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**Datasheet for the decision  
of 12 September 2022**

**Case Number:** T 2363/19 - 3.5.07

**Application Number:** 14790945.1

**Publication Number:** 3074885

**IPC:** G06F17/30

**Language of the proceedings:** EN

**Title of invention:**

Selecting a content item based on a view profile

**Applicant:**

Google LLC

**Headword:**

Content-item selection

**Relevant legal provisions:**

EPC Art. 56, 84

**Keyword:**

Claims - clarity - main request and first and second auxiliary requests (no)

Inventive step - third auxiliary request (no)

**Decisions cited:**

T 0862/10, T 0935/14



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Case Number: T 2363/19 - 3.5.07

**D E C I S I O N**  
**of Technical Board of Appeal 3.5.07**  
**of 12 September 2022**

**Appellant:** Google LLC  
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**Representative:** Kilburn & Strode LLP  
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**Decision under appeal:** **Decision of the Examining Division of the  
European Patent Office posted on 3 April 2019  
refusing European patent application  
No. 14790945.1 pursuant to Article 97(2) EPC**

**Composition of the Board:**

**Chair** J. Geschwind  
**Members:** R. de Man  
C. Barel-Faucheux

## **Summary of Facts and Submissions**

- I. The appellant (applicant) filed an appeal against the decision of the examining division refusing European patent application No. 14790945.1, which was published as international application WO 2015/080808.
  
- II. The examining division decided that the subject-matter of the independent claims of the main request and of the first and second auxiliary requests lacked inventive step over the following document:  
  
D1: US 2009/0097822 A1, 16 April 2009.
  
- III. In its statement of grounds of appeal, the appellant maintained the requests refused by the examining division.
  
- IV. In a communication accompanying the summons to oral proceedings, the board expressed the preliminary opinion that the main request and the first and second auxiliary requests did not comply with Article 84 EPC, that the first and second auxiliary requests did not comply with Article 123(2) EPC, and that the subject-matter of claim 1 of the main request and the first and second auxiliary requests lacked inventive step over well-known ad servers, such as those acknowledged in paragraph [0001] of the published application.
  
- V. With its written submissions in response to the summons to oral proceedings, the appellant filed a third auxiliary request.

VI. After a postponement at the board's initiative, oral proceedings were held on 12 September 2022. At the end of the oral proceedings, the Chair announced the board's decision.

VII. The appellant requested that the decision under appeal be set aside and that a patent be granted on the basis of the claims of the main request or, in the alternative, of one of the first to third auxiliary requests.

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

"A method to serve a content item based on a view profile comprising:

receiving, at one or more processors (118), a request for a content item from a client device (102, 402);

determining, by the one or more processors, an aggregate view profile for a first media, the aggregate view profile based, at least in part, on aggregated values indicative of a ratio of audio and video on previously received view profiles (404);

receiving, by the one or more processors, a content item profile for a content item (406);

comparing, by the one or more processors, the aggregate view profile and the content item profile; and

serving, by the one or more processors, the content item responsive to the request from the client device based, at least in part, on the comparison of the aggregate view profile and the content item profile (410)."

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

"A method to serve a content item based on a view profile comprising:

receiving, by the one or more processors, from each client device of a plurality of client devices, a view profile indicative of a ratio of audio and video from that client device viewing the first media item, the view profile determined using sensor data of the client device obtained during presentation of the first media item on the client device;

generating, by the one or more processors, an aggregate view profile for the first media item based on the received plurality of view profiles from the plurality of client devices, the aggregate view profile indicative of a ratio of audio and video of the aggregate prior users;

receiving, at the one or more processors (118), a request for a content item from a client device (102, 402) to present with the first media item;

receiving, by the one or more processors, a content item profile for a content item (406);

comparing, by the one or more processors, the aggregate view profile of the first media item and the content item profile; and

serving, by the one or more processors, the content item responsive to the request from the client device based, at least in part, on the comparison of the aggregate view profile of the first media item and the content item profile (410)."

