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**Datasheet for the decision
of 21 May 2021**

Case Number: T 1632/18 - 3.5.07

Application Number: 11717807.9

Publication Number: 2556449

IPC: G06F17/30

Language of the proceedings: EN

Title of invention:

System and method for dynamically enabling customized web content and applications

Applicant:

Liveperson Inc.

Headword:

Dynamically enabling customized web content/LIVEPERSON

Relevant legal provisions:

EPC Art. 56

RPBA Art. 12(4)

Keyword:

Inventive step - main request (no)

Amended claims filed with the statement of grounds of appeal - first to fifth auxiliary requests - not admitted

Decisions cited:

T 0154/04, T 1178/08, T 1212/08, T 1108/10, T 1463/11,
T 1420/16, T 0697/17, T 1924/17, T 2825/19



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Case Number: T 1632/18 - 3.5.07

D E C I S I O N
of Technical Board of Appeal 3.5.07
of 21 May 2021

Appellant: Liveperson Inc.
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New York, NY 10018 (US)

Representative: Mewburn Ellis LLP
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Decision under appeal: **Decision of the Examining Division of the
European Patent Office posted on 30 January 2018
refusing European patent application No.
11717807.9 pursuant to Article 97(2) EPC**

Composition of the Board:

Chair M. Jaedicke
Members: C. Barel-Faucheux
E. Mille

Summary of Facts and Submissions

- I. The applicant (appellant) appealed against the decision of the examining division refusing European patent application No. 11717807.9, filed as international application PCT/US2011/031239 (published as WO 2011/127049). The application claims a priority date of 7 April 2010.
- II. The documents cited in the contested decision were:
D1: EP 1 840 803 A1, published on 3 October 2007;
D2: Bry, F., et al., "Realizing Business Processes with ECA Rules: Benefits, Challenges, Limits", Principles and Practice of Semantic Web Reasoning, Lecture Notes in Computer Science, vol. 4187, pp. 48-62, January 2006;
D3: Mesbah, A., et al., "A component- and push-based architectural style for AJAX applications", The Journal of Systems & Software, Elsevier, vol. 81, No. 12, December 2008, pp. 2194-2209.
- III. The examining division refused the application for lack of inventive step of the subject-matter of independent claim 1 of the then pending main request and the then pending auxiliary request over the prior art disclosed in document D1. The examining division considered some of the claimed features to be non-technical aspects.
- IV. In its statement setting out the grounds of appeal, the appellant requested that the decision be set aside and that a patent be granted based on a main request (corresponding to the auxiliary request considered in the contested decision - except that claims 14 and 15 had been corrected to refer to an apparatus rather than to a method) or, alternatively, one of the first to

fifth auxiliary requests, all requests as submitted with the statement setting out the grounds of appeal. Moreover, the appellant filed a declaration by Efim Dimenstein, one of the inventors in the present application, concerning the inventive step of the claimed invention when compared to the prior art.

- V. In a subsequently filed letter dated 16 December 2019, the appellant argued that the main request and the auxiliary requests were admissible and that the declaration did not introduce fresh issues that had not been considered by the department of first instance.

- VI. In a communication under Article 15(1) RPBA 2020 accompanying the summons to oral proceedings, the board expressed, among other things, its provisional opinion that the subject-matter of claim 1 of all requests lacked inventive step in view of document D1. Additionally, the board expressed doubts about the admissibility of all auxiliary requests under Article 12(4) RPBA 2007.

- VII. In a subsequently filed letter, the appellant submitted further arguments.

- VIII. Oral proceedings were held as scheduled by videoconference and the appellant was heard on the relevant issues. At the end of the oral proceedings, the chairman announced the board's decision.

- IX. The appellant's final requests were that the contested decision be set aside and that a patent be granted on the basis of the main request or, alternatively, one of

the first to fifth auxiliary requests, all requests as submitted with the statement setting out the grounds of appeal.

