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Datasheet for the decision of 13 January 2010

Case Number: T 1491/09 - 3.5.05

Application Number: 01914694.3

Publication Number: 1261276

IPC: G06F 19/00

Language of the proceedings: EN

Title of invention:
Health analysis and forecast of abnormal conditions

Applicant:
Jordan, Charlyn

Headword:
Health analysis/JORDAN

Relevant legal provisions:
EPC Art. 52(1), 54
RPBA Art. 13(1)(3)

Relevant legal provisions (EPC 1973):
-

Keyword:
"Novelty (all requests, no)"

Decisions cited:
-

Catchword:
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Beschwerdekammern | Boards of Appeal | Chambres de recours

Case Number: T 1491/09 - 3.5.05

D E C I S I O N
of the Technical Board of Appeal 3.5.05
of 13 January 2010

Appellant: Jordan, Charlyn
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Decision under appeal: **Decision of the Examining Division of the European Patent Office posted 26 February 2009 refusing European patent application No. 01914694.3 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman: D. H. Rees
Members: A. Ritzka
F. Blumer

Summary of Facts and Submissions

I. This appeal is against the decision of the examining division dispatched 26 February 2009, refusing the European patent application No. 01914694.3 for the reasons that the subject-matter of the independent claims of the main and auxiliary requests lacked novelty having regard to the disclosure of

D1: WO 98/40835 A.

II. Notice of appeal was filed on 17 April 2009. The appeal fee was paid on 23 April 2009. The statement setting out the grounds of appeal was filed on 26 June 2009. The appellant requested that the decision under appeal be set aside and that the patent be granted on the basis of the claims of the main or auxiliary requests, on which the decision under appeal was based. In the event that the board were to consider seriously the inventive step argument presented as an obiter dictum in section III.1 of the decision under appeal, the appellant requested that the case be remitted to the department of first instance for further prosecution, as the issue of inventive step had not been discussed at the oral proceedings nor was it a reason for the decision on which an appeal could be based. An auxiliary request for oral proceedings was made.

III. In a communication accompanying summons to oral proceedings the Board expressed the preliminary view that it considered the novelty objections based on

D3: US 5 778 882 A;
D4: US 5 438 983 A and

D5: US 5 671 734 A

and presented by the examining division in point 2.2 of the communication of 28 March 2007 to be relevant and that in particular the subject-matter of the independent claims of the main and auxiliary requests appeared to lack novelty having regard to the disclosure of D1. Moreover, the board took the preliminary view that the difference which the appellant alleged between the claimed subject-matter and the disclosure of D1 based on the interpretation of the values as indicating a disease or a non-disease condition would not be significant for the purpose of assessing inventive step. As to the request for remittal the board noted that the inventive step argument as presented in the obiter dictum point III.1 of the decision under appeal had been presented in point 4.1 of the communication of 28 March 2007 and that the appellant had commented on it in its letter of 20 September 2007.

IV. With its letter of 11 December 2009 the appellant submitted a copy of a signed letter from Dr Lee-Jen Wei reporting a review of what was apparently an embodiment of the claimed method. No written comments on the arguments presented in the communication accompanying the summons were received.

V. At the oral proceedings which took place as scheduled on 13 January 2010 the appellant filed amended claims of an additional second auxiliary request and a table of "Health Parameters for Normal and Abnormal Values" of the Handbook of Diagnostic Tests, Third Edition, Lippincott Williams & Wilkins, February 2003, ISBN

1-58255-203-7, which will be referred to as D6. The appellant maintained its requests that the decision under appeal be set aside, that a patent be granted based on the main, first or second auxiliary requests, the first auxiliary request corresponding to the former auxiliary request, as well as the request for remittal. On the basis of the main, first and second auxiliary requests, the case was discussed with the appellant. After deliberation the board announced its decision.

VI. The appeal is based on the following documents:

Description, pages	
2 to 6	as originally filed;
7	as filed with letter of 14 February 2007;
1, 1A	as filed with letter of 20 September 2007;
Drawings Sheets	
1/3 to 3/3	as originally filed.

Claim 1 of the main request reads as follows:

"A method of tracking patient health status comprising:

entering (201) a plurality of health record signals, each comprising a record of measurement of a predetermined health indicative parameter considered to be in a normal range related to the health status of the patient taken at different times;

storing (202) said health record signals;

processing (203) the stored health record signals to project a possible trend for said predetermined

health indicative parameter to assume a value in an abnormal range; and

providing (204) a future abnormal indication signal when said trend forecasts said predetermined parameter will assume a value in said abnormal range."

