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Datasheet for the decision
of 20 March 2024

Case Number: T 1384/21 - 3.5.07

Application Number: 13812330.2

Publication Number: 2929466

IPC: G06F17/30

Language of the proceedings: EN

Title of invention:
Predictively presenting search capabilities

Applicant:
Google LLC

Headword:
Predictive search/GOOGLE LLC

Relevant legal provisions:
EPC Art. 56, 84

Keyword:
Inventive step - (yes) - after amendment
Claims - clarity after amendment (yes)

Decisions cited:
T 2028/11

Beschwerdekammern

Boards of Appeal

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Case Number: T 1384/21 - 3.5.07

D E C I S I O N
of Technical Board of Appeal 3.5.07
of 20 March 2024

Appellant: (Applicant)	Google LLC 1600 Amphitheatre Parkway Mountain View, CA 94043 (US)
Representative:	Shipp, Nicholas 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 15 February 2021 refusing European patent application No. 13812330.2 pursuant to Article 97(2) EPC

Composition of the Board:

Chair	J. Geschwind
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. 13812330.2.

II.   The following documents were cited in the decision
        under appeal:

        D1:   T. Hunter: "Vehicle Navigation and Fleet
              Management using Differential GPS", Vehicle
              Navigation and Information Systems Conference,
              Toronto, Ont., Canada, 11 to 13 September 1989,
              IEEE, US, page 366;

        D2:   "Honda in-car navigation system for the U.S.",
              Automotive Engineering, Society of Automotive
              Engineers, Warrendale, US, vol. 104, no. 6, June
              1996, pages 82 to 84;

        D3:   M. Okabe et al.: "A Car Navigation System
              Utilizing a GPS Receiver", IEEE 1993
              International Conference on Consumer Electronics,
              Digest of Technical Papers, 1993, pages 278 and
              279;

        D4:   Yuan-Cheng Lai et al.: "A GPS Navigation System
              with QR Code Decoding and Friend Positioning in
              Smart Phones", 2nd International Conference on
              Education Technology and Computer (ICETC), IEEE,
              Piscataway, NJ, USA, 22 June 2010, pages V5-66 to
              V5-70.

III.   The patent application was refused for lack of
        inventive step of the subject-matter of all the claims
        of the main request and claim 1 of the auxiliary
        request over prior-art document D4.

IV.   In the statement of grounds of appeal, the appellant
        requested that the decision under appeal be set aside
        and that a patent be granted on the basis of the main
        request or the auxiliary request.

V.   In a communication accompanying a summons to oral
        proceedings, the board found that the main request and
        the auxiliary request did not fulfil the requirements
        of Article 84 EPC. The board further expressed the
        preliminary opinion that the inventive-step reasoning
        of the decision under appeal was not convincing and
        that document D4 was not a suitable starting point for
        assessing inventive step.

VI.   With a letter of reply the appellant amended both the
        main request and the auxiliary request.

VII.   Oral proceedings were held as scheduled. During the
        oral proceedings the appellant replaced its requests
        with a new main request and a new first auxiliary
        request. At the end of the oral proceedings, the Chair
        announced the board's decision.

VIII.   The appellant's final requests were that the contested
        decision be set aside and that the case be remitted to
        the examining division for further prosecution on the
        basis of the new main request and new auxiliary request
        filed in the oral proceedings before the board.

IX.   Claim 1 of the new main request reads as follows:

        "A method comprising:
           storing a plurality of whitelisted locations, and
        associating one or more search types with each
        whitelisted location, wherein the one or more search
        types comprise a visual search type corresponding to
        one or more of a barcode scanning capability, a quick

response code scanning capability, an image recognizer
capability, and an optical character recognition
capability;

   determining (180), by a mobile computing device (2),
a geographic location of the mobile computing device;

   determining that the geographic location of the
mobile computing device matches one of the whitelisted
locations;

   obtaining (184) the one or more search types
associated with the matched whitelisted location;

   responsive to obtaining the one or more search
types, outputting (186), by the mobile computing device
and for display, a graphical user interface (14)
comprising an indication for each of the one or more
search types associated with the matched whitelisted
location;

   responsive to receiving user input selecting an
indication of one of the one or more search types,
obtaining (190), by the mobile computing device, a
search input for the one of the one or more search
types associated with the matched whitelisted location,
and transmitting the search input to a networked device
via a network, the one of the one or more search types
comprising the visual search type; and

   receiving one or more search results from the
networked device and outputting the search results for
display."

X.   In view of the outcome of these appeal proceedings, the
       claims of the new auxiliary request are not relevant
       for the present decision.

Reasons for the Decision

Application

1.   The invention concerns predictively presenting, in the
          graphical user interface (GUI) of a computing device,
          specific "search capabilities" depending on the current
          location.

