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**Datasheet for the decision
of 27 January 2011**

Case Number: T 1244/07 - 3.5.01
Application Number: 01113935.9
Publication Number: 1134680
IPC: G06F 17/60, G06F 3/033
Language of the proceedings: EN

Title of invention:

Method and system for placing a purchase order via a
communications network

Applicant:

Amazon.Com, Inc.

Opponent:

-

Headword:

1-Click/AMAZON

Relevant legal provisions:

-

Relevant legal provisions (EPC 1973):

EPC Art. 56

Keyword:

"Inventive step - use of cookie to look up customer data (no - obvious from D1 and D3)"

"Inventive step - enabling single-action ordering (no - shift of responsibility for security is form of human behaviour not contributing to inventive step)"

"Long felt want (no - immediate application of newly available programming feature)"

"Inventive step - omitting confirmation steps in an ordering process (no - aspect of business method)"

"Inventive step - combining orders sent within a certain time (no - administrative rule)"

"Inventive step - displaying indication that single-action order can be cancelled within a predetermined time period (no - presentation of administrative information)"

Decisions cited:

G 0003/08

Catchword:

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Case Number: T 1244/07 - 3.5.01

D E C I S I O N
of the Technical Board of Appeal 3.5.01
of 27 January 2011

Appellant: Amazon.Com, Inc.
1516 Second Avenue
Seattle, WA 98101 (US)

Representative: Grünecker, Kinkeldey
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Decision under appeal: Decision of the Examining Division of the
European Patent Office posted 15 February 2007
refusing European patent application
No. 01113935.9 pursuant to Article 97(1) EPC
1973.

Composition of the Board:

Chairman: S. Wibergh
Members: W. Chandler
P. Schmitz
K. Bumès
A. Pignatelli

Summary of Facts and Submissions

- I. This appeal is against the decision of the examining division to refuse the European patent application No. 01113935.9, which is a divisional of application No. 98117261.2, claiming an earliest priority of 12 September 1997.
- II. The examining division considered that the method for ordering an item in claim 1 of the main request was not new and that of claim 1 of the first to third auxiliary requests was not inventive over the article:
- D1: "Implementing a Web Shopping Cart" by Baron C. et al. in Dr. Dobbs Journal, US, Redwood City, CA, September 1996, pages 64,66,68-69,83-85.
- The division also referred to the article:
- D3: "How popular sites use cookie technology" by Bowen B.D. in NetscapeWorld, April 1997.
- III. In the statement setting out the grounds of appeal, which discussed the examining division's reasons extensively, the appellant requested that the decision under appeal be set aside and that a patent be granted on the basis of a filed main and first to third auxiliary requests, which were the same as the refused requests. The appellant also made an auxiliary request for oral proceedings.
- IV. In the communication accompanying the summons to oral proceedings, the Board summarised the issues to be discussed and tended to agree with the examining

division's findings. The Board also introduced the following documents or decisions into the procedure:

- D5: Yeşil M.: "Creating the Virtual Store", Wiley Computer Publishing, 1996, ISBN 0-471-16494-1, pages 321 to 352
- D6: Decision No. 00-1109 of the United States Court of Appeals for the Federal Circuit, dated 14 February 2001 (available from <http://www.ll.georgetown.edu/federal/judicial/fed/opinions/00opinions/00-1109.pdf>)
- D7: Decision No. 1290 of the Canadian Patent Appeal Board and the Commissioner of Patents, dated 5 March 2009 (available from <http://brevets-patents.ic.gc.ca/opic-cipo/comdec/eng/decision/1290/summary.html?query=1290+%3cin%3e+comdecnumber&start=1&num=10>)

V. At the oral proceedings the appellant withdrew the original main request and requested that the decision under appeal be set aside and that a patent be granted on the basis of the first to third auxiliary requests filed with the statement setting out the grounds of appeal dated 25 June 2007, which were further pursued as the main and first and second auxiliary requests. At the end of the oral proceedings the Chairman announced the decision.

