Internal distribution code:
(A) [-] Publication in OJ
(B) [-] To Chairmen and Members
(C) [-] To Chairmen
(D) [X] No distribution

Datasheet for the decision
of 9 May 2019

Case Number: T 0543/18 - 3.5.07
Application Number: 05736250.1
Publication Number: 1747516
IPC: G06F17/30
Language of the proceedings: EN

Title of invention:
Conducting internet search from an instant messaging [sic] application

Applicant:
Oath Inc.

Headword:
Internet search from an instant messaging application/OATH

Relevant legal provisions:
EPC Art. 56

Keyword:
Inventive step - (no)

Decisions cited:
T 0641/00, T 0154/04, T 1296/05, T 1143/06, T 1235/07,
T 0862/10, T 2261/10, T 1375/11
Case Number: T 0543/18 - 3.5.07

DECISION
of Technical Board of Appeal 3.5.07
of 9 May 2019

Appellant: Oath Inc.
(Applicant)
770 Broadway
New York, NY 10003 (US)

Representative: Smith, Mark David
Kilburn & Strode LLP
Lacon London
84 Theobalds Road
London WC1X 8NL (GB)

Decision under appeal: Decision of the Examining Division of the
European Patent Office posted on 17 August 2017
refusing European patent application No.
05736250.1 pursuant to Article 97(2) EPC

Composition of the Board:
Chairman R. Moufang
Members: M. Jaedicke
R. de Man
Summary of Facts and Submissions

I. This appeal, the second for the present case, lies from the decision of the Examining Division to refuse European patent application No. 05736250.1, filed as international application PCT/US2005/013426 and published as WO 2005/103959, for lack of inventive step in the subject-matter of claims 1 to 23 of the sole request in view of the prior art disclosed in the following document.

D3: US 6,678,673 Bl, published on 13 January 2004

The application claims an earliest priority date of 19 April 2004.

II. In the course of the appeal proceedings, the application was transferred to Oath Inc., which after a corresponding request for registration obtained the status of appellant.

III. The prior-art documents cited by the Examining Division in its decision also included the following.

D1: WO 01/13245 A, published on 22 February 2001
D4: US 6,430,602, published on 6 August 2002

Documents D3 and D4 had been introduced by the Board in a different composition in the course of the first appeal proceedings (see decision T 2261/10 of 21 October 2016).

IV. In its statement of grounds of appeal, the then appellant requested that the decision be set aside and that a patent be granted on the basis of the sole
request, filed by letter of 10 March 2008 (before the first appeal proceedings) and considered in the contested decision.

V. In a communication under Article 15(1) RPBA accompanying the summons to oral proceedings, the Board expressed, *inter alia*, its provisional opinion that the subject-matter of claim 1 of the sole request lacked inventive step in view of document D3.

VI. In a subsequently filed letter, the appellant submitted further arguments and asked the Board for an early indication of how the Board was minded in light of those arguments.

VII. In a short communication, the Board replied that oral proceedings would be held as scheduled.

VIII. In a subsequently filed letter, the appellant informed the Board that it would not be represented at the oral proceedings.

IX. Oral proceedings were held as scheduled in the absence of the appellant. At the end of the oral proceedings, the Chairman pronounced the Board's decision.

X. The appellant's final request was that the decision be set aside and that a patent be granted on the basis of the sole request, filed by letter of 10 March 2008.

XI. Claim 1 of the sole request reads as follows.

"A method for searching the Internet in an instant messaging environment, the method comprising:
   recognizing (602,703) at least a portion of an instant message, from a first user to a second user and
entered into an instant messaging application on a first client computer (410) of the first user, as a search query, wherein said recognizing comprises identifying a predetermined character string in the instant message as a search trigger;

causing the search query to be displayed (502, 603, 607, 702, 706) to the first user inline in an instant messaging window on the first client computer and to the second user inline in a second instant messaging window on a second client computer (411) of the second user;

causing (503, 604, 708) a web search based on the search query in response to identifying the search trigger in the instant message, the web search retrieving search results, by transmitting the search query to a search server, wherein the search server performs the web search based on the search query; and automatically causing at least one of the search results to be displayed (505, 609, 611, 711, 713) inline in the instant messaging window on the first client computer and inline in the second instant messaging window on the second client computer."

