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PROVISIONAL APPLICATION FOR PATENT COVER SHEET

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TITLE OF THE INVENTION (280 characters max)**INTERNET BASED SYSTEM AND APPARATUS FOR PAYING USERS TO VIEW CONTENT AND RECEIVING MICROPAYMENTS****CORRESPONDENCE ADDRESS (including country if not United States)**

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Respectfully submitted,

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United States Provisional Patent Application

For

**INTERNET BASED SYSTEM AND APPARATUS FOR PAYING USERS TO VIEW
CONTENT AND RECEIVING MICROPAYMENTS**

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A. Overview

Some embodiments of the invention allow users to earn money, or credits, online by visiting sites and/or viewing advertising on a web site. The credits can be spent at content sites around the web, exchanged for merchant gift certificates or airline miles, used as entries in sweepstakes and contests, used as payment for credit card balances, withdrawn as cash, and/or used to tip content providers and other tokens of exchange. Furthermore, the system can allow users to use standard web browsers such as Netscape Navigator™, for Netscape Communications, Inc., Mountain View, California, or Microsoft Internet Explorer, from Microsoft, and access the features provided by the various embodiments of the invention.

Site advertisers can target their most desired audiences by setting higher rewards for specific characteristics and thus qualify visitors to their site and/or viewers of their advertising. Further, advertisers can better control web based advertising costs.

The architecture of the system also allows content providers to assess micropayments, e.g. small payments that may be less than \$1.00 per item, for their content or provide a means for users of their web sites to leave them monetary tips.

B. System Architecture

The basic system architecture according to some embodiments of the invention is shown in Figure 1. Users 100a-c are coupled in communication with a network 102. The network 102 might be the Internet, or some other type of network. Through the network 102, the users 100a-c can access content providers 108a-c. For example, the content providers 108a-c might include web sites for entertainment, companies, research journals, newspapers, and/or some other type of content provider.

Advertisers such as the advertisers 106a-c are entities that wish to place advertising and/or draw visitors to their site. Some of the advertisers 106a-c may also be content providers. For example, a company such as Netscape might both advertise its portal service as well as provide content.

The host 104 includes an embodiment of the invention and supports the transaction system. The host 104 stores information about user accounts, e.g. for the users 100a-c. The host 104 provides advertisers 106a-c a means to receive payment for qualified viewers, e.g. meeting a certain demographic. Also, the host 104 provides content providers a way to receive payments for goods and services they offer either through a fee or a tipping system. For example, the content provider 108a might offer access to a scientific journal for \$0.50/article. Alternatively, the content provider 108b might provide a tipping link next to their articles to allow users to express their appreciation for a particular story or column.

Thus, the host 104 acts as the transaction mediator for this system. The host 104 may be multiple computers, a cluster of computers, a web farm, and/or some other sort of configuration of one or more computers. The remainder of the discussion will assume the configuration shown in Figure 1. Accordingly embodiments of the invention discussed are primarily hosted/provided from the host 104 although advertising content and reward offering links may be provided from other sources.

Also, the network 102 may have multiple hosts 104 supporting embodiments of the invention. Depending on contractual arrangements between providers, credits earned on one system may or may not be valid on another.

The invention will be described according to several systems and features as follows. First the user facing portions of the system will be described including sign up, searching for relevant web-sites, URLs or links, reading ads, tipping, bonuses, and other

user portions. Next, the advertiser systems and features will be described followed by the content provider systems and features.

C. User Systems and Features

Some embodiments of the invention offer a number of different features to support end users of the invention. The customer signup process will be described first, then the ad viewing and searching process will be described. Then, several additional features of the invention such as merchant feedback and quality control, sweepstakes, trading post, the tipping process, the content consumption process and the bonus process will be described.

User signup and login

Users can sign up quickly. Some embodiments of the invention only require a selection of a username and a password. This allows the registration process to be extremely simple. Further, the user can return at a later time to provide a more detailed registration. This will allow the user to earn higher rewards among other features.

The basic process is as follows:

- 1) **New users** are referred to sign up, e.g. from a content provider, advertising for the service, the service home page, and/or some other source.
 - a) The new user may be asked to answer a quiz to test whether they are a human or not (see Quizzes below).
 - b) Basic signup information is requested such as a username and a password.
 - i) Some embodiments of the invention include a sponsor ad in the sign up window that rewards the new user for viewing the ad, and may offer an additional reward for clicking on the ad.
 - ii) Some embodiments of the invention allow a new user to earn additional credit by answering basic profile questions.
 - iii) Some embodiments of the invention allow a user to state a preference for viewing links as URLs, text links, expanded text links or graphical banners.
 - iv) In addition to username, ID and demographic questions, the user can agree to share certain elements of their system usage history to earn greater rewards. For example, a travel site can predict that a user who has had account activity every day for six months has not had a vacation and target them aggressively.
 - (1) The user may selective offer to share elements of their activity, for example, sharing that activity has occurred, but not the specifics of the activity or sharing the rewards a user has earned, but not the specific sites earned from.

v) Some embodiments of the invention may involve emailing a password to the new user. The email will be similar to the quiz in that only a human will be able to respond correctly. For example, "Your password is the word that (is not an animal, or does not have a # in it) or is presented in a graphic." If a users email is not HTML enabled, an alternative web-site link to see the GIF can be offered.

vi) **Dynamic Profile Attributes**

(1) Some embodiments of the invention may involve automatically conveying additional information about the user, once the user has opted in, such as exact geographic location, local time, local current weather and the current activity of the user based on their electronic calendar (working, on vacation, off work, etc.), proximity in fiscal calendar.

vii) Some embodiments of the system may involve discovering, with the users permission, what commerce sites that user has been a customer of.

viii) Some embodiments of the system may involve asking the user which site they came from and which Internet site is their favorite.

ix) After creating the account, a cookie may be placed on the users system with the user's account information to enable automatic sign-on for future sessions.

x) Some embodiments of the system may involve asking the user their business demographic profile attributes such as size of company, nature of business, their industry, their position/title in the company, their purchase authority, their business contact information, etc.

c) Depending on where the user was referred from they will be directed to an appropriate location. For example, if they came from a content provider site they may be redirected back to that site. Alternatively, they might be presented with the ad browser to allow the user to view more ads and/or sites to earn credits.

2) Registered user logging in

a) When a registered user logs on, the system checks for the presence of a cookie. If a cookie is present, the user is already logged on; although, the password may be requested to verify identity. If the cookie is not present, the new user is asked to log in. The registration cookie can be a permanent or session cookie per the user's preferences.

b) Once a user logs on or visits their account balance page, they are shown their current account balance either in a pop up window, or in a fixed position of every page.

c) The logon page will also have a function to enable a new user to log in and replace the previous user on the system.

3) Follow up registration

a) Users can return to their account and update their profile information to keep fields current and to enable earning higher bonus rewards and provide contact information.

b) Users can complete each field of their demographic profile by:

i) Entering a field and accepting the default of always sharing this information for demographic rewards and/or transferring the field value to the advertiser. These items will always be submitted and the bonuses will be received automatically. E.g., a user always wants to reveal that they live in a particular city.

ii) Entering a field and selecting 'submit on approval' By selecting this option, the user can decide on a case by case basis if they want to share their information for demographic targeting or the actual value of their profile. E.g., a user may

be willing to reveal that they live in a group of zip codes (or their actual zip code) to some sites, but not to others.

- iii) Leaving a field blank. E.g. a user never wants to share their email address.
- c) Users can customize their auto sign on by setting their local cookie duration to permanent, timed, or per session.
- d) Users can add to their account balance by attaching a credit or debit card to their account. This allows users to make on-line purchases of goods, services or information without having to earn the credits by using other features of the SmartPenny.com site.
- e) User account balances may be withdrawn. If appropriate, time restrictions, amount restrictions, and/or a service fee may be charged. E.g. no more than \$100 withdrawn each month.
- f) User account balances may be capped to encourage online spending. The cap may be increased on a per user basis based on that user's usage of their account over time. For example, a cap of \$20 might be set, however a particular user, John, might have a higher cap of \$100 based on his past usage.
- g) Users can view their account balance and history. For each transaction, the content provider or advertiser site, transaction amount, time, resulting balance and/or other desired fields can be shown. (Figure 14)
- h) Users may be permitted to access tools to evaluate site activity with respect to demographics, activity over time, responses to price changes and discounts.

Constraints on automated usage

The number of users allowed to access the system from a particular computer or terminal will be limited by a certain number of cookies or Java applets installed on the user's computer or terminal.

The system will also constrain automated access by allowing a limited number of users to access from certain unique IDs such as MAC address, IP address, or CPU serial number.

Quizzes

Quizzes may be used as part of a process to verify that a user is a human, as opposed to an automated process. Because users are paid per ad and/or site viewed, an automated system would be able to earn the money without the desired human actually viewing the advertising or visiting the site.

