Title: METHOD AND APPARATUS FOR ESTABLISHING A CENTRAL EXCHANGE OF MARKET-RATED INFORMATION TRANSACTED BY A USER-DRIVEN NETWORK

Abstract: A centralized, user-driven process is combined with a rating system to facilitate information dissemination. An online bidding method compensates a participant who satisfies a request for information. A controller (101) receives and distributes the request to potential bidders. Before offering to answer a request, an information provider (103, 104, 105) examines the request in conjunction with a report that evaluates the requestor (102). The requestor evaluates a bid concurrent with a report concerning the information provider. The controller coordinates an exchange of information and payment upon requestor acceptance. Data reflecting the actions of both the requestor and information provider is recorded by the controller for future reference.
For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.
METHOD AND APPARATUS FOR ESTABLISHING A CENTRAL
EXCHANGE OF MARKET-RATED INFORMATION TRANSACTED BY
A USER-DRIVEN NETWORK

Cross-Reference to Related Applications

This application is a United States continuation-in-part of U.S.
Provisional Patent Application serial no. 60/144,541, filed July 16, 1999,
which is hereby incorporated by reference herein in its entirety.

Field of the Invention

The present invention relates generally to an apparatus and
method for online exchange and, more particularly, to electronic transactions
of priced and/or rated information.

Background of the Invention

Information is critical to any individual or enterprise.

Accordingly, industry has developed tools to more effectively disseminate
information. Automated online search engines allow Internet users to search existing databases for matching key words. However, many such searches produce undesirable results. Even simple searches result in users being inundated with irrelevant data. The task of sifting through the results is tedious, inefficient and cost-ineffective. Conversely, no data may be retrieved where a user conducts a search of a particular or time-sensitive nature. The absence of relevant data is often attributable to a lack of incentive to post such information.

Groups of specialized data providers are alternatively utilized as sources of information. Collections of experts, available through services such as news groups, discussion forum web sites and bulletin boards, entertain queries that pertain to the specialty topic of the group. Group responses are electronically-mailed or otherwise communicated to a requestor. Because such groups are decentralized, however, the usefulness of a single group is limited to the scope of its specific expertise. For instance, a person seeking real estate advice can not reasonably expect help at a website purporting to provide medical advice. Thus, requesters are relegated to locating different specialty groups for divergent topics. Additionally, users have limited means of evaluating the validity of the supposed expert information. Many group providers have no monetary or other incentive to provide timely, concise or accurate information, which results in undesirable responses.
Related systems allow users to purchase the temporary services of an expert consultant online. For instance, the dedicated expertise of a group of computer engineers may be temporarily retained to establish a network for a user. However, this strategy is not cost effective when applied to broad, lateral market information. As above, such a format relies on niche groups and fails to involve conventionally structured businesses that comprise the majority of information providers.

Other services distribute articles, audio and/or video cassettes in an Internet auction format. The static content of these items has limited utility for users seeking perishable information, such as job listings. Additionally, these services operate under binding purchase constraints that are undesirable in the context of information distribution. Such an inflexible format would not allow requesters to evaluate sources of information before committing to transactions. Likewise, the provider would have no way of bargaining for the payment reliability of a requestor.

Therefore a significant need exists for an improved method of disseminating information.

**Summary of the Invention**

The present invention addresses these and other problems associated with the prior art by providing a centralized method for conducting an online information bidding session. A market-driven process is combined
with a rating system to facilitate information transactions. A request for information is transmitted to potential information providers via a controller. The request may include an invitation for a bilateral offer, as well as payment and performance conditions. Upon submission of the request, a file particular to the requestor, which may be a separate file in a computer system, a database, a record of a database, or any other data structure, is created within the controller for recordation of actions taken within the system.

Information providers transmit responses to the central controller, which communicates them back to the requestor. A response generally includes a bid for performance and may solic it a more specific description. All actions taken by an information provider are recorded by the central controller in order to make evaluative data available to future requesters. The data is reviewed by subsequent requesters to characterize the expected performance of the information provider. Evaluative data includes provider credentials, promptness, accuracy and compensation statistics. Likewise, information providers may access ratings data derived from a requestor's prior transactions within the system. Such ratings reflect past request statistics, as well as percentages of bid prices paid and promptness of payments.

The requestor indicates acceptance of an offer to the central controller, which communicates it to the information provider. A requestor is
periodically prompted to submit evaluative data to the central controller, for instance, after reviewing a response. Similarly, information providers are required to enter ratings data.

One particular application deriving unique benefit from the invention involves computer networks and systems. However, it should be appreciated that the method of the invention is equally applicable to other distribution systems, such as voice mail, wireless, and postal services.

The above and other objects and advantages of the present invention shall be made apparent from the accompanying drawings and the description thereof.

**Brief Description of the Drawing**

The accompanying drawings, which are incorporated in and constitutes a part of this specification, illustrate an embodiment of the invention and, together with a general description of the invention given above, and the detailed description of the embodiment given below, serve to explain the principles of the invention.

Fig. 1 is a schematic diagram of a communications network in accordance with the principles of the present invention;

Figs. 2A and 2B is a data diagram illustrating the structure of database tables used in accordance with principles of the present invention;
Fig. 2C is a state diagram illustrating the bid status values achieved as a user participates in the inventive system in accordance with principles of the present invention;

Fig. 3A is a flow chart illustrating the top-level interaction of a user with a web site in accordance with principles of the present invention;

Fig. 3B is a flow chart illustrating the interaction of a member with a "my account" page in accordance with principles of the present invention;

Fig. 3C is a flow chart illustrating a process for asking a question in accordance with principles of the present invention;

Fig. 3D is a flow chart illustrating a process for login to a system in accordance with principles of the present invention;

Fig. 3E is a flow chart illustrating a process for registering with a system in accordance with principles of the present invention;

Fig. 3F is a flow chart illustrating a process for requesting clarification in accordance with principles of the present invention;

Fig. 3G is a flow chart illustrating a process for placing a bid in accordance with principles of the present invention;

Fig. 3H is a flow chart illustrating a process for sending an e-mail verification in accordance with principles of the present invention;
Fig. 3I is a flow chart illustrating a process for verifying an e-mail address using a target page in accordance with principles of the present invention;

Fig. 3J is a flow chart illustrating a process used by a buyer in negotiating on an answer bid in accordance with principles of the present invention;

Fig. 3K is a flow chart illustrating a process used by a seller in negotiating on an answer bid in accordance with principles of the present invention;

Figs. 4A, 4B, 4C and 4D are flow charts illustrating batch processes for enforcing warning periods for unread and unrated answers in accordance with principles of the present invention;

Figs. 5A, 5B and 5C are flow charts illustrating batch processes for month end payout of earnings in accordance with principles of the present invention; and

Fig. 6 is a flow chart illustrating a batch process for alerting users of questions of interest in accordance with principles of the present invention.

**Detailed Description of Specific Embodiments**

Generally, the present invention relates to the exchange of priced and/or rated information. In one embodiment of this invention, online
bidding between a requestor and providers of information is accomplished through an electronic network and a controller. There may be a single, central controller or multiple decentralized controllers, in accordance with the scale of the system and desired performance.

Referring to Fig. 1, all participants are prompted to register contact and payment information with the central controller 101. Unique identifiers, such as USERID's, are assigned to each requestor, one of which is illustrated as connected to central controller 101 via a computer system 102. USERID's are also assigned to information providers, illustrated as communicating with central controller 101 via telephone computer and mail delivery mechanisms 103, 104, 105. Registration may be universally free, or have fees associated with different types of memberships.

Generally, a request is composed by a requestor at terminal 102, comprising an invitation to make an offer for information. Requests may be binding or non-binding. In the embodiment described below, the requests are non-binding, which allows the requestor to evaluate responses before determining whether and how much to pay. This approach is believed to make the system appealing to the broadest range of potential users. However, in an alternative approach, providers may have the option to make payment binding, so that a requestor, upon viewing requested information, is required to make payment. Thus, a provider would be permitted to select a "binding" option for
all requests, or only for requests in given categories. The system may also
require that a provider achieve a given level of positive ratings from prior
requestors (as discussed below), before being permitted to make binding
requests.

In another application, the system might not associate monetary
value with requests for information and replies. For example, the system may
be used within a business organization to collect a database of information. In
this case, persons that supply requested information may receive points
redeemable for vacation time, frequent flyer miles, credit toward promotion, or
another form of compensation. Alternatively, no compensation need
necessarily be provided for supplying information.

