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**Datasheet for the decision  
of 4 March 2022**

**Case Number:** T 1743/19 - 3.5.05

**Application Number:** 10843499.4

**Publication Number:** 2517168

**IPC:** G06F19/00

**Language of the proceedings:** EN

**Title of invention:**  
ADAPTABLE MEDICAL WORKFLOW SYSTEM

**Applicant:**  
CareFusion 303, Inc.

**Headword:**  
Possible next actions/CAREFUSION303

**Relevant legal provisions:**  
EPC Art. 52(2) (d), 56  
RPBA Art. 12(4)  
RPBA 2020 Art. 12(2), 24, 25

**Keyword:**

Patentable invention - presentation of information

Inventive step - (no)

Late-filed request - submitted with the statement of grounds  
of appeal - admitted (no) - request could have been filed in  
first instance proceedings (yes)

primary object of appeal proceedings to review decision

**Decisions cited:**

G 0009/91, G 0010/91, G 0010/93, T 1091/17, T 0995/18



**Beschwerdekammern**  
**Boards of Appeal**  
**Chambres de recours**

Boards of Appeal of the  
European Patent Office  
Richard-Reitzner-Allee 8  
85540 Haar  
GERMANY  
Tel. +49 (0)89 2399-0  
Fax +49 (0)89 2399-4465

Case Number: T 1743/19 - 3.5.05

**D E C I S I O N**  
**of Technical Board of Appeal 3.5.05**  
**of 4 March 2022**

**Appellant:** CareFusion 303, Inc.  
(Applicant) 3750 Torrey View Court  
San Diego, CA 92130 (US)

**Representative:** Epping - Hermann - Fischer  
Patentanwaltsgesellschaft mbH  
Postfach 20 07 34  
80007 München (DE)

**Decision under appeal:** **Decision of the Examining Division of the  
European Patent Office posted on 23 January 2019  
refusing European patent application No.  
10843499.4 pursuant to Article 97(2) EPC.**

**Composition of the Board:**  
**Chair** A. Ritzka  
**Members:** E. Konak  
E. Mille

## **Summary of Facts and Submissions**

I. The appeal is against the examining division's decision to refuse the application. The examining division decided that claim 1 of the main request and auxiliary requests 1 and 2 then on file did not involve an inventive step (Article 56 EPC) over the following document:

D2: US 2005/086072 A1

II. With its statement setting out the grounds of appeal, the appellant re-filed the main request on which the contested decision was based and filed new auxiliary requests 1 to 4. It requested that the decision be set aside and that a patent be granted on the basis of one of these requests.

III. In its preliminary opinion issued in preparation for oral proceedings, the board raised objections under, *inter alia*, Article 56 EPC against the main request and communicated that it was minded not to admit the auxiliary requests.

IV. With its letter of reply of 9 February 2022, the appellant filed auxiliary requests 5 to 7.

V. Oral proceedings were held before the board. The appellant's final requests were that the decision under appeal be set aside and that a patent be granted on the basis of the main request dated 26 October 2018 or, alternatively, based on any of auxiliary requests 1 to 4 filed with the statement setting out the grounds of appeal or auxiliary requests 5 to 7 filed with the appellant's letter dated 9 February 2022.

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

"A method of adapting a medical workflow implemented at a processor coupled to a hospital network, comprising: receiving a message comprising medical information data;  
predicting a healthcare worker's workflow using, at least in part, the medical information data; and communicating to an interface, based on the predicting, a menu comprising one or more medical action options; the method being characterized in that:  
said predicting comprises using information related to past actions by the healthcare worker for predicting the healthcare worker's workflow, and associating probabilities with actions possible by the healthcare worker; and  
prioritizing display of possible next actions in the menu using the probability values associated with said actions."

VII. Claim 1 of auxiliary requests 1 and 6 reads as follows:

"A method of adapting a medical workflow implemented at a processor coupled to a hospital network, comprising: receiving an indication of a log in associated with a computing device by a first healthcare worker;  
receiving a message comprising medical information data, the medical information data comprising an identification of a medical object;  
determining a state of the medical object based on the identification of the medical object and state information associated with the medical information data;  
querying a database for a list of prior actions performed in the past with the medical object by a

respective healthcare worker in a role associated with the first healthcare worker, wherein the database stores identifications of a plurality of medical objects, each medical object being associated in the database with a plurality of possible actions, each of the plurality of possible actions being associated with zero or more states;  
predicting a next action for the medical object in the healthcare worker's workflow using, at least in part, the list of prior actions received in response to the query and the determined state of the medical object;  
and  
communicating to an interface, based on the predicting, a menu comprising one or more medical action options including the predicted next action;  
the method being characterized in that:  
said predicting comprises associating probability values with actions possible by the healthcare worker;  
and  
prioritizing display of possible next actions in the menu using the probability values associated with said actions."

