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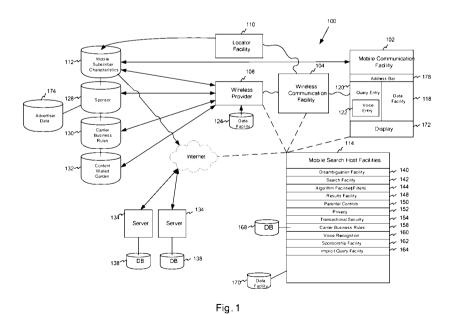
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(54) Title: PRESENTING CONTENT TO A MOBILE COMMUNICATION FACILITY BASED ON CONTEXTUAL AND BE-HAVIORIAL DATA RELATING TO A PORTION OF A MOBILE CONTENT



(57) Abstract: In embodiments of the present invention improved capabilities are described for associating a mobile content, such as a sponsored content, with contextual and/or behavioral data relating to a portion of a second mobile content, and presenting the mobile content to a mobile communication facility. Methods and systems are described for creating, storing, and utilizing a user profile based on contextual and behavioral information.



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# PRESENTING CONTENT TO A MOBILE COMMUNICATION FACILITY BASED ON CONTEXTUAL AND BEHAVIORIAL DATA RELATING TO A PORTION OF A MOBILE CONTENT

#### CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] This application claims priority to the following commonly-owned U.S. Provisional Patent Applications, each of which is incorporated herein by reference in its entirety: U.S Provisional App. No. 60/946,132 filed on June 25, 2007; U.S Provisional App. No. 60/968,188 filed on August 27, 2007; U.S Provisional App. No. 61/037,617 filed on March 18, 2008; and U.S Provisional App. No. 61/052,024 filed on May 9, 2008.

[0002] This application claims priority to each of the following commonly owned U.S. Patent Applications: U.S. App. No. 11/928,819 filed on October 30, 2007; U.S. App. No. 11/928,847 filed on October 30, 2007; U.S. App. No. 11/928,877 filed on October 30, 2007; U.S. App. No. 11/928,937 filed on October 30, 2007; U.S. App. No. 11/928,937 filed on October 30, 2007; U.S. App. No. 11/928,990 filed on October 30, 2007; U.S. App. No. 11/928,990 filed on October 30, 2007; U.S. App. No. 11/928,990 filed on October 30, 2007; U.S. App. No. 11/929,039 filed on October 30, 2007; U.S. App. No. 11/929,039 filed on October 30, 2007; U.S. App. No. 11/929,096 filed on October 30, 2007; U.S. App. No. 11/929,096 filed on October 30, 2007; U.S. App. No. 11/929,105 filed on October 30, 2007; U.S. App. No. 11/929,129 filed on October 30, 2007; U.S. App. No. 11/929,148 filed on October 30, 2007; U.S. App. No. 11/929,171 filed on October 30, 2007; U.S. App. No. 11/929,253 filed on October 30, 2007; U.S. App. No. 11/929,272 filed on October 30, 2007; U.S. App. No. 11/929,272 filed on October 30, 2007; U.S. App. No. 11/929,297 filed on October 30, 2007; and U.S. App. No. 11/929,308 filed on October 30, 2007. Each of these applications is incorporated herein by reference in its entirety.

#### FIELD OF THE INVENTION

[0003] This disclosure relates to the field of mobile communications and more particularly to improved methods and systems for associating a mobile content, such as a sponsored content, with contextual and/or behavioral data relating to a portion of a second mobile content, and presenting the mobile content to a mobile communication facility.

#### **BACKGROUND**

[0004] Online search driven by Web-based search engines has proven to be one of the most significant uses of computer networks such as the Internet. Computer users can employ a variety of search tools to search for content using different user interfaces and search methods. In some circumstances, mobile device users can also access Internet search tools to search for content. However, users of many mobile devices such as cell phones encounter difficulties using search technologies intended for conventional online use. Difficulties include the inability to display appropriate content, difficulty entering queries and taking other suitable actions such as navigation in an environment adapted to full screen displays, full-sized keyboards, and high-speed network connections. Furthermore, Internet search engines are currently unable to optimally deliver search results for a mobile communication facility because these search engines are specifically designed for the Internet and not mobile uses. A need exists for improved search capabilities adapted for use with mobile communication devices.

#### **SUMMARY**

[0005] In embodiments, the present invention may provide a method and system for a user of a mobile communication facility to access an item of content, such as a webpage, which exceeds the capacity of the mobile communication facility to display the entire content. This may force the user of the mobile communication facility to first view a content portion 1 and then navigate to view a content portion 2. The content portion 1 may be associated with a contextual datum 1. The content portion 2 may be associated with a contextual datum 2. Contextual datum 1 and contextual datum 2 may be stored in a contextual database. An association facility may be used to select from a sponsored content database a sponsored content 1 that is associated with the contextual datum 1, and a sponsored content 2 that is associated with the contextual datum 2. The association between the contextual data and the sponsored content may be used to further associate the content portion 1 with the sponsored content 1, and the content portion 2 with the sponsored content 2. During a display of content portion 1, the content portion 1 and its associated sponsored content 1 may be displayed on the mobile communication facility simultaneously, in temporal proximity to one another, in a staged manner, in a sequential presentation, or in some other manner of display in which the content

portion 1 and the sponsored content 1 are associated. During a display of content portion 2, the content portion 2 and its associated sponsored content 2 may be displayed on the mobile communication facility simultaneously, in temporal proximity to one another, in a staged manner, in a sequential presentation, or in some other manner of display in which the content portion 2 and the sponsored content 2 are associated. In embodiments, upon navigating to a content portion, an indication of a stage change may be transmitted to a server associated with the mobile communication facility. The stage change may indicate a redirection to the portion. Once the redirection is registered, it may be possible to glean a contextual datum that is associated with the portion. The process may be asynchronous in that the contextual data may be transmitted from the server in the background so that there is minimal interference with the function of the content portion viewed.

[0006] In embodiments, an asynchronous process used for transmitting contextual data may be Asynchronous JavaScript and XML (AJAX), or a similar process. AJAX refers to a cross-platform technique that may be usable on different operating systems, computer architectures, and web browsers as it is based on open standards such as JavaScript and the DOM. The AJAX system is asynchronous; in that extra data may be requested from a server and loaded in the background without interfering with the display and behavior of an existing page. JavaScript is a scripting language that may be used to make AJAX function calls. Data may be retrieved using the "XMLHttpRequest" object that may be available to scripting languages run in browsers, or alternatively remote scripting in browsers that do not support "XMLHttpRequest." In embodiments, asynchronous content may be formatted in formats other than XML. AJAX, and related techniques, may exchange small amounts of data with a server as a background functionality so that entire web pages do not have to be reloaded each time there is a need to retrieve data from a server. This may increase a webpage's interactivity, speed, functionality, and usability.

[0007] In embodiments, a content portion may be displayed on a display on a mobile communication facility. The mobile communication facility may receive the entire content and then only display portions thereof as appropriate given the user's actions. For example, the user may direct local software (e.g. a browser) on the mobile communication facility to connect to a specific webpage and the software may then retrieve the entire webpage or significant portion of the webpage. The mobile communication facility may then present a portion of the webpage to

the display. For example, the top of the webpage may be presented on the display and the software on the mobile communication facility may wait for indications from the user that the user wants to view another portion of the content. The indication may come as a zoom, pan, shift or other request from the user. The software on the mobile communication facility may monitor what portion is currently being displayed, how long the portion is displayed or other parameters relating to the portion being displayed. The software on the mobile communication facility may then transmit this information to a server in real time such that other content related to the content portion being currently displayed can be transmitted to the mobile communication facility. The server side software may select appropriate content (e.g. sponsored content, related content, etc.) based on the content portion, contextual information related to the content portion, behavioral information based on how the user of the mobile communication facility interacts with the content portion, or other such information. Once selected, the server side software may communicate the content to the mobile communication facility. The mobile communication facility may be configured to accept such information or optionally configured to not accept such content. When the mobile communication facility receives the new content that relates to the currently displayed content portion, the mobile communication facility may store the content for later presentation (e.g. such as when the mobile communication facility gets brought to a certain location, based on a time of day, or based on some other later trigger event or implicit search). In other embodiments, the mobile communication facility may present the newly selected content when it is received. The new content may be presented in coordination with the currently displayed content portion. For example, the new content may be displayed within the same display section (e.g. within the same window), or it may be displayed separately (e.g. in a separate window). AJAX may be one technology used to gain an understanding from the mobile communication facility as to which portion is currently being displayed. One skilled in the art would appreciate that no one software or protocol would be required to discover what content portion is currently being displayed or for communicating related information to the server based application. While many embodiments herein describe sending information to the server in real time relating to what content portions are being displayed, it should be understood that such information may be collected and sent in batches at later points in time.

[0008] In other embodiments, only a portion of the complete content may be communicated to the mobile communication facility and other content portions may be

communicated to the mobile communication facility as requested. So, in contrast to the example above where the majority of the content was delivered to the mobile communication facility and then a portion of the content was selected for presentation on the mobile communication display, in this embodiment, only a portion of the content is delivered to the mobile communication facility. Then other portions of the content can be later delivered. The other content portions may be later delivered in response to a user request (e.g. such as through a pan or zoom request) or through anticipation of what the user is going to want to view (e.g. downloading other content portions through AJAX protocols). In this embodiment, the sever program in charge of monitoring what portions are displayed on the mobile communication display may infer that certain portions are or have been displayed on the mobile communication facility because they have been delivered to the mobile communication facility. The server may track delivery of content portions based on type of request. For example, a user explicit request may be tracked separately from an inference type request that is intended to anticipate what content the user may want to view. Related content selections may be based on any or all types of such content portion requests.

[0009] In embodiments, content may be a text, an image, an audio, an audio-visual, a webpage, a section of a webpage, a section of a screen, a sponsored content, an advertisement, a portion of an advertisement, an interactive feature, a subscription content, a tagged content, a dynamic content, or some other form of content.

[0010] In embodiments, contextual data may be a link structure, a link, an outbound link, an inbound link, a keyword, metadata, or some other form of contextual data.

[0011] In embodiments, the present invention may provide a method and system for a user of a mobile communication facility to access an item of content, such as a webpage, which exceeds the capacity of the mobile communication facility to display the entire content. This may force the user of the mobile communication facility to first view a content portion 1 and then navigate to view a content portion 2. The content portion 1 may be associated with a behavioral datum 1. The content portion 2 may be associated with a behavioral datum 2. Behavioral datum 1 and behavioral datum 2 may be stored in a behavioral database. An association facility may be used to select from a sponsored content database a sponsored content 1 that is associated with the behavioral datum 1, and a sponsored content 2 that is associated with the behavioral datum 2. The association between the behavioral data and the sponsored content

may be used to further associate the content portion 1 with the sponsored content 1, and the content portion 2 with the sponsored content 2. During a display of content portion 1, the content portion 1 and its associated sponsored content 1 may be displayed on the mobile communication facility simultaneously, in temporal proximity to one another, in a staged manner, in a sequential presentation, or in some other manner of display in which the content portion 1 and the sponsored content 1 are associated. During a display of content portion 2, the content portion 2 and its associated sponsored content 2 may be displayed on the mobile communication facility simultaneously, in temporal proximity to one another, in a staged manner, in a sequential presentation, or in some other manner of display in which the content portion 2 and the sponsored content 2 are associated.

[0012] In embodiments, behavioral data may be panning, zooming, navigating, scrolling, positioning, a page view, a text view, an image view, streaming audio content, streaming video content, a download, an upload, a transaction, an advertisement conversion, receiving a text message, sending a text message, receiving an email, sending an email, entering a search query, calling directory information, or some other type of behavioral data. Behavioral data may be communicated to a server that is associated with the mobile communication facility in order to associate the behavioral data with the content that is delivered to the mobile communication facility in response to the receipt of the behavior. The content that is delivered to the mobile communication facility (e.g., the page view) may be used to calculate on the server which portion of a content a user is currently viewing.

[0013] In embodiments, data relating to a portion of an item of content, such as behavioral data that is stored in a behavioral database (and/or contextual data that is stored in a contextual database), may be used to create or augment existing data about a mobile communication facility or its user. For example, behavioral and contextual data relating to portions of content viewed on a mobile communication facility may be added to a usage history, a device characteristics database, a location database, a mobile subscriber characteristics database, a user transaction history database, or a general contextual information database.

[0014] In embodiments, an item of mobile content, such as sponsored content, may be presented to a mobile communication facility based at least in part on contextual data relating to a portion of a mobile content.

[0015] In embodiments, a first sponsored content may be associated with a first contextual datum relating to a first portion of a mobile content. A second sponsored content may be associated with a second contextual datum relating to a second portion of the content. The first sponsored content may be presented to a display of a mobile communication facility upon the presentation of the first portion of the mobile content to the mobile communication facility. The second sponsored content may be presented to the display of the mobile communication facility upon the presentation of the second portion of the mobile content to the mobile communication facility. In embodiments, the association may be based at least in part on a relevance.

[0016] In embodiments, the first portion of the mobile content may be a section of a text, section of a video, section of an audio, section of an image, or a section of come other content type. A section of a text may be a news article.

[0017] In embodiments, the second portion of the mobile content may be a section of a text, section of a video, section of an audio, section of an image, or a section of come other content type. A section of a text may be a news article.

[0018] In embodiments, contextual information may be a link structure, an inbound link, an outbound link, a link, a text, a keyword, a meta data, or some other type of contextual information.

[0019] In embodiments, contextual information may be gathered from a plurality of portions of a primary electronically displayable content, wherein an association between each piece of contextual information and each of the plurality of portions may be maintained such that the context of each portion is identifiable. Information pertaining to an electronic display of at least one portion of the content may be received within a display screen on a mobile communication facility, and secondary content may be presented to the display based at least in part on the contextual information relating to the at least one portion of the content within the display screen. In embodiments, the primary content may be a webpage. In embodiments, the secondary content may be sponsored content. Sponsored content may be an advertisement. An advertisement may contain an actionable feature.

[0020] In embodiments, information may be received relating to a portion of a primary content that is being displayed on a mobile communication facility, wherein the primary content has at least one other portion that is not being displayed. A context may be determined that is

related to the information; and a secondary content may be delivered to the mobile communication facility based on a relation of the secondary content to the context.

- [0021] In embodiments, content context information may be received relating to a panned display position from a mobile communication facility, and content may be delivered to the mobile communication facility based on the content context information.
- [0022] In embodiments, content context information may be received that is related to a zoomed display position from a mobile communication facility, and content may be delivered to the mobile communication facility based on the content context information.
- [0023] In embodiments, content context information may be received that is related to a positioned display position from a mobile communication facility, and content may be delivered to the mobile communication facility based on the content context information.
- [0024] In embodiments, a mobile content, such as a sponsored content, may be presented to a mobile communication facility based at least in part on behavioral data relating to a portion of a mobile content.
- [0025] In embodiments, a user interaction may be registered with a portion of a mobile content using a mobile communication facility. A datum may be associated with the user interaction. The datum may be transmitted to a server. A sponsored content associated with the datum may be selected, wherein the association is based at least in part on a relevance between the portion of the mobile content and the sponsored content, and the sponsored content may be presented to the mobile communication facility.
- [0026] In embodiments, a user interaction may be a page view, a text view, streaming audio content, streaming video content, a download, an upload, receiving a text message, sending a text message, or some other user interaction type.
- [0027] In embodiments, the portion of the mobile content may be a section of a text, section of a video, section of an audio, section of an image, or a section of come other content type. A section of a text may be a news article.
- [0028] In embodiments, content display information may be received that identifies which portion of a primary content is presently being presented to a display screen of a mobile communication facility, wherein the primary content contains at least one other portion that is not presently being displayed, and a user profile may be generated based on the content display information.

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[0029] In embodiments, content display information may be received that identifies what portion of a primary content has been presented to a display screen of a mobile communication facility, and a user profile may be generated based on the content display information.

[0030] In embodiments, content display information may be received that identifies what portion of a primary content has been presented to a display screen of a mobile communication facility, and a popularity ranking may be generated for the presented portion.

[0031] In embodiments, content display information may be received that identifies what portion of a primary content has been presented to a display screen of a first mobile communication facility. Content display information may be received that identifies what portion of the primary content has been presented to a display screen of a second mobile communication facility, and popularity rankings may be generated for the presented portions.

[0032] In embodiments, content display information may be received that identifies how long a portion of a primary content is presently being presented to a display screen of a mobile communication facility, wherein the primary content contains at least one other portion that is not presently being displayed, and a user profile may be generated based on the content display information.

[0033] In embodiments, content display information may be received that identifies how long a portion of a primary content has been presented to a display screen of a mobile communication facility, and a user profile may be generated based on the content display information.

[0034] In embodiments, content display information may be received that identifies how long a portion of a primary content has been presented to a display screen of a mobile communication facility, and a popularity ranking may be generated for the presented portion.

[0035] In embodiments, content display information may be received that identifies how long a portion of a primary content has been presented to a display screen of a first mobile communication facility. Content display information may be received that identifies how long a portion of the primary content has been presented to a display screen of a second mobile communication facility, and a popularity ranking may be generated for the presented portions.

[0036] In embodiments, content portion display information may be received from a mobile communication facility. Mobile subscriber characteristic information relating to the mobile communication facility may be received, and sponsored content may be delivered to the

mobile communication facility based in part on the content portion display information and in part based on the mobile subscriber characteristic information.

[0037] In embodiments, content portion display information may be received from a mobile communication facility, and the content portion display information may be added to a mobile subscriber characteristic database relating to the mobile communication facility.

[0038] In embodiments, content portion display information may be received from a mobile communication facility. Mobile subscriber characteristic information relating to the mobile communication facility may be received, and a user profile may be generated based at least in part on the content portion display information and in part based on the mobile subscriber characteristic information.

[0039] In embodiments, the present invention may provide a method and system for receiving a navigation request from a mobile communication facility, receiving an indicator input, receiving a business rule relating to handling a mobile content type, dynamically creating a content based at least in part on an association of the navigation request, the indicator input and the business rule, and presenting the dynamically created content to the mobile communication facility.

[0040] In embodiments, the navigation request may be a search query, a domain name entry, a web browser action, a menu selection, an implicit, a transaction, an advertisement conversion, and the like.

[0041] In embodiments, the indicator input may be a content popularity, a query popularity, an emerging query, a current mobile communication facility location, a previous mobile communication facility location, a user characteristic, an editorial work product, and the like. In embodiments, the indicator input may be a data provided by a wireless provider. Furthermore, in embodiments, the data may be a transaction history. In embodiments, the indicator input may be provided by data on the mobile communication facility and the data may be a location, a usage history, and the like.

[0042] In embodiments, the dynamically created content may be banner advertisement, a text insertion, and the like.

[0043] In embodiments, the business rule may be related to an advertiser's requirement, a content provider's requirement, a wireless provider's requirement, and the like.

[0044] In embodiments, the present invention may provide a method and system for receiving a wireless carrier datum from a mobile carrier, receiving a navigation request from a mobile communication facility, assessing a relevancy of a content based at least in part on the relation of the wireless carrier datum to the navigation request, and presenting the content to the mobile communication facility based at least in part on the relevancy of the content. In embodiments, the mobile communication facility may be a phone, a mobile phone, a cellular phone, a GSM phone, and the like

[0045] In embodiments, the navigation request may be a search query, a domain name entry, a web browser action, a menu selection, a folder selection, implicit, and the like. Furthermore, in embodiments, the navigation request may be based on the location of the mobile communication facility. In embodiments, the navigation request may be a transaction or an advertisement conversion. In embodiments, the advertisement conversion may happen on clicking an advertisement. In embodiments, the wireless provider datum may be based at least in part on content relationships relating to the progression of a user sessions, on content discovery of new websites, on access statistics, on usage statistics, on a navigation request received from the mobile communication facility, and the like. In embodiments, the wireless provider datum may relate to a stage in an online buying process based at least in part on a mobile content type that is being accessed or on a on a user's interaction with a website following conversion of a content item

[0046] In embodiments, the relevancy may be a mobile subscriber characteristic, a user transaction, a location, or a usage history. In embodiments, the usage history may be a browse history. In embodiments, the relevancy may be based at least in part on a mobile communication device characteristic. In embodiments, the level relevancy may relate to a mobile subscriber characteristic, such as selected from a group consisting of age, sex, race, religion, area code, zip code, home address, work address, billing address, credit information, family information, income information, birth date, birthplace, employer, job title, length of employment, and the like.

[0047] In embodiments, the relevancy may relate to location. There may be a plurality of techniques in determining the location of a mobile communication facility, such as by GPS, by triangulation, by triangulation utilizing Wi-Fi, and the like. The location of a mobile communications facility may be determined when a user enters a particular location; may

involve a plurality of geographic regions, such as states, cities, and the like; may be specified according to a distance from a specified location; may be associated with some aspect of the mobile communications facility mobile content; may be associated with a previous location or a current location; and the like.

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[0048] In embodiments, the relevancy may be based at least in part on a mobile communication device characteristic, including display capability, display size, display resolution, processing speed, audio capability, video capability, cache size, storage capability, memory capacity, other mobile communication facility characteristics, and the like.

[0049] In embodiments, the wireless carrier datum may be associated with metadata regarding a website.

[0050] In embodiments, the present invention may provide a method and system for receiving a search query from a mobile communication facility and presenting search results to the mobile communication facility wherein the search results may include non-subscription content and content to which a user is subscribed, wherein an indication that the user is subscribed may be contained in the mobile subscriber characteristics database associated with the mobile communication facility.

[0051] In embodiments, the subscription content may be a text, an image, an audio file, a video, an RSS feed, and the like.

[0052] In embodiments, the subscription content presented to the phone may be selected based at least in part on a compatibility to a mobile communication facility device characteristic.

[0053] In embodiments, the non-subscription content presented to the phone may be selected based at least in part on a relevancy to a mobile subscriber characteristic. In embodiments, the mobile subscriber characteristic may be a demographic.

[0054] In embodiments, the non-subscription content presented to the phone may be selected based at least in part on a relevancy to a user transaction. In embodiments, the user transaction may be an online product purchase.

[0055] In embodiments, the non-subscription content presented to the phone may be selected based at least in part on a relevancy to a usage history. In embodiments, the usage history may be a browse history.

[0056] In embodiments, the non-subscription content presented to the phone may be selected based at least in part on a relevancy to the content to which the user is subscribed. In

embodiments, the relevancy may be based at least in part on contextual information related to the content to which a user is subscribed. In embodiments, the contextual information may be a link structure, an inbound link, an outbound link, a text, a keyword, meta data, and the like.

[0057] In embodiments, the present invention may provide a method and system for receiving a search query from a mobile communication facility and presenting search results to the mobile communication facility wherein the search results include non-subscription content and content to which a user may be offered a subscription.

[0058] In embodiments, the subscription offer may be presented to the user as a link. In embodiments, clicking on the link may initiate a phone call to a subscription fulfillment center, connect the user to a subscription order form, and the like.

[0059] In embodiments, the present invention may provide a method and system for receiving a search query from a mobile communication facility, receiving an indicator input, classifying the search query in association with the indicator input, and formatting the presentation of a search result of the search query based at least in part on the indicator input and search query association.

[0060] In embodiments, the indicator input may be content popularity, query popularity, an emerging query, a current mobile communication facility location, a previous mobile communication facility location, a user characteristic, an editorial work product, data provided by a wireless provider where the data is a transaction history, an indicator input provided by data on the mobile communication facility, an indicator input provided by data on the mobile communication facility where the data location, an indicator input provided by data on the mobile communication facility where the data is usage history, and the like.

[0061] In embodiments, the classification may be made based at least in part on a search vertical, a domain name, a keyword definition, a category, a list of structured data, a query-modifier combination, a query-modifier as a category-sub-category, a reference source, an adult classification, and the like. In embodiments, the classification may be associated with a plurality of search verticals, such as a general search, or related to ringtones, images, games, yellow-pages, weather, white-pages, news headlines, WAP sites, web sites, movie show times, sports scores, stock quotes, flight times, maps, directions, price comparison, Wi-Fi hotspots, package

tracking, hotel rates, fantasy sports stats, horoscopes, answers, a dictionary, area codes, zip codes, entertainment, blogs, and the like.

[0062] In embodiments, the formatting may include grouping results based at least in part on an association with a mobile subscriber characteristic, a grouping of results based at least in part on a shared content characteristic, an association with a user transaction, an association with a usage history, in association with a usage history including a user's prior browse activity, an association with a location, an association with a location, a capability of the mobile communication facility, and the like. In embodiments, the formatting may include expanded category results, results ordered by indicators, category results, and the like. In embodiments formatting may include grouping results based at least in part on a capability of the mobile communication facility such as audio capability, visual capability, processing capability, screen capability, and the like, where the mobile communication facility may be a phone, a mobile phone, a cellular phone, a GSM phone, and the like.

[0063] In embodiments, the formatting may relate to a mobile subscriber characteristic, such as selected from a group consisting of age, sex, race, religion, area code, zip code, home address, work address, billing address, credit information, family information, income information, birth date, birthplace, employer, job title, length of employment, and the like.

[0064] In embodiments, the formatting may relate to location. There may be a plurality of techniques in determining the location of a mobile communication facility, such as by GPS, by triangulation, by triangulation utilizing Wi-Fi, and the like. The location of a mobile communications facility may be determined when a user enters a particular location; may involve a plurality of geographic regions, such as states, cities, and the like; may be specified according to a distance from a specified location; may be associated with some aspect of the mobile communications facility mobile content; may be associated with a previous location or a current location; and the like.

[0065] In embodiments, the present invention may provide a method and system for transcoding non-mobile specific content, creating a blended content repository that includes mobile specific content and transcoded webpage content, receiving a navigation request from a mobile communication facility, presenting a content to the mobile communication facility from the blended content repository based at least in part on a relevancy to the navigation request, and the like.

[0066] In embodiments, the blended content repository may be created automatically according to an algorithm, indexed according to an association to a mobile subscriber characteristic, indexed according to an association to a wireless carrier datum, and the like. The wireless carrier datum may be based at least in part on content relationships relating to the progression of a user session, content discovery of new websites, access statistics, usage statistics, and the like. Furthermore, in embodiments, the wireless carrier datum may relate to a stage in an online buying process based at least in part on a mobile content type that is being accessed. In embodiments, the wireless carrier datum may be based at least in part on a user's interaction with a website following conversion of a content item, on a navigation request received from the mobile communication facility, and the like.

[0067] In embodiments, the relevancy may be a mobile subscriber characteristic, a user transaction, a location, a usage history, and the like. In embodiments, the usage history may be a browse history. In embodiments, the relevancy may be based at least in part on a mobile communication device characteristic.

[0068] In embodiments, the navigation request may be a search query, a domain name entry, a web browser action, a menu selection, a folder selection, implicit, a transaction, an advertisement conversion, and the like.

[0069] In embodiments, the present invention may provide a method and system for associating a mobile website content with a non-mobile website content, saving the association in a data facility, receiving a request for the non-mobile website content from a mobile communication facility, searching the data facility for the mobile website content associated with the non-mobile website content, and presenting the mobile website content to the mobile communication facility.

[0070] In embodiments, associating the mobile website content with the non-mobile website content may be based at least in part on wireless carrier data. Examples of wireless carrier data may include WAP gateway data, mobile server gateway data, server gateway data, a remote server data, and the like.

[0071] In embodiments, the association may be established by a self-submission of a mobile website owner. The self-submission may include an identifier of a non-mobile website with which a mobile website has a relationship, a plurality of identifiers of non-mobile websites

with which a mobile website has a relationship. In embodiments, the self-submission may be related to a paid inclusion service.

[0072] In embodiments, the association may be established by spidering content. The spidering may be an automated process of traversing webpages beginning at one or more root pages on a website and traversing the links from those pages.

[0073] In embodiments, the association may be established based at least in part on contextual information associated with the website. The contextual information may be a link structure, an inbound link, an outbound link, a link, a text, a keyword, a meta data, an anchor text, and the like.

[0074] In embodiments, the association may be established based at least in part on a comparison of contextual information associated with a plurality of websites.

[0075] In embodiments, the association may be established based at least in part on an indicator of website quality.

[0076] In embodiments, the data facility may be associated with a mobile subscriber characteristics database, a user transaction database, a usage history database, or the like.

[0077] In embodiments, the present invention may provide a method and system for associating a non-sponsored content with a sponsored content based at least in part on a relevancy to a mobile subscriber characteristic Add reference claim number associated with a mobile communication facility and presenting the non-sponsored and sponsored content combination to the mobile communication facility as a single content.

[0078] In embodiments, the non-sponsored content may be a game, a video, a text, or the like.

[0079] In embodiments, the sponsored content may be an advertisement, a syndicated content, and the like.

[0080] In embodiments, the present invention may provide a method and system for associating a non-sponsored content with a sponsored content based at least in part on a relevancy to a user transaction associated with a mobile communication facility and presenting the non-sponsored and sponsored content combination to the mobile communication facility as a single content.

[0081] In embodiments, the user transaction may be an online product purchase or an ad conversion.

[0082] In embodiments, the present invention may provide a method and system for associating a non-sponsored content with a sponsored content based at least in part on a relevancy to a usage history associated with a mobile communication facility and presenting the non-sponsored and sponsored content combination to the mobile communication facility as a single content.

[0083] In embodiments, the usage history may be a browse history, an ad conversion history, wireless carrier data, and the like.

[0084] In embodiments, the present invention may provide a method and system for associating a non-sponsored content with a sponsored content based at least in part on a relevancy to a location associated with a mobile communication facility and presenting the non-sponsored and sponsored content combination to the mobile communication facility as a single content.

[0085] In embodiments, the location may be a location history, a previous location, a current location, and the like.

[0086] In embodiments, the present invention may provide a method and system for associating a non-sponsored content with a sponsored content based at least in part on a relevancy to contextual information associated with a website presented to a mobile communication facility and presenting the non-sponsored and sponsored content combination to the mobile communication facility as a single content.

[0087] In embodiments, the contextual information may be a link structure, an inbound link, an outbound link, a link, a text, a keyword, meta data, and the like.

[0088] In embodiments, the present invention may provide a method and system for receiving a bid for an exclusive sponsored content item to be presented on a mobile communication facility, the bid including an amount and at least one exclusivity characteristic relating to a mobile subscriber characteristic and matching the at least one exclusivity characteristic with the exclusive sponsored content item based at least in part on a relevancy for presentation to a mobile communication facility.

[0089] In embodiments, the present invention may provide a method and system for receiving a bid for an exclusive sponsored content item to be presented on a mobile communication facility, the bid including an amount and at least one exclusivity characteristic relating to a usage history and matching the at least one exclusivity characteristic with the

exclusive sponsored content item based at least in part on a relevancy for presentation to a mobile communication facility.

[0090] In embodiments, the present invention may provide a method and system for receiving a bid for an exclusive sponsored content item to be presented on a mobile communication facility, the bid including an amount and at least one exclusivity characteristic relating to a location and matching the at least one exclusivity characteristic with the exclusive sponsored content item based at least in part on a relevancy for presentation to a mobile communication facility.

[0091] In embodiments, the present invention may provide a method and system for receiving a bid for an exclusive sponsored content item to be presented on a mobile communication facility, the bid including an amount and at least one exclusivity characteristic relating to a mobile communication device characteristic and matching the at least one exclusivity characteristic with the exclusive sponsored content item based at least in part on a relevancy for presentation to a mobile communication facility.

[0092] In embodiments, the present invention may provides a method and system for receiving a bid for an exclusive sponsored content item to be presented on a mobile communication facility, the bid including an amount and at least one exclusivity characteristic relating to a user transaction and matching the at least one exclusivity characteristic with the exclusive sponsored content item based at least in part on a relevancy for presentation to a mobile communication facility.

[0093] In embodiments, the mobile communication facility may be a phone, a mobile phone, a cellular phone, or a GSM phone.

[0094] In embodiments, the bid may be submitted as part of a competitive auction or is an open bid.

[0095] In embodiments, the location may be a previous location or a current location. In embodiments, the location may be determined according to location coordinates of a particular mobile communication facility. In embodiments, the location coordinates may be determined through GPS or through triangulation. In embodiments, the triangulation may be a Wi-Fi triangulation.

[0096] In embodiments, the location may be determined by a user entered location. In embodiments, the location may be a plurality of geographic regions. In embodiments, the

plurality of geographic regions may include one or more states. In embodiments, the plurality of geographic regions may include one or more cities.

[0097] In embodiments, the location may be determined according to a distance from a specified location. In embodiments, the mobile subscriber characteristic may be a demographic. In embodiments, the user transaction may be an online product purchase or an ad conversion. In embodiments, the usage history may be a browse history or an ad conversion history. In embodiments, the mobile communication facility device characteristic may be a display characteristic. In embodiments, the relevancy may be a score.

[0098] In embodiments, the present invention may provide a method and system for associating an interactive element with a sponsored content, presenting the sponsored content to a mobile communication facility based at least in part on a relevancy to a mobile subscriber characteristic associated with the mobile communication facility, and allowing a user of the mobile communication facility to engage the interactive element within the sponsored content.

[0099] In embodiments, the interactive element may be a game, a search facility, text box, and the like.

[00100] In embodiments, the mobile subscriber characteristic may be a demographic, a user profile, billing information, and the like.

[00101] In embodiments, the present invention may provide a method and system for associating an interactive element with a sponsored content, presenting the sponsored content to a mobile communication facility based at least in part on a relevancy to contextual information associated with a website, and allowing a user of the mobile communication facility to engage the interactive element within the sponsored content.

[00102] In embodiments, the contextual information may be a link structure, an inbound link, an outbound link, a link, a text, a keyword, a meta data, and the like.

[00103] In embodiments, the present invention may provide a method and system for associating an interactive element with a sponsored content, presenting the sponsored content to a mobile communication facility based at least in part on a relevancy to a user transaction associated with the mobile communication facility, and allowing a user of the mobile communication facility to engage the interactive element within the sponsored content.

[00104] In embodiments, the user transaction may be an online product purchase, an ad conversion, and the like.

[00105] In embodiments, the present invention may provide a method and system for associating an interactive element with a sponsored content, presenting the sponsored content to a mobile communication facility based at least in part on a relevancy to a usage history associated with the mobile communication facility, and allowing a user of the mobile communication facility to engage the interactive element within the sponsored content.

[00106] In embodiments, the usage history may be a browse history, an ad conversion history, wireless carrier data, and the like.

[00107] In embodiments, the present invention may provide a method and system for associating an interactive element with a sponsored content, presenting the sponsored content to a mobile communication facility based at least in part on a relevancy to a location associated with the mobile communication facility, and allowing a user of the mobile communication facility to engage the interactive element within the sponsored content.

[00108] In embodiments, the location may be a location history, a previous location, a current location, a location determined according to location coordinates of a particular mobile communication facility, a location determined by a user entered location, a location that is a plurality of geographic regions, a location determined according to a distance from a specified location, and the like.

[00109] In embodiments, the present invention may provide a method and system for receiving a navigation request from a mobile communication facility, receiving an indicator input, dynamically creating a content based at least in part on an association of the navigation request and the indicator input, and presenting the dynamically created content to the mobile communication facility. In embodiments, the mobile communication facility may be a phone, a mobile phone, a cellular phone, a GSM phone, and the like.

[00110] In embodiments, the navigation request may be a search query, a domain name entry, a web browser action, a menu selection, a folder selection, implicit, an implicit navigation request is based on the location of the mobile communication facility, a transaction, an advertisement conversion, an advertisement conversion by clicking an advertisement, and the like.

[00111] In embodiments, the indicator input may be content popularity, query popularity, an emerging query, a current mobile communication facility location, a previous mobile communication facility location, a mobile subscriber characteristic, an editorial work product,

and the like. In embodiments, the indicator input may be data provided by a wireless provider, wherein the data may be a transaction history. In embodiments, the indicator input may be provided by data on the mobile communication facility, wherein the data may be location, usage history, and the like. In embodiments, the indicator input may relate to a mobile subscriber characteristic, such as selected from a group consisting of age, sex, race, religion, area code, zip code, home address, work address, billing address, credit information, family information, income information, birth date, birthplace, employer, job title, length of employment, and the like.

[00112] In embodiments, the indicator input may be provided by data on the mobile communication facility, where the data may be determined by location. There may be a plurality of techniques in determining the location of a mobile communication facility, such as by GPS, by triangulation, by triangulation utilizing Wi-Fi, and the like. The location of a mobile communications facility may be determined when a user enters a particular location; may involve a plurality of geographic regions, such as states, cities, and the like; may be specified according to a distance from a specified location; may be associated with some aspect of the mobile communications facility mobile content; may be associated with a previous location or a current location; and the like.

[00113] In embodiments, the dynamically created content may be an advertisement, wherein the advertisement may be a banner advertisement. In embodiments, the dynamically created content may be a text insertion, an image, and the like.

[00114] In embodiments, the present invention may provide a method and system for associating a survey question with an interactive sponsored content, selecting the interactive sponsored content based at least in part on a mobile subscriber characteristic associated with a mobile communication facility, presenting the interactive sponsored content to the mobile communication facility, receiving a response to the survey question from the mobile communication facility, analyzing a plurality of user responses to the survey question, and presenting a survey analytic to the mobile communication facility based at least in part on the analysis.

[00115] In embodiments, the mobile subscriber characteristic may be a demographic, billing information, a user profile, and the like.

[00116] In embodiments, the present invention may provide a method and system for associating a survey question with an interactive sponsored content, selecting the interactive sponsored content based at least in part on a user transaction associated with a mobile communication facility, presenting the interactive sponsored content to the mobile communication facility, receiving a response to the survey question from the mobile communication facility, analyzing a plurality of user responses to the survey question; and presenting a survey analytic to the mobile communication facility based at least in part on the analysis.

[00117] In embodiments, the user transaction may be an online product purchase, an ad conversion, and the like.

[00118] In embodiments, the present invention provides a method and system for associating a survey question with an interactive sponsored content, selecting the interactive sponsored content based at least in part on a usage history associated with a mobile communication facility, presenting the interactive sponsored content to the mobile communication facility, receiving a response to the survey question from the mobile communication facility, analyzing a plurality of user responses to the survey question, and presenting a survey analytic to the mobile communication facility based at least in part on the analysis.

[00119] In embodiments, the usage history may be a browse history, an ad conversion history, and the like.

[00120] In embodiments, the present invention may provide a method and system for associating a survey question with an interactive sponsored content, selecting the interactive sponsored content based at least in part on a location associated with a mobile communication facility, presenting the interactive sponsored content to the mobile communication facility, receiving a response to the survey question from the mobile communication facility, analyzing a plurality of user responses to the survey question, and presenting a survey analytic to the mobile communication facility based at least in part on the analysis.

[00121] In embodiments, the location may be a previous location, a current location, and the like. In embodiments, the location may be determined according to location coordinates of a particular mobile communication facility, determined by a user entered location, and the like. In

embodiments, the location may be plurality of geographic regions. In embodiments, the location may be determined according to a distance from a specified location.

[00122] In embodiments, the present invention provides a method and system for associating a survey question with an interactive sponsored content, selecting the interactive sponsored content based at least in part on contextual information that is associated with a website, presenting the interactive sponsored content to the mobile communication facility, receiving a response to the survey question from the mobile communication facility, analyzing a plurality of user responses to the survey question, and presenting a survey analytic to the mobile communication facility based at least in part on the analysis.

[00123] In embodiments, the contextual information may be a link structure, an inbound link, an outbound link, a link, a text, a keyword, meta data, and the like.

[00124] In embodiments, the present invention may provide a method and system for receiving a search keyword from an offline advertisement, entering the search keyword in a mobile communication facility search facility, and presenting content relating to the offline advertisement to the mobile communication facility based at least in part on the search keyword and a relevancy to a criterion associated with the mobile communication facility. In embodiments, the mobile communication facility may be a phone, a mobile phone, a cellular phone, a GSM phone, and the like.

[00125] In embodiments, the keyword may be associated with a search vertical. In embodiments, the offline advertisement may be a newspaper advertisement, a magazine advertisement, a television advertisement, a radio advertisement, a mailed advertisement, a billboard or some other type of advertisement. In embodiments, the search keyword 2108 may be associated with a plurality of search verticals, such as a general search, or related to ringtones, images, games, yellow-pages, weather, white-pages, news headlines, WAP sites, web sites, movie show times, sports scores, stock quotes, flight times, maps, directions, price comparison, Wi-Fi hotspots, package tracking, hotel rates, fantasy sports stats, horoscopes, answers, a dictionary, area codes, zip codes, entertainment, blogs, and the like.

[00126] In embodiments, the criterion may be a mobile subscriber characteristic, a usage history, and the like. In embodiments, the usage history may be a browse history, a search history, and the like.

[00127] In embodiments, the criterion may be a mobile subscriber characteristic, such as selected from a group consisting of age, sex, race, religion, area code, zip code, home address, work address, billing address, credit information, family information, income information, birth date, birthplace, employer, job title, length of employment, and the like.

[00128] In embodiments, the criterion may be a user transaction, a location, and the like. In embodiments, the criterion may relate to location. There may be a plurality of techniques in determining the location of a mobile communication facility, such as by GPS, by triangulation, by triangulation utilizing Wi-Fi, and the like. The location of a mobile communications facility may be determined when a user enters a particular location; may involve a plurality of geographic regions, such as states, cities, and the like; may be specified according to a distance from a specified location; may be associated with some aspect of the mobile communications facility mobile content; may be associated with a previous location or a current location; and the like.

[00129] In embodiments, the relevance may be based at least in part on an expected value. Furthermore, in embodiments, the expected value may be based at least in part on data associated with the mobile content, where the data associated with the mobile content may be a bid, a click-through volume, and the like.

[00130] In embodiments, the content may be advertisement, a sponsored, and the like. In embodiments, the content may be presented based at least in part on contextual information relating to website content. The contextual information may be a link structure, an inbound link, an outbound link, a link, a text, a keyword, meta data, and the like.

[00131] In embodiments, the present invention may provide a method and system for providing a user interface that simultaneously and dynamically presents a sponsored content concurrently with activating a mobile communication facility, wherein the dynamic presentation is based at least in part on a mobile subscriber characteristic.

[00132] In embodiments, the mobile content may be an advertisement, a sponsored content, a sponsored call or a search box. In embodiments, the mobile content may be branded using a wireless carrier brand.

[00133] In embodiments, presenting the sponsored content may be based at least in part on a relevancy of a mobile subscriber characteristic to contextual information associated with the content. In embodiments, the contextual information may be a link structure, an inbound link, an

outbound link, a link, a text, a keyword, meta data and the like. In embodiments, the contextual information may be provided by a server associated with a wireless carrier. In embodiments, the server may be a WAP server, a mobile application gateway, a WAP gateway, a proxy, a webserver, and the like.

[00134] In embodiments, presenting the sponsored content may be based at least in part on a relevancy of the content to behavioral information associated with a user of the mobile communication facility.

[00135] In embodiments, the present invention may provide a method and system for providing a user interface that simultaneously and dynamically presents a sponsored content concurrently with activating a mobile communication facility, wherein the dynamic presentation is based at least in part on a user transaction history.

[00136] In embodiments, the present invention may provide a method and system for providing a user interface that simultaneously and dynamically presents a sponsored content concurrently with activating a mobile communication facility, wherein the dynamic presentation is based at least in part on a user usage history.

[00137] In embodiments, the present invention may provide a method and system for providing a user interface that simultaneously and dynamically presents a sponsored content concurrently with activating a mobile communication facility, wherein the dynamic presentation is based at least in part on a location of a mobile communication facility.

[00138] In embodiments, the present invention may provide a method and system for providing a user interface that simultaneously and dynamically presents a sponsored content concurrently with activating a mobile communication facility, wherein the dynamic presentation is based at least in part on a mobile communication facility device characteristic.

[00139] In embodiments, the present invention may provide a method and system for receiving a navigation request from a mobile communication facility, associating a sponsored mobile coupon with the navigation request based at least in part on a relevancy, wherein the relevancy is based at least in part on a mobile subscriber characteristic, and presenting the sponsored mobile coupon to the mobile communication facility.

[00140] In embodiments, the navigation request may be a search query, a domain name entry, a web browser action, a menu selection, a folder selection, implicit, and the like.

- [00141] In embodiments, the present invention may provide a method and system for receiving a navigation request from a mobile communication facility, associating a sponsored mobile coupon with the navigation request based at least in part on a relevancy, wherein the relevancy is based at least in part on wireless provider data, and presenting the sponsored mobile coupon to the mobile communication facility.
- [00142] In embodiments, the wireless provider datum may be based at least in part on content relationships relating to the progression of user sessions, content discovery of new websites, access statistics, usage statistics, user interactions with a website following conversion of a content item, a navigation request received from the mobile communication facility, and the like. In embodiments, the wireless provider datum may relate to a stage in an online buying process based at least in part on a mobile content type that is being accessed.
- [00143] In embodiments, the present invention may provide a method and system for receiving a navigation request from a mobile communication facility, associating a sponsored mobile coupon with the navigation request based at least in part on a relevancy, wherein the relevancy is based at least in part on a usage history, and presenting the sponsored mobile coupon to the mobile communication facility.
- [00144] In embodiments, the usage history may be a browse history, an ad conversion history, and the like.
- [00145] In embodiments, the present invention provides a method and system for receiving a navigation request from a mobile communication facility, associating a sponsored mobile coupon with the navigation request based at least in part on a relevancy, wherein the relevancy is based at least in part on a user transaction, and presenting the sponsored mobile coupon to the mobile communication facility.
- [00146] In embodiments, the user transaction may be an online product purchase, an ad conversion, and the like.
- [00147] In embodiments, the present invention provides a method and system for receiving a navigation request from a mobile communication facility, associating a sponsored mobile coupon with the navigation request based at least in part on a relevancy, wherein the relevancy is based at least in part on a location, and presenting the sponsored mobile coupon to the mobile communication facility.