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

"A method comprising:

an aggregate view profile maintenance process, comprising:

receiving, by the one or more processors, from each client device of a plurality of client devices, a view profile indicative of a ratio of audio and video from that client device viewing the first media item, the view profile determined using sensor data of the client device obtained during presentation of the first media item on the client device;

generating, by the one or more processors, an aggregate view profile for the first media item based on the received plurality of view profiles from the plurality of client devices, the aggregate view profile indicative of a ratio of audio and video of the aggregate prior users;

storing, by the one or more processors, a data structure in association with a media identifier of the first media content item, the data structure storing data indicating the aggregate view profile for the first media content item;

receiving an additional view profile determined using sensor data of a further client device; and

updating the data indicating the aggregate view profile based on the additional view profile; and a content item serving process, comprising:

receiving, at the one or more processors (118), a request for a content item from a client device (102, 402) to present with the first media item;

determining, by the one or more processors, from the first data structure the aggregate view profile for a the [sic] first media item;

receiving, by the one or more processors, a content item profile for a content item (406);

comparing, by the one or more processors, the aggregate view profile of the first media item and the content item profile;

serving, by the one or more processors, the content item responsive to the request from the client

device based, at least in part, on the comparison of the aggregate view profile of the first media item and the content item profile (410)."

XI. Claim 1 of the third auxiliary request reads as follows:

"A method comprising:

receiving from a client device (102, 402), at one or more processors (118), a content item request;

determining, by the one or more processors, an aggregate view profile for a first media, the aggregate view profile based, at least in part, on aggregated values indicative of a ratio of audio and video based on previously received view profiles (404);

receiving, by the one or more processors, a plurality of content item profiles for a plurality of candidate content items (406);

comparing, by the one or more processors, the aggregate view profile and the content item profiles;

selecting, by the one or more processors, a candidate content item of the plurality of candidate content items based, at least in part, on the comparison of the aggregate view profile and the content item profile (410); and

serving, responsive to the request from the client device (102, 402), the selected candidate content item for presentation before, after, or during playback of the first media."

XII. The appellant's arguments, where relevant to this decision, are discussed in detail below.

## **Reasons for the Decision**

### 1. *The application*

- 1.1 The application relates to selecting and serving a content item to be presented, for example as an advertisement, alongside a media item.
- 1.2 Paragraph [0015] of the published application explains that, if a user is playing an "audio-centric" media item such as a song, he or she may only be listening and not watching any video or images. In this case, serving a "visual-centric" content item (as an advertisement) is less effective. Likewise, paragraph [0016] explains that serving an "audio-centric" content item is less effective if the user is playing a "video-centric" content item and may have muted any audio.
- 1.3 The application proposes selecting a suitable content item to be served and presented alongside a given media item on the basis of a profile for the media item which reflects how users typically interact with the media item (paragraphs [0017] and [0018]).

### *Main request*

### 2. *Clarity*

- 2.1 Claim 1 includes a step of receiving "a request for a content item" and a step of receiving "a content item profile for a content item". From the wording of claim 1, it is not clear how these two occurrences of "a content item" relate to each other (Article 84 EPC).



In addition, it is not clear from the wording of claim 1 in what sense "serving ... the content item responsive to the request from the client device" is "based, at least in part, on the comparison of the aggregate view profile and the content item profile" (Article 84 EPC). Taken literally, this feature states that the manner in which the content item is served depends on the outcome of the comparison, but without explaining in what way.

- 2.2 At the oral proceedings, the appellant argued that the skilled person would understand that "a request for a content item" was to be understood as a request for a content item to be selected from a plurality of available content items, and that "serving ... the content item based, at least in part, on the comparison of the aggregate view profile and the content item profile" was to be understood as meaning that a comparison of the aggregate view profiles with the content item profiles of the available content items determined which content item was to be served.