In view of the outcome of the appeal, the text of the other claims need not be given.

XII. The appellant's arguments where relevant to the 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 appellant having been duly summoned to the oral proceedings, they were held in its absence (Rule 115(2) EPC). The appellant was treated as relying only on its written case (Article 15(3) RPBA).

The invention

3. The application relates to inline searching in an instant messaging (IM) environment. IM provides communication between internet users within a closed community (description, paragraphs [0002] and [0003]). According to the description, known IM applications do not allow a user to link directly to the World Wide Web to perform searches. Nor do they allow the user to easily share the search result. IM users must manually open a separate web browser window to visit the web site of an internet search engine. After typing search criteria into the internet search web site, an IM user manually flips through the search results to identify relevant web sites and then visits those web sites. To share the search result, the user must copy and paste the URL of the web site into an IM conversation and send the URL (description, paragraph [0004] and [0005]).

The application proposes performing a web search inline in an IM environment and displaying search results inline in the IM environment (description, paragraph [0002]; Figures 1 to 7). A user can enter a search query in the IM application by typing a predefined character string as a search trigger to identify the text following this string as a search query. For example, a user may enter the search request "s:define onomatopoeia". In this example, the characters "s:" define a search trigger. When a user enters "s:" followed by additional characters, the IM application
recognises that a search request is being made. The IM application treats the characters following "s:" as a search query (description, paragraphs [0007] and [0015]).

The search query itself is then displayed inline in the IM windows of the two users connected via IM. The search request is also sent to an internet search server, which processes the request and generates search results. At least one search result is then displayed inline in an IM window to both users (description, paragraphs [0025] and [0035]; original claims 1 and 2).

The appellant's request

4. Claim 1 considered in the contested decision relates to a method for searching the internet in an IM environment. The claimed method comprises the following features:

(a) recognizing at least a portion of an instant message, from a first user to a second user and entered into an IM application on a first client computer of the first user, as a search query

   (i) wherein said recognizing comprises identifying a predetermined character string in the instant message as a search trigger

(b) causing the search query to be displayed to the first user inline in an IM window on the first client computer and to the second user inline in a second IM window on a second client computer of the second user
(c) causing a web search based on the search query in response to identifying the search trigger in the instant message
(i) the web search retrieving search results
(ii) by transmitting the search query to a search server
(iii) wherein the search server performs the web search based on the search query
(d) automatically causing at least one of the search results to be displayed inline in the IM window on the first client computer and inline in the second IM window on the second client computer

**Inventive step - Article 56 EPC**

5. In the contested decision, the Examining Division considered that document D3 disclosed most features of claim 1. However, D3 disclosed neither that the character string triggering the search was predetermined (see step (a)(i) of claim 1) nor that the search query was displayed as defined in step (b) of claim 1. Moreover, while D3 did disclose displaying a search result, that search result was not displayed **inline in the IM windows** as defined in step (d) of the method of claim 1.

5.1 Document D3 discloses a system and a method "for providing appropriate hyperlink based on identified keywords from text messages sent between users" (see title). According to column 1, lines 51 to 56 of D3, an object of the invention is "to provide a means by which a user may have made available to him/her relevant information to accompany a communications session with another user without requiring conspicuous action on the part of either user and without unnecessary
interruption of the communications session".

5.1.1 A system according to document D3 comprises a "parsing apparatus" with the following features recited in the paragraph bridging columns 1 and 2 of the description.

