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**Datasheet for the decision  
of 19 May 2022**

**Case Number:** T 1008/19 - 3.5.07

**Application Number:** 10162474.0

**Publication Number:** 2256642

**IPC:** G06F17/21, G06F17/27, G06T13/00

**Language of the proceedings:** EN

**Title of invention:**

Animation system for generating animation based on text-based data and user information

**Applicant:**

Samsung Electronics Co., Ltd.

**Headword:**

Generating animation based on text and user information/  
SAMSUNG

**Relevant legal provisions:**

EPC Art. 56  
RPBA 2020 Art. 13(1), 13(2)

**Keyword:**

Inventive step - main request (no) - first auxiliary request  
(no)

Amendment after summons - exceptional circumstances - second  
auxiliary request (no)

**Decisions cited:**

G 0001/19, T 0843/91, T 1033/04, T 1518/11, T 2264/18



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Case Number: T 1008/19 - 3.5.07

**D E C I S I O N**  
**of Technical Board of Appeal 3.5.07**  
**of 19 May 2022**

**Appellant:** Samsung Electronics Co., Ltd.  
(Applicant) 129, Samsung-ro  
Yeongtong-gu  
Suwon-si, Gyeonggi-do, 443-742 (KR)

**Representative:** Arnold & Siedsma  
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**Decision under appeal:** **Decision of the Examining Division of the  
European Patent Office posted on 24 September  
2018 refusing European patent application  
No. 10162474.0 pursuant to Article 97(2) EPC**

**Composition of the Board:**

**Chair** J. Geschwind  
**Members:** P. San-Bento Furtado  
M. Jaedicke

## **Summary of Facts and Submissions**

I. The appeal lies from the decision of the examining division to refuse European patent application No. 10 162 474.0 for lack of inventive step in the subject-matter of claim 1 of a main request and a first auxiliary request over the following prior-art document:

D1: JP 2006 155494 A, published on 15 June 2006, including the original version in Japanese and the translation to English available in the electronic file; the translation was annexed to the European Search opinion.

The examining division considered that the distinguishing features served a non-technical purpose and were straightforward.

II. 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 first auxiliary request filed with the statement of grounds of appeal and corresponding to the requests considered in the appealed decision.

III. In a communication annexed to a summons to oral proceedings, the board expressed its preliminary opinion that the subject-matter of claim 1 of both requests was not inventive over the disclosure of document D1.

IV. With a letter of reply the appellant filed new claims according to a second auxiliary request.

- V. Oral proceedings were held as scheduled. At the end of the oral proceedings, the Chair announced the board's decision.
- VI. The appellant's final requests were that the contested decision be set aside and that a patent be granted on the basis of the main request or the first auxiliary request, both filed with the statement of grounds of appeal, or the second auxiliary request filed with letter of 19 April 2022.
- VII. In a letter sent out after the oral proceedings the appellant stated that it withdrew "all requests and the appeal as a whole" and that a decision was "thus no longer requested".
- VIII. Claim 1 of the main request reads as follows (itemisation by the board):
- "An animation script generating device (120), comprising:
- (a) an emotion extraction unit (122) configured to extract, from a reference database (110), an emotion based on analyzing text-based data originating from a generator of the text-based data for a receiver of the text-based data;
  - (b) an action selection unit (123) configured to select an action based on the extracted emotion; and
  - (c) a script generation unit (126) configured to combine the text-based data with the emotion and action to generate an animation script,
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- (d) a user profile database (113) in which a user relationship information is stored indicating a relationship type or an intimacy degree between the generator of the text-based data and the receiver of the text-based data, and in that
- (e) the emotion extraction unit (122) is configured to extract the user relationship information from the user profile database (113), and to extract the emotion from the reference database (110), based further on the user relationship information."

IX. Claim 1 of the first auxiliary request differs from that of the main request in that the text (b) above has been replaced with the text (f) and (b') below and the text (e) has been replaced with the following text (g) (itemisation by the board):

- (f) "an action rule database (114) comprising mapping information of actions;"
- (b') "an action selection unit (123) configured to select, from the action rule database (114) comprising mapping information of actions, an action based on the extracted emotion; and"
- (g) "the action selection unit (123) is further configured to select, from the action rule database (114) comprising mapping information of actions, the action based on the user relationship information from the user profile database (113)."