[00148] In embodiments, the location may be a previous location, a current location, a location determined according to location coordinates of a particular mobile communication facility, and the like.

[00149] In embodiments, the present invention may provide a method and system for presenting a sponsored mobile coupon to a mobile communication facility based at least in part on a relevancy, wherein the relevancy is based at least in part on a mobile subscriber characteristic, redeeming the coupon at an offline sponsor location using the mobile communication facility, recording conversion of the coupon in a conversion data repository, transmitting the conversion data repository to a wireless carrier, and analyzing the conversion data repository to determine an action.

[00150] In embodiments, the action may be replenishing the inventory of a merchandise item, making payment to a mobile carrier, sending customer warranty information, and the like.

[00151] In embodiments, the present invention provides a method and system for presenting a sponsored mobile coupon to a mobile communication facility based at least in part on a relevancy, wherein the relevancy is based at least in part on wireless provider data, redeeming the coupon at an offline sponsor location using the mobile communication facility, recording conversion of the coupon in a conversion data repository, transmitting the conversion data repository to a wireless carrier, and analyzing the conversion data repository to determine an action.

[00152] In embodiments, the wireless provider datum may be based at least in part on content relationships relating to the progression of a user sessions, content discovery of new websites, access statistics, usage statistics, a user's interaction with a website following conversion of a content item, navigation request received from the mobile communication facility, and the like. In embodiments, the wireless provider datum may relate to a stage in an online buying process based at least in part on a mobile content type that is being accessed.

[00153] In embodiments, the present invention may provide a method and system for presenting a sponsored mobile coupon to a mobile communication facility based at least in part on a relevancy, wherein the relevancy is based at least in part on a user transaction, redeeming the coupon at an offline sponsor location using the mobile communication facility, recording conversion of the coupon in a conversion data repository, transmitting the conversion data

repository to a wireless carrier, and analyzing the conversion data repository to determine an action.

[00154] In embodiments, the user transaction may be an online product purchase, an ad conversion, and the like.

[00155] In embodiments, the present invention provides a method and system for presenting a sponsored mobile coupon to a mobile communication facility based at least in part on a relevancy, wherein the relevancy is based at least in part on a usage history, redeeming the coupon at an offline sponsor location using the mobile communication facility, recording conversion of the coupon in a conversion data repository, transmitting the conversion data repository to a wireless carrier, and analyzing the conversion data repository to determine an action.

[00156] In embodiments, the usage history may be a browse history, an ad conversion history, and the like.

[00157] In embodiments, the present invention provides a method and system for presenting a sponsored mobile coupon to a mobile communication facility based at least in part on a relevancy, wherein the relevancy is based at least in part on a location, redeeming the coupon at an offline sponsor location using the mobile communication facility, recording conversion of the coupon in a conversion data repository, transmitting the conversion data repository to a wireless carrier, and analyzing the conversion data repository to determine an action.

[00158] In embodiments, the location may be a previous location, a current location, a plurality of geographic regions, determined according to location coordinates of a particular mobile communication facility, determined according a distance from a specified location, determined by a user entered location, and the like.

[00159] In embodiments, the present invention may provide a method and system for using wireless provider data to ascertain a web browser activity, recording a user's mobile web browser activity performed on a mobile communication facility, storing a plurality of mobile web browser activities relating to the user, analyzing the plurality of mobile web browser activities to determine a relationship among web browser activities, creating a category of user profile based at least in part on the analysis, associating the category of user profile with the user,

and presenting a content to the mobile communication facility based at least in part on the category of user profile.

- [00160] In embodiments, the wireless provider data may include advertisement tag data.
- [00161] In embodiments, a category may be created including a user profile based at least in part on an association of mobile web browser activity and a mobile subscriber characteristic. Furthermore, in embodiments, the mobile subscriber characteristic may be a demographic.
- [00162] In embodiments, a category may be created including a user profile based at least in part on an association of mobile web browser activity and a user transaction. Furthermore, in embodiments, the user transaction may be an online product purchase, ad conversion or some other type of user transaction.
- [00163] In embodiments, a category may be created including a user profile based at least in part on an association of mobile web browser activity and contextual information relating to a website. The contextual information may be a link structure, an inbound link, an outbound link, a link, a text, a keyword, and the like.
- [00164] In embodiments, a category may be created including a user profile based at least in part on an association of mobile web browser activity and a usage history. The usage history may be a browse history, an ad conversion history, a wireless carrier data, and the like.
- [00165] In embodiments, a category may be created including a user profile based at least in part on an association of mobile web browser activity and a location. The location may be a location history, a previous location, a current location, and the like.
- [00166] In embodiments, the content may be a sponsored content, an advertisement, and the like.
- [00167] In embodiments, the present invention may provide a method and system for recording data related to a user's mobile web browser activity performed on a mobile communication facility, storing a plurality of mobile web browser activities relating to the user, and creating a user browse behavior profile based at least in part on the plurality of mobile web browser activities, wherein the user browse behavior profile is stored as a type of mobile subscriber characteristic.
- [00168] In embodiments, presenting content to the mobile communication facility based at least in part on the user browse behavior profile. The content may be a sponsored content, an advertisement, and the like.

- [00169] In embodiments, the data may be contextual information associated with a website. The contextual information may be a link structure, an inbound link, an outbound link, a link, a text, a keyword, and the like.
- [00170] In embodiments, the data may be related to a user transaction. The user transaction may be an online product purchase, an ad conversion, and the like
- [00171] In embodiments, the data may be related to a usage history. The usage history may be a browse history, an ad conversion history, a wireless carrier data, and the like.
- [00172] In embodiments, the data may be related to a location. The location may be a location history, a previous location, a current location, and the like.
- [00173] In embodiments, the user browse behavior profile is indexed according to a relevancy. In embodiments, the relevancy may relate to a search vertical.
- [00174] In embodiments, the present invention may provide for a method and system for associating a mobile subscriber characteristic with a mobile communication facility for identifying a location of the mobile communication facility and creating a map that may include the location of the mobile subscriber characteristic based at least in part on the location of the mobile communication facility with which it is associated.
- [00175] In embodiments, the location identified may be a previous location or a current location.
- [00176] In embodiments, the location may be determined according to location coordinates of a particular mobile communication facility wherein the location coordinates may be determined by GPS or through triangulation. In embodiments, the triangulation may be Wi-Fi triangulation.
- [00177] In embodiments, the location may be determined by an entry made by a user. In embodiments, the location may be determined by multiple geographical regions that include one or more states, wherein the plurality of geographic regions include one or more cities. In embodiments, the location may be determined according to a distance from a specified location, wherein the location is associated with a mobile content.
- [00178] In embodiments, the present invention may provide a method and system for associating a user transaction with a mobile communication facility; identifying a location of the mobile communication facility and creating a map that includes the location of the user

transaction based at least in part on the location of the mobile communication facility with which it is associated.

[00179] In embodiments, the user transaction may be an online product purchase or an ad conversion.

[00180] In embodiments, the present invention may provide a method and system for associating a usage history with a mobile communication facility, identifying a location of the mobile communication facility, and creating a map that includes the location of the usage history based at least in part on the location of the mobile communication facility with which it is associated. In embodiments, the usage history may be further associated with wireless provider data.

[00181] In embodiments, the wireless provider data may be based at least in part on content relationships relating to the progression of a user sessions, on content discovery of new websites, on access statistics, on usage statistics or on a navigation request received from the mobile communication facility. In embodiments, the wireless provider data may relate to a stage in an online buying process based at least in part on a mobile content type that is being accessed and a website following conversion of a content item.

[00182] In embodiments, the present invention may provide a method and system for presenting an affinity program enrollment opportunity to a mobile communication facility based at least in part on a navigation request made on the mobile communication facility, providing a sponsored affinity program content to an affinity program enrollee, and providing an incentive to the enrollee for an interaction with the sponsored affinity program content.

[00183] In embodiments, the mobile communication facility may be a phone, a mobile phone, a cellular phone, a GSM phone, and the like.

[00184] In embodiments, the navigation request may be a search query, a domain name entry, a web browser action, a menu selection, a folder selection, and the like. In embodiments, the navigation request may be implicit, wherein the implicit navigation request may be based on the location of the mobile communication facility. In embodiments, the navigation request may be a transaction, an advertisement conversion, and the like. In embodiments, the advertisement conversion may be clicking an advertisement.

[00185] In embodiments, the incentive may be a price discount, a coupon, a merchandise item, a merchandise credit, an affinity program credit, a minute of mobile communication facility usage, money, and the like.

[00186] In embodiments, the sponsored affinity program content may be an advertisement, a survey, product price promotion only for an affinity program enrollee, product description, a time-limited offer, an advance product purchase, subscription content, and the like.

[00187] In embodiments, the present invention may provide a method and system for associating a mobile subscriber characteristic with a mobile communication facility, creating a first user profile based at least in part on the mobile subscriber characteristic, identifying a relevancy between the first user profile and a second user profile, and sending an invitation to interact with a user associated with the first user profile and a user associated with the second user profile.

[00188] In embodiments, the relevancy may relate to a mobile subscriber characteristic. The mobile subscriber characteristic may be an affiliation, a hobby, a user demographic, or the like. Furthermore, in embodiments, the affiliation may be a professional affiliation, a school affiliation, and the like.

[00189] In embodiments, the relevancy may relate to a plurality of mobile subscriber characteristics. The mobile subscriber characteristics may be selected from a group consisting of age, sex, race, religion, area code, zip code, home address, work address, billing address, credit information, family information, income information, birth date, birthplace, employer, job title, length of employment, and the like.

[00190] In embodiments, the relevancy may relate to a user transaction, a usage history, and the like. Furthermore, in embodiments, the usage history may be a browse history, an ad conversion history, and the like.

[00191] In embodiments, the relevancy may relate to a location. The location may be a previous location, a current location or some other type of location. In embodiments, the location may be determined according to location coordinates of a particular mobile communication facility, a user entered location, a distance from a specified location, and the like. Furthermore, in embodiments, the location coordinates may be determined through GPS, through triangulation, and the like. In embodiments, the triangulation may be a WiFi triangulation. In embodiments, the location may be a plurality of geographic regions. The plurality of geographic regions may

include one or more states or one or more cities. In embodiments, the location may be associated with a mobile content.

[00192] In embodiments, the relevancy may be a score.

[00193] In embodiments, the user profile may be based at least in part on a plurality of mobile subscriber characteristics, a combination of a plurality of mobile subscriber characteristics and a location, a plurality of mobile subscriber characteristics and a plurality of user transactions, a plurality of mobile subscriber characteristics and a usage history, and the like.

[00194] In embodiments, the invitation to interact may be presented as a link on a screen of the mobile communication facility. Furthermore, in embodiments, selecting the link may initiate a phone call, an email, a text message, and the like. In embodiments, the link may provide a summary of a user profile that is associated with a user with whom the interaction may take place.

[00195] In embodiments, the present invention provides a method and system for receiving wireless provider data associated with a first mobile communication facility, determining a relationship between the first mobile communication facility and a third party based at least on the wireless provider data and establishing a social network based at least in part on the relationship between the first mobile communication facility and a plurality of third parties using the wireless provider data that is associated with a mobile communication facility.

[00196] In embodiments, the wireless provider data may be a relevancy based at least in part on website access and usage statistics, on content relationships relating to the progression of a user sessions, on content discovery of new websites, on access statistics, on usage statistics or some other type of relevancy. In embodiments, the wireless provider data may relate to a stage in an online buying process based at least in part on a mobile content type that is being accessed. In embodiments, the wireless provider data may be a relevancy based at least in part on a navigation request received from the mobile communication facility.

[00197] In embodiments, the third party may be another mobile communication facility, an online merchant, an offline merchant, an email account, a landline telephone, a ground address or some other type of third party.

[00198] In embodiments, the present invention provides a method and system for identifying social network activity that is made in conjunction with a mobile communication

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facility based at least in part on wireless provider data, assessing a level of influence of a social network user associated with the mobile communication facility based at least in part on the social network activity, and providing a sponsored content to the user's mobile communication facility based at least in part on the level of influence.

[00199] In embodiments, the level of influence may relate to a number of outgoing messages sent within the network, a number of incoming messages received from the network, a type of message sent within the network, a frequency of social network usage, a mobile subscriber characteristic, a contextual information associated with a website visited by the user, a user transaction, a usage history, a location or some other type of level of influence.

[00200] In embodiments, the sponsored content may be an advertisement.

[00201] These and other systems, methods, objects, features, and advantages of the present invention will be apparent to those skilled in the art from the following detailed description of the preferred embodiment and the drawings.

#### BRIEF DESCRIPTION OF THE FIGURES

[00202] The invention and the following detailed description of certain embodiments thereof may be understood by reference to the following figures:

[00203] Fig. 1 illustrates a wireless platform.

[00204] Fig. 2 illustrates a method for entering a search query, manipulating the query, and delivering search results.

[00205] Fig. 3 illustrates sample elements involved in disambiguating a search query.

[00206] Fig. 4 illustrates a generalized method for disambiguating a search query.

[00207] Fig. 5 illustrates a generalized method for ordering, displaying, and adding sponsorship information to search results.

[00208] Fig. 6 illustrates a mobile communication search facility.

[00209] Fig. 7A illustrates a mobile communication facility.

[00210] Fig. 7B illustrates a folding mobile communication facility.

[00211] Fig. 7C illustrates a mobile communication facility with parts that slide relative to each other

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- [00212] Fig. 8A illustrates a mobile communication facility with an associated stylus.
- [00213] Fig. 8B illustrates a mobile communication facility with a screen and keypad.
- [00214] Fig. 8C illustrates a mobile communication facility with a keyboard and flip-up screen.
- [00215] Fig. 9 illustrates a series of screen shots associated with a search on a mobile communication facility.
  - [00216] Fig. 10 illustrates screen shots associated with a mobile communication facility.
- [00217] Fig. 11 illustrates a method of obtaining relevant search results for a user and displaying the results on a mobile communication facility.
- [00218] Fig. 12 illustrates a website prediction process based on misinformation entered in a mobile communication facility address bar.
- [00219] Fig. 13 illustrates a search query process based on misinformation entered in a mobile communication facility address bar.
- [00220] Fig. 14 illustrates a search query process based on misinformation entered in a mobile communication facility address bar.
- [00221] Fig. 15 illustrates a redirection process based on misinformation entered in a mobile communication facility address bar.
- [00222] Fig. 16 illustrates a mobile communication process for managing misinformation entered in a mobile communication facility address bar.
- [00223] Fig. 17 illustrates a mobile communication process for managing misinformation entered in a mobile communication facility address bar, wherein at least a portion of the management is provided in association with a wireless provider.
  - [00224] Fig. 18 illustrates a sponsored links platform.
  - [00225] Fig. 19 illustrates a sponsor entry facility user interface.
  - [00226] Fig. 20 illustrates a process for mobile advertisement syndication.
  - [00227] Fig. 21 illustrates using wireless carrier data to influence mobile search results.
- [00228] Fig. 22 illustrates a process for integrating subscription content into mobile search results.
  - [00229] Fig. 23 illustrates a process of mobile query classification.
- [00230] Fig. 24 illustrates a process for combining mobile and transcoded content in a mobile search result.

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- [00231] Fig. 25 illustrates a process for associating mobile and non-mobile web content.
- [00232] Fig. 26 illustrates embedding a non-sponsored mobile content within a sponsored mobile content.
  - [00233] Fig. 27 illustrates exclusivity bidding for mobile sponsored content.
  - [00234] Fig. 28 illustrates a process for interactive mobile advertisement banners.
  - [00235] Fig. 29 illustrates a process for mobile dynamic content presentation.
- [00236] Fig. 30 illustrates a process for mobile dynamic advertisement creation and placement.
- [00237] Fig. 31 illustrates a process for real-time surveying within mobile sponsored content.
- [00238] Fig. 32 illustrates a process of using a mobile communication facility for offline ad searching.
  - [00239] Fig. 33 illustrates a simplified embodiment of idle screen advertising.
  - [00240] Fig. 34 illustrates a process for mobile coupon placement.
  - [00241] Fig. 35 illustrates a process for mobile coupon tracking.
- [00242] Fig. 36 illustrates a process for mobile user profile creation based on user browse behavior.
- [00243] Fig. 37 illustrates a process for categorizing a mobile user profile based on browse behavior.
- [00244] Fig. 38 illustrates a similarly based location mapping of mobile communication facility users.
  - [00245] Fig. 39 illustrates a location based mobile shopping affinity program.
- [00246] Fig. 40 illustrates a process for mobile communication facility usage and social network creation.
- [00247] Fig. 41 illustrates the interactions associated with the creation of a social network, and the resulting targeted delivery of sponsored content to a user's mobile communication facility.
- [00248] Fig. 42 depicts associating sponsored content with content portions using contextual data relating to the content portions.
- [00249] Fig. 43 depicts associating sponsored content with content portions using behavioral data relating to the content portions.

- [00250] Fig. 44 depicts adding behavioral data relating to viewed content portions to databases associated with a mobile communication facility and/or its user.
  - [00251] Fig. 45 depicts an overview of targeting advertisements.
  - [00252] Fig. 46 depicts a high-level monetization platform architecture.
- [00253] Fig. 47 depicts a multi-interface structure associated with a monetization platform and profile management platform.
- [00254] Fig. 48 depicts a generalized method for using user profile data within a monetization platform.
- [00255] Fig. 49 depicts a generalized method for blocking user identifiable data within a monetization platform.
- [00256] Fig. 50 depicts a sample user interface screen for creating an expression within a monetization platform.
  - [00257] Fig. 51 depicts a sample monetization platform login screen.
- [00258] Fig. 52 depicts a sample user interface for creating an ad spot within a monetization platform.
- [00259] Fig. 53 depicts a sample ad types and ad providers user interface screen within a monetization platform.
- [00260] Fig. 54 depicts a sample ad provider proxy parameters user interface screen within a monetization platform.

## **DETAILED DESCRIPTION**

- [00261] The methods and systems disclosed herein relate to the domain of mobile communication facilities and to the domains of searching, selecting, analyzing, organizing, and placing content on mobile communication facilities.
- [00262] Fig. 1 represents a wireless search platform 100 for facilitating the access to and integration of multiple data sources and data types for presentation on a mobile communication facility 102. The wireless search platform 100 includes a plurality of computer applications, devices, components, facilities, and systems, as well as a plurality of data facilities, including various data sources. The foregoing may be centrally located or geographically dispersed, may be locally and/or remotely interconnected, and may consist of distinct components or be integrated into combined systems. In the illustrated embodiment, the wireless

search platform 100 architecture facilitates the processing of user-initiated queries entered into a query entry system 120 of a mobile communication facility 102. The mobile communication facility 102 may transmit this query to or via a wireless communication facility 104 for further processing and/or routing to data sources and/or processing facilities, such as one or more servers, such as HTTP servers or other servers that are suitable for handling data that are transmitted over computer networks. In embodiments, the wireless communication facility 104 may be linked to a locator facility 110 that generates information about the location of the user (including geographic location, proximity to other locations, network location, or other location information). The locator facility 110 may enable linkage of other information, such as information about a user query, with information about the user's geographic location at the time the query was initiated.

[00263] The wireless communication facility 104 may link directly to a wireless provider 108 such as a corporation or carrier providing the user's cellular phone service (e.g., Verizon, AT&T, Sprint, etc) or other wireless communication service. The wireless provider 108 may, in turn, have a number of proprietary databases from which it can obtain information that may be relevant to a user, such as to operate appropriately in response to a query entered by a user. For example, the wireless provider 108 may have access to a database containing carrier business rules 130 describing the proper handling of user queries. The wireless provider 108 may have access to a database containing the mobile subscriber characteristics 112 (e.g., age, address, customer history, call volumes, call histories, patterns in call histories, etc.) that, in turn, are linked to the Internet and through which it can access additional servers 134 and data sources 138. The wireless provider 108 may also have access to a "content walled garden" database 132 containing information from the wireless provider's 108 business partners from which the wireless provider 108 derives additional advertising or profit sharing revenues, such as content relating to cell phone offers, content relating to other services provided by the wireless provider, premium content that is paid for by the user, or content suitable for a mobile communication facility (such as a ringtone). The wireless provider 108 may also link the user query with sponsor information residing in a sponsor database 128 or with another data facility 124.

[00264] The wireless search platform 100 may include mobile search host facilities 114. The mobile search host facilities 114 may include one or more facilities for disambiguation 140, searching 142, algorithms/filters 144, results 148, parental controls 150, privacy 152,

transactional security 154, carrier business rules 158, voice recognition 160, sponsorship 162, and/or implicit query 164, either alone or in combination. A search may be initiated on a phone idle screen (which may be coupled with one or more implicit queries), a Wireless Access Protocol ("WAP") site, a mobile storefront, or from a highlighted selection of text (e.g., from a website, email, SMS, or other format), or the search may be triggered by other website or local (e.g., cellular phone or other wireless device) activity. The mobile search host facilities 114 may link to additional databases 168 and data facilities 170. The mobile search host facilities may be accessed through the Internet, through the wireless provider 108, through the wireless communication facility 104, through other mobile communication facilities 104, or directly from the mobile communication facility 102. As indicated with the dashed lines on Fig. 1, the mobile search host facilities 114, either separately or in combination, may reside locally on the mobile communication facility 102, on the wireless communication facility 104, or on the wireless provider 108, or may be accessible externally through a network, or otherwise accessible, to perform the functions described herein.

[00265] The wireless search platform 100 illustrated in Fig. 1 may contain a mobile communication facility 102. The mobile communication facility 102 may be a device (e.g., a cellular phone, Blackberry, wireless electronic mail device, personal digital assistant, or device combining a number of these devices) utilizing a mobile communications protocol, system or technology, such as the advanced mobile phone system (AMPS), code division multiple access (CDMA), wideband code division multiple access (W-CDMA), global system for mobile communications (GSM), universal mobile telecommunications system (UTMS), integrated digital enhanced network (iDEN), and/or time division multiple access (TDMA). The mobile communication facility 102 may be a device utilizing one or more chipsets, such as the BREW chipset and/or operating system, and/or Bluetooth technologies.

[00266] In embodiments the mobile communication facility 102 may be any device capable of wireless communication, including, but not limited to a mobile phone, cell phone, satellite phone, walkie-talkie, handheld device, personal digital assistant (PDA), mobile network appliance, or an email, instant messaging, or chat device. The phone embodiment of the mobile communication facility 102 may be a cellular phone, satellite phone, a straight phone (i.e. "candy bar" phone), flip phone (i.e., "clamshell phone"). sliding top phone, wireless phone, 3G phone, global positioning system (GPS) phone, MP3 phone, music phone, or other mobile phone

operating system utilizing MIDP compatible software, Symbian, or another proprietary operating system (e.g., Nokia, Sony Ericsson, Motorola, LG, Samsung, Sanyo, or Toshiba). The PDA embodiment of the mobile communication facility 102 may be a combination PDA/phone, and/or a GPS PDA, and may utilize operating systems including Palm, Windows, PocketPC, Psion, and/or PocketLinux. The mobile network appliance embodiment of the mobile communication facility 102 may be a web appliance, network appliance, or a GPS network appliance. Email, instant messaging, and chat device embodiments of the mobile communication facility 102 may include appliances, such as the Blackberry, Treo, or SideKick. The device may also, or instead, include a portable computer such as a laptop computer wireless coupled to a data network using, e.g., WiFi, WiMax, or cellular data communications.

[00267] The mobile communication facility 102 may facilitate the collection of data from data sources as a result of a query entry 120 or voice entry 122. Query entry 120 may be accomplished through the use of a numeric key pad entry, full mobile device keyboard entry (e.g., that found on a Blackberry or Treo device), partial mobile device keyboard entry (e.g., that found on a Blackberry device with only one key for every two letters), stylus/handwriting entry, bar code scanner (either 2D bar code or 3D bar code: "Quick Response Code"), or photographic entry using cellular phone-camera; through other navigational facilities (e.g., a stylus, arrow keys, scroll wheel, etc.); or through access to a computer network, such as through a physical connection (e.g., Ethernet or other network cable, wire, or the like), or through infrared, RF, Bluetooth or other wireless query entry. In embodiments, communication to the mobile communication facility may be compressed at the server and uncompressed at the mobile communication facility to accelerate data communication over a slow network.

[00268] Referring to Fig. 1, a mobile communication facility may be adapted with an address bar 174. The address bar 174 may be generated using a client application interface, for example. The address bar may be presented in a graphical user interface on a display associated with the mobile communication facility 102. The address bar 174 may be provided to allow a user to enter a URL, website, key words, search terms and the like. In embodiments, the user is presented with an address bar 174 and the user may enter a known URL (e.g. www.jumptap.com) into the address bar. Once entered, the user may initiate a process to facilitate the connection of the mobile communication facility 102 with the website associated with the URL. For example, the process may involve searching the Internet for a website with

the entered URL. Once located, the website may be loaded and displayed on a display associated with the mobile communication facility 102.

[00269] The voice entry 122 function of the mobile communication facility may be used through the speaker-receiver device of the mobile communication facility 102 or by use of the standard SMS lexicon and syntax, and it may be adaptive to individual users' voice commands and usage patterns that are stored on and accessed from the mobile subscriber characteristics database 112. The voice entry 122 function may permit voice dialing, voice memo, voice recognition, speech recognition, or other functions related to audible input.

[00270] The mobile communication facility 102 may operate using a variety of operating systems, including, Series 60 (Symbian), UIQ (Symbian), Windows Mobile for Smartphones, Palm OS, and Windows Mobile for Pocket PC's. The display type used by the mobile communication facility 102 may be a black and white LCD, grayscale LCD, color LCD, color STN LCD, color TFT/TFD LCD, plasma, LED, OLED, fluorescent backlit, LED backlit, projection, flat screen, passive matrix, active matrix, or touch screen. The screen size may be small, medium, or large. In addition, the mobile communication facility 102 may have a secondary display, such as that situated on the outside of a clamshell-type cellular phone, that is visible to the user when the primary display is not, due to the clamshell phone being closed. In embodiments the mobile communication facility 102 may have more than one secondary display.

[00271] The mobile communication facility 102 may include one or more ports, slots, or similar facilities to accommodate expansion cards, such as a MultiMediaCard (MMC), a MMC/Secure Digital (SD), an RS-MMC 3v, an RS-MMC 1.8v/MMCmobile, miniSD, TransFlash/microSD, a USB-based memory device, SIM card, or a Memory Stick Duo. The mobile communication facility 102 may also accommodate high-speed data communications by utilizing GPRS, EGPRS (EDGE), 1xRTT, 1xEV-DO r0, WCDMA (UMTS), or iDEN protocols. Additional features of the mobile communication facility 102 may include any of the following: a hard drive, GPS/location capability, GAIT, an FM radio, infrared technology, an integrated PDA, Java (J2ME), MMS, music player, poly or mono ringtone capability, predictive text entry, push-to-talk technology, ringer ID, ringer profiles, side keys, speaker phone, SyncML, text keyboard, text messaging, text messaging templates, to-do list generation, touch screen, USB ports, WiFi technology, and wireless Internet. The mobile communication facility 102 may also contain a data facility 118 for the storage of PIM data, IM logs, MMS logs, SMS logs, email

logs, downloaded media, and a suggestion and results cache. The mobile communications facility 102 may include an operating system that is capable of running applications, such as multimedia applications, word processing applications, and the like.

- [00272] The mobile communication facility 102 may transmit and/or receive data to/from the wireless communication facility 104, mobile subscriber characteristics database 112, and/or any of the mobile search host facilities 114 by utilizing an internal antenna, a stub antenna, a patch antenna, an antenna array, a stub/extendable antenna, or an extendable antenna.
- [00273] The mobile communication facility 102 may have an embedded camera enabling it to capture and transmit graphic data to the wireless communication facility 104, mobile subscriber characteristics database 112, and /or any of the mobile search host facilities 114. The resolution of the camera may be any of the following, or any other suitable camera resolution: CIF (352 x288), VGA (640 x480), SVGA (800 x 600), 1+ megapixels, 2+ megapixels, or 3+ megapixels. The graphic capabilities of the mobile communication facility 102 may also include EMS picture messaging, picture ID, video capture, video calling, video messaging, PictBridge, and/or streaming multimedia.
- [00274] The mobile communication facility 102 may have the hardware and/or software components enabling use of the mobile communication facility 102 via an optical mouse and/or wired mouse.
- [00275] The wireless search platform 100 illustrated in Fig. 1 may contain a wireless communication facility 104. The wireless communication facility 104 may be, for example, a cellular telephone tower that routes the user's query. It may be associated with a wireless provider 108, a locator facility 110, or mobile search host facilities 114. The wireless search platform 100 may include a wireless provider 108.
- [00276] The wireless search platform 100 illustrated in Fig. 1 may contain a locator facility 110 enabling the collection of geographic or other location data on users of mobile communication facilities 102. A locator facility 110 may be based upon (i) a Cell-sector System that collects information pertaining to cell and sector ID's, (ii) the Assisted-Global Positioning Satellite (A-GPS) technology utilizing a GPS chipset in the mobile communication facility 102, (iii) standard GPS technology, (iv) Enhanced-Observed Time Difference (E-OTD) technology utilizing software residing on a server and within the mobile communication facility 102 that uses signal transmission of time differences received by geographically dispersed wireless

communication facilities 104 to pinpoint a user's location, (v) Time Difference of Arrival (TDOA), (vi) Time of Arrival (TOA), (vii) Angle of Arrival (AOA), (viii) TDOA-AOA, (ix) triangulation of cellular signals, (x) triangulation based on receipt of broadcast TV signals, (xi) location based on dead reckoning, (xii) location based on proximity to known locations (including locations of other mobile communications facilities 102), (xiii) map-based location, or any combination of any of the foregoing, as well as other location facilities known to those of skill in the art.

[00277] In embodiments, the mobile communication facility 102 may use a locator facility 110 (e.g. GPS system) to locate itself in its present location, or locations of interest to the user, whether explicitly stated or determined by PIM data, location history, or previous searches. In embodiments, the location may be transmitted back to the locator facility 110 for dissemination, processing, etc. Geographic information systems may also be used to determine a location point in a polygon, a location radius search, route calculation, points of interest, and/or geocoding and reverse geocoding. In embodiments, a user's location may also be self-entered into the wireless platform by the user. For example, the user may type in (or speak through a voice recognition system) an address, zip code, or other location information.

[00278]The wireless search platform 100 illustrated in Fig. 1 may contain a data facility containing mobile subscriber characteristics 112 pertaining to individual users of a mobile communication facility 102. This data may include, but is not limited to, data collected by the wireless provider 108 when an individual opens a wireless account, such as age, sex, race, religion, area code, home address, work address, billing address, credit card information, passwords, family information (e.g., mother's maiden name), birthplace, driver's license number, employer, position, annual income, income bracket, items purchased, friends and family information (including any of the foregoing types of information) and the like. The mobile subscriber characteristics facility 112 may continually, or periodically, update data for individual users, for example, bill amount(s), average bill total, payment history, on-time payment history, on-line usage amount, duration of on-line interactions, number of on-line interactions, family status and family information, number of children, shopping habits (e.g., views of or purchases of goods and services) click stream information, device type and device version, device characteristics, usage patterns (including those based on location, time of day, or other variables), device and/or subscriber unique identifiers, content viewing history, content presented for viewed by/not viewed by user, content and programs downloaded, videos, music, and audio listened to and/or downloaded, television watched, timing and duration of viewing/downloading, transaction history, and any other user or user defined characteristics. The purchase of physical goods may be facilitated by a wireless provider 108 by having the wireless provider 108 collect the user's credit card information as part of the billing cycle and adding goods transactions automatically to the wireless provider's bill to the user.

[00279] The mobile subscriber characteristics 112 database may also track data related to phone usage and location. For example, data collected could include a history of phone calls made, phone calls received, the mobile subscriber characteristics of the persons calling or called by the user, the duration of calls, a history of communications made via phone, Internet, email, instant messaging, or chat (and the entities communicated with by these technologies), history of phone calls made linked with geographic/location information at the time of each call, log of phone numbers, and a history of clicks and clickthroughs (or other keystroke or user interface equivalents thereof, including voice-initiated actions) made using the mobile communication facility 102.

[00280] Fig. 1 illustrates a sponsorship facility 174 associated with a sponsor database 128 according to the principles of the present invention. A sponsorship facility 174 may be provided by a corporation, an individual, or some other entity sponsoring results as described herein.

[00281] The wireless search platform 100 illustrated in Fig. 1 may contain mobile search host facilities 114. Within the mobile search host facility 114 there may be other facilities, including, but not limited to, a disambiguation facility 140, search facility 142, algorithm facility 144, results facility 148, parental control facility 150, privacy facility 152, transactional security facility 154, carrier business rules facility 158, voice recognition facility 160, sponsorship facility 162, and/or an implicit query facility 164. The mobile search host facility 114 may also link to another data facility 170.

[00282] The disambiguation facility 140 may complete or provide more meaning to ambiguous active user inputs. The disambiguation facility 140 may include SMS lingo translation, single word initial substring completion, multiple word substring completion, stem completion (e.g., single into plural format, verb into gerund), thesaurus lookups for homonyms or synonyms, spell check algorithms, spell check tables, phonetic spelling algorithms, phonetic

spelling tables, phone number keypad to word conversion (including completion of possible substrings from number sequence), frequency-based algorithms, semantic analysis algorithms, location-based algorithms or other algorithms or facilities for reducing ambiguity as to the meaning of a query or partial query entered by a user.

[00283] The search facility 142 may initiate a search, such as by causing a query (optionally a disambiguated query) to be executed on a search facility, such as a search engine. The search engine might be a search facility that is based on Boolean search logic, categories of results, term frequencies, document frequencies, documents selected by other users who have entered similar queries, link structures of possible results, or any other known search facilities using any other known search algorithm.

[00284] A mobile search service (e.g. as disclosed herein) may be accessed by a user through a user interface of a mobile communication facility 102 such as a mobile phone, a cellular phone, satellite phone, a GSM phone or other phone type.

[00285] When connected to a network, a mobile communication facility 102 may use the resources of the mobile search host facilities 114 such as the search facility 142 to execute mobile content queries. Alternatively, or cooperatively to the search facility 142, the mobile communication facility 102 may utilize an internet search facility, such as a search engine. A wireless provider 108 may also provide query search capabilities such that information available to the wireless provider 108 such as mobile subscriber characteristics 112, advertiser data 174, walled garden 132 content, and the like may be searched based on a query entered by a user on an mobile communication facility 102.

[00286] When disconnected from a network, these resources, mobile content, data, characteristics, and the like may not be available to a mobile communication facility 102 to complete a search query. Therefore a mobile communication facility 102 may include search capability and functionality to search local resources to complete a search query. The local search query functionality may supplement a network or remote search or may operate independently of the network even if the network is connected and fully operational.

[00287] Local search query functionality may also be useful for finding information that a network resource may not access. Information stored locally on the mobile communication facility 102 such as cached content, data files, configuration data, programs, deleted item, private items, and the like may be searchable from a local search query facility.

[00288] Mobile search results, as herein described, may include one or more lists to content that are associated with the search query. A user may interact with the search results, such as selecting a result and receiving further information, through a user interface of the mobile communication facility 102. An aspect of the present invention may facilitate a user with other actions associated with a search result such as making a purchase, previewing content, saving a result, and the like. Methods and systems for facilitating these and other actions that may be associated with a search result are described below.

[00289] Action commands presented to a user of a mobile communication facility 102 may be associated with a search result based on an aspect of the search result. The action commands may be presented to the user through the user interface of the mobile communication facility 102, and the user may access the action command through a feature of the user interface. An action command may present additional search results or action commands to the mobile communication facility 102.

[00290] The algorithm facility 144 may receive a user's input in the form of a problem and evaluate that problem by applying the set of all potential solutions available within the search space. At its most basic, the algorithm facility 144 may apply naïve/uninformed search algorithms consisting of the most intuitive solution(s) available within the search space. Alternatively, the algorithm facility 144 may also employ informed search algorithms based on heuristics that utilize intelligence about the elements of the search space in order to minimize search time and resource allocation of the algorithm facility 144. The algorithm may serve to promote or demote content for display 172 to the user based upon the frequency of queries, the frequency of clicks or clickthroughs, the velocity of queries; the site of the search launch, storefront visit, or mobile website; community tagging; mobile user scoring; or it may be based upon domain restrictions (e.g., only "espn.com").

[00291] An algorithm may be designed to create an index for information specific to the mobile communication facility 102. For example, the algorithm may look only for mobile tags (e.g., WML, xHTML—MP, MIME types, such as text, WAP, and/or WML, or mobile specific headers). An algorithm may also determine the aesthetic compatibility between the content and the capabilities of the display 172 of the mobile communication facility 102, including factors such as page width, page weight (e.g., the number of images and byte size), screen resolution and color capabilities, font types and sizes, client-side rendering capabilities,

page complexity (e.g., features incompatible or specific to a mobile communication facility 102), and the like. This compatibility information may also be blended with other information, such as popularity data (e.g., WAP gateway, editorial scoring, and/or traffic market data).

[00292] The algorithm facility 144 may contain a collaborative filtering protocol, category filtering, a recommendation system and/or other process facilities for analyzing, refining, or filtering user input and/or search results. A collaborative filter may employ a two step process. During the first step, other users are identified who have similar rating patterns as those of the active user. Secondly, the ratings obtained from these similar users provide the empiric basis for predicting information of relevance to the active user. The collaborative filter can be both an inclusive and an exclusive process, gathering relevant information for the active user or removing incongruent information from the predictive information set.

[00293] A collaborative filtering protocol generally involves the collection of preference data from a large group of users. This preference data may be analyzed statistically to identify subgroups, or characteristics of subgroup members, with similar preference profiles. Various weighted average, fuzzy logic, or other techniques may be used to summarize or model a preference subgroup, and a preference function may be created using the model/summary. This function may then be used to match new users to an appropriate preference subgroup. In embodiments, such information may be collected from many individual mobile subscriber characteristic data sets, and data may be collected from many mobile communication facility users. For example, a wireless provider 108 may collect preference data from a large group of its customers. In embodiments, the data may be collected from non-mobile users and may relate to preference information collected from other on-line or off-line activities.

[00294] User preferences may be derived from user behavior or other implicit characteristics, or explicitly defined by a mobile communication facility user, or some combination of these. If users were to explicitly state their preferences (e.g. for types of restaurants, books, e-commerce, music, news, video, formats, audio, etc.), the explicit preference information may be stored in the mobile subscriber characteristic data bases associated with their phones. Users may implicitly register a preference through activity such as purchasing a product online, visiting a site on line, making a phone call from a mobile communication facility, making a phone call from another facility, viewing content, or engaging or not engaging in other activities. For example, if the user looks at a product and decides not to purchase the product,

one can draw an inference that the user is not interested in the product, and this inference may be used as part of a collaborative filtering algorithm. In addition, inferences may be drawn from the types of establishments the user has been calling recently on the mobile communication facility. If he or she has been calling auto dealerships repeatedly over the past two weeks, an inference can be drawn that the user is presently looking for auto goods and/or services. Implicit preferences of users may also be collected by recording all pages that are visited by users and the frequency and/or duration of each visit. Using a binary coding scheme in which visited pages are coded "1" and unvisited pages "0," one may create user-based preference vectors and analyze statistically for both intra-user and inter-user cluster preferences or similarities. Other coding techniques may group certain sites along dimensions of commonality, with navigation behavior analyzed using any number of Euclidean or other distance and/or matching techniques. In embodiments, user preference data may be collected from within the mobile subscriber characteristics database. In embodiments, off-line behavior may also be used to characterize the preferences of the user.

[00295] An implicit mobile search query may be automatically generated from a mobile communication facility 102 based at least on one parameter in order to deliver relevant mobile content to a mobile communication facility 102, wherein the relevance may be based in part on information relating to a mobile communication facility 102.

[00296] The automatic generation of the search query may be an implicit search. This implicit search may not require user manipulation of a mobile communication facility command. For example, a user may not need to select a menu item, depress a button, select a touch screen icon, issue a voice command, or explicitly employ other commands associated with a mobile communication facility 102.

[00297] In embodiments, the automatic generation of a search query may also be accomplished by a server 134.

[00298] In embodiments, a parameter may be used to determine, in part, the relevancy of a mobile content. A parameter may be information relating to a mobile communication facility 102. This information may relate to a user characteristic. User characteristics may include a user's age, sex, race, religion, area code, zip code, home address, work address, billing address, credit information, family information, income information, birth date, birthplace,

employer, job title, length of employment, and other information associated with user characteristics. For example, the user characteristic, employer, may be used to determine, in part, the relevancy of news headlines within a search result derived from an automatically generated search query of news headlines. If the user's employer was an automotive manufacturer, news headlines relating to autoworker layoffs may be determined to be more relevant than headlines relating to currency fluctuations in China, and, thus, prioritized for delivery to the user's mobile communication facility 102. Similarly, the parameter of the user's employer might also result in the generation of a search query relating to the employer's current stock price, and result in delivery of that information to the user's mobile communication facility 102.

[00299] In embodiments, a parameter may also relate to a user history, a user transaction, a geographic location, geographic proximity, a user device, a time, and or other user characteristics. For example, parameters relating to a user may include age (27), sex (male), previous user transactions (purchase of a jazz recording), and geographic location (New York City). The automatically generated search may return search results that are ranked, ordering, indexed, and or prioritized by their relevance to a user characteristic or plurality of user characteristics. In this example, the fact that the user is a young, male, located in New York City with a history of purchasing jazz recordings, may result in the prioritization of relevant content for delivery to the user's mobile communication facility 102, such as, retail establishments selling jazz recordings, retail establishments selling jazz recordings within New York City, retail establishments selling jazz recordings within walking distance of the user, and so forth.

[00300] In embodiments, a parameter may also include a mobile communication facility characteristic, which may be selected from the group consisting of display capability, display size, display resolution, processing speed, audio capability, video capability, cache size, storage capability, memory capacity, and other mobile communication facility characteristics. The information relating to a mobile communication facility 102 may be provided by a wireless operator, a wireless service provider 108, a telecommunications service provider, or other providers associated with a mobile communication facility 102. To further the previous example of the user who is a jazz afficionado, if a new video is available of a jazz artist in concert, the automatically generated query may determine whether the user's mobile communication facility 102 has appropriate video capability, and if so offer the user the opportunity to download the video.

[00301] In embodiments, relevant mobile content may be locally cached on a mobile communication facility 102. The locally cached information may be loaded prior to new content associated with a new search query. The locally cached information may be associated with an expiration, which may be a date, a time, a previous usage of the locally cached information, or other characteristics governing expiration of the locally cached information. For example, using the parameters of geographic location and time, the automatically generated search query may return results containing the current day's weather conditions for that location. These results might be locally cached on a mobile communication facility 102 with an expiration of 11:59 pm on that same day. In embodiments, the prior viewing of a cached content, such as a video, may be used to determine a permitted future use of the content. For example, a cached concert video from a jazz artist may be allowed to play five times on a mobile communication facility 102 after which time it expires and requires the user to purchase the video in order to view it again.

In embodiments, relevance may be based at least in part on a statistical [00302] association. The relevance may be a score. The statistical association may relate to an association between the mobile content and the information relating to a mobile communication facility 102. The information relating to a mobile communication facility 102 may include a user history, a user transaction, a geographic location, geographic proximity, a user device, a time, a user characteristic, or a mobile communication facility characteristic. A user characteristic may be selected from the group consisting of age, sex, race, religion, area code, zip code, home address, work address, billing address, credit information, family information, income information, birth date, birthplace, employer, job title, length of employment, and other user characteristics. A mobile communication facility characteristic may be selected from the group consisting of display capability, display size, display resolution, processing speed, audio capability, video capability, cache size, storage capability, memory capacity, and other mobile communication facility characteristics. For example, a mobile communication facility 102 may be associated with the parameters of a geographic location (San Francisco), a user history (previous calls to Chinese restaurants), and a time (7 pm). The mobile communication facility 102 may automatically generate a search query and prioritize the presentation of content based on the relevancy of the content to a restaurant, or a Chinese restaurant, or having the location of San Francisco, or being open for business at 7 pm, or some combination of these.

[00303] In embodiments, the information relating to a mobile communication facility 102 may be provided by a wireless operator, a wireless service provider 108, a telecommunications service provider, or other providers associated with a mobile communication facility 102.

[00304] In embodiments, a basic implementation of a collaborative filtering algorithm entails tracking the popularity of a product, service, business, transaction, or website by recording the total number of users in the set that rate it favorably (which may include a degree of favorability) or by recording the number of users that repeatedly visit the site. In essence, this algorithm assumes that what previous users liked, new users will like. In embodiments, a weighted averaging process is implemented to carve out subgroups of users who all highly ranked a product that has an overall unpopular rating with the overall user dataset.