The board acknowledges that the interpretation proposed by the appellant is supported by the description of the application (see in particular paragraphs [0082], [0085] and [0086]). However, Article 84 EPC requires the claims to be clear from their wording alone. Claim 1 of the main request does not mention a plurality of available content items with corresponding content profiles, and it does not specify a step of selecting the content item to be served from the plurality of available content items. Rather, its wording suggests that there may be just one content item available for being served.

2.3 In claim 1, it is also unclear how the "first media" relates to the requested "content item" (Article 84 EPC).

According to claim 1, serving the content item responsive to the request for a content item is "based, at least in part, on the comparison of the aggregate view profile and the content profile", where the aggregate view profile is "an aggregate view profile for a first media". Since a claim must be assumed to make technical sense, the skilled person reading claim 1 will understand that "first media" is somehow related to the "content item" being served. However, no such relation is indicated in claim 1.

2.4 At the oral proceedings, the appellant, referring to paragraph [0015] of the application, explained that the served content item was to be presented before, after, or during playback of the first media, and that claim 1 covered all these possibilities. The claim was broad, not unclear.

However, this is not a case of mere broadness of the claim. The skilled person reading the claim would not assume that no relation exists between the first media and the content item but would be unsure what that unspecified relation, imposing an unknown limitation on the subject-matter of the claim, would be. This is a matter of clarity of the claim (see decision T 935/14, Reasons 9 and 10).

The board again acknowledges that the interpretation proposed by the appellant is supported by the description (see in particular paragraph [0051] of the application). But as noted above, the wording of the claim does not specify this connection between the

first media and the content item, and Article 84 EPC requires the claims to be clear from their wording alone.

- 2.5 Hence, the main request does not comply with the requirements of Article 84 EPC.

*First auxiliary request*

3. *Clarity*

- 3.1 The clarity objection raised in points 2.1 and 2.2 above also applies to claim 1 of the first auxiliary request (Article 84 EPC).

- 3.2 In the feature of claim 1 "receiving, by the one or more processors, from each client device of a plurality of client devices, a view profile indicative of a ratio of audio and video from that client device viewing the first media item", the terms "the one or more processors" and "the first media item" lack an antecedent in the claim, which renders doubt on the intended scope of the claim (Article 84 EPC).

- 3.3 In claim 1, the feature "the view profile determined using sensor data of the client device obtained during presentation of the first media item on the client device" refers to a historical step of generating the view profile which precedes the first "receiving" step of the claimed method and thus not to a step of the claimed method. Therefore, it is not clear in which way this feature limits the claimed subject-matter.

- 3.4 Hence, the first auxiliary request does not meet the requirements of Article 84 EPC, either.

*Second auxiliary request*

4. *Clarity*

Since the objections raised in point 3. above also apply to claim 1 of the second auxiliary request, the second auxiliary request does not comply with Article 84 EPC.

*Third auxiliary request*

5. *Admission into the appeal proceedings*

The third auxiliary request is based on the main request with amendments overcoming a number of clarity objections raised for the first time in the board's communication. This is an exceptional circumstance which justifies the admission into the appeal proceedings of the third auxiliary request under Article 13(2) RPBA 2020.

6. *Inventive step*

6.1 According to the method of claim 1, an (implicit) server comprising one or more processors receives a content item request from a client. In response to the request, the server selects a content item from a plurality of candidate content items and serves the selected content item for presentation before, after or during playback of a first media.

6.2 The process of selecting the content item is as follows.

First, an "aggregate view profile" is determined for the first media. This profile is "based, at least in

part on aggregated values indicative of a ratio of audio and video based on previously received view profiles".

Then, a plurality of "content item profiles" for the plurality of candidate content items is received.

The server compares the aggregate view profile and the content item profiles.

At least in part on the basis of this comparison, the content item to be served is selected from the plurality of candidate content items.

6.3 For the sake of assessing inventive step, the board accepts that the aggregate view profile for the first media and the content item profiles for the content items include information indicating whether the first media or content item is primarily "visual-centric" or "audio-centric" (see point 1. above and paragraph [0080] of the application). The "selecting" step seeks to select an audio-centric content item if the first media is audio-centric and a visual-centric content item if the first media is visual-centric.