An exemplary request involves the acquisition of land. The
requestor may seek information relevant to applicable zoning laws, tax
ramifications, as well as leasing or insurance considerations. The requestor
selects a category and/or sub-category from a scroll-bar menu. Key words may
be alternatively typed in, for instance: "real estate and business property
acquisition." This selection process expedites the matching of the requestor
with providers by enabling prospective providers to perform category and/or
keyword searches, as described below. A request may also indicate the
maximum amount of compensation that a requestor will provide. Similarly,
the date and time that a request expires may be included in the request.
The request may be transmitted via numerous means, including a Worldwide-web interface, electronic mail, wireless device, voice mail, facsimile, or postal mail. Standard legal provisions and language may be integrated with the request to "fill in the gaps" at central controller 101. The central controller 101 may require that the requestor provide a credit card number or other financial account number and may take steps to evaluate the credit or other financial status of a requestor. The central controller 101 then assigns a unique tracking number to the request makes it available to potential information providers. Requests may be made available globally, to providers in certain geographic regions, or to providers meeting criteria, such as affiliation with a particular organization, security clearance, or minimum ratings.

Potential information providers may find requests in a number of ways. A potential provider may browse categories for requests, in which case requests may be displayed by category or sub-category to make it easier for potential information providers to identify relevant requests. A search may be performed using categories and/or keywords to find relevant requests. The keyword search may be applied only to the title of the request or the entirety or any part of its description. Other boolean logic may be applied to keyword search or otherwise search any aspects of the request (such as whether the request is "binding").
Potential providers may regularly access the controller to search for relevant requests, or alternatively the controller may provide an automatic notification service based upon previously defined criteria for each potential information provider. These criteria may include any of the criteria that can be used in a search, including category, key word, and other criteria described above. A provider may be provided the option to save the criteria used in a search for future automatic notifications of requests.

Should an information provider wish to submit an answer, solution or other information, a response is communicated to the central controller 101. The provider may include a bid amount in conjunction with the response. The central controller 101 then time stamps the response from the information provider, verifies that the request has not expired, and stores the response in a database at central controller 101. Responses from providers are communicated to the requestor via electronic mail, web-site posting, wireless device, facsimile or postal service, so that the requester can asynchronously view the responses. Requesters and providers may engage in asynchronous negotiation through controller 101 to arrive at a final, negotiated price. (For negotiations and responses, embodiment using synchronous communication, e.g., online chat or voice communication over IP or telephone connections, or other synchronous media, may also be implemented.)

Evalutative data applicable to an information provider is also posted, if
available at central controller 101. Such data reduces costs associated with independent evaluation procedures, and provides incentive for higher quality responses and prompt payments. The rating system allows both the requestor and providers to bargain for expected performance based upon historic information.

Upon reviewing a list of responses, a requestor may select or reject responses for viewing. In either case, the requestor may rate the information provider and may be penalized or 'locked out' of future transactions until evaluative data is generated. If applicable, the requestor pays the provider for the produced information. All transactions are recorded by the central controller 101 for the benefit of future requesters and providers. For instance, ratings data may capture what percentage of the provider's bid price was ultimately paid by the requestor. This percentage can be used to quantify the cumulative payment reliability, and can be used by subsequent providers who transact with the requestor.

A system in accordance with the present invention may be profitable to its administrator for one of a variety of purposes. First, the administrator may receive a commission on the value exchanged between the requester and provider. Also, the administrator may receive revenue from advertisers, by posting advertisements visible to users as they interact with the system. These advertisements may be targeted, e.g., specific advertisements
may be used for specific requesters or providers based upon their current request and/or a historic profile of requests or responses. Further, on a page providing particular information content, advertisements may be targeted based on that information content. All of these approaches enhance the value of the advertisement by targeting a desired audience.

Other potential value can be reaped by the administrator. By its nature, the system accumulates a database of demographic information on its users, including email addresses, profiles (including but not necessarily limited to, questions asked and answered), resumes, and credit card numbers or other financial information as well as creditworthiness. This information can be valuable to parties wishing to directly solicit the users, and can be useful in targeting users with particular interests. Users may be provided the option to prevent distribution of this information to others, if desired. Furthermore, this information can be aggregated and used to perform market research, e.g., by determining correlations between interests of the users. Another value of the system is that by its nature it will accumulate an archive of question and answer pairs, where at least in some cases the answers will be rated for accuracy/usefulness. This database can be resold as an aggregate or on a categorized basis, or may be "mined" for useful information desired by future requestors. In such applications, a commission may be paid to the original information provider to reflect the value subsequently derived from the
provider's response. Alternatively, the agreement with participants in the system may establish that the administrator has a license to make any or all desired uses for questions and answers processed by the system.

Referring now to Figs. 2A through 2D, data that is stored or used by a computer system such as that described above, for a specific implementation of the present invention, can be explained in greater detail. Specifically, controller 101 (Fig. 1) stores data in a number of tables in a relational database system. The contents of these tables and the relations between the tables is illustrated in Figs. 2A, 2B, 2C and 2D. Relations between tables are indicated by lines drawn between those tables. The relation is created by linking fields in the tables permitting other data in the table to be joined as part of the relational database operation, as is known in the art.

Referring now to Fig. 2A, the first table of interest stored by controller 101 is a table 200 storing member information. Members are those persons who participate in the knowledge exchange system illustrated in Fig. 1 by either posting questions to be answered or answering questions or both. Member table 200 stores information regarding members and identifiers for members that can be used to link members to information in other tables. This specific information in the member table 200 includes a unique "member ID" which is an identifier for the member that can be used to identify the member in other tables. In addition, table 200 stores a character value for the "user
name" of the member as well as a character value for a user identifier for the member. The "user ID" value is half of the data that must be supplied by a member to log in to the knowledge exchange system.

As will be elaborated in greater detail below, each member is associated with ratings relating to their performance in prior knowledge exchange transactions. Accordingly, members table 200 includes a field identifying a "current rating" for a member. This current rating reflects a combination of all prior feedback provided by participants in previous transactions with the member.

Members may be referred to the knowledge exchange system illustrated in Fig. 1, and as a consequence of this referral, the referring member may receive incentive rewards. To facilitate managing these incentive rewards, the members table 200 includes fields for storing the "referral member ID" for the member that referred a member to the knowledge exchange system, and a "referral user ID" having the user ID for the member that referred the member to the knowledge exchange system.

The members table 200 further includes additional statistics regarding a member's interaction with the knowledge exchange system including a total number of questions posted and a total number of questions for which the member did not pay upon receiving an answer. Additional fields can be used to provide a member with access to questions of particular interest.
to the member. This is done by a "category preferences field" which stores an identification of those question categories in which a member has identified an interest. A member may also define an interval over which that member should be notified of new questions in that preferred categories. This interval is identified in an "alert interval" field. Additional statistics regarding a member include the "date registered" field which identifies the date that the member registered with the knowledge exchange system. An "email verify date" identifies the last date that the email address of the member was verified. A final field "receive third party docs" indicates whether the member has identified a willingness to be contacted by third parties for marketing purposes.

A second table illustrated in Fig. 2A is a member resume table providing additional information regarding a member useful in determining whether that member is likely to have knowledge of value to a particular questioner. This table includes a "member ID" field for storing the identifier of a member, and additional fields for providing personal information on the member that can be used to evaluate that members qualifications. This personal information includes an "occupation" field identifying the member's occupation, an "age" field identifying the members age, a uniform resource locator identifying the location of a picture of the member and a "comment" field for free-form text relating to the members
qualifications or other information potentially of interest to participants in the knowledge exchange system. The remaining fields relate to the educational qualifications of the member and include fields level 1, level 2 and level 3 for identifying the educational levels achieved by the member. Additional fields area 1, area 2 and area 2 identify an area of studies in which the member reached the corresponding levels identified in the level 1, level 2 and level 3 fields. Finally, school 1, school 2 and school 3 fields identify the educational institution in which the member achieved the level of degree in the identified study area provided in the preceding fields.

Passwords, and contact information include a member's mail and e-mail address, are stored separately in a table (not shown) indexed by member identifier.

