailer might, for example, note that people initially looking for product X tend to go on to buy product Y. When a customer looks for X, the retailer might then predict that the customer will buy Y, or may recommend Y to him. The field of application is broader than on-line retail, but that is the main example presented in the application (see, for example, the application as published, WO 02/27529, at page 1, line 24 - page 2, line 5; and at page 7, line 25 - page 8, line 2).
2. *Auxiliary request, claim 1, inventive step*
 - 2.1 Claim 1 according to the auxiliary request defines the invention more narrowly than claim 1 according to the main request, and the Board finds it convenient to address the auxiliary request first.
 - 2.2 Much of the discussion during the oral proceedings focused on the question of which features were technical, and so could contribute to inventive step, and which were not. The

discussion, however, also involved two other questions. The first was whether or not the Board could, or should, take a different approach to inventive step than had been taken by the Examining Division, without remitting the case to them, so that the approach could be considered at two instances. The second was the disclosure of D1 and how it related to claim 1 according to the main and auxiliary requests.

- 2.3 In the Board's view, it is valid to ask whether the invention would have been obvious to a skilled person who is automating a non-technical method. It is, however, also valid to consider a reasonable starting point in the prior art and ask whether the invention would have been obvious to the skilled person starting there. It is common ground that D1 constitutes a reasonable starting point, and it is convenient to consider inventive step on that basis.
- 2.4 The Board finds that D1 discloses, in combination, all of the features defined in claim 1, with the exceptions of the combined use of web server logs with data from some other source, and the integration of the data in a coherent format.
- 2.4.1 D1 discloses the use of a web server log in the context of data mining, (page 144, right hand column, first paragraph, for example). Indeed, the D1 was written in order to propose such a use.
- 2.4.2 The intermediate processing (e.g. selecting relevant data) to which, according to claim 1, the web server log data is subject, is also disclosed in D1 (page 144, right hand column, final paragraph; and inset "Data preparation for Web Usage Mining" on pages 146 - 147).
- 2.4.3 The generation of a plurality of data mining models is inherent in any data mining application. D1 is no different

(see, for example, the paragraph bridging pages 143 and 144).

- 2.4.4 D1 also discloses the modification of the structure of a web site, by customising navigation on the basis of a recommendation (page 149, left hand column, paragraphs 2 and 3).
- 2.4.5 D1 does not mention the use of a database; however, claim 1 does not define the database beyond the stipulation that it has tables. The Board's view is that any implementation of the method disclosed in D1 would store its processed data and results, and that such storage would fall within the claim's broad terms. Nothing turns on this, however. Even if not implicit in D1, the use of a database table would have been one of the obvious storage options.
- 2.5 D1 mentions the use of data from other sources than web server logs at page 143, left hand column, second paragraph. Indeed, D1 presents such other sources as the norm, against which it proposes the use of web server logs. What D1 does not disclose is the combined use of sources such as account data and web server data. Such a combined use, however, is not excluded.
- 2.6 Thus, the novelty in the method defined by claim 1 lies in the combined use of data from different sources, and in their integration in a coherent format. That, indeed, conforms with the introduction to the application, which, at line 6 on page 2, states that, "While data mining has been successfully applied to individuals sources of data, enterprise-wide data mining has not been so successful." It also accords with the appellant's arguments during oral proceedings before the Board. However, as the application acknowledges, "enterprise-wide" data-mining was known per se. It was simply more difficult, because it involved manual

intervention. The Board takes the objective technical problem, therefore, as allowing the use of multiple data sources without manual intervention.

2.7 The invention solves that problem by the step of integrating data into a coherent format.

2.8 Given that D1 argues strongly in favour of using web server log data, the Board considers that the skilled person would keep using it, when extending data mining to multiple sources.

2.9 The Board considers that the use of a coherent format would have been obvious to the skilled person. Indeed, D1 states that it is an "important characteristic" (D1, page 145, right hand column, second paragraph: "... a uniform representation that allows for the recommendation engine to easily integrate different kinds of profiles ...").

2.10 Thus, the Board concludes that it would have been obvious to the skilled person, starting from the disclosure of D1, to modify the method so that data are acquired from a plurality of sources, one of which is a web server log, and to integrate them in a coherent format. That means that there is no inventive step (Article 56 EPC 1973), and that the auxiliary request cannot be allowed.

3. *Main request, claim 1, inventive step*

3.1 This claim defines a subset of those defined in claim 1 according to the auxiliary request, and the reasoning as to lack of inventive step applies. Therefore, the main request cannot be allowed either.

4. *Remittal to the first instance*

4.1 According to Article 111(1) EPC, the Board has discretion as to whether it decides a case itself, or remits it to the department of first instance. There is no absolute right to have an issue decided by two instances (see, for example, T 133/87 and R 9/10 - *Fundamental violation of Article 113 EPC/SONY*, neither published in the OJ EPO). The Board may, in the interests of procedural economy, decide the case, even if a decisive issue has not been dealt with by the department of first instance (T 1376/07, not published in the OJ EPO). Moreover, the appellant requested remittal, if the Board maintained its doubts about the technicality of the invention, and the Board has analyzed inventive step starting from D1, as the Examining Division did. The Board's decision is a reconsideration of the Examining Division's assessment, rather than a new line of argumentation.

4.2 Under these circumstances, the Board considers itself justified in reaching a decision without remitting the case to the department of first instance.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:



T. Buschek

S. Wibergh

Decision electronically authenticated