

**Internal distribution code:**

- (A) [ - ] Publication in OJ  
(B) [ - ] To Chairmen and Members  
(C) [ - ] To Chairmen  
(D) [ X ] No distribution

**Datasheet for the decision  
of 9 May 2018**

**Case Number:** T 2313/12 - 3.5.04

**Application Number:** 00402640.7

**Publication Number:** 1091587

**IPC:** H04N7/24, H04N5/00

**Language of the proceedings:** EN

**Title of invention:**

User preference information structure having multiple hierarchical structure and method for providing multimedia information

**Applicant:**

LG Electronics, Inc.

**Headword:**

**Relevant legal provisions:**

EPC 1973 Art. 56, 84  
EPC Art. 116(4)

**Keyword:**

Request for a video conference (no)  
Claims - clarity - main and first auxiliary request (no)  
Inventive step - second auxiliary request (no)

**Decisions cited:**

T 0641/00, T 0482/02, T 1227/05, T 1266/07, T 1869/08,  
T 1954/08, T 0663/10, T 2068/14

**Catchword:**



**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 2313/12 - 3.5.04

**D E C I S I O N**  
**of Technical Board of Appeal 3.5.04**  
**of 9 May 2018**

**Appellant:**  
(Applicant)

LG Electronics, Inc.  
20, Yoido-Dong  
Yongdungpo-Ku  
Seoul (KR)

**Representative:**

Cabinet Plasseraud  
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 30 May 2012  
refusing European patent application  
No. 00402640.7 pursuant to Article 97(2) EPC**

**Composition of the Board:**

**Chairman** C. Kunzelmann  
**Members:** R. Gerdes  
B. Müller

## Summary of Facts and Submissions

- I. The appeal is directed against the decision to refuse European patent application No. 00 402 640.7, published as EP 1 091 587 A2.
  
- II. The patent application was refused by the examining division on the grounds that claim 1 of the sole request did not comply with Articles 84 and 123(2) EPC. Insofar as the subject-matter of claim 1 could be understood in the light of the description, it also lacked novelty (Article 54(1) and (2) EPC) in view of  
  
D1: US 5 758 257 A1.
  
- III. The applicant appealed against this decision and with its statement of grounds of appeal submitted claims of a new main request and of a new first auxiliary request.
  
- IV. In response to a communication pursuant to Rule 100(2) EPC the appellant submitted new claims 1 to 6 of a second auxiliary request with a letter dated 27 December 2017. It also requested that any oral proceedings be held by video-conference.
  
- V. The board issued summons to oral proceedings and indicated in an annex to the summons *inter alia* that it could not allow the request for oral proceedings to take place by video-conference.
  
- VI. Oral proceedings were held before the board on 9 May 2018. As announced by letter dated 10 April 2018, the duly summoned appellant was not represented at them. Nor did the appellant reply to the board's observations in the annex to the summons.

The chairman noted that the appellant had requested that the decision under appeal be set aside and that a European patent be granted on the basis of the claims of the main request or the first auxiliary request, both filed with the statement of grounds of appeal, or the claims of the second auxiliary request, filed with the letter dated 27 December 2017.

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

"A method for processing multimedia content provided by an information provider in a television broadcast environment and for processing user preferences related to consumption of said multimedia content, comprising:

selecting one of a plurality of individual user preference informations;

searching for multimedia content using said individual user preference information; and

providing to the user at least a portion of the multimedia content obtained by said search,

wherein said individual user preference information having:

at least one preference item associated with content description element; and

preference value corresponding to the preference item and representing the preferences of the user for a multimedia content matching the associated content description element,

wherein said preference item of the individual user preference information is set in a hierarchical data structure; and wherein at least one of said preference item and said preference value of the individual user preference information in the hierarchical data structures can be changed

according to according to [sic] a place of the user."

VIII. Claim 1 of the first auxiliary request reads as follows:

"A method for providing multimedia content provided by a a [sic] multimedia content provider in a television broadcast environment to a user, the method comprising: selecting an individual user preference information among a plurality of individual user preference informations wherein, each individual user preference information comprises a plurality of hierarchically linked preference items, and each preference item is associated with a content description element and a preference value representative of the preference of the user for the content description element; searching for multimedia content using information contained in said individual user preference information; and providing to the user at least a portion of the multimedia content obtained by said search, each of the plurality of user preference informations can comprise different hierarchically linked preference items having different associated preference values, and the selection of the individual user preference information is based on the location of the user."

IX. Claim 1 of the second auxiliary request is identical to claim 1 of the first auxiliary request except for the first and last features, which read as follows:

"A method for providing multimedia content, provided by a multimedia content provider in a television broadcast environment, to a user, the method comprising:"  
and

"... the selection of the individual user preference information is based on a condition of whether the use is at home or at a work place."