Claim 1 of the first auxiliary request corresponds to claim 1 of the main request, replacing "tracking" by "forecasting".

Claim 1 of the second auxiliary request corresponds to claim 1 of the main request, replacing "a normal range related to the health status of the patient" by "a normal range".

Claim 18 of each request is an independent system claim corresponding to claim 1 of each request, respectively.

Reasons for the Decision

1. *Admissibility*

The appeal complies with the provisions of Articles 106 and 108 EPC, (see Facts and Submissions, point II above). Thus, it is admissible.

2. *Late filed request*

According to Article 13(1) RPBA any amendment to a party's case after it has filed its grounds of appeal may be admitted at the board's discretion, which shall be exercised in view of inter alia the need for procedural economy. According to Article 13(3) RPBA

amendments sought to be made after oral proceedings have been arranged shall not be admitted if they raise issues which the Board cannot reasonably be expected to deal with without adjournment of the oral proceedings.

In the present case, the second auxiliary request was filed at the hearing, i.e. after it had been arranged. Article 13(3) RPBA has to be applied. As the amendments were intended to overcome the objections presented in the communication accompanying the summons and were of only moderate complexity, the board admitted the second auxiliary request into the proceedings.

3. *Main request*

3.1 Interpretation

Claim 1 refers to a "predetermined health indicative parameter considered to be in a normal range related to the health status of the patient". The board considers that "related to the health status of the patient" qualifies the normal range. The appellant's argument that it would refer to the health indicative parameter does not convince the board, since this interpretation would necessitate "considered to be in a normal range" to be between commas. However, "related to the health status of the patient" follows "a normal range" immediately and thus represents a participle clause further defining the normal range. This conclusion is strengthened by the consideration that if "related to the health status of the patient" were taken as referring to the "predetermined health indicative parameter", the "health" would be redundant. Therefore, the board considers that the normal range has to be

interpreted as related to the health status of the patient, i.e. as a range which has to be expected based on the health status of the patient. In other words, the normal range related to the health status of the patient encompasses values which might be considered to be abnormal in a different health status. In particular, a disease may have been diagnosed for the patient and the range of values is considered to be normal with respect to the disease.

The appellant, in arguing for the other interpretation, also pointed out that the description did not use the term "normal" in a relative way. The board does not find this relevant; it is commonplace that claims are often formulated more broadly than the explicit description of embodiments.

3.2 Novelty

D1 discloses a method for automated knowledge-based, long-term patient disease management, using periodic interactive dialogs with a patient who has been diagnosed with a specific disease to obtain health state measurements from the patient (see abstract), i.e. a method for tracking patient health status.

The method comprises a current health assessment process which obtains health data from the patient as perceived by the patient and as measured by the patient, see page 21, line 27 to page 22, line 8.

The disease management module conducts periodic automated sessions with the patient. During each session, it obtains and updates the patient's medical

history with the latest health measurements. See page 15, lines 22 to 25. Thus, a plurality of health record signals, each comprising a record of measurements of a predetermined health indicative parameter, are entered at different times.

Health assessment may be based on the critical curve. The critical curve is defined as a plot of a health measurement against time that is used to identify significant changes in health state. A constant, high ordinate value indicates good health; a declining curve indicates declining health; a sharp drop in the curve indicates a health crises. The "critical point" on the curve is a point that predicts a significant decline in health. See page 23, lines 8 to 16. The critical curve thus comprises values in a normal and an abnormal range related to the health status of the patient.

In the critical curve assessment an appropriate health parameter is used and saved as the standard critical curve for the current patient in the patient's medical history, see page 23, lines 27 to 30. During the periodical dialog with the patient, current data from the patient are obtained and plotted on the patient's critical curve. The "patient's actual critical curve", which comprises current data from the patient, and the patient's standard critical curve are compared to each other in order to detect key points and trends on the patient's curve, such as the "critical point" that predicts a significant impending health decline. When the curve approaches this critical point, a flag may be set to refer the patient to a health care provider. See page 23, line 30 to page 24, line 1.

The range of the standard critical curve, on the basis of which a steepening of the actual critical curve towards the critical point is detected, comprises current data from the patient, corresponding to the predetermined health indicative parameter considered to be in a normal range related to the health status of the patient. The health record signals are stored.