[00305] A more robust collaborate filtering procedure, sometimes referred to as the K-nearest neighbor algorithm, uses a "training data set" that is based upon previous users' behavior to predict a variable of interest to members of a "target data set" comprised of new users. In addition to user preference data, the training data set may have additional predictor variables, such as might be contained in a mobile subscriber characteristics database (e.g., age, income, sex, date or place of birth, etc.). Variables of interest may include type of product purchased, amount of purchase, and so forth. For each row (single user data) in the target data set, the algorithm locates the "K" closest members of the training data set. Closeness, or distance, as used by the algorithm is generally a Euclidean Distance measure. Next, the algorithm finds the weighted sum of the variable of interest for the K nearest neighbors, where the weights are the inverse of the calculated distances. This process is then repeated for all remaining rows in the target set. From this information, models may be derived for future prediction. As the user population increases, the training data set may be updated to include new rows and thus capture any changes in user preference for use in revising the prediction model.

[00306] Other methods that may also be used successfully for statistical clustering of user preference groups include the weighted majority, Bayesian prediction, Pearson product correlation, and factor analysis.

[00307] In addition to the description of collaborative filtering summarized above, the following text may be referenced for more information relating to collaborative filtering and is incorporated herein by reference: Nakamura, A. and Abe, N., 1998. *Collaborative Filtering* 

using Weighted Majority Prediction Algorithms in: Proceedings of ICML'98, 395-403. Morgan Kaufman Eds.

[00308] In addition to, or instead of collaborative filtering, or other preferential treatment of various information as determined by other methods, non-preferential or objective type data may be employed to further target search results about the user of a mobile communication facility 102. For example, a location of the user may be determined through a GPS system (or other location based service), and this location may be used to filter results with or without the use of a collaborative filter. In embodiments, elements such as time of day, type of device, activities associated with time of day, activities associated with location, invoice activity, and the like may be used to further refine a search. In an embodiment, such information may be used in a category style filter (i.e. a filter designed to include or exclude results based on the data). In embodiments, such information may be used by a collaborative filter algorithm. In embodiments, such information may be used to filter results without being considered in the collaborative filter algorithm.

[00309] In embodiments, data used in the process of obtaining search results, refining search queries, making corrections, making suggestions, disambiguating search queries, categorizing results, performing explicit or implicit searches, filtering, collaboratively filtering, or performing other processes defined herein may be stored in a database (e.g. a relational database). In embodiments, the data may be mined, associating, linked, extracted, or otherwise manipulated or used. For more information relating to the association and mining of such data, refer to the following document, incorporated herein by reference: *Integrating Association Rule Mining with Relational Database Systems: Alternatives and Implications*, by Sunita Sarawagi, Shiby Thomas, Rakesh Agrawal, published by the IBM Almaden Research Center.

[00310] A recommendation system may use information from a user's profile to make predictions regarding other information/products that might interest the user. Data used in the recommendation system may be obtained through the use of explicit and implicit data collection. Explicit collection refers to data collected from users who, for example, are directly rating items, ranking products, stating preferences, listing favorites or least favorites, etc. Implicit collection refers to data collected as, for example, a byproduct of user behavior, such as products viewed in an online store or products purchased. The recommendation system may compare the collected

data to similar data collected from others and calculates a list of recommended items for the active user.

[00311] Ordering and displaying search results may be based upon a mobile communication facility 102, mobile subscriber characteristic 112, delivery facility, disambiguation facility, parental controls 150, search algorithm facilities 144, carrier business rules 158, and/or a sponsorship facility 162. The ordering of content for display may also be based upon the amount of content available within a category. The display 172 may be changed based upon the screen size of the mobile communication facility 102, and sounds or other multimedia content may adapt to capabilities of the mobile communication facility 102. Ordering and display of content may be organized by the type of content, the artist, the date, or concept (e.g., Jaguar as a car, or jaguar as an animal), and other categories may derive from deduction within the mobile search host facilities 114. In addition to ordering, content may be emphasized or deemphasized by weighting within the display 172. For example, weighting may occur through the use of size, motion, lack of symmetry, use of garish colors, sounds, multimedia, or other means of accenting content. For sponsored links, there may be opportunities for yield optimization (e.g., clicks multiplied by the bid cost).

[00312] The parental controls 150 function may be set up by the wireless provider 108 at the time that the user account is created. A web-based interface may be used for changing or modifying the parent controls and for entering/changing the password protection. Alternatively, the parental controls may also be managed via an interface contained within the mobile communication facility 102.

[00313] The privacy facility 152 may include one or more facilities for protecting user privacy, such as an encryption facility for encrypting sensitive user data. The privacy facility 152 may also include a facility for protecting the user from undesired content, such as unwanted commercial email, spam, spyware, viruses, or the like. A privacy facility may, for example, filter such content prior to revealing results or may, in other embodiments, suggest modified queries that are less likely to reveal a user's confidential information or that are less likely to return undesired content. A privacy facility 152 may also function in a manner similar to a secure channel, such as via VPN, with a wireless provider 108. This secure channel may permit sensitive information to be shared securely.

[00314] The transactional security facility 154 may contain additional privacy and parental control settings, transactional security settings for the protection of wireless shopping, and the management of digital rights. In embodiments such a facility may include password-based security, a public-key/private-key facility, or other suitable security protocol for ensuring the authenticity of the participants in a transaction that is executed using the mobile communications facility 102.

[00315] The carrier business rules 158 of the wireless provider 108 may be associated with, or included in, the mobile search host facilities 114. These rules may govern what content users may access (e.g., walled garden vs. non-walled garden), where within the user interface sponsor logos and links are placed, which sponsor facilities are included, rules for the inventory of advertisements, rules allowing categories of transactions by users (e.g., based on access conditions, employer controls, parental controls, or the like) and managing auctions. In the instance of duplicate information occurring in a search result, the preferred provider's content may be given priority over others.

[00316] In addition to voice recognition 160 residing on the mobile communication facility 102, it may be contained within the mobile search host facilities 114 and use both software algorithms and hardware-based solutions for accurate voice recognition.

[00317] The sponsorship facility 162 stores premium content from sponsors that pay the wireless provider 108 to display this content to relevant users. Sponsors' information may link to a web site visited by the user (i.e., pay-per-click), or link to a call (i.e., pay-per-call). Sponsor information may include information that is text only, graphic information in the form of photographs, graphic art designs, or video, as well as various combinations of these. Sponsor information may also take the form of an interactive software application (i.e., a game), or special ringtones (e.g., jamtones). Sponsor information may be displayed to users based on the relation of the sponsor information and user search queries, results lists, items or categories, and the websites visited by the user. Web pages may display content for syndicated ads or links for syndicated ads. Furthermore, the wireless search platform 100 illustrated in Fig. 1 may contain the sorts of sponsor information described above in a separate database 128.

[00318] The implicit query facility 164 provides for the display of relevant content to users based on user activities other than explicit search queries. For example, in GPS data the locator facility 110 may indicate that the cell phone user is in the vicinity of a sponsor's

restaurant. In addition, the clock contained in the mobile communication facility 102 and/or the wireless communication facility may indicate that it is mid-evening. A predictive algorithm could merge this information and make the implicit query that the user is interested in restaurants in his immediate vicinity at which he could purchase dinner, and then push content (ads, phone numbers, menus, reviews) to his mobile communication facility 102 for immediate display. Other implicit queries could similarly be based upon a user's parental controls 150, the carrier business rules 158, results facility 148, and so forth, either alone or in combination.

[00319] The wireless search platform 100 illustrated in Fig. 1 may contain a server 134 and database 138 connected to the Internet. Databases 138 connected to the wireless platform 100 over the Internet may store information, such as individual business websites with which the user transacts.

[00320] The wireless search platform 100 illustrated in Fig. 1 may contain a database storing wireless carrier business rules 130. The carrier business rules 130 may prioritize advertising content (see walled garden content 132 below) based on the financial interests of the wireless provider 108 or the importance of the sponsor 128. Additional carrier business rules 130 may include those described herein and in the documents incorporated by reference herein.

[00321] The wireless search platform 100 illustrated in Fig. 1 may contain a database storing "walled garden" content 132. Walled garden content 132 may be content from which the wireless provider 108 derives additional revenues based, for example, on user clickthroughs or content downloads (e.g. ringtones, wall paper, ringbacks, music, videos). Because of this additional revenue, the wireless provider 108, through its carrier business rules 130, may ensure that this advantageous content is given priority over search results that are equally relevant but do not have financial benefits for the wireless provider 108.

[00322] Fig. 2 is a schematic diagram 200 showing a plurality of processes for handling a user query and producing a delivered result to the user. In the illustrated embodiment, the query mode 202 is entered. The query mode may be in the form of an explicit query entered by an active user, or it may be an implicit query initiated not by the user but by some characteristic related to the user and/or his behaviors (e.g., his GPS location). The start of the query entry 208 made explicitly by the user may be paired with additional information derived from a related implicit query 204. Depending on the clarity of the query entry 208, the query may need correction 244, disambiguation 240, or redirection 250. The query entry 208 may also be paired

with recommendations 248, suggestions 242, or categorized 254 prior to further processing. If the start of the query entry 208 is made by voice, rather than text, it may be aligned with a voice recognition 252 program. Any or all of the processes used to optimize the search may be refined with information relating to the mobile communication facility, such as, for example, mobile subscriber characteristic information, location, time, filter algorithms, and the like.

[00323] Once the initial explicit and/or implicit query is made, the query 212 is processed and the initial results retrieved 214. Both the guery 212 and the initial retrieved results 214 may undergo additional filtering 258 and aggregation 260. Walled garden content 262 and sponsored content 220 may also attach to the query 212 and present tailored results 222 to the user. The results 222 may also, in turn, trigger the posting of additional sponsor 224 messages and advertisements. Information from pay-per-click (PPC) sponsors 228 may link to the results, making it possible for the user to quickly learn about sponsors' services, phone numbers, addresses, hours of operation, sales, and so forth. If the start of the query entry 208, for example, undergoes redirection 250, it may either be routed back to the query stage 212 or immediately present the user with the results 222 based upon the query. Once results are retrieved, but prior to display 172, the content may be tested for compatibility with the user's mobile communication facility 102 by using a spider to run mock compatibility trials during which it emulates the processing characteristics of a broad array of commercially available wireless communication facilities, including the user's mobile communication facility 102 type, in order to determine the content within the result set that is compatible with the user's mobile communication facility 102.

[00324] The query results 222 may be ordered 230 prior to display 232 based, for example, upon the sponsor 224, mobile subscriber characteristics, information relating to the mobile communication facility, location, carrier rules, filter results, and/or walled garden 262 priorities. Once the results 222 are displayed 232, the user may initiate interactions/transactions 234 with the information (e.g., placing a call, click on a link, or an online order) that is then delivered 238 wirelessly through the wireless platform 100 described in Figure 1.

[00325] An aspect of the present invention relates to a syndication program where mobile content may be added to a website when the website is presented to a mobile communication facility (e.g. a cell phone). Such syndication may be decided by the wireless operator, wireless service provider, telecommunications provider or may be at the decision of the

website owner through an opt-in process. The opt-in process may involve signing up with a wireless provider, mobile search provider, or other related entity. The opt-in process may also involve the insertion of a tag on the website. Mobile content may automatically be added to website pages for a specified URL or plurality of URLs. The addition of mobile content may be done without an indication on the page of where mobile content should be placed. A tag or other coded information may be included in the website to indicate where on the site the mobile content should be placed when delivered to a mobile communication facility. The syndication process may be context based relevancy, behavioral based relevancy or it may be based on a combination of the two techniques to associate relevant mobile content with the site. A server application (e.g. a WAP server application, WAP Gateway, Mobile Application Gateway, and the like) may automatically add mobile content to a website when delivering it to a mobile communication facility whether or not the website is tagged. The mobile content may involve a web content placement auction or other process for determining which content will be associated with keywords, topics, websites, and the like during the presentation.

[00326] Automatic syndication of mobile content to a website may be based at least in part on using contextual information associated with the website in order to determine the relevancy of mobile content that is available for syndication. Contextual information that may be associated with a website may include keywords, terms, or phases located on the website, the inbound links to the website, the outbound links from the website, click patterns and clickthroughs associated with the website (including click patterns and clickthroughs associated with sponsored content appearing on the website), metadata, website usage patterns including time, duration, depth and frequency of website usage, the website host, search verticals relating to the website, and other indicia of website context.

[00327] The contextual information relating to a website may be associated with mobile content that is available for syndication and presentation to the website based at least in part on relevance. Mobile content available for syndication may derive from a pool of mobile content sponsors participating in a contextual syndication program provided by a wireless operator, wireless service provider, telecommunications provider, mobile search provider, and the like. Alternatively, mobile content available for syndication may derive from outside of a contextual syndication program and be used for generating a mobile sponsor campaign for presentation to a potential participant in a contextual syndication program.

[00328] The relevancy of the contextual information associated with a website and the mobile context available for syndication may be indicated through the use of a relevancy score. The relevancy score may be a numerical summary of the statistical association between contextual website data parameters and mobile content parameters. The relevancy score may be a proprietary score assigned to a mobile content by a wireless operator, wireless service provider, mobile search provider, or telecommunications service provider. The contextual data parameters associated with websites may be standardized in a list. Mobile content may receive a relevancy score for each element in the contextual data parameters list. For example, a mobile content, such as a ringtone download advertisement, may receive a relevancy score for each of a plurality of websites. "Entertainment" websites may receive a higher relevancy score than the "Weather" websites. Similarly, the contextual information of an inbound link relating to "Music" may receive a higher relevancy score than an inbound link relating to "Pets." A mobile content relating to a ringtone derived from a popular Chinese-language song may receive a higher relevancy score for the contextual information of "Server Host = China" than for "Server Host = Argentina." Contextual information parameters "Keyword = Ringtone" or "Keyword = Music Download" could also be scored as highly relevant to syndicated mobile content relating to ringtones, and so forth. The relevancy scores of a syndicated mobile content may be stored in a mobile content relevance dictionary.

[00329] A program of automatically syndicating mobile content to a website may be based upon the relevance of the mobile content to the contextual information associated with the website. The automation of syndicating mobile content may be based at least in part on associating electronic information associated with a website (e.g. metadata). Contained within the metadata may be information regarding the relevance of the website's contextual data parameters with mobile content data parameters. Examples of only a few of the many examples of how a metadata may contain relevance information include: metadata indicating relevance to the website (e.g., "Ringtones"), metadata indicating the minimum relevancy score associated with a contextual data parameter that is required for syndicating a mobile content to the website, and the like. The metadata may communicate with the mobile content relevance dictionary in order to identify, receive and present relevant mobile content to a website.

[00330] In embodiments, the carrier rules database includes information relating to search techniques, search methodologies, locations for searchable content, walled garden rules,

out of garden rules, out-of-network searching rules, in-network searching rules, search result presentation rules, sponsor presentation rules, sponsor search rules, sponsor rules, content presentation rules, and other information and rules pertaining to the search, display, ordering, and/or presentation of information on the mobile communication facility 102.

[00331] Carrier business rules may provide guidance on how, for example, a search term is to be disambiguated or corrected, what search terms should be suggested as a result of an entered or submitted query, how results and in what order results should be presented, or how sponsors should be selected and or presented. The carrier business rules may provide guidance about when to search in-network databases (e.g., walled garden content 132) and when to search out-of network databases (e.g., database 138 through server 134). For example, a wireless provider 108 may want to cause users of mobile communication facilities 102 to order music, videos, ringtones, wallpaper, screensavers, and the like from an in-network database of walled garden content 132, while the wireless provider may want current news to come from an out-of-network source. The wireless provider may then set these rules and store them in a carrier business rules database 130. These rules can then be accessed by the wireless provider (or optionally from the mobile communication facility 102 or other related facility) during the search, presentation, or ordering, or other parameter according to the present invention.

[00332] The algorithm facility 144 may be a software tool used for evaluating a number of possible solutions based upon a user query. The set of all possible solutions may be called the search space. In general, uninformed searching may employ brute force searching or "naïve" search algorithms for relatively simple, direct traversal of the search space. By contrast, informed search algorithms may use heuristics to apply knowledge about the structure of the search space during a search. Potential algorithms that may be used in the algorithm facility 142 include, but are not limited to, the uninformed search, informed search, tree search, list search, adversarial search, constraint satisfaction, genetic search, probabilistic search, simulated annealing, string search, taboo search, and/or federated search.

[00333] In a wireless search platform 100, a mobile communication facility 102 may include a cache such as a cache memory, or a portion of a memory organized as a cache. The memory may be a hard drive, a static memory, or a non-volatile memory. The memory may be permanently installed in the mobile communication facility 102, or may be removable such as a memory card.

[00334] The cache may contain suggestions, such as mobile content, which may be accessed and presented on a display of the mobile communication facility 102 as a result of an action by a user of the mobile communication facility 102. The cached information may also be accessed and presented as a result of an action by a provider of services to the mobile communication facility 102, or by an automated application running on the mobile communication facility 102. Suggestions may be cached locally on the mobile communication facility 102 and blended with the performance of network updates to facilitate optimizing the overall performance of the wireless platform 100.

[00335] Data stored in the cache may be input directly by the user (e.g. a user name, address, search query). Alternatively the data stored in the cache may be transferred from the mobile network from a server 134, wireless provider 108, or a mobile search host facility 114. The cached data may be compressed prior to transmission to the mobile communication facility 102, and may be decompressed after receipt on the mobile communication facility 102. The data may be decompressed upon receipt, or may be decompressed as the data is accessed to be presented.

[00336] Fig. 3 illustrates a generalized disambiguation process for a disambiguation facility 140 associated with a mobile communication facility 102 and a data source, such as a mobile subscriber characteristics database 112, according to an aspect of the present invention. The disambiguation facility 140 is a means for deriving greater clarity from ambiguous user queries. As depicted in the Fig. 3 schematic, a query entry 120 may be processed through a wireless communication facility 104 and/or wireless provider 108 to a disambiguation facility 140. Although the example provided in Fig. 3 shows a disambiguation facility 140 linked to a mobile subscriber characteristics database 112, the disambiguation facility 140 may link to any number of other data sources (e.g., carrier business rules 130, content walled garden 132, etc.). Similarly, disambiguation may proceed through facilities other than a disambiguation facility 140 (e.g., a parent controls facility 150 or algorithm facility 144). As shown in Fig. 3, the disambiguation facility 140 may receive the query from the wireless communication facility 104 or the wireless provider 108 and link the query to information known about the user that is stored in the mobile subscriber database 112 (e.g., age, sex, past Internet usage, etc.). This additional information, coupled with the original query entry 120, may permit an unambiguous query to be processed. For example, a user may enter a query entry 120 of "Royals." This query entry 120

may be processed through the wireless communication facility 104 or a wireless provider 108 to a disambiguation facility 140 that is linked to a mobile subscriber database 112 containing, among other data, the user's residence of Kansas City, Missouri. The disambiguation facility 140 may link this demographic information to the query entry 120 "Royals" and predict (i.e., disambiguate) that the user is more likely seeking information pertaining to the Kansas City Royals baseball team than information about the family of Swedish Royals. Disambiguation may include part-of-speech disambiguation, word sense disambiguation, phrase identification, named entry recognition, or full sentential parsing. Part-of-speech disambiguation refers to the process of assigning a part-of-speech tag (e.g., noun, verb, adjective) to each word in a query. By assigning the part-of-speech tag to each word, the device can draw inferences about each word by virtue of its context. For example, the word "house" may be a noun or a verb. By tagging this word with an appropriate part-of-speech tag, additional information about the user query, and its ultimate goal, may be derived. Word sense disambiguation refers to the process of sorting words that have multiple meanings. Phrase identification refers to the process of relating each word to others within a phrase to derive the context of individual words. Named entity recognition generally refers to recognition of proper nouns that refer to specific names, places, countries, etc. Full sentential parsing is the process of decomposing a sentence into smaller units and identifying the grammatical role of each and its relation to the other units. These and other techniques may be employed within the disambiguation facility 140 to infer a user's intended meaning for a search or search string.

[00337] Fig. 4 depicts an interactive process between the mobile communication facility 102 and the query assistance facility 210 that may be used for assisted query formation 2400. Once a user submits a query entry 120 to the mobile communication facility 102, a process of correction 244 may be necessary for assisted query formation 2400 that is sufficient to yield intelligible and useful result set(s). This process may occur on the client side 102 and/or within the mobile communication facility 104. As part of the correction 244 process, information specific to the type of mobile communication facility 102 may be used; for example, if the device has unique delivery capabilities, the query may need correction in order to derive a result set compatible with these capabilities. Information stored in the mobile subscriber characteristics database 112, location information 2408, or time information 2410 may also be used with the correction 244 process.

[00338] Fig. 5 shows a generalized process for the ordering 500, displaying 502, and sponsorship 504 prioritization of query results based upon the association of a query entry 120 with additional data sources, such as a mobile subscriber characteristics database 112, a filter algorithm facility 144, a location database 2408, and/or a time data 2410. The ordering 500, display 502, and sponsorship 504 prioritization may involve one of these additional data facilities, a plurality of the data facilities, or none of the data facilities as appropriate.

[00339] In embodiments, the methods and systems disclosed herein can be adapted to provide an optimized search based on mobile subscriber characteristics 112, including any of the characteristics 112 described herein and in the documents incorporated by reference herein. Thus, these methods and systems may include providing a search function adapted for a mobile device and adapting the search function based on characteristics of the subscriber of the mobile device, wherein the subscriber characteristics are derived at least in part from a mobile subscriber data facility that is maintained by a carrier of mobile device services.

[00340] In embodiments the adapted search function may be an implicit query, an active query, a disambiguation action, a retrieval function, a filtering function, a presentation function, a routing function, or another function or action related to initiation, processing, or completion of a search or presentation of search results.

[00341] Fig. 6 illustrates a mobile communication search facility 142 according to the principles of the present invention. In this embodiment, the wireless provider 108 facilitates voice access from the mobile communication facility 102 through a voice gateway 602. The voice gateway 602 may be a telecommunication router for example. Information pertaining to what voice calls have been made or received by the mobile communication facility 102 may be stored in access information database 608. Once the voice access information is stored in the access information database 608, the information may be retrieved by the personal filter 144, and the personal filter 144 may also process the voice activation information to gain more information about the access. For example, the personal filter 144 may perform a reverse phone number process on calls received by or made from the mobile communication facility 102 to determine information about the establishments and individuals called. Such information may also be matched with the time of day the call was made, the duration of the call, who initiated the call, etc. The information relating to voice calls may be further processed or inferences may be made from the information indicating user preferences. For example, if the user is making calls

most days at lunch time to take out restaurants, one may infer that the user is going to make more calls to take out places for lunch. Likewise, if the user has made ten phone calls to different new car dealers in the past two weeks, an inference may be made that the user is in the market for a car. The information may also be used in connection with a collaborative style filter (a process within the personal filter 144) to predict future behavior or likes and dislikes based on other people's similar behaviors.

[00342] Access information may also be collected based on internet activities through an internet gateway 604. Search queries, click-throughs, and the like may be tracked and stored in an access database 608 for retrieval from the personal filter 144. As with the voice information, the web interaction data may be manipulated, and predictions of future behavior, likes, and dislikes may be made. In the monitoring of internet behavior, in garden and out of garden activities may be tracked.

[00343] Location information and time of day information may also be tracked and stored in a location information database 612. A with the voice information and the web interaction information, the location and time of day information may also be used by the personal filter 144.

[00344] User information 112, such as personal information or information used to set up the user account with the wireless provider 108, may be kept in a database that is accessible by the personal filter 144.

[00345] The personal filter 144 may receive a search query from a mobile communication facility 102, extract information from each of the databases 612, 112, and 608, process all of the information through an optimization algorithm, and perform an optimized search for results. Likewise, results may be obtained, and the personal filter 144 may be used to process the results, along with the other mobile communication related information, and produce filtered results to the mobile communication facility 102.

[00346] While the databases 612, 112, and 608 are illustrated as separate databases, it should be understood that these may be combined into one or more databases, such as a relational database. While the personal filter 144 is illustrated as residing in the wireless provider 108 domain, it should be understood that the personal filter 144 may reside elsewhere, including on the mobile communication facility 102 or in another related facility.

[00347] Figs. 7A –7C illustrate various form factors of mobile communication facilities that may be used with the systems described herein. Fig. 7A illustrates a candy bar or open faced fixed cell phone. Fig. 7B illustrates a flip phone and Fig. 7C illustrates a slide phone.

[00348] Figs. 8A –8C illustrate various form factors of mobile communication facilities that may be used with the systems described herein. Fig. 8A illustrates a PDA phone with a touch screen and a full QWERTY keyboard. Fig. 8B illustrates a PDA phone with a two-letter-per-key keypad. Fig. 8C illustrates a slide-up phone revealing the keypad.

[00349] Figs. 9A – 9D illustrate a progression of user interface screens 400 associated with a search on a mobile communication device 102. The user interface screens may be generated by the client application interface described above. Beginning with screen shot 9A, a query entry facility 120 is provided. The screen may be labeled with a logo 902 and a suggestion box 908 may be provided. As an example based upon this interface, an abbreviated search query "Br Sp" may be typed into the search query entry facility 120. A disambiguation facility 140 (not shown in this figure) may operate in conjunction with a personal filter 144 (not shown in this figure) to disambiguate the partially entered terms. In addition, a suggestion facility may be operational (not shown in this figure) such that suggestions to the partially entered search query are presented in the search box 908. In the event that the first page of suggestions does not include the desired search query, more results may be displayed by activating the down arrow 924. A navigation facility 910 may be provided (e.g. a multi-directional joystick style keypad on the face of the mobile communication facility 102, a touch screen, keypad, or the like). The navigation facility 910 may be used (shown in the down position as indicated by the darkened arrow) to highlight "Britney Spears." Once "Britney Spears" is highlighted 910, the navigation facility 912 may be used to select (as indicated by the darkened center square) and expand the category (as indicated by the darkened right side arrow). Once the suggestion "Britney Spears" is selected and expanded, categories of search results 914 may be presented.

[00350] Figs. 10A – 10B illustrate several more screen shots in a progression of screen shots associated with a search from a user interface of a mobile communication facility 102. A search result is selected 1002, in this case a song related to Britney Spears; once the song is selected, the user may be presented with options of delivery. For example, the user may be provided with a preview option 1004 to sample the song. The user may also be presented with an option relating to the content, indicating the content use 1008, so it can be properly formatted,

installed, and associated with the appropriate application(s) or device(s), and/or the user may be presented with an option of different file types 1010.

[00351] Fig. 11 illustrates a scenario where a user 1104 of a mobile communication facility 102 would like to obtain relevant search results through the use of his mobile communication facility 102. Prior to making the search, there is already information relating to his presence, his person, his calling habits, his web habits, other people's habits, information relating to inferences about other people's behavior when presented with options, and other information that may be used in the development of results to this particular user 1104. For example, the user may be connected with a wireless service provider 108 either directly or through another facility. By interacting with the wireless service provider 108, the user can obtain information through the internet, such as open content 138, information within the confines of the wireless provider's 108 domain, walled garden content 132, carrier rules 130, mobile subscriber characteristic information 112, sponsor information 128, time of day (e.g. either local time, or time related to another region), and location information as indicated by or provided through a location facility 110. Any or all of this information may be processed through a personal filter 144 (e.g. a collaborative filter) within the mobile search host facility 114 to refine a search query or refine (filter) results before they are presented to the user 1104 on the mobile communication facility 102.

[00352] An implicit search scenario associated with the illustration of Fig. 11 could be as follows. The person 1104 is walking down the street at 7:00 p.m. The location of the mobile communication facility 102 is assessed using a GPS system (i.e. in association with the location facility 110). The location is then stored. An implicit search is initiated either because it is the time of day for the periodic implicit search, because user habits indicate the user is going to be looking for results soon, because there are advertisers 174 interested in pushing an advertisement, there is a local sale, there is an activity nearby, or there are other temporal, activity based, or other reasons to initiate the implicit search. Once the search is initiated, the stored location information may be transmitted to a mobile search host facility. The mobile host search facility 142 may also collect information from other associated sources (e.g. the mobile subscriber characteristics 112 database 112, the sponsor information database 128, carrier rules 130). The mobile search host facility is now prepared to perform a search based on the personal filter in the mobile search host facility 114 in conjunction with the user's location, time of day,

and/or other information relating to the several data sources available to the mobile search host facility 114 (e.g. the mobile subscriber characteristics 112 database 112, the sponsor data base 128, the content 132, the carrier rules 130, and the open web content 138). All of the information may indicate that this is the general time when the user 1104 eats dinner, so the mobile search host facility 114 may provide results to the mobile communication facility 102 that pertain to dinner. In these results, a sponsor may have participated in a search marketing auction in an attempt to get his information onto the user's mobile communication facility 102. For example, a restaurant located in a building 1102C may be the high bidder on a keyword auction related to dinners within five miles of another building 1102C where the user 1104 is located, so the information the restaurant wanted sponsored and displayed on the mobile communication facility 102 will be displayed if the user 1104 interacts with the restaurant information presented. The information may not be presented until the user decides to look at search results, which may not ever happen. If the user 1104 does not interact with the sponsored result that was downloaded to the mobile communication facility 102, the sponsor may or may not have to pay a fee to the wireless provider 108 for the sponsored content. If the user 1104 does interact with the restaurant information that was downloaded on the mobile communication facility 102, the restaurant may or may not have to pay a fee to the wireless provider 108.

[00353] While embodiments involving implicit searching have been described in connection with Fig. 11, it will be appreciated that the same or similar techniques may be applied to explicit searches. For example, the user 1104 may be in the area of an office building 1102A and may be looking for the office building 1102A. The user 1104 may enter a search query with the name of the office building 1102B, and the name of the office building may be combined with the user's location and time of day to better target search results for the user.

[00354] In embodiments, third-party pay-per-call inventory may be supplied to in the form of XML feeds, each of which returns specific results data on a per-query basis about the keyword match, the advertiser and ad information, bid price, and geographic filter settings. This information may then be parsed and packaged in a result set stacked on top of "natural" yellow page listings. A yield optimization algorithm may be used to ensure that each query is answered with a relevant and monetizable set of paid content. The yield optimization algorithm considers several variables to determine placement and rank simultaneously, including, relevancy, geography, click-through/call-through rate, and bid price. Relevancy may be, in part, determined

by the query string including keyword, location, and ultimately demographic/behavioral factors that may be matched to information supplied in the advertisement and/or the assigned business categories. For geography, it may be possible to present only those businesses serving the respective geographical areas (zip code, city, state) as specified by the advertiser. The algorithm for the click-through/call-through rate may also consider the frequency with which users actually place the call to the advertiser in determining best query match. Bid price refers to the placement and rank of a given advertisement as determined, in part, by the amount paid by the advertiser.

[00355] In embodiments, advertisers may create and manage their mobile search payper-click advertising campaigns through a user interface that permits ad creation, selection of keywords to associate with the ad(s), and/or service area(s) in which to make the ad accessible, and place a bid for the service. For example the advertiser may begin by entering the ad creative content, including the ad title, a "Landing page" URL/address (page to which user will be brought – not displayed), the "Display" URL/address (address to be displayed in ad), and an ad description (1-2 lines; for display in ad). The advertiser may then enter keywords (search phrases) for which the ad should appear. There may be several ways of entering the keywords, including: manual entry (the advertiser may type/copy the keywords manually), use of a keyword suggestion tool/thesaurus (advertisers can view synonyms or related keywords, along with estimated monthly search volume and top bids), and/or bulk upload (advertisers may upload keywords in bulk when dealing with a high volume of keywords). Finally, the advertiser may wish that the ad(s) target only a subset of users, such as, only users residing in a particular geographic region, meeting a set of demographic user characteristics, and/or users with a particular mobile communication facility 102.

[00356] Once an advertiser has selected one or more of the above criteria, the advertiser may then set a specific, or maximum, price that they are willing to pay for a click through to their web site. Bids may be for each keyword associated with a given ad, or any other criterion, or combination of criteria used by the advertiser to target the placement of their ad(s). Bids may be placed individually by keyword, or an advertiser can apply one bid price across all new keywords for the new ad. Advertisers will also be able to view the top bids for each keyword directly through the user interface, in order to gauge keyword competition and to ensure their ad appears in the desired position. The bidding process may also include "Auto-Bid" functionality that allows the platform to manage an advertiser's bids directly. For instance, by specifying the

desired position for the ad and a maximum amount that an advertiser is willing to pay for each click, the advertiser may allow the system to monitor the competitive landscape and adjust the advertiser's bids to pay only the minimum that is required to secure the desired spot (up to but not exceeding the specified maximum).

[00357] In embodiments, advertisers may create and manage their mobile search payper-call advertising campaigns through a user interface that permits ad creation, selection of details to associate with the ad(s), and/or service area(s) in which to make the ad accessible, and place a bid for the service. The advertiser may begin by entering the general contact information for the business, including: the business name, mailing / contact address, phone number (number where advertiser wishes to receive call; ad may display system-generated toll-free number), and/or the ad description. The advertiser may also enter additional pieces of information and functionality pertaining to each ad, including: setting the daily callable hours / schedule (the advertiser may specify a time of day when it wants an ad to appear), upload company logo to appear with ad, enter coupon information (e.g., the advertiser may set campaign-specific discounts for users who reach a specific ad. The advertiser may then enter keywords (search phrases) in response to which the ad should appear. There may be several ways of entering the keywords, including: manual entry (the advertiser may type/copy the keywords manually), use of a keyword suggestion tool/thesaurus (advertisers can view synonyms or related keywords, along with estimated monthly search volume and top bids), and/or bulk upload (advertisers may upload keywords in bulk when dealing with a high volume of keywords). The advertiser may choose that the ad(s) target only a subset of users such as users residing in a particular geographic region, meeting a set of demographic user characteristics, and/or having particular types of a mobile communication facility 102. Advertisers may set the specific price they will be charged whenever they receive a call through the pay-per-call system. They may have the ability to view in real-time competitors' prices per category in order to ensure their ad appears in the desired position and to optimize their performance.

[00358] In embodiments, keyword sales sponsored listings (both pay-per-click and pay-per-call) may go through an administrative and editorial review to ensure an ad pertains to the business and the categories selected by the advertiser, and that the ad will be deemed appropriately relevant by a yield optimization algorithm.

[00359] In embodiments, pay-per-click and pay-per-call advertisements may be priced as "pay-for-performance," in that the advertiser is charged only for those calls successfully placed through the mobile communication facility 102 interface. It may be possible to configure the platform such that advertisers are not charged for repeat calls, short calls (e.g., a wrong number or other unintentional call), and/or hang-ups or disconnections. In addition to flat per-call charges, some specific calls (e.g., calls exceeding a given time threshold) may be subject to overage fees.

[00360] Fig. 12 illustrates a prediction process associated with misinformation entered into an address bar 174 of a mobile communication facility 102. In this prediction process, a user may enter text into an address bar 174 of a mobile communication facility 1202. After entering the text, the user may initiate a search for the URL associated with the text 1204. Following the search request, the mobile communication facility may produce the related site 1214 or an error may be produced 1212 if the URL is not found or is otherwise unavailable. When the error is returned, a facility designed for the prediction of the desired site may be employed. The site prediction facility may reside in the mobile communication facility, in the wireless provider, or in another related facility, for example.

[00361] The prediction associated with step 1218 may be based on a disambiguation facility (e.g. as described herein in connection with Fig. 1), a correction facility (e.g. as described herein in connection with Fig. 1), or other facility designed to predict what site the user intended to visit. For example, the text entered into the address bar 174 may have been correctly associated with a URL except for the fact that the ".com" was not included, it was mistyped, misspelled, or the true extension was ".net" or it otherwise included erroneous extension information. A prediction facility associated with step 1218 may go through a process of including or replacing extensions to find associated web sites. As another example of misinformation included in the address bar 174, the text may have included mistyping and the like associated with the prefix (e.g. typing "wwe." instead of "www." or entering a comma instead of a period before the URL). A prediction facility associated with step 1218 may go through a process of including or replacing the prefix information to find associated websites. As yet another example of misinformation included in the address bar 174, the user may have misspelled the URL, entered an abbreviated URL, entered search terms instead of a URL or the like. A prediction facility associated with step 1218 may go through a process of spell checking

and correcting the text with what is perceived as the intended target site. In the course of predicting and correcting the text to associate the mis-directed text entry, the prediction facility may use other techniques for aiding the user (e.g. those described in connection with correcting, disambiguating, and otherwise aiding the user in better targeting search query, as described herein (e.g. as described herein in connection with Fig. 1)).

[00362] Once a site is predicted through step 1218, the predicted site may be entered 1220 and presented on the mobile communication facility 102. The process of predicting the desired site 1218 may also involve predicting and then searching for the predicted site 1224. If the predicted site does not exist or respond, a prediction facility associated with the prediction step 1218 may refine the prediction and search again. This process may be undertaken several times until a predicted site is located or until the process times out due to some preset timeout period, for example.

[00363] In embodiments, a process for predicting the desired site from misinformation entered into an address bar 174 of a mobile communication facility may involve the steps of predicting the desired site 1218 after receiving an indication 1212 that no site exists or responds to the misinformation. The prediction 1218 may involve correction, disambiguation or other such techniques as described herein. For example, the prediction may involve using information related to the mobile communication facility (e.g. mobile subscriber characteristic information) to assist the disambiguation or correction of the misinformation. Once a prediction is made, the prediction may be tested 1224 (e.g. a search for a related URL may be conducted), the prediction may be presented to the user as a suggestion 1222, or the site associated with the prediction may be entered and presented 1220, for example.

[00364] Fig. 13 illustrates a search process based on misinformation 1300 entered into an address bar 174 associated with a mobile communication facility 102. In this search process, a user may enter text into an address bar 174 of a mobile communication facility 1202. After entering the text, the user may initiate a search for the URL associated with the text 1204. Following the search request, the mobile communication facility may produce the related site 1214 or an error may be produced 1212 if the URL is not found or is otherwise unavailable. When the error is returned, a facility designed for the searching for the desired site or other information relating to the entered text may be employed. The site search facility may reside in

the mobile communication facility, in the wireless provider, or in another related facility, for example.

[00365] Once an error 1212, or other indication the desired site is unavailable, is produced, the text entered into the address bar 174 may be used as a search query 1302 (e.g. in a similar fashion as if the text were entered into a search query facility as described in connection with Fig. 1). For example, the text may be disambiguated if it is ambiguous; it may be corrected (e.g. the spelling may be checked and corrected); or suggestions related to the query, disambiguated query, or corrected query may be produced for the user. Once the search query, corrected search query or disambiguated search query is determined, it may then be used to perform a search for results 1304. The search may produce results and or produce suggestions or other related information 1308. For example, as disclosed in connection with other embodiments herein (e.g. in connection with Fig. 1), the search results or suggestions may be produced in coordination with information relating to the mobile communication facility 102 (e.g. mobile subscriber characteristic information). In embodiments, an algorithm facility 144 (e.g. as illustrated in connection with Fig. 1) may be used in connection with information relating to the mobile communication facility to better predict what the user is looking for.

[00366] In embodiments, a process for searching for information relating to misinformation entered into an address bar 174 of a mobile communication facility may involve the steps of producing a search query from the text entered in the address bar 174 1302 after receiving an indication 1212 that no site exists or responds to the misinformation. The search query 1302 may involve correction, disambiguation or other such techniques as described herein. For example, the development of the search query may involve using information related to the mobile communication facility (e.g. mobile subscriber characteristic information) to assist the disambiguation or correction of the misinformation. Once a search query is made, search results and or suggestions and or recommendations or other information relating to the text entered in the address bar 174 may be presented to the user on the mobile communication facility.

[00367] Fig. 14 illustrates a processed search query process based on misinformation 1400 entered into an address bar 174 associated with a mobile communication facility 102. In this search process, a user may enter text into an address bar 174 of a mobile communication facility 1202. After entering the text, the user may initiate a search for the URL associated with the text 1204. Following the search request, the mobile communication facility may produce the

related site 1214 or an error may be produced 1212 if the URL is not found or is otherwise unavailable. When the error is returned, a facility designed for the searching for the desired site or other information relating to the entered text may be employed. The site search facility may reside in the mobile communication facility, in the wireless provider, or in another related facility, for example.

[00368] The text entered from the address bar 174 may be processed 1402 through a disambiguation facility, correction facility, or other facility adapted to modify the text into a form more appropriate for a search on the mobile communication facility. The processed query may then be used as a search query 1404 and a search may be performed. Results, suggestions, and or other information pertaining to the processed query may be produced and displayed on a display associated with the mobile communication facility 102.

[00369] Fig. 15 illustrates a redirection process based on misinformation 1400 entered into an address bar 174 associated with a mobile communication facility 102. In this redirection process, a user may enter text into an address bar 174 of a mobile communication facility 1202. After entering the text, the user may initiate a search for the URL associated with the text 1204. Following the search request, the mobile communication facility may produce the related site 1214 or an error may be produced 1212 if the URL is not found or is otherwise unavailable. When the error is returned, a facility designed for the searching for the desired site or other information relating to the entered text may be employed. The site search facility may reside in the mobile communication facility, in the wireless provider, or in another related facility, for example.

[00370] Following the error, or other indication that the site is unavailable, 1212, a redirected site may be chosen 1502. The redirection 1502 may be based on a table, algorithm, or information relating to the originally unavailable site indicating the correct site. For example, the unavailable site may produce information indicating there is a related site. A referenced URL may be provided for example. Given this redirection information, the mobile communication facility may be redirected to the new site.

[00371] In embodiments, information relating to the mobile communication facility may be used to redirect the user to a redirected site. For example, a user may misspell a URL and information relating to the mobile communication facility may indicate what the user intended to enter. For example, mobile characteristic information may contain information showing that the

user has recently viewed a site with a very similar URL to the mistyped URL entered and the previously visited site may be presented to the user. In embodiments, an indication that the URL as entered was unavailable may also be presented to the user indicating a process of suggesting alternatives was used.

[00372] In embodiments, the redirection, search, text processing, results presentation, suggestions or other methods of managing information entered into the address bar of a mobile communication facility may be aided through an algorithm facility 144. The algorithm facility 144 may use information relating to the mobile communication facility 102 in the process of determining what information the user is most interested in. The algorithm facility may be a collaborative filter or personal, for example, and the filter may use information from the mobile characteristics database in the process of delivering user targeted results.

[00373] Another aspect of the present invention relates to processing errors related to search queries and address queries entered on a mobile communication facility. In embodiments, the error processing may be accomplished through software on the mobile communication facility. In embodiments, the error processing may be accomplished through software remote from the mobile communication facility (e.g. on a server associated with a wireless provider 108 or associated with the wireless communication facility 104). In embodiments, the error processing may be done using software processing in part on the mobile communication facility and in part on a platform remote from the mobile communication facility.

[00374] Fig. 16 illustrates an error processing method 1600 wherein the error processing is performed, at least in part, on the mobile communication facility 102. In this embodiment, the mobile communication facility may be used to communicate an address search request (e.g. associated with an address entered into an address search bar on the mobile communication facility) to a server facility 1602. The server may be a server associated with a wireless provider for example. In the event there is no such address or URL located, or the located address is inactive or otherwise produces an error, an error 1604 may be produced in the mobile communication facility indicating such. This error may be a similar error to that described in connection with Figs. 12-15 as error 1212.

[00375] Once an error 1604 or the like is produced, the software platform on the mobile communication facility 102 may respond to the error in a variety of ways (e.g. the error processing associated with Figs. 12-15). For example, as indicated in connection with Figs. 12-

15, the software on the mobile communication facility 102 may predict a desired site 1218, use the text as a search query 1302, further process the text entered 1402, redirect the mobile communication facility to another website 1502 or otherwise perform a process in response to the error 1604. Following the error processing, the mobile communication facility may generate and communicate an additional request for information 1608. This may be similar to the requests for information described in connection with Figs. 12 – 15. For example, a request to enter a newly predicted website (e.g. as described in connection with Fig. 12) may be made. Following the request to enter the newly predicted website, an error or the like may be produced and the process may be re-executed 1224. Ultimately, the mobile communication facility 102 may receive an indication of the predicted site or the predicted site may be presented. As another example, the new request 1608 may be formed as a search query, or a processed query (e.g. disambiguated) intended to be fed into a search engine, as described in connection with Figs. 13 – 14. As yet another example, the new request 1608 may be a redirected request as described in connection with Fig. 15. It should be noted that a user may intend to place a search query into the location box intentionally.

[00376] Fig. 17 illustrates an error processing process 1700 wherein the error processing is performed, at least in part, remote from the mobile communication facility 102. In this embodiment, the mobile communication facility may be used to communicate an address search request 1704 (e.g. associated with an address entered into an address search bar on the mobile communication facility) to a server facility associated with a wireless provider 108. The server may be a server under the control of the wireless provider or it may be otherwise associated, for example. In the event there is no such address or URL located, or the located address is inactive or otherwise produces an error, an error 1704 may be produced at the server associated with the wireless provider 108 indicating such. This error may be a similar error to that described in connection with Figs. 12-15 as error 1212.

