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**Datasheet for the decision
of 13 December 2022**

Case Number: T 1049/19 - 3.4.03

Application Number: 11827473.7

Publication Number: 2619669

IPC: G06Q30/02, G06F21/62

Language of the proceedings: EN

Title of invention:

METHODS AND APPARATUS TO DETERMINE IMPRESSIONS USING
DISTRIBUTED DEMOGRAPHIC INFORMATION

Applicant:

The Nielsen Company (US), LLC

Headword:

Relevant legal provisions:

EPC Art. 52(1), 52(2)(c), 56, 111(1)

Keyword:

Inventive step - mixture of technical and non-technical
features - closest prior art - skilled person - main request
(no) - first auxiliary request (no)
Appeal decision - remittal to the department of first instance
(yes)

Decisions cited:

G 0001/19, G 0003/08, T 0641/00, T 2101/12, T 1463/11,
T 0288/19, T 0698/19, T 0524/19

Catchword:

If the claimed non-technical features do not interact with claimed technical features such that they produce a further technical effect, for the assessment of inventive step one may

- either include the corresponding aim to be achieved in a non-technical field in the formulation of the problem as part of the framework of the technical problem that is to be solved,

- or else take the corresponding business scenario as the starting point for the problem and solution approach (see reasons 3.2.2).



Beschwerdekammern

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Case Number: T 1049/19 - 3.4.03

D E C I S I O N
of Technical Board of Appeal 3.4.03
of 13 December 2022

Appellant: The Nielsen Company (US), LLC
(Applicant) 150 North Martingale Road
Schaumburg, IL 60176 (US)

Representative: Samson & Partner Patentanwälte mbB
Widenmayerstraße 6
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Decision under appeal: **Decision of the Examining Division of the
European Patent Office posted on 18 October 2018
refusing European patent application No.
11827473.7 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman T. Häusser
Members: A. Böhm-Pélissier
G. Decker

Summary of Facts and Submissions

- I. The appeal is against the decision of the examining division to refuse patent application No. 11 827 473. The refusal was based on objections under Article 123(2) EPC, lack of inventive step (Articles 52(1) and 56 EPC) over D1, and non-admission of some of the auxiliary requests (Rule 137(3) EPC).
- II. Reference is made to the following **documents**:
- D1 = US 2003/0037131 A1
- D2 = Anonymous: "Google Answers: Storing and retrieving non 3rd party cookies across multiple domains", 30 June 2006, XP055262888, Retrieved from the Internet: URL:<http://answers.google.com/answers/threadview/id/742376.html>
[retrieved on 2016-04-05]
- D3 = US 2008/0086523 A1
- III. The Appellant **requests** that the decision under appeal be set aside and that a patent be granted on the basis of the claims according to the main request or, alternatively, on the basis of the claims according to the first or second auxiliary request, all requests filed with the letter dated 15 November 2022.
- IV. **Claim 1** according to the **main request** (labelling (A), (B), ... introduced by the board):
- (A) A method to monitor media exposure, the method comprising:
- (B) accessing, by a client computer, the media,

- (C) wherein instructions are provided with the media that, when executed at the client computer, cause the client computer to send a first request to a first server of a first internet domain,
- (D) wherein the first request is indicative of access to the media at the client computer and includes identifying information associated with the media;
- (E) receiving, at the first server, the first request from the client computer;
- (F) determining, at the first server, if the client computer is identifiable;
- (G) if the client computer is identifiable, logging, at the first server, an impression of the media;
- (H) if the client computer is not identifiable at the first server: sending, from the first server, a response to the client computer, the response to instruct the client computer to send a second request to a second server of a second internet domain,
- (I) the second request to be indicative of the access to the media at the client computer; and
- (J) in response to the second request provided by the client computer, the second request to cause the second server to:
- (K) determine if the client computer is identifiable as a registered user of services offered by the second internet domain;
- (L) if the client computer is identifiable at the second server, log a second impression, the second impression being logged in association with demographics information; and
- (M) if the client computer is not identifiable at the second server, not log an impression;
- (N) receiving, at the first internet domain, the second impression,

(O) wherein the second impression from the second internet domain includes demographic information of a user associated with the client computer; and
(P) determining that the second impression corresponds to the media presented at the client computer.

