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**Datasheet for the decision  
of 5 November 2008**

**Case Number:** T 1875/07 - 3.5.01

**Application Number:** 01906986.3

**Publication Number:** 1368763

**IPC:** G06F 17/60, G06F 17/10,  
G06F 9/45

**Language of the proceedings:** EN

**Title of invention:**  
Systems and methods for predicting traffic on internet sites

**Applicant:**  
Yahoo! Inc.

**Opponent:**  
-

**Headword:**  
Predicting internet traffic/YAHOO

**Relevant legal provisions:**  
EPC Art. 52(2)  
EPC R. 63

**Relevant legal provisions (EPC 1973):**  
EPC Art. 10(2)(a), 56, 112, 113(1)  
EPC R. 67

**Keyword:**  
"Inventive step (no)"  
"Referral to the Enlarged Board of Appeal (no)"  
"Stay of the proceedings (no)"  
"Reimbursement of appeal fee because of untransparent points  
system for examiners (no)"

**Decisions cited:**

G 0003/08, J 0007/83, J 0016/90, T 0166/84, T 0258/03,  
T 1242/04

**Catchword:**

See points 5 and 8 of the Reasons



Case Number: T 1875/07 - 3.5.01

**D E C I S I O N**  
of the Technical Board of Appeal 3.5.01  
of 5 November 2008

**Appellant:** Yahoo! Inc.  
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**Representative:** Douxchamps, Nicolas  
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**Decision under appeal:** Decision of the Examining Division of the  
European Patent Office posted 6 June 2007  
refusing European application No. 01906986.3  
pursuant to Article 97(1) EPC 1973.

**Composition of the Board:**

**Chairman:** S. Steinbrener  
**Members:** S. Wibergh  
P. Schmitz

## Summary of Facts and Submissions

- I. This appeal is against the decision of the examining division to refuse European patent application No. 01906986.3.
- II. The examining division held that the invention according to the main request, although not being excluded from patentability under Article 52(2) EPC, did not involve an inventive step since the technical problem merely consisted in implementing a certain non-technical prediction method, which implementation was a routine task. The amendments to claim 1 according to the two auxiliary requests were in the examining division's opinion merely clarifications.
- III. Claim 1 of the main request, filed by letter dated 26 March 2007, read:
- "A computer implemented method of predicting inventory (160) for web spaces in a collection of related web spaces, each space being a page object or event with which an advertisement can be viewed or otherwise presented, organized in a tree structure (105) of web spaces in a computer memory or in a network, comprising:
- generating historical inventory data (120) for a first web space based on an input tree structure (105) and on records of daily traffic for the first web space and descendent spaces of the first web space; and
- predicting future inventory (160) for the first web space based on the historical inventory data, characterized in that the step of predicting includes:

identifying a second web space similar to the first web space, wherein the second web space is an antecedent of the first web space in the input tree structure (105);

modeling the first web space with the second web space to determine optimization parameters; and

predicting traffic for the first web space by applying the optimized parameters to a portion of the historical inventory data for the second web space."

IV. Claim 1 of auxiliary request 1, filed by letter dated 19 April 2007, differed from the main request by insertion of the feature

"obtaining records of daily traffic for each space compiled on at least one server"

directly after the word "comprising".

V. Claim 1 of auxiliary request 2, filed during the oral proceedings before the examining division on 26 April 2007, differed from the main request by insertion of the features

"compiling, by at least one server, records of daily traffic for each space;  
obtaining records of daily traffic for each space;"

directly after the word "comprising", and the addition of the expression "by a computer" to each following step of the method.

VI. In the statement setting out the grounds of appeal, dated 25 September 2007, the appellant, pursuing the sets of claims on which the decision under appeal was based, argued in favour of an inventive step. Furthermore, in the appellant's view the decision under appeal should be set aside also because a declaration under Rule 45 EPC 1973 had been issued although the invention contained at least one technical feature that was not notorious.

A further reason for reversing the decision was according to the appellant that the proceedings before the first-instance departments had not been conducted in a transparent manner. The right to transparency was however a fundamental principle in the European Union. Citing document

E1: R. Howson, "Points and Prices, or how to Play Your Cards Right at the European Patent Office", Journal of Intellectual Property Law & Practice II(3), 2007, 170-173,

the appellant argued that the first-instance procedure, and especially the prosecution of European patent applications, was affected by the "points system" in the EPO. Its non-disclosure under Art. 10(2)(a) EPC 1973 constituted in itself a substantial procedural violation which had adversely affected the rights of the appellant. The appellant had not been able properly to argue its case and had been prevented from taking

all appropriate measures to defend it. Amongst other things, it had not been able completely to assess whether its right to be heard under Article 113(1) EPC 1973 had been respected. It was not able to exert a proper influence on the EPO administrative proceedings in relation to the application. This alone constituted a procedural violation under Rule 67 EPC 1973, justifying the reimbursement of the appeal fee. By its very nature, the lack of transparency did not allow an adversely affected party to present its case in relation to possible additional procedural flaws it had caused. It could only be speculated what these might be.