VIII. Claim 1 of auxiliary requests 2 and 7 reads as follows:

"A method of adapting a medical workflow implemented at a processor coupled to a hospital network, comprising:  
receiving an indication of a log in associated with a computing device by a first healthcare worker;  
starting a session based on a scan of a patient identification or the log in by the first healthcare worker;  
receiving a message comprising medical information data, the medical information data comprising an identification of a medical object;  
associating the message with the session;

determining a state of the medical object based on the identification of the medical object and state information associated with the medical information data;

querying a database for a list of prior actions performed in the past with the medical object by a respective healthcare worker in a role associated with the first healthcare worker, wherein the database stores identifications of a plurality of medical objects, each medical object being associated in the database with a plurality of possible actions, each of the plurality of possible actions being associated with zero or more states;

predicting a next action for the medical object in the healthcare worker's workflow using, at least in part, the list of prior actions received in response to the query and the determined state of the medical object; and

communicating to an interface, based on the predicting, a menu comprising one or more medical action options including the predicted next action;

the method being characterized in that:

said predicting comprises selecting the next action based on prior actions performed by the first healthcare worker during the session; and

prioritizing display of possible next actions in the menu using the probability values associated with said actions."

IX. Claim 1 of auxiliary request 3 reads as follows:

"A method of adapting a medical workflow implemented at a processor coupled to a hospital network, comprising: receiving an indication of a patient and a log in associated with a computing device by a first healthcare worker;

receiving a message comprising medical information data, the medical information data comprising an identification of a medical object;

determining a state of the medical object, wherein the medical object is a patient and the state of the medical object is an operating state of the patient;

querying a database for a list of prior actions performed in the past with the medical object by a respective healthcare worker in a role associated with the first healthcare worker, wherein the database stores identifications of a plurality of medical objects, each medical object being associated in the database with a plurality of possible actions, each of the plurality of possible actions being associated with zero or more states;

predicting one or more next actions for the medical object in the healthcare worker's workflow using, at least in part, the list of prior actions received in response to the query and the determined state of the medical object;

communicating to an interface, based on the predicting, a menu comprising medical action options including the predicted one or more next actions; and

determining that at least one of the medical action options is disabled based on the state of the medical object, wherein the at least one disabled medical action option is visible in the menu but unselectable by the healthcare worker;

the method being characterized in that:

said predicting comprises associating probability values with actions possible by the healthcare worker;

and

prioritizing display of possible next actions in the menu using the probability values associated with said actions."



X. Claim 1 of auxiliary request 4 reads as follows:

"A method of adapting a medical workflow implemented at a processor coupled to a hospital network, comprising: receiving an indication of a patient and a log in associated with a computing device by a first healthcare worker;  
starting a session based on a scan of a patient identification of the patient or the log in by the first healthcare worker;  
receiving a message comprising medical information data, the medical information data comprising an identification of a medical object;  
associating the message with the session;  
determining a state of the medical object, wherein the medical object is a patient and the state of the medical object is an operating state of the patient;  
querying a database for a list of prior actions performed in the past with the medical object by a respective healthcare worker in a role associated with the first healthcare worker, wherein the database stores identifications of a plurality of medical objects, each medical object being associated in the database with a plurality of possible actions, each of the plurality of possible actions being associated with zero or more states;  
predicting one or more next actions for the medical object in the healthcare worker's workflow using, at least in part, the list of prior actions received in response to the query and the determined state of the medical object;  
communicating to an interface, based on the predicting, a menu comprising medical action options including the predicted one or more next actions; and  
determining that at least one of the medical action options is disabled based on the determined state of

the medical object, wherein the at least one disabled medical action option is visible in the menu but unselectable by healthcare worker;  
the method being characterized in that:  
said predicting comprises selecting the next action based on prior actions performed by the first healthcare worker during the session; and  
prioritizing display of possible next actions in the menu using probability values associated with said actions."

XI. Claim 1 of auxiliary request 5 reads as follows:

"A method of adapting a medical workflow implemented at a processor coupled to a hospital network, comprising:  
receiving a message comprising medical information data;  
predicting a healthcare worker's medical workflow using, at least in part, the medical information data;  
and  
communicating to an interface, based on the predicting, a menu comprising one or more medical action options;  
the method being characterized in that:  
said predicting comprises training, using information related to past medical actions by the healthcare worker, and associating probabilities with medical actions; and  
displaying next medical actions of higher probability at the top in the menu."