Continuing now in Fig. 2A, member category preferences are stored in a normalized manner in a member resume categories table 204. This table affiliates each member ID with a category ID for a category that member has interest in, and provides a category details field within which the member identifies, in free form text, specific aspects of that category that member has interest in. It will appreciated that table 204 will contain a record for each category identified as of interest to each member and provide specific information about that member's interest in the category. Because there are multiple records potentially in table 204 for each member, table 204 can be
substantial in size, and for this reason category preferences of each member
are also stored in table 200 as noted above in a non-normalized way for ready
access.

The category identifier used in the members resume table 204
relates to categories described in a categories table 206. This table includes an
unique field "category ID" for each category that is defined by the knowledge
exchange system. Each category further includes a description in a "category"
field that describes the general subject matter of the knowledge category. The
character value in the category field is used to display a description of the
category to a member when that member is browsing categories for the
purposes of posing or answering questions. Categories are arranged in a
hierarchical structure and with the exception of a root category, each category
has a parent category. The parent category for a category is identified in a
"parent category ID" field. The value in this field is an identifier for the parent
category that appears in the parent categories record in table 206. Further
information about a category in table 206 includes a 255 character field
"description" including a long textual description of the subject matter of the
category. This lengthy description is used when a member requests detailed
information about the content of the category as part of browsing categories
for the purposes of posing or answering questions. Categories are further
identified with images which are stored in image files and the location of the
image file for a particular category is identified in an "image file" field. Categories may also be associated with color schemes of particular colors as identified in a "color" field of table 206. Finally, each category may be associated with a particular advertisement of a pool of possible advertisements that will be displayed to members as they browse categories. A particular advertisement is identified by an "Ad ID" field in table 206.

Referring now to Fig. 2B, details of the storage of questions and bids and transactions relating to questions can be explained. A central table in this process is a questions table 208 seen in Fig. 2B. Within this table, each question is represented by a record each record having a unique question identifier "question ID". The question is associated with the member that posed the question through a "member ID" field and includes text fields for a title of the question and details of the question which identify in specificity the entirety of the question being asked. If a picture is utilized or is necessary to ask the question, the member may provide a picture URL for a file of the picture associated with the question.

When a question is posed, the date and time that the question is posed is stored in a "submit date time" field in the question table 208. In possible future implementations of the knowledge exchange system, templates may be provided for posing questions, and in this instance a "template ID" field will be used to identify the template used to pose the questions. When a
question is posed, it is associated with a category of interest which is identified in the category ID field.

Questions are priced by the member that poses the question and this monetary value of the question is identified in a price field of the questions table 208. Questions are also associated with the requestor with a "due date" which is a time by which bids must be received. The member posing the question may also identify minimum qualifications for a member to bid on the question and may also identify criteria for the answers such as the specific information that must be included in an answer to be acceptable.

Questions are further associated with a subcategory identifier for the subcategory in which the question was posed and a status identifier that identifies the current status of the question. Questions cycle through a sequence of status values as those questions are posed, bid, bids are negotiated and answers are provided as in explained in further detail below. Additional statistics on a question in table 208 include a counter "NoWdCt" that identifies whether the question can be withdrawn. Members are generally prevented from withdrawing questions after a bid has been accepted on the question. Additionally, a "bid received" field includes identifies the number of bids that have been received on the question. A "negotiation received" field identifies the number of bids that are negotiation on the question and a "purchase
received" field identifies the number of answers that have been purchased for
the question.

As noted above, questions identified in question table 208 are
each associated with a status identifier. This status identifier references one of
a number of possible question status values that are described by status table
210. Each status in table 210 has a status identifier and an internal status and
external status description, each stored as a 25 character string. Separate fields
are provided for an internal and external status description so that information
available to the knowledge exchange system as the reason of the status can be
held within the knowledge exchange system and not delivered to members.
For example, bids that have an external status of "decline" may be declined
because the member submitting the question (hereafter occasionally referred to
as the "buyer") declined the bid or because the bid had insufficient funds
available through their credit card to purchase the bid. This distinction is a
matter of some privacy and therefore is shielded from the bidding member
(hereafter occasionally referred as the bidder) who will only see an external
status value of "decline". Details of specific status values and the procession
of the status value is provided in the following description.

As noted above, members who pose questions may identify
qualifications for possible bidders as well as criteria for acceptable answers.
The qualifications and criteria that may be established by bidders are selected
from a list of possible qualifications and possible criteria. These lists of possible qualifications and possible criteria are stored in tables 212 and 214 (Fig. 2A). Table 212 identifies bidder qualifications that may be selected by a member upon posing a question. Each bidder qualification has a bidder qualification ID (BQID) and text description of the bidder qualifications. Similarly, criteria for acceptable answers may also be defined by a member posing a question by selecting criteria from a list of criteria. The list of criteria is identified in a table 214. Each criterion has a criteria ID, and a character description of the criterion. A particular category may have a subset of the possible bidder qualifications or criteria that is applicable to that category. When a question is posed in a particular category, only those qualifications or criteria that are applicable to that category are displayed to the member posing the question. The relationships between categories and qualifications and criteria are established by tables 216 and 218.

Table 216 associates each category with those bidder qualifications that are applicable to the category. Potentially multiple records appear in table 216 for each category. Each record provides a category identifier linking to the category identifiers used in the category table 206 and a bidder qualification identifier linking to the bidder qualification identifier in the bidder qualification table 212. Similarly, a category criteria table 218 links a category to those criteria that are applicable to the category. Each record in
table 218 provides a category identifier linking to a category in table 206 and a criteria identifier linking to a criteria in table 214. Potentially multiple records appear in table 218 in each category.

As described in further detail below, in the process of bidding upon questions posed by members, other members may request clarification of the posed question prior to placing bids. This is one of several examples where members may wish to transmit messages to other members. The facility for transmitting such messages between members is an inbox table 220. The knowledge exchange system may also deliver messages to members by placing those messages into the inbox table 220.

Within the inbox table 220, each message is associated with an identifier uniquely identifying the message. Each record in the inbox table 220 represents a message being transmitted from one member to another. Messages relate to questions stored in the knowledge exchange system, accordingly, each message is associated with a question identifier in a "question ID" field. Messages are dated in a "message date" field, and each message is associated with the member ID of the member to which the message is directed and the member from which the message originated. In addition, the message contains a "subject text" field identifying the subject of the message and then an 8000 character text field for identifying the body of the message. Messages are finally associated with a flag bit "HAS BEEN
"READ" indicating whether the message has been read by the intended recipient. This information can be used to notify the member that generated the message whether that message has been read. As noted above, one typical use of messages is to allow members to request clarifications on questions that have been posed in the knowledge exchange system.

After any clarification regarding a question has been provided, members interested on bidding on a question may utilize the process described below to generate a bid record. The bid records are stored in a bids table 222 (Fig. 2B). Bids table 222 includes all information needed to completely identify a member's bid on a given question. Each bid is associated with a bid identifier and additional information regarding the bid. This additional information includes a seller identifier providing the identifier for the member that submitted the bid (hereafter occasionally referred to as the "seller") and question identifier connecting the bid to the question identifier of the question stored in table 208. Once submitted, each bid is associated with a title and typically this title indicates the reasons why the bidder should be capable of answering the questions. The information provided by the bidder in the title field is a character string of no more than 255 characters and should be designed to entice the members submitting the question to believe that the bidder can provide an accurate answer to the question. When a bid is accepted, the bidder supplies the answer and this answer is stored in a "details"
field of table 222. If the answer requires reference to a picture, the bidder will also supply a URL for the picture in the "picture URL" field. Upon submission, a bid is associated with an asking price stored in the "ask price" field. The date on which the date is posted is stored in a "post date" field.

Bidders may determine whether recipients of their bids are able to view that bidder member's resume. Members are not generally able to view the resumes of other members, rather, members are only able to view resumes of those members who have bid upon their questions and then only if the bidder has permitted viewing of their resume. If the bidder has indicated that the question submitter may view the bidder's resume, then the "resume visible" bit in the record of table 222 will be set.

It will be noted that the knowledge exchange system can be structured so that members are anonymous, that is, by interacting with each other through the system rather than directly via, e.g., email, members can be allowed to minimize the amount of information available about them through the system. For maximum anonymity, the system can be structured so that members are not given even user identifiers or email addresses of other members. Members, of course, can provide this information in a resume, or as part of a request or as part of a bid, at the member's option. Selective anonymity of this kind may be viewed as an advantage of the knowledge exchange system.

