# Formulating and Communicating Rejections Under 35 U.S.C. 103 for Applications Directed to Computer-Implemented Business Method Inventions

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I. Introduction

The U. S. Patent & Trademark Office (USPTO) examines patent applications to determine whether the statutory conditions of patentability have been satisfied. The primary duty of the patent examiner is to perform a search of the relevant prior art and determine if the claimed subject matter is patentable.

As is the case for inventions in any field of technology, patentability determination under 35 U.S.C. 102 and 103 of a claimed computer-implemented business method invention begins with a comparison of the claimed subject matter to what is known in the prior art. If no differences are found between the claimed invention and the prior art, the corresponding claims are rejected under 35 U.S.C. 102 as lacking novelty. If the prior art does not identically disclose the claimed invention but would have suggested the claimed invention to one of ordinary skill in the art, the corresponding claims are rejected as being unpatentable under 35 U.S.C. 103.

Patent examiners carry the responsibility of making sure that the standard of patentability enunciated by the Supreme Court in *Graham v. John Deere* is applied in each and every case. The four factual inquiries to determine obviousness enunciated by the Supreme Court in *Graham* are (1) determine the scope and contents of the prior art, (2) ascertain the differences between the prior art and the claims in issue, (3) resolve the level of ordinary skill in the pertinent art, and (4) evaluate evidence of secondary considerations.

The examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. If the examiner does not produce a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness. If, however, the examiner does produce a *prima facie* case, the burden of coming forward with evidence or arguments shifts to the applicant who may submit additional evidence that the claimed invention possesses improved properties not expected by the prior art. The initial evaluation of *prima facie* obviousness thus relieves both the examiner and applicant from evaluating evidence beyond the prior art and the evidence in the specification as filed until a case has been made that the prior art would have suggested the claimed invention to one of ordinary skill in the pertinent art.

This paper discusses the evaluation of obviousness in the USPTO. The procedure for gathering and evaluating the relevant evidence is the subject of Part II, and the analysis of that evidence is the subject of Part III. Communication of a rejection in the written Office action, including representative examples involving business methods, is the subject of Part IV.

II. The Basic Factual Inquiries

A. The *Graham* inquires

The basic factual inquires guiding the search and evaluation of the prior art were outlined in 1966 by the Supreme Court in *Graham v. John Deere* as follows:

(1) Determining the scope and content of the prior art;

(2) Ascertaining the differences between the prior art and the claims in issue;

(3) Resolving the level of ordinary skill in the pertinent art; and

(4) Evaluating any objective evidence of nonobviousness (i.e., so-called "secondary considerations").
The examiner first determines the most probable field of search for the invention as claimed and described in the specification of the patent application. The most probable field of search includes the same field of applicant's endeavor as well as analogous areas. The examiner must also determine the content of the prior art. The content of the prior art is determined at the time the invention was made to avoid hindsight. These inquiries determine the scope and content of the prior art. Second, the examiner determines the differences between the prior art and the claim(s). Ascertainment of the differences between the prior art and the claim(s) requires interpreting the claim language and considering both the claimed invention and the prior art reference as a whole. Third, the examiner determines the level of ordinary skill in the art. Factors that may be considered in determining level of ordinary skill in the art include (1) the educational level of the inventor, (2) type of problems encountered in the art, (3) prior art solutions to those problems, (4) rapidity with which innovations are made, (5) sophistication of the technology, and (6) educational level of active workers in the field.

B. Gathering the Facts

The basic factual inquiries outlined in *Graham* are normally carried out by:

1. Determining where to search and what to search for;
2. Determining whether art found during the search qualifies as "prior art;"
3. Determining the relevancy of each piece of prior art to the claimed subject matter. (i.e., which piece of art is closest to the claimed invention, what are the differences between the closest prior art reference and the claims, and where are the individual differences shown in the prior art).

This procedure is discussed in detail in the following sections.

1. Determining where to search and what to search for.

The question asked by 35 U.S.C. 103 is whether the "subject matter as a whole" would have been obvious at the time of the invention. In determining where to search and what to search for, the examiner must consider the invention "as a whole."

a. What to search for:

The scope of the claimed invention must be clearly determined prior to searching. During patent examination, the claims are given the broadest reasonable interpretation consistent with the specification. The search should not be limited only to the literal elements set forth in the claims. The search should, insofar as possible, also cover all subject matter which the examiner reasonably anticipates might be incorporated into applicant's amendment. The initial search should be sufficiently complete such that only an update search is needed in the second action, unless necessitated by amendments to the claims by the applicant in reply to the first Office action.

b. Where to search:

In the examination of an application for patent, an examiner must conduct a thorough search of the prior art. Planning a thorough search of the prior art requires three distinct steps by the examiner: (1) identifying the field of search; (2) selecting the proper tool(s) to perform the search; and (3) determining the appropriate search strategy for each search tool selected.

When determining the field of search, three reference sources must be considered – domestic patents, foreign patent documents, and nonpatent literature (NPL). None of these sources can be eliminated from the search unless the examiner has and can justify a reasonable certainty that no references, more pertinent than those already identified, are likely to be found in the sources(s) eliminated. The field of search should be prioritized, starting with the area(s) where the invention would most likely be found in the prior art. The highest probability of finding the closest prior art reference is in the same "field of endeavor" as the claimed invention. This is the basic search area which contains the largest number of claimed elements found in combination. Differences not found in the inventor's field of endeavor are then searched in, analogous arts, i.e., those which address the same or a similar problem with which the inventor was involved.
Having determined the field of search, the examiner should then determine what search tools should be employed in conducting the search. Examiners are provided access to a wide variety of both manual and automated search tools. Choice of search tools is a key factor in ensuring that the most relevant prior art is found during the search. The choice of search tools to be used is based on the examiner's knowledge of the coverage, strengths and weaknesses of the available search tools that are appropriate for use in an examiner's assigned art. Search tool knowledge is particularly important for examiners in arts (e.g., very active, high technology) where patent documents may seriously lag invention and, consequently, represent a reference source of limited value. These examiners must take special care to ensure that their searches include consideration of NPL and employ the effective use of tools specialized to cover NPL pertinent to their search needs.

Having determined what search tool(s) should be used to conduct the search, the examiner should then determine the appropriate search strategy for each search tool selected. The appropriate search strategy should be determined by the examiner on a case-by-case basis along with consultation with other examiners and/or supervisory patent examiners, where appropriate.

2. Determining whether art found during the search qualifies as "prior art" under 35 U.S.C. 102.

Art found during the search must qualify as "prior art" as defined by 35 U.S.C. 102 before it can be used to reject a claimed invention. This involves determination of when art became public, who was the source of the art (e.g., the inventor or another party), and whether the art satisfies the enablement provision of 35 U.S.C. 112, first paragraph. Subject matter that is prior art under 35 U.S.C. 102 can be used to support a rejection under 35 U.S.C. 103.

Prior art typically includes documentary information in published form and certain types of non-documentary information, as discussed below.

a. Documentary information

Publicly available documents, such as issued patents and printed publications, are most commonly used in prior art rejections. A reference is a "printed publication" if it is accessible to the public. Printed documents usually have specific publication dates that make it easy to objectively determine if they qualify as prior art under 35 U.S.C. 102.

An electronic publication, including an on-line database or Internet publication, is considered to be a "printed publication" within the meaning of 35 U.S.C. 102(a) and (b) provided the publication was accessible to persons concerned with the art to which the document relates.

b. Non-documentary information

Publicly available information in non-published form may also qualify as prior art. Common examples include admissions by the applicant, well-known scientific principles, or common knowledge in the art.

(i) Admissions

Statements made in the specification or in other papers submitted during prosecution that certain information was known to the applicant prior to the date of invention constitutes prior art. An admission of prior art can be used for any purpose, including rejections under 35 U.S.C. 103. It is not necessary to cite a corroborating reference to support the admission. However, the applicant may later assert that a statement was not actually intended as an admission of prior art, or that the intended scope of a statement was different than the interpretation given it by the examiner. Such problems can be minimized if the examiner routinely requests the applicant to submit any supporting documents pertinent to an admission of prior art.

(ii) Common/prior knowledge in the art

Prior art includes all public knowledge demonstrating the level of ordinary skill in the art. The examiner may take official notice of facts outside of the record which are capable of instant and unquestionable demonstration as being "well known in the art." While an examiner may reject a claim based on common/prior knowledge in the art, this practice is to be applied
sparingly. It is always incumbent upon the examiner to find a reference to support a rejection. If the applicant traverses such an assertion the examiner should cite a reference in support of his or her position. When a rejection is based on facts within the personal knowledge of the examiner, the data should be stated as specifically as possible, and the facts must be supported, when called for by the applicant, by an affidavit from the examiner. Such an affidavit is subject to contradiction or explanation by the affidavits of the applicant and other persons. See 37 CFR 1.104(d)(2).

