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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 messenging [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**

D E C I S I O N
of Technical Board of Appeal 3.5.07
of 9 May 2019

Appellant: Oath Inc.
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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 B1, 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
D2: US 5,764,916, published on 9 June 1998
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
        <u>inline in the IM windows</u> 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 <u>trigger</u>.
        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