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Case Number: T 1418/16 - 3.4.03

Application Number: 10816319.7

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Title of invention:
BEHAVIOR AND ATTENTION TARGETED NOTIFICATION SYSTEM AND METHOD OF OPERATION THEREOF

Applicant:
ORANGE

Headword:

Relevant legal provisions:
EPC Art. 54(1), 54(2), 52

Keyword:
Novelty - (no)

Decisions cited:

Catchword:

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Case Number: T 1418/16 - 3.4.03

D E C I S I O N
of Technical Board of Appeal 3.4.03
of 15 December 2020

Appellant: (Applicant)	ORANGE 78 rue Olivier de Serres 75015 Paris (FR)
Representative:	Plasseraud IP 66, rue de la Chaussée d'Antin 75440 Paris Cedex 09 (FR)
Decision under appeal:	**Decision of the Examining Division of the European Patent Office posted on 16 November 2015 refusing European patent application No. 10816319.7 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman	G. Eliasson
Members:	J. Thomas
	W. Van der Eijk

Summary of Facts and Submissions

I. The appeal is against the decision of the examining division refusing European patent application No. 10 816 319.7 on the grounds that none of the independent claims of neither the main request nor the auxiliary request met the requirement of inventive step in the sense of Article 52(1) EPC in combination with Article 56 EPC.

II. During the oral proceedings before the Board of Appeal the appellant requested
- that the decision under appeal be set aside and
- that a patent be granted according to its main request or one of auxiliary requests 1 to 3, all requests as filed with the grounds of appeal on 15 March 2016.

III. Claim 1 of the main request reads as follows:

A method of transmitting content to a user device, the method comprising acts of:
receiving user information from one or more sensors;
obtaining user history information comprising one or more of historical location information and historical activity information;
the method being characterized in that it further comprises the acts of:
determining, based upon the user information and the history information,
whether a switching event has occurred for a user of the user device, a switching event corresponding to the switching from one activity to another activity; and
delivering a notification if a switching event is determined to have occurred.

IV. Claim 1 of the auxiliary request 1 reads as follows with emphasis added by the Board which indicates the amendments compared to claim 1 of the main request:

A method of transmitting content to a user device, the method comprising acts of:
receiving user information from one or more sensors;
obtaining user history information comprising one or more of historical location information and historical activity information;
the method being characterized in that it further comprises the acts of:
determining, based upon the user information and the history information, whether a switching event has occurred for a user of the user device, ~~a switching event corresponding to the switching from one activity to another activity;~~ the act of determining comprising :
- determining that a first activity is ending;
- predicting that a second activity will begin shortly;
- identifying a period of time between the end of the first activity and before the beginning of the second activity;
the method further comprising delivering a notification during the identified period ~~if a switching event is determined to have occurred~~.

V. Claim 1 of the auxiliary request 2 reads as follows with emphasis added by the Board which indicates the amendments compared to claim 1 of the main request:

A method of transmitting content to a user device, the method comprising acts of:
receiving user information from one or more sensors;

determining a current user activity that corresponds to the user information;
obtaining user history information comprising one or more of historical location information and historical activity information;
the method being characterized in that it further comprises the acts of:
determining, based upon the user information and the history information,
whether a switching event has occurred for a user of the user device, a switching event corresponding to the switching from ~~one~~ the current user activity to another activity; and
delivering a notification if a switching event is determined to have occurred.

VI. Claim 1 of the auxiliary request 3 reads as follows with emphasis added by the Board which indicates the amendments compared to claim 1 of the auxiliary request 1:

A method of transmitting content to a user device, the method comprising acts of:
receiving user information from one or more sensors;
obtaining user history information comprising one or more of historical location information and historical activity information;
the method being characterized in that it further comprises the acts of:
determining~~, based upon the user information and the history information,~~ whether a switching event has occurred for a user of the user device, the act of determining comprising :
- determining that a first activity is ending based upon the user information and the history information;

- predicting that a second activity will begin shortly based upon the user information and the history information;
- identifying a period of time between the end of the first activity and before the beginning of the second activity;
the method further comprising delivering a notification during the identified period.

VII. The following document relevant for this decision was cited during the procedure to which reference is made in the following:

D1: US 2008/0091518 A1

VIII. The arguments of the appellant as far as they are relevant for the decision are summarized as follows:

The appellant was of the opinion that document D1 did not disclose that the user information was obtained from sensors, but that the user information was obtained using the cellular network capabilities. Furthermore, it was of the opinion that document D1 did not disclose a switching event in the sense of the application. In the claimed invention a notification was sent at a specific moment when the user was particularly susceptible for a notification, for example when the user was resting. In contrast, no exact timing for the notification to be sent between the first and the second activity was disclosed in document D1. With respect to the auxiliary requests 1 and 3, the appellant was of the opinion that document D1 did not disclose the feature "identifying a period of time between the end of the first activity and before the beginning of the second activity" during which the notification should be delivered. Document D1

disclosed neither precise information about the timing of the activities and the events nor any information concerning the specific activities themselves.