Accordingly, some embodiments of the invention make use of periodic quizzes, also called a SmartQuiz™, to verify that a particular user is a human. As noted above, the quizzes may be employed during the registration process to verify a user is a human. Additionally, quizzes can be used in conjunction with follow up registration, and/or between transactions using some embodiments of the invention.

The basic premise is to use a display format that cannot be easily recognized or read by a machine. For example, text that is embedded in graphical representations such as an image. The pictures can contain a simple question that any user is expected to be able to answer, e.g. the picture might have the text "123" and the quiz question might read, "What number is shown?".

Because automated entities are not able to decipher the question from the graphic, they will not be able to respond correctly to the question. In contrast, because of the intentionally simple nature of the questions, almost any human could perform at 100% accuracy.

The answers to the quiz questions may be provided using a text-input box located anywhere on the picture, or around it. For multiple choice questions, the answers might be selectable from the image itself, e.g. using an image map, and/or through an HTML form surrounding the picture.

Types of quizzes:

- a) There are several types of quizzes, all of which can be combined. Some examples follow: (See also Figure 4 for examples.)
 - i) **Number recognition.** A number is presented graphically. The number can be generated randomly or from table
 - i) **Simple word/object identification/recognition.** The name of an object is typed out in graphical text or a picture of an easily recognizable object is displayed, for example a dog, a book, a car, the word "Ice Cream", etc. Users are asked to type in the name of the object in the space provided, or, they have to click on the right picture or word matching the object displayed. Users may also be asked to identify the one object that does not belong in the set of objects displayed. Other recognition examples include:
 - (1) **Twisted text recognition.** A simple question is presented in text that is twisted to make OCR difficult, but easily readable to a human.
 - (2) **Color recognition.** A color is presented and the user is asked to identify it.
 - (3) **Shape recognition.** User is asked to identify the shape presented.
 - (4) **Self answering questions.** Text questions which contain their answer.
 - (5) **One word question, one word answer.** The user simply types the word presented in the graphic
 - ii) **Simple counting.** A number of similar object are displayed, such as 2 balls, 4 birds, 1 finger, etc. Users are asked to type in the number of objects displayed in the space provided, or, they have to click on the right picture, word or number matching the object displayed. Users may also be asked to click on the right set of pictures showing the same number of objects.

- iii) **Simple math.** Using numbers or objects or a text description, users have to perform simple math calculations such as $1 + 1$, $2 * 2$, "4 divided by two", "XXXX minus XX (where X is an object)". Users are asked to type in the correct number in the space provided, or, they have to click on the correct answer represented in picture, word or number. Users may also be asked to click on the right set of pictures showing the same mathematical results. For example, the question may display "2 cats + 2 dogs " and the correct answer may be "2 cats + 2 dogs ".
- iv) **Simple queries.** Users are asked simple questions using graphical text. Responses may be typed in or selected by clicking on the right area. Examples of questions are "What day was yesterday?", "How old is a 2-year old baby?", "What color is red?", "Is ice-cream hot or cold?"
- v) **Awareness.** Users are asked questions about the real world. "What day (month, year) is it?"
- vi) **Click on Space.** Users are asked to click on a graphic space. "Click on the red box." (See also Figure 17)
- b) The user may see the quizzes with reduced frequency as he responds accurately and with increasing frequency as he fails to respond accurately. (See also Figure 5)

Search Engine

Some embodiments of the invention include a search engine that allows the user to search for merchant sites, links, ads and content relevant to their interests. Search results can be sorted according to relevance, reward value, and popularity, and/or other criteria.

The following describes the search process:

- 1) Selects the search engine from a web site including an embodiment of the invention and enters or select the search keyword(s).
 - a) If the user is not logged in, they will be directed to the login/sign up pages, but can still use the system without logging in.
 - b) If a user is not logged in, they will be able to do searches without the benefit of the demographic reward and corresponding sorting. (Figure 10)
 - c) Once registered (Figure 11) and logged in, the users username and/or balance and/or demographic profile will appear either in a constant position of the window or by clicking a button to give a pop up window. (Figure 12)
 - d) The user types or selects the desired category to search for.
 - e) The user is returned a list of links relevant to the user's search criteria. (Figure 13). Sites offering highest reward will be listed first, their reward indicating their heightened interest in the users demographic. This matchmaker function merges information about both parties, making a more efficient match for both, allowing destination sites to only pay lead rewards to targeted users and users to easily identify sites who desire them (as well as those who do not). For example, in Figure 13, Zoom travel, who targets young males appears at the top of the list, rather than the bottom which would be the tyranny of a mere alphabetical listing. AAAA Travel, on the other hand, is not interested in young males and correspondingly appears with no reward where an alphabetical listing would have

placed it at the top of the list, presenting a poor search result for a for a young male.

- f) A site may also choose to represent its URL link as an expanded text link or a graphical banner, for a fee, when a certain demographic criteria is met.
- g) Search results may present the destination sites name, description, URL, offered reward, amount bid, quality score, popularity, relevance score, or other data to assist the user in making his selection.
- h) The list of relevant sites can be sorted by
 - i) Search relevance
 - ii) Popularity (number of hits to that site)
 - iii) Reward potential to that specific user, e.g. John Doe gets \$.10 for visiting a particular site because of his gender, while Jane Doe might only get \$.05 for visiting the same site
 - iv) Amount bid for the position by the merchant.
 - v) Merchant quality score.
 - vi) Search results may be displayed as simple links, text descriptions or graphics.
 - vii) Users may also be given the following options for displaying the search results:
 - (1) Listing only the top n items offering a reward.
 - (2) Listing only items offering reward above a certain threshold.
 - (3) Listing only items offering a reward.
 - (4) Listing only reward items and top n non-rewarding items per search score or popularity.
 - (5) Listing all matching entries, including items with no reward
- i) The user can set a default sort order for future searches.
- j) An advertiser may sponsor the use of the search engine and give users a reward for each search done with their sponsorship ad posted up to a maximum cumulative reward set by the advertiser for a given time window. Sponsors may also choose how often the same user will be rewarded for repeated interaction.

User Rewards

Users earn rewards for desired activities. For example, users may be rewarded for signup, referrals, contributing demographic attributes, performing searches, and clicking through on links. Once earned, user rewards can be exercised into several different tokens such as cash mailed by check, electronically credited to an account, online or physical gift certificates, frequent flyer miles, charitable contributions, contest entries, etc.

Trading Post

Once the user has accumulated earnings in his account, the earnings can be exchanged among the different available tokens. For example, the user can allocate \$30 of earnings into \$10 of online gift certificates, \$5 of contest entries and a \$15 check. The user can also choose that earnings be automatically allocated. For example, for every \$20, direct \$5 to that weeks contest, and \$15 to a cash check.

Sweepstakes

Some embodiments of the system include a progressive jackpot sweepstakes. For every certain activity engaged by users and proportional to the number of entries in

the contest, an amount of cash is placed in a progressive jackpot, the amount to be visible to all users.

A winner will be selected from among the entries and announced on Monday morning to encourage users to log on first thing every week. The winner will be notified when he logs on. If the winner does not log on or claim his prize in 24 hours, a back up winner will be announced the next day, encouraging users to log on a second time in the week. If the backup winner does not claim his prize in 24 hours, the prize will be rolled over to the following week. The awarded prize will go into the users account balance and can be allocated at the trading post.

Reading Ads

Ads are displayed with the user's personal reward as shown in Figure 6. Other ad formats can be used, e.g. splash screen ads, etc. When the user clicks on the ad, their account is credited with the reward. Limits can be set on user rewards per user, or per ad, to discourage abuse.

If desired, some embodiments of the invention can include a pop-up window that appears when the user positions her/his mouse over a portion of the ad. Using Java™, JavaScript and/or other scripting languages, the correct bonus and maximum bonus available are shown. The bonus reflects the demographic and profile information entered by a user.

- 1) **Ads Hosted On Web site including embodiments of the invention**
 - a) If a user is not yet signed up or logged on, he will be presented with a sign up or log-on page.
 - b) The user searches through the sorted search engine results and views the resulting ads and links. Next to each ad or link will be the basic reward, the actual bonus reward, and the total potential bonus reward. (See Bonuses and Research and Figure 6)
 - c) The user will not be shown ads for which the reward is zero due to either expired time window or repeat usage restriction.
 - d) When a user clicks on a link or banner ad enabled according to the invention:
 - i) The user is sent to the designated destination site.
 - ii) The user's account is credited with the available reward.
 - iii) The destination host's account is debited the amount of the user reward and the amount of the transaction commission.
- 2) **Ads and Links Hosted Remotely**
 - a) Ads and links enabled by embodiments of the invention can be posted on any site.
 - b) Enabled ads or links will either appear normal, non-enabled ads or links to non-users. Users can always see the enabled version. For example, the advertiser 106a could host their own ads rather than storing them on the host 104. As such, they

might provide both enabled and non-enabled versions. Users of the host 104 who have logged in will automatically be shown the enabled ad.

- c) The mechanism can also be used on sites such as the content providers 108a-c to encourage deeper interaction by visitors. E.g., a user can be rewarded to take a survey, provide feedback or register for a product sample.

