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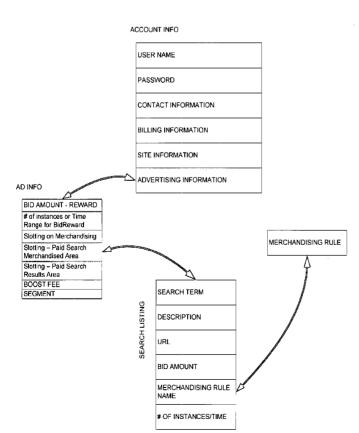
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(54) Title: METHOD AND APPARATUS FOR INTERNET SITE SEARCHING AND RANKING LISTINGS BASED ON AUCTION OF INCENTIVE REWARDS



(57) Abstract: The present invention provides a method and system for Internet auction handling in which Web site owners can determine for themselves the rankings that their information or services should receive in competition with others based on the rewards the site is willing to pay on commission-based sales, as well as readily upgrade or downgrade their rankings based upon their assessment of market factors on an on-going basis. In one aspect, a listing server, a bid management program including an operator account interface, and a search program together provide allow for generation to a particular user a search report of listings relevant to a search inquiry from the user in which the listings are ranked at least in part according to the denominated values associated with the listings.

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1	METHOD AND APPARATUS FOR INTERNET SITE SEARCHING AND
2	RANKING LISTINGS BASED ON AUCTION OF INCENTIVE REWARDS
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4	CROSS REFERENCE TO RELATED APPLICATIONS
5	This application claims benefit of U.S. Provisional Patent Application Serial No.
6	60/824,406 filed September 1, 2006.
7	BACKGROUND
8	Since 1995, the growth of the Internet has connected users with an overabundance of
9	sites on the network having information content identified primarily through a system of page
10	addressing using Universal Resource Locators (URLs), known as the World Wide Web
11	(WWW).
12	The number of pages and sites has grown and search services have arisen as one of
13	the main means to finding information, content, products, and services among the millions of
14	sites on the Web by the hundreds of millions of users on the Web.
15	The large number of Web sites compete for attention of the user through the online
16	means of communication. Banner advertisements, paid listings in articles, distributed video
17	and audio, syndicated content, cooperative marketing, auctions, and search services are
18	among many of the methods used today to promote Web sites that exist.
19	Online merchant sellers currently engage in a commission-based-sales arrangement
20	for a fixed fee set at the time of engagement with affiliate Web sites. The fixed fee is
21	typically a commission set as a percentage of the total sale made by a consumer. The
22	consumer is referred from the affiliate Web site to the online merchant seller's Web site. The
23	referrer (the affiliate Web site) is, in effect, acting as a sales agent on behalf of the online
24	merchant seller.
25	In addition to online merchant sellers there are many search Web sites. Index search
26	services have expanded from over a dozen in 1995 to over 700 in 2006. Each compete for the
27	attention of the user and each employs different means of listing and prioritizing the content
28	in their respective databases, that is, the listings of the Web sites in competition for the

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attention of the user. The methods to search for content and the methods for listing the sites and information in their databases can be very different from one search site to another.

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Some services use words embedded in a Web page such as the "title" and "description" and "keyword" Meta tags and assign a high importance in finding and presenting a match. Other search services may ignore Meta tags and focus on the linking of one Web page to another on the Web itself. And still others will use one or two pages of text to rank the content based on the presence of specific words that appear in the written text.

A relevancy ranking may be quantified by some services. Each relevancy ranking uses different means to define the potential success for finding a user's search defined by a combination of rankings of Meta tag information with other listings criteria, such as paying for site ranking that is perceived as higher relevancy. The relevancy ranking provides the user with a scale of relative measurement for success to searching among several million pages. However, the competition for site attention is not diminished. In fact, it may be exacerbated by paid rankings without context to how or why a site has been presented higher in the rankings. An example of a system for assigning a higher relevancy results is described in U.S. Pat. No. 6,078,866 in the name of Buck, Melcher, et al., assigned to SearchUP, Inc., Honolulu, HI.

In contrast to index search services, category or directory search services group Web site content into specific categories. Instead of typing in keywords to locate specific information, product, or service, the user selects a category of interest from a list. As the user clicks through, more granular levels of subcategories may be assigned. The definitions of categories and subcategories are chosen by each search service and may be arbitrary. The category search service collects information on site listings, which is reviewed and placed into the appropriate categories.

An advertising in this new mass media model has been a mechanism by which attention gained by a consumer to an advertiser. Advertisers "sponsor" content by paying the mass media to deliver their advertisements with the content of the search sites. Traditionally, advertisers often want their advertisements embedded within the content itself so the advertisements are more certain to reach the mass media audience. But as noted in the relevancy ranking of index search model of paid listings the valuable attention of the

1 consumer is still split among many site or product listings. These Web site owners or online

2 merchant sellers have been diligent in valuing their products, the content in which they

3 appear, the site on which they appear.

The search service is paid handsomely for this value. But the consumer does not share in this value payment. The consumer loses on this payment. In reality the advertising practices described above have a number of drawbacks, both for the advertiser and for the individual. The primary drawback for the advertiser is lack of recognition of this value for towards the consumer. Goldhaber, Fitts, et. al., identify this conundrum and describe it in U.S. Pat. No. 5,855,008 assigned to Cybergold, Corporation, Berkeley, CA.

Some advertisers mail direct payments to consumers (e.g., dollar bills, checks, or other rebates). The consumer can use these direct payments to help pay for purchasing the advertiser's goods, or to purchase other related or unrelated goods or services. Advertisers also have used techniques for giving consumers an incentive (e.g., discounted offers) to encourage consumers to purchase products and services. For example, many online referral sites or portals today pay a commission back to the consumer for completing purchase activity at online merchant sellers partnered with the referral site. The online referral site is in effect a commission-based sales agent acting in partnership with the online merchant.

In comparison, Google currently auctions slotting spaces – by using a combination of 1. The max cost-per-click (CPC) an online seller or information provider sets in the system, and 2. The click through rate on the ad. These two factors determine where the ad will rank on the page. Overture, in contrast, employs a system of ranking of ads based solely on how much the online seller or information provider pays for each click.

In Google's ad auction scheme it is impossible to determine exactly how much competitors are bidding. A possibility exists for another bidder to be paying a lower CPC and still appear higher than your ad on the page if the other bidder's ad has a high click through rate. In theory this improves the user experience by giving maximum exposure to the most relevant ads (the ones with the highest click-thru). But it does not address the fundamental issue of identifying a value for the user's attention and a law of diminishing returns may occur.

In addition to auctions for slotting spaced, auctions are used online in many different manners and there are many different auction formats including the familiar ascending bid, as well as, and including the descending, sealed-bid (aka blind), simultaneous, handshake, and whispered forms of bidding.

In addition, there are also Web sites that address the attention-value of consumers by setting up a rebate or cash-back purchase method. These Web sites, however, can experience diminishing returns when an online merchant seller operates in a commission-based environment and that environment is independent of a network of systems to promote all sales efforts as valuable, in aggregate.

The present invention attempts to integrate sales efforts in the context of a rebate or cash-back purchase method, as will be explained further herein, to give the consumer a unified approach to promoting all non-fiat reward values and for all merchants on a server operator's network to yield greater returns.

SUMMARY OF THE INVENTION

It is therefore a principal object of the present invention to devise a method and system for Internet auction handling in which Web site owners can determine for themselves the rankings that their information or services should receive in competition with others based on the rewards the site is willing to pay on commission-based sales. It is a further object that the Web site owners be able to readily upgrade or downgrade their rankings based upon their assessment of market factors on an on-going basis. It is also desirable that this system be readily implemented at manageable cost and readily understood by users without having to accept a new search method or unfamiliar change of search techniques.