X. Claim 1 of the main request reads as follows

(itemisation added by the board):

"[A] A computer-implemented method, comprising:

[B] storing a set of rules, at a custom content server, wherein a rule is associated with a condition, wherein a rule defines when to transmit customized webpage data, and wherein customized webpage data corresponds to an interaction with a webpage;

[C] receiving, at the custom content server, a request for a default tag code, wherein the request is associated with loading webpage data from a general content server on a computing device, wherein the webpage data includes original content data and a tag, wherein the tag is configured to facilitate communication between the computing device and the custom content server, wherein when the webpage data from the general content server is loaded on the computing device, the computing device displays a webpage corresponding to the original content data and the tag causes the request for the default tag code to be transmitted to the custom content server;

[D] transmitting the default tag code, wherein when the default tag code is received at the computing device, the default tag code is executed, wherein executing the default tag code generates a tag module that is stored in the computing device, wherein the default tag code includes instructions that configure the tag module to monitor an interaction with the webpage, and

wherein the tag module is associated with a tag identifier;

- [E] receiving behaviour data depicting interactions with the webpage, wherein the behaviour data is generated and appended to the tag identifier associated with the tag module when the tag module detects an interaction;
- [F] selecting a rule from the stored set of rules, wherein selecting includes using the tag identifier, and wherein the rule defines customized webpage data;
- [G] determining, based on the received behaviour data, whether the behavior data appended to the tag identifier satisfies the condition associated with the rule; and
- [H] transmitting the customized webpage data when the condition associated with the rule has been satisfied."

XI. Claim 1 of the first auxiliary request differs from claim 1 of the main request in that it additionally recites the following feature at the end of feature F: ", wherein the customized webpage data includes third party code configured to store information indicative of interaction with the webpage, the information being accessible to a third party;".

XII. Claim 1 of the second auxiliary request differs from claim 1 of the main request in that it amends "a webpage" to "a first webpage" in features B and C and "the webpage" to "the first webpage" in features D and E. Moreover, it adds ", wherein the customized webpage data includes third party code configured to store information indicative of interaction with the first webpage" at the end of feature F. Finally, it adds the text "; and using, by a third party, the

stored information to incorporate new content into content of a second webpage" at the end of the claim.

- XIII. Claim 1 of the third auxiliary request differs from claim 1 of the main request in that it adds "and between the computing device and a content resource" after "to facilitate communication between the computing device and the custom content server" in feature C and ", the customized webpage data including a reference which, when executed by the tag module, results in the tag module downloading code from the content resource" at the end of feature F.
- XIV. Claim 1 of the fourth auxiliary request differs from claim 1 of the third auxiliary request in that it also adds "and the customized webpage data including third party code configured to store information indicative of interaction with the webpage, the information being accessible to a third party" at the end of feature F as modified in the third auxiliary request.
- XV. Claim 1 of the fifth auxiliary request differs from claim 1 of the second auxiliary request in that it adds "and between the computing device and a content resource" after "to facilitate communication between the computing device and the custom content server" in feature C, and replaces feature F as amended in the second auxiliary request by the following text:
"selecting a rule from the stored set of rules, wherein selecting includes using the tag identifier, and wherein the rule defines customized webpage data, the customized webpage data including a reference which, when executed by the tag module, results in the tag module downloading code from the content resource and the customized webpage data including third party code

configured to store information indicative of interaction with the first webpage;".

- XVI. The appellant's arguments, where relevant to the decision, are discussed in detail below.

Reasons for the Decision

The invention

1. The application relates to generating customised web page content based on a visitor's interactions with the web page, for example targeted advertising in web pages (description of the application as originally filed, paragraphs [0003], [0012], [0026], [0039], [0041], [0044], [0047]).

For example, a website provider of web page content can partner with a video company to incorporate video content such as advertisements into the website provider's web pages without modifying the original Hypertext Markup Language (HTML) code of the web pages (description, paragraph [0043]). A web page visitor's interactions with a website can be stored as a cookie (paragraphs [0045] to [0048]).

In one implementation, the content of a web page already includes a tag in HTML code that references (e.g. with a URL link) a JavaScript file (the "default tag code") on a custom content server different from the website's server (i.e. the general content server; paragraphs [0022], [0043]). The website provider can create rules that cause video content (i.e. the new content) to be downloaded from a custom content server and added into web page content using the tag. For example, the website provider can configure a rule so

that (upon the occurrence of a condition) video code is uploaded to, and executed on, the visitor's browser, resulting in the video content being integrated into web page content without the visitor having to navigate away from the web page (paragraph [0043]).

Main request

2. *Inventive step*

2.1 Interpretation of claim 1

The board understands that the computing device to which claim 1 refers in feature C (for the itemisation of the claim, see above, point X.), for example, is separate from the custom content server and the general content server and is the client device used by a user for interacting with the web page.