Consuming Content

Enabled content may be displayed with an access price. Clicking on the content link will deliver the content to the user and credit/debit her/his account accordingly.

- 1) The user will access content, e.g. from the search engine provided by some embodiments of the invention or from the content provider's site, etc.
 - a) If a user is not yet signed up or logged on, she/he can be presented with a log-on page.
 - b) The price of the content will be listed next to the link. (See for example Figure 7)
 - c) Content providers may also bundle rewards for users to encourage their target customers to visit the content site. E.g., price is \$2 for non-Californians, but only \$1 for California residents.
- 2) **When a user clicks on a for-fee content link:**
 - a) Verification is performed to check that the user has sufficient balance in their account.
 - i) If there is not sufficient balance in the user's account, the user is advised of this and can be directed to the ad farm to earn additional credit.
 - b) If sufficient credit is available, the user is sent to the content site.
 - c) The user's account is debited the content price.
 - d) The content provider's account is credited the content price less a transaction commission if appropriate.
 - e) In some embodiments, it is up to the content provider to define and set up the access control mechanism for their content. They can define how often a user can access content that is paid for. For example, a cookie may be placed on the user's web browser recording that they have paid for access to the content site. Content providers can allow repeated access for a specified period of time and customize their site for paying return visitors.

Bonus and Research

Each ad, link or search result can calculate a bonus for a specific user based on that user's demographic profile and the ads or link's desired target. In addition to simply qualifying users as members of a demographic group, advertisers can pay users in exchange for their specific profile information to do research.

- 1) **Next to each ad, link or search result, the base reward is listed with the potential bonus and the actual bonus.**
 - a) The base reward is what is given to any unqualified visitor.

- b) The potential bonus reward is the total reward possible if a user meets all of an advertiser's demographic target criteria.
- c) The actual bonus is the reward that a user will receive based on their actual demographic profile. E.g., of a potential bonus of \$1.00, a user receives \$0.50 because they live in San Jose, but not the additional \$0.50 because they are not male.
- d) By clicking on the potential bonus, the user can see the association between demographic information and rewards for a specific ad. If the user has not provided all of the desired demographic information, he may return to his profile and add the desired information in order to receive the additional bonus. E.g., a user does not submit their gender, but over time notices that ads give a reward for gender. The user adds her/his gender her/his profile and from then on receives the gender bonus when her/his gender is the desired demographic.
- e) Demographic information can be held within the secure server and not transmitted across the network 102.
- f) Advertisers may, or may not be provided a user's demographic profile immediately, only the fact that the user satisfied the bonus criteria and qualified.
- g) When the user views a bonus ad the user's demographic information is compared to the ad bonus criteria and the bonus is calculated either on the host or on the user's client.
- h) When the user clicks on a bonus ad:
- i) The user is sent to the destination site.
 - ii) The user's account is credited the base and bonus award.
 - iii) The advertiser's account is debited the same amount, plus a transaction commission if appropriate.
- 2) **Research**
- a) If an advertiser and/or researcher wants to collect actual demographic information on users (in addition to demographic qualification), and the user agrees, actual profile information requested, and approved by the user, can be stored in the advertiser's reports for later access. (See also Figure 3 for an example)

D. Advertiser signup

Advertisers can provide ads using the system by creating an account with the host 104. The advertiser typically provides a destination URL, a banner link, a demographic target, the reward structure (how much for what demographic information, what amount is to be passed on to the user, etc.), a working balance, and/or other information.

- 1) **Advertiser Selects Signup on Host**
- i) Advertisers can open an account by providing a banner image link, site description, a destination location, a desired reward rate and contact information. The ad can be activated when the advertiser deposits money in their account to pay users. When an advertiser's account balance reaches zero, the ad can be held from display to users, or the ad may be displayed with no reward to the user.
 - j) Base reward for unqualified users can be set.

- k) A reward matrix listing all desired attributes can be completed (See Figure 18) for keywords, demographic attributes, if the user is a known customer of that merchant, and amount to be passed through to the user as a reward.
- l) Bonus rewards are set up by the advertiser using bonus criteria, involving their desired reward for each piece of profile information. (Figure 2) Merchants and advertisers can choose the amount of reward to pass-through to the user, within a minimum and maximum range.
- m) Advertisers set the reward for targeted users by completing the n dimensional full factorial demographic reward matrix. (Figure 15)
- n) Time caps can be set by the advertiser for the desired time elapsed before a specific user can earn from the same ad or link again.
- o) Number of allowed repeat visits by a user can be set.
- p) Advertiser can set a cumulative reward cap per timeframe, e.g. \$1,000 per 24 hours.
- q) Advertiser can set a cumulative reward cap per user, e.g. \$20 per user per lifetime of ad.
- r) Rewards for repeat visitors can be set by advertiser to stay the same, decrease or increase, e.g. \$0.10 for first visit, \$0.05 for second and subsequent, etc.
- s) Rewards can be varied over time. E.g., offer a higher reward during lunchtime than in the late evening. Or, reduce the reward as the balance runs low to stretch out the advertising campaign. Or, increase the reward if an ad is not attracting enough attention from users.
- t) Keywords for ads (to be used by the search engine) can be set by advertiser.
- u) Each ad may be assigned an identifier for reference.
- v) Advertisers can monitor ad activity over the network 102. Reports are generated with a timestamp for transactions, amount awarded, commissions, total debit, and resulting account balances.
- w) Advertisers can use network based tools for evaluating campaign activity with respect to demographics, activity over time, responses to reward changes and demographic targeting and data collection.
- x) Credit can be added to an ad account at any time. When a campaign is completed, all unused account balance can be returned to the advertiser.

E. Content provider signup

Content providers can instantly begin earning money on their site by creating an account online. Simply provide the site URL, price, and type of charge (up front or tip).

The content provider then inserts a single line of HTML to begin earning.

- 1) **Content Provider Signs up at Host.**
 - c) Content providers can create a content account by providing the content price, content link and choosing a means of account transfer and contact information.
 - d) Content fee collection method can be either as up front fees as tips
 - i) Up Front fees are fixed, e.g. the user must pay the fee to access the content.
 - ii) Tips allow the users to pay voluntarily without obstructing access to content. Tips can be customized as open, default suggested, check box, radio button,

slide bar or fixed. This allows for great flexibility in incorporating the tips feature into the content provider's site.

- e) Each content URL can be assigned an identifier.
- f) The content provider can provide keywords (to be used in the search engine) for each content site.
- g) The host sends the content provider a URL to use as his content fee or tip link and any appropriate HTML, JavaScript or other code to embed in the content.
- h) Content providers can monitor account activity over the network 102. Reports can be generated with a timestamp for each transaction, amount charged, commissions, net credit, and resulting account balances.
- i) Content provider's account balances can be transferred to any ordinary account such as bank account, credit card account, mailed check or a user account. Service fees may be charged for these services.

Merchant (Advertiser and Content Provider) Quality control

Merchants will be validated on inspection before their account is activated.

In addition, the user community will be invited to contribute their evaluation of merchant quality on an ongoing basis. To ensure the quality of user reviews, the process will be by invitation. Users will periodically, at random or at an interval to be determined by a mathematical or statistical algorithm, be invited to review sites which they have actually visited through the system and offered a reward for completing the review. Users will be presented with a short list of web sites that they have recently visited through the SmartPenny.com search engine and asked to provide feedback in exchange for a reward. The reward may be any combination of credits, real cash, sweepstakes entries or any other form of remuneration acceptable to and accepted by the user. The results of these reviews by the user community will be summarized into a numerical score, also known as the merchant quality score. The higher the score, the better the merchant's rating. This quality score may be displayed with the search results to give users a better idea of the popularity or level of satisfaction for a particular merchant web site.

F. Tipping

Content providers can enable tipping to collect voluntary fees from users. After providing the tip, the user can be sent to a thank you page. Figures 8A-8B show the tipping process in detail.

1) Web page based Tipping

- a) A voluntary tip can be used when a content provider wants to collect fees without erecting entry barriers for users.
- b) The user views content including a tip icon, a tip form, tip link, etc. The user clicks on the icon to provide a tip
- c) If a user is not yet signed up or logged on, he will be presented with a sign up or log-on page.
- d) A pop up window offers the user one of several possible tip options (suggested amount, blank window, clickable amount options, slide bar amount, radio button selected amount, or default amount options etc. (Figure 9)
- e) The pop up window also allows the user to submit comments on the content.

- i) The host 104 verifies that the user has sufficient balance in their account for the tip amount submitted.
 - (1) If there is not sufficient balance in the user's account, the user is advised of his balance with a link to view ads and returned to the tip window.
 - ii) Once tipping is complete, the user can be sent to the content provider's "Thank You" page, content provider selected page, and/or a generic "Thank You" message can be displayed.
 - iii) The user's account is debited the tip amount.
 - iv) The content provider's account is credited the tip amount less a transaction commission, if appropriate.
 - v) A cookie may be placed on the user's web browser recording that they have paid for access to the content site. Content providers can customize their site for paying return visitors. E.g., return customers who have given tips get a special welcoming message and/or are given a special reward for returning.
- 2) Email Tips
- a) A tip URL can be deployed in a text e-mail. When the user clicks on the URL, the tip functions the same as a web based tip.