In accordance with the present invention, a method and system of auction bidding and for a network site searching and listing comprises a listing server connected to a network accessible by a number of users, having a site listings database containing a number of site listings, each of which is provided by a site listing information provider and may include a site listing title or description of the respective site, a network address at which the site can be accessed on the network, and a denominated value to be paid for commission-based sales by the online Web site associated with the site listing while it is maintained on the listing server, wherein said listing server provides a search report of listings relevant to a search inquiry

from a user in which the listings can be ranked in order according to the denominated values associated with the listings.

In the preferred embodiment, operators pay a monetary percentage amount of their own choosing as a means to compensate the server operator for listing the online merchant site. The higher the percentage paid for a given subscription period in relation to other listers, the higher the site's ranking on the search service's reports. Merchant sellers or entities engaged in promoting a good or service using an a client-server computer based service can monitor the ranking of their listings in relation to others, and can modify their rankings by raising or lowering their subscription fees, through a subscription monitoring interface provided with the listing server. Changes to the percentage commission, and consequently to the rankings, may be handled by the listing service at defined adjustment intervals, such as daily, weekly, monthly, etc. The denominated value may be based upon a monetary value, or a credit, or point system, depending upon the type of operator base being solicited by the listing service.

The denominated-value approach to rankings may also be used in conjunction with the index search method or the category search method. In the first case, an index search of the listing service's database is performed using keywords, and the resulting listings found can be ranked according to their percentage commission values. In the second case, the operators' listings are assigned to appropriate categories, and when the consumer inputs a selection of categories of interest, the resulting listings found can be ranked according to their percentage commission values.

The denominated-value listing server's database may also be linked to other search services, and the denominated-values or rankings of the listings can be converted into other relevancy rankings used by the other search services simply by computing a numerical equivalent of the denominated-value ranking, or a ratio of the percentage commission values paid for a listing in relation to a benchmark value for all related listings, such as a highest commission paid, a normalized average of commission paid, a weighted composite of commissions paid, etc.

Other search methods may include general search methods such as Generate and Test search, Means-End Analysis search, Bidirectional search, Iterative Deepening search; Brute-

1 Force, also known as Blind Search Methods including: Breadth-First search, Depth-First 2 search, Iterative Broadening search; Heuristic Search methods; Adversarial Search including: 3 Minimax search, Alpha-Beta Pruning search; Constraint-Satisfaction Problems such as 4 Island-Driven search; or new search methods such as semantic driven search results, tagging, 5 taxonomy-driven classification. 6 The present invention allows an individual to create a listings management account 7 through the listing service's monitoring interface for one or more Web site submissions. The operator enters detailed information for each Web site submission in each appropriate 8 9 category. While the operator pays for or renews their subscription service on a periodic basis, 10 the account management interface allows the operator to constantly monitor, update, and/or 11 reposition their listing, depending upon the economic factors that justify their advertisement 12 costs for the Web site. The online merchant seller operator thus has the opportunity to determine in 13 14 competitive monetary terms where the site appears in the search results. This invention allows the operator control over relevancy ranking. The ability modify the search rankings by 15 16 increasing the bid on percentage commission value provides the online merchant seller with a 17 more rational and responsive service than exists currently. 18 SUMMARY OF THE DRAWINGS Fig. 1 illustrates the bidreward management tool interface according to the present 19 20 invention; and 21 Fig. 2 illustrates the various steps for bidding in a loyalty incentives program. 22 Figure 3 is a presentation of screen UI based on functions selected. 23 Figure 4 illustrates a sample UI screen flow. 24 Figure 5 illustrates a main screen with options to select functions.

Figure 6 illustrates a list of categories with bids made by merchant seller.

Figure 7 illustrates merchant seller's and all sellers' bid in one category.

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Figure 8 illustrates merchant seller's bid on specific category (with bid formula calculator).

Figure 9 illustrates merchant seller's search-term (keyword) list with respective bid.

Figure 10 illustrates merchant seller's bid on keyword (and relationship mapping to category).

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS OF THE

7 INVENTION

The present invention provides a system and method for enabling a network information provider using a computer network such as the Internet to influence a position for a search listing within a search result list generated by a computer server based on an auction bid for rewarding consumers and a server provider. The system and method maintains a listing database containing accounts for each information provider. Each account contains at least three components including a site listing, a network address at which the site can be accessed, and the bid for rewards denominated value to be paid by an information provider to the server provider and the consumer for the business valuing a consumer's purchase or advertising related activity (which is also referred to herein as the denominated reward value auction bid, the denominated reward value, the denominated commission value or the denominated value, and variants thereof).

. The system and method of the present invention can be used to provide a prioritized search ranking based on denominated value payment to the server provider. The bid for rewards denominated value payment may be used directly or indirectly to compensate the consumers engaged in purchase of goods or services through the information provider's network or may be used for other purposes. The network information provider influences the position for display in search results by first establishing an account with the server provider. The network information provider influences the position of display for goods, services or the link to the information provider's server by a continuous online competitive bidding process of denominated value. The bidding process occurs when the network information provider enters a new bid amount, which can be a commission on a purchase by a consumer that has been facilitated by the server provider. The system and method of the present invention then compares this bid amount with all other bid amounts within a classification of accounts in the

database, and generates a rank value for all search activity having that information provider's 1 2 goods, services or server address contained in a search results set. The rank value may be set 3 by the bid for rewards denominated value, the paid search term value, the length of time for a paid advertisement on a server provider's system or systems, a paid advertising promotion on 4 5 a server provider's system or systems, the specific day and time a paid promotion appears, a paid promotion to a selected group of consumers or a combination of these factors and other 6 7 factors. The higher the amount paid for a given paid promotion in a period in relation to 8 other information providers, and the higher the bid for reward denominated value for a 9 consumer purchase, the higher the site's ranking on the server provider's reports, such as 10 search reports, may appear. The denominated-values approach to rankings may be used in 11 conjunction with a category search method or an indexed keyword search method. The 12 denominated-values database may also be linked to other search services, and the denominated-values rankings of the listings can be converted into a relevancy measures used 13 14 by the other systems. The auction is useful in the rewards environment for buying/selling a 15 commodity, that is, the commission-based sale, of undetermined quality. In one aspect, 16 rewards as described herein offer the ability to value a commission on a purchase that are not 17 otherwise available through fixed commission. They are useful in circumstances wherein the goods do not have a fixed or determined market value, in other words, when a seller is unsure 18 19 of the price he can get. Choosing to sell an item by auctioning it off is more flexible than 20 setting a fixed price and less time-consuming and expensive than negotiating a price (such as 21 happens in a car lot). In a price negotiation, each bid and counter-bid is considered separately, 22 but in an auction the competing bids are offered almost simultaneously.

Methods and systems for generating an auction bid on the commission-based sales determined by a site promoter, such as an online merchant seller, over a client/server based computer network system are thus disclosed herein. The following description is presented to enable any person skilled in the art to make and use the invention. For purposes of explanation, specific nomenclature is set forth to provide a thorough understanding of the present invention. Descriptions of specific applications are provided only as examples. Various modifications to the preferred embodiments will be readily apparent to those skilled in the art, and the general principles defined herein may be applied to other embodiments and applications without departing from the spirit and scope of the invention. Thus, the present

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invention is not intended to be limited to the embodiments shown, but is to be accorded the widest scope consistent with the principles and features disclosed herein.

The Internet is depicted as an infinite universe populated by users and information content connected by computers, networks, servers, and data lines. Information content can reside as a file or host of files anywhere on any computer. Users are connected by the Internet, often referred to as "the network of networks", for access to information content. The system for addressing content on the Internet employs Universal Resource Locators (URLs), which are numerical addresses for information content sites on computers on the Internet. The totality of URL-addressable space is often referred to as the World Wide Web, or "the Web" colloquially.

