

Commissioner's Decision #1290
Décision du Commissaire #1290

TOPIC: J00, J70, O00
SUJET: J00, J70, O00

Application No : 2,246,933
Demande no : 2,246,933

COMMISSIONER'S DECISION SUMMARY

C.D. 1290 Application 2,246,933

Statutory Subject Matter, Obviousness

The Examiner rejected the application for being an obvious ordering method and system. The Examiner also alleged that the subject matter of the claims is directed to non-patentable subject matter under Section 2 of the *Patent Act*.

The application was refused by the Commissioner of Patents because the claimed invention was not patentable under Section 2 of the *Patent Act*.

IN THE CANADIAN PATENT OFFICE

DECISION OF THE COMMISSIONER OF PATENTS

Patent application number 2,246,933, having been rejected by the Examiner under Subsection 30(3) of the *Patent Rules*, was reviewed. The rejection has been considered by the Patent Appeal Board and by the Commissioner of Patents. The findings of the Board and the decision of the Commissioner are as follows:

Agent for the Applicant

OYEN WIGGS GREEN & MUTALA LLP
480 - 601 West Cordova Street
VANCOUVER, British Columbia
V6B 1G1

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INTRODUCTION

[1] This decision deals with a review by the Commissioner of Patents of the Examiner's Final Action on patent application number 2,246,933 which was filed on September 11th, 1998 and is entitled "METHOD AND SYSTEM FOR PLACING A PURCHASE ORDER VIA A COMMUNICATIONS NETWORK". This application claims priority from a United States application filed on September 12th, 1997 and a United States application filed on March 23rd, 1998. The Applicant is AMAZON.COM, INC and the inventors are Shel Kaphan, Joel Spiegel, Jeffrey P. Bezos and Peri Hartman. The Examiner in charge issued a Final Action on June 1st, 2004 rejecting claims 1 to 75 and the application based on obviousness and non-statutory subject matter. The Applicant submitted arguments in response to the Final Action on December 1st, 2004.

[2] A hearing before the Patent Appeal Board was held on September 18th, 2008. Appearing on behalf of the Applicant was Mr. David McGruder ["the Applicant"] from the firm of Oyen Wiggs Green Mutala. Representing the Patent Office were Ms. Carla DiNardo (née Carpinone), the Examiner in charge of the application and Mr André Gélinas, Section Head.

PROCEDURAL MATTERS

[3] An earlier hearing for this application had been held on November 16th, 2005. Appearing on behalf of the Applicant was Mr. David McGruder from the firm of Oyen Wiggs Green Mutala. Representing the Patent Office were Ms Carla Carpinone, the Examiner in charge of the application and Mr. Peter Ebsen, Section Head. Mr. John Cavar and Mr. Murray Wilson were members of the Board at that hearing, but they have both since retired from the Public Service before a recommendation was finalized.

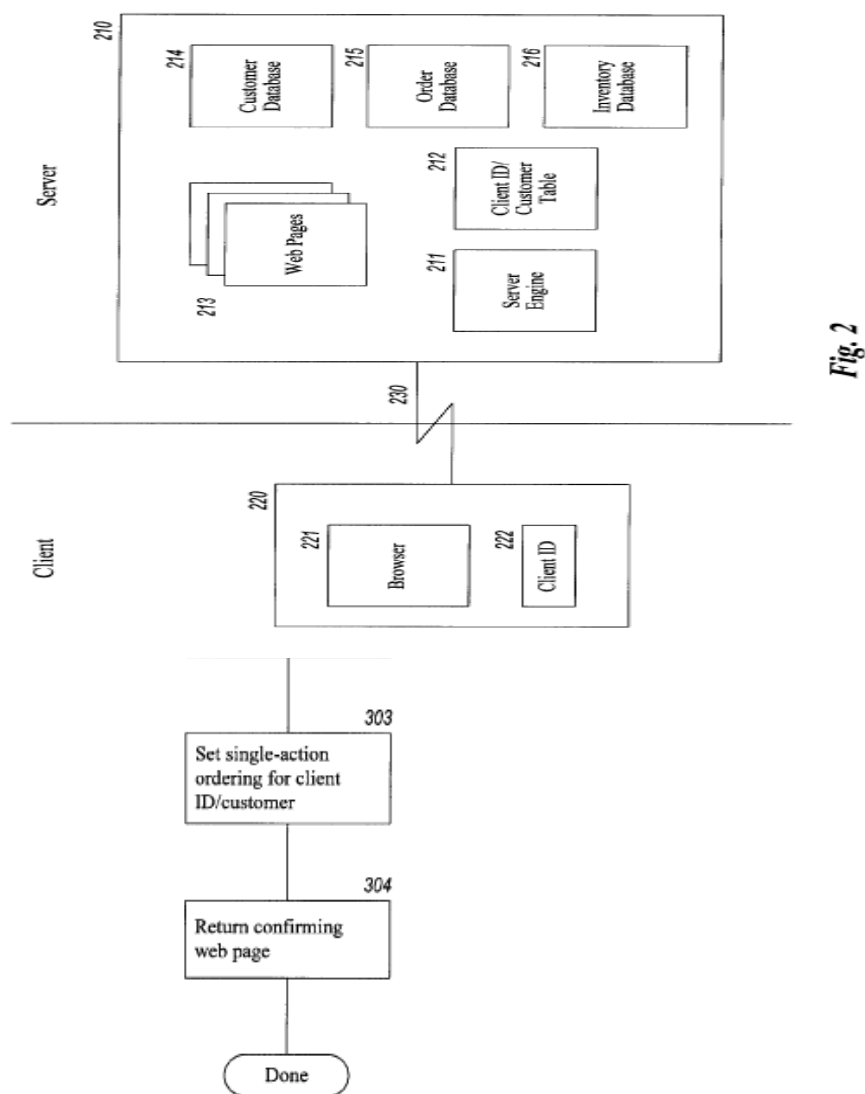
[4] On June 11th, 2008 the Chair of the Patent Appeal Board contacted the Applicant to explain that a new Board would be formed to review the Final Action. The Applicant was offered the opportunity to have another hearing, which was accepted.

[5] On July 30th, 2008 the new Board wrote to the Applicant to confirm a new hearing date of September 18th, 2008 ["the Hearing"]. At that time, the Board also notified the Applicant that the rejection under Section 2 would be assessed based on whether the essence of the claimed invention, or what has been added to human knowledge (in online ordering technology) is non-statutory because it does

not fall into one of the categories of invention (under Section 2 of the *Patent Act*). Before the Hearing, the Applicant was also informed that all claims would be assessed for compliance under Section 2 of the *Patent Act*. At the Hearing, the Applicant addressed all of the claims with respect to Section 2. In the letter dated July 30th, 2008, the Applicant was also informed that the publisher stated the *Ye_il* book (cited in the Final Action) was published on November 8th, 1996.

BACKGROUND

[6] The application sets out a method and a system which allow a purchaser to place an order for an item over the Internet. Figure 2 shows a block diagram of the system and Figure 3 is a flow diagram which shows a feature of the system which allows the purchaser to purchase an item with a single-action.



[8] The server uses a client identifier sent from the client's

computer to associate the client's computer with the purchaser's payment and shipment information (purchaser-specific account information). The client identifier is stored in the client's computer by the server when the client enters his identification, billing and shipping information (purchaser-specific account information), usually at the time of the client's first visit. On a subsequent visit to the Web site by the client's computer, the server recognizes the client identifier as belonging to that client. The client may then browse items, and decide to buy an item by clicking on only one button which sends the request to order the item along with the client identifier. The effect of this single-action is to instantly order the item. The server system will receive the purchase request, automatically retrieve the client's account information using the client identifier, and combine the retrieved account information to generate the order. Only one click of the client's mouse is required.

Claims

[9] There are 75 claims in the application, submitted on November 27th, 2002 in response to the Examiner's report dated May 28th, 2002. Independent claims 1, 19, 33, 51, 60 and 68 are method claims and independent claim 44 is directed to a system.

[10] Claim 1 provides for storing a client identifier on a client system, displaying item information and an indication of a single-action to be performed for activating single-action ordering when an item is to be ordered, and includes the identifier in the request to order the item so that the identifier identifies account information previously supplied by the user. Claim 1 also provides for changing account information by logging in to the server system. Claim 1 is as follows:

1. A method in a client system for ordering an item, the method comprising:
 - receiving from a server system a client identifier of the client system;
 - persistently storing the client identifier at the client system;
 - when an item is to be ordered,
 - displaying information identifying the item and displaying an indication of a single action that is to be performed to order the identified item; and
 - in response to the single action being performed, sending to the server system a request to order the identified item along with the client identifier, the client identifier identifying account information previously supplied by a user of the client system wherein the user does not need to log in to the server system when ordering the item; and
 - when account information is to be changed,
 - coordinating the log in of the user to the server system;

receiving updated account information; and
 sending the updated account information to the server
 system

whereby the user does not need to log in to the server system when
 ordering the item, but needs to log in to the server system when changing
 previously supplied account information.

[11] Claims 2 to 18 introduce several variations on the
 ordering method of claim 1 including:

- specifying that the type of account information is
 billing and/or shipping information;
- providing for client/server communication via the
 Internet;
- the server confirming a generated order;
- clicking a mouse button when a cursor is
 positioned over a predefined area of the displayed
 information;
- displaying partial information of the user's
 identity, partial shipping information present on
 the server, or partial payment information present
 on the server;
- ordering the item alternatively using a shopping
 cart model;
- the server combining multiple order requests into
 a single order;
- the server combining multiple requests into a
 single order when sent within a certain time
 interval, such as 90 minutes;
- including an ordered item in an order with another
 item based on similar availability;
- categorizing order availability as short-term or
 long-term and/or intermediate-term; and
- displaying an indication that an order may be
 cancelled within a time period.

[12] Claim 19 sets forth single-action ordering and
 combining orders into a single order:

19. A method in a client system for ordering items, the method comprising:
 receiving from a server system a client identifier of the client system;
 persistently storing the client identifier at the client system; and
 for each of a plurality of items,
 displaying information identifying the item and displaying an
 indication of a single action that is to be performed to order the identified
 item; and
 in response to the single action being performed, sending to the
 server system a request to order the identified item and the client identifier,
 the client identifier identifying account information of a user
 wherein the server computer automatically combines orders into a single
 order.

[13] Claims 20-32 introduce variations on claim 19 with respect to combining the orders into a single order, as well as displaying partial information and permitting order cancellation, such as:

- the server combining multiple requests into a single order when sent within a certain time interval;
- setting 90 minutes as the interval within which requests will be combined;
- including an ordered item in an order with another item based on similar availability;
- categorizing order availability as short-term or long-term and/or intermediate-term;
- providing for client/server communication via the Internet;
- clicking a mouse button when a cursor is positioned over a predefined area of the displayed information;
- displaying partial information supplied by the server such as the users identity, partial shipping information, or partial payment information;
- ordering the item alternatively using a shopping card model; and
- displaying an indication that an order may be cancelled within a time period.

[14] Independent claim 33 is similar to claim 19 except that it provides for order cancellation within a certain time interval instead of order combining. Dependent claims 34-43 introduce similar variations as found in claims 20-32.

[15] Claim 44 sets forth a client system for ordering, stating:

44. A client system for ordering an item, comprising:
- a component that receives from a server system a client identifier of the client system and that stores the client identifier persistently;
 - a component that orders an item by displaying information identifying the item along with an indication of a single action that is to be performed to order the identified item and by sending to the server system a request to order the identified item along with the client identifier, the client identifier identifying account information previously supplied by a user wherein the user does not need to log in to the server system when ordering the item; and
 - a component that updates account information by coordinating the log in of the user to the server system, receiving updated account information from the user, and sending the updated account information to

the server system.

[16] Claims 45-50 provide for the following:

- specifying that the type of account information is billing and/or shipping information;
- clicking a mouse button when a cursor is positioned over a predefined area of the displayed information;
- ordering the item alternatively using a shopping card model;
- the server combining multiple order requests into a single order; and
- displaying an indication that an order may be cancelled within a time period.

[17] Independent claim 51 adds the step of automatic generation of a single order for identified items without the user having to specify that they be so combined.

[18] Independent claim 60 includes, along with single-action ordering, displaying an indication of the possibility of order cancellation.

[19] Independent claim 68 is similar to claim 1. The remaining dependent claims 52-59, 61-67 and 69-75 specify similar provisions as those noted in earlier dependant claims.

[20] Thus, the main theme common to all of the claims is single-action ordering by virtue of the transmitted client identifier being associated with purchaser-specific account information already stored at the server system. Each independent claim is additionally limited by including at least one of the following features: user log in for changing user account information; automatic combination of multiple orders into a single order; and displaying an indication that an order can be cancelled within a time interval.

ISSUES

[21] The Final Action dated June 1st, 2004 gives rise to the following questions:

- 1 Are claims 1-75 obvious under Section 28.3 of the *Patent Act*?
- 2 Are claims 1 to 75 directed to non-statutory subject matter under Section 2 of the *Patent Act*? What is the

approach to be followed?

The Summary of Reasons from the Examiner did not refer to the objection in the Final Action to the apparatus claims 44 to 50 under Section 2 of the *Patent Act*. However, before the Hearing, the Board informed the Applicant that all of the claims would be assessed for compliance with Section 2 of the *Patent Act*, consistent with looking to the substance of the claimed invention, and not only the form of the claims. At the Hearing, the Applicant addressed all of the claims on this point.

While the approach to be followed in assessing statutory subject matter was not a question raised in the Final Action, there was considerable discussion in the prosecution about the correct approach. It is therefore incumbent upon the Commissioner (and the Board) to set out the correct approach.