X. Claim 1 of the second auxiliary request reads as follows:

"An animation script generating device (120), comprising:

an emotion extraction unit (122) configured to extract, from a reference database (110), an emotion

based on analyzing text-based data originating from a generator of the text-based data for a receiver of the text-based data;

an action selection unit (123) configured to select an action based on the extracted emotion; and

a script generation unit (126) configured to combine the text-based data with the emotion and action to generate an animation script,

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the reference database (110) comprising:

a user profile database (113) in which a user relationship information is stored indicating a relationship type or an intimacy degree between the generator of the text-based data and the receiver of the text-based data;

an emotional vocabulary dictionary database (111) configured to store mapping information of an emotion corresponding to vocabulary and the user relationship information;

an emotional inference rule database (112) configured to store mapping information of an emotion corresponding to one or more words of the text-based data and the user relationship information, and in that

the emotion extraction unit (122) is configured:

to extract the user relationship information from the user profile database (113),

to refer to the emotional vocabulary dictionary database (111) to identify an emotion vocabulary corresponding to the words and the user relationship information,

to identify, in the emotional inference rule database (112), an inferred emotion that is obtained by inferring an emotion based on one or more words of the text-based data and the user relationship information,

to combine the emotion vocabulary and the inferred emotion to extract the emotion."

## **Reasons for the Decision**

### *Procedural matters*

1. After the board had announced its decision to dismiss the appeal and closed the oral proceedings, the appellant stated by letter that the appeal was withdrawn and that a decision by the board was "thus no longer requested". However, the board's decision became effective on the day of the oral proceedings at which the decision was announced. On that day, the appeal proceedings were terminated (T 843/91, OJ EPO, 1994, 818, Reasons 10). Given that by virtue of the board's decision the refusal became final and no appeal lies from decisions of the boards, the appellant's submission made after the announcement of the board's decision is without any legal effect (T 1518/11, Reasons 2.1).
- 1.1 Furthermore, a statement of withdrawal of appeal made by the (sole) appellant after the final decision of the board has been announced at oral proceedings does not relieve the board of its duty to issue and notify to the appellant the decision in writing setting out the reasons for the decision (T 1033/04, Reasons 3).
- 1.2 Since the withdrawal is without any legal effect and the written decision has to be issued, the appellant is not entitled to the reimbursement of the appeal fee at 25% under Rule 103(4) (b) EPC (T 2264/18, Reasons 1).

### *Application*

2. The application concerns an animation system for generating animation based on text-based data (see page 1, lines 4 to 7, of the original description). The text-based data may be a text message, an email or a



document (page 13, lines 3 to 6). The system may extract an emotion from the text-based data and select an action based on the emotion to generate an animation script, which is then used to generate an animation (page 1, lines 4 to 7, of the original description).

3. The claims of the main request and the first auxiliary request are directed to the animation script generating device of the animation system.

*Main request*

4. *Inventive step - claim 1*

- 4.1 Document D1 discloses a system for producing an animation from a natural sentence, i.e. text-based data (see e.g. paragraphs [0001] and [0066]). The natural sentence is written by a user, the generator, who wishes the animation to display the emotions expressed in the natural sentence (paragraphs [0018], [0010], [0066], Figure 12). It is implicit from D1 that the animation is destined to one or more persons, who can therefore be seen as the receivers of the natural sentence (paragraph [0066], Figure 12). The system of D1 extracts a verb and a verb modifier from the text received from the user. It uses an "emotion classification table" to extract an "emotion classification" and a "basic motion table" to extract a basic motion from the verb (paragraphs [0013], [0032] to [0038], [0066] to [0070], Figure 3). It then creates "basic motion description data" which works as a script to generate the animation (paragraphs [0055] and [0071], Figure 9).

- 4.2 The board agrees with the contested decision's finding that the subject-matter of claim 1 differs from the

animation script generating device of D1 in that it includes features (d) and (e).

- 4.3 The examining division judged that the distinguishing features had the non-technical purpose of taking into account a further non-technical parameter - the user relationship information - to select an emotion considered to be more "appropriate". For example, depending on whether the receiver is the generator's spouse or manager, different emotions can be considered appropriate.
- 4.4 The appellant submitted that the decision appeared to hinge on the word "emotion", even though the meaning of "an emotion" was not at all relevant for formulating the objective technical problem and/or for the technical nature of the invention. The appellant argued that in the system of claim 1, expression of the content with emphasis on the meaning of the message from the generator was enhanced by taking into account a relationship between the generator/sender and the receiver/addressee, to enable a more accurate reflection and/or emphasis of content, meaning and intentions of the generator. This way, the generated animation would be more appropriate, in view of the relationship, and thus more reliably reflect and emphasize the content, meaning and intentions of the generator. The problem formulation in the appealed decision was based on hindsight, by reference to the user relationship information, for which there was no hint in D1.

