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**Datasheet for the decision  
of 27 October 2023**

**Case Number:** T 1369/20 - 3.5.01

**Application Number:** 14762314.4

**Publication Number:** 2973293

**IPC:** G06Q30/00, G06Q50/00, G06Q30/02

**Language of the proceedings:** EN

**Title of invention:**

A SYSTEM FOR CONTROLLING AND OPTIMIZING INFORMATION  
DISTRIBUTION BETWEEN USERS IN AN INFORMATION EXCHANGE

**Applicant:**

Mcfadden, Brian

**Headword:**

Controlling information flow/MCFADDEN

**Relevant legal provisions:**

EPC Art. 52(2), 52(3), 56

**Keyword:**

Inventive step - controlling information flow based on user's  
consumption (no - no technical effect)

**Decisions cited:**

T 0641/00



**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 1369/20 - 3.5.01

**D E C I S I O N**  
**of Technical Board of Appeal 3.5.01**  
**of 27 October 2023**

**Appellant:** Mcfadden, Brian  
(Applicant) PO Box 0050  
New York, NY 10101 (US)

**Representative:** Grünecker Patent- und Rechtsanwälte  
PartG mbB  
Leopoldstraße 4  
80802 München (DE)

**Decision under appeal:** **Decision of the Examining Division of the  
European Patent Office posted on 9 January 2020  
refusing European patent application No.  
14762314.4 pursuant to Article 97(2) EPC.**

**Composition of the Board:**

**Chairman** W. Chandler  
**Members:** A. Wahrenberg  
D. Rogers

## **Summary of Facts and Submissions**

- I. This case concerns the applicant's appeal against the examining division's decision to refuse the European patent application No. 14762314.4 for added subject-matter (Article 123(2) EPC) and lack of inventive step (Article 56 EPC).
- II. The examining division considered that not all features of the independent claims were directly and ambiguously disclosed in the application as filed as being implemented by a computer. Therefore, there was added matter.

The examining division furthermore argued that, starting from a notoriously known computer system, the distinguishing features of the claimed invention related to matter excluded from patentability under Article 52(2) and (3) EPC, and therefore, an inventive step was lacking.

- III. In the grounds of appeal dated 2 June 2020, the appellant requested that the decision to refuse the application be set aside and that a patent be granted on the basis of an amended set of requests - a main request and first to third auxiliary requests - in which the feature "implemented by a computer" had been deleted from the independent claims.
- IV. In the communication accompanying the summons to oral proceedings, the Boards had doubts whether the amendments were suitable for addressing the objection of lack of inventive step in the decision under appeal and as such admissible under Article 12(4) RPBA 2020. The Board furthermore considered that, without the

"implemented by a computer", the method in claim 1 (of all requests on file) defined matter excluded under Article 52(2) and (3) EPC, and, in any case, even if the method was taken to be implemented by a computer, it did not involve an inventive step (Article 56 EPC).

- V. In a letter dated 23 October 2023, the appellant submitted further arguments in favour of the patentability of the invention.
- VI. Oral proceedings took place by videoconference on 27 October 2023. The appellant confirmed its requests made in the grounds of appeal.
- VII. Claim 1 of the main request reads:

"A method for determining inclusion of an information item into an information stream in an information exchange, wherein the information stream is a collection of information items delivered sequentially or together to a consumer via a means for delivering information, wherein a participation metric is used as a measure of information item consumption or interaction with the information item by the consumer, wherein an item value for the information item is estimated for the consumer using a priority for the consumer, and wherein a participation prediction mapping relates an expected item value to a predicted participation level, and the predicted participation level represents a number of information items per specified period;

the method comprising:

obtaining a distribution of information items, wherein the distribution of information items is over a two dimensional range of priority levels;

for a region of the distribution of information

items:

(a) computing a number of information items over the region of the distribution,

(b) computing a specified expected item value over the region of the distribution,

(c) evaluate the predicted participation level from the participation prediction mapping for the specified expected item value to determine where the predicted participation level for the specified item value is approximately equal to the number of information items in the region or where the predicted participation level from the participation prediction map is less than the number of items; and

selecting an include region of the distribution as the region where the predicted participation level for the specified item value is approximately equal to the number of information items in the region; and

wherein the include region is used to determine inclusion of the information item into the information stream to the consumer in the information exchange."

VIII. The first auxiliary request adds "wherein the participation metric is the number of information items participated in for a specified time period" at the end of the second feature in claim 1, and the feature after "the method comprising:" is replaced by: "computing, for the consumer, a distribution of information items, wherein the distribution of information items is over a two dimensional range of priority levels and records the number of information items for a time period for each point in the distribution".

IX. The second auxiliary request adds to the main request the following at the end of the first feature: "and wherein the information exchange is a portal or service that facilitates a flow of the information items to the

consumer".

- X. In the third auxiliary request, the first part of the claim before "wherein a participation metric" reads:

"A method for determining inclusion of an information item into an information stream in an information exchange, wherein the information item comprises contents and a meta description, wherein the meta description includes fields, objects and hierarchical data used to classify, categorize, track, identify or otherwise describe the contents and the information item, wherein the information stream is a collection of information items delivered sequentially or together to a consumer via a means for delivering information, and wherein the information exchange is a portal or service that facilitates a flow of the information items to the consumer".

