This document includes some recent decisions of the EPO in 2021 with regards to software related inventions and shows relevant extracts from the respective decisions.

T 1112/19 (Replay of data/GOLDMAN SACHS) of 30.9.2021

European Case Law Identifier: ECLI:EP:BA:2021:T111219.20210930

Systems and methods for scalable structured data distribution

Inventive step - main and first to fourth auxiliary requests (no): any prior art rendering the claimed solution obvious is a suitable starting point and no "problem invention"

Application number: 13775157.4
IPC class: H04L 29/06, G06F 17/30, H04L 29/08
Applicant name: Goldman Sachs & Co. LLC

Board: 3.5.03

Cited decisions: T 0002/83, T 0606/89, T 0910/90, T 0967/97, T 0698/10, T 2101/12, T 0694/15, T 0816/16, T 1294/16, T 0261/19

https://www.epo.org/law-practice/case-law-appeals/pdf/t191112eu1.pdf

Claim 1 of the main request reads as follows:

"A system comprising:

a bundler (510) configured to:

receive streaming raw data from a data producer (110);

bundle the raw data into a series of data packages; and

associate with each of the data packages a unique identifier having a monotonically increasing order based on upload from the data producer (110);

a transformer (530) configured to receive the data packages having the associated unique identifiers and generate loadable data structures for a reporting store associated with a data subscriber;

a loader (550) configured to receive and store the loadable data structures into a storage device associated with the data subscriber based on the monotonically increasing order;

a data channel configured to allow data from the data producer (110) to be continuously streamed to the data subscriber through the bundler;

a messaging channel configured to provide a current status of the data being continuously streamed from the data producer (110) to the data subscriber; and

a control channel separate from the data channel and configured to allow the data subscriber to request replay of the data."

2.1 Claim 1 - inventive step (Article 56 EPC)

Suitable starting point

2.1.1 The inventive-step reasoning in the decision under appeal uses D1 as the starting point. D1 concerns a system where a "summarised stream" is created using data originating from individual data streams from different servers. The streams in D1 are dynamic collections of data that are subject to change such as blog postings, updated news events, comment sections of web sites, social network status updates, chat room data, user group updates, RSS feed data, and the like. Streams also can include text, video, photographs, audio, and other data. In one embodiment, a computer obtains the summarised stream from a "summarisation server" over a data network and presents it to the user.

2.1.2 The appellant submitted that D1 was not an appropriate starting point for the assessment of inventive step. The application discussed that, by keeping data in its raw form, it could be replayed by the user ("data subscriber") from any point, potentially into new database solutions. D1, rather than being concerned with the transmission of streams of data, was concerned with summarising those streams, which was not, in the words of T 606/89 (cited also in the Guidelines for Examination), a similar use.

2.1.3 This argument is not persuasive, for the following reasons:

First, the board adheres to the view that, if inventive step is to be denied, the choice of the starting point for the assessment of inventive step requires no specific justification since the claimed subject-matter must be inventive over any state of the art according to Article 56 EPC (see e.g. T 967/97, Catchword II, also cited in the Guidelines for Examination; T 694/15, Reasons 13; T 816/16, Reasons 3.7.1; T 261/19, Reasons 2.5). Hence, a document which serves a different purpose as the present invention may also be selected as a suitable starting point (see e.g. T 1294/16, Reasons 5; see also T 2101/12, Reasons 6.3, using even a non-technical disclosure as a suitable starting point). While it has **to be ensured that the objective technical problem is a realistic one and does not contain pointers towards the claimed solution, the application of the problem-solution approach to such a starting point may still convincingly lead to the conclusion that the claimed subject-matter is obvious**. In any case, the more technically remote a prior-art document is from the claimed invention, the easier it usually becomes for an applicant or patent proprietor to demonstrate that the notional person skilled in the art under Article 56 EPC would have never come up with the claimed solution. Therefore, the selection of a piece of prior art directed to an

arguably different purpose does not prejudice the legitimate interests of an applicant or a patent proprietor.

Second, the board does consider D1 to be directed to a similar purpose as the claimed invention. The claim generally refers to "streaming raw data", which is not limited to the databases mentioned in the description and encompasses the streams of D1. Furthermore, the claimed "bundling" operation does not exclude further processing of the raw data, such as the "summarisation" of D1. In this respect, attention is drawn to the fact that the replay operation in the present application likewise requires a transformation of the data packages into a requested "loadable format", according to paragraph [075] of the application as published.

Hence, the board sees no reason to disqualify prior-art document D1 as a suitable starting point for an inventive-step reasoning.

…
2.1.5 Thus, in agreement with point 1.1.2 of the decision under appeal, the subject-matter of claim 1 differs from the disclosure of D1 in that:

U1 the bundler is configured to associate with each of the data packages a unique identifier having a monotonically increasing order comprising an increasing series of integers without gaps, based on upload from the data producer;

U2 the system further comprises a control channel separate from the data channel and configured to allow the data subscriber to request replay of the data.

Technical effect and objective technical problem

2.1.7 The technical effects associated with differences U1 and U2 are that they allow the data subscriber to replay the data packages in the correct order, to detect missing data packages, and, if need be, to obtain retransmissions of the missing data packages (see also paragraph [0039] of the application as published).

The board follows, in the appellant's favour, the objective technical problem framed by the appellant at the oral proceedings before the board as "ensuring a complete replay of data by the data subscriber". The **skilled person to be tasked with that problem is consequently a person versed in the field of data communications**.

Determination of obviousness (could-would approach)

2.1.8 The subject-matter of claim 1 does not involve an inventive step (Article 56 EPC) starting out from D1 for the following reasons:

The use of "unique identifiers" in the form of a "monotonically increasing series of integers without gaps" constitutes a straightforward measure for the person skilled in the field of packet-based data communications, e.g. the sequence number field appearing in packets according to the

Real-Time-Protocol (RTP). The use of a separate "control channel" for requesting retransmission of data packages identified by such integers is also well-known in packet-based data communication, e.g. the RTP Control Protocol (RTCP) implements a separate feedback channel for a stream transmitted with the RTP protocol and may be used for retransmission requests of RTP packets.

In D1, according to paragraph [0030], the computer 114 (i.e. the "data subscriber") is configured to access the summarisation server 102C (i.e. the "bundler"), obtain the summarised stream 112 via the network 106, and present the summarised stream 112 to a user. When network 106 is a packet-based data network, such as the Internet, it would have been plausible to consider the out-of-order arrival and loss of packets containing parts of the summarised stream 112. In such case, **the skilled person using no more than customary skills would have applied the well-known techniques mentioned above, arriving thereby at the introduction of features U1 an U2 into the system of D1 in a straightforward manner.**

2.1.9 The appellant submitted that even considering that the skilled person were to start with D1, there was no reason to require "replay" in the system of D1, which was directed to providing a summary of a stream. The summarised stream of D1 was not distributed over databases; there was no need for a particularly reliable playback of that stream. In D1, there was no discussion or appreciation of the objective problem and no teaching to go towards the invention starting therefrom, which should be rather considered a "**problem invention**".

2.1.10 This is not convincing.

First, the board recalls that the closest prior art does not have to disclose the "objective technical problem", which is only determined in the second step of the problem-solution approach on the basis of the technical effect(s) provided by those features which distinguish the claimed invention from that prior art (see e.g. T 698/10, Reasons 3.4; T 910/90; Reasons 5.1, last sentence).

Second, the fact that the stream presented by computer 114 of D1 is a summarised stream does not mean that data integrity of the summarised stream can be dispensed with. Nor does "bundling" as claimed necessarily exclude a reduction of the amount of information being combined, as indicated in point 2.1.3 above. As to the meaning of "replay", the claims are not limited to (re-)population of databases. Actually, the word "database" is never mentioned in the claims. Furthermore, the computer 114 obtains the summarised stream 112 from the summarisation server 102C, which necessarily implies a (re-)play of the data hosted at that summarisation server 102C. According to paragraphs [0004] and [0020], the data can include text, video, photographs, audio, and other data, which does not rule out (re-)population of databases.

Third, regardless of the question whether a "problem invention" is compatible with the assessment of inventive step according to the problem-solution approach or to which extent it may generally justify the presence of an inventive step, the objective problem formulated above is typically apparent in packet-based data networks, where the underlying data packets may be sent over different data paths. This is known to inherently involve the risk of data packets being lost or arriving out of order. With these considerations in mind, the skilled

person would have deemed the objective technical problem likely to arise in the data network 106 of D1 as well, without any need to have it explicitly mentioned in the same document. In conclusion, **the recognition of that problem would have been obvious to the skilled person** in the field of telecommunications and therefore **cannot be a "problem invention" within the meaning of T 2/83**.

T 1453/17 (Real time broker quality indication/NYSE) of 15.6.2021

European Case Law Identifier: ECLI:EP:BA:2021:T145317.20210615

PROCESS FOR PROVIDING TIMELY QUALITY INDICATION OF MARKET TRADES

Inventive step - providing broker quality indications in real time (no Inventive step - obvious implementation of non-technical requirement)

Application number: 05734156.2
IPC class: G06Q 40/00
Applicant name: NYSE Group, Inc.

Board: 3.5.01

Cited decisions: G 0001/19, T 0641/00

https://www.epo.org/law-practice/case-law-appeals/pdf/t171453eu1.pdf

Claim 1 of the main request reads:

An electronic communication network for securities trading and for providing real time, or near real time, execution quality indications, comprising:

an electronic data connection between a trader and an executing broker for transmission of order information electronically from the trader to the executing broker and for transmission of execution information electronically from the executing broker to the trader;

a message interceptor for without interfering with the data transmissions (a) intercepting in real time or almost real time an electronic order communication from the trader to the broker and accessing order data therefrom and (b) for intercepting in real time or in almost real time an electronic execution communication from the broker to the trader and accessing execution data;

a generic market data source; and

an execution quality calculation module (EQCM) in communication with the generic market data source, the message interceptor and the trader for electronically receiving on a real-time basis market data from the generic market data source, electronically receiving copy order data and copy execution data from the message interceptor, calculating one or more execution qualities corresponding to one or more of said electronic market order executions using said real-time or near real-time market data, and electronically transmitting to the trader information related to the one or more execution qualities for real-time or near real-time quality assessment of the market trade transactions.

XVI. The appellant's arguments can be summarised as follows:

Document D1 was related to a different purpose than the claimed invention. Therefore, the skilled person would not have considered it.