According to the appellant, generating a more appropriate animation which more reliably reflected and emphasised emotions of the content should be regarded as a technical purpose. Because of the technicality of

the data processing, the emotion expressed by the animation should be considered as making a technical contribution. The intimacy degree mentioned in the claim was a numeral and thus a technical way of representing user relationships which constituted a technical feature. The technical problem was to create an animation script that was "more appropriate for the sender's intent, emotion, situation, content, and so on".

4.5 The board does not find these arguments convincing. The purpose of generating a more appropriate animation which more reliably reflects and emphasises emotions or the content, meaning and intentions of the sender of the text in view of the relationship between the sender and the receiver, is not a technical purpose. The requirement that the emotion to be expressed by the animation should take into account the relationship between sender and receiver in order to more appropriately reflect the content, meaning and intention of the sender is established by the person skilled in human psychology, sociology, linguistics or graphical presentation, not by the technically skilled person implementing the claimed device (see also G 1/19, Reasons 122).

4.6 The board essentially agrees with the examining division's formulation of the objective technical problem, which correctly includes non-technical aspects as a user requirement specification. The technical problem is how to implement, into the system known from D1, the additional non-technical user requirement of taking into account the user relationship information (indicating a relationship type or an intimacy degree between the person who generates the text and the person who receives it) when selecting an emotion.

- 4.7 The distinguishing features solve the problem by using a database for storing information and extracting information from the database as needed.
- 4.8 The appellant argued that document D1 neither disclosed nor rendered obvious the simple solution of the invention of using a database with relationship information which could be as simple as an address book with contacts already therein, and defining the relationship information "in conjunction with some indication of the relationship of a contact to the owner/sender/generator". Even though databases were commonly known, it would not have been obvious to use a database in the way specified in feature (e), namely to extract the emotion from the reference database, based further on the user relationship information. The invention had the advantage to provide an automation without the need to ask the user each time for user relationship information. Consequently, the claimed subject-matter was inventive.
- 4.9 The board shares the examining division's view that the use of databases and database systems, e.g. tables, relational database systems, or address book applications, for storing and retrieving information, including information concerning relationships between entities, is notoriously known. Such a use of databases within the meaning of the claim is already known from the system of D1, which uses tables for storing the relationships between verbs/verb modifiers and emotions/basic motions (see e.g. paragraphs [0033] and [0068] to [0070], Figure 3). It would thus have been obvious for the skilled person to use one or two databases to store the non-technical user relationship information and extract the emotion in the way claimed.

4.10 Therefore, the subject-matter of claim 1 of the main request is not inventive (Article 56 EPC).

*First auxiliary request*

5. Claim 1 of the first auxiliary request mainly adds an action rule database in the additional feature (f), and the use of the action rule database in feature (b'). It also replaces feature (e) with feature (g) describing that the action selection unit selects the action from the action rule database (see also item IX. above).

6. *Inventive step - claim 1*

6.1 Document D1 discloses features (f) and (b'), since it selects a basic motion, which corresponds to an action, from the "basic motion table" and uses it in the "basic motion description data", which corresponds to a script (paragraphs [0030], [0043], Figures 2 and 6). Therefore, claim 1 differs from the disclosure of D1 in that it includes features (d) and (g).

6.2 The appellant referred to the reasoning given for the main request. It further argued that nowhere in D1 could the skilled person find or deduce anything even remotely resembling the adaptation of the intermediate action selection (between emotion retrieval and animation script generation) on the basis of user relationship information, to enable the automatic generation of animations to be sent to the receiver/addressee, which animations more accurately and reliably reflected and emphasised the meaning and intentions of the sender/generator in his or her message to the receiver/addressee.

6.3 The board notes, however, that adapting actions on the basis of user relationship information is a non-technical purpose. In view of that, and also for the reasons given above for the main request, the board is of the opinion that features (d) and (g) do not specify any additional technical subject-matter.