G. Limiting Spam Through Quizzes

A quiz can be embedded in a mail transport agent (MTA) or mail user agent (MUA) to verify that senders are human to assist in filtering spam e-mails. The following process can be used:

- a) If email is received from an unknown sender, e.g. by checking against a list of known senders, the MTA and/or the MUA sends the URL to a quiz, or includes a quiz, in an e-mail to the unknown sender.
 - i) If the quiz is not answered correctly within a predetermined period, e.g. 24 hours, the mail may be deleted or returned as undeliverable.
- b) By verifying that the sender is human, automated spam email can be filtered. The user can add the sender to their known list so that future quizzes can be avoided. Similarly, the user can add any mailing lists they participate in to the known list.

The quizzes can be provided from a host, e.g. the host 104, for free or for a fee, e.g. \$0.03 per quiz provided to unknown sender. Further, the spam control feature can be offered completely apart from the micropayment system, e.g. \$10.00 for a year of spam filtering using quizzes.

Alternatively, the quizzing system can be integrated with the MTA and/or MUA on the user's computer. For example, sendmail, a common MTA, could be programmed to check a sender against a user's known list. If the sender is absent from the know list,

sendmail could queue the mail for delivery pending response to an e-mailed picture containing a quiz generated by the MTA.

Technical Methods

The SmartPenny.com system (Figure 16) is designed to solve several technical problems: a standard user interface, minimized transactions costs, the ability to serve many users concurrently and secure information transfer without high overhead costs.

The interface to the user is HTML and JavaScript. All that users are required to have on their computer system is an industry standard Java enabled browser like Netscape Navigator or Internet Explorer. All functions on the SmartPenny.com system begin with the user entering information into an HTML form and submitting a HTTP request to the SmartPenny.com web host. The HTTP request may contain a call to the SmartPenny.com web server application. The SmartPenny.com web server application facilitates communication between the HTML interface, the SmartPenny.com application business rules and the back end database server. Because the request is to the SmartPenny.com application rather than to the database directly, system efficiency and scalability are possible. The application can securely hold the database connections open, greatly reducing the overhead on the server for each database query (alternative solutions require a database open/close for each query). The SmartPenny.com application uses its programmed business rules to determine what queries need to be sent to the database and makes the calls in a single block. This low overhead coupled with the ability to run multiple copies of the application on the web server allow for many concurrent users. The multithreaded web server balances the requests to each copy of the application. The SmartPenny.com application and database schema are designed such that information about accounts, reward calculations etc. are stored in the database and verified from the database. Hackers and automated web bots cannot simply make up a URL and send it in to increase their account balances. Once the application processes a command, it builds and returns feedback to the users in HTML to their standard browser.

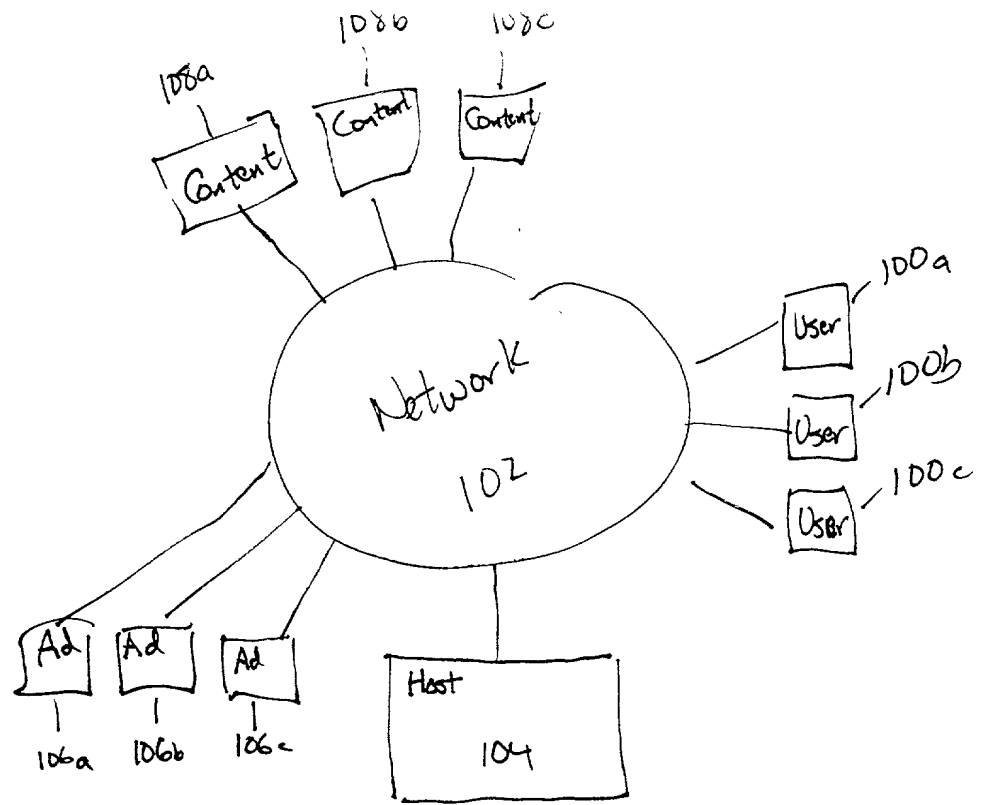


Fig 1

Attribute	User Values	Submit on approval for Demographic Qualification	Submit on approval for Demographic Research
Name	Stan Lim	☒	☒
Age	30	☐	☐
Gender	MALE	☒	☒
Date of Birth	-	☐	☐
Zipcode	95128	☐	☐
Household Income	-	☐	☐
		☐	☐

SUBMIT

CANCEL

Advertiser Specific Bonus Page - Sample Screenshot

Attribute	User Data Available?	Demographic Bonus	Research Bonus	Share for Demographic Bonus?	Share for Research Bonus?	User bonus
Name	ç	200	200	ç	ç	400
Age	ç	100	100	?	?	0
Gender	ç	100	100	ç	ç	200
Date of Birth	???	500	500	?	?	0
Zipcode	ç	500	500	ç	ç	1000
Household Income	???	10000	10000	ç	ç	0
Number of cars	5	5000	5000	ç	ç	10000
Total Bonus						11600

UPDATE

CANCEL

Notes:

- All Attributes and Bonus rewards are defined by Advertiser
- If user data is available AND shared, user earns bonus for that attribute.
- Each User Bonus item and Total Bonus is calculated automatically, or may require optional "UPDATE" button
- ? denotes check boxes that user can check to share attribute and earn bonus. If checked, denoted by ç
- ??? denotes input box that user needs to fill out if user wishes to earn bonus for that attribute. In this example, the "5" was entered for "Number of Cars".