V. Claim 1 of the **first auxiliary request**:

Claim 1 differs from claim 1 of the main request in that features (H), (I), (L), (N) and (P) are replaced by features (H1), (I1), (L1), (N1) and (P1) (highlighting with respect to claim 1 of the main request introduced by the board):

(H1) if the client computer is not identifiable at the first server: generating, at the first server, modified values corresponding to the identifying information; mapping the modified values to the identifying information at the first internet domain; sending, from the first server, a response to the client computer, the response including the modified values in place of the identifying information, the response to instruct the client computer to send a second request to a second server of a second internet domain,

(I1) the second request to be indicative of the access to the media at the client computer, and the modified value to be included in the second request; and

(L1) if the client computer is identifiable at the second server, log a second impression based on the modified values, the second impression being logged in association with demographics information; and

(N1) receiving, at the first internet domain, the second impression based on the modified values from the second internet domain,

(P1) determining that the second impression corresponds to the media presented at the client computer based on the modified values of the second impression and the mapping of the modified values to the identifying information at the first internet domain.

VI. Claim 1 of the **second auxiliary request** (highlighting of the amendments with respect to claim 1 of the first auxiliary request introduced by the board):

(A) A method to monitor media exposure, the method comprising:

(B2) providing beacon instructions to be encoded in internet-based media, the internet-based media to be accessed ~~accessing,~~ by a client computer, ~~the media,~~

(C2) wherein the beacon instructions are provided with the internet-based media so that, when executed at the client computer, the beacon instructions are to cause the client computer to send transmit a first request via a first network communication to a first server of a first internet domain without a user of the client computer being involved in the transmission of the first request via the first network communication,

(D2) wherein the first request is indicative of access to the internet-based media at the client computer and includes identifying information ~~associated with,~~ the identifying information to identify the internet-based media;

(E2) receiving, at the first server, the first request from the client computer via the first network communication;

- (F) determining, at the first server, if the client computer is identifiable;
- (G2) if the client computer is identifiable, logging, at the first server, ~~an~~ a first impression of the internet-based media;
- (H2) if the client computer is not identifiable at the first server: generating, at the first server, modified values corresponding to the identifying information; mapping the modified values to the identifying information at the first internet domain; ~~sending-transmitting~~, from the first server, a response to the client computer via a second network communication, the response including the modified values in place of the identifying information, the response to instruct the client computer to ~~send~~ transmit a second request to a second server of a second internet domain via a third network communication without a user of the client computer being involved in the transmission,
- (I2) the second request to be indicative of the access to the internet-based media at the client computer, and the modified value to be included in the second request; and
- (J) in response to the second request provided by the client computer, the second request to cause the second server to:
- (K) determine if the client computer is identifiable as a registered user of services offered by the second internet domain;
- (L2) if the client computer is identifiable at the second server, log a second impression based on the modified values, the second impression being logged in association with demographics information; and
- (M2) if the client computer is not identifiable at the second server, not log ~~an~~ the second impression;

(N2) receiving, at the first internet domain, a fourth network communication including logged impression information indicative of the second impression based on the modified values from the second internet domain, (O2) wherein the ~~second-logged impression information~~ from the second internet domain includes the demographic information of a user associated with the client computer; and
(P2) determining that the second impression corresponds to the internet-based media presented at the client computer based on the modified values of the second impression and the mapping of the modified values to the identifying information at the first internet domain.

VII. The appellant essentially argued as follows:

(a) Main request, first and second auxiliary requests - admission

The main request and the first and second auxiliary requests should be admitted into the proceedings.

(b) Main request and first auxiliary request - inventive step

The claimed subject-matter involved an inventive step over the board's business scenario.

Reasons for the Decision

1. The invention as claimed

1.1 Media exposure, e.g. exposure to advertisements, websites or television programmes, is to be analysed.

For this purpose the behaviour of Internet users is to be monitored and evaluated with respect to demographic data (location, age, gender, etc.). Data security measures do not allow to link data saved in cookies or user databases relating to different web domains.

- 1.2 These security measures are overcome by investigating different web content provider databases or cookies in order to correlate user data: registered users can be easily evaluated at a "first server" via their user account. Furthermore, demographic data from a non-registered user is collected from social network usage ("second server": Google, Facebook, etc.) via user accounts or cookies related to the corresponding web domain. If the user can be identified via this second provider, media exposure can be correlated with demographic data (see the introduction of the description).