To keep track of the high number of information and content sites, search services assemble databases of descriptive listings for the sites. As previously mentioned, the two general types of search methodologies that have evolved are the index search, which automatically searches out content within a defined environment and indexes that content according to certain targeted keywords and other factors, and the category search, in which site listing submissions are reviewed and assigned to selected categories. By entering one or more keywords with or without Boolean operators, a user A can query an index search service, and receives targeted listings in a search report. The search report may rate the listings by a relevancy ranking, computed on the basis of certain relevancy factors selected by the search service, including, but not limited to, the value of an operator's denominated auction bid.

Alternatively, a user *B* can query a category search service by categories, and receive listings of sites assigned to those categories. The index and category methods may be combined.

In the present invention, a denominated-auction-value bid search service provides a report in response to user query in which the listings may be ranked by reward value as paid by the listing operator. The denominated-auction-value bid ranking may be preceded by an index search and/or a category search to locate a subset of targeted or categorized listings. Thus, according to the system, there can be provided searching of the web site listing descriptions according to search parameters provided in a search inquiry from one of the

l plurality of users to obtain search results, and the display rank is obtained from a combination

- 2 of the search results and the associated denominated reward value auction bids. This
- 3 combination can be determined based upon a predetermined algorithm that weights
- 4 importance of the search results relative to the associated denominated reward value auction
- 5 bids.

The index or category search is performed on the denominated-auction-value bid service's database of listings. Each listing includes a title or description of the content of the respective Web site, a network address at which the site can be accessed on the network, and a denominated-auction-value bid commission to be paid by the operator associated with the Web site listing while the bid is maintained on the listing server.

As described further below, the denominated-auction-value bid search report may also be provided to other search services and converted to their rating systems for inclusion in their search reports. These other search services may have methods that include general search methods such as Generate and Test search, Means-End Analysis search, Bidirectional search, Iterative Deepening search; Brute-Force, also known as Blind Search Methods including: Breadth-First search, Depth-First search, Iterative Broadening search; Heuristic Search methods; Adversarial Search including: Minimax search, Alpha-Beta Pruning search; Constraint-Satisfaction Problems such as Island-Driven search; or new search methods such as semantic driven search results, tagging, taxonomy-driven classification.

There are two primary levels of function handled by the denominated-auction-value bid search service in accordance with the invention: the retrieval of information for users, and the management of Web site listings for operators. For the retrieval of information, the service can offer index and category search options.

The index type of search begins with the entry of keywords. The keywords are searched in the database with the results either being positive or negative. Positive results may be sorted and displayed by denominated value (dollar amount commissions paid). The results are displayed, with a display of the keyword or Boolean search syntax, the denominated-auction-value bid may be ordered from highest to lowest, the Web site titles (which may also be the hyperlinks to the sites), the site descriptions, and the URLs and category locations. Negative query results displays an indicator message that shows the state

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of the search (for example, your search query returned no results). If the user selects a site

- 2 listed, the user is transferred to the web site location. If there are no results of interest, the
- 3 user may be presented with alternatives that are closely relevant utilizing merchandising
- 4 rules, server operator function that describes to the server various methods to choose semi-
- 5 randomly among a set of products or merchants; or present no results at all.

6 The retrieval by category search begins with a main category menu, and user input to 7 select a category (master category) from the menu. Input to a subcategory (category) menu 8 results in the subcategory list of listings being displayed. The display includes the master 9 category title, category titles, further subcategories, denominated-auction-value bids ordered 10 from highest to lowest, Web site titles or merchant (as hyperlinks), and site descriptions. If no 11 category selection was made, then the user returns to the main search page. If no sub-12 category selection is made, then the user returns to the category landing page. If the user 13 selects a listed product or site, then the user is transferred to the Web site location via a URL 14 link.

Another level of listings management functions for a server operator can be expressed. Entry to this function requires a unique username input and password to authenticate log-in through challenge and response Web page. If the operator is new and has not created an account, he/she will be transferred to a Web page to a procedure to create the new account. After completing the required information the user will be sent a confirmation email, to verify the user's acknowledgement of the stated process.

In the event that a user-operator does not remember his/her password she/he will be redirected to a procedure where an email message containing a password will be sent to her /him that allows her/him to return to the log-in.

Once the correct ID and password have been entered, the operator is transferred to the listings management program, also referred to as the bid-reward management tool. The user must access a function to effect a change. The functions include Remove denominated-auction-value bid command, Update URL, and change denominated-auction-value bid. All of these routines are updated automatically through the bidreward management tool

An interface to the bidreward management tool is shown in Fig. 3 displaying a link to change the denominated-auction-value bid associated with the URL or merchant site and keyword or Category.

A listing of all sites is shown in Fig. 7 which shows within the particular category/subcategory is displayed with denominated-auction-value bid (commission fees paid) for each respective listing, the URL addresses for the site, the category location, the expiration date for the bid listing, listings update buttons, listings removal buttons, and an Add New search term function. The Add New search term function offers the user operator the ability to enter a new word listing and select the main category and subcategory deemed most appropriate. Once the user completes the necessary information, they are returned to the bidreward management tool main screen.

With the use of the bidreward management tool interface, a URL, a search term (keyword), or a category bid may be automatically added to the Internet search service database as shown in Fig. 10.

If a new operator logs on, the system checks their status as New Members, and allows the new operator to enter their personal information in order to establish a new account. A password is assigned and automatically sent by e-mail to the subscriber's address. Thus, the New Member can be promptly cleared to commence new listings transactions.

When an operator is ready to adjust payment of the amount or increment to the subscription fee, the system can automatically execute a transaction validation. Once payment terms are validated, the system will automatically update the database and begin listing the URLs in the appropriate categories and rankings in response to new search queries. Because the positions of the listings are based on objective criteria, i.e., the denominated value paid by the operator, the operator can pay an increment to improve a listing's position relative to other URLs within the service, and have the new position immediately reflected in the search database. This eliminates the long delays and arbitrary results offered by conventional search services which must evaluate content or classification before adding or updating a listing.

1 Further variables that are used by the management tool previously described with 2 respect to Fig. 1. and are items that are variables within an auction scheme that can affect 3 ranking relevance, are: 4 Commission amount – capped range (percentage range; e.g., 6.5% - 12%) 5 Number of instances or time range for commission to bid on (e.g., 100 times or 240 6 hours) 7 Slotting space (Slotting space is the hierarchical placement of an item in a list. The higher an item is ranked in a list then the higher it is placed in the hierarchy) on a 8 9 merchandised area of a category page – capped range fee (\$5 - \$15); 10 Slotting space on a merchandised area of the home page – capped range fee 11 Search terms: Slotting space on a merchandised area of a results page - capped ranged 12 fee Search terms: Highlighted product in results list – capped ranged fee 13 Number of instances for slotting to occur 14 15 Slotting space – using a capped ranged fee 16 Boost Fee - fixed fee 17 Time – fixed fee 18 Location (Zip) – fixed fee 19 Fig. 3 illustrates the various steps for bidding in a loyalty incentives program. Within 20 the bidding process, the Bid Formula Calculator is presented, an application for evaluating bid profitability. Fig. 8 illustrates an example of availability within the invention. 21 22 An application of the present invention is now described, showing how to evaluate 23 pricing and needs for unit sales. In a production system, having fixed and variable inputs, 24 keeping the fixed inputs constant, as more of a variable input (a higher commission) is 25 applied, each additional unit of input yields less and less additional output (lower profit) if 26 they operate independently of the other. Since a seller A may have x numbers of product and 27 seller B may have y numbers of the same or similar products and there are z numbers of 28 customers then as each merchant seller increases their respective commission to compete 29 against the other the potential loss of sales can make the product margin loss even greater.