Figure 4

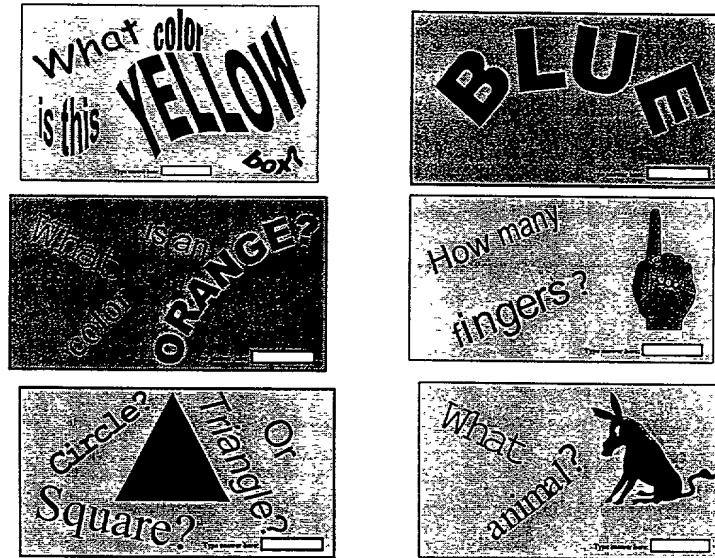


Figure 5

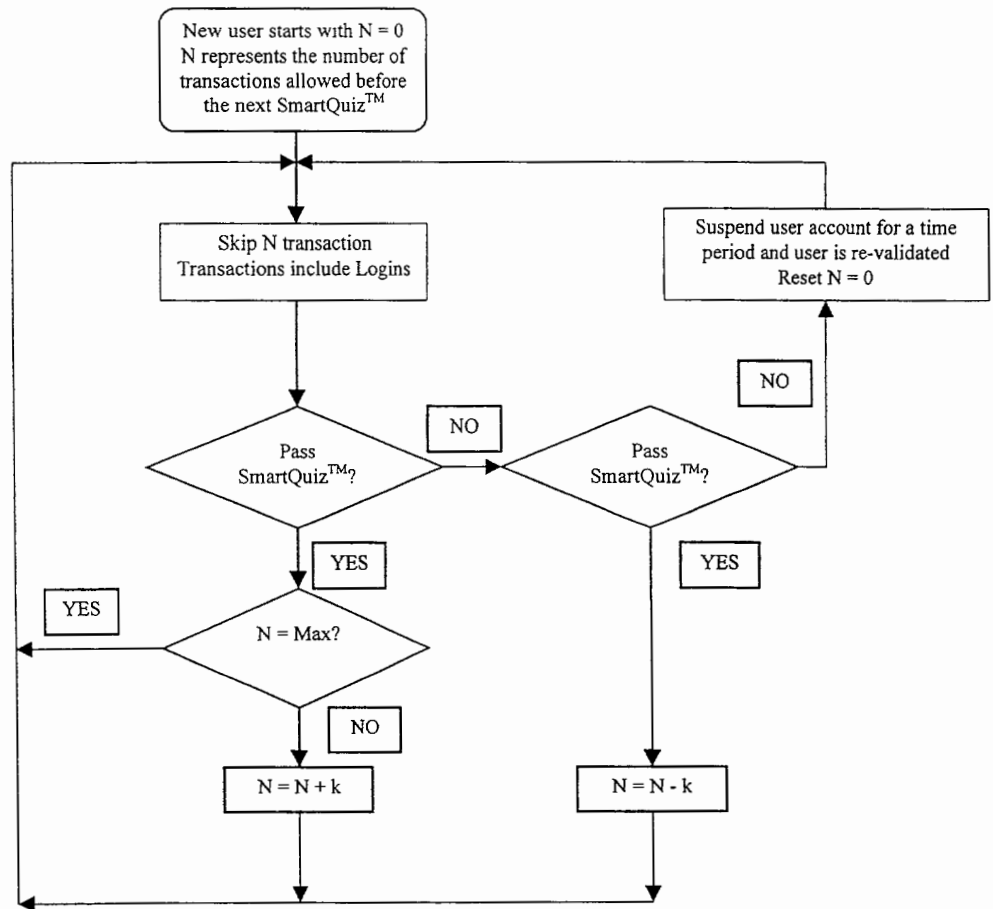


Figure 6

- Here are a few examples of how Banner Ads will look with the SmartPenny enhancements:

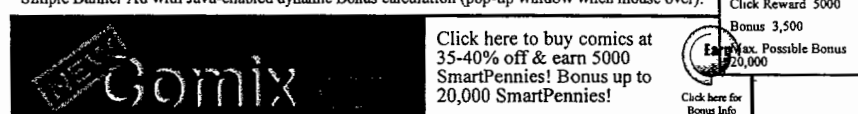
Simple Banner Ad with no dynamic Bonus calculation:



Simple Banner Ad with dynamic Bonus calculation:



Simple Banner Ad with Java-enabled dynamic Bonus calculation (pop-up window when mouse over):



Simple Banner Ad with no Bonus:



004342-BEST003

Samples of what buy screens may look like:



The SmartPenny success story.

A short biography of the hottest Internet startup and how it rocketed to fame and fortune.

\$P 25,000

Click here to buy → 

Welcome to John's Poetry 

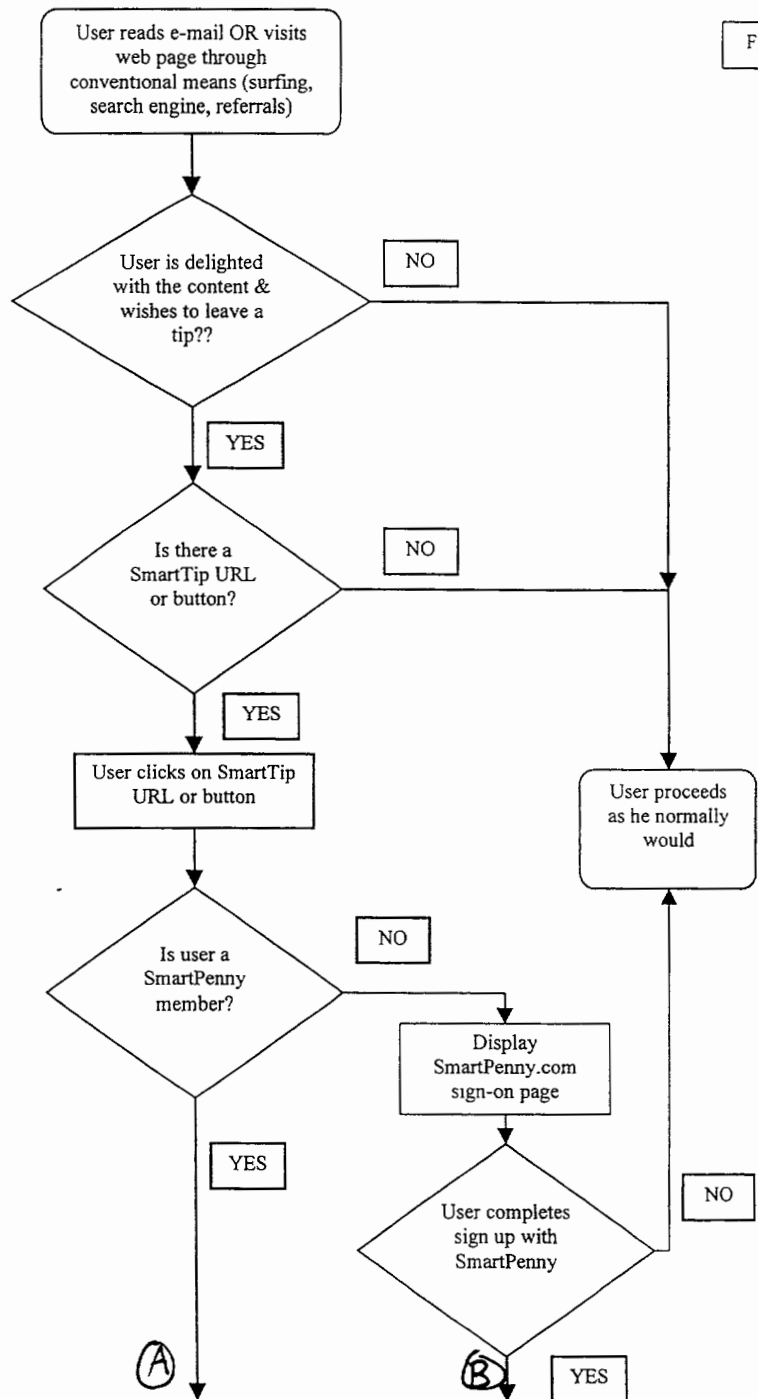
All Poems are \$P5000
unless otherwise noted

Twilight Dreams \$P7500 

004240" 68370209



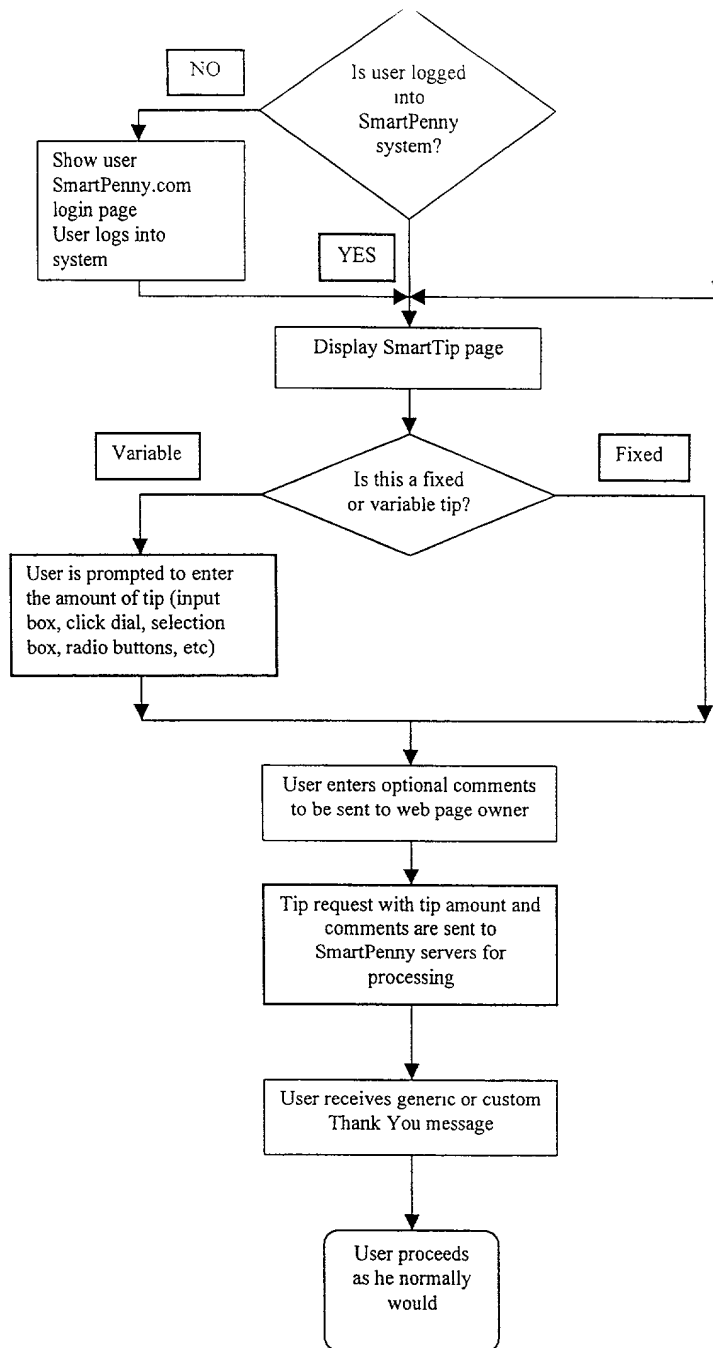
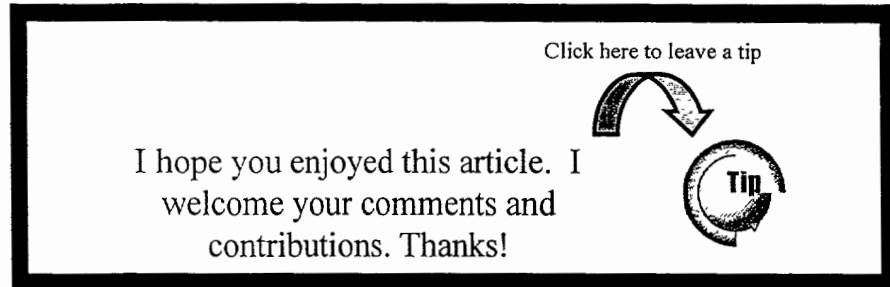