If applicant does not seasonably traverse the well known statement during examination, then the object of the well known statement is taken to be admitted prior art.

3. Determining the relevancy of each piece of prior art to the claimed subject matter.

The examiner continually evaluates art found during the search to determine which art is closest to the claimed invention, whether the prior art shows all differences not shown by the closest prior art and whether the art suggests combining individual teachings.

III. The Legal Conclusion of Obviousness

A. Evaluation of *prima facie* obviousness

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

The initial burden is on the examiner to provide some suggestion of the desirability of doing what the applicant has done. To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references. Both the suggestion to make the claimed combination and the reasonable expectation of success must be founded in the prior art and not in applicant’s disclosure.

The reason or motivation to combine may often suggest doing what the applicant has done, but for a different purpose or to solve a different problem than that asserted by the applicant. It is not necessary in order to establish *prima facie* obviousness that the prior art suggest their combination to achieve the same advantage or result discovered by the applicant.

The supporting rationale for combining the prior art may also be based on legal precedent. If the facts in a prior legal decision are sufficiently similar to those in an application under examination, the examiner may rely upon the rationale used by the court. The courts have held that certain common practices, such as simple changes of size, shape or color of an article or reversal of mechanical parts in an apparatus, normally require only ordinary skill in the art and hence are considered routine expedients. Reliance on prior case law is appropriate only when a common factual basis has been established. If an applicant has demonstrated the criticality of a specific limitation, it would not be appropriate to rely solely on prior case law to support an obviousness rejection.

B. Rebuttal of the *prima facie* case

Once a *prima facie* case of obviousness has been established, the burden shifts to the applicant to come forward with evidence to rebut the *prima facie* case. This evidence is generally of two types: (1) evidence of unexpected or nonobvious properties or advantages as compared with the closest prior art; and (2) evidence of real world activities, such as commercial success of the invention or providing a solution to a long-felt need in the art. Arguments by applicant are not evidence.

Evidence of advantages or unexpected results produced by the invention may be established by affidavit or declaration under 37 CFR 1.132 or may be submitted in unsworn form in the written description or in a reply to a rejection. Such evidence is

typically in the form of "comparative examples" demonstrating that the invention produced properties not possessed by the prior art. In considering evidence of nonobviousness, it is well settled that advantages or unexpected results must be established by factual evidence. Mere arguments or conclusory statements are not factual evidence. When superior or unexpected results are asserted, these results must logically be shown as superior compared to the results achieved by other devices, methods, etc., as described in the closest prior art.

The examiner must also consider whether the objective evidence is commensurate in scope with the claims. Evidence must be reasonably commensurate in scope with the claimed invention. More specifically, comparative test results relied upon to rebut prima facie obviousness must compare the claimed invention to the closest prior art. These tests might establish, for example, that the closest prior art experienced a problem and that the claimed invention has overcome that problem. The comparative tests must truly be comparative in every respect. The test must not have been conducted under special conditions. The data generated must be truly significantly different and not merely normal expected variations.

The applicant can also, without presenting any evidence of nonobviousness, seek to show that the prima facie case of obviousness is defective based on erroneous factual findings, failure to apply the appropriate legal standards for factual findings and legal determination, or that the conclusion of obviousness is in error as a matter of law.

Evidence of unexpected results is intended to directly establish that an invention solved a known problem or produced advantages not expected by the prior art. Other types of objective evidence may also be submitted to indirectly establish advantages of the invention. This evidence relates to the real world activities of others as an inference of what one of ordinary skill in the art would or would not have done. Common examples of real world events that have been recognized as indicia of nonobviousness include:

(1) commercial success of the claimed invention;

(2) long felt need in the art for a solution to a known problem;

(3) failure of others to solve a known problem;

(4) skepticism of experts; and

(5) copying of the invention in preference to the prior art.

While objective evidence of nonobviousness should always be considered, the mere presence of such evidence does not necessary mandate a conclusion of nonobviousness. The evidence must in fact be related to the merits of the claimed invention rather than to extensive advertising aggressive marketing, or other such unrelated activities. Specifically, a nexus must be established between the merits of the claimed invention and the objective evidence offered. If the objective evidence is drawn to features not being claimed, the evidence must establish that the success is not due to the unclaimed features.

C. The Final Legal Conclusion

To reach a proper determination under 35 U.S.C. 103, the examiner must step backward in time and into the shoes worn by the hypothetical "person of ordinary skill in the art" when the invention was unknown and just before it was made. In view of all the factual information, the examiner must then make a determination whether the claimed invention "as a whole" would have been obvious at that time to that person. Knowledge of applicant's disclosure must be put aside in reaching this determination, yet kept in mind in order to determine the "differences," conduct the search and evaluate the "subject matter as a whole" of the invention. The tendency to resort to "hindsight" based upon applicant's disclosure is often difficult to avoid due to the very nature of the examination process. However, impermissible hindsight and application of per se rules must be avoided and the legal conclusion must be reached on the basis of the facts gleaned only from the prior art.

IV. Communicating the Rationale for a Proper Rejection under 35 U.S.C. 103
When an examiner rejects a claim as failing to meet one or more of the statutory requirements for patentability, administrative due process and 35 U. S. C. 132 require that applicant be adequately notified of the reasons for the rejection of the claim so that applicant can decide how to proceed. The statutory requirement that an Office action state the reasons for any rejection is critical to proper action taking.

In writing a rejection under 35 U.S.C. 103, the examiner should appropriately communicate:

(1) the particular part of a reference being relied upon should be designated as nearly as practicable; 37 CFR § 1.104(c)(2);

(2) the differences between the claimed invention and the closest prior art;

(3) where the differences are found or suggested in the prior art;

(4) how the teachings of the prior art are combined; and

(5) why the combination of those teachings would have been obvious to one of ordinary skill in the art at the time the invention was made. Do not recite the disclosure of the prior art which reads on the claimed invention as the motivation. Communicate why the references themselves, the knowledge of one of ordinary skill in the art, or the nature of the problem to be solved establishes a motivation to combine the prior art references.

Once applicant has presented rebuttal evidence, examiners should reconsider any initial obviousness determination in view of the entire record. All the proposed rejections and their bases should be reviewed to confirm their correctness. Only then should any rejection be imposed in an Office action. The Office action should clearly communicate the Office’s findings and conclusions, articulating how the conclusions are supported by the findings.

The following are examples of written obviousness rejections illustrating the preferred manner of communicating the supporting rationale. The examples are grouped into two broad categories: those where the rationale is either implicitly or explicitly contained in a reference, and those where the rationale is based upon a technical line of reasoning, such as established business principles, art-recognized equivalents, legal precedent, common knowledge or official notice.

A. Examples of express or implied rationale statements from a reference

The following examples are based on an explicit or implicit rationale contained in one of the applied references.

Example 1: Rationale expressly contained in a reference.

a. The claimed invention

The invention is drawn to an online auction house wherein various items are placed on display on a web page with information about the items for sale including but not limited to a starting price, model number and quantity available. The disclosed auction process includes a central location on a network which receives bids on items from registered users and awards the item to the bidder who has successfully outbid the other users at the specified end of the auction. In addition, this web site lists the user names of those that have placed bids for the purpose of allowing other users to identify with whom they are in competition.

Claim 1:

A method of conducting an on-line auction over the Internet, the method comprising the steps of:

displaying a plurality of items being offered for auction on a web page including for each item a color photograph of the item, a model number or other unique identifier, the quantity available, and a reserved starting price;
providing a bidder's display board at a central location including the model number or other unique identifier of the item currently up for bid, the current list of the names of all parties having submitted bids and a complete listing of their bids in chronological order, and the time remaining in the auction period for the item;

at the close of the auction period for the item, determining the winning party and the winning bid; and

preparing an auction sales contract for settlement by the winning party which is forwarded to the winning party over the Internet.

b. Evidence

There exists two pieces of prior art. The first reference is to Smith who teaches an online auction process including all of the elements of the claimed application with the exception of displaying user names that are bidding on a particular item. The secondary reference to Jones et al teaches an auction void of many of the claimed features, however; Jones et al teaches that their auction displays those users who are bidding on a particular item to allow other users to see whom they are competing against. Jones et al goes on to say that by displaying the users identification, it would eliminate users who may work for the same company or who are friends from bidding against each other and thereby not inflating the price of the object up for bid.

c. Good statement of the rejection

Claim 1 is rejected under 35 U.S.C. 103 as being unpatentable over Smith in view of Jones et al. Smith teaches all of the claimed elements except for the displaying of the names of those that are bidding during the auction. Jones et al has been cited for teaching the display of the names of those whom have placed bids on an item in a particular auction. Jones et al further teaches that by displaying the names, the price of an object would not become overly inflated by coworkers or friends bidding on the same object for the same cause. Coworkers would be more likely to allow for only a single bidder to participate if the item is for the business. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to have displayed the names of the participants in an auction in Smith as taught in Jones et al for the explicit reasons discussed herein above.