In a system where a simplified income statement can be read as follows:

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Sales(m)
- VariableCosts(v)
= contributionMargin(cm)
- FixedOperatingExpenses(fe)
= NetOperatingIncome(oi)
- OtherExpenses(oe)
= NetIncome(ni)
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Equation A - Simplified Income Statement

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Whereas, a seller will use some variation of the following break-even formula as a starting point to evaluate a price:

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$$BreakEvenUnits = \frac{fixedOperatingExpenses}{\left(MeanUnitSalesprice - MeanVariableCost(perUnit)\right)}$$
Equation B - Break-even Formula

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In this example, *Mean Unit Sales Price* is used in place of a *Unit Sales Price* (see Equation C) and *Mean Variable Cost (per Unit)* is used in place of *Variable Cost per Unit* (see Equation D) to account for all products that an online merchant seller might sell. This is a high-level estimation of necessary *Break-even Unit* sales analysis over the entire stock of an online seller's inventory.

17 [Note: mean is used in place of the vernacular "average" to more accurately identify the 18 operation necessary to achieve the result]. The operation can be derived by the following 19 method:

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$$\frac{\sum_{allUnitSalesprice}}{Count_{allUnits}} = MeanUnitSalesprice$$

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23 Equation C - Mean Unit Sales Price

and

$$\frac{\sum\limits_{ton}\left[\sum\limits_{allUnits}VariableCostPerUnit\right]}{Count_{allUnits}} = MeanVariableCostPerUnit$$

Equation D - Mean Variable Cost (per unit)

And so, in practice, if relevant fixed costs are \$48,000, and the product is priced at \$12,000, and the variable cost to buy or produce per unit is \$4,000, it would be necessary to generate sales of 6 units to break even

$$\frac{\$48,000}{(\$12,000 - \$4,000)} = 6 \text{ units}$$

Equation E –Number of unit sales to break even (sample)

This describes a fundamental approach to pricing strategies.

Since the bidreward system may operate under an affiliate commission sales model the break-even units would be higher. Assuming in this example a 10% commission from the sale of the item paid to the affiliate then the break even formula can be adjusted in the following manner:

$$\frac{-(\% \text{ price change})}{(\% \text{ CM} + \% \text{ price change})} = \frac{}{\% \text{ break-even sales change}}$$

Equation F -Number of unit sales to break even after discount

And if a 10% rebate is applied then the merchant seller must realize a gain in sales of at least 20% more product sales (units):

$$\frac{-(-0.10)}{(0.60 + (-0.10))} = \frac{0.10}{0.50} = 0.20 = 20\%$$
 increase in unit sales to achieve break-even

1 Equation G –Number of unit sales to break even after discount (sample)

The above example is an application of how the merchant seller A needs to evaluate pricing and needs for unit sales.

The online merchant seller operates under an operational agreement with an affiliate server operator, an agreement that includes discounted pricing or a rebate of a portion of the *Mean Unit Sales Price* in tacit exchange for promotion and advertising to customer segments the online merchant might not otherwise achieve.

And while *contribution margin* of product sales decreases during a price discount the bidreward system and method exposes and promotes to larger potential consumer audience. In the effort to gain the consumer attention 1, the total number of *unit sales* increases since a law of increasing returns occurs for the consumer with each sale, and 2, a competitor merchant's online sales will increase (as the total market for all sales will increase with the presentation of bidreward information is presented in relevance rankings between seller A and seller B), and A0, increased awareness or branding occurs for both seller A1 and seller A2 and typical function of discretionary advertising and marketing expenditures).

Within the server operator's systems a unique selling point in the form of incentives for an activity is displayed to the consumer, i.e., the site shows to consumer A that she/he will receive compensation for her/his purchase activity facilitated by the server operator at an online merchant seller. This compensation is also known as loyalty or reward based incentive rewards. The consumer is rewarded for engaging in an ongoing activity through the system of the present invention. The consumer is rewarded with share or portion of the commission for each online purchase.

From the online merchant seller's perspective the above described commission-sharing activity with the consumers is considered a type of marketing program, one that is ongoing. From the affiliate Web site's perspective (whomever the operator) it is a method to increase customer retention and decrease customer attrition. From the consumer's perspective it is a form of price discounting and rewarding for activity engaged in by the consumer.

This rebate on product sales will occur on some or all products. The merchant will engage in discount pricing mechanisms in order to:

1	Increase customer attention towards the product and thus the store (advertising
2	branding).
3	Increase sales to customers the seller might not otherwise have reached.
4	Increase customer sales across one or all classifications of products.
5	Diminish the sales at competitor merchant sellers on the same or similar or any
6	products.
7	The problem for all online merchant sellers that engage in affiliate commission
8	practices is to balance a unit sale increase without mis-pricing the discount or commission to
9	the affiliate Web site compared with the sellers respective competitors. In other words,
10	merchant seller A wants to keep the commission as low as possible, but not so low such that a
11	competitor merchant seller B offers a better discount commission thus increasing sales at
12	seller B's Web site and negatively decreasing sales at seller A's Web site.
13	In a simple model, the bidreward system and method pits the online merchant sellers
14	against each other. They compete for the highest reward to pay out and the highest volume of
15	purchases at their respective Web sites. In a more complex model and as the interest for
16	rewards for shopping online increases the online merchant sellers compete together against
17	non-bidreward merchants.
18	The bidreward system and method anticipates a discount of commission to the
19	consumer by one, two or more competitors through bid competition. In a free market
20	economy and auction more accurately evaluates the "real" value of a commodity.
21	The following aspects of the invention are provided:
22	- A system of reward auction bidding programming, Web site & product ranking
23	comprising:
24	a server connected to a network accessible by a number of users, having a Web site
25	listings database containing a number of Web site listings, each of which is provided by a
26	Web site listing operator and includes a title or description the respective site, a network
27	address at which the site can be accessed on the network, and a denominated reward value
28	auction bid by the operator for the reward compensation while the bid is active on the listing
29	server,

1	bid management program including an operator account interface for allowing an
2	operator to connect online with the server and to automatically enter a new denominated
3	reward value auction bid for said operator's Web site into the Web site listings database,
4	wherein said server search program means of said listing server thereupon conducts
5	searches of the Web site listings database for site listings in response to search inquiries from
6	users by automatically taking into account the new denominated reward value auction bid
7	entered by the operator for the operator's site listing.
8	Variations and enhancement of the above system include:
9	- a system as above wherein the denominated reward value to be paid by the operator
10	or agent(s) is a percentage of any sale originated by a consumer referral to the online
11	merchant seller Web Site which may be adjusted during a defined adjustment period.
12	- a system as above wherein said listing server includes an account interface to the
13	network accessible to operators having means for allowing an operator to enter information to
14	set the denominated auction value bid for a respective listing in order to obtain a desired rank
15	for the listing.
16	- a system as above wherein the interface includes means for allowing the operator to
17	maintain a number of Web site listings in a listings account accessible through said account
18	interface.
19	-a system as above wherein said listing server includes search means for conducting a
20	search of its Web site listings database according to search parameters provided with the
21	search inquiry from a user.
22	- a system as above wherein said search means conducts an index search of the Web
23	site listings database based upon keywords provided with the search inquiry from a user.
24	- a system as above wherein said search means conducts a category search of the Web
25	site listings database based upon a selected category provided with the search inquiry from a
26	user.