Figure 9

Content Providers can politely solicit gratuity by including the SmartTip™ button to their web pages. An example is shown below:



SmartTip™ Screenshots

This is example of what the SmartTip™ window may look like:

Enter Tip Amount \$

Please enter any comments here:

This screenshot shows a form window. At the top right is a circular "Tip" icon. Below it, the text "Enter Tip Amount \$" is followed by a text input field containing "2500". Below this is the text "Please enter any comments here:" followed by a larger text input field. At the bottom are two buttons: "Submit Tip" and "Cancel".

Variable	Mean	Std. Dev.	Minimum	Maximum
Age	34.50	10.50	18	65
Gender	1.50	.50	1	2
Marital Status	1.50	.50	1	2
Education	13.50	2.50	9	18
Income	15.00	5.00	10	25
Occupation	1.50	.50	1	2
Health	1.50	.50	1	2
Stress	1.50	.50	1	2
Depression	1.50	.50	1	2
Life Satisfaction	1.50	.50	1	2
Resilience	1.50	.50	1	2
Optimism	1.50	.50	1	2
Gratitude	1.50	.50	1	2
Forgiveness	1.50	.50	1	2
Compassion	1.50	.50	1	2
Kindness	1.50	.50	1	2
Generosity	1.50	.50	1	2
Patience	1.50	.50	1	2
Humility	1.50	.50	1	2
Modesty	1.50	.50	1	2
Shame	1.50	.50	1	2
Guilt	1.50	.50	1	2
Envy	1.50	.50	1	2
Jealousy	1.50	.50	1	2
Anger	1.50	.50	1	2
Dislike	1.50	.50	1	2
Disrespect	1.50	.50	1	2
Disapproval	1.50	.50	1	2
Disagreement	1.50	.50	1	2
Dislike	1.50	.50	1	2
Disrespect	1.50	.50	1	2
Disapproval	1.50	.50	1	2
Disagreement	1.50	.50	1	2
Dislike	1.50	.50	1	2
Disrespect	1.50	.50	1	2
Disapproval	1.50	.50	1	2
Disagreement	1.50	.50	1	2
Dislike	1.50	.50	1	2
Disrespect	1.50	.50	1	2
Disapproval	1.50	.50	1	2
Disagreement	1.50	.50	1	2
Dislike	1.50	.50	1	2
Disrespect	1.50	.50	1	2
Disapproval	1.50	.50	1	2
Disagreement	1.50	.50	1	2
Dislike	1.50	.50	1	2
Disrespect	1.50	.50	1	2
Disapproval	1.50	.50	1	2
Disagreement	1.50	.50	1	2
Dislike	1.50	.50	1	2
Disrespect	1.50	.50	1	2
Disapproval	1.50	.50	1	2
Disagreement	1.50	.50	1	2
Dislike	1.50	.50	1	2
Disrespect	1.50	.50	1	2
Disapproval	1.50	.50	1	2
Disagreement	1.50	.50	1	2
Dislike	1.50	.50	1	2
Disrespect	1.50	.50	1	2
Disapproval	1.50	.50	1	2
Disagreement	1.50	.50	1	2
Dislike	1.50	.50	1	2
Disrespect	1.50	.50	1	2
Disapproval	1.50	.50	1	2
Disagreement	1.50	.50	1	2
Dislike	1.50	.50	1	2
Disrespect	1.50	.50	1	2
Disapproval	1.50	.50	1	2
Disagreement	1.50	.50	1	2
Dislike	1.50	.50	1	2
Disrespect	1.50	.50	1	2
Disapproval	1.50	.50	1	2
Disagreement	1.50	.50	1	2
Dislike	1.50	.50	1	2
Disrespect	1.50	.50	1	2
Disapproval	1.50	.50	1	2
Disagreement	1.50	.50	1	2
Dislike	1.50	.50	1	2
Disrespect	1.50	.50	1	2
Disapproval	1.50	.50	1	2
Disagreement	1.50	.50	1	2
Dislike	1.50	.50	1	2
Disrespect	1.50	.50	1	2
Disapproval	1.50	.50	1	2
Disagreement	1.50	.50	1	2
Dislike				

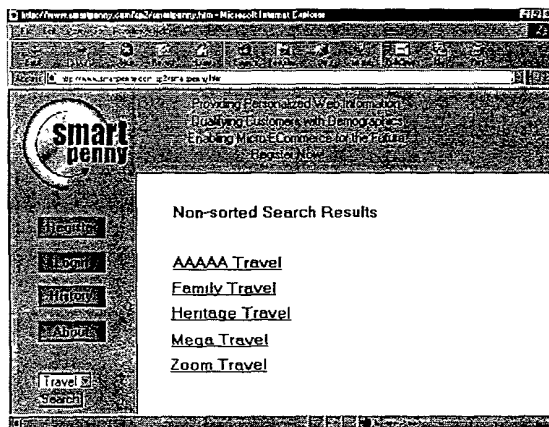


Fig 10

smart penny

Register as a New SmartUser

User ID:

Password:

Verify Password:

Email Address:

Demographics: Gender: ☐ None Given ☐ M ☐ F

Age: ☐ None Given ☐ 6+ ☐ 40 55 ☐ < 40

Figure 11

Variable	Mean	SD	Min	Max
Age	35.2	12.5	18	65
Gender	Male	10.5	0	20
Gender	Female	19.5	0	20
Marital status	Married	15.2	0	20
Marital status	Single	4.8	0	10
Marital status	Divorced	0.5	0	1
Marital status	Widowed	0.5	0	1
Education	High school	10.5	0	20
Education	College	10.5	0	20
Education	Postgraduate	0.5	0	1
Occupation	Manager	10.5	0	20
Occupation	Professional	10.5	0	20
Occupation	Service	10.5	0	20
Occupation	Unemployed	0.5	0	1
Income	Low	10.5	0	20
Income	Medium	10.5	0	20
Income	High	0.5	0	1
Health status	Good	10.5	0	20
Health status	Fair	10.5	0	20
Health status	Poor	0.5	0	1
Smoking status	Smoker	10.5	0	20
Smoking status	Non-smoker	10.5	0	20
Alcohol consumption	Regular	10.5	0	20
Alcohol consumption	Occasional	10.5	0	20
Alcohol consumption	Never	0.5	0	1
Stress level	Low	10.5	0	20
Stress level	Medium	10.5	0	20
Stress level	High	0.5	0	1
Life satisfaction	High	10.5	0	20
Life satisfaction	Medium	10.5	0	20
Life satisfaction	Low	0.5	0	1