- an input to receive text messages sent from a first communications device of the system to another
- a parser subsystem coupled to receive said text messages, and including processing means arranged to process the received text in accordance with a predetermined processing strategy to identify one or more keywords therein
- a search subsystem coupled with the parser subsystem and arranged to receive the or each selected keyword, to selectively transmit one or more such keywords via said network to a search engine coupled with the network, to receive results from the search engine, and to output them to a user of the system

5.1.2 A network communications system according to D3 is illustrated in Figure 1 and comprises a number of user computer systems 10 to 20, a first remote server 22 for maintaining a chat space, and a second remote server 24 which supports a network search service based on a search engine. As explained in column 3, lines 38 to 40, at least some of the user systems include a parser subsystem. "In operation, with a pair of user systems 12, 20 in communication via the chat-space 32, the parser subsection 40 of the system 12 identifies keywords in the text messages exchanged (or just in those messages sent by the user of system 12) and sends selected ones of those keywords in a string (or as separate entities) as search terms to the search engine 34, [...]. On receipt of the search results (typically in the form of one or more uniform resource locators -
URLs - followed by a short segment of human readable content) the user system 12 presents them to the user in such a way as not to intrude on the chat space communication, for example at the periphery of a display on which the text messages are being shown" (column 3, lines 40 to 52). According to claim 1 of D3 (last sentence), a search result may be communicated to one or more users.

5.1.3 As explained in D3 (column 6, second full paragraph), different tests are applied to a text message as part of a scoring algorithm used to define a query. One of these tests consists in determining whether a phrase in the text message may be a question. For example, if it begins with "what", "when" or "where", the scores of the phrase and of each of its words are increased (column 6, lines 21 to 24). Due to the phrase's higher score, the system may subsequently identify words of the phrase as keywords for defining a query.

5.1.4 In view of the above and as D3 also discloses a method corresponding to the disclosed system, the Board agrees with the Examining Division that document D3 discloses steps (a), (c), (c)(i) to (c)(iii) of the method of claim 1.

5.1.5 With its statement of grounds of appeal, the appellant emphasised that document D3 did not disclose step (a)(i) of the claimed method. D3 identified words such as "what" or "who", but these words were not identified as actually triggering a search - some words were simply scored a bit higher when all words were scored to construct a search query. Hence, the search was not triggered by the presence of a particular word.
5.1.6 The Board agrees with the appellant that document D3 does not disclose step (a)(i) as there is no disclosure in D3 of a predetermined character string in the instant message that is recognised as a search *trigger*. According to the application (see paragraph [0017] of the description), a search trigger is a character string that is not commonly entered by users during normal IM conversations so a user does not unintentionally enter the search trigger. As an example, the application discloses the use of the character string "s:" to trigger a search. This character string is thus rather a command entered by the user to instruct the system to perform a search with the following text interpreted as search query. Hence, the command to perform the search query is itself not part of the query. By contrast, D3 teaches identifying and scoring words to define the semantics of the search query.

5.2 Consequently, document D3 does not disclose steps (a)(i), (b) and (d) of claim 1.

5.2.1 The effect of step (a)(i) is that users are enabled to perform a web search with an explicitly defined search query from within the IM environment. The Board agrees with the Examining Division that the effect of steps (b) and (d) is that the search query and at least one search result are shared with both users of the IM session inline in their IM application windows. As the Examining Division found, there is no synergistic interaction between step (a)(i) and steps (b) and (d).

5.2.2 In its reply to the Board's summons, the appellant argued that there was a synergistic effect. Step (a)(i) synergistically combined with steps (b) and (d) to allow a user to more easily research a topic discussed
in an IM session. A technical problem solved by the synergistic combination of these steps was therefore "how to provide search functionality for researching a topic in an instant messaging session". The invention allowed users to perform successively refined searches as it allowed the user to explicitly initiate a search and to define an initial search term upon which a search should be based. Moreover, both users were able to discuss and feed refinements back into successively refined search terms without either user having to switch context between windows. Such collaboration, the appellant argued, was not facilitated by the system of D3.