VII. In a communication, dated 18 April 2008, the Board issued a summons to oral proceedings, setting out its provisional opinion on the appeal in an annex. The Board found the reasoning of the examining division convincing. A technical problem must be solved by technical features (cf Rules 42 and 43 EPC), and the Board was not convinced that the invention involved more than notorious technical means. Even if a web space might comprise technical features, the claimed subject-matter did not seem to concern any such aspects. The method only concerned certain data about the spaces, referred to as "records of daily traffic". This data seemed to have no technical character since it served to describe human behaviour, namely the users' Internet habits. Operations were performed on the data according to certain rules, the result being again data, namely data about users' more or less probable future behaviour. Thus, the technical features in the claim seemed to be just a conventional computer and the Web.

In consequence, the Board was of the opinion that it had been possible for the examining division to refuse the application for lack of inventive step without performing an additional search, since the only technical features in claim 1 seemed to be notorious.

As to the appellant's argument that the "points system" said to be used in the first-instance departments may have affected the procedural acts of issuing the declaration under Rule 45 EPC 1973 and issuing a single communication under Article 96(2) EPC 1973, leading to an infringement of the appellant's right to be heard, the Board could not see any such infringement. Apart from the division's three letters, the appellant's right to be heard had been ensured by the oral proceedings, and a declaration under Rule 45 EPC 1973 was to a certain degree a matter of discretion. Therefore the Board could not find that the examining division had committed a substantial procedural violation. Whether or not the EPO used a points system that tended to influence the actions of an examining division was hardly an issue which could be investigated by a board of appeal and was in any case irrelevant if, as in the present case, no actual substantial procedural violation could be identified. The Board could not see how the non-disclosure of the points system might in itself constitute a substantial procedural violation.

VIII. Oral proceedings were held on 5 November 2008. The appellant requested that the decision under appeal be set aside and a patent be granted on the basis of the main request filed by letter dated 26 March 2007, or auxiliary request 1 filed by letter of 19 April 2007,



or auxiliary request 2 filed during the oral proceedings before the examining division on 26 April 2007. In addition, reimbursement of the appeal fee was requested.

Alternatively, the appellant requested that the decision under appeal be set aside and the case be remitted to the examining division for performing a search.

Alternatively, the appellant requested that the questions of law submitted at the oral proceedings before the Board be referred to the Enlarged Board of Appeal.

Alternatively, the appellant requested suspension of the proceedings until the opinion G 3/08 of the Enlarged Board of Appeal would be available.

IX. At the end of the oral proceedings the Board announced its decision.

## **Reasons for the Decision**

### 1. *The invention*

As explained in the description, for many web portals advertising is a major source of revenue. Contracts to show ads are normally signed several weeks or months before ads get delivered and are often expressed in terms of page views. If a space (web page) is oversold advertisers are dissatisfied, and if it is undersold revenue is lost. Therefore it is important accurately to predict the number of page views to be consumed in the future. This is called inventory prediction. The invention provides a computer-implemented method for

predicting inventory for web spaces in a network of spaces having a tree structure. The prediction is based on historical data. Since new spaces may lack a sufficiently large inventory history to allow a reliable prediction, the past traffic trend of an antecedent space (a parent or grand-parent page, etc) is used.

2. Exclusion under Article 52(2) EPC

The examining division decided that the computer-implemented method of claim 1 was not excluded by Article 52(2) EPC because of the use of a computer. The Board agrees (cf T 258/03 "Auction method/HITACHI", OJ EPO 2004,575).

3. *Inventive step*

3.1 The computer implied by the wording of claim 1 being conventional, the question arises whether the claim contains any further technical features that could contribute to an inventive step. In this respect the appellant has argued that the invention is associated with at least two distinct technical effects, namely the generation of prediction data as well as the potential use of that data for adapting the hardware resources (server).