Example 2: Rationale expressly contained in a reference.

a. The claimed invention

The disclosed invention is an online remote banking system which allows bank customers to make use of the Internet to perform various banking functions. Among the banking functions that can be performed are the transfer of funds from one account to another, accessing customer account information, and the purchase of various investment vehicles, such as mutual funds and securities, offered by the bank. Bank may also use online surveys to determine customer preferences for services being offered and customer satisfaction.

Claim 1:

A remote banking system on the Internet comprising:

means for connecting a plurality of customer computers located at remote sites to a central computer associated with a bank;

means for allowing customers to access and retrieve selected information associated with their individual accounts;

means for permitting a customer to transfer funds from one customer account to another customer account through the use of said customer's computer; and

means for purchasing mutual funds offered by said bank through the use of said customer computers.
Jones discloses various software packages for use on the Internet. These packages allow users to perform various functions remotely that normally are performed only in a face to face transaction. The first package discussed in Jones is Remote Banking which makes use of the Internet to allow customers of a bank to access their accounts for balance information and to transfer funds from one account to another. Another package discussed is Remote Investing which allows investors to communicate with their brokers via the Internet to place buy and sell orders for various trades.

Smith discloses that banks, in addition to their conventional banking services, are more frequently being used to broker the purchase of various investments including stocks, bonds, mutual funds, futures, etc. Customers may stop in at the bank for a withdrawal and at the same time may decide to make an investment. Smith discloses that this combined service is very popular among and well received with banking customers.

c. Good statement of the rejection

Claim 1 is rejected under 35 U.S.C. 103 as being unpatentable over Jones in view of Smith. Jones discloses means for allowing customers to use their personal computers to communicate with a remotely located bank computer over the Internet to perform various functions including access to account information and transfer of funds from one account to another. Jones also discloses means by which an Internet user may employ his/her personal computer to remotely place trade orders with his/her broker. However, Jones fails to disclose that banks would allow their customers to place securities or investment trade orders either remotely through their personal computer or at the bank. Smith explicitly discloses that banks may in addition to their conventional banking functions take on the role of an investment broker so that customers may benefit from both banking and investment opportunities. It would have been obvious to make use of the Remote Investing package of Jones to allow a bank doing business over the Internet to include remote trading as one of its services offered to customers in view of the express suggestion in Smith.

Example 3: Rationale implicitly contained in a reference.

a. The claimed invention

The invention is drawn to a method of providing a bank customer with the ability to remotely transfer money between a plurality of accounts within the same banking institution on a computer network. While providing the customer with a convenient methodology to make the transfers, the system and method provide a high level of transaction security by including an authorization form required as a pre-requisite to initiating any transfer activities. The form is only provided to the customer once the right to access the various accounts is established through a password system. The form provides both the customer and the banking institution with a validation record of the transfer activities.

Claim 1:

A method of transferring funds from one account to another account in a bank remotely by an account holder comprising the steps of:

(1) retrieving from an account holder identification and password information;

(2) determining if the account holder has authorization to transfer funds based on the identification and password information;

(3) if authorization is confirmed, transmitting an electronic form to the account holder; the form asking information about the transfer of funds from one account to another;

(4) filling out the form and electronically sending it back to the bank by the account holder; and

(5) receiving the form at the bank's computer and automatically transferring the funds from one account to another account as specified in the form.
b. Evidence

Reference A shows a method of transferring funds between a plurality of accounts held with the same banking institution. The method is performed remotely over a computer network and employs a validation form to record the transaction. The method includes the steps of transmitting an electronic form to the account holder wherein the form requests transfer information, filling out the form and electronically sending it back to the bank, and upon receipt of the form at the bank’s computer automatically transferring the funds from one account to another account as specified in the form. The disclosure is silent as to the inclusion of any password protection for the process.

Reference B shows a remote banking method for accessing account information and checking account balances. To provide access and transaction security for the customer, the system and method incorporate a password protection system. To access the account information the customer must provide identification and password information, that information must be validated by the banking institution, and only upon validation by the bank is the access permitted to the customer.

c. Good statement of the rejection

Claim 1 is rejected under 35 U.S.C. 103 as being unpatentable over Reference A in view of Reference B. Reference A shows a method of remotely transferring funds from one account to another account in a bank comprising the steps of: transmitting an electronic form to the account holder wherein the form requests information about the transfer, filling out the form and electronically sending it back to the bank, and receiving the form at the bank’s computer and automatically transferring the funds from one account to another account as specified in the form. Reference A does not expressly show retrieving from an account holder, identification and password information to validate the authorization of the customer to request the form and perform the transfer. Reference B teaches retrieving from an account holder, identification and password information; determining if the account holder identification and password match; if the identification and password match processing the account holder’s transactions. Note that the matching step implies determining if the account holder has authorization to transact the requested banking function.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the method of transferring funds from one account to another account as taught by Reference A to include the identification and password validation steps of Reference B because fund transfer transactions are clearly intended to be performed only for authorized customers. Steps to enhance the transactional security for the customer represent an obvious modification to the prior process taught by Reference A.

Example 4: Rationale implicitly contained in a reference.

a. The claimed invention

A system for diagnosing a patient’s illness based on a comparison with a plurality of prior diagnosis made by a plurality of other physicians. The disclosed invention includes a computer system including an input means for a physician to enter a plurality of data on a patient’s current physical condition and symptoms. The computer system compares the inputted data against a database of prior diagnosis made by other physicians and the underlying physical conditions and symptoms of the patient that they were treating to determine a potential list of diagnosis for the current patient; the listing including a probability listing that the proposed diagnosis is correct. The computer system then prints for the physician a paper report listing one or more possible illnesses that the patient may have along with the probabilities and possible test(s) to confirm that the patient indeed has each of the listed illnesses.

Claim 1:

A computer implemented method of diagnosing an illness based on a series of prior diagnosis, comprising the steps of:

a. inputting to a computer system data representing a patient’s current physical condition and symptoms;

b. comparing said patient’s current physical condition and symptoms to a medical illness database in the computer wherein the database includes the physical conditions and symptoms of other patients;
c. preparing a listing of possible illnesses said current patient has including a probability that said current patient has said illnesses;

d. preparing a list of medical test(s) to confirm that said patient indeed has said possible illnesses; and

e. scheduling said list of medical tests and treating said patient according to results from said conducted tests.

b. Evidence

The Jones reference discloses a medical condition diagnostic system including a computer system wherein current medical condition data from a patient is inputted for comparison against a database of prior diagnosis and the underlying data with respect to each diagnosis. The system includes all of the data fields of the patient’s current physical condition and symptoms as disclosed in the instant invention. The system provides an output of a listing of potential diagnosis for the patient including a probability that the listed diagnosis is accurate.

The Smith reference is a standard medical reference which teaches that it is well known to prepare a list of medical tests and perform that list of tests to diagnose a patient. The reference provides a listing of the appropriate tests to be performed to confirm a potential diagnosis of a particular disease or condition. The reference provides for each potential disease or condition a list of mandatory tests and other optional tests that could be performed if desired or necessary to confirm the results.

c. Good statement of the rejection

Claim 1 is rejected under 35 U.S.C. 103 as being unpatentable over Jones in view of Smith. Jones teaches inputting a patient’s medical data for comparison to a database and determining a potential diagnosis but does not teach the steps of preparing a list of medical test(s), performing said list of tests to confirm the proper treatment, and treating the patient. Smith teaches that it is well known to prepare a list of medical tests and perform those list of tests to confirm the potential diagnosis of a patient. It would have been obvious to one of ordinary skill in the art at the time of the invention to include preparing a list of medical test(s) and performing said list of tests in the method of Jones as taught by Smith to properly treat patients. It would have been obvious to confirm the potential diagnosis from the computer system comparison before relying on that output to prevent inaccurate diagnosis. Further, once the tests have been performed, treating the patient would have been the obvious next step in the claimed process.

B. Examples of rationale statements logically reasoned from sources other than a reference

The following examples rely upon a teaching other than an explicit or implicit teaching from the references as the rationale supporting the rejection, i.e., the rationale is not found within the applied references.

The rationale may be reasoned from common knowledge in the art, official notice, a known business principle, art-recognized equivalents, or legal precedent established by prior case law. A simple statement that a difference is a "design choice" or "lacks an advantage or unexpected result" is insufficient rationale to support a well written and legally sufficient rejection. These are conclusions, not statements of fact.

Example 5: Rationale reasoned from common knowledge in the art.

a. The claimed invention

The invention is drawn to the use of computers and the Internet to sell books through a web page. A customer would browse through the selection of books, place an order by filling out a form and submit the order with credit card information so that the customer can be charged and the order sent in just a few days.