1.1   In the invention, different "whitelisted locations" may
          offer different search capabilities for users to obtain
          information. For example, in a museum the user may use
          the smartphone camera to recognise artwork, whereas in
          a shop the user may scan a barcode for "comparison
          shopping" (see paragraphs [0013], [0014], [0016] and
          [0030] of the published application). A search
          capability, also named "search type" in the
          application, may be a "visual search type" that uses
          optical sensor(s) to obtain image(s). For example,
          visual search types may be based on barcode scanning,
          image recognition or optical character recognition.
          Other search types may include audio and textual search
          types (paragraph [0031]).

1.2   After determining that the current location matches a
          whitelisted location in a stored list of whitelisted
          locations, the computing device obtains the search
          types which are associated with the matched whitelisted
          location. The computing device then provides, in the
          GUI, a selectable GUI element, referred to as
          "indication", for each of the obtained search types.
          When the user selects one of these indications, a
          search is performed based on the selected search type
          (paragraphs [0033],[0034] and [0041]).

New main request

2.   *Admissibility*

2.1   The new main request introduces minor amendments to the
        request submitted in response to the objections raised
        for the first time in the board's preliminary opinion.
        Since these minor amendments overcome all the
        objections raised, exceptional circumstances are
        present which justify admitting the request under
        Article 13(2) RPBA. The board thus admits the new main
        request into the appeal proceedings.

3.   *Clarity – claim 1*

3.1   In the decision under appeal, the examining division
        did not raise any objections for lack of clarity. The
        objections raised by the board have been overcome by
        amendment, as explained in the following.

3.2   It is now clear from the text "outputting ... a
        graphical user interface (14) comprising an indication
        for each the one or more search types associated with
        the matched whitelisted location" of claim 1 that the
        indications displayed in the GUI correspond to the
        search types of the matched whitelisted locations which
        have been obtained in the preceding step of "obtaining
        (184) the one or more search types ...".

3.3   The text "responsive to receiving user input selecting
        an indication of one of the one or more search
        types,... the one of the one or more search types
        comprising the visual search type", restricts to a
        visual search type the search type selected by the user
        for performing a search.

3.4   It is clear from the description that the search input
        depends on the search type being used (see e.g.
        paragraph [0024]). Claim 1 has been accordingly amended
        to clarify that the search input is a "search input for
        the one of the one or more search types associated with
        the matched whitelisted location".

3.5   The board is thus satisfied that claim 1 meets the
        requirements of Article 84 EPC.

4.   *Added subject-matter – claim 1*

4.1   Claim 1 combines the features of original claims 1 to 3
        and 8 with features taken from the description of the
        application as filed.

4.2   The steps of storing the plurality of whitelisted
        locations and obtaining the search types are disclosed
        mainly in paragraph [0030], and also in paragraphs
        [0063] and [0102]. Furthermore, original claim 8 refers
        to "a set of geographic locations" used for determining
        the one or more search types.

4.3   The steps of receiving user input, transmitting the
        search input and receiving one or more search results
        are disclosed in paragraph [0016] and are specified in
        original claim 9 for the particular case of a visual
        search type.

4.4   As explained under point 3.4 above, the feature "a
        search input for the one of the one or more search
        types associated with the matched whitelisted location"
        can be directly and unambiguously derived from
        paragraph [0024] of the description.

4.5   Therefore, claim 1 satisfies the requirements of
        Article 123(2) EPC.

5.   *Inventive step – claim 1*

5.1   The inventive-step reasoning of the decision under
          appeal is still relevant to the assessment of claim 1
          of the main request, which has been amended mainly for
          clarity reasons.

5.1.1   In the decision under appeal, the examining division
          decided that the subject-matter of claim 1 of the then
          main request was not inventive. The claimed subject-
          matter differed from the disclosure of document D4 in
          that it included the following features:
               "storing a plurality of whitelisted locations, and
               associating one or more search types with each
               whitelisted location
               search types are associated with the matched
               whitelisted location,
               determining that the geographic location of the
               mobile computing device matches one of the
               whitelisted locations;".

5.1.2   The examining division found that these features
          concerned administrative and personal constraints and
          resulted in a different search method being performed
          based on the location. This was not a technical effect
          because it related merely to presentation of
          information.

5.1.3   The appellant argued that, in addition to the
          distinguishing features identified in the decision
          under appeal, document D4 did not disclose the steps of
          obtaining the search types associated with the matched
          whitelisted location and outputting a graphical user
          interface with indications of obtained search type(s).
          The appellant contested the examining division's
          finding that the distinguishing features made no
          technical contribution. The distinguishing features

provided a user interface which facilitated user
selection of a search type.