2. **Admission of the main request and the first and second auxiliary requests**

The amendments effected in relation to the main request and the first and second auxiliary requests were undertaken in order to overcome new objections raised by the board in its communication under Article 15(1) RPBA 2020. In particular, objections were raised for the first time under Article 84 EPC and under Articles 52(1) and 56 EPC based on document D3 and a business scenario (see below). In view of these exceptional circumstances, which have been justified with cogent reasons by the Appellant, the main request and the first and second auxiliary requests are admitted into the proceedings under Article 13(2) RPBA 2020.

3. Main request - inventive step

3.1 **Technicality**

3.1.1 Technicality was intensively discussed during the first instance procedure and in the impugned decision. For assessing technicality the following purely non-technical **business scenario** is considered which was discussed during oral proceedings before the board:

3.1.2 Two clients (client 1 and client 2) agree that their media consumption behaviour (e.g. TV programmes watched, Internet sites visited, football matches streamed) is monitored via a questionnaire to be filled out during the media consumption. The questionnaire is issued and evaluated by a company named "First Server" (e.g. the Nielsen company providing statistics about media behaviour). As recompense for filling out the questionnaire the clients are promised to receive a free subscription of a TV, computer or football magazine. Both clients provide "First Server" with their address in order to receive the magazine at their home address per postal mail.

3.1.3 Client 1 had earlier provided "First Server" with their personal data (age, gender, etc.) and is registered there. Client 2 does not want to provide their personal data to "First Server" and is not registered there. Both send their questionnaires to the "First Server" company by postal mail with the request to evaluate the questionnaire and to receive as a reward the free subscription of the magazine.

3.1.4 For client 1 who is already registered with their demographic data with "First Server" the media consumption behaviour is logged together with the

demographic data (age, gender, etc.). "First Server" has the following business idea in order to gather demographic data from client 2: Since client 2 does not want to disclose personal data to "First Server", "First Server" looks for a third party that client 2 could trust. "First Server" chooses the fan club department of the football club Bayern München as such a trust institution.

- 3.1.5 "First Server" sends a copy or a pre-evaluation of the filled out questionnaire back to client 2 with the offer that, if they send the questionnaire together with the membership number to the fan club ("Second Server"), client 2 will enter a raffle, where free tickets for matches of FC Bayern München can be won. However, the terms of use must be signed for this. These state that the fan club ("Second Server") is allowed to forward client 2's demographic data to "First Server". "First Server" has a business contract with the fan club and financially rewards every data set comprising both media behaviour data and demographic data.
- 3.1.6 If client 2 follows this suggestion, their questionnaire data is logged with their demographic data and sent to "First Server". "First Server" prefers the data sets (questionnaire and demographic data) to be always sent and processed together, to facilitate the assignment of the demographic data to the questionnaire and to simplify and speed up the processing of the data. Therefore, "First Server" asks client 2 to agree to this procedure. If client 2 does not agree, their questionnaire data is logged without their demographic data.

3.1.7 **Extended business scenario** (first auxiliary request):

If the questionnaire also asks for media behaviour regarding certain football matches, "First Server" may encrypt the questionnaire data provided by client 2 to prevent FC Bayern München from using this data for its own benefit or from drawing conclusions about client 2's behaviour regarding other clubs, e.g. whether client 2 is also a fan of FC Augsburg. This is also in the interest of client 2. If the data is encrypted in the questionnaire ("FC Bayern" is encrypted by "football club A" etc.), "First Server" creates a table to decode this information when evaluating the questionnaire.

3.1.8 This non-technical scenario comprises the following features (non-disclosed features are struck through, the struck-through features correspond to the technical features of claim 1):

(A') A method to monitor media exposure, the method comprising:

(B') accessing, by a client (client 1, client 2) ~~computer~~, the media (e.g. TV programmes watched, Internet sites visited, football matches streamed),

(C') wherein the instructions are provided (in the context) with the media that, when executed at the client ~~computer~~ (the clients fill the questionnaire during watching TV or football matches, e.g. streamed on a computer), cause the client ~~computer~~ to send a first request to a first company server ("First Server" company, e.g. Nielsen Company) ~~of a first internet domain~~ (request to evaluate the questionnaire and to receive the subscription for the magazine),

(D') wherein the first request is indicative of access to the media at the client ~~computer~~ (media behaviour) and includes identifying information associated with

the media (which media, TV programs or football matches watched and when);

(E') receiving, at the first company server, the first request from the client computer;