[00377] Once an error 1704 or the like is produced, the software platform on the server associated with the wireless provider 108 may respond to the error in a variety of ways (e.g. the error processing associated with Figs. 12-15). For example, as indicated in connection with Figs. 12-15, the software on the server may predict a desired site 1218, use the text as a search query 1302, further process the text entered 1402, redirect the mobile communication facility to another website 1502 or otherwise perform a process in response to the error 1704. Following

the error processing, the server may generate and communicate an additional request for information 1708. This may be similar to the requests for information described in connection with Figs. 12 – 15. For example, a request to enter a newly predicted website (e.g. as described in connection with Fig. 12) may be made. Following the request to enter the newly predicted website, an error or the like may be produced and the process may be re-executed 1224. Ultimately, the mobile communication facility 102 may receive an indication of the predicted site or the predicted site may be presented. As another example, the new request 1708 may be formed as a search query, or a processed query (e.g. disambiguated) intended to be fed into a search engine, as described in connection with Figs. 13 – 14. As yet another example, the new request 1608 may be a redirected request as described in connection with Fig. 15.

[00378] An aspect of the present invention relates to providing sponsored links. In embodiments a sponsor may be provided with an interface to allow it to enter sponsor information, such as bidding information, content to be presented in the event a bid is won, contact information, device compatible information, profiles the sponsor is targeting, locations the sponsor is targeting and the like. For example, a sponsorship facility 162 (e.g. as described in connection with Fig. 1 and 2) may be adapted with a sponsorship entry facility. The sponsorship facility 162 may perform other functions in connection with providing sponsored links on a mobile communication facility as well. For example, the sponsorship facility 162 may facilitate a bidding process and/or present the sponsored content to the mobile communication facility. In embodiments, information relating to the mobile communication facility (e.g. mobile subscriber characteristic information) may be used in the sponsored link process.

[00379] Fig. 18 illustrates a sponsored content facility 1800 wherein a mobile communication facility 102 is in communication with a wireless provider 108. The sponsorship facility 162, which may be part of a mobile search host facility 114, includes a sponsor entry facility 1804 where a sponsor may begin the process of entering information relating to sponsored content, bids, search criteria and the like. The sponsorship facility 162 may include a bidding facility 1812 to handle a bidding process between several sponsors; a payment system 1810 to handle payment transactions associated with the sponsored content; and a sponsored link/content facility 1808 adapted to direct and/or provide the sponsored content. A sponsor may be associated with a server 134 application that is adapted to access sponsored content database 128 and a sponsor's payment facility 1802.

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[00380] In embodiments, the sponsor may enter a bidding process to provide certain sponsored content to a mobile communication facility 102 through a sponsor entry facility 1804. The sponsor may provide bid information (such as max bids for certain keyword matches), content information, compatibility information and the like. Once the sponsor has entered the sponsor process through the sponsor entry facility 1804, it may be in a position to display the sponsored content on a mobile communication facility in exchange for a bid amount. A user may enter a search query on the mobile communication facility 102, the query may be transmitted to a bidding facility 1812 where a bidding process may take place to determine which sponsor's content is going to be provided to the mobile communication facility 102. The bidding process may result in the award of certain sponsored content 128 as identified in the awardees information it originally indicated during the entry process. For example, the sponsor may have indicated that upon an award, a link or other content 1808 should be presented to the mobile communication facility.

[00381] A sponsor may present the mobile communication facility 102 with purchasable content and a user may purchase the content through the mobile communication facility 102 and make payment for the content through the wireless provider 108. For example, the content may be a downloadable ringtone, music file, video file, wall paper, or the like. The sponsor may elect to provide billing for such content through the wireless provider billing facility 1810. This may provide a convenient, secure, and/or trusted user transaction. The user may be comfortable in purchasing the content through his wireless provider as it may provide more of an appearance that it is provided from a known source. This may generate more of a 'walled garden' feel from the user's perspective while allowing the user to search for and/or receive such content on the open web. When the sponsor allows for payment of the content through the wireless provider payment facility 1810, the wireless provider 108 may receive a portion of the user's payment (or some other compensation) in return for the billing service.

[00382] In embodiments, the sponsor payment facility 1802 may be used to pay for sponsored links that were awarded and/or presented to a mobile communication facility 102. For example, once sponsored content is awarded and/or presented to the mobile communication facility 102, the bidding facility 1812 may request payment for the bid amount from the sponsor payment facility 1802. The sponsor payment facility 1802 may then process payment to the wireless provider payment facility 1810, for example.

[00383] Fig. 19 illustrates a sponsor entry facility user interface 1900 that may be provided to a sponsor when the sponsor interacts with the sponsor entry facility 1804. The user interface 1900 may include a criteria entry facility 1902 where the sponsor may enter criteria that are important to its bid for placing sponsored content. For example, the criteria entered in the criteria entry facility 1902 may relate to key words, phrases, terms, lingo, sms codes, user profile, mobile communication facility display type, mobile communication facility type, phone type, mobile communication facility, mobile communication facility processor type or capability, mobile communication facility operating system, mobile communication facility third party software, mobile communication facility platform characteristics, mobile communication facility audio system, location, user gender, user purchase history, user age, favorites, click history, call history, time of day, day of year, mobile communication facility area code, user home address, home region, work address, work region, mobile subscriber characteristics and the like.

[00384] The user interface 1900 may also include a bid entry facility 1904. The bid entry facility may provide a sponsor with the ability to enter bid amounts and corresponding bid criteria. For example, a maximum bid amount may be associated with criteria such as keyword relevancy match. In embodiments the maximum bid may be associated with simple matching criteria (e.g. such as matching a keyword) or it may be associated with a more complicated sting or weighted string of terms, events, or characteristics. For example, while a sponsor may provide a maximum bid of \$0.10 for a keyword match, it may provide a bid of \$0.15 for a combination of keyword and location, or \$0.20 for a combination of keyword, location and phone type. As another example, the sponsor may bid \$0.15 for a bid associated with a location and time of day if the search is an implicit search. While certain illustrations of bid criteria associated with bid amounts have been provided, it should be understood that the criteria matching may be any type of matching including without limitation weighted function matching, algorithm-based matching or any other type of rule-based, algorithmic, heuristic, or other matching.

[00385] In embodiments, a sponsor desirous of presenting its content on a mobile communication facility may be presented a plurality of menu formats with which to create sponsor content including, but not limited to, advertisements, promotional notices, offers, and so on. For example, the menu system may provide a sponsor an entry menu within which it may be possible for the sponsor to create a title for sponsor content, include an URL, street address,

phone number, or other contact information. It may be possible to enter additional descriptive text, by line, by paragraph, and/or page.

[00386] In embodiments, a sponsor desirous of presenting its content on a mobile communication facility may be presented a plurality of menu formats with which to select the types of mobile communication facilities on which the sponsor would like to present the sponsor content. For example, the sponsor may wish to select a subset of mobile communication facility models that are best suited for presentation of the sponsor's content due to technological requirements for the content to optimally present. A sponsor may choose to present only on mobile communication facility models that are associated with other user characteristics that the sponsor would like to target (e.g., a cell phone model known to have high usage among college students).

[00387] In embodiments, a sponsor desirous of presenting its content on a mobile communication facility may be presented a plurality of menu formats with which to select the mobile communication facility platform and/or software types on which the sponsor would like to present the sponsor content. For example, a sponsor may have content that requires a Javaenabled device. Therefore, it may be desirable for the sponsor to select to present its content only on those mobile communication facilities that are Java-enabled.

[00388] In embodiments, a sponsor desirous of presenting its content on a mobile communication facility may be presented a plurality of menu formats from which to select key words and/or key phrases to associate with the sponsor's information. The menus may present individual words, lists of words, and/or phrases for which a sponsor may enter a bid amount. The bid amount may be a specific price, a price range, or a maximum price that the sponsor is willing to pay in order to have its content associated with the language.

[00389] In embodiments, a sponsor desirous of presenting its content on a mobile communication facility may be presented with keyword suggestions based upon keywords entered and/or selected by the sponsor. For example, a thesaurus may be employed to automatically present sponsors with additional keywords that are related to the keywords in which a sponsor manifests an interest in bidding.

[00390] In embodiments, a sponsor desirous of presenting its content on a mobile communication facility may be presented a plurality of menu formats from which to select geographic variables to associate with the sponsor's information. The menus may present

individual area codes, city names, state names, country names, location entered by a user and/or be based upon GPS information derived from a location facility. Geographic information may also be presented in relation to other mobile subscriber characteristics. For example, a sponsor in the hotel business may be interested in having its content present to only those users that are outside of their hometown and/or normal work region.

[00391] In embodiments, a sponsor desirous of presenting its content on a mobile communication facility may be presented a plurality of menu formats from which to select demographic variables to associate with the sponsor's information. The menus may present individual demographic variables contained in the mobile subscriber characteristics database, such as, age, sex, race, address, income, billing history, purchase history, and so forth.

[00392] In embodiments, sponsors' content may be displayed on a mobile communication facility in a descending rank order based upon the sponsors' bid amounts.

[00393] In embodiments, sponsors' content may be displayed on a mobile communication facility in a descending rank order based upon the amount of shared revenue derived from sponsors.

[00394] In embodiments, sponsors' content may be displayed and/or ordered on a mobile communication facility 102 based at least in part on using time as a criteria.

[00395] In embodiments, sponsors' content may be displayed and/or ordered on a mobile communication facility 102 based at least in part on a mobile subscriber characteristic, such as, the user, device type, geography, transaction, and/or history.

[00396] In embodiments, sponsors' content may be displayed and/or ordered on a mobile communication facility 102 based at least in part on the relevancy of the sponsored content. For example, relevancy may be based upon the information contained in a sponsor's content and keywords entered by a user in a query entry facility 120. Relevancy may be based upon the sponsor's content and mobile subscriber characteristics, such as, user, device type, geography, transaction, and/or history.

[00397] In embodiments, sponsors' content may be displayed and/or ordered on a mobile communication facility 102 based at least in part on a grouping or aggregation of mobile subscriber characteristics. For example, sponsors' content may be displayed on the basis of users' age ranges (e.g., 20-30 year olds).

[00398] In embodiments, the amounts payable as a result of the sponsor billing process may be processed within the billing system of a wireless provider. For example, when the sponsor enters a wireless provider's bidding system it may enter into an agreement with the wireless provider such that any presented sponsored content is paid for. The payment may come directly from the sponsor to the wireless provider, for example. In embodiments, a user of the mobile communication facility may interact with sponsored content (e.g. click on a sponsored line) and make a transaction within the sponsored content (e.g. the user may purchase a music download, ringtone, wall paper or the like). In such embodiments, the purchase price of the purchased content may appear on the user's wireless provider bill, as opposed to being billed from the sponsor.

[00399] In embodiments, a sponsor's website may be evaluated to determine the frequency of the appearance of key words and/or key phrases. Once the keyword and/or key phrase frequency is known, a site relevancy score may be derived indicating the relevance of keywords to the content of a sponsor's website. This relevancy score may then be used to assist sponsors in their bidding, making it easier for sponsors to focus their finances on keywords and/or key phrases with the greatest relevancy to their content.

[00400] In embodiments, the behaviors of mobile communication facility users may be automatically collected and the bid values in the bidding system adjusted to reflect user behaviors. For example, user calls, clicks, clickthroughs, purchases, and yield optimization may be automated and used to change the value of minimum or maximum bid values associated with a keyword.

[00401] In embodiments, an editorial review process may be used to evaluate the appropriateness of sponsors' selections of criteria with which to associate their content. For example, it may be inappropriate to have a sponsor associate adult content with keywords commonly associated with the interests of children. The editorial process may assist in locating and remedying such incongruities.

[00402] In embodiments, an automated spidering tool may be used to periodically monitor changes in sponsors' content and determine the reliability of the sponsor links. For example, a sponsor may update a website to such an extent that the sponsor's content that was previously associated with keywords through a bidding process is no longer reliable (i.e., the content is no longer located where the links direct a user). When this occurs, the system may

send an alert to the sponsor indicating that the reliability of the sponsor content links is insufficient. They may serve to improve the overall reliability of the system.

[00403] As illustrated in Fig. 20, an advertisement 2004 may be presented to a mobile communication facility 102 based at least in part on receiving a webpage request from the query facility of a mobile communication facility 102, receiving information associated with the mobile communication facility 102, and associating at least one advertisement 2002a with a webpage at least in part based on the information relating to the mobile communication facility 102. For example, a user of a mobile communication facility 102 may initiate a search query consisting of an explicit text query spelling a musician's name. The potential search results that may be presented to the user's mobile communication facility 102 may include advertisements 2002a, 2002b and websites for the musician's CD's, videos of his performances, etc. Alternatively, a mobile communication facility user may enter an address request (e.g., an internet URL) requesting a specific website devoted to a musician. This address request may in turn be associated with advertisements and other websites related to the musician's CD's, videos of his performances, etc. Information about the mobile communication facility 102 (e.g., its video streaming capabilities) may be used in order to determine which of the advertisement/webpage 2008 results may be presented successfully to the user's mobile communication facility 102. This information may, in turn, be used to pair webpages and advertisements 2004 that are each capable of presenting in the display of the user's mobile communication facility 102.

[00404] In embodiments, an implicit query may be received from a user of a mobile communication facility 102 and used at least in part to derive associations with advertisements 2004. For example, mobile subscriber characteristics 112, carrier business rules 130, or mobile communication facility 102 information, in conjunction with time, location, or similar situation, may suggest relevant advertisement-webpage 2008 pairing recommendations for the user. The recommended advertisements 2002 may be paired with webpages presented prior to, during, or following, the display of the advertisement 2002 results. A content request may be made by an implicit query request based at least in part on a mobile subscriber characteristic 112. For example, a user's mobile subscriber characteristics 112 may include the user's date of birth. Thus, an implicit query may be generated on the user's birthday in order to cull advertisements 2004 related to celebration of a birthday, discounts for customers on their birthdays, etc. A

content request may be made an implicit query request based at least in part on a characteristic of a user's mobile communication facility 102. For example, if a mobile communication facility 102 type is associated with a demographic (e.g., age), an implicit query may be initiated to cull advertisements 2004 of probable relevance to the user of that mobile communication facility 102 type.

**[00405]** In embodiments, a user's prior search activities and search results may also be used to create implicit query requests for the user. Prior search activities may include transactions, search queries, visits to websites, and other acts initiated by the user on the mobile communication facility 102. The geographic location of the mobile communication facility 102 may foster implicit queries including, but not limited to, products and services in the user's current geographic vicinity. The current time may be used independently or in conjunction with other information to create implicit queries. For example, the independent fact that it is noon, may initiate an implicit query for restaurants serving lunch. As with the above restaurant example, similar processes for generating meaningful recommendations may be applied to other services and products, including, transportation, food, theater, sports, entertainment, movies, corporations, work, bank, post office, mail facility, gas, directions, locations, location, navigation, taxi, bus, train, car, airport, baby sitter, service provider, goods provider, drug store, drive through, bar, club, movie times, entertainment times, news, and local information.

[00406] In embodiments, an advertisement 2002 may be presented to a mobile communication facility 102 based at least in part on information relating to mobile subscriber characteristics 112. This information may include a user's individual demographic variables contained in the mobile subscriber characteristics database 112, such be age, sex, race, religion, an area code, zip code, a home address, a work address, a billing address, credit information, family information, income range, birth date range, birthplace, employer, job title, length of employment, an affiliation or other such information as described herein. The mobile subscriber characteristic 112 may be associated with a personal filter. The mobile subscriber characteristic may be used in conjunction with a collaborative filter. The mobile subscriber characteristic 112 may include an aggregate of user characteristics or include a range of values. The range of values of a user characteristic may be a range of behaviors, or a range of age.

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[00407] In embodiments, mobile subscriber characteristics 112 may form parameters that limit the advertisement 2002 search results to those relevant to a mobile subscriber characteristic 112 or profile of multiple characteristics. The display of advertisement 2002 result set(s) may, thus, omit information, prioritize information (e.g., presenting sponsor links prior to all others), highlight a subset of the search result set, or order the display of information based upon the presence or absence of mobile subscriber characteristics 112. Examples of representative elements that may be stored within the mobile subscriber characteristics database 112 include location, personal information relating to a user, web interactions, email interactions, messaging interactions, billing history, payment history, typical bill amount, time of day, duration of on-line interactions, number of on-line interactions, family status, occupation, transactions, previous search queries entered, history of locations, phone number, device identifier, type of content previously downloaded, content previously viewed, and sites visited.

[00408] In embodiments, at least one advertisement 2004 may be associated with at least one webpage at least in part based on the information relating to a mobile subscriber characteristic 112 and mobile communication facility 102 characteristic combination. This information may provide an indication as to what the user may be looking for at a given time and location. For example, a user may be looking for transportation, food, a theater, sports, entertainment, movies, corporations, work, a bank, post office, mail facility, gas, directions, locations, location, navigation, taxi, bus, train, car, airport, baby sitter, service provider, goods provider, drug store, drive through, bar, club, movie times, entertainment times, news, and local information.

[00409] In embodiments, an advertisement 2004 may be presented to a mobile communication facility 102 based at least in part on information relating to a mobile communication facility 102. This information may form parameters that limit the advertisement 2002 search results to those compatible with, relevant to, or preferred for presentation on a given type of mobile communication facility 102. The display of advertisement 2002 result set(s) may, thus, omit information, prioritize information (e.g., presenting sponsor links prior to all others), highlight a subset of the search result set, or order the display of information based upon the presence or absence of a mobile communication facility 102 or a feature of a mobile communication facility 102. Examples of representative elements that may be stored within the mobile subscriber characteristics database 112 include search history, a parental control, or a

carrier business rule 130, display resolution, processing speed, audio capability, visual capability, and other technical characteristics. For example, an advertisement 2004 may be associated with only the subset of mobile communication facility 102 models that are best suited for presentation of the advertisement's 2004 content due to technological requirements for the content to optimally present. For example, an advertisement 2004 may have content that requires a Javaenabled device. Therefore, it may be desirable for the advertisement 2004 to present its content only on those mobile communication facilities that are Java-enabled.

[00410] In embodiments, advertising and webpage content compatibility with a type of mobile communication facility 102 may be determined at least in part by tracking a plurality of mobile communication facility 102 interactions with such content. Information may be stored pertaining to the advertising and web interactions in a database, where a portion of the information comprises identification of at least one mobile communication facility 102 from the plurality of mobile communication facilities, and predicting the compatibility of the mobile communication facility 102 with the content based, in part, on how many content interactions there were. The prediction of compatibility of the mobile communication facility 102 with content may be based, in part, on how many interactions there were in the user's past. Content may be a download, program, file, executable file, zipped file, compressed file, audio, and video. An advertising or web interaction may be a click on a hyperlink, an indication of downloaded content, and/or an indication of a downloaded program.

[00411] In embodiments, advertising content may be associated with webpage content and the at least one mobile subscriber characteristic 112 and or the at least one mobile communication facility 102 characteristic.

[00412] In embodiments, an advertisement 2004 may be associated with at least one webpage based at least in part on information relating to a mobile communication provider. The information relating to a mobile communication provider may include, but is not limited to, a graphical trademark, audible signal, a recording of a person reading the slogan trademark of a mobile communication provider, a distinctive audio tone or combinations of tones associated with a mobile communication provider, or a video stream, such as an audio-visual commercial.

[00413] In embodiments, the past performance or other information relating to a mobile communication facility may be stored, aggregated, and analyzed on a remote server 134 and database 138, wireless provider data facility 124, the mobile communication facility, or other

similar facilities. Past performance may include, but is not limited to, past content interaction, content download, audio content streaming, video content streaming, content contained in java cookies, content contained in temporary internet files stored on the mobile communication facility, past transaction information, and the like.

[00414] In embodiments, an algorithm facility 144 may perform algorithms including algorithms for associating information relating to the past performance of a mobile communication facility or other information relating to the mobile communication facility. For example, an algorithm facility may include an algorithm to determine the cumulative frequency of a given past performance (e.g., downloading an MP3 file) within a single mobile communication facility 102 or group of mobile communication facilities. Content may be categorized into a yellow-pages like taxonomy and this taxonomy mapped onto the past performance of a mobile communication facility 102 or group of mobile communication facilities. The taxonomies may then be ordered according a descending order of the cumulative rank associated with the mobile communication facility or group of mobile communication facilities. For example, applying such an algorithm to a user's mobile communication facility past performance may result in a content taxonomy cumulative frequency rank similar to the following (e.g., where each number represents the cumulative, discrete content interactions): MP3: 92; Ringtones: 43; Online Musical Instrument Sites: 16; Newspaper websites; 2; Business Week Magazine Website; 1. Based on this array of data, the relevancy of content may be inferred and, as a result, content related to music (listening to and playing) given a higher priority rank than content related to news.

[00415] In embodiments, an algorithm may also correlate past performances within a single mobile communication facility 102 or group of mobile communication facilities. For example, an algorithm may compute a correlation coefficient to describe the association between the past performance of downloading an MP3 file and purchasing a concert ticket online, using a mobile communication facility 102. This coefficient may, in turn, form the basis for ordering content for presentation to a mobile communication facility 102. For example, it may be found that within a single mobile communication facility past performances, or a group of such facilities, the download of MP3 files is positively correlated with online concert ticket purchases, with a coefficient of 0.23, whereas download of MP3 files is positively correlated with the

download of real estate listings with only a coefficient of 0.04. This information may be used to rank the relevancy of content such that a person with a past performance of an MP3 download is presented content related to concert ticket purchases more frequently than, with preference to, with prioritized placement within the mobile communication facility display 172 over, to the exclusion of, and so on, any content related to real estate listings. This information may also be used to infer the appropriateness and likelihood of content interaction. For example, a mobile communication facility 102 with many past performances of MP3 downloads, but no online concert ticket purchases may be a prime candidate to receive ticket purchase content and or receive ticket purchase content with priority over news content, and so forth.

[00416] In embodiments, the algorithm types described above may also be used to assess the relevancy, priority, positioning, placement, and so forth of content based upon information associated with the mobile communication facility, a capability of the mobile communication facility, a user associated with the mobile communication facility, an owner of the mobile communication facility, mobile subscriber characteristic(s), carrier information or other information that may be used as a predictor of the likelihood of an interaction with the sponsored content. The capability of a mobile communication facility may include, but is not limited to, audio capabilities, video capabilities, visual capabilities, processing capability, screen capability, and the like. User characteristics may include, but are not limited to, user history information, demographic information, transaction history, location information, user billing information, personal filters, and the like. A mobile subscriber characteristic may include, but is not limited to, user transaction history, user location, personal information relating to a user, user web interactions, email interactions, messaging interactions, billing history, payment history, typical bill amount, time of day, duration of on-line interactions, number of on-line interactions, family status, occupation, previous search queries, history of locations, phone number, device identifier, type of content previously downloaded, previous content viewed, websites visited, and the like. Mobile subscriber characteristics may also include demographic information. Demographic information may include, but is not limited to, age, sex, race, religion, an area code, zip code, a home address, a work address, a billing address, credit information, family information, income range, birth date range, birthplace, employer, job title, length of employment, or an affiliation, and the like. A mobile service provider characteristic may

include, but is not limited to, a carrier business rule, the geographic region in which the mobile service provider's service is available to consumers, walled-garden content, and the like.

[00417] An aspect of the present invention involves a method for receiving a website request 100 from a mobile carrier gateway 110, receiving contextual information 120 relating to the requested website 100, associating the received contextual information 120 with a mobile content 130, and displaying the mobile content 130 with the website 180 on a mobile communication facility 150.

A mobile communication facility 150 used to make a website request 100 may [00418] be one or more of a phone, a mobile phone, a cellular phone, a GSM phone, a GPRS phone, a WAP-enabled phone, a satellite phone, a WiFi phone, a wireless device, a pager, a personal digital assistant, or the like. The website request 100 may be sent through a mobile carrier gateway 110 which then initiates a context review request 160 of the requested website 180. The requested website 180 may be one or more of the following: a webpage, a document, an image, video, audio, or some other website. A server 140 may respond to the context review request 160 by accessing the website 180 and performing a context review 170 of the website 180. The result of the context review 170 may be the identification of contextual information 120 associated with the website 180. The identified contextual information 120 may then be sent back to the server 140. The contextual information 120 may include one or more of the following: a link, a link structure, an inbound link to the website, an outbound link from the website, a reciprocal link, text, a keyword, metadata, website usage patterns, website usage statistics, or the like. For example, a user of a mobile communication facility 150 may execute a website request 100 for a website 180 containing the Amtrak schedule for trains from Boston, MA to New York City, NY. Contextual information 120 associated with the Amtrak schedule website may include, for example, keywords such as 'travel', 'train', 'vacation', 'Boston', and 'New York', outbound links to local weather in Boston and New York City, or an inbound link from a travel agency website. Once identified, one or more pieces of contextual information 120 related to the Amtrak schedule website may be sent back to a server 140.

[00419] The server 140 may receive contextual information 120 and then associate it with a mobile content 130. Optionally, the server 140 may store contextual information 120 associated with a particular website 180 to facilitate subsequent context review requests 160 originating from either the same or a different mobile subscriber. The mobile content 130 may

relate to one or more of the following: an advertisement, sponsored content, a sponsored call, an image, a video, text, a search box, a pay-per-click link, a pay-per-call link, or some other mobile content 130. For instance, if the contextual information 120 is the keyword 'vacation', the associated mobile content 130 may be a search box for an airfare metasearch engine, an advertisement for an all-inclusive resort in Cancun, or a review of an exotic destination. When the mobile content 130 is a search box, the search box may relate to a local site search box, an advertisement search box, a carrier portal search box, or some other such search box. For example, the local site search box may only query the requested website 180 while the carrier portal search box may provide for queries of a greater collection of websites.

[00420] The mobile content 130 may also be optionally branded using a wireless carrier brand. For example, the mobile content 130 may be a search box that employs the technology of a third-party search engine but bears a name, a logo, a trademark, a slogan, a graphic, audio, video, an image, or some other representation of the wireless carrier brand.

[00421] In order to deliver pertinent mobile content 130 with the requested website to the mobile communication facility 150, the association between the received contextual information 120 and mobile content 130 may be based at least in part on a relevance. For example, the relevance may be related to a mobile subscriber characteristic. For instance, if a subscriber who is a senior citizen requests a website 180 for which derived contextual information 120 includes the term 'vacation', relevant associated mobile content 130 may be an advertisement for a seniors' cruise and not one for spring break in Cancun.

[00422] Relevance may also be based at least in part on the relationship between the contextual information 120 and the mobile content 130. For example, the relationship may be a similarity or dissimilarity of the contextual information 120 and the mobile content 130. Mobile content 130 that exhibits greater similarity to the contextual information than other mobile content 130 may be considered more relevant and, therefore, more likely to be displayed along with the website 180 on the mobile communication facility 150. In contrast, mobile content 130 that is dissimilar to the contextual information 120 may not be deemed relevant and may be lowered in priority for display. For example, the contextual information 120 may be an outbound link to a bookstore's website (e.g.: Barnes & Noble, Border's). A link to a bookstore may be considered similar to mobile content 130 that includes an Amazon.com search box or an

advertisement for a popular author's latest release. A link to a bookstore may be considered dissimilar to mobile content 130 that includes an advertisement for a flat-screen television.

[00423] Relevance may also be based at least in part on the relationship between stored contextual information 120 and/or mobile content 130 originating from a previous website request 100 by the mobile subscriber and the current pool of mobile content 130. Mobile content 130 to be delivered to the mobile communication facility 150 may be identified as relevant by association to contextual information 120 from a previously viewed website 180. For example, even though the current website request 100 is for an international news website, based on previous derived contextual information 120 which included 'shopping' and 'home furnishings', the delivered mobile content 130 may be a search box for Target.com.

[00424] Once a mobile content 130 has been associated with the received contextual information 120, the mobile content 130 may be displayed with the website 180 on the mobile communication facility 150. The mobile content 130 may be displayed interstitially or concomitantly with the website 180. Optionally, the mobile content 130 displayed may be stored on a server 140.

[00425] In some embodiments of the method, an opt-in function may be provided to an entity associated with the website 180, wherein the opt-in function registers the website 180 for automatic contextual syndication. The contextual information 120 may be provided by a server 140 involved in sending the mobile communication facility 150 the website 180. The server 140 may be one or more of the following: a WAP server, a mobile application gateway, a WAP gateway, a proxy server, a web server, or the like.

[00426] A server 134 may be used to select mobile content such that it has a relevance to the user for delivery. In an example, a user's history may include some or substantially all transactions that the user has initiated from a mobile communication facility 102. In this user history, the user may have demonstrated a preference or tendency to interact with mobile content that is associated with jazz music. The user may also have executed a plurality of queries related to jazz music. Therefore, delivering mobile content that is associated with jazz music may have a relevance to the user. A server 134 may select and store a variety of mobile content based on such types of relevance and make it available to a wireless provider 108 to facilitate delivering relevant mobile content to a user.

[00427] The behavioral information to which the mobile content may be associated to establish relevance may be based on an individual user or a group of users. The group of users may be users with one or more characteristic in common. The characteristic may be related to the user (user characteristic), the mobile communication facility 102, a location of the mobile communication facility 102, a time, or some other characteristic.

[00428] The relevant mobile content may be an advertisement or another type of mobile content such as sponsored content, a sponsored call, a search box, and the like. The relevant mobile content format may be selected based at least in part on a relevance to the user behavioral information. A user may have indicated explicitly or through specific actions with the mobile communication facility 102 a preference for mobile content that includes both audio and video. This user behavioral information may be used to select between similar mobile content to provide the most relevant mobile content to the user.

[00429] Methods and systems for associating mobile content with behavioral information related to a user of a mobile communication facility 102, as herein disclosed may also be applied to selecting the mobile content in association with a website.

[00430] In embodiments, interaction information relating to a mobile communication facility may be used to weight content, and the content may be ordered for presentation on a mobile communication facility 102 based at least in part on the weighting. For example, interaction information may be based on transaction events, purchase history, user history, user characteristic, user device, geographic location, time, expertise, occupation, income bracket, home address, and the like. A user who has made several online book purchases during the past week related to baseball may, as a result of this past behavior, have sports content weighted favorably and prioritized for placement on his mobile communication facility 102. This interaction information may also be used to weight and prioritize content for other mobile communication facility users who share some attribute or plurality of attributes (e.g., age, income, etc.) with the user who purchased the baseball books. As interaction information is collected, it may be stored and analyzed in the aggregate in order to derive weights for mobile content and prioritize the presentation of content based upon information relating to mobile subscriber characteristics, mobile communication facility characteristics, and other information relating to users.

[00431] A sponsor using mobile content to sell its products or services within a wireless platform 100 may find it advantageous to have information regarding the expected value that it may derive from sponsoring a mobile content. By knowing an expected value associated with a mobile content, a sponsor may be able to select those sponsorship opportunities from which it is most likely to derive revenue. The expected value may assist a sponsor in budgeting for an advertising program based on the total expected revenue to be derived from an advertising program. Behavioral metrics, such as clickthrough volume, and conversion volume may be used to predict future consumer interactions with mobile content. Financial metrics, such as product price, profit margin, and the like, may be used to indicate the financial results of associating a given product with the behavioral metrics related to a mobile content. Expected value calculations may be beneficial for sponsors such as advertisers, wireless information providers, wireless carriers, wireless operators, telecommunications providers, and the like.

[00432] In embodiments, an expected value calculation may indicate to a sponsor the expected revenue that it may be predicted to receive from a sponsorship, such as an advertising program. Such an expected revenue calculation may be performed by multiplying a clickthrough parameter associated with a mobile content by the conversion associated with that content by the purchase price of the product that is the subject of the content. In this calculation, the clickthrough parameter may represent the cumulative number of times the content is accessed (i.e., "clicked"), the click through rate, or other parameter associated with the interactivity with the content. The conversion may represent the cumulative number of transactions, such as a purchase, associated with the content, the transaction rate associated with the content, or other parameter associated with the transactions associated with the content. The purchase price may be a manufacturer's suggested retail price, a price explicitly set by the content provider, a price unique to a specific user's conversion, or a product price resulting from some other price setting protocol. The expected revenue may also be calculated as a bid-weighted revenue in which the expected revenue is multiplied by a bid amount.

[00433] In embodiments, an expected value calculation may indicate to a sponsor, or wireless carrier, the expected margin that it may be predicted to receive from a sponsorship, such as an advertising program. Such an expected margin calculation may be performed by multiplying the clickthrough associated with a mobile content by the conversion associated with that content by the margin of the product that is the subject of the content. Margin may include,

but is not limited to, an expected advertiser margin, an expected wireless carrier's margin, the profit margin associated with a product, and the like. The expected margin may also be calculated as a bid-weighted margin in which the expected margin is multiplied by a bid amount.

[00434] In embodiments, an expected value calculation may indicate to a sponsor, or wireless carrier, the expected yield that it may be predicted to receive from a sponsorship, such as an advertising program. Such an expected yield calculation may be performed by multiplying a bid associated with a mobile content by the clickthrough associated with that content. Similarly, an expected conversion yield may be calculated by multiplying a yield associated with a mobile content by the conversion associated with that content.

[00435] In embodiments, an expected value calculation may indicate to a sponsor, wireless carrier, wireless operator, or telecommunications provider the average time spent on a target website and the average depth of use a target website by users visiting the website.

[00436] In embodiments, an expected value calculation related to a mobile content may be segmented by a characteristic associated with a mobile communication facility. For example the expected value may be segmented by a characteristic including, but not limited to, a display capability, display size, display resolution, processing speed, audio capability, video capability, cache size, storage capability, memory capacity, and the like. In embodiments, the expected value may also be segmented by a mobile subscriber characteristic including, but not limited to, age, sex, race, religion, area code, zip code, home address, work address, billing address, credit information, family information, income information, birth date, birthplace, employer, job title, length of employment, user history, user transactions, geographic location, time, and the like. The segmented expected value may provide information relating to the expected value within a given segmentation.

[00437] One example, of many potential examples, of how an expected value may be used by a sponsor is described below. Content sponsors may seek to sponsor content that they believe is most likely to be accessed by persons or entities interested enough in their products or services that a conversion (e.g., purchase) will result. One of the primary functions of market research is to gain insight into consumer profiles that are most associated with past conversions and to provide information on other consumer profiles that may represent the untapped market share of consumers currently unfamiliar with, but likely to purchase the provider's products. For example, in a traditional medium such as television, a sponsor may purchase market research

regarding the demographic profile, number of viewers, length of average viewing time, etc. associated with a particular primetime situation comedy. Based on prior market research a sponsor may have regarding the profiles of its past consumers, the sponsor may make an educated guess as to the appropriateness of sponsoring content (e.g. advertising) during the sitcom based on the level of concurrence between the sitcom viewers and the sponsor's past consumers. The higher the level of concurrence the greater the probability that purchases will result from the advertising, and the greater the expected value that the company may presume it will receive on its advertising expenditures. Furthermore, the greater specificity with which a consumer profile may be described (e.g., not "California," but rather "Area Code = 90210"), the more accurately a sponsor may potentially target its intended consumers and increase its expected value.

[00438] In response to a mobile content search initiated by a user of a mobile communication facility 102, a mobile content provider may deliver sponsored content, advertisements, sponsored call numbers, or other sponsored content to the mobile communication facility 102 based at least in part on a relevance to the search query. In addition to selecting among a variety of sponsored advertisements, a mobile content provider may also select a sponsored content, such as an advertisement, from a variety of sources or mobile content inventories. Different sources of sponsored content may have unique arrangements relating to cost, derived revenues, wall-garden restrictions, blacklisted content, whitelisted content, and the like. Therefore, it may be advantageous for a mobile content provider to select mobile content from the available mobile content inventories based at least in part on optimizing the benefits for the mobile content provider.

[00439] In one embodiment, a cross inventory yield optimization method may include determining which mobile content inventory provides the greatest clickthrough value. As an example, a first mobile content inventory may pass through a higher percentage of an advertisement impression bid than a second inventory. Therefore, by selecting the mobile content from the first inventory, greater revenues may be generated when the content is presented to a mobile communication facility.

[00440] Cross inventory yield optimization of mobile content may assist in generating greater revenue for a presenter of the content than non optimized content. Methods and systems of optimizing the yield of presenting mobile content on a mobile communication facility 102

may include a variety of factors. One or more of the factors may be evaluated in the context of an objective of the optimization. For example, one objective of optimizing yield may be to generate the greatest likelihood of receiving clickthrough revenue associated with the presentation of mobile content. As such, content may be preferentially selected based at least in part on factors that advance this objective, such as the clickthrough rate associated with a mobile content, or the revenue derived per click of the mobile content, cost-per-thousand revenue, cost-per-acquisition, and so forth. In another example, an objective of the cross inventory yield optimization may be to preferentially select mobile content that is the most compatible with a mobile communication facility 102, based upon criteria, such as screen resolution, memory capacity, video capability, and the like.

[00441] A method for determining which among a plurality of content inventories provides the greatest value may include comparing the impression bid offering from each inventory provider and selecting the highest bid offering. Alternatively, an advertisement with a lower impression revenue may be selected if it pays a higher clickthrough revenue and the clickthrough rate results in greater revenue. In these examples, one can appreciate how the objective of optimization may impact which factors associated with an advertisement are preferred.

[00442] There may be available a choice of mobile content, such as advertisements, for different products or services, each of which may have a relevance to a mobile search. Determining which of the advertisements may generate the greatest revenue may include factors related to the advertisement. Factors may include, without limitation, popularity of the advertisement, clickthrough rate, and freshness of the content, advertisement, or call number, and so forth. As an example, a very popular advertisement that is relevant to the search may provide a more optimal revenue opportunity than a less popular, yet relevant advertisement due to the increased odds that the popular advertisement will be viewed, interacted with, will produce a clickthrough, and the like. In another example, an advertisement with a higher clickthrough rate may present a more optimal revenue opportunity than an advertisement with a lower clickthrough rate since the advertiser pays the clickthrough bid for a higher percentage of impressions. An advertisement, sponsored call number, or other sponsored content that is freshest (i.e. has been more recently updated or verified) may also provide a greater revenue opportunity. In an example, advertisements may present an event that has recently had a change

in venue. An advertisement that has been updated since the venue change may be more likely to provide clickthrough revenue than one that presents the obsolete venue. Therefore a method for optimizing cross inventory yield may include assessing advertisement popularity, clickthrough rate, or freshness of content.

[00443] Optimizing cross inventory yield may include factors associated with a user of a mobile communication facility 102, such as a user characteristic as herein described. A user history utilized in optimizing cross inventory yield is described in the following example. A user history may include metrics associated with a user's actions when presented with advertisements, sponsored content, and/or sponsored call numbers. The history may indicate that a user more often follows through with a sponsored call number than with a sponsored advertisement. Therefore, presenting a sponsored call number to this user may optimize the revenue generated. Consequently, a cross inventory yield optimization method may preferentially select a sponsored call number to present to this user instead of a non-call-number-based mobile content item.

[00444] The mode in which a mobile communication facility 102 user enters a search query may also be factored into optimizing cross inventory yield. Since a mobile communication facility 102 may have multiple independent modes of entry (e.g. voice, keypad, touchscreen, camera, and the like), the selection of a mobile content, advertisement, sponsored content, or sponsored call number may optimized based at least in part on the mode of query entry. For example, a user who issues a search query using a keypad entry may be more likely to be viewing the mobile communication facility 102 than listening to it. As a result, selecting an advertisement with little display content and significant audio content may reduce the yield associated with the content relative to a more visually-based mobile content. However, voice entry of a search query may be indicative of a user that prefers an audio based mobile content.

[00445] A cross inventory yield optimization method or system may combine factors to optimize revenue for mobile content, advertisements, sponsored content, or sponsored call number presentation. Yield optimization may include factors associated with a user, a mobile communication facility 102, a location, the advertisement/content/number, revenue (e.g. impression and clickthrough bids), payment terms, and the like. In an example, an English speaking user may be traveling to Paris and may enter a search query. An optimization method may combine factors such as user language preference (English) with location (Paris) with payment terms (pay in USD) and popularity (French current events) and revenue (impression

bid). The above is only an example and many other combinations of factors are possible and may be used singly, or in combination, as part of an cross inventory yield optimization method and system.

[00446] As previously described, a wireless search platform 100 may be associated with a plurality of datasets from which consumer profiles may be derived for use in targeting content (e.g. advertisements, sponsored content, sponsored call numbers), deriving estimates of the expected value associated with content, and expected value estimates for content segmented by information relating to a mobile communication facility. By receiving information on the clickthrough volume and conversion volume associated with content, a sponsor may forecast based upon it's products' purchase prices, profit margins and the like an appropriate bid amount for a content and the probable financial results it will derive from sponsoring the content. A wireless platform 100 may include information relating to a wireless provider 108, a mobile communication facility 102, mobile subscriber characteristics 112, location 110, and so forth. Thus, a sponsor may receive an expected value for mobile content that it may want to sponsor that is segmented by information relating to a mobile communication facility in order to identify the most profitable population within which to sponsor content.

[00447] For example, a sponsor specializing in Boston Red Sox memorabilia may use expected value data segmented by information such as a user's device characteristics, demographics, and current location, to predict which content and which population of mobile users may be associated with the greatest expected value. The memorabilia company may find that there is a high expected value for sponsoring content that is associated with a high clickthrough and conversion volume among "men," making ">\$100,000 per annum," and whose current location is the "zip code" of Boston. This level of expected value segmentation may allow the company to identify and sponsor that content with a greater likelihood of financial benefit and minimize sponsorship of content that may be associated with little or no likely benefit to the company.

[00448] In embodiments, sponsors may be offered an opportunity to bid for the placement of content on a mobile communication facility display 172 and user interface based upon an anticipated expected value that is associated with the placement of the content. Such a bid may occur in the form of an auction, a reverse auction, or a partially randomized auction. The content that is the subject of a bidding process may include, but is not limited to, an

advertisement, a sponsored link (such as an URL, email address, FTP address, or phone call), an advertisement, a sponsored call, an audio stream, a video, a graphic element, and the like.

[00449] In embodiments, content that is the subject of the bidding process may be placed on a query page, home page, search page, on a sponsored links portion of the user interface, or on a page of the user interface that may be associated with a set of search results or a specific result.

[00450] The anticipated expected value may be determined by an expected value estimation facility. The expected value estimation facility may be based on an expected value calculation associated with a variable or variables selected from the group consisting of the amount of the bid, the location of the media item in the user interface, the duration of the presentation of the media item in the user interface, the probability that a user will view the media item if placed in the user interface, the probability that the user will interact with the media item if placed in the user interface, the probability that the user will view, interact with and/or execute a transaction associated with the media item, and the value of the transaction to the bidder, for example. In embodiments, the expected value estimation facility may be dynamic in that a change of a bid amount automatically adjusts the expected value estimation based on this new economic data.

[00451] In embodiments, a bidder may be able to pre-select the location within the mobile communication facility display 172 that it seeks to place content. Similarly, duration of the time that the content displays may also be selected.

[00452] In embodiments, the probability that a user will view, interact with, and/or execute a transaction in association with content may be based upon mobile subscriber characteristics 112, mobile communication facility 102 type, mobile communication facility 102 characteristics, and other data types that may be part of, or related to, a wireless platform 100. Examples of mobile subscriber characteristics includes, but is not limited to, age, sex, race, religion, area code, zip code, home address, work address, billing address, credit information, family information, income information, birth date, birthplace, employer, job title, length of employment, and the like. Examples of mobile communication facility 102 type includes, but is not limited to, a phone, cellular phone, mobile phone, GSM phone, a personal digital assistant, and or a "pocket" personal computer. Examples of mobile communication facility 102 characteristics includes, but is not limited to, display capability, display size, display resolution,

processing speed, audio capability, video capability, cache size, storage capability, memory capacity, and the like.

[00453] In embodiments, the value of a transaction to a bidder (i.e. the expected value to the bidder) may be based on one or more of the price of an item described in the media item, the net price of an item described in the media item, the cost of the item described in the media item, the value of the attention of a user to the media item, the value of the brand presented in the media item, value attributed to the goodwill of the mobile subscriber, value attributed to multiple items presented in the media item, the revenue associated with a transaction executed by a mobile subscriber in connection with interaction with the media item, the net revenue associated with a transaction executed by a mobile subscriber in connection with interaction with the media item, and the probability that executing a transaction associated with the media item will result in another transaction with the bidder. Value may be expressed as a net present value, a discounted rate, or a discounted value. A bidder may be able to personally adjust the discount rate.

[00454] In embodiments, a bidder may be able to enter an item of data associated with one or more of the amount of the bid, the location of the media item in the user interface, the duration of the presentation of the media item in the user interface, the probability that a user will view the media item if placed in the user interface, the probability that the user will interact with the media item if placed in the user interface, the probability that the user will execute a transaction associated with the media item, and the value of the transaction to the bidder.

[00455] As was described above for the process of bidding on the presentation of content based at least in part on the anticipated expected value associated with the content's display, so too may a bidding process present an opportunity to bid based upon an anticipated yield associated with the display of a given content. A yield estimation facility may be based on an yield calculation associated with a variable selected from the group consisting of the amount of the bid, the location of the media item in the user interface, the duration of the presentation of the media item in the user interface, the probability that a user will view the media item if placed in the user interface, and the probability that the user will execute a transaction associated with the media item.

[00456] In embodiments, a method and system may be provided for the indexing, searching, and displaying of WAP and Web results (URLs) in a unified result set by a search

engine. For this, the search result page may provide a single and unified results set that may consist of only WAP URLs, only Web URLs, or a combination of both based on factors including, but not limited to, information relating to a mobile communication facility. The order and blend of WAP URLs and Web URLs may be based at least in part on information relating to the mobile communication facility from which the search query originates. Individual search results may be identified as WAP or Web on the search results page.