APPLIED REFERENCES

[22] In the Final Action, the Examiner cited the following prior art:

- *Creating the Virtual Store*, pages 118 to 121 and 326, M. Ye_il, John Wiley and Sons, 1997.
- Cookies - What every web designer should know, *Journal of Design Science* 1997-2001

[23] The Examiner also brought several references of interest to the attention of the Applicant. As the manner of applying these references was not discussed in the Final Action, we will not discuss these references further.

Dates of publication

[24] Before beginning an analysis of the cited references, the Board will comment on the dates indicated in the copyright notice of the cited art.

[25] In the Ye_il reference, the copyright notice indicates that the book was published in 1997. Usually, when only the year of publication is given, the precise date accorded to a reference is the last day of the year [i.e. December 31st, 1997].

[26] At the first hearing (on November 16th, 2005), the Applicant was concerned about the date of disclosure for

Ye_il, since it only bears a copyright date for 1997, while the earliest claim date of this application is September 12th, 1997. In the letter sent on July 30th, 2008 the Board informed the Applicant that the publisher stated that the Ye_il book was published on November 8th, 1996. Therefore, this reference was available to the public before the earliest claim date of the application, and can be considered as prior art on the claim date of invention. No further submissions were made by the Applicant on this matter.

[27] With respect to the *Journal of Design Science*, the Examiner stated the publication date was 1997 to 2001. Since the earliest date is after the claim date of the application, this reference cannot be considered when assessing obviousness.

OBVIOUSNESS

The Examiner's position

[28] The Summary of Reasons forwarded to the Applicant maintained the rejection of claims 1 to 75 for being obvious in view of Ye_il and the common knowledge of using client identifiers for on-line purchasing methods as taught by the *Journal of Design Science*.

[29] The Examiner argued that the claimed ordering method was obvious, stating in part:

The method of ordering items of the present invention uses cookies to store a client identifier on the client system to enable ordering items, with a single click, without logging in to the server system. Ye_il teaches a system and method of ordering items on-line whereby registration may or may not be required because cookies can be used to keep track of shoppers. Shoppers are not required to log on using a password or a code to make a purchase (page 121). Ye_il also mentions the idea of an instant buy option (page 326) whereby merchants can provide shoppers with an instant buy button for some or all items, enabling them to skip checkout review. Ye_il's previous teachings regarding cookies and their involvement within Web stores implies that the Instant Buy option can be implemented using these techniques because it is obvious that the user is not required to logon to make a purchase. Thus, on-line methods and systems for ordering an item which allow a user to order an item by a single action are clearly outlined in the prior art of Ye_il.

[30] The Examiner stated that Ye_il provides an "Instant Buy button for some or all items" on page 326.

[31] The Examiner also argued that logging in to change account information was not inventive, stating:

Ye_il's teachings indicate that a user can order items by a single action (Instant Buy option) "without requiring them to log on using a password or code", page 121. Ye_il also specifies that users should register in the server system for more than basic levels of information. This implies that changing sensitive account information requires a higher level of security, such as a password or code. It would then be obvious to require the user to log on to change account information in systems which facilitate single action ordering. However when ordering an item, only the activation of the Instant Buy button is required according to Ye_il.

[32] With respect to the feature of order cancellation, the Examiner stated:

Ye_il does not state that an order cannot be cancelled. Ye_il does not refer to a cancel option because it is not an issue. It is well known in the art of on-line shopping, or with any type of purchase, that even after an order has been placed, the shopper has the right to cancel the order, within a certain time period, e.g., before it is shipped. Shoppers change their minds all the time. It is common knowledge and practice to cancel an order before delivery and this feature does not add any patentable subject matter to the claims.

[33] In discussing the feature of combining multiple orders into a single order, the Examiner had this to say:

... the non-statutory item ordering scheme in which they are used cannot patentably distinguish over the prior art.

Based on the Examiner's statement in the "Non-statutory subject matter" section of the Final Action that "[t]he underlying technical features of the system remain the same", it is clear that she considers the potentially distinguishing feature of the item ordering scheme to be non-statutory and not patentably distinguishing because it is non-technical in nature.

[34] There are similarities between the Examiner's statement and the practice in the European Patent Office (EPO). In the EPO, non-technical features may, in some instances, not be considered to form part of the inventive step. In other cases, non-technical features may confer a further technical effect. The Board is unaware of any Canadian jurisprudence either supporting or dismissing these considerations in a test for obviousness. The Board is of the opinion that Subsection 80(1) of the *Patent Rules*, which specifies that

"the description shall . . . describe the invention in terms that allow the understanding of the technical problem, . . ., and its solution", is consistent with such considerations.

[35] However, even if these considerations could be part of a test for obviousness, it would not be appropriate to simply dismiss non-technical features from an analysis of inventiveness; it would be necessary that something of a non-technical nature be further assessed for a further technical effect. This would require an articulated and structured line of reasoning to permit assessment of obviousness by discriminating between, and analysing the interplay of, technical and non-technical features in the claimed invention. Since the prosecution under obviousness does not pursue this type of reasoning, the Board cannot give any weight to the above quoted statement while comparing the claims to the prior art. The Board recommends that the treatment of non-technical features in a test for obviousness should be subject to further analysis by the Office to determine proper practice.

The Applicant's response

[36] In response to the Final Action, the Applicant argued that Ye_il does not disclose single-action ordering, because checkout is still required in the Netscape Merchant System Instant Buy Button.

[37] The Applicant also disagreed that Ye_il disclosed single-action ordering without the need to log in, stating in part:

... the phrase quoted by the Examiner is taken out of context, as evidenced by the following excerpt from Ye_il, page 121:

"Requiring registration to create shopping carts on the Web is, to a certain extent, understandable, but it certainly is not necessary for basic levels of visitor information. For instance, it is possible to keep track of some visitors' actions without requiring them to log on using a password or code."

It is clear from the foregoing that Ye_il is discussing the tracking of the actions of a visitor without requiring login, not allowing a visitor to make an order without logging in.

...

Ye_il teaches that basic information may be collected without requiring the user to log in. Ye_il also teaches that registration (and presumably logging in) is required for shopping (see the last line of page 121 of Ye_il:

"While logging on to shop"). However, there is nothing in Ye_il to teach or suggest that a user may make an order by performing a single action without logging in, but that the user will need to log in to change account information.

[38] With respect to the automatic combination of multiple items into a single order, the Applicant said, in part:

...these claims recite that multiple items, each ordered by a single action, may be automatically combined into a single order. As previously submitted, none of the prior art cited by the examiner teaches or suggests this combination of features. The Examiner contends that the "Instant Buy" option of Ye_il suggests this combination of features. However, a careful review of Ye_il shows that the "Instant Buy" option requires the user to go to a checkout page as discussed above. Thus, Ye_il teaches away from automatically combining multiple items each ordered by a single action, into a single order.

[39] In the Final Action, the Examiner cited pages 118 to 121 from this chapter. At the first hearing on November 16th, 2005, the Examiner referred to other pages from the same chapter and the Board gave the Applicant additional time to review these other pages and to make a separate submission. The Applicant provided additional arguments to the Board in a letter dated November 29th, 2005, which are reproduced below:

Under the heading "Using Subscription-Based Tracking," Ye_il describes that "registration is still not required for customizing a single visit or for completing a purchase." (Ye_il, p. 122.) Ye_il is suggesting that a web site that generally requires registration can still accommodate purchases by customers who are not registered. Although some customers who register and "log[] on to shop" will realize advantages of a "customize[d] and personalize[d]" shopping experience, other customers may be "scar[ed] away" by such registration." (Ye_il, p. 119-122.) Thus, unregistered users can still shop at the web site using session-based tracking in which purchases are tracked in a shopping cart until "the customer presents the payment instrument, settles, and the transaction is done." (Ye_il, p. 112.)

Ye_il is simply suggesting that both tracking techniques can be supported by a web site: If a customer logs on, then the web site uses subscription-based tracking; otherwise, it uses session-based tracking. Ye_il is, however, not suggesting that the subscription-based tracking technique can be used without requiring a customer to log on. Moreover, since Ye_il's session-based tracking keeps "no information about the customer ... beyond the duration of his or her visit to the site," Ye_il's session-based tracking cannot identify "account information previously supplied by a user of the client system" as recited by the claims.

Applicant's claims are directed to an invention that combines advantages

of session-based tracking and subscription-based tracking. The advantage of session-based tracking is not having to log in when making a purchase, and the advantage of subscription-based tracking is not having to supply account information when making a purchase. The invention realizes both of these advantages, assuming that a user previously supplied account information (e.g., billing information when a previous purchase was made or when registering) by "persistently storing a client identifier [received from the server system] at the client system" and sending that client identifier to the server system when an item is ordered. The client identifier identifies both the user and the account information so the user does not have to log in or re-supply the account information when placing an order. The invention does, however, require a user to log in when changing the account information. By not requiring a user to log in when placing an order, but requiring a user to log in when changing account information, the invention achieves an acceptable level of security. In particular, if a thief places an order using the same client system as a legitimate user, then the order will be billed and shipped according to the account information provided [sic] the legitimate user and not the thief. Since the thief cannot log on to change the account information, the order will be delivered to the legitimate user making the legitimate user aware of the attempted theft.

[40] At the Hearing, the Applicant reiterated these arguments to illustrate the differences between Ye_il and the claimed invention.

[41] The Applicant also acknowledged that the practice of cancelling an order at retailers was known and accepted that cancelling orders is an aspect of retailing. However, the Applicant emphasized that claims 33-43 and claims 60-67 are not reciting order cancellation, but rather "displaying an indication that the order for the item that is requested can be cancelled within a time interval." The Applicant stated that this indication is displayed alongside the single action ordering indication and it is useful because impulse purchasers can be reassured that they have the option to cancel within a certain time period, even though there is no checkout review. The Applicant said that Ye_il does not say anything about a cancel option or an indication for order cancellation.

Legal Principles - Obviousness

The question

[42] A test for obviousness was established by the Federal Court of Appeal in *Beloit Canada Ltd. v. Valmet Oy* (1986), 8 C.P.R. (3d) 289 (F.C.A.), at 294 [*Beloit*]:

The test for obviousness is not to ask what competent inventors did or

would have done to solve the problem. Inventors are by definition inventive.
... The question to be asked is whether this mythical creature ... would ...
have come directly and without difficulty to the solution taught by the patent.

Thus, a test for obviousness can ask what the “technician skilled in the art” would have done to solve the problem.

[43] Recently, in *Apotex Inc. v. Sanofi-Synthelabo Canada Inc.*, 2008 SCC 61, 69 CPR (4th) 251, at paragraph 62 [*Sanofi*], Rothstein J. had this to say about the *Beloit* test:

[62] I do not think that Hugessen J.A. in *Beloit* intended that the rather colourful description of obviousness that he coined be applied in an acontextual manner applicable to all classes of claims.

The Supreme Court of Canada further set out a four-step approach for assessing obviousness which will be discussed in the analysis.

[44] There is some risk that the test in *Beloit* may end up in a quest for anticipation. In *Janssen-Ortho Inc. v. Novopharm Ltd.*, 2006 FC 1234, 57 C.P.R. (4th) 6, affirmed 2007 FCA 217, 59 CPR (4th) 116, paragraphs 111-113 [*Janssen*], before setting forth tests and criteria applicable to the question of obviousness, Hughes J. had this to say about the *Beloit* test [emphasis added]:

This definition comes perilously close to that for anticipation as set out by the Supreme Court of Canada if it is to be interpreted that the person skilled in the art has "no scintilla of inventiveness or imagination" and that being led "directly and without difficulty" to "the solution taught by the patent" means that there must be only one way so as to inevitably arrive at the invention and that the "invention taught" is different from the claim as properly construed. There would be no point in considering obviousness if it is, in effect, little different than a consideration of anticipation.

[45] To distinguish between anticipation and obviousness, in *Eli Lilly Canada Inc. v. Apotex Inc.*, 2008 FC 142, 63 C.P.R. (4th) 406, (currently under appeal to the F.C.A), at paragraphs 127-128, Hughes J. had this to say [emphasis added]:

127 Anticipation and obviousness are closely related concepts having their foundation based on the requirement that there be an "invention" and that the invention be "new". Justice Desjardins of the Federal Court of Appeal explained the concepts in *Rothmans, Benson & Hedges Inc. v. Imperial Tobacco Ltd./Ltée* (1993), 47 C.P.R. (3d) 188 (Fed. C.A.) at pages 197-199. She explained that anticipation and obviousness are different concepts although both are questions of fact. Prior art may be used in the application of both tests but is to be used differently. She said:

Prior art may be used in the application of both tests but differently.
H.G. Fox, *Canadian Patent Law and Practice*, 4th ed. (Toronto:
Carswell, 1969) at p. 137 states:

Prior specifications are generally used to show anticipation if they disclose exactly and fully what the patentee has claimed. If such disclosure is not made by the prior specification and it cannot be used as an anticipation, it may be used as indicating the state of the art at the time that the patentee made his alleged invention and as showing that what the patentee did was so slight a contribution to existing knowledge as to lack the essential element of invention and to be merely obvious.

Anticipation must therefore be found in a single document which already gives a skilled person what is claimed and which teaches it all. In the case of obviousness, however, "the prior art should be reviewed and its cumulative effect considered", op. cit., p. 72.

128 A useful way to consider those concepts was given by Professor Carl Moy (author of the United States multi-volume patent treatise, *Moy's Walker on Patents*, Thompson West, updated annually) to students at the Osgoode Intellectual Property Masters Programme in considering the bargain theory of patents. He said, as best I can recall:

You do not pay the price of a monopoly for something you already have, nor do you pay the price for something you could get anyway.