The claimed invention was not a business method for providing a trader with information but an improved networked infrastructure with which such information could be provided without latency. …. As the quality determination was made on copies in parallel with the original data transmission, the quality determination did not delay the communications between the trader and broker, and the information could be provided to the trader in real time or near real time. In other words, the invention solved the technical problem of latency in the technical field of electronic communication networks.

At the priority date, it had not been known to provide quality indications in real time or near real time. At that time, broker quality information was rather available from reporting agencies in the form of broker report cards and "league tables. Thus, it followed from the case law on problem inventions that real time quality indications could not be included in the objective technical problem to be solved without hindsight.

At the priority date, there had been a strong disinclination to introduce anything in a trading system that could have potentially interfered with trader-broker communication or introduced undesired latency. This was supported by the "Cisco paper" filed with the response of 25 November 2016 in the examination proceedings. Thus, the skilled person would not have introduced a message interceptor and an EQCM in the prior art trading system.

The present claims were not directed to a business method but to a technical apparatus, and the business professional would not have been able to provide such an apparatus. Since the Comvik decision (T 641/00 - Two identities/Comvik) concerned a method, the Comvik approach was not applicable to apparatus claims.

The reasoning in G 1/19 was generally favourable to the allowance of computer implemented inventions. The Enlarged Board of appeal found that no group of computer implemented invention could be a priori excluded from patent protection and that the Comvik approach required an assessment of the technical contribution of the individual features of the computer implemented invention. No output having a direct link with physical reality was required.

The claims at issue in the present appeal had significantly more connection with physical reality than the claims in G 1/19 because they related to an apparatus and specified a separate

execution quality calculation module. Thus, the generally favourable approach in G 1/19 was even more applicable to the claims of the present application.

…

The second auxiliary request included the claims of the corresponding patent granted in the US (US 10,796,364). Justification for the late filing of the second auxiliary request was that the patent had only recently been allowed by the USPTO's Appeal Board.

The TRIPS agreement set common standards and principles concerning the availability, scope and use of trade-related intellectual property rights. Although TRIPS was not directly applicable in the context of the EPC, the Boards of Appeal had considered it in a number of decisions. If the Board rejected the second auxiliary request which had been found to be patentable in the US, this would give rise to issues of undue breadth of the non-technical feature doctrine under the EPC justifying a referral to the Enlarged Board of Appeal.

Reasons for the Decision

1. Background

1.1 The invention concerns an electronic trading system which provides the trader with real time execution quality indications.

1.2 Traders typically place orders with brokers who execute the orders through buying or selling financial instruments (stocks, bonds, derivatives, etc.) in the market. However, the performance of brokers varies; they will not all be able to achieve the same price for a given order. The trader might therefore be interested to know the broker's performance.

1.3 Previously, "broker report cards" and "league tables" were used to determine which broker was best for a given financial instrument. However, the information was not available in real time. The trader might want to know in real time how well the broker is doing on a particular order.

1.4 As shown in Figure 2, the invention introduces an intercept (Message Interceptor) in the electronic data communication between the trader and the broker to record order and execution data. The data is sent to an "Execution Quality Calculation Module" (EQCM) which compares it with real time market data to calculate the execution quality in real time or near real time. The result is then provided to the trader.

2. Main request, inventive step (Article 56 EPC)

2.1 The examining division assessed inventive step using the "Comvik approach" (see decision T 641/00 and The Case Law of the Boards of appeal, 9th ed., I-D 9.1.3).

…

2.2 The appellant argued that the Comvik approach should not be used for apparatus claims. The Board does not share this view.

The Comvik approach is not based on merely one decision. It is a practice that has been established over many years by a large number of cases involving inventions of different categories.

The basic principle of the Comvik approach is that non-technical features have no significance in the assessment of inventive step. An apparatus is by definition technical, but that does not mean that every idea that can be implemented on an apparatus solves a technical problem on its own. The Comvik approach ensures that only the features which make a technical contribution count towards inventive step. **This applies irrespective of the claim category**.

Thus, the Comvik approach applies to apparatus claims and can be applied to claim 1 of the main request.

2.3 Applying the Comvik approach, the examining division considered that the process of **evaluating the quality of a broker's trading activity, comprising intercepting order and execution information and comparing this information with current market data, was a non-technical business process**, and that the technical problem to be solved boiled down to the implementation of the business process on a conventional networked information system such as disclosed in D1. The examining division argued that the implementation would have been a matter of routine for the skilled person, and the provision of data in real time or near real time was considered to be a straightforward effect of the computer implementation.

2.4 The appellant argued that, by intercepting the messages and calculating execution quality based on copies of the data, in parallel to the transmission of the original data, the claimed invention provided a mechanism for making quality determinations without having to interfere with the transmission time or path of the original data transmission. In the appellant's view, this was a technical effect that counted towards inventive step under the Comvik approach, and the solution would not have been obvious to the skilled person.

Furthermore the need for indicating execution quality in real time had not been identified at the priority date. Thus, in accordance with the case law on problem inventions, the provision of execution quality information in real time could not be included in the problem to be solved.

The appellant furthermore argued that, at the priority date, there had been a strong disinclination to introduce anything in trading networks that could potentially interfere with the trader-broker communication and cause undesired latency. In other words, there had been a technical prejudice against intercepting trader-broker communications.

2.5 The **appellant's arguments do not persuade the Board. The Board rather agrees with the examining division's assessment.**

The Board agrees with the examining division that assessing **the execution quality of an order or a plurality of orders and providing this information to the trader is not**

technical. The requirement that the **information be provided in real time, or at least as soon as possible, is, in the Board's view, not technical either, as it merely amounts to the abstract wish to have the information available as quickly as possible**. In any case, the real time provision of information is, like the examining division said, a **mere consequence of the computer automation and not a further technical effect** that goes beyond the normal and inevitable effects of using a computer.

The assessment of the execution quality requires **information about the order and its execution, as well as relevant market data. This is also part of the non-technical requirements** which are given to the skilled person as part of the framework of the technical problem to be solved.

The non-technical requirements need not have been known or obvious at the priority date. If this were a consideration, non-technical features would contribute to inventive step, contrary to the principles of the Comvik approach.

2.6 Starting form a conventional trading system such as the one shown in Figure 1 of the published application, and given the task of implementing the non-technical requirements defined above, the skilled person would have had to provide means for calculating the execution quality, means for obtaining the order and execution information as well as market data, and means for providing the result to the trader. Claim 1 provides little detail on the technical implementation. There is an "execution calculation module" that calculates the execution quality and a "message interceptor" that somehow intercepts the communication between the trader and the broker "without interfering with the data communication". **The Board considers that, at this level of detail, the claim does not provide anything more than a straightforward implementation of the non-technical requirements using well known technical means.**

,,,

2.7 In the Board's view, the **appellant has not demonstrated that there was a widely held prejudice in the art against modifying existing trading systems in a way that could potentially case latency**. The documents submitted by the appellant state that low latency was important in trading networks, but that does not necessarily mean that there was a prejudice against modifying them.

In any case, the Board considers that the skilled person would have arrived at the invention even if such a prejudice existed. Given the requirement of providing the execution quality information as quickly as possible, the Board judges that the skilled person would have modified the existing electronic trading system so as to provide such information. At the priority date, **there was a strong tendency to automate processes that had previously been performed manually. In the Board's view, this tendency towards automation would have overridden any latency concern.**

Moreover, **claim 1 does not include any positive technical features which actually overcome the problem of latency**. Claim 1 merely **includes a desiderata that the message interceptor operates "without interfering with the data transmission". The mere desire to overcome a problem is not sufficient to establish an inventive step.**

2.8 The appellant argued that the "generally favourable approach" to computer-implemented inventions taken in G 1/19 supported the grant of a patent on the basis of present main request.

The Board does not share this view. **In G 1/19 the Enlarged Board of Appeal considered the Comvik approach to be a suitable approach for assessing computer implemented inventions** (point 136). Following the Comvik approach, a feature was only considered for inventive step if and to the extent that it contributed to the technical character of the claimed subject matter (point 84).

The Enlarged Board of Appeal held that a technical contribution did not require a direct link with physical reality and that technical effects could occur within the computer-implemented process and at the input and output of this process (point 88). The Enlarged Board however refrained from defining "technical". Moreover, it was not considered possible to define general criteria for assessing whether a computer-implemented invention solved a problem by providing a technical effect that went beyond the implementation of the process on a computer.

Thus, **the Enlarged Board of Appeal did not give a generally favourable view on computer-implemented inventions. It rather confirmed the long standing Comvik approach and left the assessment of what is and what is not technical to the technical Boards deciding on the individual cases.**

In the present case, this Board does not see any technical effect, whether inside or outside the computer, that goes beyond the implementation of a business method.

…

2.10 For these reasons, the Board judges that the subject-matter of claim 1 of the main request lacks an inventive step (Article 56 EPC) in view of the conventional trading system shown in Figure 1 of the published application, either taken alone, or in combination with the disclosure of D1.

…

4. Second auxiliary request

4.1 The second auxiliary request was filed after notification of the summons to oral proceedings. According to Article 13(2) RPBA 2020, which applies to the present case (Article 25 RPBA 2020), amendments made after notification of a summons to oral proceedings shall, in principle, not be taken into account unless there are exceptional circumstances, which have been justified with cogent reasons by the party concerned.

4.2 The reasons given for the late amendment was that a patent with claims corresponding to those of the second auxiliary request had been granted in the US. The US patent was issued in October 2020 after a long prosecution including proceedings before the Patent Trial and Appeal Board (PTAB) of the USPTO. Since the appellant could not have known the outcome

of those proceedings before October 2020, there were exceptional reasons for admitting the second auxiliary request at a late stage of the appeal proceedings.

4.3 The **appellant's arguments do not persuade the Board**.

The outcome of US grant proceedings does not have any direct relevance to the proceedings before the EPO, and in any case, the appellant could have filed the request earlier as a precaution.

The additional features of claim 1 of the second auxiliary request relate to the display of execution qualities in a graphical format including selectable lists and overlays. Those features have not previously been claimed, and, moreover, they do not relate to the interception of network data and real time execution that were given weight in the previous requests. Thus, the second auxiliary request requires a new discussion and assessment of the prior art. In the Board's view, admitting the second auxiliary request would be detrimental to procedural economy and go against the purpose of the appeal proceedings which are primarily a review of the appealed decision. There is no first instance decision on this issue that could be reviewed.