[00457] In embodiments, a method and system of query classification may affect the display logic that is associated with a mobile communication facility. In an example, a search query may be classified according to a query classification scheme. A query classification scheme may include, but is not limited to, classes such as Vertical Class, Navigational Class, Definition Class, Category Class, Specific Class, Query+Modifier Class, Reference Class, Adult Class, or some other query class.

[00458] In embodiments, a Vertical Class may include a search vertical. A search vertical may be associated with a taxonomy of content and may be a general search or related to a search, ringtones, images, games, yellowpages, weather, whitepages, news headlines, WAP sites, web sites, movie showtimes, sports scores, stock quotes, flight times, maps, directions, a price comparison, WiFi hotspots, package tracking, hotel rates, fantasy sports stats, horoscopes, answers, a dictionary, area codes, zip codes, entertainment, blogs, or some other search vertical.

[00459] In embodiments, a Navigational Class may be an identified domain name, URL, website, IP address, or some other navigational location.

[00460] In embodiments, a Definition Class may be associated with a query that includes the term "define," "definition," "meaning," "means," or some other term associated with a request for a definition.

[00461] In embodiments, a Category Class may be associated with a deeper taxonomy present within the search query (e.g., hip hop, NFL, soccer, cameras) and include bubble up content/topics that may help users to disambiguate a query.

[00462] In embodiments, a Specific Class may be a list of structured data, extracted data, or the like from various categories (e.g., Gunners, Hinder, Sagittarius, Smallville, Nikon coolpix) that may be indicative of user intent.

[00463] In embodiments, a Query+Modifier Class may be a combination of a sub-category, genre, and/or specific source.

[00464] In embodiments, a Reference Class may be data that is extracted from a reference source, such as an online encyclopedia.

[00465] In embodiments, an Adult Class may related to adult content, such as gaming, gambling, pornography, lottery, or some other form of adult content.

[00466] In embodiments, query classifications may be associated with indicator inputs. Indicator inputs may include current content popularity, current query popularity, current emerging queries, current location, previous location, user characteristics, editorial work, or some other indicator associated with a mobile communication facility, its user, and/or query content.

[00467] In embodiments, the query classification that is associated with a search query, and/or the indicator inputs, may influence the formatting of the results that are displayed to a mobile communication facility. For example, the formatting may expand category results, order the results according to the indicator inputs (e.g., by decreasing order of popularity), by category, or according to some other schema.

[00468] In embodiments, user behaviors (e.g. clicking on a content) relating to the formatting of the results that are displayed on a mobile communication facility may be analyzed and used to further refine, structure, index, and/or order the query classifications and/or indicator inputs.

[00469] In embodiments, by associating a query with indicator inputs and/or query classifications it may be possible to determine an optimal rank order of content to display to a user's mobile communication facility, based at least in part on the user's interaction with content and the history of interactions by other users. For example, it may be possible to determine a threshold for presenting a content to a mobile communication facility (e.g., popularity rank); it may be possible to determine which content type to expand, and so forth.

[00470] In embodiments, business rules may be associated with a query classification engine. Business rules may include popularity rules, location rules, mobile communication facility type rules, keyword matching rules, parental control rules, spelling and spelling-correction rules, recommendation rules, rules relating to user characteristics, or some other business rule.

[00471] In embodiments, a user of a mobile communication facility may be able to pin or tag a mobile content, and store tagged mobile content in a repository that functions as a

"mobile briefcase." In embodiments, the tag associated with a mobile content may include information about the content, such as subject matter, location, genre, date, or some other information. In embodiments, the tag associated with a mobile content may include information about the user who tagged the content, such as name, location, demographic information, social networks in which the user is a participant, or some other information about the user.

[00472] In embodiments, mobile gateway data may be used to improve the relevancy of mobile search results. Gateway data may be used to create authority scores, to establish related sites, to improve personalization of the search results, or improve the relevance of mobile search results in some other manner. In embodiments, the usage of gateway data may include a relevancy based at least in part on site access and usage statistics (e.g., number and length of visits); scoping based at least in part on user groups; content relationships based at least in part on the progression of user sessions; content discovery (e.g., new URLs/Sites); site quality (e.g., access and usage statistics); determining behavioral targeting conditions based at least in part on the content being accessed; determining the stage of a buying process based at least in part on the content being accessed (e.g., research vs. purchase); advertiser quality based on interaction with a site following a click; SPAM detection based at least in part on interaction with site following a click; navigation popularity and clusters; or some other usage of gateway data.

[00473] In embodiments, gateway data may be used to determine, in part, the relevancy of a mobile content. Gateway data may associated with information relating to a mobile communication facility 102 in order to determine a relevancy. This information may relate to a user characteristic. User characteristics may include a user's age, sex, race, religion, area code, zip code, home address, work address, billing address, credit information, family information, income information, birth date, birthplace, employer, job title, length of employment, and other information associated with user characteristics. For example, the user characteristic, home address, may be used to determine, in part, the relevancy of news headlines that derive from news websites using IP addresses associated in some manner with the user's home address.

[00474] In embodiments, the association of gateway data to a user history may be used to determine a relevancy. User history may include, but is not limited to, a user transaction, a geographic location, geographic proximity, a user device, a time, and or other user characteristics.

[00475] In embodiments, the association of gateway data with a mobile communication facility characteristic may be used to determine a relevancy. A mobile communication facility characteristic may include, but is not limited to, a display capability, display size, display resolution, processing speed, audio capability, video capability, cache size, storage capability, memory capacity, and other mobile communication facility characteristics. The information relating to a mobile communication facility 102 may be provided by a wireless operator, a wireless service provider 108, a telecommunications service provider, or other providers associated with a mobile communication facility 102.

[00476] In embodiments, relevance may be based at least in part on a statistical association. The relevance may be a score. The statistical association may relate to an association between the gateway data and the information relating to a mobile communication facility 102. The statistical association may relate to an association between the gateway data and a performance criterion. A performance criterion may include processing speed, or some other performance criterion.

[00477] In embodiments, gateway data may be processed either in batch or in real-time.

[00478] In embodiments, mobile-specific content and transcoded webpage content may be blended within a content repository based at least in part on a relevancy. In embodiments, the content may be blended using an algorithm. In embodiments, the content may be blended using a combination of an algorithmic and editorial review.

[00479] In embodiments, the blended content may be stored in repository and indexed according to a relevancy to a mobile communication facility characteristic. A mobile communication facility characteristic may include, but is not limited to, a display capability, display size, display resolution, processing speed, audio capability, video capability, cache size, storage capability, memory capacity, and other mobile communication facility characteristics.

[00480] In embodiments, a mobile content site and a non-mobile content site bearing a relationship may be associated with one another. A relationship may include common ownership by an entity, for example, a newspaper's mobile content site and its non-mobile content site. A relationship may include a common subject matter, for example weather information.

[00481] In embodiments, the relationship between a mobile content site and a non-mobile content site may be discovered, based at least in part on spidering. An autonomous agent or software agent may provide the spidering. This agent may be a web crawler, a web spider, an

ant, and the like. For example, spidering may begin with the agent retrieving a webpage at a known URL. That webpage may contain metadata, hyperlinks or reference to other webpages. Spidering may continue with the agent retrieving the other webpages, which may also contain metadata, hyperlinks or references to other webpages.

[00482] In embodiments, the process of deriving the relationship between a mobile content site and a non-mobile content site may include processing gateway data (e.g. WAP gateway data, mobile server gateway data, server gateway data, and/or wireless provider gateway data). Gateway data may be associated with a WAP gateway, or other such facility, the wireless communication facility 104, the additional or remote server 134, or any other server or facility associated with the wireless search platform 100.

[00483] In embodiments, the process of deriving the relationship between a mobile content site and a non-mobile content site may comprise self-submission. A provider of a mobile content site may submit an identifier, or plurality of identifiers, of non-mobile content sites with which it has a relationship.

[00484] In embodiments, a mobile communication facility user seeking to access content using a non-mobile content site may instead be directed to the mobile content site with which the non-mobile content site has a relationship. In an example, a mobile communication facility user may submit a query for the non-mobile website <a href="www.espn.com">www.espn.com</a>. This website may be associated with a mobile content site counterpart, for example, "mobile.espn.go.com." The provider may direct the content from the mobile site to present to the user's mobile communication facility, rather than the worse-performing non-mobile content site.

[00485] In embodiments, a method or system may be used to analyze a mobile content website to identify the predominant language used on website. In embodiments, a content may include keywords presented on the mobile content website. As an example, an automated system (e.g., spidering) may process each page of a mobile content website, processing each through one or more filters for filtering out common language-specific terms. The automated system may further process the words into groups such as those terms related to action links, internal links, external links, and the like may indicate the predominant language of a mobile content website.

[00486] In embodiments, gateway data may be used to determine the predominant language of a mobile content website. Gateway data may include WAP gateway data, mobile server gateway data, server gateway data, and/or wireless provider gateway data.

[00487] In embodiments, the predominant language of a mobile content website may be determined using a combination of an algorithmic and editorial review.

[00488] In embodiments, gateway data may be used to determine the quality of content located on a website. In embodiments, quality may be associated with the markup used, the number of visits to a site, the length of visits to a site, the popularity of a site, word repetition, outbound links, inbound links, the age of a page, the age and growth of inbound links, inbound link usage, or some other quality indicator. In embodiments, low quality may be associated with unwanted content, such as spam (i.e., unwanted solicitations).

[00489] In embodiments, information relating to a website, for example keywords, anchor text, referring sites, internal links, external links, and other information may be used to determine the quality of content located on a website.

[00490] In embodiments, gateway data may include WAP gateway data, mobile server gateway data, server gateway data, and/or wireless provider gateway data.

[00491] In embodiments, the quality of the content located on a website may be determined using a combination of an algorithmic and editorial review. Algorithmic review may include the use of tools, such as spidering.

[00492] In embodiments, a mobile communication facility user may be associated with content to which the user has a subscription. In embodiments, a process may be provided for identifying subscribers who have purchased subscription content and integrating the subscription content into mobile search results for those subscribers. In embodiments, a query result presented to a user having a content subscription may include subscription and non-subscription content. In embodiments, non-subscription content may include a solicitation to subscribe to a subscription content. A solicitation may include a sponsored link or other promotional content included in the search results. A user may be able to subscribe to content in response to a solicitation included in the results.

[00493] In embodiments, subscription content may include, but is not limited to, a magazine subscription, newspaper subscription, RSS feed, or some other type of subscription content.

[00494] In embodiments, a user's subscription data may be associated with a user account, a mobile communication facility, or some other data.

[00495] In embodiments, information regarding the current location of a mobile communication facility 102 may be used in a competitive bidding process in which sponsors place a bid amount based at least in part on a user's current location, past location, future location, and the like. As a user's mobile communication facility 102 enters a location, a sponsor, or plurality of sponsors, may be presented with an opportunity to place a bid amount for the right to have their content presented to the user. In another example, sponsors may place bids in advance relating to the future right to present sponsored content to users reaching a target location (e.g., within one mile of the sponsor's store location), and so forth.

[00496] In embodiments, sponsored content may be presented on a mobile communication facility in conjunction with a game. In an example, the sponsored content may be a banner placed next to the gaming display, the sponsored content may be embedded in the gaming content, wrap around the visual display of the gaming content, or bear some other proximity to the game.

[00497] In embodiments, sponsored content may be presented on a mobile communication facility in conjunction with a video. In an example, the sponsored content may be a banner placed next to the video display, the sponsored content may be embedded in the video content, wrap around the visual display of the video content, or bear some other proximity to the video display.

[00498] In embodiments, sponsored content may be presented in the form of an interactive banner. In an example, an interactive banner may provide a mobile communication facility user an opportunity to choose content from a list, complete a survey, view offline content (e.g., an offline newspaper advertisement), or some other opportunity.

[00499] In embodiments, a sponsored banner content may include dynamic text insertion. In an example, a sponsored banner advertising a television may dynamically insert text that is obtained from a retailer's database indicating the current price, number of units available, or some other text-based data.

[00500] In embodiments, a sponsored content may present to a mobile communication facility based at least in part on a variable that is associated with, but external to, the mobile communication facility. In an example, a location of a mobile communication facility may be associated with a news event occurring at or near the same location (e.g., an interstate car crash that has delayed traffic). In response to this external variable, the user's mobile communication

facility may present a sponsored content through which the user may obtain alternate traffic route information in order to avoid the traffic delay.

[00501] In embodiments, a promotion may be presented to a user of a mobile communication facility in which the promotion requires the user to search for a content, solve a puzzle, break a code, follow a clue, or perform some other activity in order to derive the promotional benefit.

[00502] In embodiments, a coupon may be presented to a mobile communication facility in the form of a code that may be presented to an offline location to derive the coupon's benefit. The act of the user presenting the coupon may be entered and stored in a data storage facility. This stored data may be associated with user characteristics, mobile communication facility characteristics, and the like, and these associations may be used to present targeted advertisements, coupons, cross-sell, up-sell, and so forth to users. A sponsor may be charged a fee by a mobile service provider for each instance of its mobile subscribers presenting such a coupon.

[00503] In embodiments, the most influential members of a social network may be identified, and sponsored content directed to them. Influential members of a social network may be identified by the number of persons listed as members of their network, the number of other social network members listing a social network member within their personal network, SMS traffic, number of purchases, or based on some other measure of personal influence. In embodiments, sponsors may bid on the right to provide their sponsored content to members of a social network based at least in part on a social network member's level of influence. The level of influence of social network members may be indexed and stored in a data storage facility. The content of the index of social network members' influence may be licensed to mobile service providers, third parties, and the like.

[00504] In embodiments, sponsors may be able to bid for the exclusive right to have their content associated with a keyword, location, or some other data.

[00505] While the invention has been disclosed in connection with the preferred embodiments shown and described in detail, each of the technologies described herein may be incorporated, associated with, combined, and the like with each of the use scenarios described herein, and each of the applications described herein, including market applications.

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[00506] Referring to Fig. 21, in embodiments, navigation results may be influenced by relating the navigation request 2112 to a wireless carrier datum 2104 supplied by a mobile carrier 2102, where the wireless carrier datum 2104 may be based at least in part on content relationships relating to the progression of a user session, on content discovery of new websites, on access statistics, on usage statistics, on a mobile content type that is being accessed, on a user's interaction with a website following conversion of an content item, on a navigation request 2112 received from the mobile communication facility 102, on a stage in an online buying process based at least in part on a mobile content 2110 type that is being accessed, associated with metadata regarding a website, and the like. For example, say the user has been sitting at a train station browsing though websites associated with certified used cars. In embodiments, the wireless carrier datum 2104 associated with the user's session, such as websites visited, content accessed, and the like, may be available from a mobile carrier 2102 for content relevancy 2108 matching to the user's next navigation request 2112 on their mobile communication facility 102. If the user's next navigation request 2112 was say a search query for 'loans', the relevancy 2108 of the user's past activity, based on the available wireless carrier datum 2104, may reveal a relevancy 2108 to car loans, as opposed to home loans or personal loans. Further, relevancy 2108 may be associated with data associated with the user's mobile communication facility 102, such as mobile subscriber characteristics data 2114, usage history data 2118, location data 2120, user transaction data 2124, and the like. In continuing the above example, data associated with the user's mobile communication facility 102 may indicate the user's home address location, and the query search for 'loan' not only returns 'car' loans, but also car loans in from financial institutions in the vicinity of the user's home location. In embodiments, the use of content relevancy 2108 related to wireless carrier datum 2104 and navigation requests 2112 on a user's mobile communication facility 102 may provide the user with content 2110 returns from navigation requests 2112 that provide improved relevancy 2108 to the user's interests.

[00507] Fig. 21 depicts the use of wireless carrier datum 2104 to influence mobile search results on a mobile communication facility 102, such as on a phone, a mobile phone, a cellular phone, a GSM phone, and the like. In embodiments, a wireless carrier datum 2104 may be received from a mobile carrier 2102. A user may make a navigation request 2112 from a mobile communication facility 102, and that navigation request 2112, along with the received

wireless carrier datum 2104, may be used to assess content relevancy 2108, where content 2110 may be presented to the mobile communication facility 102 based at least on the content relevancy 2108. In embodiments, a navigation request 2112 may be a search query, a domain name entry, a web browser action, a menu selection, a folder selection, implicit, an implicit navigation request 2112 based on the location of the mobile communication facility 102, a transaction, an ad conversion, an ad conversion by clicking on an advertisement, and the like. For example, say a user is a teenage girl in the mall with her friends, and she has been texting with her friends, browsing clothing sites, and social network sites. Wireless carrier datum 2104 from the mobile carrier 2102 related to these activities may then be presented for content relevancy 2108 association with future navigation requests 2112. In this instance, wireless carrier datum 2104 may include the content relationships relating to how she progressed from texting, to content websites, to members of a social network, back to content websites, and the like; what new content websites she may have discovered, and how she interacted with the content in the site; what her access statistics say for how often she browses the content websites she's currently browsing, what influence members of her social network have on her navigation requests, and the like; what role her browsing sequences have on the steps of online purchases of content; and the like.

[00508] Continuing with the previous example, the user, a teenage girl at the mall, may then enter a navigation request 2112 that is associated with teenage clothing, such as a domain name entry for a clothing site such as www.oldnavy.com. Content relevancy 2108 may then associate the navigation request 2112 search query for the website of the store Old Navy with the wireless carrier datum 2104 for the girl's current activity associated with clothing, and provide content to the user's mobile communication facility 102 for the Old Navy web page for girls clothing, and ongoing sales, new merchandise, and the like. In embodiments, the resulting teenage girl's content delivery may have been better targeted to her interests because of content relevancy 2108 determined from combining wireless carrier datum 2104 with her navigation request 2112.

[00509] In embodiments, content relevancy 2108 may also be influenced by data associated with the mobile communication facility 102, such as mobile subscriber characteristic data 2114, usage history data 2118, location data 2120, user transaction data 2124, contextual information associated with a website, and the like. Continuing from the previous example,

location data 2120 may be combined with the wireless carrier datum 2104 and navigation request 2112 for content relevancy 2108. In this case, the girl's domain name entry may return content associated with the Old Navy store in the mall the girl is currently in, or from where the girls has previously been. User transaction data 2124 may provide the girl content 2110 associated with previous purchases with Old Navy. Mobile subscriber characteristic data 2114 may provide the girl with content 2110 associated with her age or birthday, such as a horoscope associated with the Old Navy content. In embodiments, data associated with a user's mobile communication facility 102 may provide further refinement of content relevancy 2108.

In embodiments, content relevancy 2108 matching may be an important [00510] aspect in the effective delivery of content 2110, allowing the content 2110 to be better targeted to the intended audience. One way to better ensure relevancy 2108 to the user is to utilize mobile subscriber characteristic data 2114 associated with the user's mobile communication facility 102, including user profile information, demographic information, billing information, and the like. In embodiments, relevancy may be selected from a group consisting of age, sex, race, religion, area code, zip code, home address, work address, billing address, credit information, family information, income information, birth date, birthplace, employer, job title, length of employment, and the like. By using such information it may be possible to relevancy 2108 match content 2110 to personal attributes of the user, such as their age, address, gender, and the like. For instance, advertising for clothing can be matched to the age, gender, and whether they live in an urban or rural setting. Advertisements for middle aged males may target sports, cars, home improvement, and the like. Advertisements for young girls may target clothing, and the like. Advertisements for seniors may target health products, travel, and the like. In embodiments, information derived in association with mobile subscriber characteristic information 2114 may prove effective for matching the content 2110 to the user.

[00511] In embodiments, relevancy 2108 may be derived from a user transaction data 2124 associated with the mobile communication facility 102, such as an online product purchase, the filling of an online shopping cart, an ad conversion, and the like. For instance, the user of the mobile communication facility 102 may have just purchased some women's seasonal clothing. Now, the user may not be interested in purchasing more seasonal clothing, and so the relevancy 2108 for seasonal clothing may be significantly reduced as a result of the purchase, but since the user is a woman, and hasn't yet purchased any seasonal shoes, the relevancy 2108 for shoes may

be elevated as a result of the purchase. In another example, a user may be purchasing new floor mats for a late model car, which may indicate that the user has just purchased a late model car. As a result, this may lower the relevancy 2108 for car ads, but may elevate the relevance 2108 of car care products. In addition, user transactions 2124 may be indicative of the user's interests, and provide a better relevancy 2108 matching of the content 2110 to the user. In embodiments, user transactions 2124 associated with the mobile communication facility 102 may be effectively used in determining the user relevancy 2108 to content 2110.

In embodiments, relevancy 2108 may be derived from a usage history data [00512] 2118 associated with the mobile communication facility 102, such as a browse history, an ad conversion history, from wireless carrier data, and the like. For instance, a user may be browsing for plasma televisions, and as a result, the relevancy 2108 for ads associated with plasma televisions, as well as other similar products such as LCD televisions, may be elevated. This elevation of relevance 2108 may become diminished over time if the browsing discontinues, which may indicate that the user subsequently made the purchase. In another example, a user may be browsing through the websites of college campuses, and as a result may be targeted with content 2110 associated with colleges and college related consumer products, such as laptop computers and the like. In embodiments, usage history 2118 may also track ad conversion history, as well as the types of ads that have been converted. For instance, the user may be converting ads for mortgage rates, and as a result, the user may be targeted with content 2110 related to mortgage rates. Wireless carrier data may also be tracked and provide information that leads to increased relevancy 2108 matching. For instance, the user may make a large number of calls from the financial district in New York City, and result in an increased relevancy 2108 for ads relating to finances, or the like. In embodiments, usage history 2118 may be used to improve user relevancy 2108 in the selection of content 2110.

[00513] In embodiments, relevancy 2108 may be derived from mobile communication device characteristic data, such as a display capability, display size, display resolution, processing speed, audio capability, video capability, cache size, storage capability, memory capacity, other mobile communication facility characteristics, and the like. For example, a florist with content depicting colorful cut flowers may place a high relevancy 2108 on users with high end color displays, delivering such content 2110 may place a high relevancy 2108 on users with certain keyboards, delivering a detailed graphic may place a high relevancy 2108 on users with

good processing capabilities, and the like. In embodiments, delivery of content 2110 may be based upon the relevancy 2108 of a mobile communication device characteristic.

[00514] In embodiments, relevancy 2108 may be derived in association with location data 2120. There may be a plurality of techniques in determining the location of a mobile communication facility 102, such as by GPS, by triangulation, by triangulation utilizing Wi-Fi, and the like. The location of a mobile communications facility 102 may be determined when a user enters a particular location; may involve a plurality of geographic regions, such as states, cities, and the like; may be specified according to a distance from a specified location; may be associated with some aspect of the mobile communications facility 102 mobile content; may be associated with a previous location or a current location; and the like. For instance, if a user of a mobile communications facility 102 is at a location in proximity to a shopping area for clothing, the relevancy 2108 for content 2110 related to clothing may elevate. If a user is in proximity of a series of car dealerships, the relevancy 2108 for car content 2110 may elevate. In embodiments, location data 2120 may be used to improve user relevancy 2108 for content 2110 delivered to users of mobile communication facilities 102.

[00515] Referring to Fig. 22, a user of a mobile communication facility 102 may enter a search query using a keyword or plurality of keywords. A mobile subscriber characteristics database 112 may be associated with the mobile communication facility 102. Within, or associated with, the mobile subscriber database 112 there may be subscription data 2214 relating to subscription content to which the user has purchase or obtained a subscription. As part of the search results, content may be presented to the mobile communication facility display 172 that includes non-subscription content 2200 and subscription content 2202. Subscription content may be labeled in some manner to distinguish it from non-subscription content. The subscription content 2202 presented to the mobile communication facility 102 may be restricted to only that content 2202 to which the user currently has a subscription. In an alternate embodiment, the subscription content presented to the user may include subscription content to which the user currently has a subscription 2202 as well as other relevant subscription content to which the user does not have a subscription 2204. Subscription content to which the user does not have a subscription 2204 may be associated with an offer 2208. The offer 2208 may be further associated with a link through which the user may purchase or obtain a subscription. For example, the link 2210 may present the user with a subscription order form through which he

may obtain a subscription. Alternatively, the link 2212 may connect a phone call from the user's mobile communication facility 102 to a subscription fulfillment center for the purposes of obtaining the subscription content 2204.

**[00516]** In embodiments, subscription content 2202 may include, but is not limited to, a magazine subscription, newspaper subscription, website content, blog, or some other type of subscription content.

[00517] In embodiments, the subscription content 2202 may include a text, an image, an audio file, a video, an RSS feed or some other type of subscription content 2202.

[00518] In embodiments, a user's subscription data may be associated with a user account, a mobile communication facility, or some other data.

[00519] In embodiments, the subscription content 2202 may be presented to the phone based at least in part on compatibility to a mobile communication facility 102 device characteristic. The mobile communication facility device characteristic may be a display capability, display size, display resolution, processing speed, audio capability, video capability, cache size, storage capability, memory capacity, or some other mobile communication facility device characteristic.

[00520] In embodiments, the non-subscription content 2200 presented to the phone may be selected based at least in part on a relevancy to a mobile subscriber characteristic 112. A mobile subscriber characteristic may be age, sex, race, religion, area code, zip code, home address, work address, billing address, credit information, family information, income information, birth date, birthplace, employer, job title, length of employment, or some other mobile subscriber characteristic 112.

[00521] In embodiments, the non-subscription content 2200 presented to the mobile communication facility may be selected based at least in part on a relevancy to a user transaction. A user transaction may include an online product purchase.

[00522] In embodiments, the non-subscription content 2200 presented to the phone is selected based at least in part on a relevancy to a usage history. A usage history may include browse history.

[00523] In embodiments, the non-subscription content presented to the phone may be selected based at least in part on a relevancy to the content to which the user is subscribed. The relevancy may based at least in part on contextual information related to the content to which a

user is subscribed. The contextual information may be a link structure, an inbound link, an outbound link, a text, a keyword, meta data, or some other type of contextual information.

In an example, a user may make a query entry 120 in his mobile communication facility 102 for "General Electric." This query may be sent through a wireless communication facility 104, to the wireless provider 108. The wireless provider may access a mobile subscriber characteristics database 112 that is further associated with subscription data 2224. The subscription data may include information indicating that the user has a subscription to the Wall Street Journal. As part of returning relevant search results based on the methods and systems described herein, the search results may also include subscription content from the Wall Street Journal along side other, non-subscription content 2200. Subscription content may be prioritized in the display 172 based at least in part on the assumption that because the user has chosen to subscribe to the content it is of a greater relevance to the user than is non-subscription content 2200. Continuing the example, the search query may include relevant search results that in subscription content to which the user is not subscribed 2204, such as Barron's Magazine content. In the search results, the Barron's content may be presented for preview to the user and associated with an offer 2208 for the user to become a subscriber. This offer 2208 may be further associated with a link to a Barron's subscription order form 2220. Alternatively, the link may initiate a call 2222 that is places with the Barron's subscription fulfillment center. Upon obtaining the subscription using the mobile communication facility 102, the user may be given immediate access to the subscription content.

[00525] In embodiments, and referring to Fig. 23, a method and system of query classification 2304 may be used to identify user intent in order to assist navigation to a specific vertical of content and/or to flash in content from a likely answer source. A user's search behaviors may be analyzed and monitored on a consistent basis to understand what the user is searching for and selecting as a result of a search. In embodiments, a search engine may classify different types of queries to connect user's searches to the right content in the shortest distance. Thus, a search for "ice cream boston" may give preference to local listing results to general web pages, and the search "UA 123" may return flight arrival and departure information.

[00526] In embodiments, a search engine may use query classification to identify the intent and specificity of a user's search to either redirect the user to the best individual results, or to prioritize categories of results answering the user's query. In embodiments, both language-

specific rules and statistical methods may be used to identify user intent. Language-specific rules may identify narrow searches and re-direct the user to specific results. For example if a user searches for "maps nyc," language-specific rules may identify the operative term "maps," and a specific location, "nyc" and infer that the user is looking for a map of New York. In this example, the user may be directed to a map of New York provided by a maps vertical. Statistical methods, a second query classification tool, may rank different categories of results for broader queries. For example, if a user is searching for a celebrity name, such as "Naomi Campbell," a model, through historical behavior it may be inferred that the user is more likely to be looking for images or news articles, rather than for music, and thus return these categories at the top of the results set on the first page.

[00527] In embodiments, the heuristics of query classification engine may be adjusted globally, on a per language or per-operator basis. Query classification 2304 may identify different patterns of search behavior that assists the correct display for a given query. The classification 2304 may become more granular as the system learns more user behavior.

[00528] In embodiments, the display of a mobile communication facility 102 may include a "widget" to answer a user's query, help a user to disambiguate their query, guide a user deeper into content properties, and bubble up the most popular and/or relevant content. Widgets may utilize structured and semi-structured data to help users to minimize searching for content and answer a user's queries directly. In addition to the query classification 2304, a 'learning' algorithm may use click and impression analysis 2310 to determine when an answer/result should be shown, where on the page it should be shown, and/or how much content from a given source should be displayed. While the algorithm may determine the correct results set, it may be possible to inject editorial overrides and influence the display of content for queries based at least in part to actively manage/merchandise query results.

[00529] In embodiments, editors may import/export common format feeds, keywords, choose display templates, and assign a content component type a relevancy weight. For example, the query "music" may be too broad to rely entirely on algorithms; instead an editorial or business review may be required. Through session, and user behavior analysis editors may identify content that will help narrow the search and get closer to what the user actually intended. In the case of the query "music", an editor may build a smart component to expose genre links,

navigational links that take users deeper into the music vertical, and a video link. If these links don't perform well, then the editor may make adjustments.

[00530] In embodiments, a popularity management tool may allow an editor to review algorithm weightings and adjust thresholds for a smart component and its affiliated content.

[00531] In embodiments, a method and system of query classification 2304 may affect the display logic that is associated with a mobile communication facility 102. In an example, a search query may be classified according to a query classification scheme. A query classification scheme may include, but is not limited to, classes such as Vertical Class 2312, Navigational Class 2314, Definition Class 2318, Category Class 2320, Specific Class 2322, Query+Modifier Class 2324, Reference Class 2328, Adult Class 2330, or some other query class.

[00532] In embodiments, a Vertical Class 2312 may include a search vertical. A search vertical may be associated with a taxonomy of content and may be a general search or related to a search, ringtones, images, games, yellowpages, weather, whitepages, news headlines, WAP sites, web sites, movie showtimes, sports scores, stock quotes, flight times, maps, directions, a price comparison, WiFi hotspots, package tracking, hotel rates, fantasy sports stats, horoscopes, answers, a dictionary, area codes, zip codes, entertainment, blogs, or some other search vertical.

[00533] In embodiments, a Navigational Class 2314 may be an identified domain name, URL, website, IP address, or some other navigational location.

[00534] In embodiments, a Definition Class 2318 may be associated with a query that includes the term "define," "definition," "meaning," "means," or some other term associated with a request for a definition.

[00535] In embodiments, a Category Class 2320 may be associated with a deeper taxonomy present within the search query (e.g., hip hop, NFL, soccer, cameras) and include bubble up content/topics that may help users to disambiguate a query.

[00536] In embodiments, a Specific Class 2322 may be a list of structured data, extracted data, or the like from various categories (e.g., Gunners, Hinder, Sagittarius, Smallville, Nikon coolpix) that may be indicative of user intent.

[00537] In embodiments, a Query+Modifier Class 2324 may be a combination of a sub-category, genre, and/or specific source.

[00538] In embodiments, a Reference Class 2328 may be data that is extracted from a reference source, such as an online encyclopedia.

[00539] In embodiments, a Adult Class 2330 may related to adult content, such as gaming, gambling, pornography, lottery, or some other form of adult content.

[00540] In embodiments, query classifications 2304 may be associated with indicator inputs 2302. Indicator inputs 2302 may include current content popularity, current query popularity, current emerging queries, current location, previous location, user characteristics, editorial work, or some other indicator associated with a mobile communication facility, its user, and/or query content.

[00541] In embodiments, the query classification 2304 that is associated with a search query 142, and/or the indicator inputs 2302, may influence the formatting 2308 of the results that are displayed to a mobile communication facility 102. For example, the formatting 2308 may expand category results, order the results according to the indicator inputs (e.g., by decreasing order of popularity), by category, or according to some other schema.

[00542] In embodiments, user behaviors (e.g. clicking on a content) relating to the formatting of the results that are displayed on a mobile communication facility 102 may be subjected to click and impression analysis 2310 and used to further refine, structure, index, and/or order the query classifications 2304 and/or indicator inputs 2302.

[00543] In embodiments, by associating a query 142 with indicator inputs 2302 and/or query classifications 2304 it may be possible to determine an optimal rank order of content to display to a user's mobile communication facility 102, based at least in part on the user's interaction with content and the history of interactions by other users. For example, it may be possible to determine a threshold for presenting a content to a mobile communication facility 102 (e.g., popularity rank); it may be possible to determine which content type to expand, and so forth.

[00544] Continuing to refer to Fig. 23, in embodiments, a search query 142 may be received from a mobile communication facility, and combined with indicator inputs 2302 that may enable the creation of query classifications 2304, and the formatting 2308 of results as displayed on the mobile communications facility 102. In addition, click and impression analysis 2310 may be provided for feedback from use interactions with the mobile communications facility 102 to the process of query classifications 2304 in subsequent searches. For example,

let's say a user enters in the search query 'bombing' into their mobile communications facility 102. The search facility 142 may then forward the search query for query classification 2304. In addition, query classification 2304 may take indicator inputs 2302 into account during classification, and in this instance the word 'bombings' may be a current emerging query, and perhaps refers to a bombing this morning in Iraq, and one in the Philippines last night. Given the general nature of the query it may in this example be classified as one of a vertical 2312. But because the word 'bombing' is in the news, and may represent a growing number of user queries, the final formatting provided to the user's mobile communication facility 102 may be ordered by indicators, with the Iraq bombing listed first and the bombing in the Philippines listed second, with other related search returns listed thereafter. In embodiments this may be the end of searching, with the user selecting one of the presented choices.

[00545] Continuing with the above example, alternatively the user may follow the presentation of results by typing in the search string 'high school bombing', without selecting one of the presented choices. Click and impression analysis may determine that it is highly likely that the previous search results were not a good match to the user's original search string, and that the addition of 'high school' is an indication that the recent international bombings were not the search target of the user. Now, indicator input 2302 may be either modified, reduced in significance, changed, or the like, to reflect the additional search string terms. This time however, the user's search string is much more specific, perhaps changing the query characteristic 2304 to a category class 2320, and in taking into account user characteristic indicator inputs 142 that show the user to be a U.S. citizen, this time selects results associated with high school shootings in the U.S. In embodiments, the use of indicator inputs 2302 and query classifications 2304 in targeting search query 142 results and final formatting 2308 may provide the user with a more effective search result to their mobile communications facility 102. Also, the addition of the click and impression analysis 2310 feedback may provide improved refinement of results as a function of post-result user input.

[00546] In embodiments, indicator inputs 2302 may include content popularity, query popularity, the current location of the mobile communication facility 102, the previous location of the mobile communication facility 102, a user characteristic, an editorial work product, data provided by a wireless provider, transaction history provided by a wireless provider, provided by data on the mobile communication facility 102, location of the on the mobile communication

facility 102, location history on the mobile communication facility 102, and the like. Indicator inputs 2302 may provide results that are statistically more likely to match the search query 142 as a result of taking some factor into account. For example, a content subject's current popularity, say in the search reference to 'American idol', may more likely be referring to the television program American Idol, as opposed to a more general search of idols within current American culture. So when this indicator input 2302 is provided for query classification 2304, it may be more likely to result in choices the user is searching on. In another example, a user whose user characteristics show that they are in college may have a very different search result in mind for the search term 'fashion cloths', than for a user who is in retirement. In this instance, query classification may result in different sub-categories of current fashion that are a function of the age of the user. In embodiment, the use of indicator inputs 2302 may provide an improved relevancy in search results from a mobile communications facility 102.

In embodiments, the classification may be made based at least in part on a [00547] search vertical, such as a general search, or related to some other general category, such as ringtones, images, games, yellow pages, weather, white pages, news headlines, WAP sites, web sites, movie show times, sports scores, stock quotes, flight times, maps directions, price comparison, Wi-Fi hotspots, package tracking, hotel rates, fantasy sports statistics, horoscopes, answers, a dictionary, area codes, zip codes, entertainment, blogs, and the like. Classifications may be made based at least in part on a domain name, a keyword, a category, a list of structured data, a query-modifier, a query-modifier, a category sub-category, a reference source, an adult classification, and the like. The use of query classifications 2304 may allow the narrowing of a search query's scope into a more restricted set of possibilities. For instance, a search that begins with the word 'define', such as 'define queen' may have a high probability that the user is only looking for the definition of the word queen, as opposed the Queen of England, or the rock group Queen. In an alternative to typing the word 'define', the user may type 'Queen rock', which may represent a query classification 2304 involving a query + modifier, where the word 'Queen' is the main query, and the term 'rock' somehow modifies the main search query, in this case, to indicate rock music. In embodiments, the use of query classifications 2304 may enable the limiting of possibilities to a more manageable number, and thereby increase the probability that the final result matches the user's search intentions.

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In embodiments, formatting may include grouping results based at least in part [00548] on an association with a mobile subscriber characteristic 112, such as selected from the group consisting of age, sex, race, religion, area code, zip code, home address, work address, billing address, credit information, family information, income information, birth date, birthplace, employer, job title, length of employment, and the like. In embodiments, formatting may include grouping results based at least in part on an association with a user transaction, an association with a usage history, an association with a usage history that includes a user's prior browse activity, and the like. The use of mobile subscriber characteristics 112 in formatting the final results may provide the user with sorted results that better match the user's search, which may be especially useful in relation to search results presented to the restricted display space available to a mobile communication facility 102. For instance, an older user doesn't want to take the time to scroll through a large number of initial search results for New York City clubs that relate to the college crowd, before getting to clubs the clubs that relate to an older clientele. In other examples, a user may only be interested in pizzerias that are near their permanent address, travel plans within their income range, horoscopes for their birth date, job searches based on a listed job title or business type, and the like. Formatting may also be related to the usage history of the user, where certain past search entries may be an indication of where the search results should focus, such as a user's preference for jazz clubs, as opposed to just any club. In embodiments, formatting based on mobile subscriber information may better enable relevant results to be located near the top of the search results, which may decrease the time associated with examining results lists as presented on the mobile communications facility 102.

[00549] In embodiments, formatting may include an association with location. There may be a plurality of techniques in determining the location of a mobile communication facility 102, such as by GPS, by triangulation, by triangulation utilizing Wi-Fi, and the like. The location of a mobile communications facility 102 may be determined when a user enters a particular location; may involve a plurality of geographic regions, such as states, cities, and the like; may be specified according to a distance from a specified location; may be associated with some aspect of the mobile communications facility 102 mobile content; and the like. For instance, a search string of 'sports tickets' may be typed by a person that lives in Boston, and so may be interested in the Red Sox, the Patriots, and other local team's tickets. Or the user may be away from home, and as a result, the user may be interested in tickets for teams associated with

their current location, where their current location may be determined by, for instance, a GPS-enabled mobile communication facility 102. Other examples of formatting as a function of location may include location as related to restaurants, travel tickets, entertainment, florists, colleges, home improvement, and the like. In embodiments, the formatting of final results presented to the user's mobile communication facility 102 may be at least determined by location, and provide an improved listing of search results to the user.

[00550] In embodiments, formatting 2308 may include expanded category results; results ordered by indicators; results ordered by category; results ordered at least in part by a capability of the mobile communication facility 102, where the capability may be an audio capability, a visual capability, a processing capability, a screen capability, and the like, where the mobile communication facility may be a phone, a mobile phone, a cellular phone, a GSM phone, and the like. Formatting 2308 of search results may be provided in such a way as to better accommodate the natural limitations of the mobile communications facility 102 as opposed to a full sized desktop computer or laptop. For instance, the screen size for a mobile communication facility 102 may offer a much smaller area and resolution than would the desktop or laptop computer. With this in mind, the formatting 2308 of presented results may take these limitations into account, such as with the screen size, screen resolution, download speed, color vs. black and white, and the like. In embodiments, a small screen associated with an inexpensive cell phone may require a more visually conservative approach to the presentation of search results, as opposed to a larger, higher resolution, color screen available on some PDAs. In embodiments, taking account for the limitations in the capabilities of the user's mobile communication facility 102 may provide a more user friendly interface for the display of search results.

[00551] In embodiments, aspects of the search process may utilize data on the mobile communication facility 102, such as the indicator inputs 2302 and formatting 2308. For example, say the user of the mobile communication facility 102 is away from home in another state, but is located in an area code that the user calls into regularly. In addition, the user has a call and web browser history over the past week, prior to the trip, to hardware stores and home improvement web sites. And now, on a Saturday morning, inputs the search string 'plaster cracks.' In this case, along with the search query 142, indicators inputs 2302 relating to the user's usage history and current location may be provided for query classification 2304. The usage history indicates that the user may have been recently thinking about home improvement,

with calls to the hardware store that may indicate that they may be anticipating a purchase of home improvement related materials. So, indicator inputs may be elevated for home improvement needs. In addition, indicator inputs now indicate the user's current location, and so any query returns may have elevated relevance to the user's current location. Combining the search terms for plaster and cracks, along with indicator inputs for home improvement, may result in a query classification sub-category of plaster repair within the general category of home improvement. Returns may be generated for advice for repair of plaster, local supply stores for home repair, shows and videos on the repair of plaster, and the like. In formatting the results for presentation to the user, it is further seen from usage history that the user has placed many calls to Lowes, and very few to Home Depot or local hardware stores. As a consequence of this preference, the phone number for the local Lowes is placed at the top of the return listing displayed on the mobile communication facility 102, with other plaster repair related hits listed thereafter. In embodiments this may be the end of searching, with the user selecting one of the presented choices.

[00552] Continuing with the above example, alternatively the user may follow the presentation of results by typing in the search string 'plaster this old house', without first selecting one of the choices. The click and impression analysis 2310 may then feedback to the query classification, and along with indicator inputs for the show This Old House, elevates a return for web link to plaster repair from the show This Old House, that may have been previously too far down the return listing for the user to conveniently scroll to on their mobile communications facility 102. Once the web site has been elevated, the user may select the link and conclude searching. In embodiments, the use of usage history may provide a continually refined source of indicator inputs 2302 and formatting 2308 that may result in the user finding a match to their search effort more quickly.

[00553] In embodiments, business rules may be associated with a query classification engine. Business rules may include popularity rules, location rules, mobile communication facility type rules, keyword matching rules, parental control rules, spelling and spelling-correction rules, recommendation rules, rules relating to user characteristics, or some other business rule.

[00554] Referring to Fig. 24, in embodiments, mobile-specific content 2410 and transcoded webpage content 2408 may be blended within a blended content repository 2414 based at least in part on a content integration facility 2412. In embodiments, the non-mobile content 2402 may be transcoded using a transcoding facility 2404. In embodiments, the content (2408, 2410) may be blended using an algorithm. In embodiments, the content (2408, 2410) may be blended using a combination of an algorithmic and editorial review. In response to a navigation request 2400 received from a mobile communication facility 102, a content relevancy facility 2420 may select a blended content item from the blended content repository 2414 and the relevant blended content item 2418 may be presented in the display 172 of the mobile communication facility 102. A navigation request may be a search query, domain name entry, webbrowser action, menu selection, folder selection, an implicit request, a transaction, an advertisement conversion, or some other type of navigation request.

[00555] In embodiments, the blended content may be stored in repository 2414 and indexed according to a relevancy to a mobile communication facility device characteristic. A mobile communication facility characteristic may include, but is not limited to, a display capability, display size, display resolution, processing speed, audio capability, video capability, cache size, storage capability, memory capacity, or some other mobile communication facility characteristics.

[00556] In embodiments, the blended content repository 2414 may be indexed according to an association with a mobile subscriber characteristic. A mobile subscriber characteristic may be age, sex, race, religion, area code, zip code, home address, work address, billing address, credit information, family information, income information, birth date, birthplace, employer, job title, length of employment, or some other mobile subscriber characteristic.

[00557] In embodiments, the blended content repository 2414 may be indexed according to an association with wireless carrier data. Wireless carrier data may include, but is not limited to, content relationships relating to the progression of user sessions, content discovery of new websites, access statistics, usage statistics, or some other wireless carrier data.

[00558] In embodiments, blended content may be selected from the blended content repository 2414 based upon a relevancy to a mobile subscriber characteristic, user transaction, usage history, location, contextual information, or some other relevancy. A relevancy may be a

score. A usage history may be a browse history, an advertisement conversion history, or some other usage history type.

[00559] In an example, for a mobile communication facility of Type 1, all content, or a subset of content, in the blended content repository 2414 may be ranked according to a relevance that is based at least in part on how well each content will present on the Type 1 mobile communication facility. In embodiments, the content that is presented to the mobile communication facility Type 1 may be selected based at least in part on meeting or exceeding a relevancy rank. In embodiments, the content presented to the mobile communication facility may be ordered according to the relevancy rank, such that the most relevant content is presented first, most prominently, or based on some other preferential display.