129 Another way of looking at the matter is to consider what "room" has been left for anything given the prior art. If there is no "room" or the "room" could be filled by a person skilled in the art without doing anything inventive, then the matter is anticipated or obvious.

Problem and solution

[46] That a patent usually involves an inventive solution to a practical problem, is a sentiment reflected in *Apotex Inc. v. Wellcome Foundation Ltd.*, 2002 SCC 77, [2002] 4 S.C.R. 153, at paragraph 37, where it was generally stated by Binnie J. [emphasis added]:

37 A patent, as has been said many times, is not intended as an accolade or civic award for ingenuity. It is a method by which inventive solutions to practical problems are coaxed into the public domain by the promise of a limited monopoly for a limited time.

[47] In *GlaxoSmithKline Inc. v. Canada (Minister of Health)*, 2003 FC 899, 28 C.P.R. (4th) 307, at paragraph 45, the Federal Court discussed the considerations of problem and solution when answering the question of obviousness,

stating in part [emphasis added] :

45 The notion of obviousness ultimately means lack of inventiveness. In 1988, Mr. Justice Rouleau, in *Cabot Corp. v. 318602 Ontario Ltd.* (1988), 20 C.P.R. (3d) 132 (Fed. T.D.), commented on the fact that inventiveness is an essential element of patentability:

Although not specifically so stated in the Act, inventiveness is an essential element of patentability. As stated by H.G. Fox in his book *Canadian Law and Practice Relating to Letters Patent for Inventions*, at pp. 70 and 71:

In order that a thing shall be "obvious" it must be something that would directly occur to someone who was searching for something novel, a new manufacture, or whatever it might be, without the necessity of his having to do any experimenting or serious thought, or research, whether the research be in the laboratory or amongst literature. So, the means by which an object is attained may be quite simple and common, but yet there may be invention, if the patentee has discovered a variant that will render more useful that which has been previously described. Where there is a problem awaiting solution, a disclosure solving that problem is likely to be accepted as one involving invention, particularly if there have been unsuccessful attempts to solve that problem. There may be an inventive step in recognizing that a problem exists at all: but given a problem which is known to exist which it is the object of the invention to solve, the question always is: "Is the solution claimed by the patentee one which would have occurred to everyone of ordinary intelligence and acquaintance with the subject-matter of the patent who gave his mind to the problem?"

46 Accordingly, the next step I must take is to evaluate the prior art relating to the use of carvedilol and, based on it, determine whether the solution claimed by GlaxoSmithKline is one which would have occurred to everyone of ordinary intelligence and acquaintance with carvedilol who applied his mind to the problem.

Thus, in most situations one must consider obviousness from the perspective of whether the solution claimed would have occurred to the skilled technician who applied his mind to the problem.

[48] An invention does not have to be one solution to only one problem because solving one problem may give rise to another problem (*AB Hassle v. Genpharm Inc.*, 2003 FC 1443, 243 F.T.R. 6, paragraphs 49-50). However, a claimed solution to a problem that sets forth unrelated features to solve a separate and different problem may require further attention. Before attempting to apply tests for

obviousness, one must decide what the invention is and whether there is only one invention to be considered or more than one (See *Canadian Patent Act Annotated*, 2nd edition, Barrigar, 28.3:25, May 2006; citing *Sabaf SpA v. MFI Furniture Centres Limited*, [2004] UKHL 45 at paragraphs 22-26 [*Sabaf*], appealed from [2002] EWCA Civ 976).

The skilled technician and the problem to be solved

[49] Identifying the notional skilled person in the art is an important aspect of the obviousness inquiry [*Sanofi* - paragraph 67]. In *Almecon Industries Ltd. v. Nutron Manufacturing Ltd.* (1997), 72 C.P.R. (3d) 397 (F.C.A.), at paragraph 10, the concept of the skilled workman was framed in relation to the problem to be overcome, as follows [emphasis added]:

While the appellants contend that the Trial Judge misdescribed the relevant "workman skilled in the art" as the user, not the maker, of seismic equipment, we consider this essentially a question of fact for his determination. Given the fundamental artificiality of the concept of the "skilled workman" we are not prepared to elevate to a principle of law a requirement that such a workman must in all cases be a maker and not a user of equipment. What is important is that he be a person who understands, as a practical matter, the problem to be overcome, how different remedial devices might work, and the likely effect of using them.

[50] The notional skilled technician can be a composite of scientists, researchers and technicians bringing their combined expertise to bear on the problem at hand (*Bayer Aktiengesellschaft v. Apotex Inc.* (1995), 60 C.P.R. (3d) 58 at p. 79 (Ontario Court General Division)).

[51] Neither the Applicant nor the Examiner made submissions with respect to identifying the notional skilled technician. Based on the disclosed invention, the Board considers that the skilled technician would be knowledgeable in any subject matter to which the claims are directed, such as the fields of online retailing models or techniques, e-commerce, Web development, marketing, and consumer psychology.

The state of knowledge at the claim date - Selected excerpts from Ye_11

General overview

[52] The Ye_11 book analyzes various concepts which can be used by merchants who wish to sell products or services via a Web site on the Internet. Chapter 4 of this book [page 107 to page 126] is entitled "Getting To Know Your Virtual

Customer” and deals with many issues relating to how a seller can and should obtain information about potential buyers who access its Web site. Sellers can ask buyers to supply information voluntarily or they can use customer tracking systems to learn about Web site visitors. The author mentions two such tracking systems; session-based tracking and subscription-based tracking. The methods are different in respect of how a merchant follows or tracks a consumer electronically as he/she visits the virtual store.

Ye_il states that one of the purposes of this tracking is to provide varying degrees of customization for individual shoppers. In session-based tracking, no information about a customer is kept on the system beyond the duration of his/her visit. If an order is placed in a session-based system, only a shipping address (associated with the customer’s name) may remain on file. In subscription-based tracking, a user registers and logs in to a merchant site, and the merchant can provide a more customized shopping experience to returning customers.

[53] Interestingly, on page 122 of Ye_il, the author describes a visit to the AMAZON.com Web site and problems encountered which resulted in a lost sale from an impulsive purchase [emphasis added]:

Internet businesses attract customers in a variety of ways. A popular method for attracting a user base is free or nonpaid subscription services.

...

These types of services usually ask visitors to set up an account, with the benefits of user authentication ...

... when I visited the Amazon Books Web site, (www.amazon.com) I had to set up an account to make a purchase of any size. Next, I had to choose between a “secure” and a “nonsecure server.”

...

Not wishing to sort through the details, I made the choice to cancel - and a sale was lost. My book purchase at Amazon was impulsive.

Thus, as in the instant application, Ye_il too acknowledged the impulsive nature of some Internet purchases.

Session and subscription-based tracking

[54] On pages 112 and 115, Ye_il provides further information about session-based tracking and when a new visit to a site begins [emphasis added]:

Using Session-Based Tracking

One customer’s visit to an Internet Web site, from start to finish (login to logout), is considered a session. During a session, a visitor connects to a

Web site, travels around the site, performs some actions, and then leaves. . . . All these events are recorded, or tracked as they occur, by that host's server. (For more definitions of terms, see the "Web Tracking Terms" sidebar in this chapter.)

. . .

Session-based tracking opens and closes a customer relationship in real time. No information about the customer is kept on the system beyond the duration of his or her visit to the site. Session-based tracking is useful because it encourages spontaneity while providing anonymity for customers.

. . .

If the goods are delivered over the Internet, absolutely no information may be retained with the possible exception of an E-mail address for downloading. On the other hand, if hard goods are purchased using the session-based tracking model, at least a shipping address may need to remain on file.

The Shopping Cart

Session-based tracking works by creating a shopping cart for the consumer, which lasts the duration of the shopping experience. When the consumer pays, the prices of the contents are totalled for that session. Then, as in a physical store, the customer presents the payment instrument, settles, and the transaction is done.

Web Tracking Terms

. . .

visit: A series of consecutive file requests made by one user at a given site. If such a user makes no requests from that site during a predetermined (and discretionary) period of time, her/his next hit would constitute the beginning of a new visit. The industry standard time-out interval is 30 minutes for all sites, for purposes of comparability.

[55] On page 118, Ye_il describes how subscription-based tracking can collect information by requiring customer registration:

Subscription-based tracking currently is an accepted method of obtaining customer information in the off-line world of commerce. For instance, if you subscribe to a magazine, the publisher can learn a lot about you . . .

Translating subscription-based tracking to the virtual store means that the customer fills out an information form on-line and opens an account before making purchases in the store. All the payments go to one central processing center . . .

Collecting customer information

[56] Page 121 points out that the objective to track and access useful customer information can be achieved in both session and subscription-based models [emphasis added]:

Requiring registration to create shopping carts on the Web is, to a certain extent, understandable, but it certainly is not necessary for basic levels of visitor information. For instance, it is possible to keep track of some visitors' actions without requiring them to log on using a password or code. Session-based Web tracking systems do precisely this.

... the information generated by these systems assists in the development of the visitor's psychographic profile - those elements (demographics, interests, usage statistics) that establish a complete picture of the visitor. It is a user's psychographics that sites seek.

Cookie technology

[57] Pages 124 to 125 of Ye_il, although not cited by the Examiner, provide some details about cookie technology under the general heading "Asking Users for Information - Privacy Issues":

Magic Cookies

The addition of a simple, persistent, client-side 'state', or recognition device, significantly extends the capabilities of Web-based client/server applications.

- Netscape

"Magic" cookies are a mechanism by which host servers can store and retrieve information to and from a client's browser. The cookie, developed by Netscape and MCI, is useful for Web hosts who wish to provide a "stateful" or "customized" experience for their visitors, because by using a cookie, a host can tag a visitor at the end of a session with information for a future visit. ... The action of encoding information into the cookie of a user is referred to as user hard drive storage. This type of server access, storage and caching typically has been forbidden.

[58] In our understanding, "state" information is information about a communication between a user and a server. HTTP, the protocol that underpins the World-Wide Web (WWW), is stateless. That is, each request (over the web) stands on its own; origin servers don't need to remember what happened with previous requests to service a new one ["the state"]. In the broadest sense, a cookie allows a site to store state information on a user's machine. This information lets a Web site (i.e. server) recall what state the user's browser is in. In operation, by introducing state into HTTP, requests and response headers carry the state back and forth, thus relieving the origin server from needing to keep an extensive per-user or per-connection record of the "state" information.

[59] From Ye_il, we understand that "state" information can include a variety of information. It follows that any

information transmitted by a user can be included in a cookie, and ultimately tracked and stored by a server. Cookies provided Web sites (servers) the ability to track all types of user information over time, as acknowledged on page 124:

Netscape has promised to disable the cookie software that could be utilized to keep track of information about its users over time.

[60] Pages 113 to 115 set forth some uses of a "cookie", most notably, "unique user" identification. Ye_il states [on page 113] that "cookies" can be used to store client identifier information on the client's hard disk and that by identifying a repeat visitor it permits on-the fly-customization of a Web site. A server can recognize a unique user when persistent cookie data on a client's computer is recognized by the server. Some notable excerpts are reproduced below [emphasis added]:

Web Tracking Terms

...

cookie: The capability of some Web browsers to allow Web servers to store information about user visits to the Web site on the hard disk in the user's PC or workstation. Because it can be used to identify repeat visitors, the cookie allows on-the-fly customization of a Web site to feature items the user showed an interest in during previous visits. The cookie also allows a Web server to track the sequence of a session on a Web site, including how long a user spent on each Web page.

...

unique users: Anyone who visits a Web site at least once is recognized as a unique user. If your extended log files contain persistent cookie data, the software uses this data to recognize unique users. If no cookie data is available, the software uses a registered username to recognize users. If no registration information is available, as a last resort, the software uses users' Internet hostnames.

[61] The Board understands from Ye_il that these capabilities of cookies apply equally to both subscription and session-based tracking models. On page 121, Ye_il has this to say about the use of cookies under "Paid subscription sites" [emphasis added]:

Narrowcasting Technologies such as Netscape's cookies are beginning to bridge the gap between understanding the user and targeting narrowcasted, or personalized, information from the service to the user.

...

Future trips to a service transmit code values that send narrowcasted information back to the visitor, establishing an interest-based experience.

Overall, cookies have become an important part of the creation of

shopping cart technologies within Web stores.

...

As the Web moves toward customized, narrowcasted, and incentivized visits for consumers, with or without registration, consumer shopping will become more impulsive.

[62] Thus, the importance of cookies for creating shopping cart designs was well known before the claim date.

Tracking state information in Ye_il

[63] Ye_il describes various kinds of information which a Web site (server) may wish to track. The Board is of the opinion that the type of "state" information to be tracked can be chosen by the skilled person according to operational requirements.

[64] The Board considers that the skilled person would have appreciated that client state information can be stored and retrieved in different ways. For example, server administrators and programmers can create a database application that tracks and stores data they would otherwise have managed with cookies. In comparison, cookies provide a programming convenience because the state information is stored on a client's computer.

[65] These two ways for tracking state information can be gleaned from Ye_il. On page 112, while describing session-based tracking, it is stated that:

During a session, a visitor connects to a Web site, travels around the site, performs some actions, and then leaves. . . . All these events are recorded, or tracked as they occur, by that host's server.

Here, the server tracks the actions and events of a user during the same session. This state information would have to have been tracked using a list or database at the server and some way to identify which user it belongs to.

[66] The other way to track similar state information is described on page 113, in relation to cookies:

Web Tracking Terms

...

cookie: . . . The cookie also allows a Web server to track the sequence of a session on a Web site, including how long a user spent on each Web page.