Claim 1:
A method of providing and ordering books through the Internet comprising:

- providing a selection of books for sale on a web page by displaying an image of the front cover of the book along with a written description;
- providing a selection box adjacent to each book for sale to allow a buyer to select a book or books to be purchased;
- adding the selection or selections to an online shopping cart provided for the customer’s selections; and
- providing the customer with a form to be filled out with the customer’s credit card information to enable the sale transaction to be carried out on the Internet.

b. Evidence

The examiner cites a reference to Smith which has all of the features of the invention with the exception that Smith is silent on how money is transferred to the book seller including providing credit card information over the Internet.

c. Good statement of the rejection

Claim 1 is rejected under 35 U.S.C. 103 as being unpatentable over Smith. Smith teaches all of the elements claimed with the exception of using credit card information over the Internet as the method of paying for the purchased books. The examiner takes Official Notice that paying for purchases using credit card information sent over the Internet is old and well established in the business of e-commerce as a convenient way for a consumer to pay for purchased items. It would have been obvious to one having ordinary skill in the art at the time of the invention to have included the step of paying for the book purchases in Smith by using credit card information sent over the Internet because the skilled artisan would have recognized that this business practice streamlines the process and saves time spent by a consumer in making purchases and is clearly applicable to the sale of any type of product. These advantages are well known to those skilled in the art.

Example 6: Rationale reasoned from an established business principle.

a. The claimed invention

The invention is drawn to an online bookstore. The bookstore has a catalog of different books that are made available through a series of web pages. Customers having Internet access are able to browse through the collection of books, choose those that they would like to buy and make an online purchase using a credit card. The bookstore would then accept the order, process the credit card information and send the books to the customer by mail. This online bookstore has the added feature of e-mailing the customer sometime after the purchase with a customer service survey to enable the customer to comment on the condition of the books as delivered, the ease of use of the web pages and any other comments the customer would like to add.

Claim 1:

A method of providing and ordering books through the Internet comprising:

- providing a selection of books for sale on a web page by displaying an image of the front cover of the book along with a written description;
- providing a selection box adjacent to each book for sale to allow a buyer to select a book or books to be purchased;
- adding the selection or selections to an online shopping cart provided for the customer’s selections; and
- providing the customer with a form to be filled out with the customer’s credit card information to enable the sale transaction to be carried out on the Internet; and

e-mailing the customer, a predetermined time after the purchase, a customer service survey to be filled out by the customer as a way of obtaining customer feedback.

b. Evidence

A reference to Smith has been cited which teaches an online bookstore that uses the Internet in much the same way as that in the application with the exception that Smith is void of any customer survey e-mail.

c. Good statement of the rejection

Claim 1 is rejected under 35 U.S.C. 103 as being unpatentable over Smith. Smith teaches all of the claimed process steps with the exception of e-mailing a customer service survey to a customer some time after the purchase of a book. Customer service is a key factor in the success of any business, whether it be brick and mortar or online. The most common vehicle for businesses to measure customer service is by asking the customers directly what they believed was good or bad about their experience with the business. Businesses have resorted to many different techniques of obtaining customer comments including comment cards, follow-up telephone calls, as well as mailing customer surveys to customers. This practice is well known in the business community and would follow in the Internet world as well where competition is sometimes worldwide and customers have a greater influence on the success of a business. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have added the well-known steps of asking the customer for an e-mail address at the time of the on-line purchase and then later e-mailing a customer service survey to the process of Smith for the purpose of gaining information about their service from the customer.

Example 7: Rationale reasoned from established business principle.

a. The claimed invention

The invention is drawn to an online hardware store where customers would visit a web site and shop for various items commonly found in a hardware store. The web site associated with the hardware store would include a shopping cart known in the technology to allow customers to virtually shop and add items to be purchased into the shopping cart. This online store also has the capability of price matching of any advertised sale. For instance, the online store would have for sale a particular brand of wrench at a displayed price. A customer having seen the same wrench advertised for less merely provides proof of the lower price to obtain not only that price but a percentage off the price as well. The proof is provided by submitting an electronic copy of the other advertisement; e.g., submitting the URL for the other web site. The online store can then review the submitted other advertisement and determine if the price reduction and additional percentage off are appropriate.

Claim 1:

A method of selling tools on the Internet through a web page comprising:

displaying tools for sale on the web page including a picture of the tool, brand name and price tag;

providing a customer with a shopping cart to enable the customer to add tools intended for purchase;

accepting electronic indications which represent sales ads of other sellers from the customer demonstrating a lower advertised price than the displayed price; and

offering to the customer the lower advertised price along with a percentage off the lower advertised price if the other sales advertisement is valid.

b. Evidence

Smith teaches an online hardware store similar to that claimed which provides online ordering and an e-mail capability from the customer to submit information or questions to the seller regarding matters related to the purchase, but there is no
method of accepting sales ads to thereby receive a reduced price on a tool by the customer and provide an additional discount. Jones teaches employing the use of hypertext links such as URLs in e-mail messages to alert or inform another person of the existence of useful information that may be found at that web site.

c. Good Statement of the rejection

Claim 1 is rejected under 35 U.S.C. 103 as being unpatentable over Smith in view of Jones. Smith teaches all of the steps claimed with the exception of accepting ads and offering the customer a lower price plus an additional percentage off the lower price. Jones teaches the use of a hypertext link, such as a URL, in an e-mail as a convenient method of providing information about another web site to another person. The business practice of matching sales ads and giving a customer a percentage off of the sales ads is an old and well-established business practice. This practice is designed to entice customers to a particular store that they would normally not visit. It improves customer relations and helps to generate return business. It would have been obvious to one of ordinary skill in the art at the time of the invention to include in the method of Smith the e-mail submission of other web site advertisements as taught by Jones to obtain a lower sales price for goods to be purchased, plus an additional percentage price reduction, in view of the well known business practice of using competitor’s advertisements as set forth above. Note the added steps in Smith, which would include adding the URL of a competitor’s web site in an e-mail message to the seller which demonstrates a competitor’s lower price for the same product per the teachings of Jones, are merely the automation of the old and well known manual process of submitting a competitor’s advertisement.

Example 8: Rationale reasoned from legal precedent - automation of a known manual process.

a. The claimed invention

The disclosed invention is a method of determining the "best fit" of an insurance policy from a given insurance company for a specific individual. An insurance agent, either in response to a specific request by an individual or as part of a general sales/marketing plan, forwards a questionnaire to a particular client over the Internet. The client responds to the questionnaire and forwards the response to the insurance agent. The agent then compares the client’s responses and the data therein to a number of potential insurance policies that might meet the client’s insurance goals or objectives. This comparison, performed on a programmed computer platform, is made by scoring each policy on the basis of how well it meets various client criteria. After each of the potential individual policies is scored, the programmed computer platform compares the collective results and determines the best fit for the individual client. The insurance agent then employs the results in a recommendation to the client.

Claim 1:

A computerized method of selecting an insurance policy comprising the steps of:

(1) retrieving information from a customer and an insurance policy;

(2) automatically scoring the insurance policy based upon the information from the customer and policy; and

(3) automatically iterating steps (1) through (2) with the different policies until a best insurance policy is selected based on the score determined from step 2.

b. Evidence

Reference A is a published training manual that insurance companies use to train their insurance agents. The manual discloses the following manual steps to be done by an agent:

(1) reviewing information received from a customer and at least two insurance policies;

(2) scoring each insurance policy based upon the information from the customer on a paper worksheet in the training manual; and
(3) iterating steps (1) through (2) with the different policies that the company sells until the agent decides which insurance policy is best for the customer.

c. Good Statement of the rejection

Claim 1 is rejected under 35 U.S.C. 103 as being unpatentable over Reference A. Reference A shows:

A method of selecting an insurance policy comprising the steps of:

(1) retrieving information from a customer and an insurance policy;

(2) scoring the insurance policy based upon the information from the customer and the insurance policy; and

(3) iterating steps (1) through (2) with the different insurance policies until a best insurance policy is selected based on the score determined from step 2.

Reference A does not expressly show automating steps 2 and 3.

It was known at the time of the invention that merely providing an automatic means to replace a manual activity which accomplishes the same result is not sufficient to distinguish over the prior art, In re Venner, 262 F.2d 91, 95, 120 USPQ 193, 194 (CCPA 1958). For example, simply automating the step of scoring the insurance policy based upon the information from the customer and policy gives you just what you would expect from the manual step as shown in Reference A. In other words there is no enhancement found in the claimed step. The claimed scoring step only provides automating the manual activity. Likewise, automating the iterating step (step 3) only gives just what one would expect from the manual steps shown in the reference. The end result is the same as compared to the manual method. A computer can simply iterate the steps faster. The result is the same.

It would have been obvious to a person of ordinary skill in the art at the time of the invention to automate the scoring and iterating steps because this would speed up the process of matching policies with customers, which is purely known, and an expected result from automation of what is known in the art.