For these reasons, the second auxiliary request is not admitted.

5. The request for a telephone discussion with the rapporteur and/or a further written communication

5.1 The appellant requested a telephone discussion with the rapporteur to resolve outstanding issues and avoid the need for a formal hearing. The Board rejected the appellant's request.

Under the EPC, there is no right to a telephone interview or informal discussion with the rapporteur in appeal proceedings (see The Case Law of the Boards of Appeal, 9th edition, III-C 2.1.3). Furthermore, in the present case, the Board considers that such an interview or discussion would not have been appropriate.

The **Board's decision is a collective one**. Allowing an informal discussion to take place between the appellant and a single member goes against the principle of collective decision making. The issues in this case, i.e. technical character and inventive step, are complex and not easily overcome by straightforward amendments. In such a case, an informal discussion with the rapporteur before the hearing is neither helpful, nor appropriate.

T 1066/18 (Bildqualität/BUNDESDRUCKEREI) of 20.7.2021

European Case Law Identifier: ECLI:EP:BA:2021:T106618.20210720

VERFAHREN ZUR BEWERTUNG DER QUALITÄT EINES BILDES, VERFAHREN ZUR HERSTELLUNG EINES DOKUMENTS COMPUTERPROGRAMMPRODUKT,

NUTZER-SCHNITTSTELLE, DATEI UND ELEKTRONISCHES GERÄT

Technischer Charakter - (ja)
Ausreichende Offenbarung - (ja)
Erfinderische Tätigkeit - (nein)

Anmeldenummer:	07704063.2
IPC-Klasse:	G06K 9/03, G06T 7/00, G06F 17/24
Name des Anmelders:	Bundesdruckerei GmbH
Name des Einsprechenden:	Mühlbauer GmbH & Co. KG
Angeführte Entscheidungen:	G 0001/03, T 0134/88, T 0065/00, T 0258/03, T 0424/03, T 1090/12, T 1370/15, T 0623/18
Kammer:	3.5.06

https://www.epo.org/law-practice/case-law-appeals/pdf/t181066du1.pdf

Anspruch 1 wie erteilt lautet wie folgt:

"Verfahren zur Bewertung der Qualität eines Bildes mit folgenden Schritten:

- Zugriff auf eine Bewertungsdatei (132, 134), die ein Bewertungsschema beinhaltet durch ein Bewertungsprogramm (130),

- Bewertung von Bildanalyseergebnissen anhand des Bewertungsschemas durch das Bewertungsprogramm,

- Ausgabe der Bewertung,

wobei das Bewertungsschema ein oder mehrere Muss-Kriterien und ein oder mehrere Kann-Kriterien beinhaltet, wobei bei Nichterfüllung eines der Muss-Kriterien unabhängig von den Kann-Kriterien die Qualität des Bildes als nicht ausreichend bewertet wird,

wobei das Bewertungsschema den einzelnen Muss- und Kann-Kriterien weiterhin Bewertungspunkte zuordnet, die Bewertungspunkte aufaddiert werden, soweit die Muss- und Kann-Kriterien erfüllt sind, die Summe der aufaddierten Bewertungspunkte mit einem Schwellwert verglichen wird und die Qualität des Bildes als nicht ausreichend bewertet wird, wenn die Summe kleiner als der Schwellwert ist."

Die Erfindung gemäß dem erteilten Patent

2. Das Patent befasst sich mit einem programmgestützten Verfahren, mit dem die Qualität eines Bildes zur Her-stellung eines Wert- oder Sicherheitsdokuments bewertet wird (Absatz 1), beispielsweise der Biometrietauglichkeit eines Passbildes (vgl. Absätze 20, 21 und 34-). Das dabei verwendete Bewertungsschema verwendet mehrere Muss- und Kann-Kriterien,

denen jeweils Bewertungspunk-te zugeordnet sind. Um die Eignung eines Bildes festzustellen, müssen alle Muss-Kriterien erfüllt sein und sich die Bewertungspunkte aller erfüllten Kriterien mindestens zu einem festgelegten Schwellwert addieren.

Ausreichende Offenbarung, Artikel 100(b) EPÜ 1973

Hauptantrag

3. Die Einspruchsabteilung zitiert als die der Erfindung zugrunde liegende Aufgabe aus Absatz 7 der ursprüng-lichen Anmeldung das Ziel, "ein verbessertes Verfahren zur Bewertung der Qualität eines Bildes zu schaffen", aber merkt an, diese Formulierung ließe "zu wünschen übrig, da unklar" sei, "was im Stand der Technik kon-kret verbesserungswürdig" sei. Der Beitrag des Patents liege in der Verwendung der Kann-Kriterien und der Bewertungspunkte, für deren Implementierung der fachkundige Leser Angaben benötige, "welche Merkmale als Kann-Kriterien auszuführen" und "wie viele Bewertungspunkte zu vergeben sind" (Entscheidungsgründe 12.2.7 bis 10 und ff., insbesondere 12.7.5). Da die Beschreibung solche Angaben aber nicht enthalte, insbesondere "nicht ein einziges Ausführungsbeispiel, das sich als Lösung der gestellten Aufgabe qualifizier[e] und für welches die notwendigen Details angegeben wären, verletze das erteilte Patent das Erfordernis nach Regel 42(1)(e) EPÜ [Regel 27(1)(e) EPÜ 1973] und - letztlich deshalb - auch dasjenige von Artikel 83 EPÜ (so dass Artikel 100(b) EPÜ der Aufrechterhaltung des erteilten Patents entgegen stehe).

4. Die Beschwerdeführerin ist der Ansicht, dass sich ein Weg zur Ausführung der beanspruchten Erfindung für den Fachmann schon auf Grundlage des (erteilten) Anspruchs 1 ergebe (Beschwerdebegründung, Seite 11, Absatz 3). Insbesondere könne der Fachmann ohne weiteres Muss- und Kann-Kriterien festlegen, die für ein gegebenes Verfahren notwendige oder vorteilhafte Eigenschaften nachwiesen (Seite 12, Absatz 2). Aber auch die Beschreibung gebe dem Fachmann eine Vielzahl von Bei-spielen für solche Kriterien an die Hand (Seite 14, Absatz 4 ff.).

4.1 Die Kammer stimmt der Beschwerdeführerin insofern zu, als es für den Fachmann kein Hindernis gibt, die beanspruchte Erfindung so wie beansprucht auszuführen.

4.2 Die Einspruchsabteilung und die Beschwerdegegnerin sehen das jedoch nicht als hinreichend an, sondern meinen, **die Lehre der Erfindung müsse so ausführlich offenbart sein, dass der Fachmann eine Wirkung zuverlässig erzielen könne, die in der Beschreibung als angestrebt offenbart sein, selbst wenn der Anspruch diese Wirkung nicht ausdrücklich fordere**.

4.3 **Die Kammer ist nicht dieser Ansicht**.

4.3.1 In der Entscheidung G1/03 (Entscheidungsgründe 2.5.2) wird diskutiert, unter welchem EPÜ-Erfordernis eine Anmeldung zu bemängeln sei, wenn die Beschreibung nicht hinreichend viele Beispiele für einen breiten Anspruch enthalte. Dabei sei entscheidend, ob eine einschlägige Wirkung im Anspruch gefordert werde oder nicht. In jenem Fall folge unzureichende Offenbarung, in diesem ein Mangel an erfinderischer Tätigkeit.

4.3.2 **Die Kammer folgt dieser Rechtsprechung**. **Insbesondere sind nicht - explizit oder implizit - beanspruchte Wirkungen keine Merkmale des Anspruchsgegenstands**. Hierin widerspricht die Kammer der Einspruchsabteilung, die formuliert, dass eine nur offenbarte - aber nicht beanspruchte - Aufgabe "zumindest eine zu erfüllende Nebenbedingung" sei, "wenn nicht sogar die Aufgabe selbst" (Entscheidungsgründe 12.2.9).

4.3.3 Der am EPA weit überwiegend verwendete Aufgabe-Lösungs-Ansatz zur Bewertung der erfinderischen Tätigkeit bestimmt es als die objektive technische Aufgabe, diejenige Wirkung zu erzielen, die durch Vergleich der beanspruchten Erfindung mit dem "nächstliegenden Stand der Technik" bestimmt wird. Dabei geht eine nicht beanspruchte Wirkung nicht in diesen Vergleich ein. Zudem ist die objektive technische Aufgabe regelmäßig von der (nur) offenbarten, "subjektiven" Aufgabe verschieden.

4.4 Artikel 83 EPÜ 1973 verlangt, dass die Erfindung in der europäischen Patentanmeldung so deutlich und vollständig zu offenbaren sei, dass ein Fachmann sie ausführen könne.

4.5 Regel 27(1) EPÜ 1973 fordert, dass die Erfindung, wie sie in den Patentansprüchen gekennzeichnet ist, so darzustellen sei, dass danach die technische Aufgabe, auch wenn sie nicht ausdrücklich als solche genannt ist, und deren Lösung verstanden werden können. Regel 27(1)(e) EPÜ 1973 legt fest, dass wenigstens ein Weg zur Ausführung der beanspruchten Erfindung im Einzelnen anzugeben ist. (Hervorhebungen durch die Kammer.)

4.6 Die **Kammer ist daher der Meinung, dass sie das Offenbarungserfordernis aus Artikel 83 EPÜ 1973 zuallererst auf den beanspruchten Gegenstand richtet, dass es also der beanspruchte Gegenstand ist, dessen Ausführbarkeit in Frage steht**.

4.7 Zur Beantwortung dieser Frage muss zunächst die richtige Auslegung des Anspruchswortlauts festgestellt werden.

4.8 Im vorliegenden Fall richtet sich Anspruch 1 des erteilten Patents auf ein Verfahren zur Bewertung der Qualität eines Bildes. Das Verfahren verlangt die Verwendung von Kann- und Muss-Kriterien, von Bewertungspunkten, sowie von einem Bewertungsschema, an dessen Ende ein Schwellwertvergleich darüber entscheidet, ob ein gegebenes Bild den Qualitätstest besteht oder nicht. Da weder beansprucht ist, um welche Art von Bild noch um welche Art von Qualität es sich handelt, kann eine mögliche Wirkung, das Verfahren würde eine solche Qualitätsbewertung irgendwie "verbessern", dem Anspruchsgegenstand nicht zugeschrieben werden.