So a cookie is used to track state information about the sequence of a session on a Web site. That is, requests and response headers carry or identify the state

back and forth, thus permitting the server to retrieve from memory pertinent information that is related to the state information. For example, state information in a cookie could be used by a server to access a psychographic profile (demographics, interests, etc.) in order to display information about other products that might be of interest to that user (Ye_il, page 121).

Analysis - Section 28.3

[67] Reference will be made to our earlier review of Ye_il, statements in the instant application, and additional explanations provided by the Applicant at the Hearing.

Overview: Comparing Chapter 4 of Ye_il to the instant application

[68] The instant application is mainly concerned with simplifying the process followed to complete a retailing transaction, once a customer has decided to buy an item.

[69] On its face, Chapter 4 of Ye_il sets out methods which can be employed to obtain information about potential customers and makes general reference to selling goods or services over the Internet. By learning about potential customers, it is possible to create a more pleasant virtual shopping experience and, in turn, this increases the likelihood of a sale being made. This chapter is concerned with learning more about a Web site visitor in order to be able to make the next visit more enjoyable. Session and subscription-based shopping environments are also discussed.

[70] Claims 1 to 75 do not identify a session-based or a subscription-based tracking or shopping environment. At the Hearing, the Applicant explained that the claimed invention falls into the subscription category because registration is required, but it had many of the advantages of a session-based environment because logging in was not required to place an order. In subscription-based tracking, a user registers and logs in to a merchant site, and provides his shipping and billing coordinates which are stored for future use. The merchant site can provide a more customized shopping experience to returning customers. Additionally, subscription-based tracking saves shoppers from having to supply their purchaser-specific account information on subsequent orders.

[71] At the Hearing, the Applicant emphasized the main distinguishing features of the claimed invention: placing an order without logging in; and placing an order through a single-action ("one-click" ordering). A client identifier in the cookie file implements these features, whereby the

server recognizes a unique computer (or user) based on recognizing the identifier in the cookie that is transmitted when ordering an item. A user must have previously supplied purchaser-specific account information for this ordering method to work. The Applicant pointed out that while the technology of cookies was known in the prior art, the particular use of cookie technology in the instant claims was not known.

[72] As well, the Applicant pointed out other subsidiary features such as: user login for changing user account information; automatic combination of multiple orders into a single order; and displaying an indication that an order can be cancelled within a time interval.

Distinguishing features argued by the Applicant

[73] From statements made at the Hearing, the Applicant submits that the claimed invention distinguishes over the prior art, in respect of:

- i. The feature of single-action ordering without checkout steps and without having to re-enter purchaser-specific account information in a separate page for additional orders;
- ii. A new use of a cookie, in particular, to retrieve purchaser-specific account information (a unique user's billing/shipping information) that was previously stored;
- iii. The advantage of a registered user being able to order without logging in, while retaining the advantages of being a registered user;
- iv. The advantage or benefit of computer resource overhead reduction because fewer steps are needed to place an order;
- v. Additional subsidiary features:
 - (1) user log in for changing user account information;
 - (2) automatic combination of multiple orders into a single order;
 - (3) displaying an indication that an order can be cancelled within a time interval.

[74] The inventive concept common to all claims includes features I. and ii. above, which provide the advantages listed as iii. and iv. The Board shall now consider each of these features in turn to see how they compare against the prior art on record. If all of the features are found to lack inventiveness, the Board must also consider the combination of these features as a whole. This approach is

consistent with what was stated by Snider J. in *Procter & Gamble Pharmaceuticals Canada Inc. v. Canada (Minister of Health)*, 2004 FC 204, 32 C.P.R. (4th) 224, at paras. 93-95.

If any of the features are found to be unobvious, the claim is not obvious.

Account information: Storing and retrieving using identifiers (cookies)

[75] The Examiner cited *The Journal of Design Science* to show that a client identifier is inherent to the use of cookies and that a server can use a customer ID (cookie) "as a key to store any information the visitor has provided in past visits." The publication date of the *Journal of Design Science* was not established to be prior to the claim date of this application. Therefore, the Board did not consider this reference under obviousness.

[76] However, at the Hearing the Applicant stated that it was well accepted that cookies were well known before the claim date as discussed in both of the cited references; that they functioned as client identifiers having a unique identification code (unique to the computer); and that client identifiers could be used for various tracking purposes.

[77] The way in which the client identifier works in the instant application is described on page 12 (lines 4-10), as follows [emphasis added]:

In step 301, the server system retrieves the client identifier that was sent by the client system. In step 302, the server system updates the client identifier/customer table to indicate that the generated client identifier has been associated with that customer.

...

The next time a purchaser attempts to order an item, the client system will supply its client identifier to the server system . . . the server system will assume that the purchaser is the customer associated with that client identifier in the client identifier/customer table.

[78] In consideration of Ye_il and the Applicant's statements at the Hearing, the Board concludes that the manner of applying client identifiers in the instant application was conventional or well known on the claim date.

[79] What is different in the instant application is that the client identifier is used to retrieve account information.

[80] We note that it was well known before the claim date for servers to store and retrieve updated account information at the server for the purpose of completing orders. This is how subscription-based shopping models work, which the Applicant explained is the shopping model upon which the claimed invention is based.

[81] Therefore, the variant in the use of the identifier is in the type of information it retrieves. That is, purchaser-specific account information is stored and accessed using an identifier, just like other state information.

[82] It is not a material factor, in the Board's opinion, whether the information being associated with a client identifier identifies a unique user, items of interest to a user, or other personal information which may be on hand at the server about that user, for example, information kept in a subscription site where that user is registered. That a server can recognize a unique user by using a cookie, and make use of that recognition, is the technological capability or effect which is reflected in the claimed invention. This technological capability was known before the claim date. The difference in the type of information is not patentably significant.

[83] Ye_il lists other similar uses of cookies, for example: for tracking Web sites that have been visited by that user, and for tracking the sequence of a session on a Web site. Further, it is obvious that a cookie may be designed to carry item identifiers as state information, which a server can use to retrieve the pertinent entries associated with each item, such as: availability, pricing, description, images etc. As needed, a server can be programmed to display any of this information on one or more web pages. The underlying technological capability of the cookie is the same.

[84] The Board finds that the particular use of a cookie to retrieve purchaser-specific account information that was previously stored, is obvious.

[85] Although this particular use recognizes a new type of state information to be tracked, the Board considers that this aspect is not inventive. It is clear that state information can be any information transmitted between a client and server. Moreover, it is apparent from the instant application that it was known that servers can track purchaser-specific account information, without requiring a

customer to log in. In particular, reference is made to page 3 of the instant application (Background of the Invention), which the Applicant stated (at the Hearing) likely pertained to a session-based shopping model [emphasis added]:

The selection of various items from the electronic catalogs is generally based on the "shopping cart" model. When the purchaser selects an item from the electronic catalog, the server computer system metaphorically adds that item to a shopping cart. When the purchaser is done selecting items, then all the items in the shopping cart are "checked out" (i.e., ordered) when the purchaser provides billing and shipment information. In some models, when a purchaser selects any one item, then that item is "checked out" by automatically prompting the user for the billing and shipment information.

...

For example, the purchaser selects the various items from the electronic catalog, and then indicates that the selection is complete. The purchaser is then presented with an order Web page that prompts the purchaser for the purchaser-specific order information to complete the order. That Web page may be prefilled with information that was provided by the purchaser when placing another order.

[86] Given that the prefilled information discussed on page 3 is the same purchaser-specific account information that was transmitted to the server for another order earlier in the session, this information must therefore be tracked by the server. Ye_il defines a session-based shopping model as one in which "*no information about the customer is kept on the system beyond the duration of his or her visit to the site*" and that there is no registration or logon in a session-based shopping model. Therefore, the Board concludes that this purchaser-specific account information would be tracked in the same manner as other state information.

[87] Page 3 is silent as to what mechanism(s) would be used to track the state of this purchaser-specific account information. However, since Netscape (Ye_il, pages 124-125) set out that a cookie can be used as a "client-side 'state', or recognition device", in the Board's opinion, there is no inventiveness in tracking the state of purchaser-specific account information.

[88] The Board concludes that the particular use of a cookie to retrieve purchaser-specific account information that was previously stored at the server, is something that would have been obvious to the skilled person. However, this is only one aspect of the claimed invention, and different aspects cannot be assessed in isolation.

Single-Action Ordering (one-click ordering)

[89] The Examiner cited Ye_il, page 326, and more specifically the paragraph entitled "Instant Buy Option". This page is included in Appendix F, "The Netscape Merchant System" [pages 321 to 337]. This Netscape System is comprised of a group of computer programs which allows a seller to set up on-line shopping and to keep track of sales and inventory.

[90] At the Hearing, the Applicant emphasized that the paragraph on page 326 of Ye_il eliminates only the checkout review (i.e. the shopping basket review stage), but does not suggest single-action ordering.

[91] The single paragraph on page 326 to which the Examiner refers reads as follows:

Instant Buy Option

Merchants also can provide shoppers with an Instant Buy button for some or all items, enabling them to skip checkout review. This provides added appeal for customers who already know the single item they want to purchase during their shopping excursion

There is no further description of how this feature works.

[92] The Board has examined pages 328, 331 and 334 to locate additional information about this Instant Buy Option, that is used in "The Netscape Merchant System". Some excerpts are included below [emphasis added]:

Transaction Server

The Transaction Server provides a full suite of services for transaction processing, including checkout, real-time credit card processing, order fulfillment, automated shipping and order delivery, and collection of information used for archiving and audit reporting.

...

Customizable Order Form

The Netscape Merchant System includes a highly flexible order form that merchants can customize to satisfy their branding and order processing requirements. This form enables merchants to capture critical billing, shipping and credit card information, and personalized messages for orders. (see Figure F.5).

...

Sales Analysis

To maintain a competitive edge in the rapidly changing marketplace of the mid-90s, merchants need to detect trends in purchasing habits and respond quickly. The Transaction Server acts as a repository for purchase information, enabling merchants to perform analyses and

respond rapidly by changing product mix or pricing.

Figure F.5 - "Providing payment and shipping information" on page 331 is the Customizable Order Form. It depicts an order form which enables merchants to capture billing, shipping and credit card information for orders. The page includes a "Continue Checkout" button at the bottom of the page, which suggests that a further review must occur. While there is an indication that the purchasers information is stored, no further explanation or suggestion is given about using said information along with the Instant Buy Option.

[93] Our review of "The Netscape Merchant System" suggests that after capturing billing and shipping information there is an additional step for continuing checkout. The Instant Buy button may point the skilled person in the direction of finding ways to speed up the online ordering process, but it doesn't suggest performing a single action to instantly place an order.

[94] The Board concludes that Ye_il does not disclose performing a single action to instantly order an item, as set out in claims 1 to 75.

Other benefits and advantages

[95] There is no suggestion in the prior art to modify a subscription-based shopping model such that with one-click, an identifier (cookie) is sent in conjunction with the product ordering information, thus retrieving purchaser-specific account information, so that the order is instantly placed.

[96] The advantages of such a streamlined ordering process pointed to by the Applicant are indicative of some ingenuity (or inventive step). That is not to say that being able to instantly order an item in a subscription-based system without logging in and the streamlining of ordering steps which achieves a reduction in computer processing, are technological in nature. This factor will be material to the analysis of statutory subject matter.

[97] One aspect of the invention appears to be the idea to speed up the ordering process. The motivation behind this idea undoubtedly involves an appreciation of consumer psychology, and consumer marketing strategies, to entice a customer to buy by assuring instant gratification of ownership through a "single-action". It is arguable that once single-action ordering was conceived in the context of online shopping, the use of readily available cookie technology to give it practical shape was simple to

implement. However, as was stated in *Canadian Gypsum Co. v. Gypsum, Lime & Alabastine, Canada Ltd.*, [1931] Ex. C.R. 180:

[T]he inventive ingenuity necessary to support a valid patent may be found in the underlying idea, or in the practical application of that idea, or in both. It may happen that the idea or conception is a meritorious one, but that once suggested, its application is very simple . . .

[98] Would it have been obvious to the skilled technician, in view of *Ye_il*, to modify a subscription-based shopping model such that an order can be instantly placed without logging in? "The Netscape Merchant System" in *Ye_il* points the skilled person in the general direction of eliminating checkout review by using an Instant Buy button. The Board found that no ingenuity would have been required on the claim date to retrieve purchaser-specific account information entered by a user in a past session, based on the recognition of that user's client identifier. However, that is not enough to find that, in this instance, the skilled person given the general problem of streamlining the traditional ordering process, would have been led to tie an Instant Buy button in the Netscape System with cookie (identifier) technology, to instantly place an order.

[99] As noted earlier, the instant application focuses on simplifying the process followed to complete a retailing transaction, once a customer has decided to buy an item. The general problem addressed by the cited passages in *Ye_il* is related to marketing products to consumers by tracking information about them. Even though *Ye_il* is relevant to the claimed invention, it is not mainly concerned with transaction process problems and such solutions. That is, there is not enough information provided in *Ye_il* to address the distinguishing aspect of the single action ordering process in the instant application.

Findings: Section 28.3

[100] The Board finds that the skilled technician would not have been lead directly and without difficulty to conceive of what has been claimed in claims 1 to 75.