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Bids are associated with status identifiers and the status
identifiers progress through a number of values as the bidding, negotiating,
answer delivery and review process proceeds as detailed below with reference
to Fig. 2C. The status ID is stored in a field in table 222 for the bid.

As will be described in further detail below, bids submitted by
members may be negotiated to a new bid price. This negotiation process is
reflected by a "last negotiation price" field indicating the most recent offer by
the question presenter, the "last negotiation date" field identifying the date that
this offer was provided, and a "last negotiation reason" field providing the text
supplied by the question presenter for explaining the rationale for the last
negotiated price offer.

As is explained in further detail below, once answers are
provided in response to acceptance of a bid, the question presenter rates the
provided answer. The rating is stored in a rating field in the bid table 222. If
the buyer desires to provide comments on the rating provided, these are
provided in the "buyer comment" field. If the bidder, also known as the seller,
wishes to provide a responsive comments to the buyers comment, this is
placed in the "seller comment" field. Ratings may take a number of forms,
including numerical values, typed text values or free form text values. In the
illustrated implementation, ratings are an integer number between zero and
four where zero represents an answer that had no value to the purchaser and
four represents an answer that has best possible value. The comment fields are
provided in the bid records in table 222 to permit a buying member an
opportunity to explain a numeric rating, and to permit a selling member an
opportunity to respond to those comments. A last field in a bid record in table
222 is a "status effective date" field which identifies the date on which the bid
achieved its current status. This information is used, as noted below, to
provide warnings to buyers that have not provided feedback ratings within a
seven-day rating period that is discussed in further detail below.

Referring now again to Fig. 2A, the final table involved in
management of the knowledge exchange system is a bid negotiation table 224.
As discussed in detail below, a potential buyer that posed a question may
initiate negotiation over a bid presenter by a potential seller. This negotiation
process proceeds through the exchange of messages between the prospective
buyer and prospective seller. Each of these messages is represented by a
record in the bid negotiation table 224. Each record has a bid negotiation
identifier and then a sequence of fields providing details of the content of the
message forming part of the bid negotiation. A "poster ID" field stores a
member identifier for the member that produced the message represented by
the bid negotiation record. A "question ID" field identifies the question to
which the message relates. A "bid ID" field identifies the bid record in table
222 to which the message relates. "Buyer ID" and "seller ID" fields in the bid
negotiation record identify the members who are prospective buyer and seller for the bid under negotiation. The content of a message is provided by a "price" field which identifies a price being offered by the prospective buyer or seller, and text explaining the rationale behind the proposed price.

As an example, a prospective buyer may initiate negotiation and specify a price below that bid by the seller, and provide as a reason for the lowered price, that the resume of the seller does not identify an expertise necessarily associated with the subject matter of the question. In responsive message produced by the prospective seller, the seller may set a higher price and provide a reason indicating an expertise of the seller not reflected in that sellers resume. A final field in each bid negotiation record is a "negotiation date" field, dating the message represented by the record. Typically, a negotiation will involve a number of messages assembled over a span of time and will be presented to each of the negotiating parties as a sequence of lines of text on a computer display.

Referring now to Fig. 2C, an explanation can be provided for the sequence of bid status values that a bid record in table 222 will have. Bids proceed through a number bid status values as the bid is initially entered, negotiated, accepted, confirmed, the answer is provided and then the answer is reviewed.
In a first step when a prospective seller submits a bid, the bid record is created and marked with a status identifier corresponding to a value of "initial bid" (state 230). When the prospective buyer accepts a bid that is in its "initial bid" state 230, then the bid is marked "bid accepted" (state 232). Subsequent to this, an answer will be provided and feedback on that answer will be provided.

Often, a buyer will wish to negotiate the price for the information begin requested. In this situation, the buyer will initiate a negotiation through a process described in further detail below and the bid status value will change to a value of "negotiate" (state 234). The prospective seller will be notified of the offer to negotiate and will then respond with a new bid which may or may not be of a lower price of the previous bid. At this point, the bid status value proceeds to "revised bid" (state 236). Thereafter, the buyer may accept the seller's new proposed value in which case the bid status value returns to state 232, or the buyer may reject that value and propose a alternative value in which case the bid status value will be altered to a value "negotiate" (state 238). At this point, the seller may submit an adjusted bid identifying a new value that the seller is willing to accept for providing the requested information. If this occurs, then the bid status is returned to a value "revise bid" in state 236. Alternatively, the seller may withdraw the bid, in response to failure to reach an acceptable negotiation, in which case the bid
status value is changed to a value of "bid withdrawn" (state 240). Once the bid is withdrawn in state 240, further processing of the bid is terminated.

It will be noted that in either in state 234 or state 238, the seller may accept the counter offer provided by the buyer. In either of these situations, the bid status value is returned to the value "revised bid" in state 236. Thus, the seller must in effect submit a new offer matching the proposal from the buyer, returning the bid status value to state 236, after which the buyer may accept the new proposal from the seller to transition to state 232.

Once a bid has been accepted in state 232, the acceptance of the bid is communicated to the seller and the seller must confirm the acceptance, causing the bid status value to change to a value of "bid confirmed" (state 242). After confirming the acceptance of the bid, the seller then provides the requested answer, at which time the bid status is changed to "answer delivered" in state 244.

After an answer has been provided on a confirmed bid, the buyer is required to view the answer and provide a review for the answer. The first time the answer is viewed by the buyer, the bid status value is changed to "under review" (step 246). At this point or at some subsequent time, the buyer may then provide a rating value for the answer for that was supplied. Provided the buyer gives a rating of greater than zero to the supplied answer, upon supplying the rating value the bid status is changed to a value of "purchased"
(state 248). At this point, the buyer's credit card will be charged for the value of the accepted bid. If the buyer provides a rating value of zero for the supplied answer, or if the credit card charge fails, then the bid status value is changed to a value "declined" in state 250 indicating that the answer was unacceptable to the buyer. In this circumstance, the buyers credit card is not charged for the value of the bid that was accepted. After a bid reaches a status value of "purchased" or "declined", no further processing is performed on the bid.

As will be explained in further detail below, buyers are required to review supplied answers within a seven day period. Buyers are provided with regular notifications of the unviewed answers on accepted bids. Once an answer has been viewed, the buyer is provided a seven day period to provide a rating on the answer. If no rating is provided within this seven day period, then the buyers credit card is charged for the value of the bid without regard to an the absence of a rating from the buyer. Here again, regular warnings are provided to the buyer of the need to provide a rating value for the received answer within this seven day period.

Referring now to Fig. 3A, the process followed by a member of the knowledge exchange system in interacting with the controller 101 of Fig. 1 can be explained in greater detail. Initially, the member visits the Internet home page of the knowledge exchange system, in the illustrated case at the
URL KnowToday.com. From this home page, the member may select a
variety of options for knowledge exchange using controller 101. The first
option is to initiate an ask a question process 304 through which the member
may pose questions to be answered by others. Alternatively, the member may
search for questions posed by others that the member may bid to answer (step
306). In this case the member requests questions utilizing categories or
keyword searches or other search techniques, to produce a list of questions of
potential interest. The member may then in step 308 request details for a
particular question identified through the search and browse process. The
details requested may include the buyer's history (step 310) for the buyer that
posed the question. The buyer's history may indicate, for example, the number
of questions, the kinds of questions, and the ratings given by the buyer posing
the question. The second alternative is for the member to request clarification
in the question in step 312. The member may then exchange one of a number
of messages with the perspective buyer that posed the question to clarify the
question before a bid is provided. Finally, the member may place the bid in
step 314 using a place a bid process described in further detail below.

Once a member has asked a question or has placed a bid on a
question, or has requested clarification of a question, that member's activity
would be available for viewing at the member's "my account" page. From the
home page in step 300, the member may request to view this "my account"
page in step 318. When this request is received, controller 101 of Fig. 1 will query the members computer system to determine whether the member has a "cookie" indicating that the member has logged in and providing the members user identifier in the knowledge exchange system. In step 318, therefore, it is determined whether the user is logged in, and if not, in step 320 it is determined whether the user is already registered with the knowledge exchange. If the user is registered with the knowledge exchange system, then in step 322 a log-in process is performed so that the user may log into the knowledge exchange system. If the user is not registered with the knowledge exchange system, then in step 324 the registration process is performed so that the user may register with the knowledge exchange system and can subsequently log-in.