## **Reasons for the Decision**

1. Main request - Inventive step (Article 56 EPC)

1.1 The appellant considers all the features in the characterising part of claim 1 of the main request to be distinguishing features over D2, which reads as follows:

*"predicting comprises using information related to past actions by the healthcare worker for predicting the healthcare worker's workflow, and associating probabilities with actions possible by the healthcare worker; and  
prioritizing display of possible next actions in the menu using the probability values associated with said actions"*

1.2 Whereas D2 predicts the next possible actions in a healthcare worker's workflow based on known ordered activities or tasks (see D2, [0081] and [0082]), the claimed method predicts the next possible actions using the healthcare worker's past actions, which the appellant emphasises in its submissions are "medical" past actions, and displays these actions in a menu prioritised according to their associated probabilities.

1.3 The distinguishing features thus result in the generation and display of a different menu than the method of D2. The board judges this to be a presentation of information which does not contribute to the technical character of the invention. The appellant argued that the distinguishing features had a number of technical effects, none of which convinced the board since the alleged effects are either not technical or not derivable from the distinguishing features.

- 1.3.1 The appellant argued that errors were reduced and efficiency increased on the part of healthcare workers during the time in which healthcare workers became accustomed to upgrades or changes to existing healthcare configurations. Although the board cannot entirely follow how possible actions learned by training from past actions of a healthcare worker may be relevant for their becoming accustomed to changes, becoming accustomed to something is not a technical but a cognitive effect.
- 1.3.2 Referring to paragraph [0022] of the description, the appellant argued that the need for a healthcare worker to follow only a single specific sequence of actions was eliminated. It reiterated at the oral proceedings that the distinguishing features gave the healthcare worker more flexibility. However, improved flexibility cannot be derived from the distinguishing features, which do not concern which sequence of actions the healthcare worker is to follow but merely what is presented to the worker. They are free to follow or not follow the presented possible actions, both in D2 and the claimed method.
- 1.3.3 The appellant argued that the worker may be relieved from having to remember a specific sequence of scanning various medical objects. The board cannot see how a specific order of scanning medical objects may be derived from the distinguishing features. These are not related to any scanning order. Irrespective of this, relief from having to remember something is also a non-technical cognitive effect.
- 1.3.4 At the oral proceedings, the appellant submitted that the menus displayed in a healthcare context could easily include a high number of possible actions,

requiring scrolling or other navigation across several pages. Displaying the most probable actions at the top in the menu provided for a more efficient display for the healthcare worker. However, whether a user finds a menu display more efficient or clearly arranged is a non-technical matter of preference.

- 1.3.5 In its letter of reply to the board's preliminary opinion, the appellant argued that the menu according to claim 1 placed the user in a favourable position to carry out the technical task of selecting a next option from the menu guiding the user through a workflow and submitted that in previous decisions of the boards of appeal, a GUI placing the user in a favourable position to carry out a technical task had been regarded as technical. It is evident that the appellant was referring to the established test that a presentation of information might exceptionally contribute to the technical character of an invention if it credibly assists the user in performing a technical task by means of a continued and guided human-machine interaction process (see e.g. T 1091/17, point 1.7 of the Reasons). Nevertheless, the case at hand fails this test at the very outset since selecting from a menu is not a technical task, contrary to the appellant's argument.
- 1.3.6 The appellant further argued that the amount of data to be communicated to the interface of the healthcare worker was drastically reduced, e.g. limited to only the most probable options, thus reducing the load on the hospital network. This effect is also not derivable from the distinguishing features. Prioritising the display of possible next actions in a menu, e.g. by displaying actions with higher probabilities at the top as described in paragraph [0037] of the description,

does not reduce the amount of communicated data but merely changes the order in which the menu is presented.

1.3.7 At the oral proceedings, the appellant argued that the distinguishing features also contributed to patient safety. Time is at a premium in healthcare and increasing the efficiency of healthcare workers in any task, such as finding the next action in a menu in the current case, reduced their time stress and therefore improved patient safety in healthcare. However, the board cannot accept such a broken technical chain. Time and stress management of a worker is not a technical problem. The fact that they work in healthcare and that their work has consequences on patient safety does not change that finding.

1.4 Since the distinguishing features of claim 1 do not have any technical effect, they cannot solve any objective technical problem. Therefore, the subject-matter of claim 1 of the main request does not involve any inventive step (Article 56 EPC).

2. Auxiliary requests 1 to 4 - Admissibility (Article 12(4) RPBA 2007)

2.1 In accordance with Article 12(4) RPBA 2007, the board has discretion not to admit requests which could have been presented in the examination proceedings.