3.2 Starting with the generation of prediction data, the Board first notes that the claimed method consists in collecting and processing data. In order to predict the future traffic for a first web space, a second space is selected which is a (grand-)parent of the first space, and its inventory data is used as input. The appellant

has argued that technical considerations, requiring the special knowledge of a technically skilled person, were involved in selecting a parent space as the second (reference) space. This was a new and original insight and required technical skills because the tree structure of the collection of web spaces was a technical feature of the network.

- 3.3 The Board is not able to accept the appellant's argument. A data structure in the form of a tree is in the Board's view not in itself a technical feature. It is merely a way of arranging information on an abstract level, not fundamentally different from, for example, alphabetic ordering. The Board will not exclude that a data structure used for a technical purpose may have a technical character. But the present invention is only concerned with identifying a second web space "similar to the first web space", the inventor having recognized that a parent space is likely to fulfil this requirement. The similarity of the two spaces is in respect of their traffic patterns (cf the description p.13, l.6,7). But traffic patterns depend on the personal tastes of the users of the network, and consequently on the contents of the information displayed on a page. Thus, the knowledge required for recognizing that the second space should be a parent space is that the contents of the parent space is so similar to the child space that their traffic patterns could be expected to be more or less similar. This indeed implies a certain familiarity with the database structure but not necessarily with any of its technical aspects.

3.4 The appellant has further argued that the prediction data could have technical consequences, such as avoiding future network congestion by adapting the hardware resources on the basis of the predicted traffic data. As the appellant admits, however, this alleged advantage is not disclosed in the patent application, and it is doubtful if it was readily apparent to a reader, especially as the only advantage of the invention described in detail relates to its use for furnishing data on which to base advertising contracts. But even if this alleged effect was considered it would not contribute to an inventive step since it is not of a technical character. A human being would be required to analyse the data, and any re-design of the hardware would be the result of an intellectual effort, ie the very opposite of a technical effect.

3.5 The rest of the claim concerns the determination of parameters with which a traffic prediction can be calculated. These steps, which implicitly involve mathematical algorithms, are in themselves excluded from patentability and cannot in the present context contribute to an inventive step.

3.6 Hence, the Board concludes that at most obvious implementation aspects of the claimed features contribute to the technical character of the invention. It follows that the subject-matter of claim 1 does not involve an inventive step (Article 56 EPC 1973).

4. *Auxiliary requests 1 and 2*

4.1 According to the first auxiliary request, the feature "obtaining records of daily traffic for each space compiled on at least one server" is added to claim 1. This feature has technical character but is clearly trivial.

4.2 Claim 1 of the second auxiliary request contains the same feature, albeit slightly reformulated, and additionally the expression "by a computer". Although the latter clarification might underline the technical character of the method, neither change renders it inventive.

4.3 Thus, the Board concurs with the examining division that both auxiliary requests must be refused for lack of inventive step (Article 56 EPC 1973).

5. The request for reimbursement of the appeal fee

5.1 The appellant, having learnt from E1 that a system for evaluating examiner performance exists within the EPO ("points system"), cites Article 10(2)(a) EPC 1973, according to which the President of the EPO is responsible for the information to the public, and argues that for reasons of transparency the President had a duty to publish the details of this system. A public institution such as the EPO should ensure that all interested parties, and not only a privileged few, be aware of the internal incentives existing that might influence the behaviour of the examiners. In E1 the points system was described as a "behind-the-scenes management initiative" which affected the EPO's

behaviour in a way which might reduce the number of opportunities an applicant had to challenge negative findings by the examiner.

- 5.2 A substantial procedural violation (cf Rule 67 EPC 1973) is "an objective deficiency affecting the entire proceedings" (J 7/83 "Interruption of proceedings/MOUCHET", OJ 1984,211). It can only be committed by one of the departments charged with the procedure mentioned in Article 15 EPC 1973 but not by the President acting under Article 10 EPC 1973. Therefore, the mere non-disclosure to the public of the details of a system for performance evaluation used in the EPO cannot amount to a substantial procedural violation. If the establishment of a points system has led to a substantial procedural violation, as argued by the appellant, this can only be indirectly via its effects on the members of the examining division. If so, it should be possible to identify a procedural rule which, in the appellant's view, actually *has* been violated and not merely *may* have been violated. In this respect the appellant has criticized the fact that the examining division issued only one communication under Article 96(2) EPC 1973 before the summons. This is however not regarded as a substantial procedural violation by the established jurisprudence, and moreover the examining division actually wrote three detailed letters in total, covering some twenty pages (including an annex to the summons to oral proceedings and an annex to the minutes of a telephone conversation). The appellant furthermore claims not having been able properly to argue its case and to assess whether its right to be heard was respected. In the Board's view, however, the appellant's right to be

heard was ensured by the oral proceedings. Contrary to its submissions, the appellant was in a position to judge whether its right to be heard had been respected, viz in the usual way by checking whether it had had an opportunity to comment on the reasons given in the decision.

