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**Datasheet for the decision
of 10 July 2017**

Case Number: T 2416/12 - 3.5.07

Application Number: 99932529.3

Publication Number: 1062602

IPC: G06F17/30

Language of the proceedings: EN

Title of invention:

Search engine using sales and revenue to weight search results

Applicant:

Yahoo, Inc.

Headword:

Search engine/YAHOO

Relevant legal provisions:

EPC Art. 54(2), 84, 123(2)

Keyword:

Novelty - main request (yes)

Claims - clarity - main request (yes)

Amendments - added subject-matter (no)

Remittal to the department of first instance (yes)

Decisions cited:

Catchword:



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Case Number: T 2416/12 - 3.5.07

D E C I S I O N
of Technical Board of Appeal 3.5.07
of 10 July 2017

Appellant: Yahoo, Inc.
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Representative: Boulton Wade Tennant
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Decision under appeal: **Decision of the Examining Division of the
European Patent Office posted on 1 June 2012
refusing European patent application
No. 99932529.3 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman R. Moufang
Members: P. San-Bento Furtado
R. de Man

Summary of Facts and Submissions

- I. The appeal lies from the decision of the Examining Division to refuse European patent application No. 99932529.3, which was filed as international application PCT/US99/03119 and published as WO 99/41694, for lack of clarity and novelty of claim 1 of a main request, and for added subject-matter and lack of clarity with regard to claim 1 of each of three auxiliary requests.

The following document was considered to disclose all the features of claim 1 of the main request:

D1: Weaver, A. C.: "The Internet and the World Wide Web", Industrial Electronics, Control and Instrumentation 1997, IECON 97, 23rd International Conference in New Orleans, LA, USA, 9 November 1997.

In an *obiter dictum*, the Examining Division expressed a negative opinion with regard to inventive step of the auxiliary requests.

- II. With the statement of grounds of appeal, the appellant requested that the decision be set aside and that a patent be granted on the basis of the main request or one of the first to third auxiliary requests considered in the appealed decision and resubmitted with the grounds of appeal, or one of the fourth to thirteenth auxiliary requests submitted with the grounds of appeal. The appellant requested oral proceedings in the event that the Board was minded to refuse any of the requests.
- III. The appellant was invited to oral proceedings. In a subsequent communication sent in advance of the oral

proceedings, the Board informed the appellant that it was not minded to follow the clarity objection of the decision under appeal, but that it found claim 1 of each of the requests unclear for a different reason.

The Board did not find the novelty objection set out in the contested decision persuasive. It discussed the prior art cited in the first-instance proceedings and its relevance for inventive step. The Board then informed the appellant that, in spite of the long duration of the proceedings thus far, it did not intend to assess inventive step in the appeal proceedings.

- IV. With a letter dated 8 June 2017, the appellant filed amended claims of a main request and thirteen auxiliary requests, and stated that it assumed that the Board would cancel the oral proceedings and remit the application for further prosecution.
- V. The Board cancelled the oral proceedings.
- VI. The appellant's final substantive requests were the main request and the first to thirteenth auxiliary requests submitted with letter dated 8 June 2017.
- VII. The claims of the main request read as follows:

"1. A search engine (16) for selecting one or more search hits from among a plurality of hits based on a user interest, wherein a hit is a reference to a page or site, the search engine comprising:

an input module for accepting a query (Q) from a user, the query representing an interest of the user;
and

a tracking module for tracking the user's navigation from an arrival page through a plurality of pages, including at least a destination purchase page, the destination purchase page being a page from which the user makes a purchase;

characterised in that the search engine comprises:

a sales module which records a sales association between the purchase and the query that resulted in the user's navigation to the destination purchase page, the association identifying the arrival page, where the associations are provided, at least in part, by an output of the tracking module; and

a search module, which receives at least a query and a sales association related to that query provided by the sales module, determines a relevance of a hit as a function of the query, the relevance being weighted based on the sales association related to that query, and outputs one or more search hits (H) based on at least the query and the sales associations of that query, in an order dependant [sic] upon the determined relevances.