Additionally, when the user of the claimed invention needed to interact with the search results (for example, when, as is standard practice, search results are presented in the form of URLs or links which the user must click on to examine their content), the fact that the search result URLs/links were located in the same window in which the user was entering chat text and successively refined search terms, resulted in a reduction of context switching between different windows (which would otherwise require data processing by the computer system) and mouse clicks and mouse pointer movement by the user. By contrast, D3 displayed search results in at least one separate adjacent window, thereby requiring substantial hand/eye movements by a user, and requiring context switching between adjacent messaging and search result windows (involving data processing when window context is switched).

5.2.3 However, nothing in claim 1 refers to successively refining a search or repeated searching. Moreover, the Board is not aware of any passage in the application
disclosing these kinds of searches. Hence, the appellant's respective arguments have no basis.

In addition, users are not hindered to refine an implicit search in the system described in D3. For example, when a user enters first the question "Do you know the weather forecast for San Diego?", the system may perform an implicit search for the current weather forecast. After a look at the search result, users may enter a refining question such as: "Do you know the weather forecast for San Diego for the next 10 days?" Hence, the method of claim 1 does not specify any difference with respect to refining searches over the teaching of document D3.

As to the alleged ergonomic advantages resulting from using a single window instead of two windows, document D3 discloses in Figure 9 a display format which features an area for the display of web chat surrounded by reduced-scale still images representing search results, all within a single window (D3, column 7, lines 20 to 32). Hence, the appellant's arguments concerning some of the advantages of the claimed method over document D3 are not convincing.

As to the reduced hand/eye movements of users, it is not clear that users prefer to move up and down on a screen as in the invention, which places search results below the chat line (see Figures 1 to 3 of the application) instead of moving to another window (see Figure 8 of D3) or to the left/right/up/down (see Figure 9 of D3). When search results occupy substantial window space, in the claimed method users may need to a scroll up and down to see their queries again when they wish to refine their search more often than, for example, in the method disclosed in document D3. Hence,
it is not clear that the claimed method brings about a more ergonomic user interface, and the appellant's respective arguments are not convincing.

In sum, there is no synergistic effect of the distinguishing features. Hence, the claimed method solves two different problems over document D3.

5.3 According to the contested decision, the first problem, which is solved by step (a)(i), was how to modify the teaching of document D3 to inform the system explicitly when a search should be performed. The Examining Division argued that the idea of replacing the linguistic analysis of D3 with the identification of a predetermined string as a search trigger would have been obvious for the skilled person because the use of special characters or strings with specific functionality was standard practice in the field of computer-implemented inventions.

5.3.1 In its statement of grounds of appeal, the appellant disagreed with the Examining Division.

Given the very specific nature of the scoring algorithm of D3, it could not see how the skilled person would have modified D3 to detect a search query based on identifying a predetermined string. In particular, the person skilled in the art would not have modified the "scoring" system of D3 to trigger a search upon detection of a "predetermined character string" as D3 (column 5, line 62, to column 6, line 8) disclosed determining scores for all the words of a phrase based on the historical context of these words and other modifiers and then searching based on the most highly scored words.
The method set out in D3 would not be able to identify search queries such as "do sheep sleep" or "are sheep friendly" - the "tests" set out in D3 did not identify any of the words in these phrases as scoring over the relevant threshold. The use of a "predetermined character string" helped provide more flexibility to the user as the user could conduct a wider range of search queries in the IM environment. Additionally, use of a "predetermined character string" allowed a user to inform the system exactly when such a search should be performed, instead of the system merely performing searches when the system believed a certain "score" threshold had been met.

5.3.2 However, the desire to enable users to perform explicitly defined web search queries is not a technical aim but rather a non-technical requirement. Searching for documents using keywords has a non-technical character, and this is not changed by the mere use of a computer system.