[00560] In embodiments, "targeted transcoding" may be used to provide the most appropriate result set for a given handset's capabilities. Targeted transcoding may identify high-quality web sites without a mobile presence to include in a mobile search index and offer a high-quality editorially reviewed/improved transcoded version of these websites. These transcoded sites may be identified in a search index. In embodiments, transcoded sites may be normalized and blended based on a relevancy with existing mobile-friendly results. In embodiments, transcoded sites may be identified to the user as a 'transcoded result' on the search engine results page. In embodiments, transcoded sites may be excluded completely from the search results for devices that do not support the display of transcoded pages

[00561] In embodiments, general transcoding may be used to present results to a user that is served from a generic web search backfill. These results may be presented as an alternative results category or as the primary results when no relevant mobile-friendly or targeted transcoded results exist. In embodiments, these generic web search results may be excluded from any search result set as desired.

[00562] Referring to Fig. 25, in embodiments, a user may enter a website request into their mobile communication facility 102 that is associated with a website that includes non-mobile website content 2502, and as a result, may not receive acceptable interactivity performance with the website. That is, the mobile communication facility 102 user may specify a web address that is associated with content that is not optimized for interaction with the mobile communication facility 102 due to some restrictive parameter associated with the mobile communication facility 102, such as a display limitation, a speed limitation, a keyboard

limitation, and the like. In embodiments, there may exist an alternate web address that may have been specifically setup to provide the same information, but has been created to contain only mobile website content 2502, such that the mobile website content 2502 may be better suited to the restrictive parameters of the mobile communication facility 102, and may result in greater acceptable interactivity performance. In embodiments, the user may select the non-mobile website content 2504 address for a plurality of reasons, such as they don't know the address of the mobile website content 2502 site, they don't remember the address of the mobile website content 2502 site, they have inadvertently requested the non-mobile website content site 2504, and the like. In embodiments, the present invention may provide a way for a mobile communication facility 102 non-mobile website content 2504 address request to automatically find an alternate mobile website content 2502 address in such as way as to provide the user access to the mobile website content 2502 rather than the non-mobile website content 2504.

[00563] For example, and in embodiments, a user on travel may want to change their return flight reservation with West Coast Airlines through their mobile communication facility 102, and key in the URL www.westcoastair.com. This URL may however be the airline's non-mobile website content 2504 site URL, which may not have been optimized for use with a mobile communication facility 102, potentially leading to lowered interactivity performance. In embodiments, the present invention may provide automatic redirection from the user's non-mobile website content 2504 request to a mobile website content request 2512. Further, this redirection may be related to a website association data facility 2510 that may have stored previously found associations between mobile website content 2502 sites and non-mobile website content 2504 sites.

[00564] Fig. 25 depicts an embodiment of the present invention, where associations between mobile website content 2502 and non-mobile website content 2502 may be discovered and stored for use in the redirection of a non-mobile website content request 2512 to that of its associated mobile website content site 2502. In embodiments, the mobile website content 2502 may be associated with the non-mobile website content 2504, where the association is determined through a website association facility 2508, and stored in a website association data facility 2510. In addition, the website association data facility 2510 may be further associated with a plurality of other databases, such as a mobile subscriber characteristics database 2518, a user transaction database 2520, a usage history database 2522, and the like, that may be

associated with the mobile communication facility 102. When the mobile communication facility 102 makes a non-mobile website content request 2512, a website association search 2514 of the website association data facility 2510 may be performed, and if an association is found in the website association database facility 2510, then the web address for the mobile website content 2502 may be forwarded to the mobile communication facility 102, which may then retrieve the mobile website content 2502.

For example, and in embodiments, say there is plumbing supply store, with a [00565] website www.plumbingisus.com, that deals with contractors that may typically want to make inquiries into their inventory from on the road through their mobile communication facility 102. In an effort to make it easier to access their inventory through a user's mobile communication facility 102, they have created a separate web page specifically for display onto the mobile communication facility 102 with the URL www.plumbingisus.mobile.com. In this instance, the URL www.plumbingisus.com represents the site with non-mobile website content 2504, and the URL www.plumbingisus.mobile.com represents the mobile website content 2502. The website association facility 2508 may search the web continuously for associations such as these, and in performing such searches, does find the association between the two websites, and stores the association in the website association facility 2510, such as storing an association link between the two URLs. Now when a contractor in the field enters the URL www.plumbingisus.com as a non-mobile website content request 2512, a website association search 2514 may examine the website association data facility 2510, and finding the association link between the two plumbing URLs, forwards the URL of the mobile website content 2502 to the mobile communication facility 102 for subsequent request and download of the mobile website content 2502. In embodiments, the contractor may not be aware of the automatic redirect performed by the present invention, where they may only see a website that may be easier to navigate through than would have otherwise been the case.

[00566] In embodiments, the mobile website content site and the non-mobile website content site bearing a relationship may be associated with one another through the website association facility 2508. The relationship may determined based on a number of factors, such as common ownership by an entity, for example, a newspaper's mobile website content 2502 site and its non-mobile website 2504 content site. The relationship may be further based on other include a common subject matter, for example weather information.

[00567] In embodiments, the relationship between a mobile website content 2502 site and a non-mobile website content 2504 site may be discovered, based at least in part on spidering. An autonomous agent or software agent may provide the spidering. This agent may be a web crawler, a web spider, an ant, and the like. For example, spidering may begin with the agent retrieving a webpage at a known URL. That webpage may contain metadata, hyperlinks or reference to other webpages. Spidering may continue with the agent retrieving the other webpages, which may also contain metadata, hyperlinks or references to other webpages. In embodiments, the association between mobile website content 2502 and non-mobile website content 2502 may be established by spidering content, such as when a self-submission is related to a paid inclusion service when the spidering may be an automated process of traversing web pages beginning at one or more root pages on a website and traversing the links from those pages, and the like.

[00568] In embodiments, the process of deriving the relationship between a mobile website content 2502 site and a non-mobile website content 2504 site may include processing gateway data (e.g. WAP gateway data, mobile server gateway data, server gateway data, and/or wireless provider gateway data). Gateway data may be associated with a WAP gateway, or other such facility, the wireless communication facility 104, the additional or remote server 134, or any other server or facility associated with the wireless search platform 100. For example, patterns in the gateway data may emerge that indicate a relationship. Many mobile communication facility users may immediately go to a second page after a short interaction with a first page and this may be an indication that the second page is the one they were looking for or is better suited for the mobile communication facility.

[00569] In embodiments, the process of deriving the relationship between a mobile website content 2502 site and a non-mobile website content 2504 site may comprise self-submission. A provider of a mobile content site may submit an identifier, or plurality of identifiers, of non-mobile content sites with which it has a relationship.

[00570] In embodiments, the associating of the mobile website content 2502 with the non-mobile website content 2504 may be based at least in part on wireless carrier data, including WAP gateway data, mobile server gateway data, server gateway data, remote server data, and the like. In embodiments, the association established may be the result of a self-submission by a mobile website owner, such as providing an identifier of a non-mobile website with which a

mobile website may have a relationship, a plurality of identifiers of non-mobile websites with which a mobile website may have a relationship, and the like.

[00571] In embodiments, the associating of the mobile website content 2502 with the non-mobile website content 2504 may be based at least in part on contextual information associated with the website, such as link structure, an inbound link, an outbound link, a link, a text, a keyword, meta data, anchor text, and the like. The association may be established based at least in part on a comparison of contextual information associated with a plurality of websites, on an indicator of website quality, and the like. The comparison may involve a statistical analysis of the two site's information.

[00572] In embodiments, a mobile communication facility 102 user seeking to access content using a non-mobile website content 2504 site may instead be directed to the mobile website content 2502 site with which the non-mobile website content 2504 site has a relationship. In an example, a mobile communication facility 102 user may submit a query for the non-mobile website www.espn.com. This website may be associated with a mobile website content 2502 site counterpart, for example, "mobile.espn.go.com". The provider may direct the content from the mobile site to present to the user's mobile communication facility 102, rather than the worse-performing non-mobile content site.

[00573] It should be understood that the associations between the separate websites may be based on a number of factors, such as contextual information and gateway data. In other embodiments, the association may be based on an explicit link structure.

[00574] Referring to Fig. 26, in embodiments a non-sponsored content 2602 may be associated and combined with sponsored content 2608 and presented to a mobile communications facility 102 as a single content, where the non-sponsored content 2602 may be a game, video, text, or the like, and the sponsored content 2608 may be an advertisement, syndicated content, or the like. In embodiments, the non-sponsored content 2602 may be embedded within the sponsored content 2608, such as surrounding the non-sponsored content 2602, above and below the non-sponsored content 2602, on both sides of the non-sponsored content 2602, above the non-sponsored content 2602, below the non-sponsored content 2602, and the like. In addition, the association between the non-sponsored content 2602 and the sponsored content 2608 may be in association with a mobile communications facility relevancy

2604, such as a mobile subscriber characteristic, a user transaction, usage history, location, contextual information associated with a website, and the like.

[00575] In embodiments, data associated with the user's mobile communication facility 102 may provide information that may aid in determining relevancy 2604, such as from a mobile subscriber characteristic database 112, a usage history database 2618, a location database 2620, a transaction database 2622, contextual information associated with a website 2624, and the like.

[00576] For example, and in embodiments, a male teenager may be talking on the phone or text messaging as part of their mobile communication facility 102 activity, and an indication is displayed on their phone that a free video trailer of the new Spiderman movie is available to play. The user may then click on the link, and the Spiderman video, representing the non-sponsored content 2602, may be delivered to them along with an advertisement wrapped around the video. This wrapped around advertisement represents the sponsored content 2608. In embodiments, both the video and the wrap-around advertisement may have been selected due to their relevancy 2604 to a male teenager. The relevancy 2604 of the non-sponsored content 2602 and the sponsored content 2608 to the user may have been determined through mobile subscriber characteristics that specify the age of the user, a mobile communication facility 102 usage history that matches the profile of teenage male, or the like. The delivered video may be embedded in the advertisement, next to the advertisement, or the like, such that the advertisement may be visually apparent to the teenager as the video plays. In embodiments, because the teenager is forced to see the advertisement as they the video plays, the video may be free of charge to play. In embodiments, it may be due to the fact that the video was free of charge to play that the teenager was willing to download the video, and that the presence of the advertisement is acceptable to the teenager due to the free nature of the video. In embodiments, the relevancy 2604 matching of non-sponsored content 2602, embedded along with the sponsored content 2608, may provide an effective delivery vehicle for advertisements that are both relevant and acceptable to the user.

[00577] In embodiments, relevancy 2604 matching may be an important aspect in the effective delivery of sponsored content 2608, allowing the sponsored content 2608 to be better targeted to the intended audience. One way to better ensure relevancy 2604 to the user is to utilize mobile subscriber characteristic data 112 from the user's mobile communication facility

102, including user profile information, demographic information, billing information, and the like. By using such information it may be possible to relevancy 2604 match sponsored content 2608 to personal attributes of the user, such as their age, address, gender, and the like. For instance, advertising for clothing may be matched to the age, gender, and whether they live in an urban or rural setting. Advertisements for middle aged males may target sports, cars, home improvement, and the like. Advertisements for young girls may target clothing, and the like. Advertisements for seniors may target health products, travel, and the like. In embodiments, information derived from mobile subscriber characteristic information may prove effective for matching not only the advertisement delivered, but also the non-sponsored content 2602. For example, an electronic game depicting spaceships shooting on-coming targets may be a relevant 2604 non-sponsored content 2602 for the younger audience, but other non-sponsored content 2602 may be better matched to an older audience, such as mortgage adds with links to current rates, dating ads with links to personal ads, puzzles, crosswords, humorous interactive cartoons, political messages during elections, other games more suited to an older audience, and the like. In embodiments, profile data such as age, gender, and address, may be sufficient for an initial relevancy 2604 matching of sponsored content 2608 and non-sponsored content 2602 to users of mobile communication facilities 102.

[00578] In embodiments, relevancy 2604 may be derived from user transaction data 2622 associated with the mobile communication facility 102, such as an online product purchase, the filling of an online shopping cart, an ad conversion, and the like. For instance, the user of the mobile communication facility 102 may have just purchased some women's seasonal clothing. Now, the user may not be interested in purchasing more seasonal clothing, and so the relevancy 2604 for seasonal clothing may be significantly reduced as a result of the purchase, but since the user is a woman, and hasn't yet purchased any seasonal shoes, the relevancy 2604 for shoes may be elevated as a result of the purchase. In another example, a user may be purchasing new floor mats for a late model car, which may indicate that the user has just purchased a late model car. As a result, this may lower the relevancy 2604 for car ads, but may elevate the relevance 2604 for car care products. In addition, user transactions may be indicative of the user's interests, and provide a better relevancy 2604 matching of the non-sponsored content 2602 to the user. For instance, a user may purchase electronic games online, indicating that a non-sponsored content 2602 that is a game may be a relevant 2604 match. A user may purchase a plane ticket,

indicating they may want a new game or puzzle to play when on the plane. A user may be purchasing home improvement materials, indicating they may be interested in a home equity loan non-sponsored content 2602 for exploring the possibility of more extensive home improvements. In embodiments, user transactions associated with the mobile communication facility 102 may be effectively used in determining the relevancy 2604 of sponsored content 2608 and non-sponsored content 2602 for user interaction.

In embodiments, relevancy 2604 may be derived from usage history data 2618 [00579] associated with the mobile communication facility 102, such as a browse history, an ad conversion history, from wireless carrier data, and the like. For instance, a user may be browsing for plasma televisions, and as a result, the relevancy 2604 for ads associated with plasma televisions, as well as other similar products such as LCD televisions, may be elevated. This elevation of relevance 2604 may become diminished over time if the browsing discontinues, which may indicate that the user subsequently made the purchase. In another example, a user may be browsing through the websites of college campuses, and as a result may be targeted with electronic games or videos embedded in ads for colleges and college related consumer products, such as laptop computers and the like. In embodiments, usage history may also track ad conversion history, as well as the types of ads that have been converted. For instance, the user may be converting ads for mortgage rates, and as a result, the user may be targeted with ads or non-sponsored content 2602 related to mortgage rates. Wireless carrier data may also be tracked and provide information that leads to increased relevancy 2604 matching. For instance, the user may make a large number of calls from the financial district in New York City, and result in an increased relevancy 2604 for ads relating to finances, and non-sponsored content 2602 such as a syndicated content related to finance. In embodiments, usage history may be used to improve relevancy 2604 in the selection of sponsored content 2608 and non-sponsored content 2602 being presented to users of mobile communication facilities 102.

[00580] In embodiments, relevancy 2604 may be derived from location data 2620 associated with the mobile communication facility 102, such as a location history, a previous location, a current location, a location determined according to location coordinates of a particular mobile communication facility 102, a location determined by a user entered location, a location as a plurality of geographic regions, location determined according to a distance from a specified location, and the like. For instance, if a user of a mobile communications facility 102

is at a location in proximity to a shopping area for clothing, the relevancy 2604 for ads related to clothing may elevate. If a user is in proximity of a series of car dealerships, the relevancy 2604 for car ads may elevate, and perhaps the relevancy 2604 for car related non-sponsored content 2602, such as car race games, may also be elevated. In embodiments, location may be used to improve relevancy 2604 in the selection of sponsored content 2608 and non-sponsored content 2602 being presented to users of mobile communication facilities 102.

In embodiments, relevancy 2604 may be derived from contextual information [00581] associated with a website 2624, such as in a link structure, in an inbound link, in an outbound link, in a link, as text, as a keyword, as metadata, and the like. For example, a user may be browsing a gardening website with their mobile communication facility 102, where they are seen to be selecting content relating to outdoor plantings and garden designs. In embodiments, the user's selection of this content may lead to an increased relevancy 2604 for outdoor garden supplies, landscape architects, outdoor home improvement, and the like, where sponsored content 2608 relating to these content subjects may be accompanied by interactive elements 2602 relating to the content matter, such as gardening puzzles, home improvement loan rates, and the like. In another example, website may have inbound or outbound links that may suggest a relevancy 2604 for a subject, such as links to woodworking sites, indicating that the user may be interested in the tools and supplies associated with the making of furniture. This may also be an indication of the gender and age of the user, as woodworking may generally be an interest for an older, middle-middle class male. This in turn may generate age and gender appropriate nonsponsored content 2602, delivered with ads focused on the power tools associated with woodworking as a home activity. In embodiments, contextual information associated with a website may be used to improve relevancy 2604 in the selection of sponsored content 2608 and non-sponsored content 2602 being presented to users of mobile communication facilities 102.

[00582] In embodiments, a user of a mobile communication facility 102 may be delivered sponsored content 2608, such as advertisements, in conjunction with non-sponsored content 2602, such as a video, game, animated set of content links, or the like, in order to improve the time the sponsored content 2608 may spend in front of the user. That is, if a user is delivered a game that they want to play, and an advertisement is surrounding the content of the game on the display of the mobile communication facility 102, there may be resulting increased ad effectiveness on the user. Further, ad effectiveness may be increased by increasing the

relevancy 2604 of the sponsored content 2108 and the non-sponsored content 2602 with the user. That is, if the advertisement presented is relevant 2604 to the user, then the user is more likely to be affected by it, and if the non-sponsored content 2602 is more relevant 2604 to the user, then the user is more likely to play video or the game longer, and thus increase the time the ad is in front of them, which then may also increase the effectiveness of the advertisement. In embodiments, improved relevancy 2604 in the selection of sponsored content 2608 and non-sponsored content 2602 being presented to users of mobile communication facilities 102 may increase the effectiveness of sponsored content 2608, which may additionally increase the number of sponsors associated with the sponsorship facility 162.

[00583] Referring to Fig. 27, in embodiments, sponsors 128 may be able to bid 2702 for exclusive sponsored content 2710 delivery to user mobile communication facilities 102, such as to a phone, a mobile phone, a cellular phone, a GSM phone, and the like. Examples of situations that may lend themselves to a sponsorship model where sponsors 128 competitively bid against each other may include a grouping of car dealerships in close proximity; clothing stores in a mall; multiple food stores in the same town; head-to-head competitors such as Borders and Barnes & Noble, Lowes and Home Depot, and the like; restaurants in the same vicinity; and the like. In embodiments, a bidding model for direct competition for exclusive sponsored content 2710 delivery through the user's mobile communication facility 102 may be effective in any situation where competitive sponsors 128 are targeting the same exclusivity characteristics 2704 of users.

[00584] Fig. 27 depicts a method and system for exclusivity bidding for mobile sponsored content. In embodiments, a bid 2702 may be received for exclusive sponsored content 2710 for presentation to a user's mobile communication facility 102, where the bid 2702 may include a bid amount 2708 and at least one exclusivity characteristic 2704 relating to the user, such as from a mobile subscriber characteristic database 2714, a usage history database 2718, a location database 2720, a transaction database 2724, a mobile communication device characteristic database 2722, and the like. The bid 2702 may be submitted as a part of a competitive auction, as an open bid, as a closed bid, and the like. In addition, the exclusivity characteristic 2704 may be matched to the exclusive sponsored content 2710 item based at least in part on a relevancy 2712 for presentation to the mobile communication facility 102, such as a score or rating. For instance, Route 202 in Flemington New Jersey has 18 new car dealerships,

all on the same strip of road, including Audi, BMW, Buick, Chevrolet, Chrysler, Dodge, Ford, GMC, Infiniti, Jeep, Lincoln, Mercury, Nissan, Mazda, Pontiac, Porsche, Subaru, and Volkswagen. This large collection of new car dealerships presents a strong competition for potential buyers coming to the area to shop for cars. A user may know that this area has virtually every major car brand on the market, and may visit the area with little prior knowledge of what each of the dealerships are currently offering in the way of sales, and available models, such as their current stock of certified used cars. This may be a situation where users may gain buyer direction as to where they are going to first look based on sponsored content 2710 delivered to their mobile communication facility 102 as they drive into the area, and car dealership sponsors may be willing to bid 2702 for exclusive access to a user's mobile communication facility 102, where the delivery of the sponsored content is based at least in part on information relating to the user's mobile communication facility 102 (e.g. mobile subscriber characteristics).

Continuing the above example, the dealerships may additionally what to target [00585] certain aspects of a user that make them a more desirable target, where these aspects may be referred to as exclusivity characteristics 2704, and a relevancy 2712 matching of a user's exclusivity characteristics 2704 to the exclusive sponsored content 2710 may better ensure the effectiveness of the exclusive sponsored content 2710 on the user's preferences. For instance, many of the dealerships may have sports car offerings, and are willing to bid 2702 for access to users' mobile communication facility 102, which may be particularly effective in this instance because of the user profile that may be associated with buyer of high end sports cars. That is, high income males who may be likely to utilize their mobile communications facilities 102 in their decision making. Given this profile, the dealership sponsors 128 may want to bid based on exclusivity characteristics 2704, and in this case, the relevancy 2712 of the user's exclusivity characteristics 2704 with high end sports cars, such as a mobile subscriber characteristic 2714 specifying that the user is over a certain age, a usage history 2718 that shows the user has been browsing for sports cars, a location 2720 in some proximity to the dealership, a mobile communication device characteristic 2722 that specifies the user has a mobile communication facility that has a large high resolution color display, user transactions 2724 that indicate the user has significantly increased their spending profile, and the like. In embodiments, the dealership sponsors 128 may offer bids 2702 that combine the bid amount 2708, exclusivity characteristics

2704, and relevancy 2712 in a plurality of ways in order to better utilize sponsorship dollars in the increase in car sales due to delivery of exclusive sponsored content 2710.

[00586] In embodiments, relevancy 2712 matching may be an important aspect in the effective delivery of exclusive sponsored content 2710, allowing the sponsored exclusive sponsored content 2710 to be better targeted to the intended audience. One way to better ensure relevancy 2712 to the user is to utilize mobile subscriber characteristic data 2714 associated with the user's mobile communication facility 102, including user profile information, demographic information, billing information, and the like. By using such information it may be possible to relevancy match exclusive sponsored content 2710 to personal attributes of the user, such as their age, address, gender, and the like. For instance, advertising for clothing can be matched to the age, gender, and whether they live in an urban or rural setting. Advertisements for middle aged males may target sports, cars, home improvement, and the like. Advertisements for young girls may target clothing, and the like. Advertisements for seniors may target health products, travel, and the like. In embodiments, information derived in association with mobile subscriber characteristic information 2714 may prove effective for matching the exclusive sponsored content 2704 to the user. In embodiments, profile data such as age, gender, and address, may be sufficient for an initial user relevancy 2712 matching of exclusive sponsored content 2710.

[00587] In embodiments, relevancy 2712 may be derived from a user transaction data 2724 associated with the mobile communication facility 102, such as an online product purchase, the filling of an online shopping cart, an ad conversion, and the like. For instance, the user of the mobile communication facility 102 may have just purchased some women's seasonal clothing. Now, the user may not be interested in purchasing more seasonal clothing, and so the relevancy 2712 for seasonal clothing may be significantly reduced as a result of the purchase, but since the user is a woman, and hasn't yet purchased any seasonal shoes, the relevancy 2712 for shoes may be elevated as a result of the purchase. In another example, a user may be purchasing new floor mats for a late model car, which may indicate that the user has just purchased a late model car. As a result, this may lower the relevancy 2712 for car ads, but may elevate the relevance 2712 of car care products. In addition, user transactions 2724 may be indicative of the user's interests, and provide a better relevancy 2712 matching of the exclusive sponsored content 2710 to the user. In embodiments, user transactions 2724 associated with the mobile communication facility

102 may be effectively used in determining the user relevancy 2712 to exclusive sponsored content 2710.

[00588] In embodiments, relevancy 2712 may be derived from a usage history data 2718 associated with the mobile communication facility 102, such as a browse history, an ad conversion history, from wireless carrier data, and the like. For instance, a user may be browsing for plasma televisions, and as a result, the relevancy 2712 for ads associated with plasma televisions, as well as other similar products such as LCD televisions, may be elevated. This elevation of relevance 2712 may become diminished over time if the browsing discontinues, which may indicate that the user subsequently made the purchase. In another example, a user may be browsing through the websites of college campuses, and as a result may be targeted with exclusive sponsored content 2710 associated with colleges and college related consumer products, such as laptop computers and the like. In embodiments, usage history 2718 may also track ad conversion history, as well as the types of ads that have been converted. For instance, the user may be converting ads for mortgage rates, and as a result, the user may be targeted with exclusive sponsored content 2710 related to mortgage rates. Wireless carrier data may also be tracked and provide information that leads to increased relevancy 2712 matching. For instance, the user may make a large number of calls from the financial district in New York City, and result in an increased relevancy 2712 for ads relating to finances, or the like. In embodiments, usage history 2718 may be used to improve user relevancy 2112 in the selection of exclusive sponsored content 2710.

[00589] In embodiments, relevancy 2712 may be derived from mobile communication device characteristic data 2712, such as a display characteristic, a computational characteristic, a bandwidth characteristic, a keypad characteristic, and the like. For example, a florist sponsor 128 of colorful cut flowers may place a high relevancy 2712 on users with high end color displays, a sponsor 128 delivering interactive content may place a high relevancy 2712 on users with certain keyboards, a sponsor delivering a detailed graphic may place a high relevancy 2712 on users with good processing capabilities, and the like. In embodiments, an exclusive sponsored content 2710 item bid may be higher based upon the relevancy 2712 of a mobile communication device characteristic 2712.

[00590] In embodiments, relevancy may be derived in association with location data 2720. There may be a plurality of techniques in determining the location of a mobile

communication facility 102, such as by GPS, by triangulation, by triangulation utilizing Wi-Fi, and the like. The location of a mobile communications facility 102 may be determined when a user enters a particular location; may involve a plurality of geographic regions, such as states, cities, and the like; may be specified according to a distance from a specified location; may be associated with some aspect of the mobile communications facility 102 mobile content; may be associated with a previous location or a current location; and the like. For instance, if a user of a mobile communications facility 102 is at a location in proximity to a shopping area for clothing, the relevancy 2712 for ads related to clothing may elevate. If a user is in proximity of a series of car dealerships, the relevancy 2712 for car ads may elevate. In embodiments, location data 2720 may be used to improve user relevancy 2712 to sponsored content.

[00591] Referring to Fig. 28, in embodiments an interactive element 2802 may be associated with sponsored content 2808 and presented to a mobile communications facility 102, where the interactive element 2802 may be a game, a search facility, a text box, and the like, and the sponsored content 2808 may be an advertisement. The user may then be allowed to engage the interactive element 2802 on the mobile communication facility 102, where the interactive element 2802 may have been presented within the sponsored content 2808. In addition, the presentation of the sponsored content 2808 may be in association with a mobile communications facility relevancy 2804, based on information such as a mobile subscriber characteristic, a user transaction, usage history, location, contextual information associated with a website, and the like. For example, a male teenager may be talking on the phone or text messaging as part of their mobile communication facility 102, and an indication is displayed that a free electronic game is available to play. The user may then click on the link, and the game is delivered to them along with an advertisement that is relevant to a male teenager. The relevancy 2804 of the advertisement to the user may have been determined through mobile subscriber characteristics that specify the age of the user, a mobile communication facility 102 usage history that matches the profile of teenage male, or the like. The delivered game may be embedded in the advertisement, next to the advertisement, or the like, such that the advertisement may be visually apparent to the teenager as they play the game. In embodiments, because the teenager is forced to see the advertisement as they play the game, the game may be free of charge to play. In embodiments, it may be due to the fact that the game was free of charge to play that the teenager was willing to download the game, and that the presence of the advertisement is acceptable to the teenager due to the free nature of the game. In embodiments, the relevancy 2804 matching of sponsored content 2808, embedded along with a interactive element 2802, may provide an effective delivery vehicle for advertisements that are both relevant and acceptable to the user.

[00592] In embodiments, data associated with the user's mobile communication facility 102 may provide information that may aid in determining relevancy 2804, such as from a mobile subscriber characteristic database 112, a usage history database 2818, a location database 2820, a transaction database 2822, contextual information associated with a website 2824, and the like.

In embodiments, relevancy 2804 matching may be an important aspect in the [00593] effective delivery of sponsored content 2808, allowing the sponsored content 2808 to be better targeted to the intended audience. One way to better ensure relevancy 2804 to the user is to utilize mobile subscriber characteristic data 112 from the user's mobile communication facility 102, including user profile information, demographic information, billing information, and the like. By using such information it may be possible to relevancy 2804 match sponsored content to personal attributes of the user, such as their age, address, gender, and the like. For instance, advertising for clothing can be matched to the age, gender, and whether they live in an urban or rural setting. Advertisements for middle aged males may target sports, cars, home improvement, and the like. Advertisements for young girls may target clothing, and the like. Advertisements for seniors may target health products, travel, and the like. In embodiments, information derived from mobile subscriber characteristic information may prove effective for matching not only the advertisement delivered, but also the interactive element. For example, an electronic game depicting spaceships shooting on-coming targets may be a relevant 2804 interactive element 2802 for the younger audience, but other interactive elements 2802 may be better matched to an older audience, such as mortgage adds with links to current rates, dating adds with links to personal ads, puzzles, crosswords, humorous interactive cartoons, political messages during elections, other games more suited to an older audience, and the like. In embodiments, profile data such as age, gender, and address, may be sufficient for an initial relevancy 2804 matching of sponsored content 2808 and interactive elements 2802 to users of mobile communication facilities 102.

[00594] In embodiments, relevancy 2804 may be derived from user transaction data 2822 associated with the mobile communication facility 102, such as an online product purchase,

the filling of an online shopping cart, an ad conversion, and the like. For instance, the user of the mobile communication facility 102 may have just purchased some women's seasonal clothing. Now, the user may not be interested in purchasing more seasonal clothing, and so the relevancy 2804 for seasonal clothing may be significantly reduced as a result of the purchase, but since the user is a woman, and hasn't yet purchased any seasonal shoes, the relevancy 2804 for shoes may be elevated as a result of the purchase. In another example, a user may be purchasing new floor mats for a late model car, which may indicate that the user has just purchased a late model car. As a result, this may lower the relevancy 2804 for car ads, but may elevate the relevance 2804 of car care products. In addition, user transactions may be indicative of the user's interests, and provide a better relevancy 2804 matching of the interactive element 2802 to the user. For instance, a user may purchase electronic games online, indicating that an interactive element 2802 that is a game may be a relevant 2804 match. A user may purchase a plane ticket, indicating they may want a new game or puzzle to play when on the plane. A user may be purchasing home improvement materials, indicating they may be interested in a home equity loan interactive element 2802 for more exploring the possibility of more extensive home improvements. In embodiments, user transactions associated with the mobile communication facility 102 may be effectively used in determining the relevancy 2804 of sponsored content 2808 and interactive elements 2802 for user interaction.

associated with the mobile communication facility 102, such as a browse history, an ad conversion history, from wireless carrier data, and the like. For instance, a user may be browsing for plasma televisions, and as a result, the relevancy 2804 for ads associated with plasma televisions, as well as other similar products such as LCD televisions, may be elevated. This elevation of relevance 2804 may become diminished over time if the browsing discontinues, which may indicate that the user subsequently made the purchase. In another example, a user may be browsing through the websites of college campuses, and as a result may be targeted with electronic games embedded in ads for colleges and college related consumer products, such as laptop computers and the like. In embodiments, usage history may also track ad conversion history, as well as the types of ads that have been converted. For instance, the user may be converting ads for mortgage rates, and as a result, the user may be targeted with ads or interactive elements 2802 related to mortgage rates. Wireless carrier data may also be tracked

and provide information that leads to increased relevancy 2804 matching. For instance, the user may make a large number of calls from the financial district in New York City, and result in an increased relevancy 2804 for ads relating to finances, and interactive elements 2802 that are fast action electronic games, or the like. In embodiments, usage history may be used to improve relevancy 2804 in the selection of sponsored content 2808 and interactive elements 2802 being presented to users of mobile communication facilities 102.

associated with the mobile communication facility 102, such as a location history, a previous location, a current location, a location determined according to location coordinates of a particular mobile communication facility, a location determined by a user entered location, a location as a plurality of geographic regions, location determined according to a distance from a specified location, and the like. For instance, if a user of a mobile communications facility 102 is at a location in proximity to a shopping area for clothing, the relevancy 2804 for ads related to clothing may elevate. If a user is in proximity of a series of car dealerships, the relevancy 2804 for car ads may elevate, and perhaps the relevancy 2804 for car related interactive elements, such as car race games, may also be elevated. In embodiments, location may be used to improve relevancy 2104 in the selection of sponsored content 2808 and interactive elements 2802 being presented to users of mobile communication facilities 102.

[00597] In embodiments, relevancy 2804 may be derived from contextual information associated with a website 2824, such as in a link structure, in an inbound link, in an outbound link, in a link, as text, as a keyword, as metadata, and the like. For example, a user may be browsing a gardening website with their mobile communication facility 102, where they are seen to be selecting content relating to outdoor plantings and garden designs. In embodiments, the user's selection of this content may lead to an increased relevancy 2804 for outdoor garden supplies, landscape architects, outdoor home improvement, and the like, where sponsored content 2808 relating to these content subjects may be accompanied by interactive elements 2802 relating to the content matter, such as gardening puzzles, home improvement loan rates, and the like. In another example, website may have inbound or outbound links that may suggest a relevancy 2804 for a subject, such as links to woodworking sites, indicating that the user may be interested in the tools and supplies associated with the making of furniture. This may also be an indication of the gender and age of the user, as woodworking may generally be an interest for an

older, middle-middle class male. This in turn may generate age and gender appropriate interactive elements 2802, delivered with ads focused on the power tools associated with woodworking as a home activity. In embodiments, contextual information associated with a website may be used to improve relevancy 2804 in the selection of sponsored content 2808 and interactive elements 2802 being presented to users of mobile communication facilities 102.

In embodiments, a user of a mobile communication facility 102 may be delivered sponsored content 2808, such as advertisements, in conjunction with an interactive element 2802, such as a game or animated set of content links, in order to improve the time the sponsored content 2808 may spend in front of the user. That is, if a user is delivered a game that they want to play, and an advertisement is visible on the display of the mobile communication facility 102 along with the game, there may be resulting increased ad effectiveness on the user. Further, ad effectiveness may be increased by increasing the relevancy 2804 of the sponsored content 2808 and the interactive element 2802 with the user. That is, if the advertisement presented is relevant 2804 to the user, then the user is more likely to be affected by it, and if the interactive element 2802 is more relevant 2804 to the user, then the user is more likely to play the game longer, and thus increase the time the ad is in front of them, which then may also increase the effectiveness of the advertisement. In embodiments, improved relevancy 2804 in the selection of sponsored content 2808 and interactive elements 2802 being presented to users of mobile communication facilities 102 may increase the effectiveness of sponsored content 2808, which may additionally increase the number of sponsors associated with the sponsorship facility 162.

[00599] Referring to Fig. 29, in embodiments, query classifications may be associated with indicator inputs 2902. Indicator inputs 2902 may include current content popularity, current query popularity, current emerging queries, current location, previous location, user characteristics, editorial work, or some other indicator associated with a mobile communication facility, its user, and/or query content.

[00600] In embodiments, the query classification that is associated with a search query 142, and/or the indicator inputs 2902, may influence the formatting 2908 of the results that are displayed to a mobile communication facility 102. For example, the formatting may expand category results, order the results according to the indicator inputs (e.g., by decreasing order of popularity), by category, or according to some other schema.

[00601] In embodiments, user behaviors (e.g. clicking on a content) relating to the formatting of the results that are displayed on a mobile communication facility 102 may be subjected to click and impression analysis and used to further refine, structure, index, and/or order the query classifications and/or indicator inputs 2902.

[00602] In embodiments, by associating a query 142 with indicator inputs 2902 and/or query classifications it may be possible to determine an optimal rank order of content to display to a user's mobile communication facility 102, based at least in part on the user's interaction with content and the history of interactions by other users. For example, it may be possible to determine a threshold for presenting a content to a mobile communication facility 102 (e.g., popularity rank); it may be possible to determine which content type to expand, and so forth.

Continuing to refer to Fig. 29, in embodiments, a navigation request 2932 may [00603] be received from a mobile communication facility 102, and combined with indicator inputs 2902 that may create dynamic content 2934, which may be associated with the indicator inputs 2902, where the dynamic content 2934 may then be presented to the mobile communication facility 102. In embodiments, the navigation request 2932 may be a search query, a domain name entry, a web browser action, a menu action, a folder selection, implicit, implicit based on the location of the mobile communication facility 102, a transaction, an advertisement conversion, and the like. In embodiments, the dynamically created content 2934 may be an advertisement, a banner advertisement, a text insertion, an image, or the like. For example, a user of a mobile communication facility 102 may input a navigation request 2932 for 'baseball stadium'. Indicator inputs 2902 show that the user is currently located north of Boston, that there are a growing number of queries in the system associated with the Red Sox playing game 7 of the ALCS, and that the user has asked for directions to Fenway Park before. In this instance, dynamic content 2934 may be delivered to the user's mobile communication facility 102 related to directions to Fenway Park, and the general subject matter of the Red Sox and the ALCS. For instance, the use may be presented with the image of a map depicting directions; text depicting directions; an advertisement associated with the Red Sox tickets, cloths, websites, stadium parking, nearby restaurants, and the like; an advertisement associated with the ALCS series; an advertisement associated with the upcoming World Series, an advertisement associated with other local sports teams; and the like. In embodiments, combining indicator inputs 2902 with a navigation request 2932 may provide dynamic content 2934 to the user's mobile

communications facility 102 that provides greater relevancy to the objectives and interests of the user. In embodiments the mobile communication facility 102 may be a phone, a mobile phone, a cellular phone, a GSM phone, or the like.

In embodiments, indicator inputs 2902 may include content popularity, query [00604] popularity, the current location of the mobile communication facility 102, the previous location of the mobile communication facility 102, a user characteristic, an editorial work product, data provided by a wireless provider, transaction history provided by a wireless provider, provided by data on the mobile communication facility 102, location of the on the mobile communication facility 102, location history on the mobile communication facility 102, and the like. Indicator inputs 2902 may provide results that are statistically more likely to match the navigation request 2932 as a result of taking some factor into account. For example, a content subject's current popularity, say in the navigation request reference to 'American idol', may more likely be referring to the television program American Idol, as opposed to a more general search of idols within current American culture. So when this indicator input 2902 is provided for generation of dynamic content 2934, it may be more likely to result in choices the user is searching on. In another example, a user whose user characteristics show that they are in college may have a very different search result in mind for the search term 'fashion cloths', than for a user who is in retirement. In this instance, dynamic content 2934 may result in maps or locations related to current fashion that is a function of the age of the user. In embodiment, the use of indicator inputs 2902 may provide an improved relevancy in the generation of dynamic content 2934 resulting from a navigation request 2932 from a mobile communications facility 102.

[00605] In embodiments, indicator inputs 2902 may include grouping results based at least in part on an association with a mobile subscriber characteristic 112, such as selected from the group consisting of age, sex, race, religion, area code, zip code, home address, work address, billing address, credit information, family information, income information, birth date, birthplace, employer, job title, length of employment, and the like. For example, a user may be an 18 year old, white male, in college, and born in San Antonio, Texas. The user is in Chicago, and inputs a navigation request 2932 for 'restaurants'. Now, there is very large number of restaurants in Chicago, and the user is most likely interested in only a small segment of the restaurants available. Indicator inputs 2902, based at least in part on the user's mobile subscriber characteristics 112, may be an effective way to narrow down the results, and then sorting the

final results by interest level as related to their mobile subscriber characteristics 112. For instance, the user may be interested in restaurants relating to foods that are popular in his home town of San Antonio. So, given the lack of specificity of the user's initial navigation request 2932 term, it may be appropriate to provide directions to local restaurants specializing in say, ribs. In embodiments, this may be the end of the user's searching, with the user selecting one of the choices and inputting no further navigation requests 2932.

[00606] Continuing with the previous example, and in embodiments, the user may not select one of the choices, but rather inputs a more specific navigation request 2932, such as 'closest hamburger'. In this instance, the user may be supplied choices based on the distance from their present location, to restaurants that specialize in serving hamburgers. In addition, indicator inputs 2902 show that the user was at a previous location at lunchtime yesterday, near a McDonalds in Kansas City. Given this, results for restaurants specializing in hamburgers may be further sorted with an ordered preference for McDonalds.

[00607] In embodiments, indicator inputs 2902 may include an association with location data 2920. There may be a plurality of techniques in determining the location of a mobile communication facility 102, such as by GPS, by triangulation, by triangulation utilizing Wi-Fi, and the like. The location of a mobile communications facility 102 may be determined when a user enters a particular location; may involve a plurality of geographic regions, such as states, cities, and the like; may be specified according to a distance from a specified location; may be associated with some aspect of the mobile communications facility 102 mobile content; and the like. For instance, a navigation request 2932 of 'sports tickets' may be typed by a person that lives in Boston, and so may be interested in the Red Sox, the Patriots, and other local team's tickets. Or the user may be away from home, and as a result, the user may be interested in tickets for teams associated with their current location, where their current location may be determined by, for instance, a GPS-enabled mobile communication facility 102. Other examples dynamic content 2934 generated as a function of location may include location as related to restaurants, travel tickets, entertainment, florists, colleges, home improvement, and the like. In embodiments, the dynamic content 2934 presented to the user's mobile communication facility 102 may be at least determined by location, and provide an improved listing of search results to the user.

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[00608] In embodiments, aspects of processing the navigation request 2932 may utilize data on the mobile communication facility 102, such as for indicator inputs 2902. For example, say the user of the mobile communication facility 102 is away from home in another state, but is located in an area code that the user calls into regularly. In addition, the user has a call and web browser history over the past week, prior to the trip, to hardware stores and home improvement web sites. And now, on a Saturday morning, inputs the navigation request 2932 'plaster cracks' In this case, along with the navigation request 2932, indicators inputs 2902 relating to the user's usage history data 2918 and current location data 2920 may be provided for the creation of the dynamic content 2934. The usage history indicates that the user may have been recently thinking about home improvement, with calls to the hardware store that may indicate that they may be anticipating a purchase of home improvement related materials. So, indicator inputs 2902 may be elevated for home improvement needs. In addition, indicator inputs 2902 now indicate the user's current location, and so the dynamic content 2934 may have elevated relevance to the user's current location. Combining the navigation request 2932 terms for plaster and cracks, along with indicator inputs 2902 for home improvement, may result in dynamic content 2934 related to plaster repair within the general category of home improvement. Dynamic content 2934 may be generated in association with local supply stores for home repair, local contractors that specialize in plaster repair, and the like. In formatting the results for presentation to the user, it is further seen from usage history that the user has placed many calls to Lowes, and very few to Home Depot or local hardware stores. As a consequence of this preference, the location for the local Lowes may be placed at the top of the return listing displayed as a part of the dynamic content 2934 on the mobile communication facility 102, with other plaster repair related hits listed thereafter. In addition, other dynamic content 2934 related to the navigation request 2932 and indicator inputs 2902, such as an advertisement, may be generated and forwarded to the mobile communication facility 102.

[00609] In embodiments, aspects of processing the navigation request 2932 may utilize activity on the mobile communication facility 102, such as a browser action, a menu selection, a transaction, and the like. For example, say the user has just completed a browser action relating to bird seed. In this instance, dynamic content 2934 relating to bird seed may be presented to the user's mobile communication facility 102, such as directions to local purveyors of bird seed, advertisements for bird seed, banner advertisements for bird seed, text insertion

relating to bird seed, and image-based ad for bird seed, and the like. In embodiments, user actions may provide navigation requests 2932 that may generated dynamic content 2934 and provided to the user of a mobile communication facility 102.

[00610] In embodiments, business rules may be associated with a query classification engine. Business rules may include popularity rules, location rules, mobile communication facility type rules, keyword matching rules, parental control rules, spelling and spelling-correction rules, recommendation rules, rules relating to user characteristics, or some other business rule.

[00611] In embodiments, and referring to Fig. 30, a method and system of query classification may be used to identify user intent in order to assist navigation to a specific vertical of content and/or to flash in content from a likely answer source. A user's search behaviors may be analyzed and monitored on a consistent basis to understand what the user is searching for and selecting as a result of a search. In embodiments, a search engine may classify different types of queries to connect user's searches to the right content in the shortest distance. Thus, a search for "ice cream boston" may give preference to local listing results to general web pages, and the search "UA 123" may return flight arrival and departure information.

[00612] In embodiments, a search engine may use query classification to identify the intent and specificity of a user's search to either redirect the user to the best individual results, or to prioritize categories of results answering the user's query. In embodiments, both language-specific rules and statistical methods may be used to identify user intent. Language-specific rules may identify narrow searches and re-direct the user to specific results. For example if a user searches for "maps nyc," language-specific rules may identify the operative term "maps," and a specific location, "nyc" and infer that the user is looking for a map of New York. In this example, the user may be directed to a map of New York provided by a maps vertical. Statistical methods, a second query classification tool, may rank different categories of results for broader queries. For example, if a user is searching for a celebrity name, such as "Naomi Campbell," a model, through historical behavior it may be inferred that the user is more likely to be looking for images or news articles, rather than for music, and thus return these categories at the top of the results set on the first page.

[00613] In embodiments, the heuristics of query classification engine may be adjusted globally, on a per language or per-operator basis. Query classification may identify different

patterns of search behavior that assists the correct display for a given query. The classification may become more granular as the system learns more user behavior.