2.2 The examining division considered document D1 to be the starting point for assessing inventive step and this was not contested by the appellant. According to the appellant, a distinguishing feature of the method according to claim 1 over document D1 is feature C. The examining division identified a different set of distinguishing features. In view of these differences of opinion, the board assesses below which features of claim 1 are disclosed by document D1.

2.3 Document D1 discloses a method of modifying a web page rendered on a client device based on user interactions with this web page and further context. The web page is modified by means of a rules engine running on a server, which may or may not be the server from which the displayed web page was requested (see D1, paragraphs [0013], [0017] to [0019], [0029], [0030],

[0039], [0040]). Context refers to the context in which the requested web page will be communicated to and executed on the client device. That context can include user "properties" (e.g. security permissions, age, locale, and so forth), client device properties and communication channel properties (paragraph [0042]).

In the method disclosed in D1, a rendered web page may be modified when user-entered data is pre-processed. Pre-processing is effected whenever a user completes or at least updates designated input fields of a rendered web page on the client device, and it is triggered when the user exits those fields (e.g. by striking the tab key, mouse-clicking another field; see D1, paragraph [0050]).

In one example implementation, depicted as a flowchart in Figure 3 of document D1 and described in paragraphs [0051] and [0052], the rules engine embeds code (e.g. JavaScript) in a first instance of the web page sent to the client responsible for (i) rendering that page within the web browser, (ii) monitoring entry and/or modification of data in the input fields of that page, (iii) transmitting that user-entered data to the server digital data processor, e.g. by way of HTTP requests with embedded XML, and (iv) re-rendering the page (or a portion thereof) with information received from the server based on pre-processing of the user-entered data. When transmitting the user-entered data to the server, the embedded JavaScript code can, additionally, provide identifiers associated with the input fields that have been changed by the user.

2.4 In view of the above, the board considers that the method according to D1 already discloses most aspects of the method according to claim 1: the storage and use

of a set of rules for re-generating a web page, the transmission of code (JavaScript) from a server to the client for execution by a web browser. The transmitted code in D1 has a similar functionality to the transmitted code in the claimed method in that the user input (i.e. interactions with the web page by completing an input form and the like) is monitored and the data obtained is transmitted from the client to the server, where the stored rules are used to evaluate the received interaction data to customise the web page by retransmitting modified web page data from the server to the client.

The board considers that the behaviour data, i.e. monitored user input, satisfies a condition associated with a rule if customised web page data is generated by application of a rule. It further considers that this is also a pre-condition for transmitting customised web page data.

At the oral proceedings before the board, the appellant argued that a distinguishing feature was that the tag causes a request for the default tag code to be transmitted to the custom content server. The board agrees with the appellant in this matter.

2.5 The claimed invention thus differs from the method of document D1 in the following distinguishing features:

- DF1 The rules and the web page data are stored on different servers (custom content server and general content server), and the (client) computing device communicates with both servers.
- DF2 The web page requested from the general content server contains a tag configured to facilitate communication between the computing device and the custom content server, the tag causing a

request for the default tag code to be transmitted to the custom content server, which then receives that request.

DF3 The tag module is associated with an identifier to which the behaviour data (of the user's interaction) is appended and which is used for selecting a rule from the set of rules stored on the custom content server.

2.5.1 In its statement of grounds of appeal, the appellant submitted that the distinguishing features comprised the entire feature C of claim 1. It argued that the client communicated directly with both servers.

The board agrees that the client communicates with both servers, but does not see how the claim specifies that this communication is "direct". The claim does not exclude any indirect communication (via a proxy or one of the servers, for example). In any case, the issue of whether the communication is direct or indirect is not crucial in the assessment of inventive step in the present case. As argued by the appellant, an essential point is that the claimed method is based on the concept of providing a web page from a first server and customisation from a second server.

2.6 In its statement of grounds of appeal, the appellant argued that the technical effect was that it was simpler to install and maintain customisation of web page content. Thus, an objective technical problem to be solved could be formulated as how to provide a method for dynamically customising web page content which is simpler to install and maintain.

2.6.1 The board does not find the appellant's formulation of the objective technical problem as indicated above in

point 2.6 convincing. The application itself starts from the problem that it was a challenge to constantly maintain web page code stored on content servers and that it was difficult to customise a web page based on a visitor's interaction with the web page. Furthermore, the application discloses, in paragraph [0012] of the description, that a technical problem addressed by the invention was how to customise the behaviour of a website for each individual visitor such that web page content can be modified (and/or additionally processed) without modifying the underlying code for the web page (e.g. the code stored on a content server).