Reasons for the Decision

1. The appeal is admissible.

2. Meaning of "switching event"

The Board interprets the feature "switching event" in the light of the present application as follows: A "switching event" is explained in the original description on page 2, lines 16 to 23 and page 6, line 22 to page 7, line 4. According to both passages, the "switching event" should not be understood as a "technical switching" between two events, but as an identification that a "change in activity" of the user takes place (i.e. "switching from one routine activity to the next", "shift in user activity").

Therefore, a "switching event" is just a change in activity of the user determined or noted by the system. The switching event can correspond to the beginning of a period interposed between two activities.

3. Main request

3.1 The subject matter defined in claim 1 of the main request is not new over document D1, the requirements of Articles 52(1) EPC and 54(1, 2) EPC are consequently not met for the following reasons:

3.2 Document D1 deals with a method of transmitting content or notifications like advertisements to a user device.

These are selected to match demographically and situationally the correct recipients at the right time and in the right place (D1: [0012]).

Document D1 discloses receiving user information that is necessarily received from one or more sensors (D1: figure 1, upper box and "consumer targeting data"; [0082], first sentence), because a user's location is for example not detected other than by a sensor in its broadest sense. Claim 1 of the application is silent as to the nature and location of these sensors, which are most simply integrated into the user device like a GPS sensor. However, according to the wording of claim 1, the sensor or sensors do not necessarily have to be integrated into the user device, so the definition of claim 1 is encompassed by the teaching of document D1.

Furthermore, the collected information about the user in document D1 would have to include historical location and activity information, since otherwise no deviation from a "normal situation" could be detected and the advertising opportunities could not be based on location, circumstances and time (D1: [0083]).

Hence, all features defined in the preamble of claim 1 are disclosed in document D1.

Paragraphs [0082] and [0083] of document D1 further disclose that the user's activity, location and other information is monitored, in order to optimise the user's profile and to optimally match advertiser messages to the user's real-time situation (D1: [0082]). Document D1 further discloses that the system determines "normal behaviour" and deviations from "normal behaviour" which is only possible, if

historical and current information as well as user information are taken into account.

Document D1 also discloses a "switching event" in the sense of an event/moment when or during which a notification is to be sent. Two examples are presented in this context in document D1: first, the moment when the user exits an airplane and second, the period when a person is driving in a direction away from "home" early in the evening.

In the first example, when a person exits the airplane, the system detects a change from a first activity (travelling in an airplane) to a user activity which is considered presenting the switching event (leaving the airplane; see also in this context last paragraph of page 6 of the application wherein "leaving a plane" is even mentioned as an example for a switching event). The system further predicts a future second activity (leaving the airport) and delivers a notification (advertisement for a car rental at the specific airport) related to this predicted future activity (leaving the airport).
Hence, the "switching event" starts when the person exits the airplane. The detection of this switching event can only be possible when the current user activity is monitored and put in relation to the user. Once the switching event starts, the system predicts a second activity (leaving the airport by car) which is also related to the user information (for example, that the system has stored in the user profile that the user is in a "deluxe" demographic category; [0083] of D1) and delivers an advertisement (promotion from car rental agency) related to this second activity.

Hence, the first example shown in document D1 anticipates all features defined in claim 1, thereby rendering the claimed subject-matter not novel.

The second example in document D1 paragraph [0083] shows that the system detects "driving on an interstate at some distance from the home location" as a change in activity compared to the prior working surroundings. Hence, the first activity is "working some distance from home" and the switching event is "travelling on an interstate at some distance from the home location". The system recognizes this situation based upon the user and history information as a switching event and predicts a second activity ("spending the evening/night some distance from home"). Also in this example, the current and history information relating to the user must be taken into account, because otherwise the system would not be able to acknowledge that the activity takes place remote from the home location. During the switching event, the system triggers an advertisement for a hotel in the surroundings. Therefore, also the second example anticipates all features defined in claim 1.

3.3 The argument of the appellant, that information about the nature of the activity was not correctly taken into account, because the user's activity ensured that the user was susceptible for the advertisement, is not convincing. The interpretation proposed by the appellant concerning the meaning of the switching event in relation to the user's activity is too narrow compared to the very broad and open formulation used in claim 1. In particular, the wording of claim 1 is not restricted to the case where the notification would only be sent when the user is likely to be susceptible for reading advertisements. The notification is merely

sent during a "switching event", which does not constitute more than a change in activity (see interpretation under point 2. of the Reasons above). As shown above, such a "switching event" is also disclosed in the examples described in paragraphs [0082] and [0083] of document D1.

4. Auxiliary request 1

4.1 Auxiliary request 1 is identical to the auxiliary request on which the decision of the examining division was based. It additionally defines that a period after the first activity and before a predicted second activity is identified in which the notification is to be sent.

4.2 The identification of a period between two activities is at least implicitly disclosed in the teachings of paragraphs [0082] and [0083] in document Dl, for the following reasons:

In the first example cited in [0083] of Dl concerning the arrival of the user at an airport, the first activity, the switching event and the second activity are identified as indicated above. Hence, the period during which the notification should be sent, has to be identified between the first and second activities as the proposed advertising relates to the second activity (rent a car).