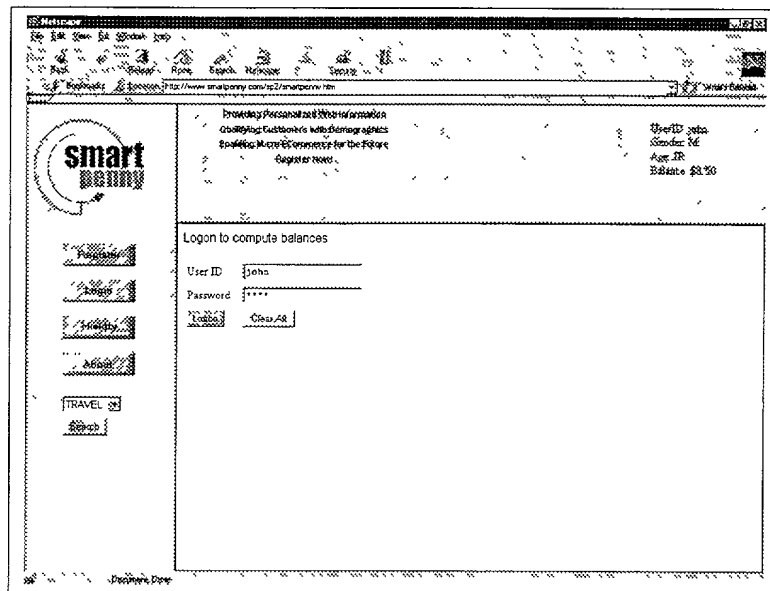


Figure 12

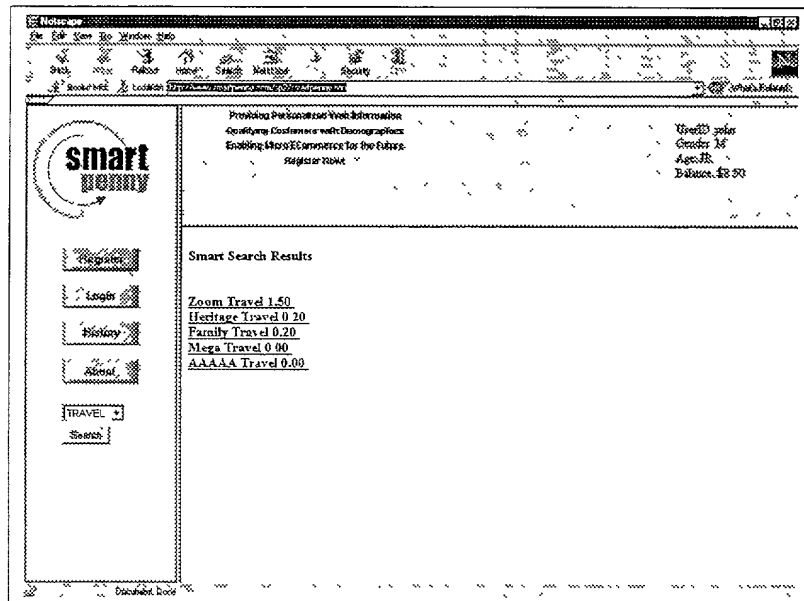


Figure 13

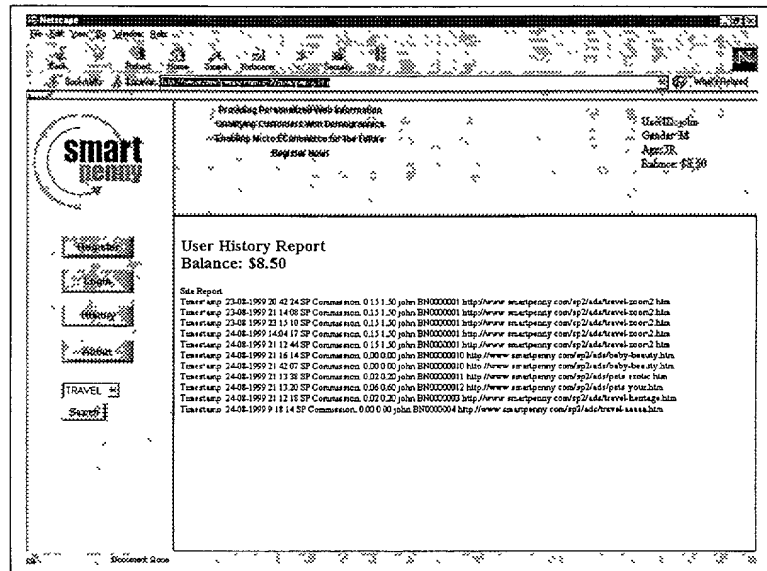


Figure 14

Demographic Reward Matrix

Gender	Age	Six months of daily usage? (Due for vacation)	Show Banner?	Reward
MALE	Young	NO	NO	\$ 1.50
MALE	Young	YES	YES	\$ 3.50
MALE	Middle	NO	NO	\$ 0.60
MALE	Middle	YES	YES	\$ 2.60
MALE	Senior	NO	NO	\$ 0.50
MALE	Senior	YES	YES	\$ 2.50
MALE	None Given	NO	NO	\$ 0.50
MALE	None Given	YES	YES	\$ 2.50
FEMALE	Young	NO	NO	\$ 1.10
FEMALE	Young	YES	YES	\$ 3.10
FEMALE	Middle	NO	NO	\$ 0.20
FEMALE	Middle	YES	YES	\$ 2.20
FEMALE	Senior	NO	NO	\$ 0.10
FEMALE	Senior	YES	YES	\$ 2.10
FEMALE	None Given	NO	NO	\$ 0.10
FEMALE	None Given	YES	YES	\$ 2.10
None Given	Young	NO	NO	\$ 1.00
None Given	Young	YES	YES	\$ 3.00
None Given	Middle	NO	NO	\$ 0.10
None Given	Middle	YES	YES	\$ 2.10
None Given	Senior	NO	NO	\$ -
None Given	Senior	YES	YES	\$ 2.00
None Given	None Given	NO	NO	\$ -
None Given	None Given	YES	YES	\$ 2.00

Figure 15

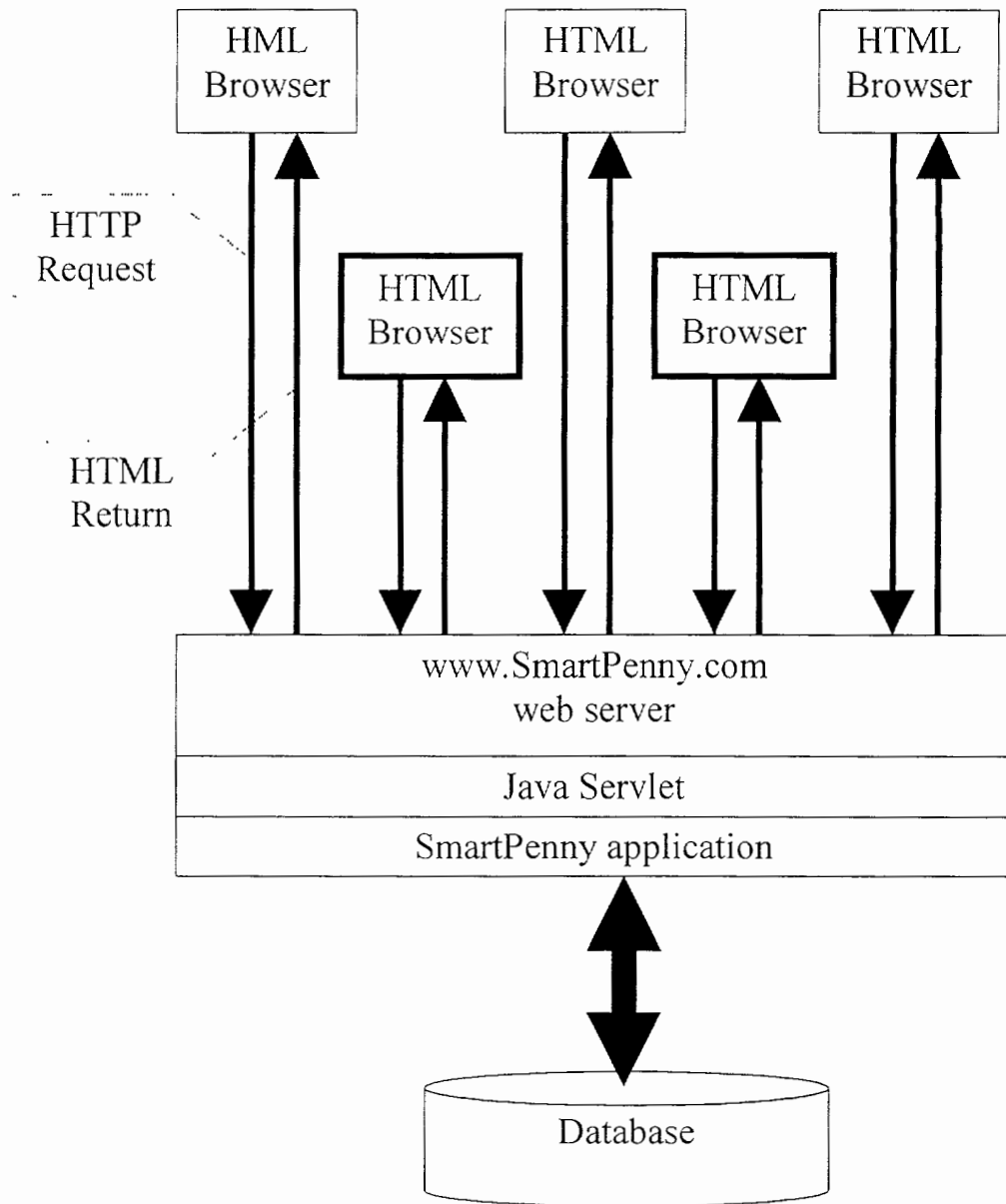
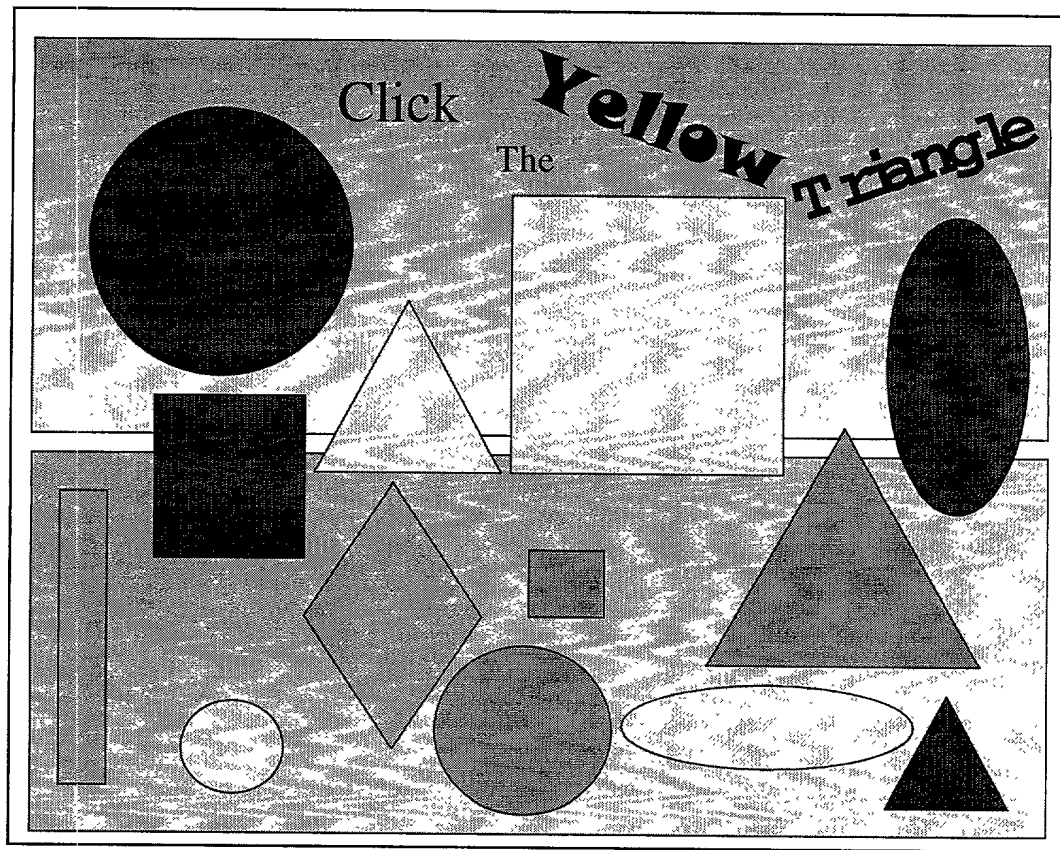