1 - a system as above wherein said listing server is linked to respond to search inquiries 2 from other search servers, and includes relevancy ranking measure conversion means for converting its search report of listings by rank according to denominated auction value bids 3 4 into other relevancy measures used by the other search services. 5 - a system as above wherein the relevancy measure used by another server may be a relevancy percentage, and said relevancy measure conversion means converts the search 6 report's ranks listings based on denominated auction value bids into relevancy percentages. 7 - a system as above wherein the denominated auction value bid is a credit measure 8 9 applied by the operator to the respective listing. - a system as above wherein credit measures applied by the operator to the respective 10 11 listing are obtained in accordance with any number of completed purchase transaction for the 12 listing obtained in searches of the listings database. 13 - a system as above wherein said operator account interface allows an operator to 14 search and view the operator's previously entered site listing ranked in comparison to the 15 denominated auction value bids of other Web site listings entered by other operators, and to 16 enter a new denominated value bid in order to change the ranking of said operator's Web site 17 listing relative to those of the other operators. 18 In another aspect, the present invention provides a system of network site searching 19 and listing having a Web site listing server connected to a network accessible by a number of 20 users, having a Web site listings database containing a plurality of site listings, each of which 21 is provided by a Web site listing operator and includes a title or description of the content of 22 the respective site, a network address at which the site can be accessed on the network, and a 23 denominated value bid by the operator for the site listing while it is maintained on the listing 24 server, 25 server search means for searching the site listings database for site listings having 26 titles or descriptions of content that match a given search inquiry from a user and for ordering 27 the site listings found in the search in order of their denominated values, wherein said listing 28 server provides a search report of the denominated-value-ordered site listings relevant to a

search inquiry to a user in which the listings are in order according to the denominated values 1 2 bid by the operators for the listings, and 3 bid management means including a operator account interface for allowing an 4 operator to connect online with the listing server and to automatically enter a new 5 denominated auction value bid for said operator's site listing into the Web site listings 6 database. 7 Variations and enhancement of the above system include: 8 - a system as above wherein said account interface has update means for 9 automatically updating the listings database with denominated auction value bid information 10 entered by operators, so that searches of said listings database reflect rankings for the listings 11 in accordance with the updated denominated auction value bid information. 12 - a system as above wherein said account means has payment transaction record 13 keeping means for automatically recording payment transactions commission value in accordance with denominated auction value bids information entered by operators. 14 - a system as above wherein said operator account interface allows an operator to 15 search and view the operator's previously entered site listing ranked in comparison to the 16 denominated values of other site listings entered by other operators, and to enter a new 17 18 denominated value bid in order to change the ranking of said operator's site listing relative to 19 those of the other operators. 20 Still other aspects of the present invention are provided. These include the following. 21 bid for rewards denominated value = 22 1. payment made to consumer in virtual currency / loyalty currency + 23 2. auction + 24 3. search relevancy 25 Each account contains at least three components including a site listing, a network 26 address at which the site can be accessed, and the bid for rewards denominated value to be

1 paid by an information provider to the server provider and the consumer for the business 2 valuing a consumer's purchase or advertising related activity. 3 1. site listing 4 + 2. URL 5 + 3. bid (based on virtual currency/reward percentage) 6 The system and method of the present invention can be used to provide a prioritized 7 search ranking based on denominated value payment to the server provider. 8 Search ranking - based on bid % of purchase paid in loyalty currency - No other 9 provider ranks based on this relevancy dimension 10 The bid for rewards denominated value payment may be used directly or indirectly to 11 compensate the consumers engaged in purchase of goods or services through the information 12 provider's network or may be used for other purposes. 13 loyalty currency returned based on a purchase - can be paid to the consumer or can be used for something other than paying the consumer (e.g., donation to a non-profit 14 15 organization) 16 The network information provider influences the position of display for goods, 17 services or the link to the information provider's server by a continuous online competitive 18 bidding process of denominated value. 19 - where there is Continuous bidding of loyalty currency % paid 20 The bidding process occurs when the network information provider enters a new bid 21 amount, which can be a commission on a purchase by a consumer that has been facilitated by 22 the server provider. No other search provider, sales system, bid system or referral system 23 bases bids on percentages (%) 24 The system and method of the present invention then compares this bid amount with all other bid amounts within a classification of accounts in the database, and generates a rank 25 26 value for all search activity having that information provider's goods, services or server

1	address contained in a search results set, in which the rank value may be set by the bid for
2	rewards denominated value, standing alone, or in combination with:
3	the paid search term value,
4	the length of time for a paid advertisement on a server provider's system or systems,
5	a paid advertising promotion on a server provider's system or systems,
6	the specific day and time a paid promotion appears,
7	a paid promotion to a selected group of consumers
8	or a combination of these factors and other factors.
9	The higher the amount paid for a given paid promotion in a period in relation to other
10	information providers, and the higher the bid for reward denominated value for a consumer
11	purchase, the higher the site's ranking on the server provider's search reports may appear.
12	1. Higher paid placement in search results (not unique)
13	+ 2. Higher % bid in loyalty currency (unique)
14	= higher relevancy in search results
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16	This is a subset of the previous bullet-point
17	The denominated-values approach to rankings may be used in conjunction with a
18	category search method or an indexed keyword search method.
19	The denominated-values database may also be linked to other search services, and the
20	denominated-values rankings of the listings can be converted into a relevancy measures used
21	by the other systems.
22	While certain representative embodiments and details have been shown for purposes
23	of illustrating the invention, it will be apparent to those skilled in the art that various changes
24	in the methods and apparatus disclosed herein may be made without departing from the scope
25	of the invention which is defined in the appended claims.
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What is claimed is:

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1 1. A system of reward auction bidding connected to a network that is accessible 2 to a plurality of operators and a plurality of users, the system allowing for the plurality of 3 operators to each enter a plurality of web-site listing descriptions, each web-site listing 4 description being for one good or service and including a descriptor, a network address at 5 which the corresponding web-site listing can be accessed on the network, and a denominated 6 reward value auction bid associated therewith, and for each of the plurality of users to obtain 7 a report that includes certain ones of the plurality of web-site listing descriptions that are 8 ranked for display based at least partially on the associated denominated reward value auction 9 bids, the system comprising: 10 a listing server connected to the network and including a database that includes the 11 plurality of the web-site listing descriptions; and 12 a bid management program including: 13 an operator account interface that allows for inclusion of additional ones of 14 the web-site listing descriptions for storage thereof into the database so that the plurality of 15 web-site listing descriptions includes the additional ones of the web-site listing descriptions, 16 each of the additional ones of the web-site listing descriptions including the descriptor, the 17 network address at which the corresponding web-site listing can be accessed on the network. 18 and the denominated reward value auction bid associated therewith; and 19 a ranking program that automatically generates a particular report upon receipt 20 of a request from one of the plurality of users, the particular report including the certain 21 ones of the plurality of the web-site listing descriptions, with the certain ones of the plurality 22 of web-site listing descriptions being ranked for display at least partially by the associated 23 denominated reward value auction bids. 1

- 2. The systems according to claim 1 wherein the bid management program automatically operates upon an electronically received additional one of the web-site listing descriptions.
- 1 3. The system according to claim 1 wherein each of the plurality of web-site 2 listing descriptions are active for a certain period of time, and active ones of the plurality of 3 web-site listing descriptions are searched by the search program.

4. The system according to claim 1 wherein the denominated reward value auction bid corresponds to an adjustable amount to be paid for each associated web-site listing description by each of the plurality of operators that is a percentage of any sale originated by a referral from the system to the associated web-site listing.

- The system according to claim 4 wherein the operator account interface allows each of the plurality of operators to monitor the display ranking of each of the web-site listing descriptions in relation to others, and allows for modification of the denominated reward value auction bid for a particular one of the web-site listing descriptions in order to alter the display ranking of that particular one web-site listing description.
- 1 6. The system according to claim 5 wherein the display rank altering occurs at a defined adjustment interval.
- 1 7. The system according to claim 6 wherein the defined adjustment interval is 2 one of a day, week and month.
- 1 8. The system according to claim 1 wherein the denominated value auction bid is 2 based upon one of a monetary value, a credit, and a point system.
- 1 9. The system according to claim 8 wherein the denominated value auction bid is 2 based upon the monetary value.
- 1 10. The system according to claim 8 wherein the denominated value auction bid is 2 based upon the credit.
- 1 11. The system according to claim 8 wherein the denominated value auction bid is 2 based upon the point system.
- 1 12. The system according to claim 1 wherein the ranking program further provides 2 for searching of the web site listing descriptions according to search parameters provided in a 3 search inquiry from one of the plurality of users to obtain search results, and wherein the 4 search results are used to obtain the display rank.
- 1 13. The system according to claim 12 wherein the display rank is obtained from a combination of the search results and the associated denominated reward value auction bids.