4.9 Zwar stimmt die Kammer insofern der Einspruchsabteilung zu, aber sie ist **nicht der Ansicht, dass daraus ein Offenbarungsmangel folge**. Vielmehr muss der Qualitätsbegriff weit ausgelegt werden; so weit insbesondere, dass er z.B. ästhetische und subjektive Kriterien umfasst und daher beinahe beliebig wird (siehe auch weiter unten). Gleiches gilt für die Muss- und Kann-Kriterien und die Bewertungspunkte, die nur insoweit von dem unbestimmten Qualitätsbegriff abhängen, als sie ihn "abbilden" sollen.

4.10 Die **Kammer kommt somit zu dem Ergebnis, dass Artikel 100(b) EPÜ 1973 der Aufrechterhaltung des Patents in seiner erteilten Form nicht entgegen steht**.

Zur Anspruchsauslegung

8. Die Beschreibung offenbart nur wenige Details über das beanspruchte Bewertungsschema. Insbesondere:

8.1 Es wird nur ein einziges konkretes Beispiel für ein Kann-Kriterium offenbart, nämlich ob der Dateityp, in dem die Bilddatei vorliegt, JPEG oder JPEG2000 ist (vgl. die Patentschrift, Absatz 77).

8.2 Die Frage, wie ggf. weitere Kann-Kriterien zu wählen, welche Bewertungspunkte ihnen zuzuschreiben, und wie dementsprechend der Schwellwert zu wählen wäre, bleibt im Patent unbeantwortet.

8.3 Anspruch 1 des Patents (und aller Hilfsanträge) lässt nach Einschätzung der Kammer offen, ob es sich um ein zweistufiges Verfahren handelt, in dem zunächst die Erfüllung der Muss-Kriterien überprüft wird und erst dann - wenn die Muss-Kriterien erfüllt sind - die Erfüllung der Kann-Kriterien festgestellt wird, oder ob das zwingende Erfordernis der Muss-Kriterien durch die richtige (aber nicht offenbarte) Wahl des Schwellwerts sichergestellt wird. Sollte es ein zweistufiges Verfahren sein, stellt sich darüber hinaus die Frage, warum die Muss-Kriterien, deren Erfüllung schon im ersten Schritt sichergestellt wird, im zweiten Schritt durch Bewertungspunkte überhaupt noch berücksichtigt werden.

8.4 Anspruch 1 des Patents (und aller Anträge) legt nahe, dass die Bewertungspunkte durch das Bewertungsschema festgelegt sind. Die Beschreibung hingegen offenbart die Möglichkeit, dass die Bewertungspunkte für die Kann-Kriterien geändert werden, abhängig davon, ob die Muss-Kriterien erfüllt sind (Absatz 30).

8.5 Die Begriffe Muss- und Kann-Kriterien selbst sind unscharf. Aus dem einzigen Beispiel in der Beschreibung, das ein konkretes Kann-Kriterium diskutiert, geht hervor, dass Dateien vom Typ JPEG oder JPEG2000 als bevorzugt gelten. Wenn der im Anspruch - und der Beschreibung - undefinierte Qualitätsmaßstab nun auf "bevorzugt" angehoben würde, würde das Kann-Kriterium Dateityp unvermittelt zu einem Muss-Kriterium. Ob das Bewertungsschema diese Entscheidung korrekt abbildet - durch die Anzahl der Bewertungsschritte, die Bewer-tungs-punkte und den Schwellwert - ist demjenigen über-lassen, der das Bewertungsschema bereitstellt.

8.6 Die Beschwerdeführerin führt aus, dass das beanspruchte Verfahren einen Rahmen bereitstelle, der flexibel verwendet werden könne, um eine umständehalber definierte Bewertungsaufgabe umzusetzen. Dabei könne es um die Bewertung der Passbildqualität in unterschied-lichen Jurisdiktionen gehen - die bspw. Schleier ausschließen oder (Teil-)Verschleierung zulassen könnte - oder um die Berücksichtigung von Kriterien, die bewerten, wie einfach sich die Verarbeitung des vorliegenden Bildes (ungeachtet seines Inhalts) gestaltet. In diesem Zusammenhang könnte bspw. die Berücksichtigung des Dateityps wünschenswert sein.

8.7 Angesichts der vorstehenden Beobachtungen - und im Einklang mit dem Vortrag der Beschwerdeführerin - kommt die Kammer zu dem Ergebnis, dass das **Bewertungsschema selbst als gegeben angenommen werden muss**, nämlich von einer (undefinierten) Partei, die

ein (undefiniertes) Qualitätserfordernis unter Verwendung (undefinierter) Muss- und Kann-Kriterien und ihrer relativen Bewertung, sowie eines Schwellwerts abbildet.

8.7.1 Das entspricht der Feststellung im Patent, demgemäß das Bewertungsschema einen gegebenen - und ggf. zu ändernden - Kriterienkatalog 1:1 abbildet (Absatz 41).

8.7.2 Und es ist dabei nicht entscheidend, ob der Kriterienkatalog und das abgeleitete Bewertungsschema ganz oder nur überwiegend als nicht-technisch angesehen werden (nur überwiegend bspw. dann, wenn sich der Kriterienkatalog solcher Mittel - etwa von Foto-Mustertafeln - bedient, die im weitesten Sinne als technisch gelten könnten, vgl. T258/03, Gründe 4.6).

Hauptantrag

10. Die Patentschrift selbst (in den Absätzen 2 bis 4) geht von einem bekannten Verfahren aus, demgemäß ein Sachbearbeiter auf der Grundlage einer sogenannten Foto-Mustertafel, wie sie von der Bundesdruckerei und der ICAO herausgegeben würden (vgl. Absatz 3), eine Bewertung der Bildqualität eines Passbilds vornimmt.

10.1 Dieser Stand der Technik wurde durch die Beschwerdeführerin nicht bestritten.

10.2 Bei den genannten Mustertafeln handelt es sich - nach für die Kammer offensichtlichem Einverständnis der Beteiligten - um Bildbeispiele, die dem Sachbearbeiter illus-trieren sollen, welche Art von Bildern als akzeptabel und welche als unakzeptabel gelten sollen. Diese Foto-Mustertafeln stellen somit für den Sachbearbeiter ein Bewertungsschema aus lauter "Muss-Kriterien" dar.

10.3 Die Bewertung eines gegebene Bildes durch den Sachbearbeiter erfolgt notwendigerweise subjektiv (vgl. Ab-satz 4) und fehlerbehaftet. Hingegen: Auch wenn nicht garantiert ist, dass der Sachbearbeiter sich an die vorgegebenen Regeln hält, so ist das doch das erklärte und angenommene Ziel des händischen Verfahrens.

…
11. Die Beschwerdeführerin trägt vor, dass die technische Wirkung der Erfindung nicht darin besteht, die Qualität der Bildanalyse zu verbessern - abgesehen von der Tatsache, dass ein Computerprogramm weniger fehleranfällig sei als ein menschlicher Sachbearbeiter - sondern darin, ein flexibles Schema bereitzustellen, mit dem solche Qualitätsprüfungen formuliert und implementiert werden könnten.

11.1 Beispielsweise würde es die Trennung von Bewertungsdatei und Bewertungsprogramm erleichtern, ohne eine Änderung des Programms das Bewertungsschema zu wechseln (etwa für den Einsatz in einer anderen Jurisdiktion, s.o.).

11.2 Die Kammer ist der Ansicht, dass diese Flexibilität auch schon dem händischen Verfahren eigen ist. Der Sachbearbeiter kann angewiesen werden, unter Verwendung einer geänderten Foto-Mustertafel, dem gleichen "Programm" zu folgen, um die Bildqualität zu bewerten (das "Programm" ist im Wesentlichen: Prüfe für jedes durch Foto-Mustertafeln

illustrierte Kriterium, ob es von einem gegebenen Foto erfüllt ist und bestätige aus-reichende Qualität, wenn alle Kriterien erfüllt sind).

11.3 Die Kammer hält es für ein naheliegendes Ziel, die händische Prüfung der Bildqualität zu automatisieren.

…

11.5 Der Gegenstand von Anspruch 1 des erteilten Patents unterscheidet sich somit allenfalls dadurch von einer unmittelbaren Automatisierung des händischen Verfahrens, dass er - wie beansprucht - Muss- und Kann-Kriterien verwendet, denen Bewertungspunkte zugeordnet werden, und dass die Summe dieser Punkte bei erfüllten Kriterien mit einem Schwellwert verglichen wird.

…
11.7 Dementsprechend, und ebenfalls wie oben festgestellt, ist die Kammer der Ansicht, dass das Bewertungsschema inkl. der Bewertungspunkte und des Schwellwerts als gegeben angenommen werden müssen, so dass diese der gegebenen Aufgabe entsprechen.

11.8 Unter dieser Annahme allerdings kommt die Kammer zu dem Ergebnis, dass sich der Gegenstand des Patents nicht erfinderisch von der Automatisierung des bekannten, händischen Verfahrens unterscheidet, und dass somit das Erfordernis der erfinderischen Tätigkeit unter Artikel 100(a) EPÜ 1973 i.V.m. Artikel 56 EPÜ 1973 der

Aufrechterhaltung des erteilten Patents entgegen steht.

T 2084/18 (Suspicious behaviour/AIC) of 18.6.2021

European Case Law Identifier: ECLI:EP:BA:2021:T208418.20210618

APPARATUS AND METHOD FOR RECOGNITION OF SUSPICIOUS ACTIVTIES

Inventive step - (no)
Features related to presentation of information

Application number: 14770974.5
IPC class: G06F 19/00, A61J 7/00, G06Q 50/22
Applicant name: AIC Innovations Group, Inc.

Cited decisions: T 0115/85, T 0833/91, T 1802/13, T 0336/14, T 0556/14, T 1091/17

Board: 3.5.05

https://www.epo.org/law-practice/case-law-appeals/pdf/t182084eu1.pdf

Claim 1 reads as follows:

"A medication administration confirmation apparatus, comprising:

a video capture device configured to capture a video sequence of a user administering medication in response to the display of one or more instructions (125), wherein the video capture device further comprises a display configured to display a field of view that is narrower than a field of view (410) of a video sequence being captured wherein the user is prompted on the display to perform a particular sequence of actions to be stored as the video sequence and the narrower field of view than the field of view captured by the video capture device is displayed on the display during performance of the particular sequence of actions;

a memory to store the captured video sequence, wherein the memory stores the video field of view that is wider than the narrower video field of view presented to the user on the display; and

a processor to analyze at the stored video sequence to determine one or more indications of suspicious activity on behalf of the user and cause the display to display one or more further instructions (125) to the user in response to identifying the one or more indications of suspicious activity,

wherein a portion of the captured video sequence that is not displayed on the display is reviewed for suspicious behavior."