As user that is not previously logged-in and requests to proceed to "my account" page, will also directly invoke the log-in process in step 326. Furthermore, a user viewing the knowledge exchange system home page that wishes to register, may directly invoke the registration process in step 328. In any of these situations, after successfully logging in and/or registering and logging in, the user is delivered to the "my account" page in step 330.

Referring now to Fig. 3B, processing at the "my account" 330 can be further detailed. The "my account" page provides a member with a variety of options for maintaining the member's account with the knowledge
exchange system, or following-up on questions or answers being processed through the knowledge exchange system.

The first option that the member may invoke is to view a summary of transactions and financial information relating to that member's activities and the knowledge exchange system (step 332). Alternatively, the member may perform account maintenance in step 334, altering the members personal information such as their resume information, or other personal information. This process also permits a user to change their current e-mail address in step 336. Doing so triggers an email verification process in step 338 to verify the new email address, as described in further detail below.

At the "my account" page 330, a member may view current questions posed by that member by requesting a "my questions" page 340. At the "my questions" page 342, the member may edit an existing question in step 344 or may withdraw a question in step 346, from a view bids on a question in step 348. If the member chooses to view bids on a question then the member must select a particular bid in step 350 and select an action to take on that bid. As a first option, the member may view the bidders feedback or resume if permitted in step 352. This information may be useful in deciding whether to accept the bid. If the member is satisfied and the bid is acceptable, the member may accept the bid in step 354, in which case the bid status for the bid is changed to "purchased" in step 355. Subsequently, an automatic email is
generated and sent to the bidder announcing acceptance of the bid, to prompt
the bidder to confirm the acceptance of the bid and provide an answer to the
question.

As noted above, a member may be intrigued by a bid but may
wish to negotiate the price of the bid. In this situation, the member may
initiate a buyer negotiation process in step 356, as elaborated in further detail
below. Alternatively, a member may identify a bid that has had an answer
delivered subsequent to its acceptance. To view this answer, the member will
click on an "answer delivered" icon in step 358, in response to which the
answer will be displayed to the member. At the same time in step 360 the bid
status for the bid will be changed to "under review" as described above. The
buyer is then required to provide a feedback rating on the provided answer.
The buyer may immediately provide this feedback or may provide this
feedback at any time within the following seven days. Thus, when viewing
bids on a particular question in step 350, a member may identify a bid that is
"under review" and select this bid in step 366 in order to provide feedback that
had not yet been provided. Subsequently in step 368 the buyer provides
feedback rating on the answer received of the bid. At this point, the buyer's
credit card is charged if the feedback rating is greater than 0. If the buyer
provides a feedback rating of 0, then the buyer's credit card is not charged.
At the "my account" page, the member who has bid on possible answers to questions may request to view a "my answers" page in step 368, and be delivered to the "my answers" page 370. The "my answers" page will display all answers that had been bid by the member on others’ questions.

Bids that have been acted upon by the other member may be awaiting action. Specifically, if the other member has requested negotiation on a bid, the bid will be identified as a status of "negotiate". In this case, the member may click in step 372 on the negotiate bid to invoke the seller’s negotiation process (step 374). This process is described in further detail below. A bid may also have been accepted by the buyer, in which case this acceptance should be confirmed. To do so, the member clicks on the bid marks as "accepted" in step 376. Thereafter in step 378 the member is prompted to confirm acceptance of the bid, and upon acceptance in step 380 and email verification process described below is performed to verify the email address of the member. Subsequently in step 382 the bid status for the bid is changed to a status of "confirmed", and an automatic email is sent to the buyer announcing confirmation. Thereafter the bidder will submit an answer to the question posed by the buyer. This may be done immediately after step 382 and step 384. Alternatively, the bidder may later provide the answer. This may be done by identifying the bid that is marked as "confirmed" then selecting this bid in step 388. In either case, in step 384, the bidder submits the answer to
the posed question. After this is done, the status of the bid is changed to "answered", and the buyer is notified that the answer has been delivered.

The final action that may be taken at the "my account" page 330 is to view a member's inbox by invoking this option in step 390. From the member's inbox page (step 392), the member may scan messages received at the member's inbox and respond to those messages. Specifically in step 394 the member may view clarifications received from buyers upon request for clarification delivered in step 312 (Fig. 3A). As an alternative, the buyer may reply to a clarification request issued by a prospective bidder, by generating this reply in step 396 and storing the reply in the prospective bidder's inbox in step 398.

Referring now to Fig. 3C-1, the process for asking a question in step 304 can be elaborated. Initiating this process, the buyer clicks on an ask a question option in step 400. In response, a form is presented to the perspective buyer requesting the buyer fill out the specifics of the question including the title, details, picture URL category, price and due date in step 402. The buyer then clicks on the continue button in step 404. Subsequently, a series of tasks are conducted to ensure that the supplied information is valid. These tests include determining that the question title is not null (step 406), determining that the question details are not null (step 408), determining that a category for the question has been selected (step 410), determining that the price has been
identified and is greater than $3.00 and less than a $1,000 (step 412) and determining that the identified due date is after today (step 414). If any of these tests fail, then in step 416 a proper error message is generated and displayed on the question form and the buyer is returned to step 402 to provide new information. If all of these tests are successfully completed, then the question has been successfully submitted and processing continues to step 418 where further specifics regarding the question are obtained. In a first step of this process, the buyer is provided a form to fill out more detailed specifics of the question, such as a sub-category, answer criteria and seller qualifications (step 420). At this point the buyer may wish to go back and edit the question itself, in which case the buyer will click a back button in step 424 and be returned to step 426 in which previously input question details are used to repopulate the form displayed in step 402, and then this form is redisplayed. If the buyer does not wish to go back to edit the question, then in step 426 the buyer clicks a continue button after providing the desired specifics on the question.

After thus submitting the question, in step 428 it is determined whether a sub-category has been selected. If no sub-category has been selected then in step 430 an error message is generated and displayed and then in step 420 the details form is redisplayed so that the user may select a sub-category. If the user has passed the test of 428, then the question has been
successfully submitted and in step 430 the buyer previews the submitted
details on the question on a preview page. If the buyer wishes to edit the
question details the buyer may click on the back button in step 432, in which
case previously provided question details are used in step 434 to repopulate
the form displayed in step 420, and then this form is displayed again in step
420.

If the buyer has approved the question at the preview page in
step 430, the buyer will confirm the buyer's desire to ask this question, and
processing will continue to step 436. In step 436 it is determined whether the
buyer is logged in to the information exchange system. If not, then in step 438
it is determined whether the buyer is registered in the information exchange
system based upon whether the buyer provides a valid member identifier or
alternatively indicates the registration would be needed. If the buyer is already
registered then in step 440 a log-in process is performed to log the member
into the system. If the buyer is not registered with the knowledge exchange
system, then in step 442 a registration process is initiated to cause the buyer to
be registered with the knowledge exchange system.

After step 436, 440 or 442, the buyer will have successfully
logged-in to the knowledge exchange system. At this point in step 444 it is
determined whether the buyer has credit card information saved in the
knowledge exchange system. If not, the buyer is requested to provide a valid

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credit card and this credit card is validated through a banking network in step 446. If the buyer provides or has previously provided a validated credit card number, then after step 444 or 446 the buyer's question is posted by storing an appropriate record in the question table 208.

Referring to now to Fig. 3D, the log-in process referenced above can be explained. This process is initiated whenever a user who has not logged-in to the knowledge exchange system, chooses to perform an action that requires log-in, including requesting to log-in, requesting to view an account, my account page, attempting to post a question, attempting to place a bid on a question, requesting clarification of a question or accessing any other page that an anonymous user is not permitted to view. In the first step 452 the user is requested to provide a user name, i.e. member ID, and a password. Then in step 454 the user clicks the log-in button to request the log-in to the valid exchange system. If in step 456 the provided user and password combination exist within the knowledge exchange system, then the member has successfully logged-in and in step 458 the user is returned to the next step after the log-in was required. If however, an invalid name or password is supplied, then in step 460 an error message is generated and displayed on the log-in form, and the log-in page is redisplayed in step 452.

Referring now to Fig. 3E a registration process referenced in the proceeding discussion can be explained. This process is initiated when the
user in step 460 clicks on a join now or register button on a page requiring registration to continue actions in the knowledge exchange system. In step 462, the user is presented with a registration form requesting various information needed for a member record in table 200. This information includes a first and last name, valid email address, a desired user name and password, a confirmation of the desired password, birth date, a password question and a password answer that can be used to validate the user's identity in the absence of the password, and a member ID for a referring member.