VI. Claim 1 of the main request (filed as first auxiliary request) reads as follows:

"A method for ordering an item using a client system, the method comprising:

receiving from a server system a client identifier of the client system when the client system first interacts with a server system;

persistently storing the client identifier at the client system, wherein the client identifier is from then on included in messages sent from the client system to the server system and retrieved by the server system each time a message with an identifier is received from the client system by the server system;

storing at the server system for that client and other clients a customer table containing a mapping from each client identifier identifying a client system to a purchaser last associated to said client system;

storing at the server system customer information for various purchasers or potential purchasers, said customer information containing purchaser-specific order information, including sensitive information related to the purchaser;

connecting at a later point in time, when a purchase is intended, the client system to the server system, comprising the steps of:

sending from the client system a request for information describing an item to be ordered along with the client identifier;

determining at the server system whether single-action ordering is enabled for that purchaser at the client system;

if enabled sending from the server system the requested information to the client system along with an indication to perform a single action to place the order for the item;

displaying at the client system information identifying the item and displaying an indication of a single action that is to be performed to order the identified item,

performing at the client system that single action and in response to that indicated single action being performed, sending to a server a single action order to order the identified item and automatically sending the client identifier whereby a purchaser does not input identification information when ordering the item, and

completing at the server system the order by adding the purchaser-specific order information including said sensitive information that is mapped to the client identifier received from the client system."

Claim 1 of the first auxiliary request (filed as second auxiliary request) adds to claim 1 of the main request:

at end of the first feature, "said client identifier being a globally unique identifier that uniquely identifies the client system";

after the fourth feature, "wherein said sensitive information includes payment information and shipping address information";

at the end of the claim, "wherein changing the shipping address information on request by the client system requires the purchaser to perform a log in so

that the identity of the purchaser can be verified before the shipping information is viewed or changed

wherein single action orders are combined in a single order for shipping when sent within a certain time interval."

Claim 1 of the second auxiliary request (filed as third auxiliary request) adds to the end of claim 1 of the first auxiliary request,

"and further including the step of

displaying an indication that the order for the item that is requested in response to the single action can be cancelled within a predetermined time period."

Reasons for the Decision

The application

1. The application is a divisional application derived from and essentially identical to the original parent "1-click" application, which was withdrawn. It relates to purchasing an item over the Internet in a single action.
2. The application starts by acknowledging the technique of online shopping. The user must somehow select items (e.g. using the "shopping cart" model - paragraph 6 of the published application) and then complete the order with personal information (e.g. address and credit card information - paragraphs 5 and 6). The invention sets out to reduce the number of user interactions involved

- in selecting items and also to reduce the amount of sensitive information sent over the Internet, which may be intercepted (paragraph 10).
3. Both objects are achieved by displaying (for registered purchasers and if enabled by the purchaser) a "1-click" ordering button (Figure 1A: 103a) alongside the description of an item. Clicking on this button sends an order for the item accompanied by a code identifying the purchaser (client identifier - paragraph 10). The server uses the code to reference the purchaser's address and payment details. Thus in a single action the item is ordered and the (registered) purchaser is identified (paragraph 10). This means that the purchaser does not have to enter any further order or personal information (reducing interactions) and that no personal information can be intercepted (reducing sensitive information sent). This is essentially what is claimed in claim 1 of the main request.
 4. The Board adds at this stage that although the application has generally been referred to as the "1-click" application, there may in fact be several clicks involved in ordering an item depending on where one starts counting. In the case of claim 1, this is the reference point implied by the feature of "displaying the information identifying the item" (see point 11, below). Moreover, the real advantage is that a registered purchaser does not need to enter personal information at the time of purchase. Thus, the invention might be more precisely defined as "no-checkout" ordering.

Prior art

5. In the decision under appeal the examining division started from D1 as the closest prior art. D1 describes how to implement a shopping cart. It describes the situation in the mid-90s (page 64, columns 2 and 3) when it was known that although the web and HTTP were good for entering, storing and displaying data required for online shopping, they were not good for shopping cart type applications because there was no mechanism for remembering any previous transactions. This was because HTTP was a stateless protocol. At the oral proceedings the representative described it somewhat more graphically with the analogy of someone distributing advertising flyers in front of the town hall in Munich; the person (server) may give out thousands of flyers (web page data), but at the end of the day he is not in a position to remember anything about any of the people (clients) who he gave the information to.

6. There was no basic disagreement about the examining division's analysis at point 1.1 of the decision of the three different ways of implementing a shopping cart disclosed in D1 at the paragraph bridging pages 64 and 66. Thus, in a first embodiment, shopping cart data is passed using hidden fields of an HTML form and processed using CGI scripts in the server. The example corresponding to this embodiment ("Listing One", pages 83 to 84) shows a method using steps for selecting a list of items and steps for ordering that list. In a second embodiment, shopping cart data is stored in a cookie, i.e. a text file, which is exchanged with every interaction between the client

computer and the server. In a third embodiment ("Databases : Tried and True"), the cookie is a "UserId" that links a user to shopping cart data and "more data about the user" stored in a database on the web server.