Example 9: Rationale reasoned from legal precedent - automation of a known manual process on the Internet.

a. The claimed invention

The disclosed invention is a method of determining the "best fit" of an insurance policy from a given insurance company for a specific individual. An insurance agent, either in response to a specific request by an individual or as part of a general sales/marketing plan, forwards a questionnaire to a particular client over the Internet. The client responds to the questionnaire and forwards the response to the insurance agent. The agent then compares the client’s responses and the data therein to a number of potential insurance policies that might meet the client’s insurance goals or objectives. This comparison, performed on a programmed computer platform, is made by scoring each policy on the basis of how well it meets various client criteria. After each of the potential individual policies is scored, the programmed computer platform compares the collective results and determines the best fit for the individual client. The insurance agent then employs the results in a recommendation to the client.

Claim 1:

A method of selecting an insurance policy over the Internet comprising the steps of:

(1) generating one or more questions for a customer;

(2) transmitting questions to the customer over the Internet;

(3) receiving a customer's response to each of the questions transmitted to the customer over the Internet;

(4) retrieving unique information from the customer's responses and at least one insurance policy from an insurance company's computer both over the Internet;

(5) scoring an insurance policy based upon the unique information and the answers; and

(6) automatically iterating steps (1) through (5) multiple times with different insurance policies until a best insurance policy is selected.

b. Evidence

Reference A is a published training manual that insurance companies use to train their insurance agents. The manual discloses the following manual steps to be done by the agent. The manual teaches how the agent retrieves unique information from a customer and an insurance policy from an insurance company. The manual also lists a series of one or more questions for the customer and teaches how to ask the questions to the customer. The manual provides a worksheet to place the customer's answers on and explains how to score different insurance policies and select the best one using a worksheet in the manual.

Reference B shows an Internet process of surveying customers over the Internet for particular products and determining the product most closely meeting the customer's needs/desires. This reference shows:

(1) generating one or more questions for the customer;

(2) transmitting questions to the customer over the Internet;

(3) receiving a customer answer, indicative of the customer's response to each of the questions over the Internet; and

(4) automatically determining the best product based on the answers.

Reference B also states that the advantage of conducting the question and answer session over the Internet allows the company to match products with customers anywhere in the world that has access to the Internet.

c. Good statement of the rejection

Claim 1 is rejected under 35 U.S.C. 103 as being unpatentable over Reference A in view of Reference B. Reference A shows:

A method of selecting an insurance policy comprising the steps of:

(1) retrieving unique information from a customer and an insurance policy from an insurance company;

(2) determining one or more questions for the customer;

(3) asking the questions to the customer;

(4) receiving a customer answer, indicative of the customer's responsive to each of the questions;

(5) scoring the insurance policy based upon the unique information and the answers; and

(6) iterating steps (1) through (6) multiple times with different policies until a best insurance policy is selected.
Reference A does not expressly show retrieving the unique information and insurance policy over the Internet; running the question and answer session over the Internet and automating step 6.

Reference B teaches retrieving unique information about customers and products over the Internet; running a question and answer session over the Internet with a customer and automatically determining the best product based on the answers received from a customer.

It would have been obvious to a person of ordinary skill in the art at the time of the invention to automate the manual process shown in Reference A and modify it to include retrieving the unique information and insurance policy over the Internet; and run the question and answer session over the Internet because the advantage of conducting the question and answer session over the Internet allows a company to match products with customers anywhere in the world that has access to the Internet as evident by Reference B.

Furthermore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to automate the scoring and iterating steps since it has generally been recognized that merely providing an automatic means to replace a manual activity which accomplishes the same result is not sufficient to distinguish over the prior art, In re Venner, 262 F.2d 91, 95, 120 USPQ 193, 194 (CCPA 1958).

Example 10: Rationale reasoned from legal precedent - automation of a known manual process and performed on the Internet.

a. The claimed invention

The invention is drawn to a method of performing stock brokerage activities over the Internet. The method includes setting up the account and performing all transactions decisions between the broker and the customer over the Internet. The method also includes the ability to automatically review the customer’s current portfolio of stocks against a predetermined list of stocks defined to meet the customer's investment objectives to determine whether the sale of currently held stocks and/or the purchase of additional or different stocks would increase the value of the portfolio. The review is performed periodically by the broker with the aid of a computer platform including a computer program that determines whether a particular change in the make up of the portfolio would increase the value of that portfolio. The broker merely enters on the computer the proposed change, such as sell x shares of stock A and buy y shares of stock B, and the computer determines if a net gain in the value of the portfolio has been achieved. Based on the result, the broker may make transaction recommendations to the customer.

Claim 1:

A method of buying stock from a broker over the Internet comprising the steps of:

setting up a customer's account at a broker's computer;

purchasing stocks to create a portfolio of stocks for the customer;

automatically determining proposed transactions that could improve the value of the customer's portfolio;

transmitting the proposed transactions to the customer over the Internet;

the customer sending back over the Internet a notice either agreeing to the proposed transactions or not; and

if the customer agrees with said proposed transactions, the broker implementing the transactions at the appropriate stock exchange.

b. Evidence

Reference A is a textbook that explains the role of stock brokers. The textbook shows that stock brokers setup accounts for
customers; manage each customer's portfolio and determine ways to optimize the portfolios in such a way as to make the brokers money through fees and at the same time increase the value of the portfolio for the customer. Brokers will usually call the customers to see if he or she is interested about the broker's idea of ways to improve the existing portfolio. If the customer is interested, the customer will give the go ahead to sell or buy this stock according to the broker's idea.

Reference B shows the advantage of communicating over the Internet for businesses to reach customers anywhere in the world. The reference suggests that the disclosed plan is applicable to any type of business.

c. Good Statement of the rejection

Claim 1 is rejected under 35 U.S.C. 103 as being unpatentable over Reference A in view of Reference B. Reference A shows:

A method of buying stock from a broker comprising the steps of:

setting up a customer's account with the broker;

purchasing stocks to create a portfolio of stocks for the customer;

determining proposed transactions that could improve the value of the customer's portfolio;

communicating the proposed transactions to the customer;

the customer either agreeing or disagreeing to the proposed transactions; and

if the customer agrees with said proposed transactions, the broker implementing the transactions at the appropriate stock exchange.

Reference A does not expressly show automating the disclosed method to be performed on the Internet and automatically performing the step of determining proposed transactions that could improve the customer's portfolio.

It was known at the time of the invention that merely providing an automatic means to replace a manual activity which accomplishes the same result is not sufficient to distinguish over the prior art, In re Venner, 262 F.2d 91, 95, 120 USPQ 193, 194 (CCPA 1958). For example, simply automating the step of determining proposed transactions that could improve the portfolio gives just what one would expect from the manual step as shown in reference A; determining if certain transactions increase the value of the portfolio and doing so in a more expedient manner. In other words, there is no enhancement found in the claimed step other than the known advantage of increased speed. The end result is the same as compared to the manual method.

It would have been obvious to a person of ordinary skill in the art at the time of the invention to automate the step of determining proposed transactions that could improve the portfolio because this would speed up the determining step which is purely known and expected result from automation of what is known in the art.

Reference A does not further show transmitting the proposed transactions to the customer over the Internet and the customer sending back over the Internet a notice either agreeing to the proposed transactions or not.

Reference B shows the advantage of communicating over the Internet for businesses to reach customers anywhere in the world.

It would have been obvious to a person of ordinary skill in the art at the time of the invention to transmit the proposed transactions to the customer over the Internet and have the customer send back over the Internet a notice either agreeing to the proposed transactions or not because the advantage of communicating over the Internet allows a broker to do business with customers anywhere in the world that has access to the Internet as evident by Reference B.
Example 11: Rationale reasoned from official notice.

a. The claimed invention

The invention is drawn to the use of computers and the Internet to sell women’s clothing through a web page. A buyer would browse through the selection of women’s clothing in the on-line catalog and place an order by filling out a form including information such as the number of items of a selected women’s clothing item that the buyer desires and appropriate delivery and billing information. The web server compares the number of articles of clothing of each specific type, for example, slacks, to a predetermined quantity. If the requested number of articles of clothing of a specific type is larger than the predetermined quantity, the server confirms the requested quantity before accepting the order. The advantage of the confirmation is to avoid obvious data entry errors which would require time consuming, expensive, and unacceptable correction efforts.