The approach to assessing obviousness set out in *Sanofi*

[101] Subsequent to the Hearing, the Supreme Court of Canada rendered its decision in *Sanofi* [supra], in which the Court set out the approach to be followed in assessing obviousness, as follows:

[67] It will be useful in an obviousness inquiry to follow the four-step approach first outlined by Oliver L.J. in *Windsurfing International Inc. v. Tabur Marine (Great Britain) Ltd.*, [1985] R.P.C. 59 (C.A.). This approach should bring better structure to the obviousness inquiry and more objectivity and clarity to the analysis. The Windsurfing approach was recently updated by Jacob L.J. in *Pozzoli SPA v. BDMO SA*, [2007] F.S.R. 37, [2007] EWCA Civ 588, at para. 23:

In the result I would restate the Windsurfing questions thus:

- (1) (a) Identify the notional "person skilled in the art";
(b) Identify the relevant common general knowledge of that person;
- (2) Identify the inventive concept of the claim in question or if that cannot readily be done, construe it;
- (3) Identify what, if any, differences exist between the matter cited as forming part of the "state of the art" and the inventive concept of the claim or the claim as construed;
- (4) Viewed without any knowledge of the alleged invention as claimed, do those differences constitute steps which would have been obvious to the person skilled in the art or do they require any degree of invention?
[Emphasis added.]

[102] In order to verify our conclusion, an analysis using the *Windsurfing/Pozzoli* approach to obviousness set out in the Supreme Court decision is set out below. Substantiation for the Board's view of the inventive concept, common general knowledge, and what is taught by the cited prior art can be found in the obviousness analysis, above

(1)(a) Identify the notional "person skilled in the art"

The skilled person is skilled in the fields of online retailing models or techniques, e-commerce, Web development, marketing, and consumer psychology.

(1)(b) Identify the relevant common general knowledge of that person

The skilled person understands the concept of and the general technology related to online shopping and traditional online checkout models for shopping. The skilled person understands the technology of cookies and the manners of applying this technology over the Internet. The skilled person is aware of common retailing practices, such as the ability to offer order cancellation, and recording user account information for large or personalized retail transactions.

(2) Identify the inventive concept of the claim in question or if that cannot readily be done, construe it

One aspect of the inventive concept which is common to all claims is streamlining the traditional online ordering method by “single-action ordering”. Whereas previously, particular checkout steps including a checkout page were provided, the claimed invention provides a client with the option of "single-action ordering" for instant checkout. The widely accepted shopping rule or practice of "checking-out" by providing a checkout review page is eliminated. The inventive concept also includes a use of known cookie technology to retrieve stored purchaser-specific account information from the server, and instantly place an order.

(3) *Identify what, if any, differences exist between the matter cited as forming part of the "state of the art" and the inventive concept of the claim or the claim as construed*

With respect to “single-action ordering”, the “Instant Buy Button” used in “The Netscape Merchant System” on page 326 of Ye_il eliminates checkout review but does not eliminate checkout. Thus, whereas the prior art provides a checkout page, the claimed invention gives a client the option to instantly order an item by "single-action ordering".

With respect to the use of known cookie technology in the inventive concept, as discussed earlier, the Board found that the manner of applying client identifiers in the instant application was conventional or well known on the claim date. What is different is that purchaser-specific account information is stored and accessed using an identifier, just like other state information. That is, the use of known cookie technology in the inventive concept (identified above) differs from the state of the art with respect to the type of information the identifier retrieves.

(4) *Viewed without any knowledge of the alleged invention as claimed, do those differences constitute steps which would have been obvious to the person skilled in the art or do they require any degree of invention?*

With respect to retrieving purchaser-specific account information, as discussed earlier, the Board found that there was no inventiveness in changing the type of information that the identifier retrieves. Therefore, there is nothing inventive about the particular use of the cookie or identifier, as claimed. However, the Board found that the “single action ordering” aspect of the inventive concept would not have been obvious because the benefits and advantages are indicative of some ingenuity.

[103] Using the four step *Windsurfing/Pozzoli* approach in *Sanofi*, the conclusion is the same as that reached in our findings above, which is that claims 1 to 75 are not obvious.

Subsidiary features

[104] Each of claims 1 to 75 is also limited by at least one of the following features, namely:

- user log in for changing user account information;
- automatic combination of multiple orders into a single order; and
- displaying an indication that an order can be cancelled within a time interval.

[105] Dealing with the first of the three additional features, namely, changing or updating account information by logging in, we find that, in view of the login subscription model in *Ye_il*, this would be obvious on its face.

[106] Since we found the claims to be unobvious without analyzing these subsidiary features, it is unnecessary to assess what the prior art teaches in respect of these features. However, a material issue would have arisen had our above findings on obviousness been different, and we make the following comments with a view to providing guidance should such a situation arise in the future.

[107] Considering next the subsequent two features, we note that each of them addresses a different problem than the problem that is common to all of the claims of how to place an order. In claims 33 and 60, providing the purchaser the option to cancel the order within a time interval addresses the problem of customer satisfaction after placement of the order, and in claims 19 and 51, the ability to combine multiple orders into a single order addresses the problem of achieving efficiencies in shipping ordered items to the same address.

[108] This type of situation was addressed by the House of Lords in *Sabaf [supra]* at paragraphs 22-26, where Lord Hoffmann said [emphasis added]:

24. In my opinion the approach of the Court of Appeal is contrary to well established principles both in England and in the European Patent Office, as stated in the quotation from Lord Tomlin and the EPO Guidelines to which I have referred. I quite agree that there is no law of collocation in the sense of a qualification of, or gloss upon, or exception to, the test for obviousness stated in section 3 of the Act. But before you can apply section 3 and ask

whether the invention involves an inventive step, you first have to decide what the invention is. In particular, you have to decide whether you are dealing with one invention or two or more inventions. Two inventions do not become one invention because they are included in the same hardware. A compact motor car may contain many inventions, each operating independently of each other but all designed to contribute to the overall goal of having a compact car. That does not make the car a single invention.

...

26. The EPO guidelines say that "the invention claimed must normally be considered as a whole". But equally, one must not try to consider as a whole what are in fact two separate inventions. What the Guidelines do is to state the principle upon which you decide whether you are dealing with a single invention or not. If the two integers interact upon each other, if there is synergy between them, they constitute a single invention having a combined effect and one applies section 3 to the idea of combining them. If each integer "performs its own proper function independently of any of the others", then each is for the purposes of section 3 a separate invention and it has to be applied to each one separately. That, in my opinion, is what Laddie J meant by the law of collocation.

[109] Taking guidance from *Sabaf*, we consider the approach that should be taken in considering features of claims that appear to address different and separate problems is to set out the various features relating to the respective problems solved, verify that there are actually two or more separate inventions by checking to see whether the features that solve one problem function independently of the features that solve the other problem(s), and assess the set of features that represent each different invention separately for novelty and obviousness, according to the usual evidence (prior art, common general knowledge, the application itself) and arguments.

[110] In the present case, it was not argued that there were different inventions, nor was any prior art cited with respect to the additional features. However, as mentioned above, the outcome in this particular instance would not have changed, since the Board has already concluded that the claims would not have been obvious even without considering these subsidiary features.

STATUTORY SUBJECT MATTER: SECTION 2

[111] In this section, the expressions "patentable subject matter" and "statutory subject matter" are used interchangeably.

The Examiner's position

[112] In the Final Action, the Examiner rejected all of the claims and the whole application under Section 2 of the *Patent Act*, stating in part:

There is no new learning or knowledge contributed to the state of the art or the prior art that is not already taught or known by Ye_il and the Journal or Design Science to the art of Internet technology. The underlying technical features of the system remain the same. Adding the option to purchase an item with a single-click is considered to be a mere change in the ordering scheme or business model adhered to while using existing client/server systems. The single click is simply a feature within a common system, it is not a system itself and it is done using common computer and Internet technology. As such, the subject matter of this application as a whole is not patentable under section 2 of the *Patent Act*.

Claims 1 to 45 and 51 to 75 describe methods for ordering items using a computer system. None of these methods are a method of operating an inventive machine or a method of manufacturing or building a vendible product. These claims do not describe methods that produce an essentially economic result in relation to trade, commerce, or industry, in the meaning given those words by the Courts. The Office considers a method to produce an essentially economic result in relation to trade, commerce or industry, etc. when that method is a method of operation of an inventive machine or when that method manufactures or constructs a vendible product. None of the methods described by these claims are a manual or productive art (they are what have usually been labelled by the Courts as professional skills²), and none of these methods constitute "art" under section 2. The fact that conventional computer systems are used to implement the item ordering scheme (claims 46 to 50) does not change the nature of the subject matter. As stated by the Court, the fact that a computer is or should be used does not add to nor subtract from the patentability of a discovery. A method that does not produce an essentially economic result in relation to trade, etc. cannot be made patentable merely by having it carried out by a computer. The subject matter of claims 1 to 75 is therefore non-patentable, and is rejected under section 2 of the *Patent Act*.

The Applicant's response

[113] The Applicant stated that the claims pertained to statutory subject matter, stating in part:

With respect to the statutory subject matter objection, the Examiner contends that "[t]here is no new learning or knowledge contributed to the state of the art or the prior art that is not already taught or known by Ye_il and the Journal of Design Science to the art of internet technology." This appears to be a reiteration of the Examiner's obviousness rejections which, as discussed above, are based on a mischaracterization of Ye_il.

The Examiner is respectfully requested to consider the most recent decision of the Supreme Court of Canada which addresses this issue, *Harvard College v. Canada (Commissioner of Patents)*, (2002) S.C.C. 76 (referred to

herein as Harvard Mouse). In Harvard Mouse, the Court was asked to decide whether claims directed to a higher life form fell within the meaning of the phrases "manufacture" or "composition of matter" in Section 2. The Court decided that while the definition of Section 2 is broad, these terms do not encompass higher life forms. The claims of the patent at issue in Harvard Mouse which recited the method by which the higher life forms were produced were originally allowed by the Examiner (and were never an issue at trial), because methods clearly fall within the meaning of the term "process" in Section 2. The Court made it clear that the words of Section 2 of the *Patent Act* are to be read "in their grammatical and ordinary sense".

Accordingly, it follows that the claims of this application which are directed to methods (claims 1 to 43 and 51 to 75) fall within the meaning of "process" and/or "art" and the claims directed to client systems (claims 44 to 50) fall within the meaning of at least one of "machine", "manufacture" and "composition of matter", such that all of the currently pending claims recite statutory subject matter."

The Examiner's assertion that the methods claimed in this application do not "produce an essentially economic result in relation to trade, commerce or industry" is unfounded. The methods claimed in this application are directed to allowing a user to order an item by a single action, which is clearly an economic result in relation to trade and/or commerce. The claimed methods provide an operator of a computerized ordering system with valuable tools to enhance a user's ordering experience, thereby increasing the likelihood that the user will order items from the operator again. There can be no doubt that this is an essentially economic result.

If the Examiner's statement that "[t]he Office considers a method to produce an essentially economic result in relation to trade, commerce or industry, etc. when that method is a method of operation of an inventive machine or when that method manufactures or constructs a vendible product" is correct, then the Applicant submits that the Office's characterization of an essentially economic result is narrower than can be supported by the *Patent Act*, *Patent Rules* and the relevant decisions of the Courts. For example, in *Lawson v. Commissioner of Patents* (1970), 62 C.P.R. 101 at 109-110, the Court stated:

In the earlier development of patent law, it was considered that an invention must be a vendible substance and that unless a new mode of operation created a new substance the invention was not entitled to a patent, but if a new operation created a new substance the patentable invention was the substance and not the operation by which it was produced. This was the confusion of the idea of the end with that of the means. However, it is now accepted that if the invention is the means and not the end, the inventor is entitled to a patent on the means. (emphasis added)

Furthermore, as stated above, the methods claimed in this application are directed to allowing a user to order an item by a single action. Such methods may be embodied in a vendible product, such as a computer system or computer program product which allows users to make orders by performing a single action.

With respect to the Examiner's assertion that the methods claimed in this application relate to "professional skills", it is respectfully submitted that this assertion is incorrect. None of the claims require the exercise of professional skill or judgement in order for the method to function.

Clarifications at the Hearing

Nature of the rejection

[114] The response to the Final Action suggests some confusion as to whether the Examiner's objection pertains to obviousness or statutory subject matter. In the letter dated July 30th, 2008 the Board clarified the objection under Section 2 of the *Patent Act* stating:

The Board is of the view that this rejection under Section 2 is based on whether the essence of the claimed invention, or what has been added to human knowledge (in this case: what has been added to online ordering technology) is non-statutory because it does not fall into one of the categories of invention. This matter should be considered by the Applicant as an entirely separate ground from the tests for novelty and/or obviousness.

[115] At the Hearing, the Applicant reiterated the contention that the test for statutory subject matter used by the Examiner in the Final Action was improper. The Applicant pointed to excerpts in the Final Action such as "new learning or knowledge" and "underlying technical features of the system remain the same", to argue that the objection under Section 2 of the *Patent Act* was an assessment of inventiveness. The Board clarified that the determination of what has been added to human knowledge first requires an assessment of what is known, before checking to see whether the claimed invention fits under one of the patentable categories.

[116] The Board recognizes that expressions such as "new learning or knowledge" stem from *Shell Oil v. Commissioner of Patents* (1982), 67 C.P.R. (2d) 1 at page 11 (S.C.C) [*Shell Oil*]. The Board is of the opinion that the *Shell Oil* decision addressed the issue of statutory subject matter, and that expressions pertaining to "learning" and "knowledge" were used in that context.

[117] The Examiner's statements, to which the Applicant refers, are repeated below [emphasis added]:

There is no new learning or knowledge contributed to the state of the art or the prior art that is not already taught or known by Ye_il and the Journal or Design Science to the art of Internet technology. The

underlying technical features of the system remain the same. Adding the option to purchase an item with a single-click is considered to be a mere change in the ordering scheme or business model adhered to while using existing client/server systems. The single click is simply a feature within a common system, it is not a system itself and it is done using common computer and Internet technology.