6.4 Therefore, the subject-matter of claim 1 of the auxiliary request does not involve an inventive step (Article 56 EPC).

#### *Second auxiliary request*

#### 7. *Admissibility*

7.1 Claim 1 of the second auxiliary request differs considerably from claim 1 of the previous requests. Compared to claim 1 of the main request, it additionally specifies that the reference database comprises the user profile database and two databases further described in the claim, an emotional vocabulary dictionary database and an emotional inference rule database. The specification of the emotion extraction unit was amended to describe that the emotion is extracted by combining an emotion vocabulary and an inferred emotion identified using the two newly defined databases.

7.2 In its letter, the appellant did not provide any reasons for submitting the second auxiliary request at this stage of the appeal proceedings, as required by Article 13(1) RPBA 2020.

7.2.1 As basis for the amendments, the appellant cited original claims 3 and 6, and passages on pages 1 to 3, 5, 7, and 11 to 13 of the description.

7.2.2 In its inventive-step reasoning, the appellant identified two non-technical distinguishing features, related to (1) adapting the emotion based on the relationship between the message sender and the message receiver (2) by modifying the meaning of words that typically refer to an emotion (emotion vocabulary) and of the context around the emotional vocabulary (inferred emotion), and a third distinguishing feature concerning (3) the determination of the emotion by "accessing information from three distinct databases and by combining in a given manner the information from said databases two by two, starting first by using the user profile database separately for each type of data and merging the results afterwards."

The appellant formulated the objective technical problem as how to modify the device of D1 to implement in a technically reliable and efficient manner the non-technical concept defined by the features (1) and (2).

According to the appellant, to solve this problem, multiple sequences of access to the databases and combinations of information from said databases would have been open to a skilled person. It was not contested that using a database and extracting information thereof as needed, could be notoriously known. Yet when starting from D1 showing only one database related to emotions, a skilled person faced with the problem to be solved would add a user profile database, and would select in a straightforward manner the obvious sequence where the user relationship is used after the step of obtaining an emotion, said emotion being based on both the emotional vocabulary and its context, because it would require the least modifications over the operation of D1. Since the claimed sequence of steps had advantages in terms of

reliability over that straightforward solution, the subject-matter of claim 1 was not obvious.

7.2.3 At the oral proceedings, the appellant argued that the second auxiliary request should be admitted into the proceedings because the objective technical problem had been reworded in the board's communication. The appellant had relied on the feature "intimacy degree" being technical, but that argument had failed. The claims of the second auxiliary request were convergent and overcame the objections raised by the board. Admitting the second auxiliary request would not be detrimental to procedural economy.

7.3 Contrary to the appellant's argument, the board essentially followed the inventive-step reasoning given in the decision under appeal for refusing the application. The technical problem that the board formulated in its preliminary opinion and maintained in the oral proceedings (see also point 4.6 above) is very similar to that of the decision under appeal (reasons, point 2.3.3 of the decision under appeal). The examining division considered that aspects relating to selecting an (appropriate) action, user relationship and cognitive effects, as well as the idea of increasing "appropriateness of an action taking into account user relationship information" were not technical (reasons, point 2.3.2 of the decision under appeal). The appellant should therefore have been aware that the intimacy degree would not be considered a technical aspect. The board also concurred with the contested decision's judgement that using databases in the way claimed was well known. Consequently, the board did not raise a fresh objection but remained within the framework of the examining division's objection which is in the scope of the appeal.



7.4 The other arguments in favor of admissibility are not convincing either. Claim 1 introduces complex amendments, as explained under point 7.1 above, which combine additional features taken from different passages of the original description and claims. Examining the claims for added subject-matter would be detrimental to procedural economy. Furthermore, the board doubts that the amendments are suitable to address the inventive-step objections which led to the decision under appeal. The additional features *prima facie* relate to non-technical subject-matter and the use of commonplace database features.

7.5 In view of the above, the board does not recognise any exceptional circumstances that could justify admitting these claims, which were filed after notification of the summons to oral proceedings (Article 13(2) RPBA 2020). Consequently, the second auxiliary request is not admitted into the proceedings.

*Concluding remark*

8. Since neither of the admitted requests is allowable, the appeal is to be dismissed.

**Order**

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

The appeal is dismissed.

The Registrar:

The Chair:



S. Lichtenvort

J. Geschwind

Decision electronically authenticated