Reasons for the Decision

1. The closest prior art D1 discloses a medication administration confirmation apparatus which displays instructions to the user to perform a particular sequence of actions to be captured as a video sequence, analyses the captured video sequence to determine one or more indications of suspicious activity on behalf of the user and displays further instructions to the user in response to identifying suspicious activity (see D1, figure 6 and paragraphs [000108] to [000115]).

2. The subject-matter of claim 1 differs from the above disclosure essentially in that a field of view narrower than the field of view captured by the video capture device is displayed on the display while the user is performing the particular sequence of actions ….

3. The appellant's various lines of argumentation in favour of this distinguishing feature contributing to an inventive step do not convince the board:

3.1 One line of argumentation is based on the fact that methods for treatment of the human body are, by virtue of Article 53(c) EPC, technical. According to the appellant, as the administration of a medicine is a technical task, the confirmation of the performance of this technical act should be a technical effect. However, the distinguishing feature relates to displaying a video and to the content of the displayed video, not to a method of administering a medicine or to a method of confirming it. Therefore, this argument is not relevant to the issue in hand.

3.2 Displaying a video with a certain content does indeed relate to presentation of information within the meaning of Article 52(2)(d) EPC. A presentation of information might only exceptionally contribute to the technical character of the invention if it credibly assists the user in performing a technical task by means of a continued and guided human-machine interaction process, this being the applicable test (see T 336/14, Headnote; T 1802/13, page 10, second full paragraph; T 1091/17, point 1.7 of the reasons).

Regarding the case in hand, the appellant argued (see the statement setting out the grounds of appeal, page 10, ii(c)) that this test was satisfied, since the user in claim 1 was administering medication in response to the display of one or more instructions. However, this argument is based on features of claim 1 which are already disclosed in D1 rather than on the distinguishing feature of displaying on the display a field of view narrower than the field of view captured by the video capture device. This **distinguishing feature does not assist the user in administering a drug**. Instead, as pointed out by the appellant elsewhere (see the statement setting out the grounds of appeal, page 7, last paragraph) with reference to paragraph [051] of the description, it is meant to let users "attempting to trick the system [...] think they are out of the field of view of camera because they are not shown in the display and may thus perform a suspicious or malicious act". Elsewhere, in paragraph [028] of the description, the application calls this "'trap[ping]' the unsuspecting malicious patient". **Trapping users, by definition, does not "assist" them. Therefore, the distinguishing feature does not satisfy the test set in the case law for presentations of information**.

3.3 In its letter of reply to the board's preliminary opinion and at the oral proceedings, the appellant put forward a further argument that the cognitive effect of trapping a user assisted (if not the user) the claimed apparatus itself in performing its task. To illustrate its argument, the appellant made analogies between the case in hand, in which trapped malicious users may try to frustrate the claimed apparatus by appearing as if they were taking their medicine, and various hypothetical cases, namely frustrating currency or passport counterfeiters by security features such as invisible ink, and turning off the power light of a recording security camera in order to let observers think that it is not recording. It argued that in all these examples a technical effect was achieved by obscuring the internal state of the apparatus. The case law of the boards of appeal recognised giving visual indications about the internal state of a system as technical. Similarly, refraining from giving such a visual indication or obscuring the internal state of an apparatus in order to frustrate malicious activity should also be a technical effect.

It is evident that the appellant's statements involving refraining from giving a visual indication or obscuring the internal state of a system are inspired by Headnote I of T 115/85, i.e. "Giving visual indications automatically about conditions prevailing in an apparatus or system is basically a technical problem". Given the body of subsequent case law which discusses under which conditions or for which internal states of a system or apparatus this statement would be valid (see inter alia T 833/91, point 3.7 of the reasons; T 336/14, point 1.2.4 of the reasons, second paragraph), it is evident that statements with regard to technicality at this level of generality should be made with an abundance of caution. To take the example of "obscuring the internal state of a system", suggested by the appellant, whereas this may give rise to a technical effect in certain cases, e.g. protecting

a cryptographic computation against power analysis attacks as in T 556/14 (see points 13 and 14 of the reasons), in other cases it would not. Therefore, any alleged technical effect of the distinguishing feature of claim 1 should be judged on its own merits rather than by rules at this level of abstraction. The same holds true for the hypothetical examples given by the appellant. These examples suggest at least that the appellant considers that the cognitive effect leads to a technical effect of increased security, which is generally recognised as a technical effect. In the case in hand, however, **the cognitive effect of the distinguishing feature, i.e. that the users may think that they are out of the field of view of camera, does not lead to increased security. It does not assist the apparatus of claim 1 in performing its assigned task, i.e. medication administration confirmation, either. On the contrary, the cognitive effect in the case in hand encourages the users to perform what the application calls "a suspicious or malicious act" and hence impairs the proper performance of the medication administration process**.

4. Since its distinguishing feature does not produce any technical effect, the subject-matter of claim 1 does not involve any inventive step (Article 56 EPC).

T 0589/17 (Guiding the user to a shop/SONY) of 20.4.2021

European Case Law Identifier: ECLI:EP:BA:2021:T058917.20210420

Shop terminal and information processing server

Inventive step - guiding customer to make a purchase (no Inventive step - non-technical)
- using POS information at server to check if customer has followed guidance (no - obvious implementation)
- transmitting bonus to customer's phone (no - obvious implementation)

Application number: 09252240.8
IPC class: G06Q 20/00
Applicant name: Sony Group Corporation

Cited decisions: T 0641/00, T 1463/11

Board: 3.5.01

https://www.epo.org/law-practice/case-law-appeals/pdf/t170589eu1.pdf

Claim 1 of the main request reads:

An information processing server (2) comprising:

identification information receiving means (53) for receiving identification information from an information processing device (8), said information processing device being installed in a shop and obtaining said identification information from an integrated circuit chip (12);

guidance completion information receiving means (53) configured to receive guidance completion information from an information processing device (8) installed in a shop as a guidance source, the guidance completion information including

identification information obtained by said information processing device and

guidance destination shop identifying information identifying a shop as a guidance destination, guidance to the guidance destination having been given by said information processing device, for said identification information; and

comparing means (51) configured to compare the guidance completion information received from the information processing device (8) of the shop as said guidance source with identification information received from said information processing device (8) of the shop as said guidance destination,

the information processing server further comprising:

monetary value changing information generating means for generating monetary value changing information for changing the monetary value information stored by said integrated circuit chip included in a portable telephone of a user that received guidance information from said information processing device installed in a shop as a guidance source on a basis of a result of comparison by said comparing means; and

monetary value changing information transmitting means for transmitting the generated said monetary value changing information to said portable telephone.

VIII. The appellant's arguments can be summarised as follows:

While the invention involved a mixture of technical and non-technical features, some of the technical features had been overlooked.

In the earlier decision T 1463/11 (Universal merchant platform/CardinalCommerce), the following points were made regarding the approach of assessing whether features would be required by a notional business person or implemented by the technical person tasked by the business person to implement the business requirements:

reasons 16: "...the notional business person might not do things a real business person would. He would not require the use of the internet, wireless, or XXXX processors. This approach ensures that, in line with the Comvik principle, all the technical matter, including known or even notorious matter, is considered for obviousness and can contribute to inventive step."

reasons 21: "However, the choice of where a particular computation is carried out in a distributed system will normally have implications for availability, for latency and so on, and those are technical matters."

Hence, a feature concerning where a computation was carried out in the distributed system, or any requirement to use a particular form of technology for implementation, should be seen as

a technical feature that had to be considered as part of the solution, not the business requirement specification.

In claim 1 of the main request, the following features could therefore be regarded as technical:

1. The identification information from the integrated circuit chip included in the user's portable telephone was used as the means of tracking the user's progress from the first shop to the second shop.

2. The guidance completion information was received at the server from the information processing device in the shop acting as the guidance source.

3. The identification information from the integrated circuit chip was received at the server from the information processing device in the shop acting as the guidance destination.

4. The comparison of the guidance completion information and the identification information was performed at the server.

5. The monetary value changing information was generated based on the comparison at the server.

6. The monetary value changing information was transmitted from the server to the user's portable telephone.

D1 merely described using the IC chip for making an electronic payment, not using the IC chip as a means for tracking the user's progress from a first shop to a second shop.

By using the IC chip to track the user, rather than requiring the user to present a coupon received from the first shop, any need for either the user or the shopkeeper in the second shop to perform any specific actions was avoided. Consequently, the time for processing the transaction in the second shop was reduced.

The business requirements provided by the notional business person did not specify that the processing of identification information should take place at a server rather than at the shop terminal. The same applied for the means for paying the bonus. Whether the bonus was provided to the customer by the second shop's terminal or to the customer's telephone by the server was a technical choice of the technically skilled person.

Reasons for the Decision

1. The invention

1.1 The invention concerns a system for sending customers (users) between shops in a franchise group (paragraph [0001] of the published application). As shown in Figure 1, the system comprises a server (2) and a plurality of shop terminals (8), one in each shop (81).

1.2 The basic idea is the following: when the user purchases something with his mobile phone in a first shop (e.g. Yamada Set Meals in Figure 1), he is "guided" to a second shop (e.g.

Cacao Coffee Shop). If the user purchases something in the second shop, he receives a bonus in his mobile payment account.

1.3 Claim 1 of the main request is directed to the server (2) in Figure 1.

The server receives "identification information" from an "information processing device". During the oral proceedings, the appellant explained that this corresponded to the "transaction log" received from any one of the "shop terminals" (8) in Figure 1. The transaction log contains the payments made with the mobile phone and includes identification information read from an IC chip in the phone.

The server also receives "guidance completion information" from the shop that acts as a "guidance source", i.e. Yamada Set Meals in the example above. The term "guidance completion information" is somewhat misleading as this information does not indicate that the deal has been completed, but rather includes the phone's identification information and information identifying the shop to which the user is guided (the guidance destination, Cacao Coffee Shop in the example above). It corresponds to the "guidance log" in Figure 1.