- X. The examining division argued in the decision under appeal that claim 1 of the then sole request did not comply with Article 84 EPC. The last feature of claim 1 could be interpreted as meaning that the "preference value" and/or "preference item" could change dynamically depending on the location of the user. Alternatively, this phrase could be interpreted as meaning that the "preference value" and/or "preference item" could only be changed in a given place, in other words there was a limitation on where the "preference value" and/or "preference item" could be changed, in that it could be changed in one location and not in another. The application disclosed that each individual "user preference information" defined the user preferences corresponding to a given user environment or place (figure 3 and page 9, lines 4 to 11). However, the "values" or "items" of the data structure did not change dynamically "according to a place of the user" (see decision under appeal, Reasons, section 1). Hence, the wording of claim 1 was ambiguous and the claimed subject-matter was not supported by the description, contrary to Article 84 EPC.

The examining division also held that the subject-matter of claim 1 lacked novelty in view of D1. D1 disclosed all except for the last feature of claim 1. This last feature could be interpreted in the light of

the description as meaning that preference information reflected a user preference corresponding to a physical location. According to D1, the user assigned to the "individual user preference information" the meaning of a preference corresponding to a "mood". According to claim 1, the user assigned the meaning of a preference corresponding to a "place". However, the label or interpretation given by the user to the user preference information did not "make any technical change to D1". Hence, the subject-matter of claim 1 was not new, contrary to Article 54(1) and (2) EPC (see decision under appeal, Reasons, section 2).

XI. The appellant's arguments where relevant for the present decision may be summarised as follows:

The last feature of claim 1 of the main request should be interpreted in the light of the description (see page 8, lines 9 to 15; page 8, line 25, to page 9, line 11, and figure 3), such that the selection of a piece of user preference information was performed, by the user or automatically, on the basis of the description of the "condition", which could be the location of the user. Both claim 1 of the main request and the cited passages related to a selection of preference information wherein the particular preference information selected was dependent on the location of the user. Limiting the subject-matter to a situation in which a user could not alter a setting in certain locations had no meaning for the subject-matter of claim 1 (see statement of grounds, pages 1/11 to 4/11, and letter dated 27 December 2017, pages 1/4 and 2/4).

D1 did not disclose the following features:



- (a) the use of a hierarchical data structure; and
- (b) the fact that each individual user had a plurality of user preference informations, each potentially associated with a specific location.

The "customer profile" of D1 was different from the "user preference information" of the present application (see statement of grounds, pages 4/11 to 6/11).

By means of the claimed method a reduction in the processing required for determining suitable content could be achieved, as was noted on page 10, lines 22 to 25, and page 12, lines 5 to 10, of the application. As was noted in decision T 1954/08, Reasons 5, a mathematical algorithm might become a technical means if it served a technical purpose. The subject-matter of claim 1 was distinguished from the facts of T 1954/08 in that the purpose of the claimed method was to enable a reduction in the processing time and/or processor capabilities required for providing selected multimedia data to a user. Thus, the claimed invention could, for example, permit a processor of lower capability and/or a reduced amount of memory to be used. This purpose was, in itself, technical (see letter dated 27 December 2017, pages 2/4 and 3/4).

Claim 1 of the first auxiliary request comprised additional clarifying amendments (see statement of grounds, page 6/11).

The amendment to claim 1 of the second auxiliary request was based on page 8, line 25, to page 9, line 8, of the application as filed. The arguments in favour of novelty and inventive step regarding claim 1

of the main request applied likewise (see letter dated 27 December 2017, page 4/4).

### **Reasons for the Decision**

1. The appeal is admissible.

#### *Request for a video-conference*

2. With the letter dated 27 December 2017, the appellant requested that any oral proceedings be held by video-conference.

The board refused this request for the following reasons:

The holding of oral proceedings by video-conference is only provided for in the case of ex parte proceedings before an examining division, see "Updated information from the European Patent Office dated 1 May 2012 concerning interviews and oral proceedings to be held as a video-conference" (OJ EPO 2012, 354) and the Guidelines for Examination, November 2017 edition, E-III, 11.1.1.

The holding of oral proceedings by video-conference is not currently possible for the appeal procedure because there are no corresponding provisions for the boards of appeal, and the Rules of Procedure of the Boards of Appeal of the European Patent Office (RPBA, OJ EPO 2007, 536) are silent on this subject (see also T 1266/07 and T 663/10). Furthermore, Article 116(3) EPC provides that oral proceedings before the examining division are not public, whereas under Article 116(4) EPC oral proceedings before the boards of appeal are

public. However, there is currently no general framework for making video-conferencing compatible with the requirement that oral proceedings before the boards of appeal must be public (see T 1266/07, Reasons 1.2, and the Case Law of the Boards of Appeal of the European Patent Office, 8th edition 2016, III.C.4.6).