2. The search engine of claim 1, wherein the query is a search text string.

3. The search engine of claim 1, wherein the sales association indicates at least when a search beginning with a particular search term tends to result in a particular purchase."

VIII. In view of the outcome of the appeal proceedings, the claims of the other requests are not relevant for the present decision.

IX. The appellant's arguments relevant to this decision are discussed in detail below.

Reasons for the Decision

1. The appeal complies with the provisions referred to in Rule 101 EPC and is therefore admissible.
2. *The invention*
 - 2.1 The present invention relates to a web search engine for selecting and outputting relevant search hits in response to a search phrase, where a hit is a reference to a webpage or website. The relevance is a function of the search phrase, adjusted on the basis of sales, revenue or bidding data (page 3, lines 20 to 29 of the international publication).

According to the description on page 7, lines 15 to 18, the invention provides a benefit both for the search engines, by tending to maximise the revenues, and for the consumer doing product searches, because the ranking "is based on whether they found what they wanted".

The sales data indicates "associations between search terms and purchases, such that when a search beginning with a particular search term tends to result in a particular purchase, an association is noted in the sales data" (page 3, lines 24 to 27).

The sales associations are obtained by tracking the user's navigation through a plurality of pages from the arrival page to one "destination purchase page", i.e. a page in which a user makes a purchase (page 2, line 25 to page 3, line 5, original claim 1, page 6, lines 24 to 28).

In the embodiment described on page 4, line 26 to page 5, line 21, with reference to Figure 2, a merchant server connected to the search engine keeps track of the purchasing interactions and provides the search engine with sales association data based on the purchasing interactions. It can "provide a record of what occurred for each interaction" or "collect many records and send them in bulk to the search engine" (page 5, lines 17 to 21).

The search engine includes an input module to accept a query from a user, typically in the form of a search string, a tracking module for tracking the user's navigation through a plurality of pages including at least one destination purchase page, a sales module which records associations between purchases and queries, and a search module which receives a query and sales associations and determines a ranked list of hits (page 2, line 25 to page 3, line 5, original claims 1 and 3, page 6, lines 11 to 16).

3. *Amendments to the refused claim*

3.1 Present claim 1 differs from that of the main request underlying the decision under appeal in that the definitions of the tracking and sales modules have been amended as follows (additions underlined):

"a tracking module for tracking the user's navigation from an arrival page through a plurality of pages, including at least a destination purchase page, the destination purchase page being a page from which the user makes a purchase;"

"a sales module which records a sales association between the purchase and the query that resulted in the user's navigation to the destination purchase page, the

association identifying the arrival page, where the associations are provided, at least in part, by an output of the tracking module".

4. *Article 123(2) EPC*

- 4.1 The appellant argued that the features "from an arrival page" and "the association identifying the arrival page" introduced into claim 1 were disclosed on page 5, lines 25 to 27 and page 6, lines 24 to 28 of the original description.

The cited passage on page 5 discloses that the search engine tracks which purchasing interactions "were made with which pages selected from a hit list", and the one on page 6 discloses that the search engine obtains data including the URL of the arrival page, and that that information is used to influence the rankings of target pages, which correspond to hits. The additional features of claim 1 are therefore indeed directly and unambiguously derivable from the passages cited by the appellant.

The decision under appeal did not raise any added-matter objections against the then main request.

The Board is satisfied that the claims comply with Article 123(2) EPC.

5. *Clarity*

- 5.1 The Examining Division considered the feature "destination purchase page", in particular the term "purchase", unclear. There were many possible interpretations of "purchase", for example the act of payment, the record of payment or the listing of a

product to buy. Even in the light of the description (page 5, lines 14 to 19), it could be understood as "anything the user does at the merchant site". It was impossible for the skilled person to determine the technical features envisaged by the "destination purchase page".

5.1.1 With the grounds of appeal, the appellant argued that the terms of a claim should be given their ordinary meaning and that a skilled person would understand "a purchase" to mean the act of making a purchase, which was a specific type of "purchasing interaction". The claim explicitly and clearly defined the term "destination purchase page" as a "page from which the user makes a purchase".