7. The division then went on to state at point 1.2 that in view of the advantages mentioned in "Listing One", the skilled person would realise that "'more data about the user' would encompass at least the data found on Fig 4, namely the name and the shipping address and the payment data." In the Board's view, the "more data about the user" mentioned in the third embodiment might well fall under the claimed "purchaser-specific order information including said sensitive information" so that the data itself is not distinguished over the prior art. However, since even the examining division admitted that D1 only *hints* how the embodiments may be related, the Board agrees with the appellant that it is going too far to use the programmer's comments in "Listing One" of the first embodiment to conclude that the "more data about the user" in the third embodiment implies the specific data in Figure 4, in particular to the extent that the need for entering this information at the stage of placing the order is dispensed with as claimed (see point 12, below).

Main request

8. The Board has reviewed the analysis of the features of claim 1 in the decision under appeal in the light of the appellant's arguments and agrees with the examining division that they lack inventive step. The reasons,

which are slightly different from those of the examining division, are set out below.

9. There was no real dispute in the present proceedings about the examining division's findings at points 6.1 and 6.2 of their decision that D1 disclosed the second to seventh features of the claim.

10. Concerning the client identifier of the first feature, the Board agrees with the examining division at point 2.b) (on page 6) that the cookie UserId in D1 is a client identifier because it is a unique number generated by the server, sent to the client in a file, i.e. persistently stored at the client system and included in every request of the client sent to that particular server.
The appellant argued that the UserId cookie in D1 would not identify a user but would only identify a session, and would not be persistent but would be generated each time a purchaser began a new session.
However, the Board agrees with the examining division that the UserId in D1 is rather a user identifier than a session identifier, as the cookie in Listing Three is not generated each time there is a connection but is only generated if it was not sent along with a request or does not exist in the database. Moreover, the claim only recites "a client identifier of the client *system*" (Board's emphasis), so that the invention does not actually identify the purchaser either. Thus the system will consider any purchaser using a given computer to be the person associated with the client identifier, which is the same as in D1 and is the reason for having to provide the additional security measure of enabling the single-action ordering (see below). Also the claim

encompasses the allegedly different property of D1 that the same user connecting to the server from two different clients would have had two different "UserIDs". The Board therefore judges that D1 anticipates the claimed client identifier.

11. Concerning the ninth feature, the examining division read at point 2.c) the displaying of information identifying the item onto the review information and the indication of a single action onto the "Send order" button, both displayed simultaneously on the checkout page shown in Figure 4.

The appellant argues that all embodiments of the shopping cart in D1 have the checkout page of Figure 4 and thus do not anticipate a "1-click" operation. However, in the Board's view it is precisely this checkout page, containing review information about the items, not the catalog display or catalog page of Figures 1 and 2, respectively, that anticipates the claimed simultaneous displaying of the item and the single action indication. This interpretation appears to arise, not because the term "single action" is unclear, but because it is difficult to define the point from which the "single action" applies. In the appellant's view, this point is supposed to be something that is *not* a checkout page, but the claim does not escape this interpretation.

The Board therefore judges that D1 anticipates the ninth feature of the claim.

Moreover, the Board does not consider that the idea of reducing the number of steps necessary to make an order would contribute to inventive step (see point 21, below).

12. Concerning the performing of the single action in the tenth feature, it follows from the discussion at point 7 above that although D1 discloses the use of a cookie to look up "more data about the user", the Board does not consider that it unambiguously discloses that this data replaces the identification information that the purchaser enters when placing an order. Thus, the Board judges that this is a distinguishing feature over D1.
13. Concerning the last feature of the claim, D1 must necessarily complete the order at the server system by adding purchaser-specific order information including sensitive information. However, it follows from all of the above that D1 does not disclose that this information is the "more data about the user" mapped to the client identifier received from the client system (cookie).
14. The Board therefore considers that the subject-matter of claim 1 differs from D1 in that the purchaser's identification information is not inputted when ordering the item, but looked up in the customer table using the client identifier received from the client and that the "single action" indication is only sent if it is "enabled".
15. These features can be seen to solve the two above-mentioned problems in the application and stressed by the appellant, namely to reduce the number of user interactions involved in selecting items, which makes e-commerce easier, faster and more comfortable, and also to reduce the amount of sensitive information sent over the Internet, which may be intercepted.