5.3 For these reasons the appellant's request for reimbursement of the appeal fee is refused.

6. The request for remittal to the examining division

The Board agrees with the examining division that the claims contain only notorious technical features (a computer and a network - cf point 3 above), so that a (supplementary or additional) search was not necessary. There is thus no need to remit the case for a search to be carried out (cf T 1242/04 "Provision of product-specific data/MAN", OJ EPO 2007,421, point 9.2).

7. The request for referral of a point of law to the Enlarged Board of Appeal

7.1 The appellant has requested the following questions to be referred to the Enlarged Board of Appeal either by expanding question 3 in case G 3/08 pending before the Enlarged Board of Appeal, or independently:

3(d) Can the production of data pertaining to and characterizing a technical system have a technical character if the production of the data involves technical considerations relating to the structure of the technical system?

3(e) Is the response to question 3(d) different if [alternative wording: Does the response to question 3(d) depend on whether] the produced data enables to enhance/improve the internal operation of the technical system?

- 7.2 According to Article 112(1) EPC 1973, a board of appeal shall, in order to ensure uniform application of the law, or if an important point of law arises, refer any question to the Enlarged Board of Appeal if it considers that a decision is required for these purposes. From this it follows *inter alia* that it is not sufficient for the point referred to be of general interest. An answer must also be necessary for the decision on the appeal in question (J 16/90 "Re-establishment of rights/FABRITIUS", OJ EPO 1992,260, point 1.2 of the reasons). If the appeal must be dismissed for other reasons, a referral is not required.

In the present case, the answer to question 3(d) that would be most favourable to the appellant is that the production of data pertaining to and characterizing a technical system can have a technical character if the production of the data involves technical considerations relating to the structure of the technical system. In the Board's opinion, however, the present invention does not involve any technical considerations relating to the structure of a technical system (cf point 3.3 above). Thus, the conclusion that it lacks an inventive step would not be affected by an answer to question 3(d).



- 7.3 Since even the most favourable answer to question 3(d) would not improve the appellant's situation, there is no need to consider question 3(e).
- 7.4 It follows that the outcome of the present appeal does not depend on the answers to the questions formulated by the appellant, and consequently they need not be referred. Nor need it be examined whether these questions, which aim at determining whether certain kinds of subject-matter have technical character or not, concern points of law, as required by Article 112 EPC 1973.
- 7.5 For these reasons the request that the Board refer the proposed questions to the Enlarged Board of Appeal is refused.
8. The request for suspension of the proceedings
- 8.1 In decision T 166/84 "Postponement of examination/TAKEDA", OJ EPO 1984,489, to which the appellant has referred, it is stated that whenever a decision of an examining division depends entirely on the outcome of the proceedings before the Enlarged Board of Appeal on a legal question or point of law raised according to Article 112 EPC 1973, the further examination must be suspended until the matter is decided by the Enlarged Board of Appeal.
- 8.2 In the introductory section of referral G 3/08, titled "Summary of the referral", the President of the EPO expresses concerns that some decisions of the Boards of Appeal have given too restrictive an interpretation of the breadth of the exclusion of computer programs in

the EPC. Accordingly, the four questions referred to the Enlarged Board of Appeal only deal with various aspects of the exclusions from patentability under Article 52(2) and (3) EPC (cf the fourth paragraph of the Summary). The current approach to assessing inventive step in the field of computer-implemented inventions is thereby not questioned.

8.3 In the present case, the Board has acknowledged that the subject-matter of claim 1 is not excluded from patentability under Article 52(2) EPC. This is in the appellant's favour, and the opinion of the Enlarged Board of Appeal could therefore only worsen its position. Moreover, as set out above, the subject-matter claimed is not inventive and for this reason the appeal has to be dismissed. The legal basis on which the application is refused is in so far irrelevant as it only determines the reasons for the decision, but not the decision itself. Since in the present appeal the decision does not depend entirely on the outcome of the referral, there is no necessity to suspend the proceedings.

8.4 For these reasons the appellant's request for suspension of the proceedings is refused.

**Order**

**For these reasons it is decided that:**

The appeal is dismissed.

The Registrar:

The Chairman:

T. Buschek

S. Steinbrener