(F') determining, at the first server, if the client computer is identifiable (i.e. whether the client is already registered with an account comprising the demographic data);

(G') if the client computer is identifiable (e.g. client 1), logging, at the first server, an impression of the media (logging questionnaire data);

(H') if the client computer (e.g. client 2) is not identifiable at the first company server: sending, from the first company server, a response to the client computer, the response to instruct the client computer to send a second request (request to participate in the raffle) to a second company server ~~of a second internet domain~~ ("Second Server", i.e. fan club of FC Bayern München),

(I') the second request to be indicative of the access to the media at the client (client 2 has to provide "Second Server" with the questionnaire in order to participate in the raffle) computer; and

(J') in response to the second request provided by the client computer, the second request to cause the second company server to:

(K) determine if the client computer is identifiable as a registered user of services offered by the second company internet domain (client 2 is a registered member of the fan club and identifiable by the membership number);

(L') if the client computer is identifiable at the second company server, log a second impression, the second impression being logged in association with demographics information (the fan club logs the demographic data known by the membership registration

together with the questionnaire and forwards the complete package of information to "First Server"); and (M') if the client ~~computer~~ is not identifiable at the second company server, not log an impression (if client 2 is not registered as fan club member demographic data cannot be logged); (N') receiving, at the first company internet domain, the second impression ("Second Server" had forwarded the demographic data together with the questionnaire of client 2 to "First Server"), (O') wherein the second impression from the second company server internet domain includes demographic information of a user associated with the client ~~computer~~; (P') and determining that the second impression corresponds to the media presented at the client ~~computer~~.

- 3.1.9 No special technical effect results from implementing the business scenario discussed above into a network computer structure, because in a straightforward technical implementation the questionnaires can be replaced by digital documents, such as online questionnaires, and the requests by simple server communications. The companies are replaced by the corresponding servers, the client is replaced by a client's computer, the client's address is replaced by a digital address (IP number, computer ID etc.).
- 3.1.10 Features (A') to (P') correspond to features (A) to (P) without any technical means or technical effect. Consequently, in features (A) to (P) only the following features can be identified as technical:
- (a) client computer connected to the Internet;
 - (b) the first server (Internet domain) connected to the Internet;

(c) the second server (Internet domain) connected to the Internet.

3.1.11 The implementation of features (A') to (P') into a standard network computer system comprising features (a) to (c) and as disclosed in D1 or D3 does not require any technical skills (see below).

3.1.12 The board therefore agrees with the reasoning of the examining division in the impugned decision (sections 1.2 to 1.8, 1.12) in that features (A') to (P') are non-technical.

3.2 Closest prior art

3.2.1 According to the "COMVIK approach" (cf. T 641/00) non-technical features within the meaning of Article 52(2)(c) EPC, e.g. features related to business methods, cannot contribute to inventive step. These features can thus be included in the formulation of the technical problem. Therefore, the aim to be achieved in a non-technical field may legitimately appear in the formulation of the problem as part of the framework of the technical problem that is to be solved (see G 1/19, point 31; "Case Law of the Boards of Appeal of the European Patent Office", 10th edition, 2022, sections I.D.9.2.1 to 9.2.6).

3.2.2 The board is of the opinion that the non-technical features may also be used to define the starting point for the assessment of inventive step. If the claimed non-technical features do not interact with claimed technical features such that they produce a further technical effect, for the assessment of inventive step one may

- either include the corresponding aim to be achieved in a non-technical field in the formulation of the problem as part of the framework of the technical problem that is to be solved,
- or else take the corresponding business scenario as the starting point for the problem and solution approach.

In the present case the non-technical features (A') to (P') are embodied by the aforementioned business scenario, which is realistic and plausible. It is not considered necessary to provide a document disclosing this business scheme. For example, in T 2101/12 a typical, well-known "process in the notary's office" (see reasons 6.3) was considered closest prior art without any cited prior art document.

3.2.3 Therefore, the aforementioned business scenario is considered the closest prior art and spring-board for the problem and solution approach.

3.3 Difference

Said scenario (features (A') to (P')) differs from claim 1 in features (a) to (c).