The server compares the guidance completion information with subsequently received transaction logs to determine whether the customer has made a purchase at the guidance destination. If so, the server transmits "monetary value changing information" to the user's phone, e.g. in the form of an email with a link to a web site where the user can load money into his mobile payment account (Figure 14).

…

2. Main request, inventive step (Article 56 EPC)

2.1 The invention in claim 1 of the main request consists of a mixture of technical and non-technical features. Such mixed-type inventions are assessed according to the "Comvik approach" (T 641/00 - Two identities/COMVIK, and the Case Law of the Boards of Appeal, 9th edition, I.D.9.1.3), i.e. by taking into account only the technical features in the assessment of inventive step. The non-technical features which make no technical contribution are instead considered as being part of the formulation of the technical problem to be solved in the framework of the problem and solution approach.

2.2 The starting point in the prior art is D1, which discloses a system comprising a shop terminal (POS device 104) and a transaction gateway (102) coupled to a number of transaction services (118 to 124), for example identity verification and payment. The shop terminal has a reader for reading ID information from a card, e.g. a smart card, and means for transmitting the ID information to the transaction gateway (paragraphs [0017] and [0018]). The transaction gateway routes the ID information to an identity validation service (120) which compares the received ID information with information stored in a database (paragraphs [0024] and [0025]). In other words, the system in D1 comprises one or more servers for processing payment data and identification information received from shop terminals.

2.3 D1 does not disclose that the server receives and processes identification information and guidance completion information as in claim 1.

In claim 1 of the main request, the identification information read from the IC chip included in the user's phone is used to determine that the user has made a purchase in the second shop. D1 merely discloses the use of an IC chip for making payments and for providing identification.

Furthermore, D1 does not disclose that the server transmits monetary value changing information to the user's phone.

2.4 The **disputed point in this case concerns which of the distinguishing features are technical and contribute to inventive step and which features are non-technical and part of the problem to be solved.**

In the communication accompanying the summons to oral proceedings, the Board considered that sending a customer from a first shop to a second shop and giving the customer a bonus when purchasing something in the second shop was a business idea. In the Board's view, this idea already implied some form of checking whether the customer had made the purchase in the second shop, as well as paying out the bonus directly to the customer in monetary form rather than providing a discount in the second shop. The problem to be solved was thus considered as how to implement the business idea on the system of D1.

2.5 The appellant argued that, by using the IC chip in the mobile phone to track the user rather than requiring the user to present a coupon in the second shop, and by paying the bonus directly to the user's mobile payment account, there was no need for the user or shopkeeper at the second shop to perform any special actions. Thus, the invention had the technical effect of reducing the processing time for conducting a transaction at the second shop.

Furthermore, using a central server for tracking the user and transmitting monetary value changing information to the user's mobile phone was a technical solution that was not suggested in the prior art. The appellant referred to decision T 1463/11, which distinguished between features required by a "notional business person" and the technical implementation carried out by the technically skilled person. The notional business person would not require the use of technical means, such as a server. That was the task of the skilled person and, therefore, this feature had to be evaluated for inventive step.

The appellant pointed out that the invention in T 1463/11 concerned the relocation of certain functions of merchant machines to a central server, and the deciding Board considered this to be technical. For the same reasons as in T 1463/11, the use of a central server rather than a shop terminal for paying out the bonus was a technical choice providing technical advantages.

2.6 The Board is not persuaded by the appellant's arguments. The alternative solution of using a coupon and giving a discount at the second shop is a different business scheme which requires a different technical implementation. That does not mean that the idea underlying the present invention is technical. The relevant criterion for assessing technicality is whether the feature or features in question provide a technical effect over the prior art chosen as starting point. Any effects compared to a hypothetical, alternative computer-implemented business

method cannot be taken into account for the purpose of assessing inventive step in accordance with the problem and solution approach.

The Board does not see any technical effect over D1 other than the implementation of the idea defined in paragraph 2.4 above. In the Board's view, this idea can indeed by formulated by the the notional business person in T 1463/11.

2.7 Furthermore, while the business person cannot require the use of a server which is a technical feature, he can specify that a certain task be performed by a central administrative entity. In the present case, the use of a **central entity for handling the bonus scheme is an organisational matter related to the franchising business model**. This is in contrast to the server in T 1463/11 which centralised the management of plug-ins i.e. software components.

2.8 Starting from the disclosure of D1 and given the task of implementing the business idea defined above, the Board is of the view that the skilled person would have used the server or servers in D1 for comparing information received from the source POS and the destination POS in order to check whether the guidance had been completed. Although D1 does not disclose payments using a mobile phone, this was known at the priority date, and it is not presented in the present application as making an inventive contribution (see paragraphs [0009] to [0012]).

Furthermore, the skilled person would have considered using the same mobile payment system for paying out the bonus, and given the requirement of using a central entity for paying the bonus directly to the user, the skilled person would have used the server to transmit "monetary value changing information" to the user's phone.

Even if the payment of the bonus by a central entity directly to the user's account was not part of the business requirements, the Board considers this to be at least an obvious alternative to using the second shop terminal to top up the mobile payment account.

2.9 In conclusion, the skilled person would have arrived at the subject-matter of claim 1 of the main request without inventive skill. Therefore, an inventive step is lacking (Article 56 EPC).

T 1790/17 (Redesigning product or process parameters/PROCTER & GAMBLE) of 18.3.2021

European Case Law Identifier: ECLI:EP:BA:2021:T179017.20210318

Method for redesigning one or more product or process parameters of a manufactured article

Patentable invention - redesigning a product based on user feedback (no Patentable invention - business method)
Patentable invention - controlling manufacture of a product with improved process data (yes

Patentable invention - technical)
Amendment after summons (yes
Amendment after summons - exceptional circumstances)
Remittal (yes
Remittal - exceptional circumstances)

Application number: 14178116.1
IPC class: G06Q 10/06
Applicant name: The Procter & Gamble Company

Cited decisions: G 0001/19

Board: 3.5.01

Catchwords:
The purpose of the oral proceedings for the appellant is to better explain his case and for the Board to understand and clarify points which, perhaps, up to that point were not sufficiently clear. This is particularly relevant in

ex parte

cases where besides the applicant/appellant no other party is involved. If amendments resulting from such discussions were not possible, oral proceedings would be pointless. The new [substantially amended] auxiliary request was filed as a direct reaction following the exchange of arguments in the oral proceedings and addressing the objections and concerns the Board had. Furthermore, this request overcame the grounds on which the appealed decision was based. The Board considers the filing of such a request is justified by exceptional circumstances and therefore admits it into the proceedings. (See point 7 of the reasons)

https://www.epo.org/law-practice/case-law-appeals/pdf/t171790eu1.pdf

Claim 1 of the main request reads:

"A method for redesigning one or more product or process parameters of a first manufactured article, in order to provide different product or process parameters of a second, transformed, manufactured article, wherein the method comprises the steps of:

i) associating a unique identifier with individual first manufactured articles, or with groups of first manufactured articles;

ii) capturing and recording product data and/or process data relating to the first manufactured articles;

iii) soliciting and recording consumer feedback relating to in use performance of the first manufactured articles;

iv) correlating consumer feedback with product data and/or process data of a specific, individual, first manufactured article by means of the unique identifier;

v) determining different product or process parameters for a second manufactured article; and

vi) applying one or more different product or process parameters to the first manufactured articles to transform them into second manufactured articles, the second manufactured articles being better adapted to meet consumer needs than the first manufactured article."

Claim 1 of the first auxiliary request reads:

"A method for redesigning one or more process parameters of a first manufactured absorbent article, in order to provide different process parameters of a second manufactured absorbent article, and manufacturing the second manufactured absorbent article, wherein the method comprises the steps of:

i) associating a unique identifier with individual first manufactured absorbent articles, or with groups of first manufactured absorbent articles;

ii) capturing and recording process data relating to the first manufactured absorbent articles;

iii) soliciting and recording consumer feedback relating to in use performance of the first manufactured absorbent articles;

iv) correlating, by a controller, consumer feedback with process data of a specific, individual, first manufactured absorbent article by means of the unique identifier;

v) determining different process parameters for a second manufactured absorbent article based on the correlated consumer feedback and process data for the first manufactured absorbent articles;

vi) applying, by the controller, the one or more different process parameters to a converting apparatus configured to manufacture absorbent articles; and

vii) manufacturing, by the converting apparatus, the second manufactured absorbent articles, the second manufactured absorbent articles being better adapted to meet consumer needs than the first manufactured absorbent article."

X. The appellant's arguments concerning the main request can be summarised as follows:

Steps i) to vi) in claim 1 have technical character:

A unique identifier serves the purpose of identifying individual articles during a manufacturing process and is used for quality control.

Product and process data is technical data collected from a manufacturing process.

In use performance data relates to product quality and performance and is to be interpreted as objective user measurements.

Determining different product and/or process parameters is technical because of the technical nature of the underlying manufacturing process and the fact that the data is used for this process.

The transforming of first articles into second articles in step vi), although not literally correct, has to be read in the given context and with a mind willing to understand. It can only be interpreted as applying the determined technical parameters to the manufacturing process to produce different articles.

The steps in claim 1 cause a technical effect which is to produce improved articles or provide an improved manufacturing process.

Reasons for the Decision

The invention

1. The invention relates to a method for redesigning product or process parameters of a manufactured article (e.g. diapers) based on consumer feedback relating to the article's performance in use (see paragraphs [0005] to [0007] of the published application).

2. Claim 1 of the auxiliary request further specifies that a controller determines the redesigned process parameters and, based thereon, adjusts manufacturing parameters of a converting apparatus (assembly line) in order to produce the second articles ([0015]).

Main request

3. The Board agrees with the examining division's conclusion that **claim 1 is so abstract that it encompasses entirely non-technical subject-matter excluded under Article 52(2) and (3) EPC**.

4. The claim essentially defines a method for collecting consumer feedback on the use of a product. This feedback is used to redesign the product such that it is better adapted to meet consumer needs.

For example, when buying shoes the consumer might report that they don't fit. This feedback could be related to data collected during manufacture of the shoes such as a label on the shoebox indicating their size. The manufacturer might then conclude that a wrong label has been attached to the shoebox and issue an instruction to change the manufacturing - in this case the labelling - process accordingly.

5. The Board finds that **none of steps i) to vi) relate to technical matter and do not necessarily involve technical data.**

5.1 Firstly, a business person would have the idea of keeping track of products such that consumer feedback can be collected for a specific product. Keeping track of products requires

some sort of identifier. The "unique identifier" in step i), which according to the description can for example be a serial number or a bar code, is a self-evident implementation of this requirement.