When the Examiner speaks of “new learning or knowledge contributed to the state of the art”, it would appear to be in respect of the state of the technical arts, such as the “art of Internet technology”. In the Examiner’s opinion, “the underlying technical features of the system remain the same”. The Board understands the Examiner’s statements to mean that what is “new” here does not relate to the technical learning or knowledge in these arts.

[118] Regarding the Applicant’s statement that the objection amounts to an assessment of obviousness, the Board disagrees since the Examiner does not allege that the “mere change in the ordering scheme or business model” is known or obvious. We take it that the Examiner is reflecting on the common general knowledge and evidence demonstrating the state of Internet technology before the claim date. The Board considers that this is a necessary exercise when extracting what has been added to human knowledge by the claimed invention.

[119] The Board is satisfied that the objection pertains to whether the claimed invention is directed to statutory subject matter.

Applicant’s views regarding statutory subject matter

[120] At the Hearing the Applicant again discussed *Harvard College v. Canada (Commissioner of Patents)*, 2002 SCC 76, [2002] 4 SCR 45, paragraphs 120, 150, 153 [*Harvard*] to support his contention that the accepted approach for assessing statutory subject matter would involve starting with the five categories of statutory subject matter; determining the scope of those categories in the context of the *Patent Act*; discerning the intention of Parliament with respect to this scope, and then determining whether the subject matter of the invention fits within one of those categories. The Board clarified that this is part of the assessment, but added that determining what the claimed invention is (the substance of the claimed invention as opposed to only the form of the claim) would be necessary in order to begin such an assessment.

[121] The Applicant stated that once a claim is in the form of a method claim, it defines the invented subject matter,

and the assessment should proceed to determine whether it falls under one of the categories (of art or process). The Applicant stated that if a claim, on its face, was a machine or apparatus then it should be assessed to see if it fits under the category of machine under Section 2 of the *Patent Act*.

[122] With respect to claims 44 to 50, which are apparatus claims, the Applicant stated that independent claim 44 clearly defines an apparatus, which has specific identifiable computer (or related) components upon which the method to order an item is carried out. The Applicant further stated that no exclusions existed for these claims, which therefore would fit under the patentable category of a machine.

Addition to human knowledge

[123] At the Hearing, the Applicant also stated that what has been added to human knowledge in the claimed invention is:

- the capability for a registered user to order products online without logging in;
- the capability to order within that context by means of a single-action; a new and improved way of ordering;
- eliminating the need for the user to transmit as much information (passwords, account information);
- a reduction in computer resource overhead at the server because fewer actions are processed; and
- improved security of the ordering method by eliminating the need for transmitting sensitive personal information.

The Applicant stated that the invention provides a simpler, more elegant, faster, and more secure way of ordering products online. The Applicant stated that the invention is claimed as a method of ordering comprising various steps and a computer system upon which that method can be practised.

Legal principles - Statutory Subject Matter

Invention defined

[124] Section 2 of the *Patent Act* sets out the definition of invention as:

"invention" means any new and useful art, process, machine, manufacture or composition of matter, or any new and useful improvement in any art, process, machine, manufacture or composition of matter.

Approach to assessing subject matter

[125] The approach the Board will follow in assessing for patentable subject matter is briefly set out below. The basis for this approach follows.

- *Consider both the form and the substance of the claims*

An assessment of patentable subject matter involves a consideration of both the form and substance of the claims.

- Form of the claims

By "form" is meant what the language of a claim, on its face, appears to be defining as the invention.

- Substance of the claims (What has been discovered?)

The approach to assess the substance is to fully understand the nature of the claimed invention, and determine what has been added to human knowledge ["what has been discovered"] by the claimed invention.

- *Subject matter must fit the definition of a category*

The judicial interpretation of each of the terms art, process, machine, manufacture and composition of matter must be considered to assess whether the subject matter of the claims fits under one of these categories.

Change of character or condition

Of particular significance in the present application is the definition of an art. *Lawson v. Commissioner of Patents* (1970), 62 C.P.R. 101 (Ex. Ct.) [*Lawson*] sets out that a patentable art must cause a change in character or condition of some physical object.

- *Excluded (non-statutory) subject matter*

Certain types of subject matter are excluded from patentability. For example, computer programs if the discovery involved is a method of calculation, methods of medical treatment, higher life forms, business systems and methods and professional skills and methods, have been excluded by judicial interpretation of Sections 2 and 27(8) of the *Patent Act* (*Monsanto*

Canada Inc. v. Schmeiser, 2004 SCC 34, [2004] 1 S.C.R. 902, at paragraph 133, dissenting [*Schmeiser*]).

- *Non-technological subject matter is not statutory*
Each of the five categories of invention inherently relate to subject matter that is technological in nature. It follows that subject matter that is not technological is not statutory subject matter, and cannot fit under one of the categories of invention.

[126] To summarize the above, for a claim to be patentable, the form of the claim (the claim on its face) must relate to one of the five patentable categories of invention (art, process, machine, manufacture or composition of matter). Also, the form of the claim must be neither excluded subject matter nor non-technological subject matter. Similarly, the substance of the claimed invention, or "what has been added to human knowledge", must fit under one of the five patentable categories of invention, and what has been added to human knowledge by the claim must not be directed towards either excluded subject matter or non-technological subject matter.

Basis for the approach

Form of the claim (the claim on its face)

[127] It is well established that, to be patentable, a claim on its face, must define one of an art, process, machine, manufacture or composition of matter. As explained below, if the form of a claim relates to excluded subject matter or something that is non-technological in nature, it will fail due to the form of the claim. For example, a claim to a higher life form is excluded based on form.

Substance of the claim (What has been discovered?)

[128] The courts have demonstrated that in order to assess whether something is statutory subject matter under Canadian law, a determination as to what has been "invented", or "discovered", is required. This determination may be made based on the application, the state of the art on the claim date, and in view of any submissions by the applicant. In *Lawson* at pages 110-111, even though the claims were directed to the subdivided parcel of land itself, which the appellant acknowledged as an untenable position, as it was clear that the land had not been changed, Cattanach J. focussed his attention on the underlying method of describing and laying out parcels of land in a plan of subdivision of a greater tract of land. In *Tennessee*

Eastman Co. et al. v. Commissioner of Patents (1972), 8 C.P.R. (2d) 202 at 206 (S.C.C), even though the claims were directed to a method of surgical bonding, the Supreme Court did not feel bound by the form of the claims when assessing their suitability for patent protection. At page 206, the Court determined "the invention essentially consists in the discovery that a known adhesive substance is adaptable to surgical use", and addressed the question of statutory subject matter when "the only element of novelty is in its application to surgical use and the discovery is limited to the unobvious adaptability to such use." In *Shell Oil* at pages 10-11, the ingenuity underpinning a claim for a composition had to fit under the category of art, for the claim to be patentable. The Court distilled the essence of the claimed invention, stating, "The appellant's discovery in this case has added to the cumulative wisdom on the subject of these compounds by a recognition of their hitherto unrecognized properties" Finally, in *Schlumberger Canada Ltd. v. Commissioner of Patents* (1981), 56 C.P.R. (2d) 204 at pages 205-206 (F.C.A), in approaching the question of patentable subject matter, Pratte J. considered what was the allegedly novel aspect as well, saying [emphasis added]:

In order to determine whether the application discloses a patentable invention, it is first necessary to determine what, according to the application, has been discovered.

...

What is new here is the discovery of the various calculations to be made and the mathematical formulae to be used in making those calculation.

[129] The approach taken by our courts in looking to the substance of a claimed invention, outlined above, is consistent with practice in the United Kingdom. *Aerotel Ltd v Telco Holdings Ltd & Others*, [2006] EWCA Civ 1371 [Aerotel] at paragraph 40, sets out a "four step approach" for assessing whether a claimed invention is excluded from patentability. Jacob LJ discussed the second step "identify the actual contribution" in paragraph 43, as follows [emphasis added]:

... How do you assess the contribution? Mr Birss submits the test is workable – it is an exercise in judgment probably involving the problem said to be solved, how the invention works, what its advantages are. What has the inventor really added to human knowledge perhaps best sums up the exercise. The formulation involves looking at substance not form – which is surely what the legislator intended.

[130] Before moving on to the next point, we would like to add a further comment. A claimed invention cannot be

considered as statutory subject matter if the feature or group of features that make it new and unobvious comprise excluded subject matter. It also follows that a claim which relies on a particular feature or group of features to render it new and unobvious cannot rely on a different feature or group of features in order to qualify as statutory subject matter. For example, in *Schlumberger*, the Federal Court of Appeal found that what had been discovered was that by making certain calculations according to certain formulae, useful information could be extracted from certain measurements. Thus the claims, which were assumed to be new and inventive, were held to comprise non-patentable subject matter, which could not be transformed into patentable subject matter merely by relying on a different feature, namely a computer, to carry out those calculations. This concept has been further explained by Mr P Prescott QC (sitting as a Deputy Judge) in *CFPH LLC* [2005], EWHC 1589 (Pat), at paragraphs 93 to 96 [*CFPH*].

Subject matter must fit the definition of a category

[131] It is well accepted in Canada that the judicial interpretation given to each of the five categories of invention must be considered for assessing patentability. Of relevance to the present case are the judicial interpretations of art and process.

There must be a physical object or a change in character or condition of a physical object

[132] A common characteristic of the five categories of invention is that they are physical in nature. Machines, manufactures and compositions of matter are inherently physical.

[133] As for the term "art", this was considered by the Supreme Court of Canada in *Shell Oil*, 67 C.P.R. (2d) 1. Delivering the judgment of the Court, Wilson J. stated, at p. 15:

The court [in *Tennessee Eastman*], however, affirmed that "art" was a word of very wide connotation and was not to be confined to new processes or products or manufacturing techniques but extended as well to new and innovative methods of applying skill or knowledge provided they produced effects or results commercially useful to the public.

An effort to articulate this broader concept of the term "art" was made by Cattanach J. in *Lawson*. In that case a patent was being sought on a new method

of describing the boundaries of a plot of land. The application was rejected, again not because the subject-matter of the application was not an "art" within the meaning of the definition in the Act but because, like the new use for the adhesive in *Tennessee Eastman*, it related to professional skills rather than to trade, industry or commerce. In the course of his reasons Mr. Justice Cattanach said at pp. 109-10:

An art or operation is an act or series of acts performed by some physical agent upon some physical object and producing in such object some change either of character or of condition. It is abstract in that, it is capable of contemplation of the mind. It is concrete in that it consists in the application of physical agents to physical objects and is then apparent to the senses in connection with some tangible object or instrument.

In the earlier development of patent law, it was considered that an invention must be a vendible substance and that unless a new mode of operation created a new substance the invention was not entitled to a patent, but if a new operation created a new substance the patentable invention was the substance and not the operation by which it was produced. This was the confusion of the idea of the end with that of means. However, it is now accepted that if the invention is the means and not the end, the inventor is entitled to a patent on the means.

[134] Following the Supreme Court of Canada, the Board finds that the term "art" is "not to be confined to new processes or products or manufacturing techniques"; at the same time, it must be "an act or series of acts performed by some physical agent upon some physical object and producing in such object some change either of character or of condition".

[135] A more recent judicial treatment of the term "art" is found in *Calgon Carbon Corp. v. North Bay (City)*, 2005 FCA 410, 45 C.P.R. (4th) 241. In this case, Rothstein JA, writing the reasons for judgment of the Court, cited with approval Wilson J.'s statement in *Shell Oil* that the word "art" in the context of the definition of invention must be given its general connotation of "learning" or "knowledge" as commonly used in expressions such as "the state of the art" or "the prior art".

[136] In the Board's view, the concluding phrase of Wilson J's statement is an important one, as it makes clear that not all learning or knowledge necessarily falls within the definition of a patentable art, but only learning or knowledge *as commonly used in expressions such as "the state of the art" or "the prior art"*. And considering these expressions as they have traditionally been used in the patent sense, *i.e.*, in the context of science, engineering and technology, any learning or knowledge, to be considered

as falling within the meaning of "art", must relate to scientific or technological knowledge. This will be further elaborated in our later discussion of the technological requirement for patentable inventions.

[137] In *Calgon*, Rothstein JA also referred to Wilson J.'s holding in *Shell Oil* that a patentable art must realize a useful result through practical application, and that there must be a practical embodiment of the new learning or knowledge (in that case, the practical embodiment was the new composition).

[138] We conclude from our review of the jurisprudence discussing art that an act or series of acts that do not constitute a practical application of scientific or technological knowledge do not fit the definition of a patentable art. A practical application of knowledge necessarily implies an act or series of acts resulting in a change of character or condition of a physical object.

[139] Finally, a process is similar to an art, as it involves the application of a method to a material or materials. [*Commissioner of Patents v. Ciba Ltd.* (1959), 30 C.P.R. (1st) 135 (S.C.C.) at paragraph 15.

[140] Thus, where the claimed invention, in form or in substance, is neither a physical object (a machine, manufacture or composition of matter) nor an act or series of acts performed by some physical agent upon some physical object to produce in that object some change of either character or condition (art or process), it is not patentable.

Excluded subject matter: Business methods are not patentable

[141] As noted earlier, certain types of subject matter are excluded from patentability in Canada. A claimed invention which in form or in substance amounts to a business method is excluded from patentability.