In the Board's view the skilled person would have tried to solve these problems because they are both explicitly mentioned in the comment referred to by the examining division in "Listing One" at the middle of page 84 of D1:

"In a production system you could read this data [shipping data including the user's name and payment data] from a registered user database and not require users to input shipping and payment data each time. This also increases security."

This essentially refutes the appellant's argument that the idea of the invention went against the thinking at that time about internet security because it dispensed with the need for the purchaser to identify or authenticate himself. Although the idea behind the invention might not have been commonly known, the programmer in D1 had in fact already realised that it actually increased security.

16. In order to read the sensitive data from the database, one would need a key that identifies the purchaser in question. In the Board's view it would be self-evident to use the user identifier or cookie already available in D1 to do this. The Board thus considers that the skilled person would have been led to modify the third embodiment of D1 to dispense with the need to input this data for every order and arrive at the situation described by the examining division at point 1.3 of the decision. Thus, a user using a client would be presented after some interactions with a check-out page like the one in Figure 4, where the details that can be found in the database (name, shipping address, card

type, number and expiration date) would be omitted, and would be given an indication in the form of a "Submit Order" button, which is an indication of a single action to order the contents of the shopping cart, i.e. the claimed single action to order an item.

17. Moreover, it was known, e.g. from D3, at the priority date to use cookies to keep track of purchaser-specific data. The appellant argued that in D3 the purpose of using a persistent cookie to store registration information so that a user did not have to enter a login and password each time they visited a site was different from the invention. The website, e.g. the New York Times cited on page 2 of D3, gave the user a cookie in return for information about himself. The cookie did not identify the user for the purposes of purchasing, but rather as an "entrance ticket" to the site. This was analogous to an entrance ticket for a football match where one had to be identified, but no one was actually interested in using the ticket to look up data relating to the ticket holder. This might be true of the examples on page 2, such as the New York Times, but in the Board's view, D3 discloses more than this. Specifically, at page 5, third paragraph, D3 states

... In most all cases Web sites store minimal information in the persistent cookie on the user's system but use the cookie as an index into the database where more details are stored.

In other words, it appears that in most cases there is in fact an interest in looking up data about the ticket holder.

In view of the indexing function of cookies, the skilled person would have realised that any sensitive data traditionally requiring a login could be accessed by cookies. The obvious trade-off between the two processes, namely security vs. simplicity, cannot establish an inventive technical contribution.

18. Concerning enabling the single action, the Board first notes that this feature is so broad that it covers the situation, described in the application at paragraph 17, that if there is not enough information about the purchaser available to perform a single-action order, it is simply not possible to offer single-action ordering and it is therefore by definition not enabled. The claim thus covers a statement of the self-evident.

In appeal, the appellant argued that the feature was a broader part of the whole invention and was connected to the security of the system. In particular, the single-action order possibility meant that items could be purchased inadvertently so that it was apparently a necessary feature to mitigate some purchasers' apprehension about the lack of security inherent in such a single-action possibility. However, this merely shifts the responsibility for the security to the purchaser who judges whether the single-action ordering should be enabled or not. The decision not to enable it might depend on whether the purchaser's computer is used by other people who should not be allowed to order items on the computer owner's account.

Such a decision relates to forms of human behaviour and thinking that fall under mental acts, which are excluded from patentability. According to the jurisprudence of the EPO (see e.g. G 3/08 at

point 10.13.2) these cannot contribute to inventive step. Its implementation by means of a determination and a conditional sending step are clearly routine matters of design and also cannot contribute.

19. The appellant argued that it was important to avoid using hindsight when judging the inventive step. By the time of this appeal, the present invention was so well known and used that it was easy to think that it was "trivial". This was also pointed out at page 231 of the Campbell article ("Not All Bad: An Historical Perspective on Software Patents", Campbell-Kelly M., 11 Mich. Telecomm. Tech. L. Rev. 191, 2005, pages 191 to 248) submitted by the applicant during the examination proceedings. The Board agrees that there is generally room for argument when asserting what the skilled person would do as a matter of routine design in certain cases. However, the scope for discussion is substantially reduced in this case in the light of the above-mentioned comment in "Listing One" in D1 that gives such a decisive indication of the programmer's thinking, especially considering the remaining supporting disclosure relating to cookie technology.