5.1.2 Claim 1 does not define the criteria determining whether the result of a user interaction is considered to be a "purchase" or whether a page visited by a user is a "page from which the user makes a purchase".

However, reasonable interpretations are possible in the context of the invention. In particular, the skilled person understands from the claim that "purchase" is to be interpreted as a specific type of user interaction, or an event, which is supported and detectable by the system, e.g. by a click on a "buy" button, and represents an act of making a purchase. The "destination purchase page" may be the page with the URL sent to the system by the client, or one of the last pages visited during the purchase interaction, e.g. the page with the "buy" button.

That interpretation is also in line with the description, according to which the merchant server records the extra information that arrives with the URL

that the user selected and can provide a record of what occurred for each interaction (page 5, lines 19 to 21). In addition to that, "When the user finishes the purchasing interaction, which the merchant hopes is a purchase, the result [...] is provided to the search engine server along with the extra information provided with the URL sent to the merchant server by the client" (page 6, lines 6 to 10).

In the Board's opinion, the skilled person can thus make technical sense of the two terms and understand the claimed technical features whose definitions use those terms, although they are related to non-technical aspects. The two terms are broad rather than unclear, and do not lead to lack of clarity of the claim.

- 5.2 In its communication, the Board found that it did not seem clear from claim 1 then on file how the search module weighted the relevance of a hit, i.e. a reference to a page or a site, on the basis of associations between queries and respective purchases. The information from the sales association that a particular query resulted in a purchase did not give information about which hits returned for the particular query and followed by the user led the user to make the purchase.

In the Board's opinion, the features introduced by the appellant overcome that objection. Since the sales associations include information about the arrival page, query and destination purchase page, it is possible to see which hits (references to a page or site) returned after a query correspond to arrival pages which led to a purchase, and how often that occurred for each hit and query. In that way, it is

possible to use the sales associations to weight the relevance of the hits.

5.3 No other clarity objections were raised by the Examining Division.

6. *Novelty*

6.1 In the decision under appeal, the Examining Division considered that the features of claim 1 were disclosed on page 1532 of document D1, in particular in section A, "Travel and Leisure".

That section describes websites where a user can "check airline schedules, cruise schedules, purchase a ticket, or rent a car with just some mouse clicks" and refers to a "supersite" that permits expanded searches. It then describes one such site (page 1532, right column, third full paragraph).

6.1.1 The Examining Division considered a supersite to correspond to the search engine. With regard to the tracking module, it argued as follows:

"A browser includes a 'tracking module' (standard browsing features such as registering web page cookies and web browsing history). The cited online airline flight reservation therefore involves tracking the user's navigation through a plurality of pages up to a final purchase page from where the user would make the purchase. Book marking or saving a page into a shopping basket, which is common knowledge, is technically tracking".

A sales module was a standard function of an airline booking system like that disclosed in D1. The association between a price range/category selected and

the bookmarking/saving of a page of selected flights was a sales association. The item to be purchased and its price were stored in the webpage displayed. A search module was disclosed in document D1, which disclosed ranking and weighting according to the price of a flight which, in turn, was a sales association related to the flight queries.

6.2 The appellant contested the interpretation of the claim in the decision under appeal. It argued that the sales association could not be interpreted as being an association between a query and the bookmarking/saving of a page of selected flights. A browser was not part of the search engine and it therefore did not correspond to a tracking module within the meaning of the claim. According to the reasoning of the Examining Division, the tracking module was a function of the browser, while the sales module was a standard function of an airline booking system, i.e. a webpage. However, the claim specified that those modules were both part of the search engine.

6.3 The Board essentially agrees with the appellant's arguments.

The claim specifies a search engine comprising an input module, a tracking module, a sales module and a search module. It is clear that in the application and claims the term "search engine" refers to the server-side program that finds data on the internet on the basis of parameters received from the client, for example using a client-side browser (page 1, lines 12 to 25, Figures 1 and 2, page 3, line 30 to page 4, line 3). That interpretation is also consistent with the standard technical meaning attributed to the term "search engine". The Board is therefore of the opinion that

tracking by a search engine cannot be equated to the standard functioning of a client-side browser.