[00614] In embodiments, the display of a mobile communication facility 102 may include a "widget" to answer a user's query, help a user to disambiguate their query, guide a user deeper into content properties, and bubble up the most popular and/or relevant content. Widgets may utilize structured and semi-structured data to help users to minimize searching for content and answer a user's queries directly. In addition to the query classification, a 'learning' algorithm may use click and impression analysis to determine when an answer/result should be shown, where on the page it should be shown, and/or how much content from a given source should be displayed. While the algorithm may determine the correct results set, it may be possible to inject editorial overrides and influence the display of content for queries based at least in part to actively manage/merchandise query results.

[00615] In embodiments, editors may import/export common format feeds, keywords, choose display templates, and assign a content component type a relevancy weight. For example, the query "music" may be too broad to rely entirely on algorithms; instead an editorial or business review may be required. Through session, and user behavior analysis editors may identify content that will help narrow the search and get closer to what the user actually intended. In the case of the query "music", an editor may build a smart component to expose genre links, navigational links that take users deeper into the music vertical, and a video link. If these links don't perform well, then the editor may make adjustments.

[00616] In embodiments, a popularity management tool may allow an editor to review algorithm weightings and adjust thresholds for a smart component and its affiliated content.

[00617] In embodiments, a method and system of query classification may affect the display logic that is associated with a mobile communication facility 102. In an example, a search query may be classified according to a query classification scheme. A query classification scheme may include, but is not limited to, classes such as Vertical Class, Navigational Class, Definition Class, Category Class, Specific Class, Query+Modifier Class, Reference Class, Adult Class, or some other query class.

[00618] In embodiments, a Vertical Class may include a search vertical. A search vertical may be associated with a taxonomy of content and may be a general search or related to a search, ringtones, images, games, yellowpages, weather, whitepages, news headlines, WAP

sites, web sites, movie showtimes, sports scores, stock quotes, flight times, maps, directions, a price comparison, WiFi hotspots, package tracking, hotel rates, fantasy sports stats, horoscopes, answers, a dictionary, area codes, zip codes, entertainment, blogs, or some other search vertical.

- [00619] In embodiments, a Navigational Class may be an identified domain name, URL, website, IP address, or some other navigational location.
- [00620] In embodiments, a Definition Class may be associated with a query that includes the term "define," "definition," "meaning," "means," or some other term associated with a request for a definition.
- [00621] In embodiments, a Category Class may be associated with a deeper taxonomy present within the search query (e.g., hip hop, NFL, soccer, cameras) and include bubble up content/topics that may help users to disambiguate a query.
- [00622] In embodiments, a Specific Class may be a list of structured data, extracted data, or the like from various categories (e.g., Gunners, Hinder, Sagittarius, Smallville, Nikon coolpix) that may be indicative of user intent.
- [00623] In embodiments, a Query+Modifier Class may be a combination of a subcategory, genre, and/or specific source.
- [00624] In embodiments, a Reference Class may be data that is extracted from a reference source, such as an online encyclopedia.
- [00625] In embodiments, a Adult Class may related to adult content, such as gaming, gambling, pornography, lottery, or some other form of adult content.
- [00626] In embodiments, query classifications may be associated with indicator inputs 3002. Indicator inputs 3002 may include current content popularity, current query popularity, current emerging queries, current location, previous location, user characteristics, editorial work, or some other indicator associated with a mobile communication facility, its user, and/or query content.
- [00627] In embodiments, the query classification that is associated with a search query 142, and/or the indicator inputs 3002, may influence the formatting 3008 of the results that are displayed to a mobile communication facility 102. For example, the formatting may expand category results, order the results according to the indicator inputs (e.g., by decreasing order of popularity), by category, or according to some other schema.

[00628] In embodiments, user behaviors (e.g. clicking on a content) relating to the formatting of the results that are displayed on a mobile communication facility 102 may be subjected to click and impression analysis and used to further refine, structure, index, and/or order the query classifications and/or indicator inputs 3002.

[00629] In embodiments, by associating a query 142 with indicator inputs 3002 and/or query classifications it may be possible to determine an optimal rank order of content to display to a user's mobile communication facility 102, based at least in part on the user's interaction with content and the history of interactions by other users. For example, it may be possible to determine a threshold for presenting a content to a mobile communication facility 102 (e.g., popularity rank); it may be possible to determine which content type to expand, and so forth.

Continuing to refer to Fig. 30, in embodiments, a navigation request 3032 may [00630] be received from a mobile communication facility 102, and combined with indicator inputs 3002 and business rules 3038 that may create dynamic content 3034, where the dynamic content 3034 may then be presented to the mobile communication facility 102. In embodiments, the navigation request 3032 may be a search query, a domain name entry, a web browser action, a menu action, a folder selection, implicit, implicit based on the location of the mobile communication facility 102, a transaction, an advertisement conversion, and the like. In embodiments, a business rule 3038 may be a rule that minors receive no age inappropriate advertisements, such as beer ads, cigarette ads, gambling ads, and the like; a business rule may be that individuals that have converted ads in the past should be targeted with similar ads in the future; a business rule may be that individuals that ads depicting violence should not be used on days when there has been an act of national violence, and the like. In embodiments, the dynamically created content 3034 may be an advertisement, a banner advertisement, a text insertion, an image, or the like. For example, a user of a mobile communication facility 102 may input a navigation request 3032 for 'baseball stadium'. Indicator inputs 3002 show that the user is currently located north of Boston, that there are a growing number of queries in the system associated with the Red Sox playing game 7 of the ALCS, and that the user has asked for directions to Fenway Park before. In this instance, dynamic content 3034 may be delivered to the user's mobile communication facility 102 related to directions to Fenway Park, and the general subject matter of the Red Sox and the ALCS. For instance, the use may be presented with the image of a map depicting directions; text depicting directions; an advertisement

associated with the Red Sox tickets, cloths, websites, stadium parking, nearby restaurants, and the like; an advertisement associated with the ALCS series; an advertisement associated with the upcoming World Series, an advertisement associated with other local sports teams; and the like. In embodiments, combining indicator inputs 3002 with a navigation request 3032 may provide dynamic content 3034 to the user's mobile communications facility 102 that provides greater relevancy to the objectives and interests of the user. In embodiments the mobile communication facility 102 may be a phone, a mobile phone, a cellular phone, a GSM phone, or the like.

[00631] Continuing with the previous example, and in embodiments, business rules 3038 may preclude certain dynamic content 3034 from being delivered to the mobile communication facility 102, such as advertisements for sports bars around Fenway Park in response to the navigation request 3032 for the 'baseball stadium', where indicator inputs 3002 show that the user is a minor. Other examples of business rules 3038 being applied to the generation of dynamic content 3034 to minors may be ads for cigarettes or legal gambling in association with the navigation request 3032.

[00632] In embodiments, business rules 3038 may be applied to the generation of dynamic content 3034 that may restrict or augment dynamic content 3034 that may have otherwise been generated. For example, it may be a business rule 3038 to provide greater focus to content and/or advertisements based on some criteria, such as a holiday, a sporting event, a seasonal event, national election, or the like. It may also be a business rule 3038 to provide less focus to content and/or advertisements based on some criteria, such as a national emergency, the death of a prominent figure, an act of national violence, a day of morning, and the like. In embodiments, business rules 3038 may be applied on a sponsor by sponsor basis, on a product by product basis, on the basis of content, and the like. For example, say there is a fire in a bar that kills dozens of people. In the following days ads related to alcohol and drinking establishments may be stopped, as sponsors want to avoid any negative association between their product and the fire. In embodiments, business rules 3038 may enable the focused or global overrides to dynamic content 3034 delivery to a mobile communication facility 102.

[00633] In embodiments, indicator inputs 3002 may include content popularity, query popularity, the current location of the mobile communication facility 102, the previous location of the mobile communication facility 102, a user characteristic, an editorial work product, data provided by a wireless provider, transaction history provided by a wireless provider, provided by

data on the mobile communication facility 102, location of the on the mobile communication facility 102, location history on the mobile communication facility 102, and the like. Indicator inputs 3002 may provide results that are statistically more likely to match the navigation request 3032 as a result of taking some factor into account. For example, a content subject's current popularity, say in the navigation request reference to 'American idol', may more likely be referring to the television program American Idol, as opposed to a more general search of idols within current American culture. So when this indicator input 3002 is provided for generation of dynamic content 3034, it may be more likely to result in choices the user is searching on. In another example, a user whose user characteristics show that they are in college may have a very different search result in mind for the search term 'fashion cloths', than for a user who is in retirement. In this instance, dynamic content 3034 may result in maps or locations related to current fashion that is a function of the age of the user. In embodiment, the use of indicator inputs 3002 may provide an improved relevancy in the generation of dynamic content 3034 resulting from a navigation request 3032 from a mobile communications facility 102.

In embodiments, indicator inputs 3002 may include grouping results based at [00634] least in part on an association with a mobile subscriber characteristic 112, such as selected from the group consisting of age, sex, race, religion, area code, zip code, home address, work address, billing address, credit information, family information, income information, birth date, birthplace, employer, job title, length of employment, and the like. For example, a user may be an 18 year old, white male, in college, and born in San Antonio, Texas. The user is in Chicago, and inputs a navigation request 3032 for 'restaurants'. Now, there is very large number of restaurants in Chicago, and the user is most likely interested in only a small segment of the restaurants available. Indicator inputs 3002, based at least in part on the user's mobile subscriber characteristics 112, may be an effective way to narrow down the results, and then sorting the final results by interest level as related to their mobile subscriber characteristics 112. For instance, the user may be interested in restaurants relating to foods that are popular in his home town of San Antonio. So, given the lack of specificity of the user's initial navigation request 3032 term, it may be appropriate to provide directions to local restaurants specializing in say, ribs. In embodiments, this may be the end of the user's searching, with the user selecting one of the choices and inputting no further navigation requests 3032.

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[00635] Continuing with the previous example, and in embodiments, the user may not select one of the choices, but rather inputs a more specific navigation request 3032, such as 'closest hamburger'. In this instance, the user may be supplied choices based on the distance from their present location, to restaurants that specialize in serving hamburgers. In addition, indicator inputs 3002 show that the user was at a previous location at lunchtime yesterday, near a McDonalds in Kansas City. Given this, results for restaurants specializing in hamburgers may be further sorted with an ordered preference for McDonalds.

In embodiments, indicator inputs 3002 may include an association with [00636] location. There may be a plurality of techniques in determining the location of a mobile communication facility 102, such as by GPS, by triangulation, by triangulation utilizing Wi-Fi, and the like. The location of a mobile communications facility 102 may be determined when a user enters a particular location; may involve a plurality of geographic regions, such as states, cities, and the like; may be specified according to a distance from a specified location; may be associated with some aspect of the mobile communications facility 102 mobile content; and the like. For instance, a navigation request 3032 of 'sports tickets' may be typed by a person that lives in Boston, and so may be interested in the Red Sox, the Patriots, and other local team's tickets. Or the user may be away from home, and as a result, the user may be interested in tickets for teams associated with their current location, where their current location may be determined by, for instance, a GPS-enabled mobile communication facility 102. Other examples dynamic content 3034 generated as a function of location may include location as related to restaurants, travel tickets, entertainment, florists, colleges, home improvement, and the like. In embodiments, the dynamic content 3034 presented to the user's mobile communication facility 102 may be at least determined by location, and provide an improved listing of search results to the user.

[00637] In embodiments, aspects of processing the navigation request 3032 may utilize data on the mobile communication facility 102, such as for indicator inputs 3002. For example, say the user of the mobile communication facility 102 is away from home in another state, but is located in an area code that the user calls into regularly. In addition, the user has a call and web browser history over the past week, prior to the trip, to hardware stores and home improvement web sites. And now, on a Saturday morning, inputs the navigation request 3032 'plaster cracks' In this case, along with the navigation request 3032, indicators inputs 3002

relating to the user's usage history and current location may be provided for the creation of the dynamic content 3034. The usage history indicates that the user may have been recently thinking about home improvement, with calls to the hardware store that may indicate that they may be anticipating a purchase of home improvement related materials. So, indicator inputs 3002 may be elevated for home improvement needs. In addition, indicator inputs 3002 now indicate the user's current location, and so the dynamic content 3034 may have elevated relevance to the user's current location. Combining the navigation request 3032 terms for plaster and cracks, along with indicator inputs 3002 for home improvement, may result in dynamic content 3034 related to plaster repair within the general category of home improvement. Dynamic content 3034 may be generated in association with local supply stores for home repair, local contractors that specialize in plaster repair, and the like. In formatting the results for presentation to the user, it is further seen from usage history that the user has placed many calls to Lowes, and very few to Home Depot or local hardware stores. As a consequence of this preference, the location for the local Lowes may be placed at the top of the return listing displayed as a part of the dynamic content 3034 on the mobile communication facility 102, with other plaster repair related hits listed thereafter. In addition, other dynamic content 3034 related to the navigation request 3032 and indicator inputs 3002, such as an advertisement, may be generated and forwarded to the mobile communication facility 102.

[00638] In embodiments, aspects of processing the navigation request 3032 may utilize activity on the mobile communication facility 102, such as a browser action, a menu selection, a transaction, and the like. For example, say the user has just completed a browser action relating to bird seed. In this instance, dynamic content 3034 relating to bird seed may be presented to the user's mobile communication facility 102, such as directions to local purveyors of bird seed, advertisements for bird seed, banner advertisements for bird seed, text insertion relating to bird seed, and image-based ad for bird seed, and the like. In embodiments, user actions may provide navigation requests 3032 that may generated dynamic content 3034 and provided to the user of a mobile communication facility 102.

[00639] In embodiments, business rules may be associated with a query classification engine. Business rules may include popularity rules, location rules, mobile communication facility type rules, keyword matching rules, parental control rules, spelling and spelling-

correction rules, recommendation rules, rules relating to user characteristics, or some other business rule.

[00640] Referring to Fig. 31, in embodiments, survey content 3108 may be combined with sponsored content 3114 in an interactive content integration facility 3104 in response to a mobile communication facility navigation request 3118. The combined survey content 3108 and sponsored content 3114 may create an interactive sponsored content 3102 that may be presented to the user of the mobile communication facility 102. The user may then engage with the survey content 3108 aspect of the interactive sponsored content 3102 and provide a response to the survey content 3108 for survey response analysis 3110, where a plurality of user responses may be analyzed. A survey analytic 3112 may be generated as a result of survey response analysis 3110, and the survey analytic 3112 may be presented to the mobile communication facility 102 for display to the user. In addition, the interactive content integration facility 3104 may also take into account data associated with the mobile communications facility 102, such as mobile subscriber characteristic data 112, user transaction data 3124, usage history data 3120, location data 3122, contextual information associated with a website 3128, and the like.

For example, in embodiments, a male teenager may be talking on the phone or text messaging as part of their mobile communication facility 102 activity, and an interactive sponsored content 3102 containing survey content 3108 may appear on his mobile communication facility 102 display reading, "Who will win the World Series this year?", where there may be two dialog buttons displayed with "Red Sox" under one, and "Rockies" under the other. In addition to the survey content 3108 there may be sponsored content 3114, such as an advertisement for sports clothing associated with the two teams in association with the World Series. In embodiments, the sports related survey content 3108 and associated sports clothing sponsored content 3114 may have been selected to be delivered to the mobile communication facility based on data associated with the mobile communication facility 102, for instance, from usage history data 3120 associated with league championships content. In this instance, the user, showing acuity for the sport, may click on the Red Sox button. This response may then be sent back to be included in the survey response analysis 3110 that may include a plurality of user responses. In embodiments, the survey response analysis 3110 may result in a survey analytic 3112 that may be presented to the mobile communication facility 102 for display to the user. In this instance the survey analytic 3112 may provide a survey response indicating that 72% of the

users surveyed, for instance, believe that the Red Sox will win the World Series this year. In embodiments, the user may be more influenced by the sports clothing sponsored content 3114 as presented in association with the sports survey 3108 because of the selection of a sports theme for the interactive sponsored content 3102 based on recent user usage history data 3120 associated with the national baseball playoffs. In embodiments, the use of mobile communication facility 102 data (e.g. mobile subscriber characteristics) in the selection of interactive sponsored content 3102 to be delivered to the mobile communication facility may provide an increased effectiveness of sponsored content 3114 on the user. In embodiments, both or either of the sponsored content 3114 and the survey content 3108 may be selected in part on data relating to the mobile communication facility 102, such as mobile subscriber characteristics, location, user history, transaction history, etc.

[00642] In embodiments, survey content 3108 may take a plurality of different forms, such as a question with choices to choose from, a matching of items, a short answer, a choice of short answers, a choice of images, a reaction time test, fill in the blanks, true-false questions, and the like. In embodiments, the survey analytic may take a plurality of different forms, such as a percentage of results, an image, a word, and the like, and even a second survey content 3108.

[00643] In embodiments, relevancy matching between data associated with the user's mobile communication facility 102 and the selection of interactive sponsored content 3102, whether it is the sponsored content, survey content or both, may be an important aspect in the effective delivery of interactive sponsored content 3102, allowing the interactive sponsored content 3102 to be better targeted to the intended audience. One way to better ensure relevancy to the user is to utilize mobile subscriber characteristic data 112 associated with the user's mobile communication facility 102, including user profile information, demographic information, billing information, and the like. By using such information it may be possible to relevancy match interactive sponsored content 3102 to personal attributes of the user, such as their age, address, gender, and the like. For instance, advertising for clothing may be matched to the age, gender, and whether they live in an urban or rural setting. Advertisements for middle aged males may target sports, cars, home improvement, and the like. Advertisements for young girls may target clothing, and the like. Advertisements for seniors may target health products, travel, and the like. In embodiments, information derived from mobile subscriber characteristic data 112 may prove effective for matching not only the advertisement delivered, but also the

survey content 3108 delivered. For example, a survey content 3108 that targets a home improvement need to a young girl may not generate any response to the survey, and no effect from the advertisement, and thus it may prove important to relate the subject matter of the interactive sponsored content 3102 with interests of the user. In embodiments, profile data such as age, gender, and address, may be sufficient for an initial relevancy matching of interactive sponsored content 3108 to users of mobile communication facilities 102.

In embodiments, relevancy may be derived from user transaction data 3124 [00644]associated with the mobile communication facility 102, such as an online product purchase, the filling of an online shopping cart, an ad conversion, and the like. For instance, the user of the mobile communication facility 102 may have just purchased some women's seasonal clothing. Now, the user may not be interested in purchasing more seasonal clothing, and so the relevancy for seasonal clothing may be significantly reduced as a result of the purchase, but since the user is a woman, and hasn't yet purchased any seasonal shoes, the relevancy for shoes may be elevated as a result of the purchase. In another example, a user may be purchasing new floor mats for a late model car, which may indicate that the user has just purchased a late model car. As a result, this may lower the relevancy for car ads, but may elevate the relevance of car care products. In addition, user transactions may be indicative of the user's interests, and provide a better relevancy matching of the interactive sponsored content 3102 to the user. For example, a user that has been buying text books online may be a student, and matching this assertion to a survey on college life, coupled to an ad for concert tickets, may prove effective at matching interactive sponsored content 3102 to the user's interests. In embodiments, user transaction data 3124 associated with the mobile communication facility 102 may be effectively used in determining the relevancy of interactive sponsored content 3102 for user interaction.

[00645] In embodiments, relevancy may be derived from usage history data 3120 associated with the mobile communication facility 102, such as a browse history, an ad conversion history, from wireless carrier data, and the like. For instance, a user may be browsing for plasma televisions, and as a result, the relevancy for ads associated with plasma televisions, as well as other similar products such as LCD televisions, may be elevated. This elevation of relevance may become diminished over time if the browsing discontinues, which may indicate that the user subsequently made the purchase. In another example, a user may be browsing through the websites of college campuses, and as a result may be targeted with graduation

surveys coupled with ads for colleges and college related consumer products, such as laptop computers and the like. In embodiments, usage history data 3120 may also track ad conversion history, as well as the types of ads that have been converted. For instance, the user may be converting ads for mortgage rates, and as a result, the user may be targeted with ads and surveys related to mortgage rates. Wireless carrier data may also be tracked and provide information that leads to increased relevancy matching. For instance, the user may make a large number of calls from the financial district in New York City, and result in an increased relevancy for ads relating to finances, and surveys associated with how the market is going to act in the next week, or the like. In embodiments, usage history data 3120 may be used to improve relevancy in the selection of interactive sponsored content 3102 being presented to users of mobile communication facilities 102.

[00646] In embodiments, relevancy may be derived from location data 3122 associated with the mobile communication facility 102, such as a location history, a previous location, a current location, a location determined according to location coordinates of a particular mobile communication facility, a location determined by a user entered location, a location as a plurality of geographic regions, location determined according to a distance from a specified location, and the like. For instance, if a user of a mobile communications facility 102 is at a location in proximity to a shopping area for clothing, the relevancy for ads and survey questions 3108 related to clothing may elevate. If a user is in proximity of a series of car dealerships, the relevancy for car ads may elevate, and perhaps the relevancy for car related surveys, such as 'what car would you rather drive', may also be elevated, with photos of various cars presented as part of the interactive sponsored content 3102. In embodiments, location data 3122 may be used to improve relevancy in the selection of interactive sponsored content 3102 being presented to users of mobile communication facilities 102.

[00647] In embodiments, relevancy may be derived from contextual information 3128 associated with a website, such as in a link structure, in an inbound link, in an outbound link, in a link, as text, as a keyword, as metadata, and the like. For example, a user may be browsing a gardening website with their mobile communication facility 102, where they are seen to be selecting content relating to outdoor plantings and garden designs. In embodiments, the user's selection of this content may lead to an increased relevancy for outdoor garden supplies, landscape architects, outdoor home improvement, and the like, where interactive sponsored

content 3102 relating to these content subjects may include surveys relating to the content matter, such as gardening questions, home improvement loan rates questions, and the like. In another example, a website may have inbound or outbound links that may suggest a relevancy for a subject, such as links to woodworking sites, indicating that the user may be interested in the tools and supplies associated with the making of furniture. This may also be an indication of the gender and age of the user, as woodworking may generally be an interest for an older, middle-middle class male. This in turn may generate age and gender appropriate interactive sponsored content 3102, delivered with ads focused on the power tools associated with woodworking as a home activity, and surveys such as 'which wooden chair is of higher quality', or the like. In embodiments, contextual information 3128 associated with a website may be used to improve relevancy in the selection of interactive sponsored content 3102 being presented to users of mobile communication facilities 102.

In embodiments, the user of a mobile communication facility 102 may be [00648] delivered interactive sponsored content 3108, such as advertisements in conjunction with survey content 3108, in order to improve the time the sponsored content 3114 may spend in front of the user. That is, if a user is delivered a survey content 3108 that they want to interact with, and an advertisement is visible on the display of the mobile communication facility 102 along with the survey content 3108, there may be resulting increased ad effectiveness on the user. Further, ad effectiveness may be increased by increasing the relevancy of the interactive sponsored content 3102 with the user. That is, if the advertisement presented is relevant to the user, then the user may be more likely to be affected by it, and if the survey content 3108 is more relevant to the user, then the user is more likely to interact with the survey content 3108, and thus increase the time the ad is in front of them, which then may also increase the effectiveness of the advertisement. In embodiments, improved relevancy in the selection of interactive sponsored content 3102 being presented to users of mobile communication facilities 102 may increase the effectiveness of sponsored content, which may additionally increase the number of sponsors associated with the sponsorship facility 162.

[00649] Referring to Fig. 32, in embodiments, content, such as an advertisement or other sponsored content, may be delivered to a mobile communication facility 102 that is associated with offline advertisements 3202, such as found in newspapers, magazines, television, radio, mailings, billboards, and the like. Such offline advertisements 3202 may contain a search

keyword 3208, which when entered into the mobile communication facility's search facility 3210 may deliver the content. In embodiments, the content may be at least in part related to the search keyword 3208 and to a relevancy to a criterion 3204 associated with the mobile communication facility 102, where the mobile communication facility 102 may be a phone, a mobile phone, a cellular phone, a GSM phone, and the like. In embodiments, the criterion 3204 associated with the mobile communication facility 102 may be mobile subscriber characteristic data 112, usage history data 3218, user transaction data 3222, location data 3220, contextual information relating to website content 3224, and the like.

For example, and in embodiments, a newspaper advertisement may be an ad [00650] for Ford's new line of cars, and in the newspaper advertisement is some alphanumeric search keyword, such as a word, as in 'Ford'; a phrase, such as 'Buy a new Ford', a non-word alphanumeric, such as FD07\$!; and the like. The newspaper advertisement may then direct the user to enter the search keyword 3208 into the search facility 3210 of their mobile communication facility 102 in order to receive some related content, such as, in this case, more information on the new line of cars. In addition, the content may be targeted to some aspect of the user through criterion 3204 associated with their mobile communication facility 102. In this case, it may be helpful for the sponsor 128 delivering the content related to the new line of Ford cars to know mobile subscriber information, such as age, gender, and the like; usage information, such as whether the user has been browsing for new cars; location, to determine what dealerships to reference in the returned content; contextual information associated with a website, that is for instance, whether a user has been to websites that have links or references associated with cars, especially Ford vehicles; and the like. With such criterion 3204 identified, the content may then be further targeted or tailored to the user, such as providing information on the new Mustang to single males, information on economy models to college students, information on four-door sedans to users with children, groupings of cars per the user's criteria, and the like. So, a young male who has usage history indicating they have recently graduated college, such as a significant increase in on-line spending through their new PDA, may receive content to their mobile communication facility 102 for the new Mustang, rather than sedans. In embodiments, a search keyword 3208 in an offline advertisement 3202 may provide time convenient delivery of expanded online content to the user's mobile communication facility 102, without the need to remember the search keyword 3208 for later access through a non-mobile communications

facility, such as a home personal computer. In addition, the likelihood that the search keyword 3208 will be used may be increased due to the immediate access nature of the user's mobile communication facility 102, which may provide an increased advertisement effectiveness, and potentially greater resulting sponsorship participation in the sponsorship facility 162.

[00651] The above is but a single example of how search keywords 3208 may be utilized in the delivery of content to the mobile communication facility 102. In embodiments, the search keyword 3208 may be associated with a plurality of search verticals, such as a general search, or related to ringtones, images, games, yellow-pages, weather, white-pages, news headlines, WAP sites, web sites, movie show times, sports scores, stock quotes, flight times, maps, directions, price comparison, Wi-Fi hotspots, package tracking, hotel rates, fantasy sports stats, horoscopes, answers, a dictionary, area codes, zip codes, entertainment, blogs, and the like. For instance, a search keyword 3208 may be embedded in a newspaper horoscope, and the related content may be horoscope information delivered with a relevancy matched to the user's date of birth; a search keyword 3208 may be embedded in an advertisement in the yellow-pages for a hair salon, and the related content may be hair salon services base on age; a search keyword may be delivered in a board game, and the related content may be information on other games with a relevancy matched to the user's age; a search keyword 3208 may be embedded in a movie show times section of a paper, and the related content may be movies playing with a relevancy matched to the user's current location and user history; and the like. In embodiments, the use of search keywords 3208 used to provide criterion 3204 matched content to a mobile communication facility 102 may enable the extension of offline advertisements to users of mobile communication facilities 102 in a plurality of offline mediums.

[00652] In embodiments, the content delivered to the mobile communication facility 102 may be relevant, based at least in part, on an expected value, where the expected value may be data, a bid, a click-through volume, and the like. For instance, the data may be a price or a price range for advertised items, a bid on an auction that is promoted in association with the offline advertisement 3202, or the like.

[00653] In embodiments, relevant criterion 3204 matching may be an important aspect in the effective delivery of content, allowing the content to be better targeted to the intended audience. One way to better ensure relevancy to the user is to utilize mobile subscriber characteristic data 112 from the user's mobile communication facility 102, including user profile

information, demographic information, billing information, and the like, and where mobile subscriber characteristics are selected from a group consisting of age, sex, race, religion, area code, zip code, home address, work address, billing address, credit information, family information, income information, birth date, birthplace, employer, job title, and length of employment. By using such information it may be possible to relevancy match content to personal attributes of the user, such as their age, address, gender, and the like. For instance, advertising for clothing may be matched to the age, gender, and whether they live in an urban or rural setting. Advertisements for middle aged males may target sports, cars, home improvement, and the like. Advertisements for young girls may target clothing, and the like. Advertisements for seniors may target health products, travel, and the like. In embodiments, information derived from mobile subscriber characteristic information may prove effective for matching not only the content delivered, but may also provide the ability to tailor that content to the user. For example, a clothing advertisement in a magazine for young girls may provide a search keyword that accesses more information on girl's clothing if the user's gender is female, and based on the age and location of the user, may provide different content, such as a young urban girl receiving clothing information that may be biased to being very fashion conscious, a young rural girl receiving clothing information that is a mix of casual and fashion, an older woman receiving clothing information that is associated with a parent, and the like. In embodiments, profile data such as age, gender, and address, may be sufficient for an initial criteria matching of content to users of mobile communication facilities 102, as well as for the tailoring of that content.

[00654] In embodiments, relevant criterion 3204 matching may be derived from a user transaction 3222 associated with the mobile communication facility 102, such as an online product purchase, the filling of an online shopping cart, an ad conversion, and the like. For instance, the user of the mobile communication facility 102 may have just purchased some women's seasonal clothing. Now, the user may not be interested in purchasing more seasonal clothing, and so the relevancy for seasonal clothing may be significantly reduced as a result of the purchase, but since the user is a woman, and hasn't yet purchased any seasonal shoes, the relevancy for shoes may be elevated as a result of the purchase. In another example, a user may be purchasing new floor mats for a late model car, which may indicate that the user has just purchased a late model car. As a result, this may lower the relevancy for car ads, but may elevate the relevance of car care products. In addition, user transactions may be indicative of the

user's interests, and provide a better relevancy matching of content to the user. For instance, a user may purchase electronic games online, indicating that the user is a 'gamer', which may match a user profile that may better allow relevant selection of content. In embodiments, user transactions associated with the mobile communication facility 102 may be effectively used in determining the relevant criterion 3204 matching.

[00655] In embodiments, relevant criterion 3204 matching may be derived from usage history data 3218 associated with the mobile communication facility 102, such as a browse history, search history, an ad conversion history, from wireless carrier data, and the like. For instance, a user may be browsing for plasma televisions, and as a result, the relevancy for ads associated with plasma televisions, as well as other similar products such as LCD televisions, may be elevated. This elevation of relevance may become diminished over time if the browsing discontinues, which may indicate that the user subsequently made the purchase. In another example, a user may be browsing through college campus websites, and as a result, be targeted with college related consumer products, such as laptop computers and the like. Wireless carrier data may also be tracked and provide information that leads to increased relevancy matching. For instance, the user may make a large number of calls from the financial district in New York City, result in an increased relevancy for ads relating to finances, and provide user profile information that may lead to better matching of the user to the content. In embodiments, usage history may be used to improve relevant criteria 3204 matching in the selection of content presented to users of mobile communication facilities 102.

[00656] In embodiments, relevant criterion 3204 matching may include an association with location data 3220. There may be a plurality of techniques in determining the location of a mobile communication facility 102, such as by GPS, by triangulation, by triangulation utilizing Wi-Fi, and the like. The location of a mobile communications facility 102 may be determined when a user enters a particular location; may involve a plurality of geographic regions, such as states, cities, and the like; may be specified according to a distance from a specified location; may be associated with some aspect of the mobile communications facility 102 mobile content; and the like. For instance, if a user of a mobile communications facility 102 is at a location in proximity to a shopping area for clothing, the relevancy for ads related to clothing may elevate. If a user is in proximity of a series of car dealerships, the relevancy for car ads may elevate. In

embodiments, location may be used to improve relevant criterion 3204 matching in the selection of content being presented to users of mobile communication facilities 102.

[00657] In embodiments, relevant criterion 3204 matching may be derived from contextual information associated with a website 3224, such as in a link structure, in an inbound link, in an outbound link, in a link, as text, as a keyword, as metadata, and the like. For example, a user may be browsing a gardening website with their mobile communication facility 102, where they are seen to be selecting content relating to outdoor plantings and garden designs. In embodiments, the user's selection of this content may lead to an increased relevancy for outdoor garden supplies, landscape architects, outdoor home improvement, and the like. In another example, a website may have inbound or outbound links that may suggest a relevancy for a subject, such as links to woodworking sites, indicating that the user may be interested in the tools and supplies associated with the making of furniture. This may also be an indication of the gender and age of the user, which may lead to a profile that may improve relevant criterion 3204 matching to the user. In embodiments, contextual information associated with a website may be used to improve relevant criterion 3204 matching in the selection of content being presented to users of mobile communication facilities.

[00658] Referring to Fig. 33, in embodiments a user interface may be provided that simultaneously and dynamically presents a sponsored content in an idle screen 3300 display 172 concurrently with activating 3304 a mobile communication facility 112 based at least in part on a mobile subscriber characteristic 3308 that is associated with the mobile communication facility. A mobile subscriber characteristic may be age, sex, race, religion, area code, zip code, home address, work address, billing address, credit information, family information, income information, birth date, birthplace, employer, job title, length of employment, or some other mobile subscriber characteristic

[00659] In embodiments, a mobile content may be an advertisement, a sponsored content, a sponsored call, a search box, mobile content is branded using a wireless carrier brand, or some other type of content.

[00660] In embodiments, the sponsored content selection 3308 may be presented to the idle screen 3300 based at least in part on a relevancy of a mobile subscriber characteristic 112 to contextual information associated with the content. The contextual information may be a link structure, an inbound link, an outbound link, a text, a keyword, metadata, or some other type of

contextual information. The contextual information may be provided by a server associated with a wireless carrier. The server may be a WAP server, a mobile application gateway, a WAP gateway, a proxy, a webserver, or some other type of server.

[00661] In embodiments, the sponsored content selection 3308 may be presented to the idle screen 3300 based at least in part on a relevancy of the content to behavioral information associated with a user of the mobile communication facility 102.

[00662] In embodiments a user interface may be provided that simultaneously and dynamically presents a sponsored content in an idle screen 3300 display 172 concurrently with activating a mobile communication facility based at least in part on a user transaction history.

[00663] In embodiments a user interface may be provided that simultaneously and dynamically presents a sponsored content in an idle screen 3300 display 172 concurrently with activating a mobile communication facility based at least in part on a user usage history.

[00664] In embodiments a user interface may be provided that simultaneously and dynamically presents a sponsored content in an idle screen 3300 display 172 concurrently with activating a mobile communication facility based at least in part on a location of a mobile communication facility.

[00665] In embodiments a user interface may be provided that simultaneously and dynamically presents a sponsored content in an idle screen 3300 display 172 concurrently with activating a mobile communication facility based at least in part on a mobile communication facility device characteristic.

[00666] In embodiments, a mobile communication facility 102 may be activated by a user taking an action. The action may be different for different phone embodiments of a mobile communication facility 102. For example, a flip or folding phone may be activated by unfolding or flipping open the phone. In another example, a straight phone may be activated by depressing a key on the phone keypad for a predetermined length of time. A sliding top or twist top phone may be activated by sliding or twisting open (respectively) the top to reveal a user interface of the phone. Other phone methods of activating a phone based on the phone embodiment are also possible. A phone may be activated by turning on the phone. Turing on the phone may include attaching a battery to the phone, plugging the phone into a power source such as a desktop charger or an automobile charger, switching the phone power switch, depressing a key on a phone user interface for a minimum time, and the like. A phone may be activated by unlocking

the phone which may include a user entering an activation code into the phone through the phone user interface, or by speaking the activation code into the phone microphone. Concurrent with each type of mobile communication facility activation 3304 a sponsored content selection 3308 may be placed in the idle screen 3300 display 172 of the mobile communication facility 102.

[00667] Activating a phone may enable a user to have access to one or more features and functions of the phone such as making a call, answering a call, navigating menus of the user interface, using a mobile search service, and the like. Some features and functions may require a user to first activate the feature or function through the user interface, such as reviewing call history. Other features may be activated immediately when the phone is activated. As an example, a user can often immediately enter a telephone number to initiate a call without first activating a call feature of the phone.

[00668] In embodiments, a sponsored content selection 3308 may be placed in the idle screen 3300 display 172 of the mobile communication facility 102 at the time a phone is activated such that a user can immediately see the content 3302. As an example, immediately after a user flips open a flip phone, a content 3302 may be presented to the idle screen 3300. A mobile content may be an advertisement, banner advertisement, interactive content, a sponsored content, a sponsored call, a wireless carrier's walled garden content, a search box, mobile content is branded using a wireless carrier brand, or some other type of content. In embodiments, a user may select, click, convert or otherwise interact with the content 3302 that is presented on the idle screen 3300. The content may be temporary, placed on the idle screen 3300 for a predetermined time period, or remain on the idle screen 3300 until the user selects to change the content 3302. The content 3302 may be related to a search vertical which may be a general search, or may be related to a vertical search of one or more of the following: ring tones, images, games, a yellow pages, weather, a white pages, news headlines, WAP sites, web sites, movie show times, sports scores, stock quotes, flight times, maps, directions, a price comparison, WIFI hotspots, package tracking, hotel rates, fantasy sports stats, horoscopes, answers, a dictionary, area codes, zip codes, entertainment, blogs, or some other content 3302 associated with a search vertical.

[00669] Referring to Fig. 34, in embodiments, a navigation request 3400 may be received from a mobile communication facility 102 and associated with a relevant sponsored mobile coupon 2218 based at least in part on a relevancy with a mobile subscriber characteristic 112 that is associated with the mobile communication facility 102. Mobile coupons may be

stored in a mobile coupon database 3414 or some other data facility and associated with a navigation request 3400 and a mobile subscriber characteristic based at least in part on an algorithm within a content relevancy facility 3420, such as an analytic engine, statistical software, or some other process capable of performing analysis and selection of a datum within a database. Alternatively, the relevant mobile coupon 2218 may be selected based at least in part on an editorial review.

[00670] In embodiments, a mobile subscriber characteristic 112 may be age, sex, race, religion, area code, zip code, home address, work address, billing address, credit information, family information, income information, birth date, birthplace, employer, job title, length of employment, or some other mobile subscriber characteristic 112.

[00671] In embodiments, a navigation request 3400 may be a search query, domain name entry, webbrowser action, menu selection, folder selection, an implicit request, a transaction, an advertisement conversion, or some other type of navigation request.

[00672] In embodiments, a navigation request 3400 may be received from a mobile communication facility 102 and associated with a relevant sponsored mobile coupon 2218 based at least in part on a relevancy with wireless carrier data that is associated with the mobile communication facility 102 or a plurality of mobile communication facilities. Wireless carrier data may include, but is not limited to, content relationships relating to the progression of user sessions, content discovery of new websites, access statistics, usage statistics, or some other wireless carrier data. Mobile coupons may be stored in a mobile coupon database 3414 or some other data facility and associated with a navigation request 3400 and wireless carrier data based at least in part on an algorithm within a content relevancy facility 3420, such as an analytic engine, statistical software, or some other process capable of performing analysis and selection of a datum within a database. Alternatively, the relevant mobile coupon 3418 may be selected based at least in part on an editorial review.

[00673] In embodiments, a navigation request 3400 may be received from a mobile communication facility 102 and associated with a relevant sponsored mobile coupon 2218 based at least in part on a relevancy with a usage history that is associated with the mobile communication facility 102 or a plurality of mobile communication facilities. A usage history may include, but is not limited to, a browse history, an advertisement conversion history, or some other usage history data. Mobile coupons may be stored in a mobile coupon database 3414

or some other data facility and associated with a navigation request 3400 and a usage history based at least in part on an algorithm within a content relevancy facility 3420, such as an analytic engine, statistical software, or some other process capable of performing analysis and selection of a datum within a database. Alternatively, the relevant mobile coupon 2218 may be selected based at least in part on an editorial review.

[00674] In embodiments, a navigation request 3400 may be received from a mobile communication facility 102 and associated with a relevant sponsored mobile coupon 2218 based at least in part on a relevancy with a user transaction that is associated with the mobile communication facility 102 or a plurality of mobile communication facilities. A user transaction may include an online product purchase, an advertisement conversion, or some other user transaction data. Mobile coupons may be stored in a mobile coupon database 3414 or some other data facility and associated with a navigation request 3400 and a user transaction based at least in part on an algorithm within a content relevancy facility 3420, such as an analytic engine, statistical software, or some other process capable of performing analysis and selection of a datum within a database. Alternatively, the relevant mobile coupon 2218 may be selected based at least in part on an editorial review.

[00675] In embodiments, a navigation request 3400 may be received from a mobile communication facility 102 and associated with a relevant sponsored mobile coupon 2218 based at least in part on a relevancy with location that is associated with the mobile communication facility 102 or a plurality of mobile communication facilities. A location may be a previous location, a current location, determined according to the coordinates or a mobile communication facility according to the methods and systems described herein, or according to some other location data. Mobile coupons may be stored in a mobile coupon database 3414 or some other data facility and associated with a navigation request 3400 based at least in part on an algorithm within a content relevancy facility 3420, such as an analytic engine, statistical software, or some other process capable of performing analysis and selection of a datum within a database. Alternatively, the relevant mobile coupon 2218 may be selected based at least in part on an editorial review.

[00676] In an example, a user of a mobile communication facility 102 may drive to a location near a shopping mall. The wireless provider may know the location of the user based at least in part on the location of the mobile communication facility 102 that is discovered

according to the locating methods and systems described herein. Merchants within the shopping mall may pay for sponsored content to reside within a data facility associated with the wireless carrier. This sponsored content may include mobile coupons that are stored in a mobile coupon database 3414. The coupons in the mobile coupon database 3414 may be associated with business rules that are to be used to determine what a relevant navigation request 3400, what a relevant location is, what a relevant mobile subscriber characteristic 112 is, what a relevant user transaction is, what a relevant usage history is, what a relevant wireless carrier datum is, or some other relevancy. Continuing this example, one of the mobile coupons stored in the mobile coupon database 3414 is a 25% off a current New York Times Bestseller at a store located within the shopping mall. The business rule associated with the mobile coupon is that a mobile communication facility to which it is presented must have a current location at the time of presentation within a 2 mile radius of the book store. Upon entry of the mobile communication facility 102 within the 2 mile radius of the bookstore, the content relevancy facility 3420 may indicate that there is a coupon-mobile communication facility match/relevancy and select the bookstore coupon as a relevant mobile coupon 3418 and present the coupon to the display 172 of the mobile communication facility 102. In an alternate embodiment, the business rule associated with the coupon may indicate that the mobile communication facility 102 to which the coupon is presented must be within a 2 mile radius of the bookstore at the time the coupon is placed, and that the mobile communication facility 102 must also have generated a navigation request 3400 that is relevant to the mobile coupon (e.g., browse an online bookstore, entering a search query for a title of a current best selling book, or some other navigation request 3400) within a certain time frame prior to the presentation of the relevant mobile coupon 3418.

[00677] Referring to Fig. 35, in embodiments, a navigation request 3500 may be received from a mobile communication facility 102 and associated with a relevant sponsored mobile coupon 2218 based at least in part on a relevancy with a mobile subscriber characteristic 112 that is associated with the mobile communication facility 102. Mobile coupons may be stored in a mobile coupon database 3514 or some other data facility and associated with a navigation request 3500 and a mobile subscriber characteristic based at least in part on an algorithm within a content relevancy facility 3520, such as an analytic engine, statistical software, or some other process capable of performing analysis and selection of a datum within a

database. Alternatively, the relevant mobile coupon 2218 may be selected based at least in part on an editorial review.

[00678] In embodiments, a mobile subscriber characteristic 112 may be age, sex, race, religion, area code, zip code, home address, work address, billing address, credit information, family information, income information, birth date, birthplace, employer, job title, length of employment, or some other mobile subscriber characteristic 112.

[00679] In embodiments, a navigation request 3500 may be a search query, domain name entry, webbrowser action, menu selection, folder selection, an implicit request, a transaction, an advertisement conversion, or some other type of navigation request.

[00680] In embodiments, a navigation request 3500 may be received from a mobile communication facility 102 and associated with a relevant sponsored mobile coupon 2218 based at least in part on a relevancy with wireless carrier data that is associated with the mobile communication facility 102 or a plurality of mobile communication facilities. Wireless carrier data may include, but is not limited to, content relationships relating to the progression of user sessions, content discovery of new websites, access statistics, usage statistics, or some other wireless carrier data. Mobile coupons may be stored in a mobile coupon database 3514 or some other data facility and associated with a navigation request 3500 and wireless carrier data based at least in part on an algorithm within a content relevancy facility 3520, such as an analytic engine, statistical software, or some other process capable of performing analysis and selection of a datum within a database. Alternatively, the relevant mobile coupon 2218 may be selected based at least in part on an editorial review.

[00681] In embodiments, a navigation request 3500 may be received from a mobile communication facility 102 and associated with a relevant sponsored mobile coupon 2218 based at least in part on a relevancy with a usage history that is associated with the mobile communication facility 102 or a plurality of mobile communication facilities. A usage history may include, but is not limited to, a browse history, an advertisement conversion history, or some other usage history data. Mobile coupons may be stored in a mobile coupon database 3514 or some other data facility and associated with a navigation request 3500 and a usage history based at least in part on an algorithm within a content relevancy facility 3520, such as an analytic engine, statistical software, or some other process capable of performing analysis and selection

of a datum within a database. Alternatively, the relevant mobile coupon 2218 may be selected based at least in part on an editorial review.