Claim 1:

A method for selling women’s clothing to a buyer over the Internet, wherein the buyer browses the available articles of clothing through an on-line catalog on a seller’s web page, comprising the steps of:

a. receiving from said buyer a selection of one or more desired products to include size, color and quantity;

b. receiving demographic, delivery, and payment information from said buyer;

c. requesting verification of said quantity by said buyer when said quantity exceeds a predetermined amount;

d. receiving verification of said quantity from said buyer;

e. processing said delivery and payment information; and

f. forwarding said desired products to the buyer based on said delivery information.

b. Evidence

Smith teaches an on-line ordering system for clothing which is implemented on the Internet. The system and the method for using the system include all of the same features as the instant invention except that the quantity verification feature is not disclosed.

c. Good statement of the rejection

Claim 1 is rejected under 35 U.S.C. 103 as being unpatentable over Smith. Smith teaches all of the elements claimed with the exception of the verification of the desired quantity step. The examiner takes Official Notice that one would verify the number of desired products of an ordered item to eliminate processing orders of clearly wrong quantity. Evidence of this is provided by the following example of ordering a pizza. A buyer calls a pizza delivery service and orders 500 pizzas. The pizza shop would verify that the buyer said 500 and not 5 before processing the order. It would have been obvious to one of ordinary skill in the art at the time of the invention to include verification in the system of Smith because verification of the number of items ordered would eliminate processing of clearly wrong orders. The use and advantages of this step are well known.

Example 12: Rationale reasoned from the difference is the data being stored (article of manufacture).

a. The claimed invention

The invention is drawn to a computer readable memory including a plurality of data fields stored thereon. The data is
representative of various categories of information related to the tracking and maintenance of a mortgage portfolio including
the primary mortgage holder, the mortgagor's name and address, the state and county where the property securing the
mortgage is located, and economic criteria indicative of the likelihood of selling high-end title insurance and other
miscellaneous real estate products to the mortgagor. The data is processed on a specialized programmed computer system
designed for this business use.

Claim1:

An article of manufacture comprising:

a computer readable medium storing a plurality of record files for mortgagors;

each record file comprising:

a first field of data identifying a mortgagor,

a second field of data identifying the geographic location of said mortgagor, and

a third field of data indicating the likelihood of success of selling title insurance products to said mortgagor.

b. Evidence

Reference A shows a CD-ROM having stored thereon a plurality of record files wherein each record file has three data fields
storing data relating to a non-business use.

c. Good statement of the rejection

Claim 1 is rejected under 35 U.S.C. 103 as being unpatentable over Reference A. Reference A shows:

An article of manufacture comprising:

a computer readable medium storing a plurality of record files;

each record file comprising three fields of data.

Reference A does not expressly show the first field of data identifying a mortgagor, the second field of data identifying the
geographic location of said mortgagor and the third field of data indicating the likelihood of success of selling expensive
products to said mortgagor.

However these differences are only found in the non-functional data stored on the article of manufacture. Data identifying a
mortgagor, the geographic location of said mortgagor and data indicating the likelihood of success of selling expressive
products to said mortgagor is not functionally related to the substrate of the article of manufacture. Thus, this descriptive
material will not distinguish the claimed invention from the prior art in terms of patentability, see Cf. In re Gulack, 703 F.2d
1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983); In re Lowry, 32 F.3d 1579, 32 USPQ2d 1031 (Fed. Cir. 1994).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to store any
data in the fields of the article of manufacture as shown in Reference A because such data does not functionally relate to the
substrate of the article of manufacture and merely labeling the data differently from that in the prior art would have been
obvious matter of design choice. See In re Kuhle, 526 F.2d 553, 555, 188 USPQ 7, 9 (CCPA 1975).

Example 13: Rationale reasoned from the data being processed (machine).

a. The claimed invention
The invention is drawn to a network system for the remote evaluation of an individual’s physical health; preferably implemented on the Internet. The system includes at least one network server storing a plurality of questions designed to indicate the general physical health of an individual based upon the collective answers. Individuals connect their personal computer terminals to the server and enter their responses to the queries presented to them for transmission to the server for analysis in accordance with a diagnostic computer program. The remote diagnostic system provides a convenient and time saving method for receiving an overview of an individual’s general health.

Claim 1:

A system for remotely assessing the health of an individual comprising:

a) a server;

b) a remote interface for programming into the server a set of queries;

c) a plurality of remote terminals for use by individuals to connect to said server for interactively providing said queries to an individual and receiving responses from said individual;

d) a network connecting elements a), b) and c); and

e) wherein said set of queries resides on said server to assist in assessing the health of said individual.

b. Evidence

Reference A teaches an interactive Television system with a set of interactive audience viewing preferences survey queries. The queries are forwarded to an individual’s television set and the responses entered by the individual using a remote control device are returned for analysis. A second embodiment of the invention is disclosed which includes an interactive Internet survey system of customer buying preferences wherein the survey questions are stored on a server on the Internet and individual may connect to the server to answer product preference questions in exchange for coupons and other incentives. The survey questions are loaded onto the server, and periodically updated, through a remote interface and controller.

c. Good statement of the rejection

Claim 1 is rejected under 35 U.S.C. 103 as being unpatentable over Reference A. Reference A teaches an interactive Internet survey of customer buying preferences, comprising, a server (10 Fig. 1), a remote interface for programming the server (a computer [15 Figure 1] with a GUI, connected to a Local Area Net [17 Figure 1]), a plurality of individual user terminals for accessing the server (terminals 34 in Figure 1), a network (the Internet) connecting all the above elements, and a set of interactive customer preference queries resident on the server for interactive user by the individuals over the Internet. Reference A does not teach the specific queries recited in the claimed invention. However, the specific meaning/interpretation of the queries loaded onto the server does not patentably distinguish the claimed system. Further, the recited statement of intended use, to assess an individual’s health, does not patentably distinguish the claimed system. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide any type of queries in the system taught by Reference A because the subjective interpretation of the queries does not patentably distinguish the claimed invention; a network system.

Example 14: Known system/machine with computer program (patentable/unpatentable).

a. The claimed invention

A system is disclosed for rewarding customer patronage of a retail establishment or purchase of specified items. Customer purchase habits and patronage information are tracked via use of a customer ID card that the customer presents at time of checkout. The card is then scanned along with purchases and the ID read from the card used as an index to a purchase history database. Records for the customer associated with the ID are read from the database. These records are then
updated with purchase data read from scanned items. The updated records are subsequently used to determine if a coupon or other incentive should be issued to the customer based on established criteria. The criteria can include amount of purchase, type of item purchased, frequency of purchase, etc. In addition, purchase history records are updated with time and date of purchase. This information is used to track customer patronage. The disclosed system includes two computer programs employed to implement the above noted system and the associated method. A first program is used to regulate and enter data into the database, designating the proper sequence for entry and locations in memory for storage of the various elements. The second program controls the retrieval and analysis of the customer and product data to determine whether a coupon or other incentive should be issued and, if so, what type and value.

Claim 1: A system for storing data representing a plurality of purchases by a customer in a database and for generating customer coupons, said system comprising:

means for scanning a first record including first encoded data representing the customer’s identity and a second record including second encoded data representing an item being purchased by the customer;

program means for controlling the storage of the first and second data; and

means for entering said first and second data into a database wherein the stored data represents a plurality of customer purchase histories wherein each purchase history represents an individual customer purchase history of all prior purchases by the individual customer over a predetermined period of time.

Claim 2: A system for rewarding customer purchases of specified items, said system comprising:

means for scanning a customer ID card presented at time of checkout to retrieve customer ID data;

means for retrieving a record from a purchase history database, said record including customer related data for a customer associated with said ID data;

means for scanning items presented for purchase at said time of checkout to retrieve purchase information;

means for storing said purchase information in said purchase history database to update the customer purchase history; and

means programmed to process the updated information stored in said purchase history database to generate coupons for customers meeting specified criteria, said criteria including purchase of a specific brand of product or of a specified amount of a product type.

b. Evidence

Reference A discloses a sales tracking system employing one or more scanners to read data from encoded data bearing records. It states that it is known that the encoded records are found on cards or on other tangible items including products for sale. In using the system, a salesperson first uses a scanner to scan an ID card and then with the same, or a separate scanner, scans each item to be purchased by the customer. Each data item is stored in a separate memory device for later use in association with the scanned ID card.

Reference B discloses storing data read from a plurality of data bearing records into a database to update associated inventory data for all products sold within a given time period. The database has a plurality of data fields with a separate field for each category of product type and another field indicating an ID for use in maintaining the proper stocking of each product type. Data entry into and retrieval from the database is controlled by a computer program which controls the sequencing of the entries to ensure that the data is properly stored in and retrievable from the database.

c. Analysis of rejections based upon the prior art

Claim 1 would be properly rejected as being unpatentable over Reference A in view of Reference B for the following reasons:
An analysis of claim 1 reveals that the invention defined therein is a system having at least (1) means for scanning, (2) means for entering data read by said scanning means into a database, and (3) a means with a computer program to control entry of the data into the database. The examiner takes note that the data scanned and stored represents customer ID and purchase item data. However, what the data read by the scanner or input to the database represents does not modify the structure of the scanner or database or the operation of the computer program means which controls the data entry. Thus, the specific data involved would not create a patentable difference. Reference A discloses a system that makes use of a scanner for reading data bearing records and for storing the data into a database. Although that system is directed to scanning and storage of product inventory data, the examiner again asserts that what the data read and stored represents does not change the scanner or the database. However, Reference A lacks the claimed program means for controlling entry of the data into the database. Reference B teaches that the entry of a plurality of data elements into a database may be controlled by a computer program which sequences the data entry to ensure that the data is properly stored into and retrievable from the database. Note that the program controls the entry of both individual person identification data and product data into appropriate fields in a database. It would have been obvious to one of ordinary skill in the art to provide the record scanning system of Reference A with a programmed means to control the entry of the data into a database to ensure that the data is properly entered into the correct fields in the database as taught by Reference B. Ensuring the integrity of data entered into a database is a well known and desirable advantage in the database art. Further, to employ a database rather than separate memory sections to store data is a well known equivalent to those of ordinary skill in the art and would have been an obvious modification in the system of Reference A.