Neither the present application nor claim 1 specify any further the step of processing the stored health record signals to project a possible trend for the predetermined health indicative parameter to assume a value in an abnormal range. The board judges that any trend analysis of corresponding data fulfils this requirement. Thus, comparing the critical curves and detecting key points and trends corresponds to this step. The flag corresponds to a future abnormal indication signal.

Based on the interpretation of the term "normal range related to the health status of the patient" discussed in point 3.1 above, the claimed method encompasses tracking patient health status of healthy patients and of patients who have been diagnosed with a specific disease, as in D1. Thus, the method disclosed in D1 anticipates the subject-matter of claim 1.

Thus, the subject-matter of claim 1 does not fulfil the requirements of Articles 52(1) and 54 EPC.

Similar arguments apply mutatis mutandis to independent system claim 18.

4. *First auxiliary request*

Claim 1 of the first auxiliary request differs from claim 1 of the main request in replacing "tracking" by "forecasting". As the method of D1 detects when the curve approaches the critical point that predicts a significant impending health decline (see page 23, lines 33 and 34), the prediction corresponding to a forecast, the arguments of point 3 above presented with respect to the claims of the main request apply equally.

5. *Second auxiliary request*

5.1 Interpretation

Claim 1 of the second auxiliary request differs from claim 1 of the main request in that the term "normal range" is not further specified. The question of interpretation of the terms "normal range" and "abnormal range" by the skilled person arises.

The appellant referring to document D6 taken from a Handbook of Diagnostic Tests argued that the terms "normal range" and "abnormal range" have a specific meaning in the health community, namely that the normal range comprises values which indicate that the patient is free of disease and the abnormal range, which is below and above the normal range, comprises values which indicate that the patient is diseased. Further, the appellant referred to D1, page 24, line 20, which says that a normal, disease-free patient will have a fairly steady plot at a high level of health.

For the further analysis, the board interprets the terms "normal range" and "abnormal range" in accordance with D6.

5.2 Novelty

The arguments presented with respect to claim 1 of the main request apply to the common features of claim 1 of this request and the main request.

The appellant argued that the subject-matter of claim 1 differed from the method disclosed in D1 in that the method of claim 1 tracked the patient health status on the basis of parameters considered to be in the normal range whereas the disease management module predicts key points and trends on the patient's curve on the basis of current data from a patient who has been diagnosed with a specific disease, see D1, page 15, lines 4 to 6 and page 23, lines 30 to 34. As the data were obtained from a patient diagnosed with a disease, they were not in the normal range.

The appellant further argued, referring to the critical curve assessment in D1, in particular to Figure 23; page 23, line 18 onwards; page 16, line 35 and page 17, line 1; page 23, lines 26 to 30 and page 24, lines 20 to 25, that the critical curve plotted the patient's health state against the time. After an initial phase in which the curve is asymptotic to normal health the health curve begins to descend at a steeper and steeper angle. At the critical point the curve steepens so dramatically that the patient's condition may deteriorate quickly, (page 24, lines 20 to 25). The critical curve being asymptotic to the normal health

approached the normal health but would never reach it by definition of an asymptotic curve. Therefore, the skilled person was not motivated to make predictions based on values in the normal range, corresponding to normal health.

The board understands that any individual patient's normal health lies in a normal range defined for the population as a whole. The respective individual patient's critical curve is asymptotic to this specific normal health. If the normal health of a patient lies near the upper limit of the normal range, the asymptotic part of the corresponding asymptotic critical curve falls inevitably in the normal range. Thus, if this patient is diagnosed with the disease, the values of his/her critical curve will lie in the normal range for a certain length of time. Applying the critical curve assessment as disclosed in D1, page 23, line 7 to page 24, line 3 results in tracking patient health status based on health indicative parameters considered to be in the normal range to project a possible trend to assume a value in the abnormal range.

As claim 1 refers to values in the normal range without further specification of the health status of the patient, it does not exclude that a patient has been diagnosed with a disease as long as the measured values lie within the normal range for the general population. Therefore, the board considers that D1 anticipates claim 1.

Thus, the subject-matter of claim 1 does not fulfil the requirements of Articles 52(1) and 54 EPC.

Similar arguments apply mutatis mutandis to independent system claim 18.

6. *Request for remittal*

The subject-matter of the independent claims of all the requests being found to lack novelty, a decision on the request for remittal is unnecessary.

7. There being no further requests, the appeal has to be dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

K. Götz D. H. Rees