5.2 Secondly, the product and/or process data in step ii) does not exclude non-technical product data such as the above mentioned size label.

The appellant argued that the skilled person understood that this data was recorded and used in a manufacturing process and, thus, technical (see paragraphs [0008] and [0009]). The Board is not convinced as no examples of any such data are given. Product data collected during the manufacture of a product can be interpreted broadly and - as mentioned above - include non-technical data.

5.3 Similarly, the Board is not convinced that the consumer feedback relating to "in use performance" of a product in step iii) necessarily represents technical data.

The appellant argued that this data had to be understood as objective user measurements similar to measurements obtained from laboratory testing. Any subjective element possibly included in the consumer feedback was eliminated by performing the subsequent statistical correlation analysis defined in step iv).

However, the Board does not consider that the term correlating has to be interpreted as statistical correlation of a number of users' feedback with various parameters. Paragraph [0012] of the description supports the colloquial use of the term which is that of a single connection between two things. In the case at hand consumer feedback of a specific article is connected with product and/or process data by means of the unique identifier.

The appellant's argument that the use of algorithms, spreadsheets or graphical interpretation as mentioned in paragraph [0013] would support the statistical interpretation of correlating is not persuasive. This paragraph relates to the evaluation of quality information generated from the correlation, not to the correlation analysis itself. At best it might support the appellant's view that step v) is based on step iv) - see next point.

5.4 The appellant argued that step v) in conjunction with step iv) further explained the technical purpose of the feedback information being that of identifying manufacturing parameters used for producing faulty products and changing them.

The Board notes that there is no link between step v) and iv). It is, thus, not possible to conclude that the correlated data is actually used for determining different manufacturing parameters. Even if it were, the Board remains of the view that a purely non-technical interpretation as outlined above, for example determining a different size label, still exists.

The determined different product and/or process data can, therefore, not be considered as data useful or used for controlling a technical device and, therefore, has no technical purpose or effect.

For that reason the Board does not agree with the appellant that step v) is technical. The **determined parameters encompass non-technical data and, thus, cannot imply a technical effect** in the sense of points 88 and 94 of G 1/19 as argued by the appellant.

5.5 The Board judges that **step vi) is not clear enough to contribute to technical character either**.

Applying the new parameters to the first manufactured articles to "transform" them into second articles does not seem to be possible. Most likely, what is meant is to apply these parameters to the manufacturing process. This, however, neither implies an actual manufacturing step nor involves any technical means. Also, as the parameters themselves might not be technical their application to the manufacturing process does not necessarily imply any technical effect either.

6. Accordingly, **claim 1 is not an invention under Article 52(2) EPC**.

First Auxiliary request

7. **Auxiliary request 1 was filed during the oral proceedings after the main request and former auxiliary request 1 and 2 had been discussed.** Since this **set of claims differs substantially from the previous ones**, the Board considers this as an **amendment to the party's appeal case and its admittance is at the Board's discretion** (Article 13 RPBA 2020).

Moreover this **request was filed after notification of the summons to oral proceedings** and thus Article 13(2) RPBA 2020 applies, which stipulates that such amendments shall, in principle, not be taken into account unless there are exceptional circumstances, which have been justified by cogent reasons. Although, this discretion is rather limited, the Board still has to consider and balance all relevant circumstances when using its discretion. These circumstances include the development of the case as well as the purpose of the oral proceedings.

The purpose of the oral proceedings for the appellant is to better explain his case and for the Board to understand and clarify points which, perhaps, up to that point were not sufficiently clear. This is particularly relevant in ex parte cases where besides the applicant/appellant no other party is involved. If amendments resulting from such discussions were not possible, oral proceedings would be pointless. The new auxiliary request was filed as a direct reaction following the exchange of arguments in the oral proceedings and addressing the objections and concerns the Board had. Furthermore, this request overcame the grounds on which the appealed decision was based. The Board considers the filing of such a request is justified by exceptional circumstances and therefore admits it into the proceedings.

8. **Claim 1** of this request has been **changed to a method for redesigning process parameters and manufacturing articles according to the redesigned process parameters**. The articles are limited to absorbent articles and the manufacturing data to process data.

Furthermore, the claim specifies that a controller performs the correlation step and applies different process parameters to a converting apparatus, these parameters being determined based on the correlation step.

Finally, a new step vii) of manufacturing, by the converting apparatus, articles according to the determined different process parameters has been added.

9. The Board judges that the amendments are clear and derivable from paragraph [0015] of the description and do not add any new subject-matter.

10. The **Board is satisfied that the subject matter of claim 1 is technical. It includes an explicit manufacturing step, technical means of a manufacturing process and is limited to process data which in the Board's view can only refer to technical data**.

Remittal

11. In its decision the examining division only decided on technicality of the invention but not on the further patentability requirements. In particular, the new technical features could not have been analysed with respect to novelty and inventive step. Also, it is not possible for the Board to evaluate whether in view of the amendments a further search may be necessary. The European Search Report merely contained a so-called no-search declaration and the documents cited during the procedure might not cover the added technical features.

12. As recalled in Article 12(2) RPBA 2020, the primary object of the appeal proceedings is to review the decision under appeal in a judicial manner. This object would not be achieved if the Board were to conduct a complete examination of the application.

13. Given the special reasons mentioned above, the case is remitted to the examining division for further prosecution (Article 111(1) EPC and Article 11 RPBA 2020).

T 0193/18 () of 27.7.2021

European Case Law Identifier: ECLI:EP:BA:2021:T019318.20210727

Verfahren zur Verteilung von elektrischer Energie in einem Stromnetzwerk mit einer Vielzahl von Verteilungsnetzzellen

Beschwerdeentscheidung - Zurückverweisung an die erste Instanz (ja)
Rückzahlung der Beschwerdegebühr - (ja)
Rückzahlung der Beschwerdegebühr - angefochtene Entscheidung begründet (nein)

Anmeldenummer:	12002956.6
IPC-Klasse:	H02J 3/00, H02J 13/00, G06Q 50/06
Name des Anmelders:	MVV Energie AG

https://www.epo.org/law-practice/case-law-appeals/pdf/t180193du1.pdf

3. Begründetheit der angefochtenen Entscheidung - Regel 111 (2) EPÜ

Die angefochtene **Entscheidung ist nicht ausreichend begründet** im Sinne der Regel 111 (2) EPÜ.

3.1 Die Beschwerdeführerin hat bereits während des Verfahrens vor der Prüfungsabteilung gerügt, dass die Argumentation der Prüfungsabteilung zur mangelnden Neuheit bzw. erfinderischen Tätigkeit nicht nachvollziehbar sei (siehe das Schreiben der Beschwerdeführerin vom 29. November 2016, Seite 3, letzter Absatz).

Dies hat die Prüfungsabteilung ebenso wenig zum Anlass genommen, ihre mehrheitlich nur aus Angaben von Figurenbezeichnungen, Bezugsziffern oder auch Textpassagen des Dokuments D1 in Klammern hinter den jeweiligen Verfahrensschritten des Anspruchs 1 bestehende Begründung zu präzisieren oder zu überdenken, wie die Beschwerdebegründung der Beschwerdeführerin, in der diese sich hinsichtlich der Merkmale 1.4 bis 1.7 detailliert äußert, warum sie der Ansicht ist, die entsprechenden Merkmale seien in D1 nicht verwirklicht.

Die in der angefochtenen Entscheidung lediglich in Klammern hinter den oben genannten Anspruchsmerkmalen angegebenen Figurenbezeichnungen, Bezugsziffern oder auch Textpassagen des Dokuments D1 stellen keine ausreichende Begründung im Sinne der Regel 111 (2) EPÜ dar. Insbesondere **fehlen Ausführungen zu entscheidenden Streitpunkten, d.h. den detaillierten Gegenargumenten der Beschwerdeführerin, damit die Beschwerdeführerin eine Vorstellung davon erhält, warum ihr Vorbringen nicht überzeugt.**

3.2 In Reaktion auf die Rüge der Beschwerdeführerin hin, die einzelnen Merkmale des Anspruchs 1 seien nicht explizit in D1 nachgewiesen worden verweist die angefochtene Entscheidung lediglich pauschal auf den zugehörigen Erweiterten Europäischen Recherchenbericht und stellt die Behauptung auf, die Merkmale seien natürlicherweise bereits darin identifiziert worden.

Diese Behauptung hält der Überprüfung durch die Kammer nicht Stand. Zum einen stellt **ein Erweiterter Europäischer Recherchenbericht keinen Bescheid** im Sinne des Artikels 94 (3) EPÜ dar. Zum anderen enthält dieser **unter Punkt 2.1 lediglich dieselbe mehrheitlich nur aus in Klammern angegebenen Figurenbezeichnungen, Bezugsziffern oder auch Textpassagen des Dokuments D1 hinter den jeweiligen Verfahrensschritten des Anspruchs 1 bestehende Begründung**.

Mithin scheint die Argumentation in der **angefochtenen Entscheidung** hinsichtlich aller, mit Ausnahme der letzten aus dem ursprünglichen Anspruch 2 hinzugetretenen Merkmale, **lediglich eine unmittelbare Kopie des Erweiterten Europäischen Recherchenberichts** zu sein. **Weitere Argumente zu den verbleibenden Merkmalen des Anspruchs 1, d.h. den Merkmalen des ursprünglichen Anspruchs 1, enthält die angefochtene Entscheidung nicht.** Es ist daher weder für die Beschwerdeführerin noch für die Kammer möglich anhand der Begründung prüfen zu können, ob die Entscheidung gerechtfertigt ist oder nicht.

3.3 **Zudem bestehen, soweit die Angaben der Prüfungsabteilung überhaupt nachprüfbar sind, auch inhaltliche Widersprüche in der Begründung der Prüfungsabteilung die ebenfalls zur mangelnden Substantiierung beitragen.**

Beispielsweise werden sowohl zum Nachweis der Verbraucher-/Erzeugereinheiten, als auch zum Nachweis der Berechnungseinheiten jeweils identische Bezugszeichen (320, 322, 324) aus D1 verwendet, **ohne dass erläutert würde, welches Bezugszeichen genau welchem Anspruchsmerkmal entsprechen soll oder warum sich die beiden eindeutig unterschiedlichen Anspruchsmerkmale aus identischen Bezugszeichen der selben Figur ergeben sollten.** Außerdem ist **nicht einmal klar, ob nicht noch weitere Bezugszeichen gemeint sind, da jeweils noch "etc." hinter den genannten Bezugszeichen mit angeführt ist**.