However, the problem of web page customisation without modification of the underlying code of the web page is already solved by the method disclosed in document D1. Consequently, the board finds that the claimed method solves the more specific problem (see paragraphs [0043] and [0044] of the description) of how to allow a third party company (such as an advertising company) to customise the behaviour of a website (as known from document D1) for each individual visitor by incorporating third party content into web page content of a website provider.

2.7 In its written reply to the board's communication, the appellant argued that the distinguishing features provided the technical effect of reducing the load of the general content server. It considered that the board's formulation of the objective technical problem was incorrect, since the claim also covered situations in which the general content server and the custom content server were under the same administrative control. The appellant formulated the objective technical problem as how to improve the technical implementation of a method for customising websites for

each individual user without modifying the underlying code for the web page. It argued that reducing the load of the general content server was technical, citing decision T 1463/11 and the Guidelines for Examination in the European Patent Office, which refer to processor load balancing as providing a further technical effect. As the prior art did not provide any pointer to the solution, the subject-matter of claim 1 was inventive.

- 2.8 In the circumstances of the present case, the board does not recognise the alleged effect of load reduction as a technical effect. Firstly, there is no disclosure in the application as filed regarding this effect. Secondly, the board does not consider that moving processing tasks from the general content server to the custom content server in order to bring a task under the administrative control of a third party which controls the custom content server, as in the present case, can be regarded as a technical consideration.

In this context, the board refers to decision T 2825/19, Reasons 5.3.6, which states that further technical considerations could be considerations that specifically exploit technical properties of the computer system hardware to solve a technical problem related to the internal operation of the computer system. In that decision, the board saw no support for a broad interpretation of the concept of "further technical considerations". In the present case, the board finds that any reduction of the processing load on the general content server is not the result of further technical considerations, but rather the result of administrative considerations relating to the administrative control over the third party content and the website provider content.

According to decision T 1924/17, Reasons 21.2, certain characteristics of computer-implemented methods, such as speed and efficiency, are inherent in both technical and non-technical methods. Further according to that decision, if an enhanced speed or efficiency of a claimed computer-implemented method is the result of "further" technical considerations which are adequately reflected in the claimed method, such an improvement may be considered as contributing to the solution of a technical problem and also as a technical effect of the claimed method (see also decision T 697/17, Reasons 5.2.3). This is evidently also true with respect to the load that a computer-implemented method imposes on a computer, as load can be generated by technical or non-technical programs and can be reduced (or increased) on the basis of technical or non-technical considerations. The fact that the board ruling in T 1463/11 recognised a technical effect of load reduction may be attributable to the different factual circumstances in the case underlying that decision. In view of the above, the board is not convinced by the appellant's arguments regarding a load reduction.

As regards the appellant's argument that the claim also covered situations in which the general content server and the custom content server are under the same administrative control, the board notes that the method of claim 1 is not limited to these situations. Already for this reason, the argument is not convincing.

2.9 At the oral proceedings before the board, the appellant argued that a technical effect of the claimed method was scalability, as the method was able to operate across clients. The appellant referred to the description, paragraphs [0034] and [0035], which disclosed that the claimed method supported many

customers, each being associated with a unique identifier. Consequently, the claimed implementation supported scalability with respect to different customers. The appellant argued that this scalability was a technical effect within the meaning of the case law, as it was based on technical considerations (see decisions T 697/17, Reasons 5.2.3, and T 1924/17, Reasons 21.2).

2.10 The appellant then reformulated the problem, during the oral proceedings, as "how to implement a scalable computer system in which a content provider can incorporate customised web page content into general web page content of different web page providers".

2.10.1 As discussed at the oral proceedings, the board does not find any support for scalability with respect to customers in the wording of claim 1, which refers only to a single tag module, a single tag identifier and a single custom content server. At the oral proceedings, the board stated that scalability in the context of web applications was often understood to be simultaneous access by web clients that was scalable with respect to the number of clients. The appellant countered that scalability in the context of the claimed method did not relate to simultaneous access, but to scalability across clients. The board nevertheless finds that the appellant's concept of "scalability" is, in any case, merely a non-technical program functionality that is devoid of any technical character.

2.11 The appellant further argued that the centralised storage of the default tag code on the custom content server instead of a distributed storage of this code

across all clients improved memory efficiency, which was a technical effect within the meaning of decision T 1420/16, Reasons 9.5, for example.