After filling out the registration form in step 462, in step 464 the user clicks on a submit button to submit the identified information for registration. Thereafter, a series of tests are performed to validate the information provided for registration. These steps include determining whether the first name and last name fields are non-null, and that the email address has a top level domain suffix that is valid, i.e. is either .com, .net, .org, .cc, .uk or any of the other valid top level domain names. Further tests include determining whether the user name is null and whether it is at least 4 characters and no more than 12 characters, determining that the password is not null and is at least six characters and no more than 12 characters, determining that the confirmed password and the password are exact matches, determining that the user has supplied a birth date and is eighteen years of age or older, determining whether the user has supplied a password question and determining whether the user
has supplied a password answer. If any of these tests fail, then processing continues to step 484 in which an error message is generated to be displayed on the registration form, and then the registration form is redisplayed in step 462. The final test relates to the existence of an accurate referral. In a first step 488 it is determined whether the user has identified a referrer's member ID. If so then in step 490 it is determined whether the member ID that was provided is valid. If the provided member ID is invalid then processing returns to step 484 generating the appropriate error message. If no referring member ID is provided, or if a valid ID is provided, then the user has successfully registered and in step 492 the user is presented with a successful registration page. Subsequent to this step, an email is automatically sent to the identified email address in step 494 welcoming the user to the knowledge exchange system. At the same time, an email verification process is triggered in step 496. Also, in step 498 the user is returned to the next step after registration is required or requested.

Referring now to Fig. 3F, a process for requesting clarification of a question can be explained in further detail. This process is initiated in step 312 when the user requests clarification on a questions detail page. In step 500 the user is presented a form in which the user outlines a clarification request message to be sent to the buyer who posed the question. In step 502, the user clicks a submit button to submit this clarification request to the
prospective buyer. In step 504 it is determined whether the message on the form is empty. If so, then in step 506, an error message is displayed to the user, and the user is returned into step 400. If the message is not empty, then in step 508 the message is delivered to the perspective buyer's inbox.

Referring now to Fig. 3G, a process for placing a bid can be explained in further detail. This process is initiated in step 314 when the seller clicks a "place a bid" button on a question details page. Initially, in step 510 it is determined whether the prospective seller that wishes to place the bid is currently logged into the knowledge exchange system. If not, if the seller is registered in the knowledge exchange system, the system will initiate the log-in process described above with reference to Fig. 3B in step 514. If the seller is not yet registered, the seller will request registration, initiating the registration process illustrated above with reference to Fig. 3E in step 516. Thereafter, or immediately after step 510 if the seller is already logged in, the seller is presented with a form in which to provide details of the bid. In this form the seller enters a title for the bid, which typically would include a qualifications statement, and a bid price (step 518). After providing this information, in step 520 the user clicks a "place bid" button on the form.

A series of tests are performed upon a suggested bid to determine that it is valid. These tests include whether there is a qualifications statement (step 522), whether there is a bid price, whether the bid price is less
than a $1.000.00, greater than $3.00 or equal to 0 (steps 524, 526 and 528),
and whether the user is placing a bid on the user's own question (step 530). If
any of these tests fail, then in step 532 an appropriate error message is
generated to be displayed on the placed bid form, and the form is redisplayed
in step 518. If the information provided by the prospective seller passes these
tests, then a bid has successfully been submitted then in step 534 the bid is
stored in the bid table 222 (Fig. 2B). It is discussed above, the bid status is
initially set to evaluate a "initial bid" in step 536. At the same time an
automated email is generated and sent to the buyer of the question announcing
that a bid has been placed (step 538).

Referring now to Fig. 3H, the email verification process
discussed above can be elaborated. This process is triggered in step 338 and
step 496 under circumstances that require verification of an email address
provided by a member. In a first step 548 it is determined whether the email
address to be verified has already been verified. This may occur if the
knowledge exchange system requests an email verification under
circumstances where an email address has already been verified. Whether an
email address has been verified can be determined by consulting with the
email verification table 226 illustrated in Fig. 2A, which stores a record for
each unverified email addresses. If the email address in question has already
been verified, then the email verification process is completed in step 542.
because the address has been verified. If, however, the email address has not yet been verified, then a unique identifier for the email address is generated. The identifier, along with the members identifier, and the date and time, are stored in the email verification table 226 of Fig. 2A for use by the acknowledgment process. Subsequently in step 546, a verification email with a link to an email verification page, is sent to the email address. Subsequently in step 548, the message is posted in the user's inbox indicating that an email address verification request has been sent.

Once an email verification has been requested, the user receiving the verification email transmitted in step 546 may use the link in that mail to return to a email verification page. Referring to Fig. 3I, once the user takes the step 550, the unique identifier in the email address being verified are returned to the knowledge exchange system. Thereafter in step 552 it is determined whether the email address and unique ID are in the list of verification requests stored in table 226. If not then the verification has failed and the appropriate message is delivered to the user in step 554. Alternatively, if the email address and unique ID are in the table 226, and in step 556 the user is asked to log-in, and after the user has logged-in, the email address is considered verified. The date on which it was verified is recorded and applicable requests are removed from the verification requests list. A confirmation page is displayed in step 558.
Referring now to Fig. 3J, the buyer negotiation process is performed when the buyer identifies the bid that they wish to negotiate in step 356. Once identifying a bid to negotiate, in step 560 the buyer is presented with a form in which the buyer provides negotiation details, specifically a new suggested price and a reason for the new suggested price. To submit this information, the buyer clicks a "submit" button in step 562. In step 564 it is determined whether the new price is not null greater or equal to $3.00 and less than a $1,000.00. If any of these tests fails, then in step 566 an appropriate error message is directed to the buyer and the buyer returns to step 560 to fill out new negotiation details. If the buyer does not provide a reason in step 568, the buyer is also directed to step 566 where an error message is displayed. If the buyer has accurately submitted negotiations, then in step 570 the buyer's offer for negotiation is stored and thereby delivered to the seller. At the same time an automated e-mail is delivered to the seller announcing the offer for negotiation, and in step 574 the bid status for the bid is set to "negotiate" as discussed above.

Referring now to Fig. 3K, the seller's negotiation process can be further explained. This process is initiated in step 374 when the seller receives an offer for negotiation from a buyer and chooses to continue with negotiation. In the first step 580 the seller is presented with a form in which the seller may provide details on the negotiation. These details include a
suggested new price, and a reason justifying this new price. If the seller wishes to withdraw the bid then in step 582 the user will select an option to withdraw the bid in which case the seller is directed to a response page confirming withdraw of the bid, and in step 584 the bid status value for the bid is converted to "bid withdrawn", as described above. If the seller doesn't wish to withdraw the bid, in step 586 the seller may choose to accept the buyer's suggested term or choose to renegotiate. In another case, a sequence of tests are performed to verify that the accepted or proposed renegotiated bid is valid. In step 588 it is determined that the new bid price is not null or greater than $1,000.00. In step 590 it is determined that the new bid price is greater than or equal to $3.00 or equal to $0.00 (step 592). And in step 594 it is verified that the reason for the bid is not null. If any of these tests fails, then in step 596 an appropriate error message is generated and the seller is returned to step 580 to fill out additional negotiation details. If all of the tests of steps 588-594 are successfully passed, then the revised bid is submitted for the buyer's review in step 596. The bid status is set to a value of "revised bid" in step 598, then the automated email is set to the buyer in step 600.

Referring now to Fig. 4A, the batch process for generating warnings regarding unread answers can be described. In step 610, this batch process is initiated. This step is taken each day, and identifies every question having bids, where the bid status on a bid is "answer delivered", and it has
been more but less than seven days since the answer has been delivered. For each of these questions, in step 612 an automated email is delivered to the buyer requesting that the buyer view and rate the answer provided. In step 614 it is determined whether all bids have been processed, and if not, then for the next bid, another automated email is generated in step 612. After all bids have been processed, the log is generated and e-mailed to an administrator of the knowledge exchange system in step 616.