20. Finally, the Board notes that a long felt want is often an indicator of inventiveness, usually overshadowing aspects of commercial success. However, in the present case, according to D1 at the top of page 68 cookies were first proposed in 1996 shortly before the invention was made. Thus the invention was not a situation of a long felt want, but more an immediate application of this new programming feature as soon as it had become available in that field. In the Board's

view, this outweighs the fact that the invention was subsequently very successful.

21. Even if claim 1 can be distinguished or seen to be distinguished over D1 by the lack of an intermediate page in the purchasing process, this difference would concern omitting confirmation steps in an ordering process. Quite apart from the question of whether omitting steps would be obvious in the light of the general desire to simplify computer interactions, the Board considers that such steps relate to a method of doing business and, moreover, optional ones depending on the user's preferences. Again, such steps cannot contribute to inventive step.
22. Thus, in the Board's view, the subject-matter of claim 1 would have been obvious to a skilled person (Article 56 EPC 1973).

First auxiliary request

23. Claim 1 of the first auxiliary request qualifies the client identifier and the sensitive information in claim 1 of the main request and adds a login feature and a feature relating to combining orders.

Concerning the client identifier, the Board agrees with the examining division at point 8.1 that the term "globally" does not add anything because the UserId in D1 is a unique number that uniquely identifies one client system amongst all systems, i.e. "globally".

Concerning the sensitive information, it follows from the discussion of the main request that the Board

considers that the sensitive information includes payment information and shipping address information.

Concerning the login feature, the Board agrees with the division's comments at the end of point 8.1 that the skilled person implementing D1 would be faced with an empty database, and would have to provide the users with a way to input and change the information in that database. In the Board's view, the use of a login so that the identity of the purchaser can be verified before the shipping information is viewed or changed is a matter of routine design.

Concerning the feature of combining orders, the Board agrees with the examining division at point 8.2 firstly that the feature concerns solely the server, and no interactions are implied with the other distinguishing features, which concern the client. Secondly, the problem addressed is one of reducing shipping costs, which is nothing more than the direct expression of an administrative rule and thus cannot contribute to inventive step.

The appellant argued that this feature defined a technical solution to the problem of grouping single action orders, and pointed out that especially in an environment made for passing single action orders, it was a special technical problem to group orders for shipping. The definition of a time interval would imply the use of a timer as technical means.

In the Board's view these arguments relate to possible technical solutions to the above-mentioned administrative problems. These solutions might involve computers and timers, but these are well known and do not involve an inventive step.

24. Accordingly, the Board judges that claim 1 of the first auxiliary request does not involve an inventive step (Article 56 EPC 1973).

Second auxiliary request

25. The second auxiliary request differs from the previous request by "further including the step of displaying an indication that the order for the item that is requested in response to the single action can be cancelled within a predetermined time period." The Board agrees with the examining division at point 10 that in the light of Figure 1A, which the applicant gave as the basis for the amendment, this feature might amount to nothing more than displaying "you can cancel within 90 minutes". Again, this feature is not related to any technical problem, as it amounts solely to the presentation of administrative information. The appellant argued that this was not just a display of administrative information, but a "hot" button. However, also again, the implementation of a command via such means is a matter of routine design that does not contribute to inventive step.

26. Accordingly, the subject-matter of claim 1 of all requests does not involve an inventive step (Article 56 EPC 1973), so that it follows that the appeal must be dismissed.

Other jurisdictions

27. It is interesting to observe the outcome of this application in other jurisdictions.

In the US, where there is no specific exclusion for business methods, the validity of the equivalent claims was never decided in court, but a decision by the Court of Appeal of the Federal Circuit (D6) lifted an injunction on the basis that the alleged infringer had "raised substantial questions as to the validity of the ... patent". The patent was also re-examined and allowed in essentially the same form albeit limited with additional features of a shopping cart. The office action in the re-examination did not discuss D1, or go into details of cookie technology and the skilled person's appreciation of it.

In Canada, the examiner had considered equivalent claims to be obvious over D5 and cookie technology. The review (D7) by the Commissioner of Patents found that the use of a cookie to retrieve purchaser-specific information was obvious (point 87), and the single-action ordering aspect not obvious (point 102), but an unallowable business method (point 181) and not technical (point 186). On appeal, the Federal Court overturned the latter findings for having no basis under Canadian law for such exclusions. D1 was not discussed in either of these decisions.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:

T. Buschek

S. Wibergh