- 1 14. The system according to claim 13 wherein the combination is determined 2 based upon a predetermined algorithm that weights importance of the search results relative 3 to the associated denominated reward value auction bids.
- 1 15. The system according to claim 13 wherein the search results are obtained by a 2 third party search engine.
- 1 16. The system according to claim 13 wherein the denominated value auction bid 2 is based upon the monetary value.
- 1 17. The system according to claim 13 wherein the denominated value auction bid 2 is based upon the credit.
- 1 18. The system according to claim 13 wherein the denominated value auction bid 2 is based upon the point system.
- 1 19. The system according to claim 12 wherein the search is an index search of the web site listing descriptions database based upon keyword search parameters provided with the search inquiry.
- 1 20. The system according to claim 12 wherein the search is a category search of 2 the web site listing descriptions database based upon a selected category provided with the 3 search inquiry.
- 1 21. The system according to claim 1 wherein the bid management program further 2 includes a relevancy ranking conversion module that converts the display ranks by the 3 associated denominated reward value auction bids into another other relevancy measure.
- 1 22. The system according to claim 21 wherein the other relevancy measure conforms to a relevancy measure used by another search engine service.
- 1 23. The system according to claim 22 wherein the relevancy measure is a 2 relevancy percentage, and said relevancy ranking conversion module converts the display 3 ranks by the associated denominated reward value auction bids into relevancy percentages.
- 1 24. A method of reward auction bidding connected to a network that is accessible 2 to a plurality of operators and a plurality of users, the method allowing for the plurality of

3 operators to each enter into a bid-reward system a plurality of web-site listing descriptions,

- 4 each web-site listing description being for one good or service and including a descriptor, a
- 5 network address at which the corresponding web-site listing can be accessed on the network.
- 6 and a denominated reward value auction bid associated therewith, and for each of the
- 7 plurality of users to obtain a report that includes certain ones of the plurality of web-site
- 8 listing descriptions that are ranked for display based at least partially on the associated
- 9 denominated reward value auction bid, the method comprising:

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providing a listing server connected to the network and including a database that includes the plurality of the web-site listing descriptions,

updating the listing server using a bid management program that including an operator account interface that allows for inclusion of additional ones of the web-site listing descriptions for storage thereof into the database so that the plurality of web-site listing descriptions includes the additional ones of the web-site listing descriptions, each of the additional ones of the web-site listing descriptions including the descriptor, the network address at which the corresponding web-site listing can be accessed on the network, and the denominated reward value auction bid associated therewith; and

automatically generating a particular report that includes the certain ones of the plurality of the web-site listing descriptions upon receipt of a request from one of the plurality of users, with the certain ones of the plurality of web-site listing descriptions being ranked for display by the associated denominated reward value auction bid.

- 25. The method according to claim 24 wherein, during the step of updating, the bid management program automatically operates upon an electronically received additional one of the web-site listing descriptions.
- 26. The method according to claim 24 wherein each of the plurality of web-site listing descriptions are active for a certain period of time, and active ones of the plurality of web-site listing descriptions are searched by the search program during the step of automatically generating.
- The method according to claim 24 wherein the denominated reward value auction bid corresponds to an adjustable amount to be paid for each associated web-site listing description by each of the plurality of operators that is a percentage of any sale originated by a referral from the bid-reward system to the associated web-site listing.

1 The method according to claim 27 wherein the step of updating allows each of 28. 2 the plurality of operators to monitor the display ranking of each of the web-site listing 3 descriptions in relation to others using the operator account interface, and allows for 4 modification of the denominated reward value auction bid for a particular one of the web-site 5 listing descriptions in order to alter the display ranking of that particular one web-site listing 6 description. 1 29. The method according to claim 28 wherein the display rank altering occurs at 2 a defined adjustment interval. 1 30. The method according to claim 29 wherein the defined adjustment interval is 2 one of a day, week and month.

- 1 31. The method according to claim 24 wherein the denominated value auction bid
- 2 is based upon one of a monetary value, a credit, and a point system.

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- 1 32. The method according to claim 31 wherein the denominated value auction bid 2 is based upon the monetary value.
- 1 33. The method according to claim 31 wherein the denominated value auction bid 2 is based upon the credit.
- 1 34. The method according to claim 31 wherein the denominated value auction bid 2 is based upon the point system.
 - 35. The method according to claim 24 wherein the step of automatically generating further provides for searching of the web site listing descriptions according to search parameters provided in a search inquiry from one of the plurality of users to obtain search results, and wherein the search results are used to obtain the display rank.
- 1 36. The method according to claim 35 wherein the display rank is obtained from a combination of the search results and the associated denominated reward value auction bids.
- The method according to claim 35 wherein the combination is determined based upon a predetermined algorithm that weights importance of the search results relative to the associated denominated reward value auction bids.

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1 38. The method according to claim 37 wherein the search results are obtained by a third party search engine.

- 1 39. The method according to claim 36 wherein the denominated value auction bid is based upon the monetary value.
- 1 40. The method according to claim 36 wherein the denominated value auction bid 2 is based upon the credit.
- 1 41. The method according to claim 36 wherein the denominated value auction bid 2 is based upon the point system.
- 1 42. The method according to claim 35 wherein the search is an index search of the 2 web site listing descriptions database based upon keyword search parameters provided with 3 the search inquiry.
- 1 43. The method according to claim 35 wherein the search is a category search of 2 the web site listing descriptions database based upon a selected category provided with the 3 search inquiry.
- 1 44. The method according to claim 24 further including the step of converting the 2 display ranks by the associated denominated reward value auction bids into another other 3 relevancy measure.
 - 45. The method according to claim 44 wherein the other relevancy measure conforms to a relevancy measure used by another search engine service.

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1 46. The method according to claim 45 wherein the other relevancy measure is a relevancy percentage.