Als weiteres Beispiel entsprechen die beanspruchten Netzautomaten der Verteilungsnetzzellen angeblich den Bezugszeichen 311 und 331 der Figur 3 von D1. Diese werden jedoch in der Beschreibung auf Seite 16 als "net producer" bzw. "net consumer" bezeichnet. **Die angefochtene Entscheidung enthält keinerlei Angaben, warum diese augenscheinlich völlig unterschiedlichen Elemente den Netzautomaten entsprechen sollen**.

Auch für die verbleibenden Merkmale hält die Kammer es in Ermangelung irgendeiner Erläuterung für nicht nachvollziehbar, warum diese sich aus den in Klammern hinter den Anspruchsmerkmalen angegebenen Figurenbezeichnungen, Bezugsziffern oder auch Textpassagen des Dokuments D1 ergeben sollten.

3.4 Die Kammer ist folglich zu der Auffassung gelangt, dass die **angefochtene Entscheidung nicht ausreichend begründet** im Sinne der Regel 111 (2) EPÜ ist.

T 3033/18 () of 2.8.2021

European Case Law Identifier: ECLI:EP:BA:2021:T303318.20210802

METHOD FOR CONTROLLING MAN-MACHINE INTERACTION AND APPLICATION THEREOF

Inventive step - (no)

Application number: 12745158.1
IPC class: A63F 13/00, G06F 3/01
Applicant name: Huang, Defeng

Cited decisions: T 0641/00, T 0258/03, T 1543/06, T 0336/07, T 0012/08

Board: 3.2.04

https://www.epo.org/law-practice/case-law-appeals/pdf/t183033eu1.pdf

Main request, claim 1:
"A man-machine interaction controlling method, wherein kinetic parts of the user are associated with the virtual action parts of the self-role, such that the kinetic part of the user and the associated virtual action part of the self-role are the same, the method comprises steps of:

1) creating the self-role in the virtual environment, wherein the self-role has more than one virtual action part;

2) associating kinetic parts of the user with the virtual action parts of the self-role, wherein the user is lying or sitting at the operating position;

3) setting enlarging proportion of an action range of different virtual action parts relative to action range of the kinetic parts of the user;

4) performing the actions by the user while sitting or lying at the operating position, and obtaining actions performed by the user while the user sits or lies at the operating position; and

5) enlarging the obtained actions according to the enlarging proportion so as to achieve virtual action of the self-role, and enabling the virtual action parts of the self-role to perform the virtual action according to the actions by the kinetic parts of the user, wherein while the self-role is not sitting nor lying during the virtual action in the virtual environment, movement morphology of the self-role is different and not similar with movement morphology of the user, and wherein the user's part supported by the operation position is different from the self-role's part supported by the virtual environment, and further the user remains at the operating position while performing the actions required for controlling the virtual action of the self-role".

3. Main request, subject matter of claim 1

3.1 The present invention relates to the control of an avatar (self-role in the words of the claim) having virtual action parts (limbs) in a virtual environment. In the Board's view it therefore relates to a way of playing a game, which is governed by a set of game rules.

3.2 The Board considers (see T0336/07, reasons 3.3.1) game rules to form part of "[...] a regulatory framework agreed between players and concerning conduct, conventions and conditions that are meaningful only in a gaming context. It is normally so perceived by the players involved, and as serving the explicit purpose of playing a game. As such an agreed framework it is a purely abstract, mental construct, though the means for carrying out the game play in accordance with such a set may well be technical in nature". Moreover, (see T0012/08, reasons 4.6) game rules "form the abstract formal structure of a game describing the interplay between player actions and the choices offered within the game."

3.3 A set of game rules thus determines inter alia how game-play evolves from beginning to end in response to player actions and decisions and the goals to be achieved to conclude game-play.

For example, in the method of claim 1, the step 1 of creating a self-role in a virtual environment will be governed by the rules of the game.

Subject matter related to schemes, rules or methods for playing games, such as characters, a virtual game space environment and game images, as such, is excluded from patentability under Articles 52(2)(c) and 52(3) EPC.

3.4 However, claim 1 also has technical aspects, for example, in step 4, obtaining user actions in the physical world for controlling an avatar implies technical means for detecting the user's actions (cf. published patent application, paragraphs [0047] to [0049] - wearable devices may sense positions and gestures of a user).

Therefore the subject matter of claim 1 has overall technical character (following T0258/03 OJ EPO 2004, 575), even if it is "mixed" (with both technical and non-technical aspects).

3.5 In dealing with such "mixed" inventions, the Board adopts the **approach as set out in T1543/06 (Gameaccount)**, reasons 2.1-2.9, which is based foremost on T0641/00 (OJ EPO 2003, 352). Thus, only those features that contribute to technical character are to be taken into account when assessing inventive step.

3.6 That requirement cannot rely on excluded (non-technical) subject matter alone however original it may be. The mere technical implementation of something excluded cannot therefore form the basis for inventive step. A consideration of the particular manner of implementation must focus on any further technical advantages or effects associated with the specific features of implementation over and above the effects and advantages inherent in the excluded subject-matter.

3.7 In the present case it is necessary to consider what claimed aspects are non-technical, how they have been technically implemented, and whether such implementation is inventive over the prior art.

4. Claim 1, main request, inventive step

The Board agrees with the appellant-applicant that D1 is a good starting point for assessing inventive step.

4.1 D1 discloses (see abstract and figure 1) how a user 18 can control an avatar (self-role) in the game world. Thus it is a man-machine interaction controlling method. The user 18's limbs (kinetic parts in the words of the claim) are associated with the virtual action parts of the self-role, such that the kinetic part of the user and the associated virtual action part of the self-role are the same (see for example and paragraphs [0049], [0052], [100], [0026] and [112] figures 1, 6A and 6B - the user's actions are mapped onto the avatar to control the latter in the game).

4.2 D1 also discloses the following steps:

1) users (see for example paragraph [0114]) model their own avatars or select one from a library (see figure 2). Thus they create the self-role in the virtual environment. The self-role has moving arms, legs and hands (see for example paragraph [0049] and [0052] and the goal keeper avatar in figure 6A or the boxer in figures 7A and 7B). Therefore the self-role has more than one virtual action part.

2) The user's limbs (see paragraph [0112] and [0122] with figure 6A and 7A) are associated with corresponding virtual action parts of the self-role. Moreover, the user can be sitting (see for example paragraph [0049]). Therefore, the user can perform actions whilst sitting in the operating position in accordance with claim feature (4).

4.3 Therefore, the subject matter of claim 1 differs from D1 in respect of its features 3 and 5.

The first of these (feature 3), the Board summarises as:

- setting an enlarging proportion of virtual action parts to the user's kinetic parts means setting the scaling factor by which a user's performed action is to be scaled up on its avatar virtual action part.

The second of these (feature 5), the Board summarises as:

- Scaling up the obtained [user] actions by the enlarging proportion (scaling factor) to control the the self-role [avatar] in carrying out virtual actions.

- The self role [avatar] is neither sitting nor lying when performing.

- The movement morphology of the self-role is different from and not similar to the movement morphology of the user, and

- the user's part supported by the operation position is different from the self-role's part supported by the virtual environment (for example the seated real world user is supported by their buttocks, whereas the avatar is supported by the soles of its feet in the virtual game world, cf. published application paragraph [0059]).

- the user remains at the operating position while performing the actions required for controlling the virtual action of the self-role.

4.4 In the Board's view, all these differing features are governed by the rules of the game concerned.

4.4.1 Taking a certain movement in the real world and scaling it up in the movement of an avatar will be perceived by the player as belonging to the framework and conventions of the game. They will know that, in the game context, when they wish the avatar to make a certain movement of its action part (for example a leg) in the virtual world, they need to move the corresponding part of their body (their leg) by a certain smaller amount in the real world. This scaling up of a real world movement in a game world is a typical game concept. For example, in a notorious joystick controlled game, a small joystick movement typically maps onto a

much larger movement of an entity being controlled in the game world and the player understands this to be part of the convention of the game.

The game rules governing this movement (and scaling) part of the claim could be worded as follows:

1. To make the avatar's (self-role's) limb carry out a particular action the player moves their corresponding limb, but in a different and not similar way and scaled down by a scaling factor.

4.4.2 The remaining differing features relate to rules about what actions are possible in both the real and virtual world. These rules could read as follows:

2. The player must be seated or lying down when controlling their avatar.

3. The player's avatar performs actions without sitting or lying down.

In the Board's view, rules 2 and 3 imply a further condition (that is also a rule) that could be expressed as:

4. When the player is seated or lying to play the game, the part supporting them is different from the part of the avatar supported in the game world.

4.5 Adopting the approach outlined above, **inventive step cannot be found in the mere technical implementation of the above rules, but must reside in the particular manner of implementation. It is therefore necessary to consider how these rules are implemented in the game method of claim 1**.

4.6 This question is to be considered from the point of view of the skilled person - here a gaming software engineer - solving the objective technical problem of modifying D1's man-machine interaction controlling method to implement the above rules.

4.7 In the Board's view, in implementing the above rules the skilled person will inevitably arrive at the subject matter of claim 1.

4.7.1 In implementing rule 1, the skilled person will inevitably arrive at the step of setting an enlarging proportion (scaling factor) as is claimed in step 3. To actually make the avatar move, the only way to implement the rule is to enlarge [user] actions by the enlarging proportion (scale them up) and, moreover, make the avatar's actions (movement morphology) neither the same nor similar to the one performed by the user (claim step 5, first part and middle part).

4.7.2 Implementing rule 2, the skilled person will inevitably require the user to sit when performing actions, thus they will inevitably arrive at claim step 4 (and the last part of claim step 5).

4.7.3 In implementing rule 3, the skilled person has no choice but to design the game so that the avatar neither sits nor lies down when in action. Thus, the skilled person will arrive at the

claim feature governing the avatar moving differently and not similarly to the user, (movement morphology) and, furthermore, since the user must be seated or lying down but the avatar is not, the skilled person will inevitably have the avatar differently supported than the user, as the penultimate part of claim feature 5 requires.

4.8 Therefore**, starting from D1, when implementing the above game rules, the skilled person will arrive at the subject matter of claim 1, without having made an inventive step.**