Claim 2 is allowable over the prior art shown in Reference A and Reference B. Although systems are known which scan and use data from two separate records to generate an output or result, such as disclosed in Reference A, the prior art does not teach the programmed processor for generating coupons as claimed. The programmed processor limitation, properly evaluated under 35 USC 112, 6th paragraph, defines a machine which is distinct from other machines which do not include a computer program for generating coupons as recited in claim 2. The invention of claim 2 includes means to generate coupons using purchase history data (i.e., scanned item data) and consumer ID data. Thus, the specific data used in claim 2 further imparts a patentable distinction to the claim because the data is used to perform a specific function. The apparatus used to perform this function (e.g., a computer) is changed when the software for implementing the recited function is executed.

Example 15: Rationale reasoned from art-recognized equivalents.

a. The claimed invention

The invention is directed to a system for automatically matching mortgage lenders with potential borrowers. Each borrower is interviewed to obtain information on current job status, age, debt load, and credit rating including payment history, defaults, late fees etc. This information is then inputted into a program for real time credit scoring. The program makes use of a probit model for scoring potential borrowers based on the input information. A separate program automatically matches borrowers with lenders based on lender specified criteria and borrower credit scores.

Claim 1:

A system for automatically matching a potential mortgagee with a mortgage lender, said system comprising:

means for inputting borrower information obtained during an initial interview with said potential mortgagee, said information including data relating to job status, age, debt load, and credit rating including payment history, defaults, and late fees;

means for predicting the credit worthiness of said potential borrower by developing a credit score based on a probit model;

means to input said predicted credit score to means for matching borrowers and lenders;

means for automatically reviewing lender criteria for borrower credit worthiness;

means for selecting lenders whose criteria are met by the credit score of said potential borrower; and
means for outputting said selected lenders for review by said potential borrower.

b. Evidence

Jones discloses the use of a system for automatically matching mortgage lenders and borrowers based on credit scores. Scores are obtained using borrower data gathered during an initial interview. Information from the interview is inputted to credit scoring software that rates borrowers. The system and all of the components thereof are exactly the same as those recited in the instant claimed invention. However, the credit scoring software is based on linear probability modeling.

Smith, an article published in Business Banking, provides a comparison of several statistical methods used as a basis for credit scoring systems. Both probit and linear probability models are included in the discussion of applicable statistical models. The article addresses the underlying theories behind each of the statistical modeling techniques reviewed and notes that each are standard techniques used to determine the credit worthiness of a borrower. While acknowledging differences in the underlying theories of the models, Smith also discloses that these standard techniques are equally effective in predicting the credit worthiness of a borrower and may be used interchangeably without significantly affecting the results.

c. Good statement of the rejection

Claim 1 is rejected under 35 U.S.C. 103 as being unpatentable over Jones in view of Smith. Jones discloses the use of borrower information gathered during an interview as input to a system for predicting the credit worthiness of a borrower. The credit score output by this system is then used as a basis for matching borrowers with mortgage lenders based on borrower credit scores. Lenders whose selection criteria match the credit score of the borrower are listed as potential lenders to the borrower. Jones meets all of the limitations of the claimed invention but differs from the claimed invention in that software used to develop credit scores is based on a linear probability model instead of a probit model. The examiner however directs attention to Smith that establishes the equivalency of probit and linear probability based credit scoring models in arts relating to mortgage loans. As noted in the Business Review article both linear probability and probit models are standard techniques used to develop credit scores for borrowers and are equally effective in estimating the credit worthiness of a borrower. The substitution of a probit model for the linear probability model of Smith would have been obvious to one of ordinary skill in the art at the time of the invention as it is irrelevant whether a model assuming a linear relationship or a logical distribution (probit) is the basis of credit scoring as each is a standard technique used by the ordinary artisan and both have been recognized to provide a good estimate of the credit worthiness of a potential borrower.

Example 16: Rationale reasoned from the level of skill in the art.

a. The claimed invention

The invention is drawn to a banking system that utilizes the Internet to communicate to customers their bank balances, records of all transactions on a month to month basis and most other informational services usually provided by banks. The disclosure indicates that the invention provides the ability to access almost all of the full banking informational services that are normally available to a regular banking institution but does so over the Internet. This service is provided with a high level of transaction security for all customer activities through encryption-decryption software interfaces. The invention states that this is the first banking system to provide this service to their customers.

Claim 1:

A method of providing banking services to customers comprising the steps of:

assigning a customer identification number unique to each customer that is used to access a customer's account;

providing a web page on the Internet for access by customers with said identification number, said web page allowing customers to access their own personal bank account; and

providing a secure connection for each customer to allow the customer to read and download their account information including account balance and transaction information.
b. Evidence

The available prior art is a brochure from the Acme Bank that describes all of the disclosed informational banking services set forth in the instant invention but does not include the use of the Internet to provide these services. For example, the Acme Bank system provides a monthly statement of transactions for a customer’s account. The prior art teaches that this statement would be mailed on a monthly basis and that the security is provided by confidential mailing. Another example of the Acme bank informational services is how a customer may access real time account information from an ATM, with the security being provided by the PIN (Personal Identification Number) controlled access methodology.

c. Good statement of the rejection

Claim 1 is rejected under 35 U.S.C. 103 as being unpatentable over the Acme Bank brochure. The brochure of the Acme Bank discloses all of the informational features normally provided by a banking institution. Acme does not discuss the use of the Internet to allow customers secure access to their account information as claimed. In determining the obviousness of applying what is generally known in the banking industry to what is known in the world of the Internet one must determine the level of ordinary skill (Dann v. Johnston, 425 U.S. 219, 189 USPQ 257 (1976)). The Internet, to one ordinarily skilled in the art, for some time now is recognized as a vehicle in which information is shared from computer to computer. A typical example would be for one computer to access and download files from another computer located at a different site than the first. Security for protecting such information is widely known by the use of encryption techniques. Also, the banking industry has utilized computers for years to keep track of accounts and present this data to their customers through tellers, the US mail and ATM machines. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized the Internet to access the data in one’s account in a typical banking system such as that taught in the Acme Bank brochure for the purpose of obtaining account information. The desirability to do this is clearly to save a customer the time of traveling to a bank or interfacing with a teller to get the customer account information.

V. Examples of Improper Rejection under 35 U.S.C. 103

Example 17: Improper rejection based upon hindsight - general motivation statement.

a. The claimed invention

The invention is drawn to a smart card containing a tracking mechanism, which tracks shopping preferences of consumers by recording the type, quantity, and dates of purchase for a pre-selected group of products. The smart card is useful in a system and method for introducing new and alternative products that are of the same type as products normally purchased by the shopper. The smart card records the shopper’s purchases and submits an automatic notification to the shopper when a quantity threshold is achieved for the pre-selected products. This notification will encourage the consumer to consider alternative products by providing the consumer incentives, such as a pricing discount, to purchase an alternative product.

Claim 1:

A method for using a smart card in a marketing analysis program designed to introduce new products, the method comprising the steps of:

- storing product information on the smart card when said products are purchased by a consumer wherein said information including type, quantity and dates of the product purchased;

- identifying for each product a threshold for each of said type, quantity and dates of products purchased;

- determining an incentive for an alternative product based on said threshold; and

- automatically notifying said consumer when said threshold is reached for a given product identified on the
smart card and providing the consumer with said incentive, whereby the incentive encourages the consumer to consider alternative products.

b. Evidence

Reference A discloses smart card that tracks consumer preferences by recording the type, quantity, and dates of purchase of pre-selected products to determine trends in consumer purchases. The smart card is periodically read by a scanner to determine its contents for market analysis. In return for using the smart card and participating in the marketing program, the user is provided with free product coupons for products that are normally purchased by the shopper.