The same applies for the second example, wherein the system must identify the period between "working some distance from home" and "spending the evening/night some distance from home", because the advertisement concerning a hotel for the coming night is only appropriate during this period.

In both examples of document D1, the system must determine that the first activity is ended, because otherwise it would not be able to predict the second activity. Also, the second activity must be predicted (see D1: [0084]), because otherwise no advertisement concerning this predicted activity could be sent. Since the advertisement is selected depending on the predicted second activity, it would have to be sent at a moment before the second activity starts, in order to be useful. Hence, the system needs an indication to send this notification at a moment after finishing the first activity and before starting the second activity. This identified moment or period is used for sending the notification. Document D1 explicitly states in paragraph [0083] that the system identifies a "deviation from "normal" that create advertising opportunities based on location, circumstances and time" (emphasis added by the Board). Hence, "time" is without doubt a parameter taken into account in document D1 in order to optimise the precisely targeted promotional messages as indicated in paragraph [0080] of document D1.

According to the wording of claim 1, the identification of the period of time does not necessarily correspond to the whole period between the end of the first and the beginning of the second activity, but it has to be in between ("identifying a period of time between").

In conclusion, all features defined in claim 1 of auxiliary request 1 are disclosed in document D1.

4.3 Concerning the appellant's argument that document D1 did not exactly determine the time period, the following is noted: The wording of claim 1 of

auxiliary request 1 is silent about the length of that period and the exact starting and end point of that period. It does not define that the claimed period starts at the time when the first activity ends and finishes when the second activity starts. It only requires that a period of time of whatever length is identified between these two activities.

In addition, document D1 necessarily takes into account sending the advertisement at the right moment and time. Hence, "time" is also in document D1 a relevant factor which is considered in a way covered by the wording of claim 1 (i.e. [0083] or [0057]).

Therefore, the Board concludes that a moment (equivalent to a very short period) or period of time must be identified in document D1 at which the sending of the notification/advertisement is appropriate and useful.

5. Auxiliary request 2

5.1 Auxiliary request 2 was filed with the grounds of appeal. The Board admits this request into the proceedings under Article 12(4) RPBA 2007, however considers it not allowable.

5.2 The subject-matter defined in claim 1 is not novel over the teachings of document D1, the reasons therefore are detailed in the following.

5.3 Claim 1 differs from claim 1 of the main request only by the additional wording "determining a current user activity that corresponds to the user information".

This additional feature is also covered by the examples shown in D1. The arguments presented with respect to the main request still apply in an unchanged manner and reference is made to paragraphs [0082] and [0083] of document D1. The monitoring of an activity, as cited in paragraph [0082] of document D1, is nothing else than "determining a current user activity that corresponds to the user information": monitoring an activity as disclosed in paragraph [0082] includes a continuous identification of the current user activity. In order to attribute the monitored activity to the user, the determined activity must correspond to the user information.

5.4 The appellant argued that in the auxiliary request 2 the activity was defined as a current activity. This implied that the determination should be monitored continuously and that therefore the switching event and the further (second) activity were also determined continuously.

First, "monitoring the activities" as disclosed in paragraph [0082] of document D1 corresponds to the identification of the current user activity.

Second, the wording of claim 1 does not specify that the identification of the user activity is continuous. The current activity could also just be determined according to history information or according to other gathered information included in the user profile or actual information.

In addition, to optimize the timing for the sending of the notification, the user activity must also be monitored regularly in document D1.

The appellant's further argument that document D1 did nowhere disclose a switching event between two activities is not convincing either. It is already detailed above with respect to the main request, which events were considered as first and second activities with the switching event in between. Hence, these events or activities are disclosed in document D1, a switching event included.

5.5 In conclusion, the subject-matter defined in the auxiliary request 2 is anticipated in its entirety by the teachings of Dl.

6. Auxiliary request 3

6.1 Auxiliary request 3 was filed with the grounds of appeal. The Board admits this request into the proceedings under Article 12(4) RPBA 2007, however considers it not allowable.

6.2 The subject-matter defined in claim 1 is not novel over the teachings of document D1, the reasons therefore are detailed in the following.

6.3 The amendments of claim 1 compared to claim 1 of the auxiliary request 1 concern the feature that the ending of the first activity and the prediction of the second activity are explicitly "based upon the user information and history information". In auxiliary request 1 this formulation appeared in a slightly more general way. However, the Board does not see any change in substance concerning the reasons presented for auxiliary request 1. The ending of the first activity and the prediction of the second activity were already considered for auxiliary request 1 as being "based upon the user information and history information".

Therefore, the subject-matter of claim 1 of auxiliary request 3 lacks novelty over document D1 for the same reasons as auxiliary request 1.

7. Conclusion

It follows from the above that the main request and auxiliary requests 1 to 3 do not fulfil the requirements of Articles 52(1) and 54(1,2) EPC. Therefore, the appeal must fail.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

S. Sánchez Chiquero G. Eliasson

Decision electronically authenticated