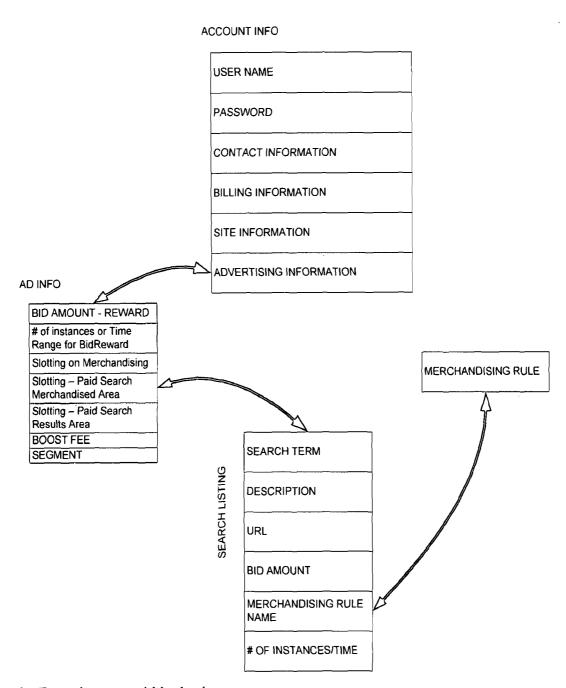


Figure 1 - Data elements within database



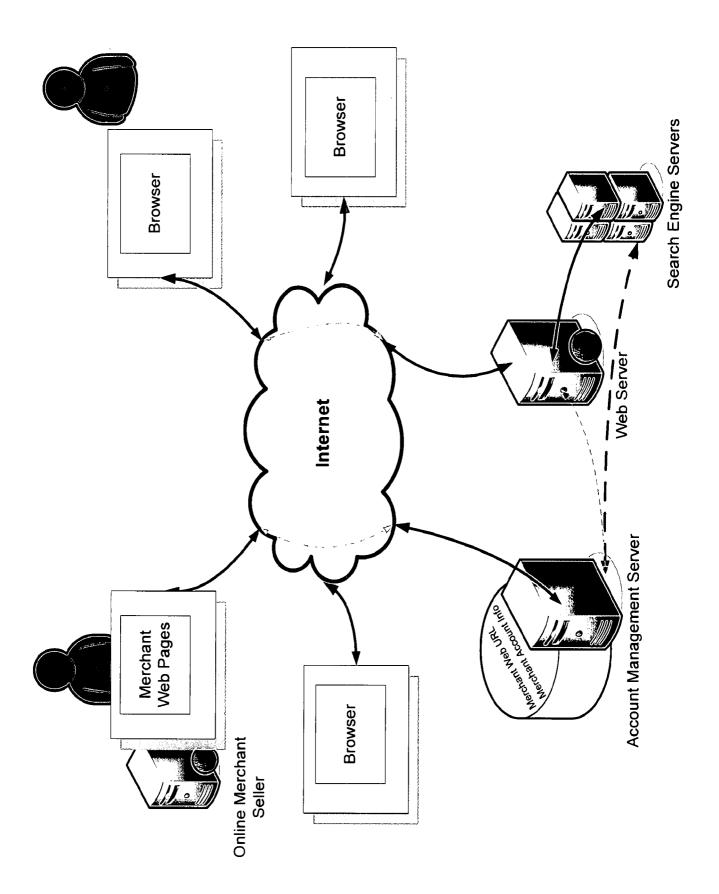


Figure 2 - Network entity relationship across the cloud

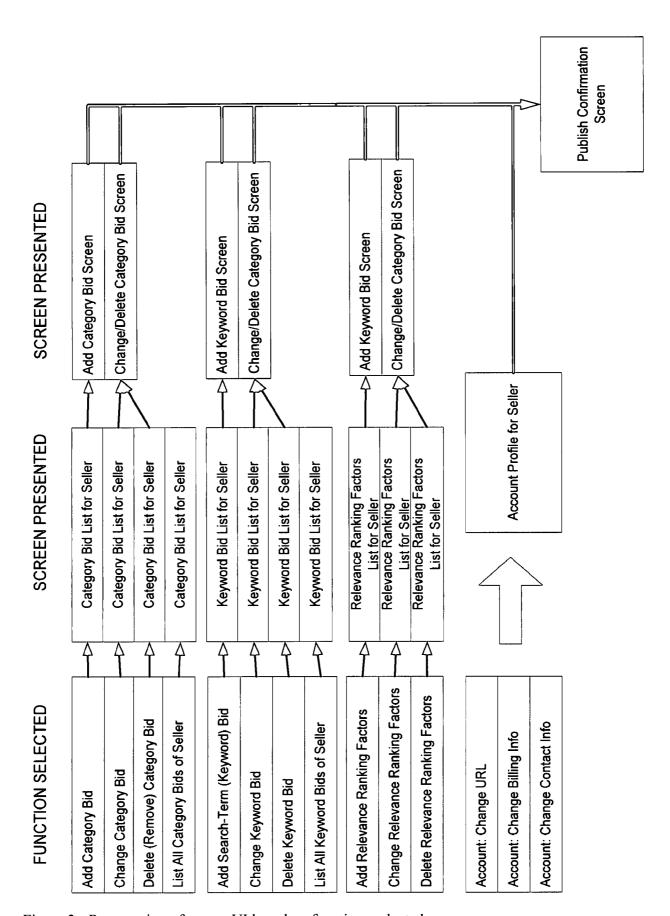


Figure 3 - Presentation of screen UI based on functions selected

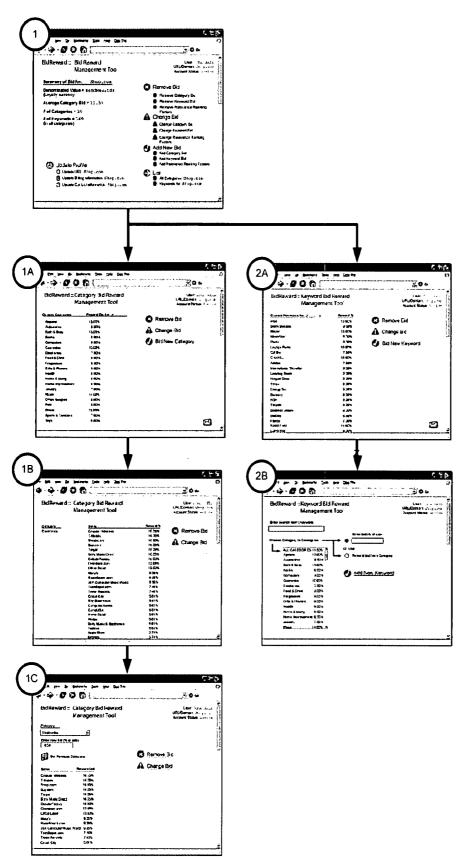


Figure 4 - Sample UI screen flow

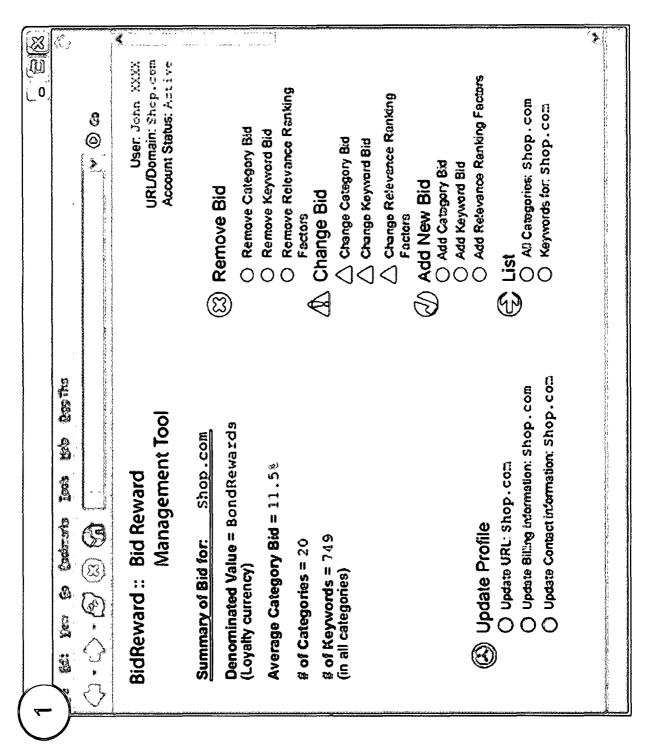


Figure 5 - Main screen with options to select functions

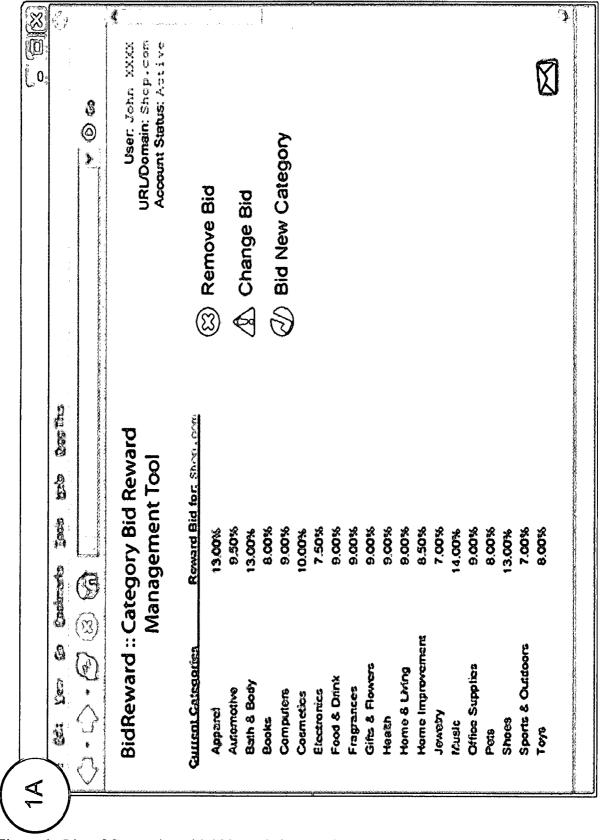


Figure 6 - List of Categories with bids made by Merchant seller