Reference B discloses a traditional consumer incentive program that provides coupons for the purchase of named products based upon the consumer’s purchase of those same products to promote customer loyalty.

c. Poor statement of the rejection

Claim 1 is rejected under 35 U.S.C. 103 as being unpatentable over Reference A in view of Reference B. Reference A discloses the conventional use of a smart card to track consumer preferences and provide incentives. However, Reference A does not disclose the automatic notification to consumer providing incentives. Reference B discloses providing incentives to consumers to purchase the desired products. It would have been obvious to combine Reference A’s smart card with Reference B’s incentive to consumers because the combination would allow Reference A’s smart card to be more efficient.

d. Analysis

The motivation, improve efficiency, is too general because it could cover almost any alteration contemplated of Reference A and does not address why this specific proposed modification would have been obvious. Additionally, there is nothing in either of references that would suggest automatically notifying the consumer when reaching a threshold nor is there anything in either reference that would suggest the notifying step. Finally, although Reference B teaches a traditional coupon scheme to promote customer loyalty, there is no suggestion, other than applicant’s disclosure, to employ this scheme to promote the introduction of new and alternative products. The rejection is improper.

Example 18: Improper rejection based upon hindsight - proposed motivation contrary to the stated purpose of the reference.

a. The claimed invention

The claim recites a smart card containing a tracking mechanism which tracks shopping preferences of consumers including the type and quantity of products purchased as well as the time interval over which the purchases are made by the consumer. Additionally, after a predefined start-up period, an automatic notification to the consumer is provided when a particular product would normally be purchased by the consumer. This notification will encourage the consumer to consider same product by providing the consumer incentives to purchase the product, including substantial price reductions which vary on a periodic basis, thereby increasing sales and product loyalty.

Claim 1:

A method for using a smart card in a marketing analysis program, the method comprising the steps of:

- storing a product information on the smart card when said products are purchased by a consumer wherein said information including type, quantity and dates of the product purchased;
- identifying a threshold for each of said type, quantity and dates of products purchased;
- determining an incentive for each purchased product based on said threshold; and
- automatically notifying said consumer when said threshold is reached for the same type of product identified on
the smart card and providing the consumer with said incentive, whereby the incentive encourages the consumer to purchase the same product to increase sales and product loyalty.

b. Evidence

Reference A discloses smart card that tracks consumer preferences by recording the type, quantity, and dates of purchase of pre-selected products to determine trends in consumer purchases and the potential for offering new products to certain shoppers. The smart card is periodically read by a scanner to determine its contents for market analysis. In return for using the smart card and participating in the marketing program, the user is provided with free product coupons for new and alternative products that are of the same type as the products normally purchased by the shopper.

Reference B discloses a traditional consumer incentive program that provides coupons for the purchase of named products based upon the consumer’s purchase of those same products to promote customer loyalty.

c. Poor statement of the rejection

Claim 1 is rejected under 35 U.S.C. 103 as being unpatentable over Reference A in view of Reference B. Reference A discloses the use of a smart card to track consumer preferences and determine what new products might be of interest to the consumer. However, Reference A does not disclose the automatic notification to consumer providing incentives. Reference B discloses providing incentives, such as coupons, to consumers to purchase the desired products. It would have been obvious to combine Reference A’s smart card with Reference B’s incentive to consumers because the combination would allow Reference A’s smart card to increase sales of the desired product.

d. Analysis

The motivation is not sound because there is nothing in either of references that would suggest that the motivation for combining the references is known outside of applicant's disclosure. Additionally, there is nothing in the references that would suggest incorporating the claimed notifying step with the smart card. Further, the proposed modification would destroy the intended purpose of Reference A; providing a program to introduce new and alternative products. The rejection is improper.

Example 19: Improper rejection based upon hindsight - proposed motivation not directed to the claim differences.

a. The claimed invention

The claim recites a smart card containing a tracking mechanism which tracks shopping preferences of consumers including the type and quantity of products purchased as well as the time interval over which the purchases are made by the consumer. Additionally, after a predefined start-up period, an automatic notification to the consumer is provided at a point of sale terminal (POS) when a particular product meeting the quantity requirement is purchased by the consumer. This notification will encourage the consumer to continually purchase the same product by providing the consumer incentives for reaching the quantity requirement including a substantial price reduction on the current purchase. The magnitude of the price reduction may vary on a periodic basis.

Claim 1:

A method for using a smart card in a market analysis program, the method comprising the steps of:

- storing a product information on the smart card when said products are purchased by a consumer wherein said information includes type, quantity and the purchase date of the product purchased;

- identifying a threshold for each of said type, quantity and purchase dates of products purchased;

- determining an incentive for the product based on said threshold; and
automatically notifying said consumer at POS terminal when said threshold is reached for the same type of product identified on the smart card and providing the consumer with said incentive, whereby the incentive encourages the consumer to purchase the product more frequently by providing the consumer with a substantial price reduction on the current purchase.

b. Evidence

Reference A discloses smart card that tracks consumer preferences by recording the type, quantity, and dates of purchase of pre-selected products to determine trends in consumer purchases for inventory management purposes. The smart card is periodically read by a scanner to determine its contents for market analysis. In return for using the smart card and participating in the marketing program, the user is provided with free product coupons for new and alternative products that are of the same type as the products normally purchased by the shopper.

Reference B discloses a traditional consumer incentive program that provides coupons for the purchase of named products.

c. Poor statement of the rejection

Claim 1 is rejected under 35 U.S.C. 103 as being unpatentable over Reference A in view of Reference B. Reference A discloses the conventional use of a smart card to track consumer preferences and determine what new products might be of interest to the consumer. However, Reference A does not disclose the automatic notification to consumer providing incentives based on reaching a quantity threshold. Reference B discloses providing incentives, such as coupons, to consumers to purchase the desired products. It would have been obvious to combine Reference A’s smart card with Reference B’s incentive to consumers because the combination would allow Reference A’s smart card to increase sales of the desired product. Further, coupons and price reductions are well known equivalents in the art.

d. Analysis

The motivation is not sound because there is nothing in either of references that would suggest that the motivation for combining the references is known outside of applicant’s disclosure. Additionally, there is nothing in the references that would suggest incorporating the claimed notifying step at the POS terminal with the smart card. Furthermore, the claimed threshold data is significant because it provides a patentable distinction and is not merely data being stored. The data plays a vital role in the distinguishing features of the invention. Also, the statement of equivalents in the art is not well taken as the examiner has not presented any evidence on this position and it does not appear to be well known; coupons are normally supported by the product manufacturer and the price reduction appears to be supported by the store where the consumer is shopping. The rejection is improper.

Footnotes

5. In re Morris, 17 F.3d 1048, 44 USPQ2d 1023 (Fed. Cir. 1997).
6. See In re Oetiker, 977 F.2d 1443, 1446, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992); Medtronic, Inc. v. Cardiac Pacemakers, 721 F.2d 1563, 220 USPQ 97 (Fed. Cir. 1983) (Patent claims were drawn to a cardiac pacemaker which comprised, among other components, a runaway inhibitor means for preventing a pacemaker malfunction from causing pulses to be applied at too high a frequency rate. Two references disclosed circuits used in high power, high frequency devices which inhibited the runaway of pulses from a pulse source. The court held that one of ordinary skill in the pacemaker designer art faced with a rate-limiting problem would look to the solutions of others faced with rate limiting problems, and therefore the references were in an analogous art.).
7. See In re Wyer, 655 F.2d 221, 227, 210 USPQ 790, 795 (CCPA 1981) ("Accordingly, whether information is printed, handwritten, or on microfilm or a magnetic disc or tape, etc., the one who wishes to characterize the information, in whatever form it may be, as a 'printed publication'…should produce sufficient proof of its dissemination or that it has
otherwise been available and accessible to persons concerned with the art to which the document relates and thus most likely to avail themselves of its contents.

8. See also Amazon.com v. Barnesandnoble.com, 73 F. Supp. 2d 1228, 1233-34, 53 USPQ2d 1115, 1119 (W.D. Wash. 1999) (Pages from a website were relied on by defendants as an anticipatory reference (to no avail), however, status of the reference as prior art was not challenged.

9. See In re Nomiya, 509 F.2d 566, 571,184 USPQ 607, 610 (CCPA 1975) (Figures in the application labeled "prior art" held to be an admission that what was pictured was prior art relative to applicant's invention).

10. See In re Ahlert, 424 F.2d 1088, 1091, 165 USPQ 418, 420 (CCPA 1970) (Board properly took judicial notice that "it is common practice to postheat a weld after the welding operation is completed" and that "it is old to adjust the intensity of a flame in accordance with the heat requirement.").

11. In re Chevenard, 139 F.2d 71, 60 USPQ 239 (CCPA 1943).


21. See MPEP 2144.04 for examples of common practices which the court has held to be routine expedients.


27. In re Kulling, 897 F.2d 1147, 1149, 14 USPQ2d 1056, 1058 (Fed. Cir. 1990).


34. In re O'Farrell, 853 F.2d 894, 7 USPQ2d 1673 (Fed. Cir. 1988).


38. In re Brouwer, 77 F.3d 422, 425, 37 USPQ2d 1663, 1666 (Fed. Cir. 1996); In re Ochiai, 71 F.3d 1565, 1572, 37 USPQ2d 1127, 1132 (Fed. Cir. 1995).