6.4 The board considers that well-known ad servers such as those acknowledged in paragraph [0001] of the published application represent a suitable starting point for assessing inventive step. Such an ad server responds to a content-item request by selecting a content item from a plurality of content items and serving the selected content item for presentation alongside a first media, where the content items are advertisements.

The subject-matter of claim 1 differs from this prior art in that the selection of the content item to be

served is based on content item profiles and an aggregate view profile for the first media as explained in points 6.2 and 6.3 above.

- 6.5 In view of paragraphs [0015] and [0016] of the application (see point 1.2 above), the distinguishing features are intended to improve the effectiveness, i.e. the impact on the user, of the presentation of content items/advertisements.

As the board stated in its communication, selecting a content item for presentation to the user is in itself not technical. Selecting a content item which is expected to be more "effective" is not technical, either.

- 6.6 In its written submissions and at the oral proceedings, the appellant argued that the claim did not require the content items to be advertisements and that it was not justified to read the claim so narrowly.

It further argued that the distinguishing features achieved the effect of successfully communicating, orally or visually, information to the user. The successful communication of information to the user achieved by the invention did not depend on any subjective considerations of the user or any psychological factors but on human physiology. The case was comparable to the example given in the Guidelines for Examination, G-II, 3.7, and to the case underlying decision T 862/10, which held that employing technical parameters based on human physiology to make it easier for the user to quickly locate the position of a display object on a display screen was technical (see Reasons 3.3.1 and 4.2).

6.7 The board notes that, since it assesses inventive step starting from a well-known ad server, the content items being served are in fact advertisements. In any event, a "too narrow" interpretation of the claim cannot be to the detriment of the appellant in the context of assessing inventive step.

6.8 As for the technical effect put forward by the appellant, the board does not agree that the distinguishing features improve the communication of information. The claim does not require the selected content item to represent any specific information. Rather, depending on whether the first media is visual-centric or audio-centric, a visual-centric content item or an audio-centric content item is selected. The information content of these content items may be entirely unrelated. Hence, there is no transmission of information that was specifically intended to be communicated but rather a presentation of arbitrary information.

At most, the distinguishing features achieve an increase in the likelihood that the user to which the first media item is presented actually perceives (visually or aurally) the selected content item. However, in the board's view this is not a technical effect. No technical problem is solved by presenting arbitrary information to the user.

At the oral proceedings, the appellant argued that the subject-matter considered to be inventive in case T 862/10 related to the placement on a display screen of a "display object" which did not necessarily communicate technical notifications. However, the "information display object that presents summarized

notifications" in that case did communicate specific information.

- 6.9 In its statement of grounds of appeal, the appellant argued that serving an audio-centric content item without a visual component when the user was not watching saved bandwidth and processor power.

However, claim 1 does not require a visual-centric content item, which could for example consist of a static image or plain text, to be larger in size than an audio-centric content item. Moreover, the application as filed does not make any reference to saving bandwidth or processing power.

Furthermore, under the assumption that audio-centric content items do require less bandwidth or processing power than visual-centric content items, even more bandwidth or processing power could be saved in an obvious manner and without diminishing any (other) technical effect by always selecting and serving an audio-centric content item. Compared to this obvious solution, the claimed selective choice of audio-centric content items wastes rather than saves bandwidth or processing power by sometimes selecting and serving video-centric content items. Therefore, even under this assumption, the distinguishing features do not contribute to saving bandwidth or processing power.

- 6.10 Hence, the board does not agree that the distinguishing features achieve a technical effect.

- 6.11 Since the distinguishing features of claim 1 relate to mere data processing not achieving any specific technical effect, the subject-matter of claim 1 of the



third auxiliary request lacks an inventive step  
(Article 56 EPC).

**Order**

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

The appeal is dismissed.

The Registrar:

The Chair:



S. Lichtenvort

J. Geschwind

Decision electronically authenticated