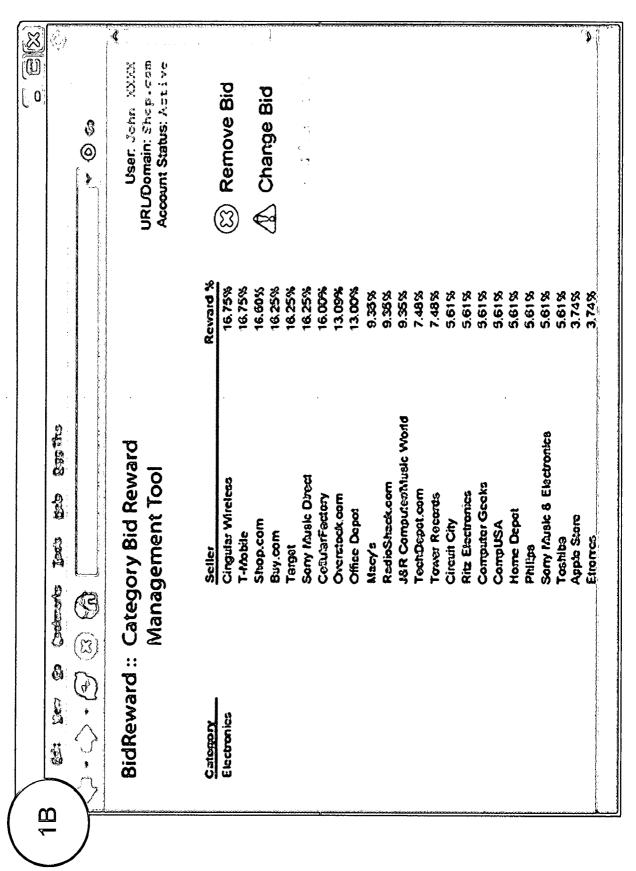
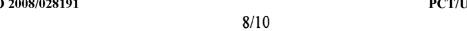


Figure 7 - Merchant seller's and all sellers' bid in one category



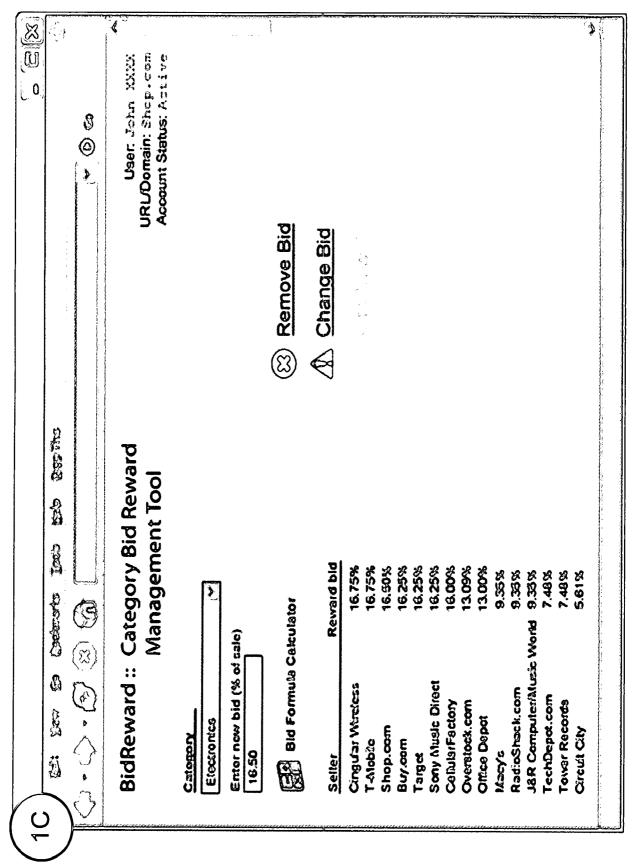


Figure 8 - Merchant seller's bid on specific category (with bid formula calculator)

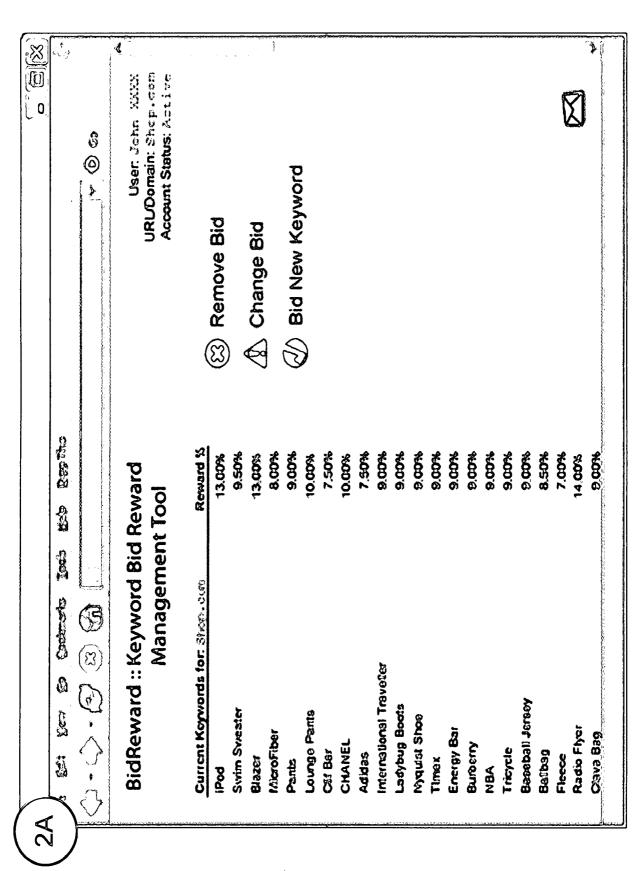


Figure 9 - Merchant seller's search-term (keyword) list with respective bid

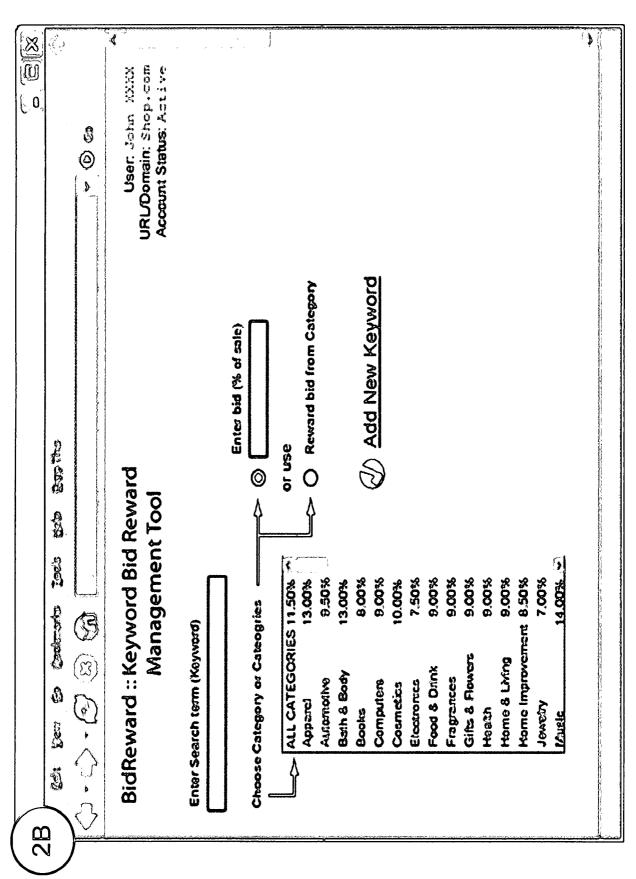


Figure 10 - Merchant seller's bid on keyword (and relationship mapping to Category)