According to the established case law of the boards of appeal, when assessing inventive step in accordance with the problem/solution approach, an aim to be achieved in a non-technical field may legitimately appear in the formulation of the problem as part of the framework of the technical problem to be solved as a constraint that has to be met (see decisions T 641/00, OJ EPO 2003, 352; T 154/04, OJ EPO 2008, 46). Hence, the aim to extend the method of D3 with the possibility to perform an explicitly specified search query can be included in the problem to be solved.

5.3.3 Hence, the first problem to be solved by the skilled person would have been how to extend the method of D3 with the possibility to perform an explicitly specified
search query.

5.3.4 The solution consists in using a predetermined character string followed by further text to trigger a search with the further text being used as search query. However, in the field of computing, the use of such command character strings with subsequent parameters was notorious at the priority date (e.g. it was known in command-line interfaces). Hence, the skilled person would have considered using a command string to trigger a search query.

The appellant argued that the Examining Division had not cited any prior art in this respect. However, the essential concept used for the solution was notorious. Hence, documentary evidence is not needed.

5.3.5 The appellant also argued that the skilled person could not replace the linguistic analysis of document D3 with the claimed solution.

But such a replacement is not necessary as the claimed method does not exclude that further web searches are carried out by the method based on a linguistic analysis of message content as in document D3. The claimed method can be obtained by extending the functionality of the prior art D3.

5.3.6 In its reply to the Board's summons, the appellant further argued that even if the use of a predetermined character string as a command, followed by subsequent parameters, had been known at the priority date of the claimed invention in the context of command-line interfaces (e.g. in a command-line interface to a disk operating system, compiler or computer language interpreter), such command strings had not been known
or envisaged in the context of IM applications, which had been used exclusively for communicating text having no machine-recognisable meaning between two users. As such, no commands had ever been envisaged being issued in an IM window, and therefore it would not have been obvious for the skilled person to directly issue commands in an IM window, such as by using a specific character string.

However, as the method disclosed in document D3 analyses the content of the user's IM input, the skilled person in the field of information retrieval would have understood that users in D3 could, by means of their chat lines, implicitly instruct the computer system to search for relevant information. Hence, the skilled person would have considered adding explicit search commands in the IM window.

5.3.7 The appellant further argued that D3 (which at column 1, lines 51 to 56, disclosed that searching should be provided for "without requiring conspicuous action" from a user) would have dissuaded a skilled person from using a command-line type mechanism because computer/user interaction schemes had evolved away from command-line interfaces to windowed environments precisely to try to reduce requirements for user effort/action, and this represented a technical prejudice in the relevant art.

However, the desire to add an explicit search query is non-technical and forms part of the problem to be solved. As an explicit search command always involves some input from the user side and as explicit search commands were also well-known in windowed environments, the appellant's arguments are not persuasive.
5.4 As to the problem solved by steps (b) and (d), the Examining Division formulated it as how to modify D3 to inform all parties of search activity on either end of the chat. The idea to cause the query and its results to be displayed on both the first and second client computers was a straightforward implementation option in an IM system, where messages and other data were routinely exchanged and displayed between the parties involved. As D3 already presented chat and search results within the same application for adjacent viewing by the user, albeit in different windows, the further implementation option of displaying this information inline was directed to the presentation of information according to Article 52(2)(d) EPC and thus could not contribute to inventive step.

5.4.1 In its statement of grounds of appeal, the appellant argued that D3 relied on each client computer using its own message parser so that at best D3 would conduct two separate searches on both computers communicating via IM. Hence, the solution was not an obvious modification of D3. In column 7, lines 20 to 32, D3 disclosed providing new users joining a web chat a "visual recent history of the web-chat topics of conversation". This would not be possible if D3 were modified in the way being contemplated by the Examining Division. Hence, D3 taught away from sharing search results between users. Additionally, D3 mentioned, in column 3, lines 46 to 52, that search results were presented to the user in a manner so as not to intrude on the chat space communication. This taught away from displaying a search result inline in the instant message windows at both client computers as D3 required that the search results not be presented within the "chat space" itself.
The appellant also disagreed with the Examining Division's argument that steps (b) and (d) related to the presentation of information as such. Rather, it argued, those steps had the technical effect of improving user ergonomics. Step (d) of claim 1 improved the visibility of search results for both users by displaying search results in an inline manner, thereby increasing user convenience to enable users to view search results fatigue-free while also continuously keeping track of their conversation. Hence, the objective problem to be solved by this distinguishing feature was "how to improve user ergonomics". It had been well established by the boards of appeal that improving ergonomics was technical (see T 1375/11 of 31 March 2016, T 1296/05 of 25 October 2007 and T 862/10 of 15 May 2013).