Furthermore, the applicant has not provided any reason why the board should, exceptionally, organise the oral proceedings by video-conference (see T 2068/14, Reasons 1.2).

*Main request*

*Clarity (Article 84 EPC 1973)*

3. According to Article 84 EPC 1973, the claims must define the matter for which protection is sought. They must be clear and concise and be supported by the description.
- 3.1 The last feature of claim 1 reads "... wherein at least one of said preference item and said preference value of the individual user preference information in the hierarchical data structures can be changed according to according to [sic] a place of the user".
- 3.2 The board agrees with the decision under appeal that this feature can be interpreted as meaning that the "preference value" and/or "preference item" can change dynamically depending on the location of the user, or alternatively as meaning that the "preference value" and/or "preference item" can only be changed in a given place, in other words there is a limitation on where the "preference value" and/or "preference item" can be changed. Hence, the feature introduces ambiguity into the claim.

- 3.3 The appellant argued that multiple passages of the description supported the interpretation that the information can be changed depending the user location (see page 8, lines 9 to 15; page 8, line 25, to page 9, line 11, and figure 3). Both claim 1 of the main request and the cited passages related to a selection of preference information wherein the particular preference information selected was dependent on the location of the user. Limiting the subject-matter to a situation in which a user could not alter a setting in certain locations had no meaning for the subject-matter of claim 1.
- 3.4 These arguments did not convince the board, since the passages cited by the appellant concern the content and arrangements of the multiple hierarchical structure, not the changing of an existing multiple hierarchical structure or the editing of its content (depending on the location). Indeed, according to figure 3 and page 9, lines 4 to 11, multiple individual user preference information items (130(m), 130(k)) exist at the same time and are selected when needed (and not changed). In addition, the board is not convinced that a situation in which user preference information could be altered in certain locations (but could not be changed in others) had no meaning for the subject-matter of claim 1.
- 3.5 The board also notes that according to established jurisprudence of the boards of appeal, claims should be clear in themselves when read by a person skilled in the art, without any reference to the description (see Case Law of the Boards of Appeal of the European Patent Office, 8th edition 2016, section II.A.3.1).

3.6 Hence, claim 1 is unclear, contrary to Article 84 EPC 1973.

*First auxiliary request*

*Clarity (Article 84 EPC 1973)*

4. The last feature of claim 1 of the first auxiliary request was rephrased with respect to that of the main request to read:

"... the selection of the individual user preference information is based on the location of the user."

4.1 The board holds that the feature introduces a similar ambiguity into the claim as the last feature of claim 1 of the main request (see point 3.2 above).

The expression "based on the location of the user" could mean that the selection must be made at the location of the user. Alternatively, it could mean that the selection must take into account the location of the user (irrespective of where the selection is made).

4.2 The appellant referred to its arguments regarding the clarity of the last feature of claim 1 of the main request as far as the above ambiguity was concerned (see letter dated 27 December 2017, page 3/4). Hence, reasons corresponding to those provided in points 3.4 and 3.5 above apply.

4.3 It follows that claim 1 of the first auxiliary request lacks clarity (Article 84 EPC 1973).

*Second auxiliary request*

*Inventive step (Article 56 EPC 1973)*

5. It is common ground that D1 may be considered the closest prior art with respect to the subject-matter of claim 1.

5.1 D1 discloses a method for the provision of multimedia content by a multimedia content provider in a television broadcast environment to a user based on "user preference information" (in D1 termed "customer preference profile" or "customer profile", see column 1, lines 8 to 20, and column 4, lines 34 to 43). The method includes steps of selecting one of the "plurality of individual user preference informations [sic]" and using pieces of information contained in this body of information in searching for multimedia content and providing at least a portion of the results of the search to the user (column 5, line 53, to column 6, line 13).

The individual user preference information comprises a "plurality of hierarchically linked preference items", with each preference item being associated with a content description element and a preference value representative of the preference of the user for that content description element (see column 4, line 59, to column 5, line 9; column 10, lines 33 to 53, and column 20, lines 55 to 65).

According to D1 a user can specify separate profiles corresponding to the time of day or to the user's mood (column 4, lines 59 to 64, and column 5, lines 23 to 33), which means that each of the plurality of "user preference informations [sic]" can comprise different

hierarchically linked preference items having different associated preference values.