2.11.1 Document D1 discloses adding the scripts to the web page on the server (see D1, Figure 3, reference sign 44) and distributing these scripts (code) with the web page to the client. The invention as claimed distributes the default tag code stored on the custom content server to the client. Therefore, the board does not find any improvement in memory efficiency over D1 for the method of claim 1.

2.12 As document D1 discloses the use of multiple servers, the distinguishing features amount to a different use of the computer system disclosed in D1 for a non-technical purpose (essentially provision of customised web page content by third parties).

The board is not convinced that the distinguishing features contribute to a technical effect or are based on further technical considerations. Therefore, it does not find that the distinguishing features contribute to the technical character of the claimed method. Hence, the distinguishing features are not included in the assessment of inventive step (see decision T 154/04, OJ EPO 2008, 46, point 5 (F) of the reasons: "Non-technical features, to the extent that they do not interact with the technical subject matter of the claim for solving a technical problem, i.e. non-technical features "as such", do not provide a technical contribution to the prior art and are thus ignored in assessing novelty and inventive step.").

2.13 Consequently, the method of claim 1 according to the main request lacks inventive step (Article 56 EPC).

Auxiliary requests

3. *Admissibility*

3.1 Appeal proceedings are not intended to be a continuation, let alone a replacement, of the first-instance proceedings. According to Article 12(4) RPBA 2007, the board has the power to hold that facts, evidence or requests which could have been presented in the first-instance proceedings are inadmissible (see decisions T 1178/08, Reasons 2.1 to 2.5; T 1212/08, Reasons 4.1 to 4.7; and T 1108/10, Reasons 3.2.1 to 3.2.5; and Case Law of the Boards of Appeal of the EPO, 9th edition 2019, V.A.4.11.4 b)).

3.2 In the proceedings before the department of first instance, the appellant had been informed of the essential reasoning for refusal of the application in the examining division's summons, in a telephone interview and also in the minutes of the interview. In the telephone interview, the then first auxiliary request, filed in response to the examining division's summons, was discussed before the oral proceedings. The appellant attended the oral proceedings, but did not file any further auxiliary requests. With its statement setting out the grounds of appeal, it filed five new auxiliary requests comprising features based on the description.

3.3 In support of admission of its auxiliary requests, the appellant argued that they were a direct response to the contested decision, as it had only then realised that these requests were needed. The features added by

the auxiliary requests were taken from main embodiments according to Figures 1 and 6, which formed key parts of the description.

The appellant argued that Article 12(4) RPBA 2007 applied to the statement setting out the grounds of appeal in the present case and permitted a limited scope of amendments. Referring to the Case Law of the Boards of Appeal of the EPO, 9th edition 2019, V.A.4.11.1, it argued that, in the present case, the auxiliary requests did not result in a "fresh case", as there was no substantial change in the scope of the proceedings; the features added by the auxiliary requests amounted to a continuation on the basis of the same arguments. Finally, according to the appellant, the Guidelines for Examination in the European Patent Office B-III, 3.5, instructed examiners to look at the main embodiments of the application.

3.4 The board, having regard to the particular circumstances of the present case, considers that the auxiliary requests could and should have been presented earlier, at the latest in the oral proceedings before the examining division.

In the present case, the board sees no reason why the appellant could only have filed the auxiliary requests in response to the contested decision, as the essential line of reasoning for this decision had been communicated earlier. The appellant was not able to indicate any particular point of the reasoning of the contested decision to which it could not have responded earlier.

As far as the features added to the auxiliary requests are concerned, the board does not find the appellant's

arguments convincing: the auxiliary requests add features taken from the description that add aspects such as third party code, accessibility of information to a third party and content resources for downloading code that were not considered by the department of first instance in its decision. Thus, admitting the auxiliary requests would not allow the board to review the decision under appeal in a judicial manner (Article 12(2) RPBA 2020) but would instead mean it had to deal with a fresh case in the appeal proceedings or remit the case to the competent department of first instance. In the present case, a remittal is not justifiable under Article 11 RPBA 2020, as there are no special reasons for remitting the case.

- 3.5 In view of the above, the board does not admit the first to fifth auxiliary requests into the appeal proceedings (Article 12(4) RPBA 2007).

Conclusion

4. Since the sole request admitted into the appeal proceedings is not allowable, the appeal is to be dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chair:



S. Lichtenvort

M. Jaedicke

Decision electronically authenticated