Figure 16

Figure 17



00464066T0203

Figure 18

Merchant Account Priority Bid Matrix

Enter your destination URL and the desired bid for each consumer attribute. The combination of your bid matrix and the customers' profile will create a unique search result list sorted by resulting bids. You have the option of passing a portion of your bid along to the consumer when the click to your site. Enter the percentage of the resulting bid you wish to pass on to your visiting customer in the percent field.

Pass Through Percent: ☒ 0% ☐ 25% ☐ 50%

URL:

Returning Customer = "Yes"?

Keywords:

Keyword1:

Keyword2:

Gender:

Household Income:

\$50,000
\$100,000

Age:

65+:

Marital Status:

Married:

Single:

Children in Household:

0:

1:

2+:

Example:

Your_Company.com sets its bid levels to attract its target customers. With these settings, a new customer searching under "Keyword2" who is a 35 year old, married male, with two children and household Income of \$75,000/year and has made purchases from your site in the past will trigger a bid of \$2.20, 0% of which will be passed on to the customer when he clicks to Your_Company.com's site.

Merchants may elect to pass through a portion of their bid to the consumer to be more aggressive in attracting consumers to their site. Search results will be ranked based on the bid offered. Sites who offer a reward will have that reward listed next to their link.

Example:

Given a certain consumers demographic profile:

Amazon.com bids \$1.50

Pets.com bids \$1.10

SmallFry.com bids \$0.50

CrazyEddy.com bids \$1.00 and elects to pass 25% or \$0.25 through to the visiting consumer

Results display as:

<u>Site</u>	<u>Your reward for visiting</u>
1. <u>Amazon.com</u> <i>The best books online</i>	
2. <u>Pets.com</u> <i>The best pets online</i>	
3. <u>CrazyEddy.com</u> <i>We're crazy! Try us!</i>	\$0.25
4. <u>SmallFry.com</u> <i>We're small, but we try harder!</i>	

Business Model

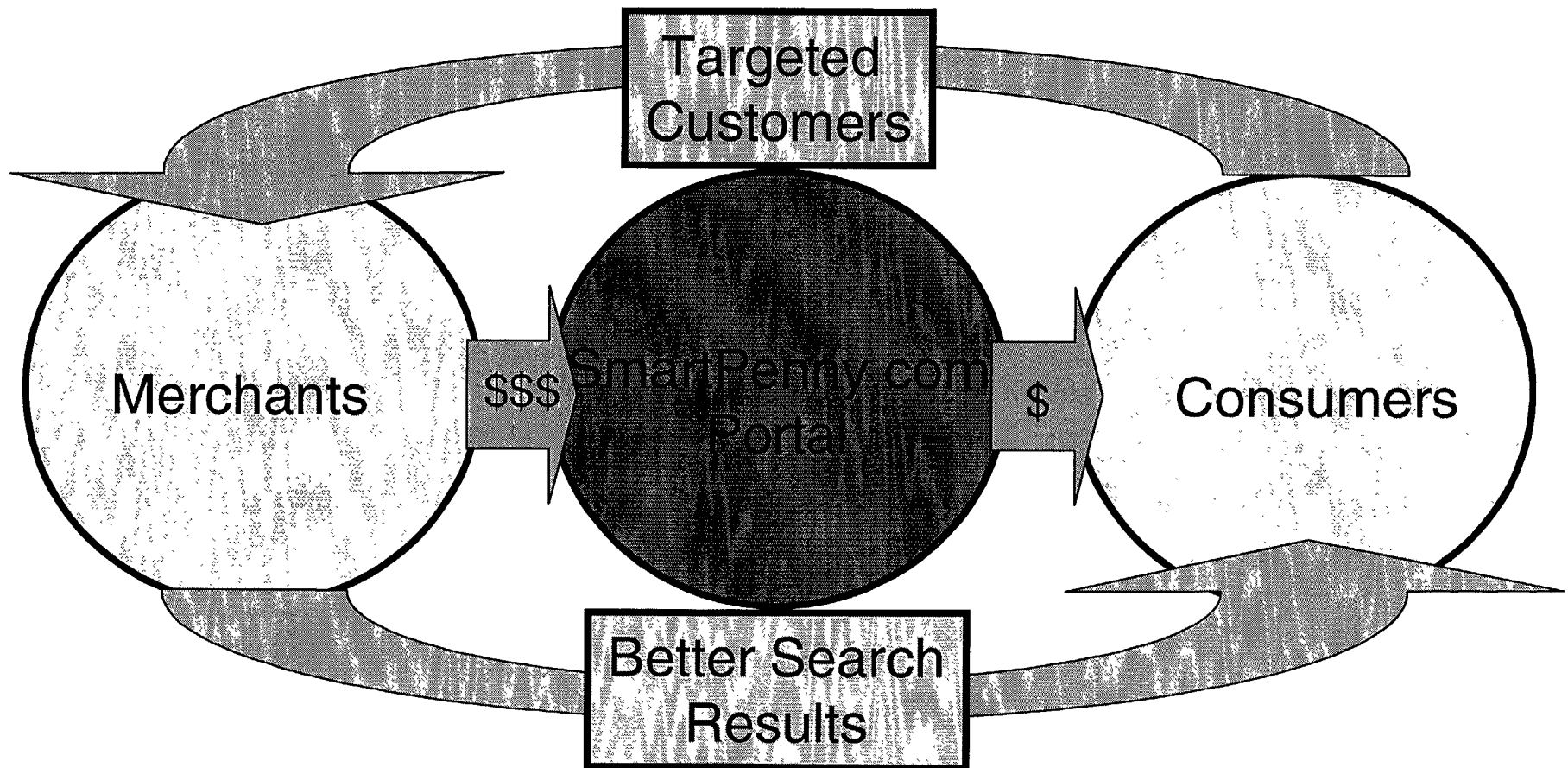


Fig 19