5.2 The appellant argued that D1 did not disclose the following features of claim 1:

- (a) the use of a hierarchical data structure; and
- (b) the fact that each individual user had a plurality of user preference "informations", each potentially associated with a specific location.

The "customer profile" of D1 was different from the "user preference information" of the present application (see point XI above).

5.3 The board cannot agree with this analysis.

A hierarchical data structure is disclosed in D1, column 17, lines 53 to 57. A plurality of items of user preference information comprised in individual user preference information is disclosed as a customer profile for each customer "representative of the customer's changing preferences" (see D1, column 5, lines 23 to 33). There is also no difference between the "customer profile" of D1 and the "user preference information" of the present application, which is reflected in corresponding features of claim 1.

Hence, the subject-matter of claim 1 differs from D1 only in the user preference information being potentially associated with a specific location, which is represented by the last feature of claim 1:

"... the selection of the individual user preference information is based on a condition of whether the use is at home or at a work place."

5.4 In its context this feature is understood to require as a first aspect the provision of multimedia content based on the condition of the user being at home or at a work place. As a second aspect it implicitly requires the adaptation of the individual user preference information such that it is selectable on the basis of the above condition.

5.5 In the context of the present application, the provision of multimedia content based on a user's location does not contribute to the technical character of the invention. It is not contested that due consideration of this condition may result in subjectively improved recommendations of multimedia content. However, this board considers that subjectively improved recommendations do not qualify as a technical effect (see also T 1869/08, Reasons 2.6).

The feature specifies a condition which is "something which can be ascertained by asking viewers about their preferences and which the technically skilled person has to accept as a given fact when designing a program guide system" (see decision T 482/02, Reasons 5.3). In the present case it may be determined as an outcome of a survey that a majority of users may prefer watching different kinds of multimedia content depending on their location. In present claim 1, the feature of providing multimedia content based on the user's location reflects this non-technical aim of improving recommendations based on the user's location. In this regard, the present board follows decision T 641/00, according to which "this aim may legitimately appear in



the formulation of the problem as part of the framework of the technical problem that is to be solved, in particular as a constraint that has to be met" (see Reasons 7).

The second aspect, requiring the adaptation of the user preference information to be selectable on the basis of the condition, relates to the implementation of the claimed method. Starting from D1 the technical problem is therefore regarded as how to implement a method of providing multimedia content to a user, taking into account a condition of whether the user is at home or at a work place.

5.6 The solution to this objective technical problem would have been obvious for the skilled person. Since the user preference information of D1 was designed to cope with complicated user preferences, the skilled person would have considered extending the existing user preference information data structure to take the additional condition into account. D1 follows the same approach, extending its customer profile to take into account different "moods" of the customer which may change "during the course of the week" (see column 5, lines 23 to 33).

5.7 The board also notes that D1 confirms the above reasoning that user preference information may be determined as an outcome of a survey, based on the questioning of customers, demographics or psychographic customer profiles (see for example column 13, lines 12 to 54; column 31, lines 48 to 58; and column 34, lines 24 to 36) and thus relates to a non-technical aspect of the invention of D1.

5.8 Regarding the appellant's arguments (see point XI above), the board agrees that a mathematical algorithm might contribute to inventive step if it serves a technical purpose; however, as reasoned above, providing multimedia content according to the user's subjective interests and personal preferences is not a technical purpose (see also Case Law of the Boards of Appeal of the European Patent Office, 8th edition 2016, section I.D.9.1.6 b)). In addition, it is not apparent that the implementation of the features for processing user preferences employs technical means in a manner that would bring about a technical effect. The effects mentioned on page 10, lines 22 to 25, and page 12, lines 5 to 10, of the application (calculation on a real-time basis and reduced memory resources) do not originate from a specific use of hardware resources, and the application does not disclose any such specific use. Instead, as far as the effects are actually achieved, they are caused by the design of the method for providing multimedia content itself (not by the technical difference of the claimed subject-matter over the disclosure of D1) and are therefore unsuitable for determining whether the method involves an inventive step (see also decision T 1954/08, Reasons 6.2, and T 1227/05, Reasons 3.2.5).

5.9 Hence, the board holds that the selection of the individual user preference information based on a condition of whether the user is at home or at a work place cannot confer inventive step on the claimed subject-matter.

5.10 As a result, the subject-matter of claim 1 was obvious to a person skilled in the art in view of D1 and thus lacks inventive step (Article 56 EPC 1973).

*Conclusion*

6. It follows from the above that none of the appellant's requests is allowable, and so the appeal is to be dismissed.

**Order**

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

The appeal is dismissed.

The Registrar:

The Chairman:



K. Boelicke

C. Kunzelmann

Decision electronically authenticated