[142] In *Schmeiser*, Arbour J. (dissenting in part) summarized the state of excluded subject matters in Canada, stating:

133 Subject matters that are specifically precluded by statute from patent protection are natural phenomena, laws of nature, and scientific principles: s. 27(8). Other subject matter has been excluded by judicial interpretation of s. 2 definitions of "invention" and "process" and s. 27(8). For example, the following have been excluded: computer programs if the discovery involved is a method of calculation (*Schlumberger Ltd. v. Canada (Patent Commissioner)* (1981), 56 C.P.R. (2d) 204 (Fed. C.A.), aff'd (1981), [1982] 1 F.C. 845 (Fed.

C.A.); methods of medical treatment (*Tennessee Eastman Co. v. Canada (Commissioner of Patents)* (1972), [1974] S.C.R. 111 (S.C.C.)); higher life forms (*Harvard College, supra*); business systems and methods and professional skills and methods (*State Street Bank & Trust Co. v. Signature Financial Group Inc.*, 149 F.3d 1368 (U.S. Fed. Cir. 1998)); printed matter producing only an artistic intellectual or literary result (*Re Application of Boussac*, CIPO, Commissioner's Decision No. 143, March 10, 1973; mere human conduct or mental steps, or instructions (*Re Application of Ijzerman*, CIPO, Commissioner's Decision No. 254, July 4, 1975; *Gale's Patent Application*, Re (1990), [1991] R.P.C. 305 (Eng. Patents Ct.), at 323); and architectural plans (*Application No. 995 for Townhouse Building Design*, Re (1979), 53 C.P.R. (2d) 211 (Can. Pat. App. Bd.)). These examples demonstrate that it is not unusual for courts and the Patent Office to interpret provisions of the Patent Act so as to exclude subject matter from patentability.

[143] Notwithstanding the reference to *State Street Bank* above, the Board accepts the statement in dissent by the Supreme Court of Canada that business methods are excluded subject matter.

[144] Traditionally, business methods have not been the proper subject matter for a patent in Canada. This exclusion carries through from subject matter exclusions in the United Kingdom. See *In the Matter of Cooper's Application for a Patent*, [1901] 19 R.P.C. 53, where it was stated:

You cannot have a Patent for a mere scheme or plan - a plan for becoming rich; a plan for the better Government of a State; a plan for the efficient conduct of business.

[145] Another often cited authority on the nature of this exclusion is the *Digest of Canadian Patent Law*, Harold G. Fox, 1957 (Carswell) at p. 11, under the heading, "Unpatentable Matter":

A valid patent cannot be granted for a literary composition, for an architect's plan or design, or for a mere scheme such as a plan for becoming rich, for the better government of the state, for the more efficient conduct of business, for co-operative trading, for securing the payment of discount in a particular way and various other such plans. ... There can, therefore, be no valid patent for methods of advertising or schemes for business correspondence. ... A patent can only protect a manual process and not a process that is merely an exercise of brain power carried out by ordinary manual means.

[146] Finally, a recent decision of the U.S. Court of Appeals for the Federal Circuit (CAFC) in *In re Bilski*, 88 USPQ 2d 1385 at pages 1400 to 1407 (2008) is notable. In that case, Justice Dyke, who joined the majority opinion but wrote separately, stated [we paraphrase the following] that in order to construe the term "art" in the U.S. statute, it was

necessary to consider what the drafters of the early patent statutes understood the term to mean. Historical records showed that the U.S. Patent Act, 1793 was framed according to the course of practice in the English Patent Office at that time. Each of the categories of invention was drawn either from the Statute of Monopolies and the common law refinement of its interpretation, or resolved competing views being debated in England at the time. "Manufacture", "machine", and "composition of matter" were understood to be types of manufactures patentable under the English statute. The term "art" was included in the statute in order to adopt the views of those in England who favoured manufacturing process patents (at the time, the English courts had not yet resolved whether such processes were patentable under the statute). The English patent practice before and contemporaneous with the 1793 U.S. Patent Act showed that patentable subject matter was limited by the term "manufacture" in the Statute of Monopolies and required a relation to the other categories of patentable subject matter. Patents registered in England during this time were limited to articles of manufacture, machines for manufacturing, compositions of matter, and processes for using or creating manufactures, machines, and compositions of matter. Processes relating to the organization of human activity were not within the bounds of patentable matter.

[147] Dyk J. cited Malla Pollack, *The Multiple Unconstitutionality of Business Method Patents*, 28 Rutgers Computer & Tech. L.J. 61, 96 (2002), as stating:

The absence of business method patents cannot be explained by an absence of entrepreneurial creativity in Great Britain during the century before the American Revolution. On the contrary, 1720 is widely hailed as the beginning of a new era in English public finance and the beginning of major innovations in business organization.

[148] The reference by the CAFC to English practice at the time the 1793 U.S. Patent Act was being codified in order to understand the meaning of terms used in the statute is relevant to an inquiry into whether a category of invention in the Canadian Patent Act is sufficiently broad to include a particular subject matter. The Canadian statute, including the definition of invention, was modelled on that of the U.S. Patent Act, and thus indirectly has its roots in early English practice.

[149] For the foregoing reasons, we find that business methods are excluded subject matter and are unpatentable in Canada.

[150] A recent discussion of this topic in the UK is found in *CFPH*, where Mr P Prescott QC (sitting as a Deputy Judge) had this to say about business methods:

Items Are Excluded For Differing Reasons

21. When we come to look at the list of excluded items, which we shall do in a moment, and if we pay careful attention, we can notice that they are like a miscellaneous rag-bag. Except superficially, they do not constitute what logicians call a genus, or logical class. Indeed I believe that they were not all excluded for the same reason. On the contrary, they were excluded for policy reasons; but the policy may not be at all the same in each case, as I shall try to show. If that is right it would be dangerous to adopt reasoning that was applied to one excluded item and blindly carry it over to a different item.

...

Business Methods

41. Now let us consider business methods. What is the policy reason that lies behind the exclusion of those? It is because, historically, patents for business methods were never granted yet business innovation went on very well without the benefit of that protection and without the red tape. Businessmen have been every bit as inventive as engineers. It was probably business administrators (and not poets or priests) who made the greatest "invention" of all time: phonetic writing. Consider as further examples: the invention of money; of double-entry bookkeeping; of negotiable bills of exchange; of joint-stock companies; of insurance policies; of clearance banking; of business name franchising; of the supermarket; and so on. None of these needed patent protection to get started. A patent system is always a burden on trade, commerce and industry: if only because of the "red tape" effect. The only question is whether the benefits outweigh the burdens. That has to be demonstrated by those who assert it is so, and in any case the decision is for the legislature. In this country and in Europe the legislature has not yet been persuaded.

42. The point often comes up when the alleged invention has to do with carrying out a business using a computer system. Is the applicant trying to patent a method of doing business? That is not allowed. Or is he trying to patent computer technology? That may be allowed (it depends). But how do you tell the difference? In one sense, a computer that is programmed so as to implement a novel business technique is a new technological artefact. It is a machine with millions of switches arranged as never before. If you say, "Yes, but it is not the sort of switch-arrangement that ought to be allowed to count", you must explain why. It is not always as easy as it might sound.

Subject matter that is not technological is non-statutory subject matter

[151] A common characteristic of the five categories of

invention is that they are technological in nature. Something that is not technological is therefore non-statutory subject matter. More specifically, subject matter that fits under one of the five categories of invention is typically, in substance, a technological solution to a problem, which problem is often in a field of technology. A technological solution may involve a technological advantage or benefit.

[152] Historically, the courts have described the *Patent Act* as applying to "science and useful arts" (*Pope Appliance Corp. v. Spanish River Pulp & Paper Mills Ltd.* (1928), [1929] 1 D.L.R. 209 (P.C.)) and to the "manual or productive arts" (*Tennessee Eastman Co. v. Canada (Commissioner of Patents)* (1970), 62 C.P.R. 117 (Ex. Ct.)). If we were to encapsulate these principles in a single word, one which is also reflective of modern industry, it would be 'technology'. That is, to be patentable, an invention must be technological. While it is difficult to arrive at a single accepted definition of 'technology', we are supported in our view by reference to the following sources.

[153] *Collins Gage Canadian Paperback Dictionary, New Edition* (2006) defines technology as follows: "1 applied science. 2 a process, etc., arising from applied sciences and designed esp. for dealing with a given task". And the *Canadian Oxford Dictionary, 2nd ed.* (2004) defines the term as: "1 the study or use of the mechanical arts and applied sciences. 2 the application of this to practical tasks in industry. 3 a tool, etc. used for this".

[154] Further, the *Patent Rules* refer to the technical nature of inventions. Subsection 80(1) of the Rules specifies that "the description shall . . . describe the invention in terms that allow the understanding of the technical problem . . . and its solution". And Section 79 of the Rules, dealing with the requirements for abstracts, refers to "technical information", "technical field", "technical problem", and "technical feature". While these sections of the *Patent Rules* pertain to the form of patent applications, not substantive requirements, and thus are not conclusive on the question, they are consistent with the Board's view that patentable inventions must be technological in nature.

[155] Still further, in *Harvard College v. Canada (Commissioner of Patents)*, 2002 SCC 76, [2002] 4 S.C.R. 45, 21 C.P.R. (4th) 417, at paragraph 158 [*Harvard*], Bastarache J. pointed out that the *Patent Act* protects advances in technology:

I agree that the definition of invention in the Patent Act is broad. Because the Act was designed in part to promote innovation, it is only reasonable to expect the definition of invention to be broad enough to encompass unforeseen and unanticipated technology.

[156] That patentable inventions are technological in nature was recently confirmed in the United Kingdom. At paragraphs 46-47, *Aerotel* sets out a "four step approach" for assessing if a claimed invention is excluded from patentability. Jacob LJ included a last step as a check on whether the contribution is actually technical in nature, stating:

The fourth step – check whether the contribution is "technical" – may not be necessary because the third step should have covered that. It is a necessary check however if one is to follow *Merrill Lynch* as we must.

As we have said this test is a re-formulation of the approach adopted by this court in *Fujitsu*: it asks the same questions but in a different order. *Fujitsu* asks first whether there is a technical contribution (which involves two questions: what is the contribution? is it technical?) and then added the rider that a contribution which consists solely of excluded matter will not count as a technical contribution.

[157] The Court of Appeal in *Aerotel* ("Appendix - Analysis of the case law") explained the adoption of the "technical contribution" approach by *Merrill Lynch* [1989] RPC 561, at paragraphs 83-84 [quotations omitted]:

... it is hardly surprising that when *Merrill Lynch* reached the Court of Appeal, the reasoning of *Vicom* was preferred. The "technical advance" or "technical contribution" test of *Vicom* was adopted.

... this Court adopted the EPO's "technical contribution approach." But that was not the complete story. For the approach to make sense one has to know what a technical contribution is. The next paragraph of Fox LJ's judgment in effect says that a novel and non-obvious improvement to an excluded category does not count as a technical improvement.

[158] *Aerotel* acknowledged a divergence from the European Patent Office (EPO) approach set out in *Hitachi* (2004) T258/03 and *Pension Benefits* (2000) T0931/95 and, after reviewing these approaches, stated at paragraph 115:

This is inconsistent with *Gale* in this Court and earlier Board decisions such as *Vicom*. It would seem to open the way in practice to the patentability in principle of any computer program. The reasoning takes a narrow view of what is meant by "computer program" – it is just the abstract set of instructions, not a physical artefact which not only embodies the instructions but also actually causes the instructions to be implemented – such as the memory in a computer on which the program is stored.

[159] In *Hitachi* (at paragraphs 3.3, 3.5 and 3.6), the EPO Boards dismissed the "contribution approach" that was adopted in *Vicom (1986) T208/84*. The EPO Board cited earlier decisions pointing out the problems with this approach:

3.3...

"Determining the technical contribution an invention achieves with respect to the prior art is therefore more appropriate for the purpose of examining novelty and inventive step than for deciding on possible exclusion under Article 52(2) and (3)" (T 1173/97, OJ EPO 1999,609, point 8);

"There is no basis in the EPC for distinguishing between 'new features' of an invention and features of that invention which are known from the prior art when examining whether the invention concerned may be considered to be an invention within the meaning of Article 52(1) EPC. Thus there is no basis in the EPC for applying this so-called contribution approach for this purpose" (T 931/95, *supra*, headnote IV).

and further stated,

3.5 Therefore, taking into account both that a mix of technical and non-technical features may be regarded as an invention within the meaning of Article 52(1) EPC and that prior art should not be considered when deciding whether claimed subject-matter is such an invention, a compelling reason for not refusing under Article 52(2) EPC subject-matter consisting of technical and non-technical features is simply that the technical features may in themselves turn out to fulfil all requirements of Article 52(1) EPC.

3.6 Moreover, it is often difficult to separate a claim into technical and non-technical features, and an invention may have technical aspects which are hidden in a largely non-technical context (cf point 5.8 below). Such technical aspects may be easier to identify within the framework of the examination as to inventive step, which, in accordance with the jurisprudence of the boards of appeal, is concerned with the technical aspects of an invention (cf point 5.3 below).

[160] From the above, it is clear that the EPO also considers technical and non-technical features, albeit with respect to inventive step, and not patentable subject matter.

[161] That inventions must be technological also finds support in the Agreement on Trade Related aspects of Intellectual Property rights (TRIPS), at Article 27:

... patents shall be available for any inventions, whether products or processes, in all fields of technology, provided that they are new, involve an inventive step and are capable of industrial application.

and at Article 7:

The protection and enforcement of intellectual property rights should contribute to the promotion of technological innovation and to the transfer and dissemination of technology . . .

TRIPS was also referred to in *Aerotel* at paragraph 16.

[162] In view of the foregoing, we are of the view that claimed subject matter that is not technological in nature is not statutory.