Referring to Fig. 4B, a similar batch process is performed for answers that have not been read in seven days. Each day, in step 620, this batch process initiates, by identifying all questions that have had an answer delivered for seven days. For each of these questions, in step 622, the seller is provided with no rating received and the buyer is credited with a no pay rating for the bid, and the bid status is changed to a value of "declined." After these steps, an email notification is sent in step 624 informing the seller that the answer is declined. In step 626, it is determined whether all bids in this status have been processed and if not, additional bids are processed in steps 622 and 624. After all bids have been processed, a log of the processed bids is supplied to the knowledge exchange administrator in step 628.

Referring now to Fig. 4C, the batch process is also performed with respect to answers that have been delivered but have not been rated. In step 630, this batch process is initiated by identifying all answers that have a
status of "under review" and which have had this status for at least three and less than seven days. For each of these bids, in step 632, an automated email is sent reminding the buyer to rate the answer provided and warning that the credit card charge will be made if no rating is provided by the end of the seven-day period. Thereafter, in step 634 it is determined whether all bids have been processed and if not, then processing returns to step 632 to send additional e-mails for other bids in the same status. After all bids have been processed in step 636, a log of bids processed in this manner is sent to the administrator of the knowledge exchange system.

Referring now to Fig. 4D, a similar batch process is performed for questions that have been answered but the answers have not been rated for at least seven days. In the first step 640, those questions which have had a status of "under review" for at least seven days are identified. Then, for each bid in step 642 the buyer's account balance or credit card are charged for the value of the bid. In step 644, it is determined whether sufficient funds were found in the account balance of the buyer or the credit card charge transaction succeeded. If a credit card transaction cannot be consummated, and insufficient funds were available in the buyer's account, then in step 646, a seller rating of no rating received is applied to the bid, and the bid status is changed to a value which externally appears as "declined" and internally appears as "NSF". The buyer is also credited with a no-pay and the failure of
the transaction is logged. An email notification is then sent to the seller in step 638 indicating that the seller's answer was declined. If there are sufficient funds in the buyer's account or a successful credit card transaction has been consummated, then in step 650 seller is provided with no rating for the answer, but in step 652 the bid status value for the bid is changed to "purchased." In step 654 an email notification is sent to the seller announcing that the seller's answer was purchased. After the foregoing steps, in step 656, it is determined whether all bids have been processed, and if not, processing returns to step 642 to process another bid identified in step 640. After all bids have been processed, in step 658 a log of all processed bids is provided to the administrator of the knowledge exchange system.

Referring to Fig. 5A, the monthly batch process for paying earnings to participants in the knowledge exchange system can be described. In Fig. 5A a process is performed to attempt to verify email addresses for those members whose email addresses have as yet not been verified. In step 660, a list is generated of all members who have earnings greater than or equal to $25, subtracting any pending questions that will deplete these earnings and whose email addresses have not been verified. In step 662, a notice is posted in the inbox for each of these members that they have not been paid because their email address has not yet been verified.
Referring to Fig. 5B, the process for providing payments to those users that have verified email addresses can be explained. In step 664 a list is collected of all users who have earnings greater than or equal to $25 subtracting the cost of any pending questions, and whose email addresses have been verified. In step 666, if a user's accumulated earnings is greater than or equal to a predetermined value, such as $600, then the user is skipped during this batch process. If the user's accumulated earnings are less than $600, then the funds in the user's account are withdrawn and a payout transaction is generated to be sent to a payment service, such as the Internet payment service paypal.com (Step 668). Thereafter, in step 670, a report is generated to show the amounts paid and the total number of users paid.

Users who have an accumulated earnings greater than or equal to $600 in step 666 are paid separately to subdivide those members from other members receiving relatively small amounts of earnings. These members may be paid through electronic funds transfer, checks, or other conventional payment means.

Referring now to Fig. 5C, the process attempting email verification of those users who do not have a verified email address can be explained. Specifically, in step 672, a list is generated of those users that have earnings greater than or equal to $25 subtracting any pending questions that do not have a currently verified email address. For each of these members, in
step 674, the email verification process of Fig. 3H is performed. At the same time, in step 676, a reminder is posted in the member's inbox.

Referring now to Fig. 6, a batch process for alerting members of questions of interest can be described. In this process in step 680, all members that have requested notifications are evaluated to determine whether there are any new questions of interest to those members. In step 682, it is determined whether new questions have been posted within the identified notification frequency, and if so, in step 684, the posted questions are evaluated to determine if any are in the categories identified of interest by any of the members. If the conditions in step 682 and 684 are satisfied, then in step 686 an email is sent to the user notifying the user that there are new questions of interest. In step 688, it is determined whether all users have been processed, and if not, processing returns to step 682 to process another user. After all users have been processed, in step 690, a log of all activities is provided to the administrator of the knowledge exchange system.

While the present invention has been illustrated by a description of various embodiments, and while these embodiments have been described in considerable detail, it is not the intention of the applicants to restrict or in any way limit the scope of the appended claims to such detail. Additional advantages and modifications will readily appear to those skilled in the art. The invention in its broader aspects is therefore not limited to the
specific details, representative apparatus and method, and illustrative example shown and described. Accordingly, departures may be made from such details without departing from the spirit or scope of applicant's general inventive concept.

What is claimed is:
Claims

1. A method for conducting an information bidding session, comprising:

   receiving a request for information at a controller;

   communicating said request to a plurality of information providers;

   receiving a response from one said information provider at said central controller. said response comprising an offer to provide the requested information upon acceptance of said offer.

2. The method of claim 1 wherein said communicating is by means of one or more of Internet, wireless, postal, and telephone communication media.

3. The method of claim 1, further comprising communicating said response from the central controller to a requestor.

4. The method of claim 3 wherein said communicating is by means of one or more of Internet, wireless, postal, and telephone communication media.
5. The method of claim 1, wherein said response includes a bid for providing the requested information.

6. The method of claim 1 further comprising a plurality of controllers, one or more of said controllers receiving said response.

7. The method of claim 1, further comprising registering financial and contact information of the requestor and the information provider.

8. The method of claim 7, wherein said registering includes assigning unique identifiers to the requestor and the information provider.

9. The method of claim 1, further comprising assigning distinct tracking numbers to the request and to the response.

10. The method of claim 1, further comprising creating and maintaining evaluative data relating to requests.
11. The method of claim 10, wherein said evaluative data reflects one or more of requested compensation, qualifications, promptness, accuracy, requestor satisfaction and requestor creditworthiness.

12. The method of claim 10, further comprising the requestor submitting evaluative data to the central controller.

13. The method of claim 10, further comprising communicating said evaluative data to the requestor.

14. The method of claim 10 wherein said controller creates said evaluative data.

15. The method of claim 1, further comprising creating and maintaining ratings data particular to a requestor.

16. The method of claim 15, wherein said ratings data includes the requestor's file history of requested information categories, percentages of bid price paid and promptness of payment.
17. The method of claim 1, further comprising creating and maintaining ratings data particular to a request.

18. The method of claim 1, further comprising creating and maintaining ratings data particular to a response to a request.

19. The method of claim 1, further comprising creating and maintaining ratings data particular to an information provider.

20. The method of claim 1, including the information provider submitting ratings data to the central controller.

21. The method of claim 20, further comprising communicating said ratings data to the information provider.

22. The method of claim 1, further comprising automatically notifying a potential information provider of a request.

23. The method of claim 22, wherein said potential information provider is notified of requests associated with a particular category.
24. The method of claim 23, wherein said potential information provider is notified of requests associated with a particular key word.

25. The method of claim 22 wherein said potential information provider is notified of requests based upon comparison of said request to a profile of said information provider.

26. The method of claim 25 wherein said profile comprises one or more of demographic information, prior information provided or requests made by the information provider, and ratings of prior information provided by the information provider.

27. The method of claim 22 wherein said potential information provider is notified of requests based upon comparison of a profile of said information provider and a profile of a requestor generating said request.

28. The method of claim 27 wherein said profiles comprise one or more of demographic information, prior information provided or requests made by the information provider, ratings of prior information provided by the information provider, and satisfaction of a requestor and creditworthiness of a requestor.
29. The method of claim 22, wherein said potential information provider is notified of requests associated with a particular key word.

30. The method of claim 1 applied to accumulating a database of information, further comprising accumulating one or more of demographic information on requestors and information providers, and requests and responses provided thereby.

31. The method of claim 1 applied to advertising to users, further comprising displaying advertisements to said users as part of interacting with the controller.