### **Reasons for the Decision**

1. *Auxiliary request 3*

- 1.1 The reasons are given for the third auxiliary request, which, among the requests on file, provides the most specific definition of the invention. This request was discussed with the appellant in the oral proceedings. The same reasons apply also to the more general higher ranking requests.

2. *The invention*

- 2.1 The invention in claim 1 of this request concerns a method for determining whether to include an information item into an information stream in an information exchange. This could be, for example, a

football score in a news feed, but, of course, the claim covers many other possibilities. The news item comprises contents, for example "Manchester City 2 - Nottingham Forest 0", and a meta description comprising hierarchical data used to describe the content (for example, "Football" - "English Football" - "English Premier League"). The information exchange is a portal or service that facilitates the flow of information items to a consumer.

- 2.2 Claim 1 refers to a "participation metric" which is a measure of information item consumption or interaction with the information item by the consumer. In the oral proceedings, the appellant explained that this was based on historical data about previous items delivered to the consumer. What news articles were consumed? Did the consumer click on the link? Was there some other action indicating that they had read the story?

Further down in claim 1, there is a "participation prediction mapping" process which relates an "expected item value" to a "predicted participation level". According to the appellant, this means that there is a statistical relation connecting the metadata with participation, for example a ratio - the number of times the consumer had the chance to interact with a category (English football scores) to the times they actually interacted with it. In other words, the "item value" in claim 1 is a statistical relation between the metadata and the participation metric, and it is used to predict the participation level of an information item that has not been seen yet. It could be seen as a score. If the consumer likes English football, the metadata "English football" will have a high item value. This means that the predicted participation of an unseen English football score (having metadata

"English football" with a high item value) will be high.

2.3 The method further comprises obtaining a distribution of information items over a two dimensional range of priorities. This can be explained with reference to Figure 8. The distribution is a frequency distribution of the number of items per time unit for each point on that graph. Each item has an item value (priority) between -1 and 1 for the user and, though not in the claim, also an item value for the producer. Those values will be used to place the items in the grid in Figure 8. For example, "English football" has a high item value for the consumer and also a high value for the producer and will be placed in the upper right corner of the graph.

The next step in the method is to, for a region of the distribution of information items:

(a) compute a number of information items over the region of the distribution,

(b) compute a specified expected item value over the region of the distribution,

(c) evaluate the predicted participation level from the participation prediction mapping for the specified expected item value to determine where the predicted participation level for the specified item value is approximately equal to the number of information items in the region or where the predicted participation level from the participation prediction map is less than the number of items; and  
select an include region of the distribution as the region where the predicted participation level for the specified item value is approximately equal to the number of information items in the region.



In other words, the algorithm is looking for a region where the predicted participation for the items of the region is approximately equal to the number of items in the region. The aim is to choose a number of items that matches the user's participation. If it is predicted that the user is going to consume 11 items, the algorithm chooses a region with 11 items.

These items are included in the information stream that is delivered to the consumer.

3. *Technical character*

- 3.1 The Board accepts that claim 1 implies some sort of computer system, and, therefore, the claimed subject-matter has technical character overall, and is not excluded under Article 52(2) and (3) EPC.

4. *Inventive step*

- 4.1 Under the so-called "Comvik approach" (see T 641/00 - *Two identities/COMVIK*), which is the established practice for assessing inventions involving both technical and non-technical features, only features which contribute to the solution of a technical problem by providing a technical effect are taken into account in the assessment of inventive step. Non-technical features which make no such contribution are, instead, regarded as being part of the problem to be solved in the framework of the problem-and-solution approach.

The question is, consequently, to what extent the claimed method provides a technical effect.

- 4.2 The examining division considered that the claimed method related to data analysis with the goal of

optimising information distribution. This was considered to be a mental act or a non-technical method of organising information. No technical effect could be identified. The motivation behind the invention did not constitute a technical problem as it did not involve any technical skills. Thus, starting from a notoriously known conventional networked computer as the "closest prior art", the technical problem to be solved was how to implement the non-technical features on the known computer system. The implementation at the level of detail of claim 1, would, however, have been obvious for the skilled person.

- 4.3 The appellant argued that the invention increased the efficiency of the information exchange system, because items that were not consumed were not sent, and, at the same time, the consumer was not given too few information items. This was a technical effect. Moreover, the control of the information flow took place automatically, without active involvement of the user. This was also technical. Furthermore, the regulation of information flow was triggered by bandwidth limitations and nothing else. Thus, the invention was based on technical considerations.
- 4.4 The Board is not convinced by the appellant's arguments but rather agrees with the examining division.

In the Board's view, the decision whether or not to include the information item into the information stream in claim 1 is not based on any technical parameters of the data network or computer system. It is rather based on the content of the message in view of the customer's interests and priorities. The method gives the consumer as many information items as he is likely to consume. That is not a technical

optimisation. It is an information optimisation.

It is clear that any message that is sent via an electronic communication network has an effect on network traffic. However, that does not mean that the decision whether or not to send a particular message is necessarily a technical one. There has to be a further technical effect going beyond the normal and inevitable effects of sending (or not sending) a message.

The same is true for the automation aspect. This is an effect of using a computer, which was known and obvious at the priority date.

- 4.5 For these reasons, the Board concludes that the invention in claim 1 of the third auxiliary request, and consequently the more general higher ranking requests, lacks an inventive step (Article 56 EPC).

## **Order**

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

The appeal is dismissed.

The Registrar:

The Chairman:



T. Buschek

W. Chandler

Decision electronically authenticated