3.4 Effect

3.4.1 Features (a) to (c) do not have any "further technical effect" (see G 1/19, reasons 50, 89, 91, 96, 100) going beyond a straightforward digital implementation of the scenario mentioned above. Special technical implementations achieving such a "further technical effect" could be e.g. specifically adapted encryption methods for the data, specific hardware components,

specific optimised software-algorithms or components such as beacon instructions, specifically adapted communication protocols or software-implementation of cookies etc., which could have a non-obvious technical effect. Such a further technical effect would have to be reflected in the claim wording. The board cannot identify such a special technical implementation in claim 1 of the main request.

- 3.4.2 The effect of the difference is therefore merely to automate the scenario described above by implementing features (A') through (P') in a digital system.

3.5 Problem

The technical problem to be solved is thus to implement the scenario into a network computer system.

3.6 Obviousness

- 3.6.1 The solution is straightforward and leads via technical means (a) to (c) - as disclosed e.g. in D1 or D3 - directly to features (A) to (P). Consequently, the subject-matter of claim 1 is obvious over the common general knowledge of the skilled person in combination with a standard computer network.
- 3.6.2 The appellant argued that the "notional business person" (cf. T 1463/11, reasons 16, T 288/19, reasons 3.4.3 ff, T 698/19, reasons 3.6.4, T 524/19, reasons 2.7.5) was not able to implement this scenario, because technical skills for establishing the computer communication and knowledge about programming cookies would be required. A "real business person" having technical knowledge about cookies and java scripts

instead of a "notional business person" without such skills was therefore in fact considered.

- 3.6.3 However, the board is of the opinion that the "notional business person" (cf. T 1463/11) only constructs the business scenario and does not need to have any technical knowledge (features (A') to (P')). The objective technical problem of the "technically skilled person", i.e. a computer engineer, is then to implement the business scenario into a network computer system. This technical implementation is a straightforward technical task which does not need any inventive skills. The expert providing the technical implementation (features (a) to (c)) does not consider changing the business scenario and takes the business boundary conditions of the scenario for granted.
- 3.6.4 Logging data could be implemented by tracking media data using cookies and specific java scripts (cf. D1, D3), however cookies and details about specific java scripts are not part of the claimed subject-matter and are not necessary for the technical implementation of features (A') to (P'). As no specific and non-obvious technical features are defined in the independent claim for realising the business scenario, features (A) to (P) correspond to a straightforward technical implementation of a business concept.
- 3.6.5 Therefore, the implementation of the scenario into a digital system does not require any inventive activity. Consequently, the subject-matter of claim 1 of the main request does not involve an inventive step with respect to the scenario in combination with the common general knowledge of the technically skilled person (Articles 52(1) and 56 EPC).

4. **First auxiliary request - inventive step**

4.1 **Amendments**

4.1.1 The first auxiliary request differs from the main request mainly in that "modified values corresponding to identifying information" are created and that the modified values are mapped to the identifying information of the first Internet domain. In practice, this corresponds to replacing the site ID (URL) with a modified site ID.

4.1.2 In the extended business scenario, this corresponds to pseudonymising the identity of the media ("identifying information associated with the media") and mapping the pseudonym in a conversion table, e.g. streamed soccer matches are pseudonymized by replacing "FC Bayern" with "football club A".

4.2 **Difference - Effect - Problem - Obviousness**

4.2.1 Therefore, the extended business scenario comprises all the additional features of claim 1 of the first auxiliary request. Consequently, the differences to the extended scenario are still the features (a) to (c). Therefore the same reasoning (see sections 3.4 to 3.6 above) as to inventive step applies.

4.2.2 Consequently, the subject-matter of claim 1 of the first auxiliary request does not involve an inventive step with respect to the extended business scenario discussed above (Articles 52(1) and 56 EPC).

5. Second auxiliary request

5.1 Amendments

In order to distinguish the claimed subject-matter of the second auxiliary request from the business scenario it was specified that

- (a) the requests are sent via network communications and
- (b) beacon instructions cause the transmission of the requests.

5.2 Remittal to the examining division

In the second auxiliary request new technical features were introduced, in particular the beacon instructions, which were never assessed by the examining division for compliance with the EPC. It is no longer possible to consider the business scenario as closest prior art. It is the task of the examining division to determine whether the new features contribute to a further technical effect (cf. reasoning in point 3.4.1 above) and whether this involves an inventive step. Therefore, the board remits the case to the examining division for further prosecution, Articles 111(1), second sentence, EPC, 11 RPBA 2020.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the examining division for further prosecution.

The Registrar:

The Chairman:



S. Sánchez Chiquero

T. Häusser

Decision electronically authenticated