5.2   Document D4 discloses a GPS navigation system for smart
        phones implemented on the Android platform (page V5-66,
        right column, second full paragraph; page V5-67, right-
        hand column, point III). The mobile navigation system
        of D4 includes four subsystems (page V5-67, right-hand
        column, point III, to page V5-68, left-hand column,
        point "A. UIMS"):
        -    a quick response (QR) Decoder Subsystem (QDS),
             which transforms a captured QR code into
             corresponding geographic information (Geocode);
        -    a GPS Navigation Subsystem (GNS), which provides
             the user's current position, nearby scenic spot
             searching, and route planning;
        -    a Contacts Application Subsystem (CAS), which uses
             instant GPS positioning to perceive the positions
             of friends and track their paths on the map; and
        -    a User Main Interface Subsystem (UMIS), which
             integrates all subsystems, displays a menu with
             options for user selection of the functions
             provided by the three subsystems and displays the
             results of executing those functions by the other
             subsystems.

        The menu displayed by the UMIS subsystem includes the
        options "Scanner", "Driving directions" and "Friends"
        corresponding to the functionality of the QDS, GNS and
        CAS (page V5-68, left-hand column, point "A. UIMS").

5.3   Document D4 therefore discloses a navigation system in
        a mobile device, which also reads QR codes, searches
        nearby scenic spots and positions friends. The user can
        scan a QR code to obtain the coordinate of a scenic
        spot and then choose to go to that spot (page V5-69).

5.4   As acknowledged in the decision under appeal,
         document D4 does not disclose a list of locations and
         specific search types associated to each location in
         the list (see point 5.1 above).

         In the decision under appeal, the examining division
         found that the claimed steps of "obtaining the one or
         more search types associated with the geographic
         location" and "outputting ... at least an indication of
         the one or more search types associated with the
         location" were disclosed on page V5-68 of document D4.
         The examining division cited the following passage:
             "When the user inquires an address by using
             position searching interface, position searching
             module will match the address with the database.
             When the user further searches nearby scenic spots,
             scenic spots searching module works".

         The board does not agree that page V5-68 discloses the
         two steps as argued by the examining division. The two
         claimed steps provide a predictive GUI that allows the
         user to select a search type from the list of "search
         types" applicable to the current (whitelisted)
         location. In the example of the first sentence of the
         cited passage, however, the position search interface
         may have been activated by the user. In the second
         example, no interface is explicitly mentioned. Page
         V5-68 of D4 cited in the decision under appeal does not
         disclose the GUI of D4 predictively displaying an
         interface for a particular search, such as a position
         search or a scenic spot search of D4, let alone a
         specific interface based on a location.

         The board thus agrees with the appellant that
         document D4 does not disclose the steps of obtaining
         the search types and outputting the respective

indications, both steps depending on there being search types associated with whitelisted locations.

5.5   In view of the above, the method of claim 1 differs from the disclosure of document D4 at least in that it includes the following two groups of steps (the first group corresponding to the distinguishing features identified in the decision under appeal, see point 5.1.1 above):

-       storing a plurality of whitelisted locations, associating one or more search types with each whitelisted location and determining that the geographic location of the mobile computing device matches one of the whitelisted locations;

-       obtaining the search types associated with the matched whitelisted location and responsive to obtaining the one or more search types, outputting a GUI comprising an indication for each of the search types associated with the matched whitelisted location.

5.6   The "indication" for a search type is an interactive element of the GUI which offers a specific search function and is a technical feature (see also T 2028/11, Reasons 3.6). The board does not agree with the assessment of the decision under appeal that the distinguishing features, even those of the first group identified in the contested decision, relate only to presentation of information as such and that "[i]t is irrelevant from a technical standpoint which searches or search types are offered by a technical system, only the personal requirements of a user dictate such choices". Since the functionality of the system is determined by the interactive GUI elements displayed,

it is technically relevant that specific interactive
elements are displayed.

Moreover, the distinguishing features mentioned above
are not determined by the subjective wishes of the user
but result in the GUI being automatically adapted to
the location of the mobile device in that the GUI
provides the search functionality which is applicable
to the location. This is a technical difference. The
board agrees with the appellant that these
distinguishing features facilitate the selection of a
visual search type associated with the location of the
mobile phone.

5.7   None of the prior-art documents D1 to D3 cited in the
        proceedings discloses the distinguishing features.

5.8   Furthermore, since none of the cited documents
        describes or suggests the starting concept of the
        invention, i.e. that there are specific search types,
        such as QR code scanning, associated with certain
        locations and that in order to perform a search at a
        location the user selects a search type associated with
        the location, the board considers that no combination
        of the cited prior art can render the subject-matter of
        claim 1 obvious.

5.9   Therefore, the subject-matter of claim 1 of the new
        main request is inventive over the cited prior art.

Concluding remarks

6.   Claim 1 of the new main request overcomes all the
        objections raised in the proceedings and is allowable
        taking into account the prior-art evidence on file.
        However, the other claims and the description may still
        have to be adapted to claim 1. In view of this, the

case is to be remitted to the examining division for further prosecution on the basis of the new main request.

Order

For these reasons it is decided that:

1.   The decision under appeal is set aside.

2.   The case is remitted to the examining division for further prosecution.

The Registrar: The Chair:

S. Lichtenvort   J. Geschwind

Decision electronically authenticated