32. The method of claim 31 wherein advertisements are selected based upon interactions of the user with the controller.

33. The method of claim 1 further comprising selecting an information provider to whom said request is to be communicated based upon one or more of: geographic location, affiliations with an organization, security clearance, or ratings of prior information provided.
34. The method of claim 1 wherein said method utilizes a synchronous communication media for one or more of receiving said request, communicating said request, or receiving said response.

35. The method of claim 1 wherein said method utilizes an asynchronous communication media for one or more of receiving said request, communicating said request, or receiving said response.

36. A network for conducting an online bidding session, comprising

a central controller operable to receive a request for information and a bid:

a computer operable to send a request for information said central controller;

a plurality of computers operable to send a bid in response to said request to said central controller.

communication lines operable to connect the central controller to the computers.
START

BUYERS CLICKS ON: "ASK QUESTION"

PREVIOUSLY INPUTTED QUESTION DETAILS REPOPULATE FORM FIELDS

BUYER FILLS OUT THE SPECIFICS TO THEIR QUESTIONS:
- QUESTION TITLE
- QUESTION DETAILS
-_PICTURE URL
-CATEGORY
-PRICE
-DUE DATE

BUYER CLICKS THE: "CONTINUE BUTTON"

PROPER ERROR MESSAGES ARE GENERATED TO BE DISPLAYED ON QUESTION FORM

IS "QUESTION TITLE" = NULL?

IS "QUESTION DETAILS" = NULL?

HAS A "CATEGORY" BEEN SELECTED?

IS "PRICE" <> NULL AND >= $3 AND <= $1000?

IS "DUE DATE" >= TODAY?

SUCCESSFUL SUBMISSION TO SECOND STEP OF ASKED A QUESTION PROCESS

FIG. 3C-1
FIG. 3C-3

Successful submission of registration form - Response page

FIG. 4A
**Start** (450)

Non-Logged-in user chooses to perform an action that requires login:
- Clicks Login button
- Clicks MyAccount
- Tries to post a question
- Tries to place a bid on an existing question
- Tries to request clarification on an existing question
- Tries to access any other page that an anonymous user is not allowed to view

User inputs information on Login page:
- Username
- Password

User clicks the Login button

Does the Username and Password combination submitted exist?
- Yes (456) → User is returned to next step after login required
- No (456) → Proper error messages are generated and displayed on Login Form

Successful Login

FIG. 3D

SUBSTITUTE SHEET (RULE 26)
Start

User clicks "Join Now" or "Register" from FormsLogin.asp

User fills out the Registration form
- First Name
- Last Name
- Email Address
- Username
- Password
- Confirm Password
- Birthday
- Password Question
- Password Answer
- Member ID of Referrer

Proper error messages are generated to be displayed on Registration Form

User clicks "Submit" button

A

1. Is "First Name" = NULL?
   - NO
   - YES

2. Is "Last Name" = NULL?
   - NO
   - YES

3. Is "Email Address" <> NULL AND contains '@' AND has proper '.xxx' suffix?
   - NO
   - YES

4. Is "Username" <> NULL AND > 4 chars AND < 12 chars AND does not exist?
   - NO
   - YES

B

FIG. 3E-1

SUBSTITUTE SHEET (RULE 26)
FIG. 3F

START

USER CLICK "REQUEST CLARIFICATION" ON QUESTION DETAILS PAGE

USER OUTLINES THEIR MESSAGE TO BE SENT TO BUYER

USER CLICKS THE "SUBMIT" BUTTON

ERROR MESSAGE DISPLAYED TO THE USER

IS "MESSAGE"=NULL?

MESSAGE SENT TO BUYER'S INBOX

FIG. 3I

USER CLICK ON SECURE LINK TO ENTER 'VERIFY EMAIL ADDRESS' PAGE, PASSING UNIQUE ID AND EMAIL ADDRESS

IS THIS EMAIL ADDRESS AND CORRESPONDING UNIQUE ID IN THE LIST OF VERIFICATION REQUESTS?

END PROCESS - MESSAGE TO USER

HAVE USER LOGING

RECORD DATE THAT EMAIL WAS VERIFIED IN P&M

REMOVE APPLICABLE REQUESTS FROM THE VERIFICATION REQUEST'S LIST

DISPLAY A 'CONFIRMATION PAGE'

END

SUBSTITUTE SHEET (RULE 26)
FIG. 3G
The process is triggered by some event.

Has the email address been verified?

- YES: Return "VERIFIED"
- NO: Generate a unique ID for this email address. Store the ID, the member's ID, and the date/time for use by the acknowledgement process.

Send Verification Email with link to 'verify email address process', link should pass unique ID and email address.

Post message to user's inbox. Return "REQUESTSENT".

Collect a list of all users who have earnings >= $25 - Subtracting any pending questions - and whose email address has not been verified.

Run Email Verification Process.

Post reminder message in member's inbox.

FIG. 3H

FIG. 5C
Start

Buyer selects the bid they wish to negotiate by clicking its respective radio button

Buyer clicks "Negotiate" button

Buyer directed to Negotiate.asp to fill out negotiation details:
- Price
- Reason

Proper error messages are generated to be displayed on Negotiation form

Buyer clicks "Submit" button

Buyer's offer for negotiation successfully submitted to Seller

Automated Email sent to seller announcing offer for negotiation

FIG. 3J
Start

Seller sees offer for negotiation from Buyer on MyAnswers.asp

Seller sees offer for negotiation from Buyer on MyAnswers.asp

Does seller wish to withdraw the bid?

Bid Withdrawn - Seller directed to Response Page

Bid Status = "Bid Withdrawn"

Seller clicks "I Accept" button OR Seller clicks "Re-Negotiate" button

Does "New Bid Price" = NULL OR > $1000?

Is "Bid Price" = $0?

Is "Reason" = NULL?

Is "New Bid Price" < $3?

Proper error messages are generated to be displayed on Negotiation Form

Bid Status = "Revised Bid"

Seller's revised bid is successfully submitted for the Buyer's Review

Automated email is sent to Buyer announcing the revised bid

FIG. 3K
Batch Process - Loop through questions with bids where Bid status = "Answer Delivered" and (Current Date - Due Date) => 7

Seller Rating = "No Rating Received"
Buyer Credited with a "No Pay"
Bid Status = "Declined"

Email notification sent to seller announcing answer "Declined"

All Bids Processed?

YES
Email log to KnowToday Admin

NO
Continue with next Bid

FIG. 4B

Batch Process - Loop through questions with bids where Bid status = "Answer Delivered" and (Current Date - Due Date) => 7

Email notification sent to seller announcing answer "Declined"

All Bids Processed?

YES
Email log to KnowToday Admin

NO
Continue with next Bid

FIG. 4C

SUBSTITUTE SHEET (RULE 26)
Batch Process - Loop through questions with bids where Bid status = "Under review" and (Current Date - Status Effective Date) >= 7

Charge Buyer's MyAccount or Credit Card

MyAccount funds = NSF AND Credit Card transaction fail?

Seller Rating = "No Rating Received"
Bid Status = "NSF"
Buyer Credited with "No-Pay"
Failure is logged

Email notification sent to seller announcing answer "Declined"

Continue with Next Bid

All Bids Processed?

Seller Rating = "No Rating Received"
Bid Status = "Purchased"

Email notification sent to seller announcing answer "Purchased"

FIG. 4D
Collect a list of all users who have earnings $\geq$ $25 - Subtracting out any pending questions - and whose email address has not been verified

Post notice in the members Inbox that an attempt was made to pay them but was unsuccessful because their email had not been verified

FIG. 5A

Collect a list of all users who have earnings $\geq$ $25 - Subtracting out any pending questions - and whose email address has been verified

Is User's accumulated earnings $\geq$ $600$

Next User

Withdraw funds from User's MyAccount and show a balance of zero. Write 'Pay-out' transaction row, do not delete/modify any existing rows.

Write user information to a "TOBEPAY" file to be sent to PayPal

This process may be subdivided again depending on how these members are handled

Generate report to show aggregate data - total amount to be paid, total number of users

FIG. 5B
Batch Process -
Loop through all users
that have a question
notification frequency that
is not equal to "No Alerts
Please"

Have there been
new questions
posted within the frequency
selected (every day,
3 days, or week)?

Are the questions
that have been posted listed in
categories selected by the user?

Send email to user
announcing the new
questions

Have all the
users been
processed?

Email log to
KnowToday Admin

NO
Continue with next user

NO
Continue with next user

FIG. 6