2.2 With the statement setting out the grounds of appeal, the appellant filed new auxiliary requests 1 to 4. Auxiliary requests 1 and 2, although based on auxiliary request 1 and 2 on which the contested decision is based, have in dependent claims 8 and 16 a new feature added from the description. Auxiliary requests 3 and 4

have several features added from the description into claim 1. The addition of new features from the description is contrary to the primary object of appeal proceedings, which is to review the contested decision in a judicial manner (cf. Article 12(2) RPBA 2020). Appeal is not a continuation of the examination proceedings. Such amendments could and should have been made during the examination proceedings.

- 2.3 The appellant's arguments in favour of the admissibility of these requests failed to convince the board.
  - 2.3.1 First, the appellant found the retrospective application of Article 12(2) RPBA 2020 to the case at hand unfair, although it was aware that Articles 24 and 25 RPBA 2020 explicitly required this. However, the principle that the primary object of appeal proceedings is to review the contested decision in a judicial manner is long-established case law (see G 9/91 and G10/91, point 18 of the Reasons and G 10/93, point 4 of the Reasons). It cannot be unfair to reiterate a long-established principle.
  - 2.3.2 Second, the appellant alleged that the purpose of the provisions giving boards discretionary power not to admit requests was to ensure fair proceedings, free of tactical abuse. Since there was no such tactical behaviour from the appellant in the case at hand, auxiliary requests 1 to 4 had to be admitted. However, there is neither in Article 12(4) RPBA 2007, nor in the document CA/133/02 explaining the purpose of this provision (then Article 10a), any suggestion that the boards' discretionary power should be restricted as suggested by the appellant.

2.3.3 Third, the appellant argued that the independent claims of auxiliary requests 1 and 2 were identical to the independent claims of auxiliary request 1 and 2 on which the contested decision was based. The only amendments were to a dependent claim. However, there is no legal basis for considering two requests identical when they differ merely in dependent claims.

2.3.4 Finally, the appellant argued that these auxiliary requests *prima facie* overcame newly raised objections of the board. But requests filed with the statement setting out the grounds of appeal, i.e. before the notification of the board's preliminary opinion, cannot possibly address objections not yet raised by the board.

2.4 Therefore, since auxiliary requests 1 to 4 could and should have been presented in the examination proceedings, the board did not admit them into the appeal proceedings (Article 12(4) RPBA 2007).

3. Auxiliary request 5 - Inventive step (Article 56 EPC)

3.1 Claim 1 of auxiliary request 5 differs from claim 1 of the main request in that the appellant clarified the claim wording to better reflect the embodiment in paragraphs [0036] and [0037] of the description. These details, namely that the past actions are medical actions, that the predicting based on past actions comprises training and that the prioritising of next medical actions means displaying actions with higher probabilities at the top of the menu, were all taken into account by the board in examining inventive step involved in claim 1 of the main request. The appellant also did not submit any other alleged technical effect



apart from those discussed within the scope of the main request.

- 3.2 Therefore, for the same reasons as for the main request, the subject-matter of claim 1 of auxiliary request 5 does not involve any inventive step (Article 56 EPC).
4. Auxiliary requests 6 and 7 - Admissibility (Article 13(2) RPBA)
- 4.1 Auxiliary requests 6 and 7 correspond to auxiliary requests 1 and 2 on which the contested decision was based. Although the appellant had not maintained these requests when filing the appeal, it re-filed them with its letter dated 9 February 2022. In accordance with Article 13(2) RPBA, any amendment to an appellant's appeal case after notification of the summons to oral proceedings must in principle not be taken into account unless there are exceptional circumstances which have been justified with cogent reasons.
- 4.2 The appellant argued that these requests were the same as auxiliary requests 1 and 2 on which the contested decision was based, that they were never withdrawn, and that there was no indication in the appellant's submissions that it did not intend to further pursue them. Furthermore, these requests were the result of a deletion of the amendment added to auxiliary requests 1 and 2 filed with the statement setting out the grounds of appeal. The deletion of a claim was not an amendment to the appellant's appeal case in accordance with T 995/18.

These arguments failed to convince the board. As a matter of fact, when it filed its appeal, the appellant

did not maintain auxiliary requests 1 and 2 on which the contested decision is based. It is established case law not to admit the resubmission of requests which were not maintained when filing the appeal. Regarding T 995/18, the board cannot see its relevance for the current case, which does not involve the deletion of any claim.

- 4.3 Since no exceptional circumstances justified with cogent reasons were present, the board did not admit auxiliary requests 6 and 7 into the appeal proceedings (Article 13(2) RPBA).

## Order

### **For these reasons it is decided that:**

The appeal is dismissed.

The Registrar:

The Chair:



K. Götz-Wein

A. Ritzka

Decision electronically authenticated