- 6.4 In the Board's view, none of the functionality features of document D1 mentioned in the decision under appeal implies the use of tracking by the search engine within the meaning of claim 1.

In its novelty assessment, the Examining Division mentions web-browsing history, bookmarking, cookies and shopping baskets. Those features are not claimed and thus could only be relevant for novelty if they were disclosed in document D1 and corresponded to claimed features. That is however not the case. Web-browsing history and bookmarking are usually implemented by the client. Commonly known cookies are stored at the client. Furthermore, the passages of document D1 cited in the decision do not explicitly disclose cookies or shopping baskets and, for the reasons given below, the Board is not convinced either that they can be considered to be implicit in the system considered to be novelty-destroying by the Examining Division.

The decision under appeal mentioned in particular a supersite system such as that described in document D1, in which the user has to "register by name" and afterwards can enter a complete itinerary of flights, up to three preferred airlines, the class of service desired, the number of flight choices to display for each leg of the flight, and how the prices are to be displayed (e.g. lowest to highest) (page 1532, right column, third full paragraph). However, document D1 does not disclose in detail the user interface of that system. It does not explain what the purpose of the user registration is. The cursory description in document D1 does not preclude the system simply

offering a form to fill in and returning a result consisting only of a page with a list of information, the information from different airlines being stored locally. That functionality does not require shopping baskets, displaying references to a page or site, or tracking the user's navigation from an arrival page through a plurality of pages, as recited in claim 1.

The system described on page 1532, paragraph bridging the left and right columns, of document D1 relies on the user clicking through options or pages to choose a flight schedule. Even assuming that this functionality indicates that the system keeps track of the options already chosen, it still does not mean that the search engine tracks user navigation through a plurality of pages from the arrival page to a destination page and stores association data identifying the arrival page.

Document D1 mentions that with some systems, which are not further identified, it is possible to book a flight or purchase a ticket. Yet it does not explain, with regard to any of the specific travel systems described, whether the system actually supports the functionality needed to book a flight at the end of the search, and it even mentions that in some cases the user obtains a list of flight possibilities but books separately by telephone (page 1532, right column, first full paragraph). Without a final booking interaction, there seems to be no need to keep track of the user's navigation or of information about the travel options chosen by the user through different pages.

- 6.5 The Board could not find in document D1 any other embodiment relevant for the question of novelty of the subject-matter of claim 1, and is therefore of the opinion that the claimed subject-matter is new over

that disclosure, within the meaning of Article 54(1) and (2) EPC.

Further prosecution

7. For the reasons given above, the Board does not uphold the clarity objections raised in the decision under appeal. Moreover, the Board is satisfied that the claims of the main request overcome the objections raised under Article 84 EPC in the appeal proceedings, fulfil the requirements of Article 123(2) EPC and define subject-matter which is new over document D1. It follows that the grounds on which the decision under appeal was based do not apply.
8. The Board further concludes from the above discussion that the Examining Division incorrectly mapped the tracking and storage at the search engine to features of a browser or client. As a consequence, it did not take into account important features of the claimed invention, which have been further clarified in the appeal proceedings.
9. Under those circumstances, and in spite of the long duration of the proceedings thus far, the Board is not minded to assess inventive step in the appeal proceedings.

In accordance with Article 111(1) EPC, the case is therefore to be remitted for further prosecution by the first-instance department. This is in accordance with the procedural suggestion made by the Board in its communication and accepted by the appellant (see sections III and IV above). The decision can therefore be taken without oral proceedings.

10. In the further prosecution of the case, the Examining Division may want to take into account the observations made in the Board's communication with regard to the prior art cited in the first-instance proceedings. The Board further notes that minor corrections of the claims may be required (e.g. "dependent" rather than "dependant" in claim 1).

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the department of first instance for further prosecution.

The Registrar:

The Chairman:



I. Aperribay

R. Moufang

Decision electronically authenticated