5.4.2 The Board agrees with the Examining Division that steps (b) and (d) concern the presentation of information to users. On the one hand, the content to be presented is specified (the search query and the at least one search result), i.e. "what" is presented. On the other hand, the manner in which the content is presented is defined, i.e. "how" the information is presented to the users (inline in an IM window). According to the established case law of the boards of appeal, both aspects, i.e. the content and the manner in which the content is presented, may concern the presentation of information as such (Article 52(2) and (3) EPC) and may thus not contribute to the technical character of the invention (see decision T 1235/07 of 17 March 2011, reasons 11 and 12, T 1143/06 of 1 April 2009, reasons 3 and 5, and the further relevant decisions cited in Case Law of the Boards of Appeal of the EPO, 8th edition 2016, I.A.2.6).
The appellant has not argued that the content itself, i.e. the search query and the search result, contributed to a technical effect. However, it has argued that the manner of presentation, i.e. presenting information inline in the IM windows, had the technical effect of improving user ergonomics. It put forward that the invention provided an objective physiological reduction in eye and hand movement when providing input.

That the inline manner of presentation enables users to view search results fatigue-free while also continuously keeping track of their conversation is not convincing as this depends on subjective user preferences (some users may prefer an inline presentation whereas others may not like it) and the information to be presented (e.g. reproducing a retrieved web page inline may not be appropriate as the web page may no longer be readable or occupy so much window space that the messaging context is no longer visible). Hence, the inline manner of presentation does not contribute to the technical character of the invention.

Nevertheless, whether the cited decisions could support the appellant's arguments is reviewed below.

T 1296/05 concerns a multifunction operating control device for motor vehicles with operating control keys arranged at the edge of the screen, where a lighting strip represented continuing into the screen was mounted on each operating control key. The competent Board argued that the improved optical visibility and perceptibility of the keys by the user improved the ergonomics for the user. In the cited case, the ergonomic improvement is acknowledged for a specific
hardware configuration. This situation is not
comparable with the present case, where the solution
consists in a different presentation of information on
a conventional screen.

The cited decision T 862/10 confirms in its reasons
3.3.1 that, according to the case law, "minimizing
information overload and distraction" are not technical
in nature and that the choice of where to display an
object dependent on a value assigned to that object was
considered non-technical. Thus, this decision rather
supports the Board's opinion that the steps of
presenting information inline, i.e. steps (b) and (d),
do not contribute to the technical character of the
present invention.

In cited decision T 1375/11, the movements of the
user's eyes and head necessary to follow the displayed
game were regarded as fatiguing. However, there is no
_corresponding effect in the present case, where the
full screen is in the user's field of vision, and where
no evidence is available to support that the claimed
inline presentation of search results is less
fatiguing. Neither is the Board aware of any passage in
the originally filed application mentioning this or a
similar effect or even the general aim of an ergonomic
design of the graphical user interface.

Consequently, the steps (b) and (d) do not contribute
to the solution of a technical problem. Hence, these
steps cannot be the basis for acknowledging inventive
step.

5.5 In sum, the appellant's arguments are not convincing,
and thus claim 1 of the sole request lacks inventive
step (Article 56 EPC).

Conclusion

6. As the appellant's sole request cannot form the basis for the grant of a patent, the appeal is to be dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

I. Aperribay R. Moufang

Decision electronically authenticated