Overlap between excluded subject matter and non-technological subject matter

[163] It will often be the case that subject matter which is excluded from patentability is at the same time also that which is non-technological in nature. For example, a claim to a method of playing a game, on its face, is excluded from patentability and is also non-technological. Likewise, the Board cannot presently think of a situation where the substance of a claimed invention is a business method, and is actually technological in nature. But it may not always be the case that what is excluded subject matter is also non-technological. For example, a claim containing a method of medical treatment is excluded from patentability, while it may arguably be technological in nature. Therefore, if the claimed subject matter is non-technological in nature, it is unpatentable. However, the reverse is not necessarily true. That is, if the claimed subject matter is found to be technological, one must still assess whether the subject matter is excluded. Of course, all claimed subject matter must also fit the definition of a category of invention, as explained earlier.

Analysis: Section 2

Approach to assessing subject matter

[164] We have considered the Applicant's position in the response to the Final Action that, according to *Harvard College v. Canada (Commissioner of Patents)*, (2002) S.C.C. 76, methods clearly fall within the meaning of the term "process" in Section 2 when the words are read "in their grammatical and ordinary sense". At the Hearing, the Applicant stated that claims 44 to 50 set out a system which clearly fit under the category of "machine". The Board cannot agree with this reasoning because it exalts form over substance, with the result that any non-statutory subject matter would become patentable solely by expressing it in

the form of a method claim or a machine claim.

[165] With respect to the method claims, the Board agrees with the Applicant that the assessment will focus on whether these claims fit into the category of "art or process". By form, these claims are directed to a method. As shown later in our analysis, the substance of these claims includes only steps, which must fit into the category of art or process.

[166] As for claims 44 to 50, by their form they are directed to a system, which must be assessed with respect to whether or not it fits under the category of "machine". However, this does not necessarily mean that the substance of these claims must be assessed to fit under the category of machine. Although claim 44 sets forth a client system with multiple components, what is described is a general purpose computer with a Web browser that carries out the instructions transmitted to it by the server. Thus, while the form of claims 44 to 50 relates to a system (a machine), the substance of the claimed invention, as will be discussed subsequently in our analysis, is the same as that of the method claims. At the Hearing, the Applicant pointed to the fact that the components are specific and identifiable; however, no characterization of the claimed apparatus was provided to change the Board's understanding of the claimed invention.

[167] Therefore, what has been added to human knowledge (the substance) by both the method claims and system claims must be assessed to see if it fits under the category of "art or process" as set out in Section 2 of the *Patent Act*, in order to be patentable.

Form of the claims

[168] Independent claims 1, 19, 33, 51, 60 and 68 set out "A method in a client system for ordering an item" and "A method in a computer [system] for ordering items". These claims define steps to place orders and facilitate administrative aspects of ordering, such as order cancellation, combining orders, and changing account information. These claims, on their face, are directed at a method for the purchase of goods, and as such, are claiming a method of doing business. Therefore, claims 1 to 43 and claims 51 to 75 are directed to excluded subject matter.

[169] Claims 44 to 50, on their face, are directed to a client system which is a physical object (a machine). Therefore, claims 44 to 50, in form, fit into the category of machine under Section 2 of the *Patent Act*.

Substance of the claims

[170] At the Hearing and in the letter dated November 29th, 2005, the Applicant characterized the claimed invention as a subscription-type system (requiring registration) but with many advantages of a session-type system. From the Applicant's statements at the Hearing, the potential addition to human knowledge made by claims 1 to 75, is as follows:

- i. Ordering by a single-action (one-click);
- ii. A registered user being able to order without logging in - a new use of a cookie;
- iii. A reduction in the amount of information transmitted by a user to order an item, and a corresponding reduction in computer resource overhead and processing - a new and improved way of ordering; and
- iv. Enhanced security provided by not transmitting sensitive personal account information when placing an order, which information can be changed by logging in at a later time.

~~[171]~~ The Board is unable to agree that the advantage of enhanced security has been added to human knowledge. It is an advantage of the subscription-based model that sensitive personal information is not transmitted when ordering an item. The Applicant characterized the invention as being a modified subscription-based system, and this advantage is inherent to such systems.

[172] Therefore, our initial view of the substance or what has been added to human knowledge by the claimed invention, is as follows:

- i. A new use of a cookie, in particular, to retrieve purchaser-specific account information (a unique user's billing/shipping information) that was previously stored;
- ii. The feature of single-action ordering without a checkout step and without having to enter purchaser-specific account information (although it is inherent from subscription-based systems to retrieve this information from storage without the need to re-enter this data, it is included at this stage to assess the technological nature of the invention);
- iii. The advantage of a registered user being able to order without logging in, while retaining the advantages of being a registered user; and
- iv. The benefit of computer resource overhead

reduction because fewer steps are needed to place an order;

Although the Board considers the particular use of a cookie (feature i.) to retrieve purchaser-specific account information that was previously stored, is something that would have been evident to the skilled person on the claim date, this use is included above to check for a technological effect in our subsequent analysis.

[173] In our view, having regard to both the description in the specification and the prior art, what has actually been discovered in features ii. to iv. above is limited to streamlining the traditional online ordering method, and the benefits and advantages that flow from it. In other words, the essence of the claimed invention is the particular rules for carrying out an online order. Whereas previously, particular checkout steps including a checkout page were provided, the claimed invention provides a client with the option of "single-action ordering" for instant checkout. The widely accepted shopping rule or practice of "checking-out" by providing a checkout review page is eliminated.

Is there some change in character or condition (Lawson test)

[174] As stated earlier, system claims 44 to 50, by form, are directed to a physical object. However, the substance of these claims is the same as the method claims (claims 1 to 43 and claims 51 to 75). Therefore, claims 1 to 75 must fit under the category of art or process in order to qualify as statutory subject matter.

[175] If the substance of the claimed invention is not "an act or series of acts performed by some physical agent upon some physical object and producing in such object some change either of character or of condition", it is not an art under Section 2 of the *Patent Act*.

[176] Applying what is stated in *Lawson*, products or goods are offered for sale in the claimed invention, and what is added to human knowledge is a change to the character or condition of how the order for a product is actually placed and processed. The products or goods are not changed. That is, there is no change either of character or of condition to any physical object itself by the act of ordering the product in one way or another.

[177] Consequently, the substance (what has been added to human knowledge) of claims 1 to 75 is not an art and these

claims cannot fit under Section 2 of the *Patent Act*.

[178] Although we have found that these claims are not statutory subject matter and it is unnecessary to go any further, the Board will check whether the substance of the claimed invention is excluded subject matter.

Is the substance of the claims a method of doing business?

[179] We have been careful to review the practical implementation underlying the ordering method, and in our view it does not add to human knowledge anything other than a retailing concept and some rules for ordering items.

[180] Traditionally, retailing concepts or rules for carrying out retailing transactions have not been patentable in Canada. This is because such retailing concepts or transactional rules fall into the exclusion of being a method of doing business, which cannot be an art or process. There is no basis upon which the Board can recommend a departure from the past judicial interpretations of what is a patentable art or process. In *Harvard*, Bastarache J., writing for the majority of the Supreme Court of Canada, stated:

[166] Patenting higher life forms would involve a radical departure from the traditional patent regime. Moreover, the patentability of such life forms is a highly contentious matter that raises a number of extremely complex issues. If higher life forms are to be patentable, it must be under the clear and unequivocal direction of Parliament.

[181] Following this guidance, we similarly find that since patenting business methods would involve a radical departure from the traditional patent regime, and since the patentability of such methods is a highly contentious matter, clear and unequivocal legislation is required for business methods to be patentable.

[182] Returning to the instant application, concepts or rules for the more efficient conduct of online ordering, are methods of doing business. Even if these concepts or rules are novel, ingenious and useful, they are still unpatentable because they are business methods. Therefore, the substance of the claimed invention (claims 1 to 75) is excluded because it amounts to a method of doing business.

[183] The Board is aware that there may have been instances of patents issuing for business methods. If, however, that practice was inconsistent with a proper interpretation of

the *Patent Act*, then it must be corrected. Policy and practice are not matters for *stare decisis*, and should be changed if found to be wrong.

[184] Once again, although it is unnecessary to go any further, the Board will check whether the substance of the claimed invention is non-technological in nature.

Is the substance of the claims non-technological in nature?

[185] The substance of the claimed invention is non-statutory if no technological innovation has been added to human knowledge. A technological innovation may be provided by a technological advantage, or a technological solution, which typically arises from solving a technical problem. Of course, the solution, problem or advantage must have been something that was added to human knowledge.

[186] Starting from our initial view (features i. to iv. above) as to what has been added to human knowledge, we shall consider each of these features to check if they are not technological in nature. If a feature is not technological, a further check is needed to see if there is some technological effect or result that has been added to human knowledge. Even if all of the features are non-technological, a check is needed to see if there is a technological effect in the combination of all features that have been added to human knowledge. This pertains to the following features (identified earlier):

- i. A new use of a cookie, in particular, to retrieve purchaser-specific account information that was previously stored;
- ii. The feature of single-action ordering without a checkout step and without having to purchaser-specific account information;
- iii. The advantage of a registered user being able to order without logging in, while retaining the advantages of being a registered user; and
- iv. The benefit of computer resource overhead reduction because fewer steps are needed to place an order;

[187] Single-action ordering without checkout (feature ii.) involves streamlining the rules or practice for shopping, that is, it relates to a business decision with business implications. There is nothing technical about this aspect of the claimed invention. That is not to say that this feature does not involve the use of a technical feature, namely: a cookie with an identifier, which is evaluated further below.

[188] In response to the Final Action, the Applicant stated an advantage of the invention as follows:

The claimed methods provide an operator of a computerized ordering system with valuable tools to enhance a user's ordering experience, thereby increasing the likelihood that the user will order items from the operator again.

That a registered user may place an order without having to log in (feature iii.), is a convenience advantage which may be attributed to a desire to increase sales by encouraging spontaneity or impulse buying. As with single-action ordering, although this aspect of the claimed invention may be useful, it is not technological in nature, and it does not result in some further technical affect.

[189] That less processing (program execution and memory usage) is required (feature iv.) by the server due to a reduction in the steps needed to order something may at first appear to be technological. However, it is the business decision to eliminate steps in the online ordering method, which naturally leads to a reduction in processing needs. In other words, it is not the case that less processor resources are being consumed as a result of the same tasks being accomplished more efficiently through a technological advance, but instead, it is the tasks themselves that have been streamlined or eliminated by carrying through a business decision to streamline the traditional ordering method.

[190] Therefore, the benefit of computer resource overhead reduction (feature iv.) is not technological in nature. Our view is supported by the fact that there is nothing in the specification that focuses on a reduction in computer processing as a technological problem to be solved. Further, while fewer steps are needed to order a single item, at the same time additional processing would be required in embodiments where multiple orders are tracked and combined. Thus, it is arguable whether these embodiments achieve a reduction in computer resource use.

[191] This leaves the new use of cookie technology (feature i.), which might potentially supply an addition to human knowledge that is technological in nature.

[192] The claimed invention makes use of known cookie technology as follows. The technical implementation involves the programming at the server which provides a web page (which page is displayed to a user). The Board understands this programming is modified to perform the following tasks:

- i. display an instant ordering button next to a viewed product;
- ii. cause the cookie or identifier to be sent at the same time the single-action order request is sent;
- iii. use the received identifier to "look-up" the billing and shipping (account) information of the unique user; and
- iv. cause the product to be instantly ordered with said information.

Before these steps are carried out, the user must have previously entered his or her account information and selected the option to enable single action ordering, so that a unique identifier (or cookie) is placed on his or her computer.

[193] Cookies or identifiers are known in the prior art for use in identifying unique users, and for use in providing a link to retrieve information that is to be associated with that unique user's identity information. It is not a material factor, in the Board's opinion, whether the information being associated with a client identifier is to identify a unique user, to identify items of interest to a user, or other personal information which may be on hand at the server about that user; for example, information kept in a subscription site where that user is registered. Ye_il lists other similar uses of cookies, for example: for tracking Web sites that have been visited by that user, and for tracking the sequence of a session on a Web site. The technological capability of a cookie which is reflected in the claimed invention is that a server can recognize a unique user by using a cookie, and make use of that recognition by retrieving other information (as needed). This technological capability was known before the claim date.

[194] What is new in feature i. is that the client system will supply its client identifier (cookie) to the server system, and the server retrieves the purchaser-specific account information, and causes an order to be made. This new use of the cookie, in the Board's opinion, is not technological and does not realize a further technical effect that can be said to have been added to human knowledge.

[195] From our analysis above, the substance of the claimed invention is not technological in nature. Claims 1 to 75 do not add anything to human knowledge which is technological and are therefore non-statutory. We have been careful to

review the practical implementation underlying the ordering method, and in our view it does not add to human knowledge anything that is technological in nature.

Findings - Section 2

[196] The Board finds that claims 1 to 75 do not fit under Section 2 of the *Patent Act*.

RECOMMENDATION

[197] In summary, the Board recommends that:

- 1 The Examiner's objection to claims 1-75 for being obvious be reversed;
- 2 The Examiner's objection to claims 1-75 for not being an art or process under Section 2 of the *Patent Act* be upheld; and
- 3 The rejection of the application be affirmed.

P. Sabharwal
Member

M. Couture
Member

P. Fitzner
Member

[198] I concur with the findings and the recommendation of the Patent Appeal Board. Accordingly, I refuse to grant a patent on this application. Under Section 41 of the Patent Act, the Applicant has six months within which to appeal my decision to the Federal Court of Canada.

Mary Carman
Commissioner of Patents

Dated at Gatineau, Quebec,
this 4th day of March, 2009