[00682] In embodiments, a navigation request 3500 may be received from a mobile communication facility 102 and associated with a relevant sponsored mobile coupon 2218 based at least in part on a relevancy with a user transaction that is associated with the mobile communication facility 102 or a plurality of mobile communication facilities. A user transaction may include an online product purchase, an advertisement conversion, or some other user transaction data. Mobile coupons may be stored in a mobile coupon database 3514 or some other data facility and associated with a navigation request 3500 and a user transaction based at least in part on an algorithm within a content relevancy facility 3520, such as an analytic engine, statistical software, or some other process capable of performing analysis and selection of a datum within a database. Alternatively, the relevant mobile coupon 2218 may be selected based at least in part on an editorial review.

[00683] In embodiments, a navigation request 3500 may be received from a mobile communication facility 102 and associated with a relevant sponsored mobile coupon 2218 based at least in part on a relevancy with location that is associated with the mobile communication facility 102 or a plurality of mobile communication facilities. A location may be a previous location, a current location, determined according to the coordinates or a mobile communication facility according to the methods and systems described herein, or according to some other location data. Mobile coupons may be stored in a mobile coupon database 3514 or some other data facility and associated with a navigation request 3500 based at least in part on an algorithm within a content relevancy facility 3520, such as an analytic engine, statistical software, or some other process capable of performing analysis and selection of a datum within a database. Alternatively, the relevant mobile coupon 2218 may be selected based at least in part on an editorial review.

[00684] In an example, a user of a mobile communication facility 102 may drive to a location near a shopping mall. The wireless provider may know the location of the user based at least in part on the location of the mobile communication facility 102 that is discovered according to the locating methods and systems described herein. Merchants within the shopping mall may pay for sponsored content to reside within a data facility associated with the wireless carrier. This sponsored content may include mobile coupons that are stored in a mobile coupon

database 3514. The coupons in the mobile coupon database 3514 may be associated with business rules that are to be used to determine what a relevant navigation request 3500, what a relevant location is, what a relevant mobile subscriber characteristic 112 is, what a relevant user transaction is, what a relevant usage history is, what a relevant wireless carrier datum is, or some other relevancy. Continuing this example, one of the mobile coupons stored in the mobile coupon database 3514 is a 25% off a current New York Times Bestseller at a store located within the shopping mall. The business rule associated with the mobile coupon is that a mobile communication facility to which it is presented must have a current location at the time of presentation within a 2 mile radius of the book store. Upon entry of the mobile communication facility 102 within the 2 mile radius of the bookstore, the content relevancy facility 3520 may indicate that there is a coupon-mobile communication facility match/relevancy and select the bookstore coupon as a relevant mobile coupon 3518 and present the coupon to the display 172 of the mobile communication facility 102. In an alternate embodiment, the business rule associated with the coupon may indicate that the mobile communication facility 102 to which the coupon is presented must be within a 2 mile radius of the bookstore at the time the coupon is placed, and that the mobile communication facility 102 must also have generated a navigation request 3500 that is relevant to the mobile coupon (e.g., browse an online bookstore, entering a search query for a title of a current best selling book, or some other navigation request 3500) within a certain time frame prior to the presentation of the relevant mobile coupon 3518.

[00685] In embodiments, a coupon may be presented to a mobile communication facility in the form of a code that may be presented to an offline location to derive the coupon's benefit. The act of the user presenting the coupon may be entered and stored in a data storage facility. This stored data may be associated with user characteristics, mobile communication facility characteristics, and the like, and these associations may be used to present targeted advertisements, coupons, cross-sell, up-sell, and so forth to users. A sponsor may be charged a fee by a mobile service provider for each instance of its mobile subscribers presenting such a coupon.

[00686] In embodiments, a relevant mobile coupon 3518 may be redeemed 3520 at an offline merchant 3530 using the mobile communication facility 102 to which the coupon was presented. The offline merchant 3530 may be associated with a conversion data repository 3522 in which coupon redemption 3520 and other consumer conversion activities may be recorded.

Data from the conversion data repository 3522 may be analyzed 3528 in order to determine an action 3524 to be taken by the offline merchant 3530, the wireless carrier, the user of the mobile communication facility 102, or some other party or entity.

[00687] In an example, a user of a mobile communication facility 102 may receive a relevant mobile coupon 3518 from a bookstore and visit the offline merchant 3530 in person. The user may present the relevant mobile coupon 3520 to the cashier at the offline merchant 3530 for redemption 3520 to receive a discount on a purchase or some other benefit related to the relevant mobile coupon 3520. Upon redemption, the offline merchant 3530 may record the coupon redemption 3520 as a conversion and store the conversion data in a conversation data repository 3522. The conversion data repository may be further associated with an analysis facility 3528. The analysis facility may be related to the offline merchant, a wireless carrier, a mobile subscriber or some other third party or entity. The analysis facility 3528 may determine the type of conversion made, the type of product related to the redemption 3520, the time of conversion, the type of coupon redeemed, the store location at which the redemption took place, the time from coupon presentation to coupon redemption, or some other analysis. Based upon the analytic results, an action 3524 may be performed. For example, an action may be to order additional items like the item associated with the coupon redemption 3520 so that inventory is maintained by the merchant. An action 3524 may be to inform a marketing department of which coupons are being redeemed. An action 3524 may be to send a customer who has redeemed a coupon extended warranty information associated with the product purchased during redemption, or some other action. The action 3524 may be carried out in real-time relative to the coupon redemption, or at some greater time following the redemption.

[00688] Referring to Fig. 36, in embodiments a navigation request (e.g. a user request that directs a browser application) or plurality of navigation requests may be received from a mobile communication facility 102. Data may be recorded and stored that relates to the navigation request. For example, a user may engage in browser navigation activity on his mobile communication facility 102 and the browse activity (3602, 3608, and 3612) may result in the connection to a variety of webpages, web content or interaction with other network locations/content. Each such interaction may be monitored for contextual information relating to the location and/or content. For example, the contextual information (3604, 3610, 3614) may relate to the websites visited, content downloaded, content interacted with or other such

interactions relating to the user's browse activities (3602, 3608, 3612). In embodiments, the contextual information may relate to wireless carrier data. In embodiments, the plurality of browse activities (3602, 3608, 3612) and the related contextual information may be used to create a user profile 3632. The user profile 3632 may, in turn, be stored in a mobile subscriber characteristics database 112 along with other of the user's mobile subscriber characteristics 112, such as demographics and other characteristics as described herein.

[00689] In embodiments, content (e.g. content, mobile content, sponsored content, etc.) may be presented to a user's mobile communication facility 102 based at least in part on the user's profile 3632. For example, sponsor content may be delivered to a mobile communication facility based on mobile subscriber characteristics and/or the user's profile. The contextual information gathered based on the user's interactions with content and/or locations may have been used to generate a profile that generally describes the user. It may be this generalization or profile that allows for more specific targeting of which users to send the sponsored content to. The generalization may be categorized as well. For example, the wireless provider may have several categories of user profile (e.g. sports fan, homemaker, lawyer, male, within a certain age group, etc.). Once the contextual information is gathered it may be used to select a predefined profile maintained by the wireless provider. So, for example, if the user is frequently visting sites that have many links to sports content and or sites, the user may be characterized into a sports profile.

[00690] In embodiments, contextual information may include, but is not limited to, website content, web content itself, a link structure, an inbound link, an outbound link, text, a keyword, metadata, or some other type of contextual information.

[00691] In embodiments, wireless carrier data may include, but is not limited to, content relationships relating to the progression of user sessions, content discovery of new websites, access statistics, usage statistics, or some other wireless carrier data.

[00692] In embodiments, a navigation request may be a search query, domain name entry, webbrowser action, menu selection, folder selection, an implicit request, a transaction, an advertisement conversion, or some other type of navigation request.

[00693] In embodiments, a user profile 3632 may be further based on user transactions. A user transaction may include an online product purchase, an advertisement conversion, or some other user transaction.

[00694] In embodiments, a user profile 3632 may be further based on usage history. A usage history may include an advertisement conversion history, or some other usage history.

[00695] In embodiments, a user profile 3632 may be further based on a search vertical that is accessed by the user. For example, if a user frequents a particular search vertical, that vertical may influence the profile or its categorization. A user browser profile, or plurality of a user's profiles 3632, may be indexed according to a relevancy to a search vertical. A search vertical may relate to ring tones, images, games, a yellow pages, weather, a white pages, news headlines, WAP sites, web sites, movie show times, sports scores, stock quotes, flight times, maps, directions, a price comparison, WIFI hotspots, package tracking, hotel rates, fantasy sports stats, horoscopes, answers, a dictionary, area codes, zip codes, entertainment, blogs, or some other type of search vertical.

[00696] In embodiments, a user's profile 3632 may be based on a location or plurality of locations at which the user was present during a browse session of plurality of browse sessions. The location may be a a previous location; a current location; coordinates of a mobile communication facility; location determined by GPS, triangulation, Wi-Fi triangulation, and the like; location determined by a user entering a region, a state, a city, or the like; location determined according to a distance from a specified location, a location associated with a mobile content; and the like. In embodiments, relevancy 3610 may be a score. In embodiments, the user profile 3608 may be based at least in part on a plurality of subscriber characteristics, a combination of a plurality of mobile subscriber characteristics and a location, a combination of a plurality of mobile subscriber characteristics and a plurality of user transactions, a combination of a plurality of mobile subscriber characteristics and a usage history, and the like.

[00697] With reference to Fig. 36, in an example, a user may use his mobile communication facility 102 to access web content. In this simplified example, there are three browse activities: Browse Behavior A 3602, Browse Behavior B 3608, and Browse Behavior C 3612. Each of the Browse Behaviors may be associated with contextual information relating to the website visiting during each Browse Behavior (e.g., a link structure, an inbound link, an outbound link, a text, a keyword, meta data, or some other type of contextual information). In this example, Browse Behavior A 3602 is a visit to an online bookstore. Browse Behavior B 3608 is a clickthrough from the online bookstore's homepage to a page relating to a specific book. Browse Behavior C 3612 relates to the user's browse activity of completing an online

purchase of the book viewed during Browse Behavior B 3608. Based upon these Browse Behaviors (3602, 3608, 3612) it may be possible to create a user profile 3632 based on the contextual information derived from the interactions. This user profile may be a summary indicator that this particular user is an "online book purchaser." Alternatively, the user profile 3632 derived from the browse session may be used to summarize the length of time that this user views each individual webpage, how the user interacted with each webpage, or some other information relating to webbrowsing. Each of these pieces of contextual information may be used to generate or influence a user's profile.

[00698] Referring to Fig. 37, in embodiments a navigation request or plurality of navigation requests may be received from a mobile communication facility 102. Data may be recorded and stored that relates to the browse activity (3702, 3708, 3712) of a mobile communication facility 102 user based at least in part on contextual information (3704, 3710, 3714) relating to the websites visited, wireless carrier data, or some other information relating to the user's browse activities (3702, 3708, 3712). In embodiments, the plurality of browse activities (3702, 3708, 3712) may be used to create a user profile 3732. The user profile 3732 based at least in part on the user's browse activities (3702, 3708, 3712) may, in turn, be stored in a mobile subscriber characteristics database 112 along with other of the user's mobile subscriber characteristics 112, such as demographics and other characteristics as described herein.

[00699] In embodiments, content may be presented to a user's mobile communication facility 102 based at least in part on the user's browse behavior profile 3732.

[00700] In embodiments, contextual information may include, but is not limited to, a link structure, an inbound link, an outbound link, a text, a keyword, meta data, or some other type of contextual information.

[00701] In embodiments, wireless carrier data may include, but is not limited to, content relationships relating to the progression of user sessions, content discovery of new websites, access statistics, usage statistics, or some other wireless carrier data.

[00702] In embodiments, a navigation request may be a search query, domain name entry, webbrowser action, menu selection, folder selection, an implicit request, a transaction, an advertisement conversion, or some other type of navigation request.

[00703] In embodiments, a user browser profile may be further associated with a user transaction. A user transaction may include an online product purchase, an advertisement conversion, or some other user transaction.

[00704] In embodiments, a user browser profile may be further associated with a usage history. A usage history may include an advertisement conversion history, or some other usage history.

[00705] In embodiments, a user browser profile may be further associated with a search vertical. A user browser profile, or plurality of a user's browser profiles, may be indexed according to a relevancy to a search vertical. A search vertical may relate to ring tones, images, games, a yellow pages, weather, a white pages, news headlines, WAP sites, web sites, movie show times, sports scores, stock quotes, flight times, maps, directions, a price comparison, WIFI hotspots, package tracking, hotel rates, fantasy sports stats, horoscopes, answers, a dictionary, area codes, zip codes, entertainment, blogs, or some other type of search vertical.

[00706] In embodiments, a user's browse profile may be further associated with a location or plurality of locations at which the user was present during a browse session of plurality of browse sessions. The location may be a previous location; a current location; coordinates of a mobile communication facility; location determined by GPS, triangulation, Wi-Fi triangulation, and the like; location determined by a user entering a region, a state, a city, or the like; location determined according to a distance from a specified location, a location associated with a mobile content; and the like. In embodiments, relevancy 3710 may be a score. In embodiments, the user profile 3708 may be based at least in part on a plurality of subscriber characteristics, a combination of a plurality of mobile subscriber characteristics and a location, a combination of a plurality of mobile subscriber characteristics and a usage history, and the like.

[00707] In an example, a user may use his mobile communication facility 102 access web content. In this simplified example, there are three browse activities: Browse Behavior A 3702, Browse Behavior B 3708, and Browse Behavior C 3712. Each of the Browse Behaviors may be associated with contextual information relating to the website visiting during each Browse Behavior (e.g., a link structure, an inbound link, an outbound link, a text, a keyword, meta data, or some other type of contextual information). In this example, Browse Behavior A

3702 is a visit to an online bookstore. Browse Behavior B 3708 is a clickthrough from the online bookstore's homepage to a page relating to a specific book. Browse Behavior C 3712 relates to the user's browse activity of completing an online purchase of the book viewed during Browse Behavior B 3708. Based upon these Browse Behaviors (3702, 3708, 3712) it may be possible to create a user profile 3732. This user profile may be a summary indicator that this particular user is an "online book purchaser." Alternatively, the user profile 3732 derived from the browse session may be used to summarize the length of time that this user views each individual webpage, how the user interacted with each webpage, or some other information relating to webbrowsing.

[00708] Referring to Fig. 37, in embodiments, wireless provider data may be used to ascertain webbrowser activity (3702, 3708, 3712, 3718, 3722, 3728) from a user of a mobile communication facility 102. The webbrowser activity (3702, 3708, 3712, 3718, 3722, 3728) may be recorded and a plurality of webbrowser activities (3702, 3708, 3712, 3718, 3722, 3728) stored in association with other data assets of a wireless carrier, such as a mobile subscriber characteristics database 112, or some party associated with a wireless carrier. In embodiments, the plurality of stored webbrowser activities may be analyzed in order to determine a relationship, or plurality of relationships, among the webbrowser activities. Based at least in part on this analysis, or analyses, a user profile (3732, 3734) may be categorized based at least in part by the quantitative and qualitative information relating to the webbrower activities (3702, 3708, 3712, 3718, 3722, 3728). In embodiments, this category of user profile may be associated with the user of the mobile communication facility 102 from which the webbrowser activities (3702, 3708, 3712, 3718, 3722, 3728) were recorded, and sponsored content 3738 may be presented to the mobile communication facility 102 based at least in part on the category of the user profile. In embodiments, a single user may have multiple profiles (3732, 3734), across multiple categories of profiles, based at least in part on multiple webbrowser activities (3702, 3708, 3712, 3718, 3722, 3728).

[00709] In embodiments, the wireless carrier data may be an advertisement tag datum. In embodiments, wireless carrier data may include, but is not limited to, content relationships relating to the progression of user sessions, content discovery of new websites, access statistics, usage statistics, or some other wireless carrier data.

[00710] In embodiments, the category of user profile may be created by further associating the webbrowser activities with a mobile subscriber characteristic. In embodiments, a mobile subscriber characteristic 112 may be age, sex, race, religion, area code, zip code, home address, work address, billing address, credit information, family information, income information, birth date, birthplace, employer, job title, length of employment, or some other mobile subscriber characteristic 112.

[00711] In embodiments, the category of user profile may be created by further associating the webbrowser activities with a user transaction. A user transaction may include an online product purchase, an advertisement conversion, or some other user transaction.

[00712] In embodiments, the category of user profile may be created by further associating the webbrowser activities with contextual information relating to a website. In embodiments, contextual information may include, but is not limited to, a link structure, an inbound link, an outbound link, a text, a keyword, meta data, or some other type of contextual information

[00713] In embodiments, the category of user profile may be created by further associating the webbrowser activities with a usage history.

[00714] In embodiments, the category of user profile may be created by further associating the webbrowser activities with a location. The location may be a previous location; a current location; coordinates of a mobile communication facility; location determined by GPS, triangulation, Wi-Fi triangulation, and the like; location determined by a user entering a region, a state, a city, or the like; location determined according to a distance from a specified location, a location associated with a mobile content; and the like.

[00715] In an example, a user of a mobile communication facility 102 may during a single browse session, or over multiple browse sessions over multiple days, have three webbrowsing activities: Browse One—visit website of florist, Browse Two—visit website of caterer, and Browse Three—visit website of photographer. A wireless provider, or some third party, may have access to prior webbrowsing activities that may be analyzed to assess relationships among the webbrowsing activities and a category of user profile. This category of user profile may, in turn, be used to predict actions or events such as a future purchase, advertisement conversion, or some other action or event that is associated with the category of user profile. In the current example, it may be known to a wireless provider that the three

browse activities of visiting the websites of a florist, a caterer, and a photographer within some proximity of each other is highly associated with a user that is a bride to be. Thus, this type of webbrowsing activity may categorize this user in the "Bride-to-Be" category. This category may be stored in the mobile subscriber characteristics database 112 that is associated with her phone, and sponsored content 3738, such as wedding-related advertisements may be presented to the display 172 of her mobile communication facility 102 based at least in part that she fits the category of "Bride-to-Be."

[00716] In embodiments, it may be useful to map the locations of some aspect of the users of mobile communication facilities 102, including the location of the mobile communication facility 102 itself. Aspects other than mobile communications facility 102 may include a mobile subscriber characteristic 112, such as where they were born, the school they go to, the location of family members, and the like; or user information stored as wireless provider data 3804, such as usage history 3808, content relationships, user statistics, online buying habits, aspects of their interactions with websites, aspects of their navigation requests, user transactions, and the like. These aspects associated with the user of the mobile communication facility 102 may be located with a location facility 110, where a location map facility 3802 may generate a map for display to users on their mobile communication facility 102. With these maps, users, or others interested in user behavior or actions, may relate the aspect of the user in terms of the geospatial relationships.

[00717] In embodiments, a mobile subscriber characteristic 112 may be associated with a mobile communication facility 102, where the location of the mobile communication facility 102 may be identified, and a map created that may include the location of a mobile subscriber characteristic 112, or plurality of mobile subscriber characteristics, based at least in part on the location of the mobile communication facility 102 with which it is associated. For example, there may be a desire to locate the presence of a user of a mobile communication facility 102, either in the past or present time, through their association with their mobile communications facility 102. So, if a user is a subscriber to a wireless communications provider 108, and has a mobile subscriber characteristic 112 that associates a given mobile communication facility 102 to their service, it may be possible to locate, or possibly even track, the user based on the presumption that the user is carrying their mobile communications facility 102. In this case, the location, or past location, of a first mobile communications facility 102 may be associated with a

geographic map, where the location of the first mobile communications facility 102 may be depicted and displayed in the form of a map on a second mobile communication facility 102, a remote computer monitor, in a printed map, or some other form of display.

[00718] In embodiments, there may be a plurality of techniques in determining the location of a mobile communication facility 102, such as by GPS, by triangulation, by triangulation utilizing Wi-Fi, and the like. The location of a mobile communication facility 102 may be determined when a user enters a particular location; may involve a plurality of geographic regions, such as states, cities, and the like; may be specified according to a distance from a specified location; may be associated with some aspect of the mobile communication facility 102 mobile content; and the like. For example, a user's mobile communication facility 102 may have built in GPS, and the mapping of a user's location may be a matter of plotting the GPS coordinates onto a geospatial map for display. In another example, the user's mobile communication facility 102 may not have GPS capabilities, but is a cellular phone where the location of the transmitting signal from the mobile communication facility 102 may be determined by triangulating from a number of cell towers. Similar location capabilities may be utilized in a Wi-Fi hot spot, where the communication of the mobile communication facility 102 with Wi-Fi transceivers may enable the location of the mobile communications facility 102 to be determined through triangulation with those transceivers. In a further example, the location of a mobile communications facility 102 may be determined when a user enters or leaves a particular location, including a geographic region. For instance, the user may not be legally allowed to leave the state, and if the user does so, a location of the user's mobile communication facility 102 may be generated and displayed on a second mobile communication facility 102, such as on the display of a mobile communications facility 102 associated with a law enforcement official. In embodiments, there data associated with past locations of the mobile communications facility 102 may be stored for subsequent location determination and display.

[00719] In embodiments, the location of a user transaction associated with the mobile communication facility 102 may be determined, where a map is created for display. The user transaction may include the on-line purchase of a product, a conversion of an advertisement presented in association with the mobile communication facility 102, and the like. For example, it may be useful to a commercial marketing organization to know where and when individuals make on-line purchases utilizing their mobile communication facility 102. A user may be

typically sitting idle, such as when they're commuting on the bus, on a train, in a car pool, waiting for connections, and the like. The user may be typically at home, or at a friend's house, during a relaxed part of their day, or on the weekend. The user may be typically in the city caught in traffic, at their desk at work during the week, at airports or train stations, or the like. By knowing where users make on-line purchases, it may be possible to better target advertisements to users of mobile communication facility's 102 that make on-line purchases. In embodiments, the location map facility's 3802 display of graphical maps depicting where users make on-line purchases may improve the ability for a marketing organization to target advertisements associated with on-line purchasing.

[00720] Referring to Fig. 38, in embodiments, usage history 3808 associated with a mobile communications facility 102 may be mapped and displayed by utilizing the location map facility 3802. Usage history 3808 may be associated with wireless provider data 3804, such as based on content relationships relating to the progression of a user session, at least in part on content discovery of new websites, at least in part on access statistics, at least in part on usage statistics, to a stage in an online buying process based at least in part on a mobile content type that is being accessed, at least in part on a user's interaction with a website following a conversation of a content item, at least in part on a navigation request received from the mobile communication facility, and the like. For instance, providers of sponsored content to mobile communication facilities may be interested in the usage history of the users of the mobile communications facilities 102. By knowing where and when a user does something related to their sponsored content, it may allow the provider of sponsored content to better target their audience. In addition, knowing the usage patterns of a user's mobile communication facility 102, whether they use it during the weekday, on weekends, while with friends, at work, in leisure time, during commuting time, and the like, and what their usage patterns are during an on-line transaction or interaction, may further improve the effectiveness in the delivery of targeted sponsored content. In embodiments, having such mapped data available in a graphic format on a mobile communication facility 102 may enable a more convenient and/or quicker way for a sponsor to determine customer usage patterns in efforts to better target sponsored content.

[00721] In embodiments, the user of a mobile communication facility 102 may utilize the map displays provided through the location map facility to locate other users of mobile communication facilities 102 for personal use, such as locating other users based on some mobile

subscriber characteristic 112 that may be associated with data stored as wireless provider data 3804. For example, the user may be interested in finding the location of other users that graduated with them, that have similar ages, that purchase similar products, that have similar hobbies or interests, that enjoy playing or watching the same sport, like drinking the same wine, that visit the same websites, frequent the same clubs, shop in the same towns, listen to the same music, go to the same concerts, and the like. Further, this information, and the graphical display of the information, may be available as a function of usage history. For instance, it may not only be possible to map the current location of people that enjoy listening to the Grateful Dead, but it may be possible to map the current location of users that went to a particular concert, where you may have met someone that you lost track of and would like to now locate. A user may even use the location map facility 3802 for entertainment, such as being stuck in traffic and being curious as to how many people located near you in traffic are Bon Jovi fans, like the Red Sox, are democrats, like horses, have been to the France, and the like. The user may be at a football game, and want to locate other users from their graduation class, and try to find them through the displayed map, or determine how expensive their seats are or how often they come to the game, where they typically go right after the game, what on-line purchases they make in relation to the team, and the like.

[00722] In embodiments, the uses of the displayed maps from the location map facility 3802 may be used by businesses for marketing and sales, by individuals for personal use, for entertainment, by government officials evaluating usage of government resources, for the tracking or confinement of persons in a paroled condition, by parents monitoring the children's location and behavior patterns, and the like. In embodiments, one skilled in the art would recognize the plurality of ways that such graphically mapped wireless provider data 3804 could be used, and the preceding examples are meant to be illustrative, and not in any way limiting.

[00723] Referring to Fig. 39, in embodiments, the delivery of sponsored content 3910 to users of a mobile communication facility 102 may be related to incentives provided by an affinity program 3902. The affinity program 3902 may be associated with an enrollment or membership with the sponsor 128, where through the affinity program 3902 the sponsor 128 may gain increased access to enrollees 3904 of the program, such as by enrollees 3904 interacting with sponsored content 3910, and the enrollee 3904 may gain purchasing benefits for the sponsor's 128 products or services, such as through incentives 3912 provided by the sponsor

128. In addition, since sponsors 128 may be interested in having affinity program enrollees 3904 that travel in proximity to the sponsor's 128 place of business, enrollment opportunity 3908 may be offered to users that make navigation requests 3910 or navigation related search queries on their mobile communication facilities 102 that are associated with the location of the sponsor's 128 place of business, such as a navigation request 3910 that returns directions that bring the user in proximity of the sponsors 128 place of business, specifies a competitor that is a predetermined distance from the sponsor's 128 place of business, based on the frequency that the user travels in proximity to the sponsor's 128 place of business, based on the duration of time that the user spends in proximity to the sponsor's 128 place of business, and the like. In embodiments, both the sponsor 128 and the enrollee 3904 may benefit from the association of the affinity program 3902 and the mobile communication facility 102, in that the associating of affinity program enrollment opportunity 3908 through the location of the mobile communication facility 102 may represent an improved enrollee 3904 location to sponsor 128 location relationship over non-mobile communications facilities, such as a home computer.

[00724] Fig. 39 depicts how a user of a mobile communication facility 102, as an affinity program enrollee 3904, may be associated with an affinity program 3902, where the affinity program 3902 may include a navigation request 3910 related enrollment opportunity 3908, sponsored content 3910, and an incentive 3912. In embodiments, an affinity program enrollment opportunity 3908 may be presented to the mobile communication facility 102 at least in part on a navigation request 3910 made on the mobile communication facility 102, which may be a phone, a mobile phone, a cellular phone, a GSM phone, and the like. Upon completion of enrollment in the affinity program 3902, the enrollee 3904 may receive affinity program sponsored content 3910 to their mobile communication facility 102, where the enrollee 3904 may be provided an incentive 3912 to interact with the sponsored content 3910, such as price discount, a coupon, a merchandise item, a merchandise credit, an affinity program credit, a minute of mobile communication facility 102 usage, money, or the like.

[00725] For example, and in embodiments, a supermarket food chain may want to more effectively pull shoppers in from the competition, and their current wallet card affinity program may be limited to customers that not only already come into the store, but take the time enroll at the service desk. With an affinity program 3902 associated with the navigation requests 3910 on

a user's mobile communication facility 102, the supermarket chain may be able to provide affinity program enrollment opportunity 3908 to any user of a mobile communication facility 102 that performs a navigation request 3910 associated with the area around one of their stores. For instance, say a user does their shopping at the local IGA food store that is in the same area as a Shoprite. So Shoprite implements an affinity program 3902 associated with navigation requests 3910 on mobile communication facilities 102, where any navigation request 3910 that lists the starting point of a navigation request 3910 within a predetermined distance from the target Shoprite is extended an enrollment opportunity 3908 directly to their mobile communication facility 102. In this affinity program enrollment opportunity 3908 may be a plurality of incentives 3912 for the potential enrollee 3904 to interact with sponsored content 3910 delivered to their mobile communication facility 102, and in this instance, say the incentives 3912 include price discounts on merchandise. That is, the potential enrollee 3904 is told that if they open up sponsored content 3910 to their mobile communication facility 102 form Shoprite, that they will receive price discounts on merchandise at Shoprite. In embodiments, the enrollee's 102 discounts may be automatically associated with their discount card they present to the cashier at the time of purchase such that affinity program 3902 discounts may be automatically applied to the purchase. In embodiments, the user's mobile communication facility 102 may be associated with the discounts received at the time of purchase, such as a mobile communication facility 102 presenting the enrollee's 3904 ID to Shoprite's system.

[00726] Continuing with the above example, the user may now accept the enrollment opportunity 3908 and begin receiving sponsored content 3910 from Shoprite, which may include e-coupons for products, specials for the week, information on special coupon days, and the like. In embodiments, the enrollee's 3904 incentives 3912 may not only include the direct coupon discounts provided as a part of the sponsored content 3910, but also include an incremental discount for each time the enrollee 3904 interacts with an affinity program sponsored content 3910, such as a percent off the bill at the time of sale, which may vary as a function of the number of interactions the enrollee 3904 has with sponsored content 3910 delivered to the enrollee's 3904 mobile communication facility 102. In embodiments, sponsors 128 may be able to increase their customer base and/or sales per individual as a result of implementing an affinity program 3902 associated with navigation requests 3910 from a user's mobile communication facility 102.

[00727] In embodiments, the navigation request 3910 may be a search query, a domain name entry, a web browser action, a menu selection, a folder selection, made implicitly, implicit based on the location of the mobile communication facility 102, a transaction, an advertisement conversion, an advertisement conversion through clicking on an advertisement, and the like. For example, in the above example for Shoprite's affinity program 3902 the navigation request 3910 may be an online transaction that the user performs from their mobile communication facility 102, where the billing address or shipping address for a product may be in the vicinity of the target Shoprite, or the transaction location was in the vicinity of the target Shoprite, or the like. In another example the user may be browsing the web and interact with a website that has content associated with a location in the vicinity of the target Shoprite, such as incoming links or outgoing links with a business or organization in the area, be directly related to a business or organization in the area, and the like. In embodiments, there may be a plurality of types of navigation requests 3910 that may result in effective targeting of potential affinity program enrollees 3904, which may lead to increased revenue for sponsors 128.

[00728] In embodiments, affinity program sponsored content 3910 may be an advertisement, a survey, a product price promotion only for an affinity program enrollee 3904, a product description, a time-limited offer, an advance product purchase, a subscription content, and the like. For example, in the above example of Shoprite's affinity program sponsored content 3910 may include a survey of what they normally come to Shoprite to buy, what part of Shoprite they like the best, where in town they feel they get the best price on produce or the best quality produce, how many times a week they visit Shoprite, what percent of the time they visit competition as compared to visiting Shoprite, and the like. In embodiments, the enrollee 3904 may be notified as to the specific incentives 3912 are being offered in exchange for the enrollee's 3904 filling out the survey, such as money, e-coupons, points toward a free item, and the like. In another example, the affinity program 3902 may be associated with a book store, such as Borders in competition with Barnes and Noble, and the enrollee 3904 is presented with new book or music descriptions available at Borders, limited-time sales on discount books at Borders, an advance product purchase on a hot new kids book coming out where numbers are limited, and the like. In another example, the affinity program 3902 may be associated with a home improvement center, such as Lowes in competition with Home Depot, where the enrollee 3904 may be provided with incentives 3912 for filling out a survey comparing Lowes with Home

Depot, price promotions at Lowes, time-limited offers in their lighting department, advance product offer for a limited item offer of an air conditioner in the spring, and the like. In embodiments, sponsored content 3910 may be more effectively delivered to a user of a mobile communications facility 102 when the user has incentive 3912 to interact with the sponsored contact 3910, and may be more responsive than when delivered to non-mobile content such as to an home personal computer.

[00729] In embodiments, the most influential members of a social network 4002 may be identified, and sponsored content directed to them. Influential members of a social network 4002 may be identified by the number of persons listed as members of their network 4002, the number of other social network members listing a social network member within their personal network, the amount of SMS traffic associated with the member, number of purchases associated with the member, or based on some other measure of personal influence. In embodiments, sponsors may bid on the right to provide their sponsored content to members of the social network 4002 based at least in part on a social network member's level of influence or popularity. The level of influence of social network members may be indexed and stored in a data storage facility. The content of the index of social network 4002 members' influence may be licensed to mobile service providers, third parties, and the like.

[00730] Referring to Fig. 40, in embodiments the users of mobile communications facilities 102 may be associated in a social network 4002 by mobile subscriber characteristics 112, where each mobile communication facility 102 may be associated with a social network profile 4008 that includes mobile communications facility 102 specific mobile subscriber characteristics 112. In embodiments, these profiles 4008 may be used to match up the users of the mobile communications facilities 102 by determining relevancy 4010 between profiles 4008 and extending invitations 4012 between mobile communication facilities 102 as an indication of a relevancy 4010 match. For example, a first mobile communication facility 102A may be associated with a cardiologist that specializes in acute coronary syndrome. The first cardiologist's mobile communication facility 102A may have a developed social network profile 4008A that contains mobile subscriber characteristics 112 that includes the attributes of profession as a doctor of cardiology, with the specialty of acute coronary syndrome. Further, suppose that this first cardiologist is at a general introduction meeting for a conference on cardiology and is interested in finding out who else at the conference specializes in acute

coronary syndrome. In this instance, other cardiologists at the conference may also have profiles 4008B in the social network 4002. The first cardiologist may then indicate via their mobile communications facility 102A an interest in locating or connecting with the other cardiologists. In embodiments, a relevancy 4010 may be developed based on a number of factors. For example, the relevancy 4010 may be based on a location and another mobile subscriber characteristic or collection of characteristics (e.g. a mobile subscriber characteristic indicating that the person is involved with a specialty in acute coronary syndrome). After relevancies have been determined, the user of the first mobile communications facility 102A may be delivered information related to others that match the relevancy 4010 criteria. The information may be a phone number, a location, an absolute location, a relative location, personal information, preferences for being contacted, and the like. From this information the first cardiologist may now provide an invitation to the other cardiologist for contact, a meeting, or the like by sending the invatiation from the first mobile communication facility 102A to the second mobile communication facility 102B. In embodiments, the ability to perform relevancy 4010 associations between user profiles 4008, and the ability to invite relevant other users for communications contact, may provide an improved way for people to connect with one another based on relevant mobile subscriber characteristics 112.

[00731] In embodiments, the relevancy 4010 relating profiles 4008 may be associated with mobile subscriber characteristics 112, such as an affiliation, a professional affiliation, a personal affiliation, a school affiliation, a club, a hobby, to demographics, and the like. In embodiments, mobile subscriber characteristics 112 may include, sex, race, religion, area code, zip code, home address, work address, billing address, credit information, family information, income information, birth date, birthplace, employer, job title, length of employment, and the like. Relevancy 4010 may also be related to a user transaction history, usage history, browser history, advertisement conversion history, and the like.

[00732] By way of another example, the user of the first mobile communication facility 102A may go to a college football game, where the user is an alumnus of the visiting team's school. Say the user wants to locate others in the stadium that are from the same graduating class and were also a member of a fraternity. In this instance, the user of the first mobile communication facility 102A may indicate through the mobile communication facility 102A the relevancies 4010 to match, such as current location, college affiliation, year of

graduation, and fraternity affiliation. The social network 4002 may then be searched for relevancy 4010 matches to other profiles 4008B. When found, these relevancy matches may then be presented to the user of the first mobile communication facility 102A for possible contact with users of a second mobile communication facility 102B that matched in the specified relevancies. In other embodiments, indications of relevant profiles 4008 may be automatically performed and presented to a user of a mobile communication facility such that the user does not have to explicitly specify relevant criteria. Once an indication of relevancy is received, the user of the first mobile communication facility 102A may contact a user of the second mobile communication facility 102B by offering an invitation 4012 for contact. The user of the second mobile communication facility 102B may be offered choices or links in selecting a response.

[00733] Relevancy 4010 may be based at least in parton a location. The location may be a a previous location; a current location; coordinates of a mobile communication facility; location determined by GPS, triangulation, Wi-Fi triangulation, and the like; location determined by a user entering a region, a state, a city, or the like; location determined according to a distance from a specified location, a location associated with a mobile content; and the like. In embodiments, relevancy 4010 may be a score. In embodiments, the user profile 4008 may be based at least in part on a plurality of subscriber characteristics, a combination of a plurality of mobile subscriber characteristics and a location, a combination of a plurality of mobile subscriber characteristics and a plurality of user transactions, a combination of a plurality of mobile subscriber characteristics and a usage history, and the like.

[00734] By way of another example, a first single person may be out on a Saturday night in the city, and they may want to meet someone that has the same interests as they do and are in the same general location. The first single person may enable their mobile communications facility 102A to provide scored relevant matches to their profile 4008A. In embodiments, this may mean that the person has allowed his personal profile to be matched with an indication of the match to another user. In embodiments, this may mean that the person has allowed personal profile matches indications to be delivered to his own phone. The scores may not only a function of personal mobile subscriber characteristics 112 but also related to location. In this instance, location may established via GPS, triangulation, or using any other available location finding technique, and may be presented as related to street address, distance from current location, or the like. When relevant 4010 matches are presented to the first single person,

the choices may be presented with score based on a plurality of mobile subscriber characteristics 4002, such as age, musical interests, physical appearance, activities, sports interests, and the like, along with their current location. The first single person then may select a second single person and send them an invitation 4012 for communication. When the second single person receives the invitation 4012 on their mobile communication facility 102B, they may be presented with choices and links with which to choose a response, such as initiating a phone call, a text message, a humorous response, and the like.

In embodiments, the invitation 4012 from one mobile communications facility [00735] to another may be presented as a link on a screen of the mobile communication facility, where the link may initiate a phone call, an email, a text message, provide a summary of a user profile that is associated with a user with whom the interaction may take place, and the like. For example, a second user of a mobile communications facility 102B may be at home when they receive an invitation 4012 for communication from a first user of a mobile communication facility 102A. The invitation 4012 may include a topic header announcing the intension of the contact, which in this case may be 'Ski Weekend' and be from a local person trying to find someone who wants to go skiing this weekend. In embodiments, the invitation 4012 may include a plurality of mobile subscriber characteristic 112 information, such as the senders age, gender, marital status, ski skill level, favorite music, hobbies, job title, and the like, that may be useful in helping the recipient of the invitation 4012 to evaluate whether they want to initiate any further communication. In embodiments, the provided mobile subscriber characteristic 112 information may be presented in a plurality of formats, including as a text message, as a browserenable graphic, as simple listing, and the like. In embodiments, the second user of the mobile communication facility 102B may pre presented with links associated with their available response choices. In embodiments, the information presented to the second user, and the response choices available, may be sufficient to conduct the invitation 4012 and response in a manner that is quick and easy to execute.

[00736] In embodiments, a user of a mobile communication facility may be presented with a security platform where the user can select the types of mobile subscriber characteristics to be released in response to a relevancy match.

[00737] In embodiments, sponsors may be able to bid for the exclusive right to have their content associated with a keyword, location, or some other data.

[00738] Referring to Fig. 41, interactions of a user's mobile communication facility 102 with third parties 4104 may be used to create social network 4108 mappings, which may result in improved target delivery of sponsored content 4128 to the user's mobile communication facility 102. The interactions may involve interactions with other mobile communications facilities, on-line merchants, off-line merchants, email accounts, landline telephones, ground addresses, and the like. These interactions may be stored as wireless provider data 4102 and may include indications of content relationships 4110, statistics 4112, online buying processes 4114, interactions with websites 4118, navigation requests 4120, and the like, and used in establishing the interrelationships that may make up the social networks 4108 In embodiments, this improved targeting may take advantage of social network 4108 users that have an elevated level of influence 4134. In embodiments, the most influential members of a social network 4108 may be identified through their activity 4122, and have sponsored content 4128 directed to them. In other embodiments, influential members may be identified so they can become a sponsor of content that gets delivered to others. Influential members of a social network 4108 may be identified by the number of persons listed as members of their network 4108, the number of other social network 4108 members listing a social network 4108 member within their personal network, SMS traffic, number of purchases, or based on some other measure of personal influence. In embodiments, sponsors may bid on the right to provide their sponsored content 4128 to members of a social network 4108 based at least in part on a social network 4108 member's level of influence 4134. The level of influence 4134 of social network 4108 members may be indexed and stored in a data storage facility 4130. The content of the index of social network 4108 members' influence may be licensed to mobile service providers, third parties, and the like.

[00739] In embodiments, wireless provider data 4102 may be collected from a first mobile communications facility 102 in order to associate it with at least one of the plurality of third parties 4104, which may also be associated with wireless provider data 4102. From the interactions stored within the wireless provider data 4102, social network 4108 mappings of the interactions may be created. These interactions may take place over time between the user of the mobile communications facility 102 and a plurality of other mobile communications facilities, with websites, with landlines, with business, with mapping services, with navigation services, with searching services, with their calendar, with their address book, with advertisement

conversions while browsing, with online buying, and the like. This information may be stored as wireless provider data along with ancillary data associated with the time of the interaction, such as the location of the interaction, the frequency of the interaction, the duration of the interaction, the periodicity of the interactions, and the like. For instance, a first user may call a second and third user in time proximity of a call to a restaurant and a jazz club. This information in combination with a user history of interactions with music stores, jazz related websites, and a recent on-line purchase of a saxophone may create a social network that extends out into the jazz music domain, where this user buys jazz materials, such as music and instruments, and pays to go see jazz musicians at clubs. In addition, when the wireless provider data 4102 from the second and third users is included, it may reveal that this group, and their associated interactions, may represent a social network 4108 that may be effectively targeted for sponsored content associated with jazz music, such as advertisements for jazz music, jazz clubs, jazz concerts, clothing associated jazz music, and the like, and may be on their way to a jazz club that very evening, where advertisements related to the jazz club, and associated live music for the evening, may be targeted to the users' mobile communications facilities. In embodiments, this social network 4108 may be saved in data storage 4130 and updated over time; associated with keywords for searching in the data storage 4130; interconnected, combined, or overlapped with other social networks 4108; and the like. In embodiments, this social network may be combined with other jazz related social networks in selecting a group targeting of jazz related advertisement offerings, such as the new release of a jazz album, an upcoming jazz concert or club performance, a special at a music store, and the like. In embodiments, the creation of social networks 4108 may provide an improved targeting of sponsored content to users of mobile communications facilities 102.

[00740] In embodiments, the wireless provider data 4102 may be based at least in part on content relationships 4110 relating to the progression of a user session, such as a user making a series of interactions over a short period of time that may include at least one of phone calls to other mobile communications facilities 102, websites, search engines, on-line purchases, phone purchases, calendar lookups, and the like. For instance, a user may make a phone call to a frequent member of their social network 4108, search on the bluebook value of an older model Honda and then a series of later model Toyotas, and make a navigation request 4120 to a website for directions to their local Toyota dealership, all within a 15 minute time span. This map of

interactions may be stored as wireless provider data 4102, and may be indicative of a user's intention to purchase a certified used dealership vehicle, or alternately, that their friend is in the market for the purchase, or at least being an influence in the decision of the first user to purchase the vehicle. With the availability of this wireless provider data, the first user and their friend may be targeted for sponsored content 4128 associated with used cars, or more specifically, certified used dealership cars. Further, the model information from the bluebook searches may provide alternative make and model types that the user may be targeted with, which may depend upon what sponsors are currently working in conjunction with the sponsorship facility 162. In embodiments, wireless provider data 4102, consisting of content relationships 4110 relating to the progression of a user session, may better enable the delivery of more relevant advertisements to the user.

[00741] In embodiments, the wireless provider data 4102 may be based at least in part on content discovery of new websites, such as new music sites, new news information sites, new science sites, new commercial product sites, new social network sites, and the like. For instance, the user of the mobile communication facility 102 may discover a new science news information site, and the user then accesses subjects on green energy, and more specifically, methods for producing ethanol blends of commercial fuels. This information may then be stored as wireless provider data 4102, and interpreted for possible matching to a sponsor that is associated with the sponsorship facility 162. In this instance, the discovery of the this new website, and the specific selection of hyperlinks to ethanol production, may be an indication that the user is interested in ethanol production as personal knowledge growth, for business purposes, for reasons of green energy activism, in relation to issues associated with an election, and the like. This knowledge, that may have been derived from this new wireless provider data 4102, may enable the better matching of the user with sponsored content 4128, such as commercial advertisements for providers of ethanol blends that are local to the user, venture capital investment notices in association with ethanol and other associated green energy sources, political lobby marketing ads for support of legislation related to ethanol and other associated green energy sources, political ads associated with politicians who's platform includes green energy sources, and the like. In embodiments, wireless provider data 4102, based on content discovery of new websites, may provide the user with improved access to sponsored content 4128 relating to the user's current interests.

[00742] In embodiments, the wireless provider data may be based at least in part on access statistics 4112, which may be associated with frequency of access to specific phone numbers, websites, search engines, and the like; tenancy to access and convert presented advertisements; access and frequency of text messaging; access to navigation sites; the periodicity of access to various types of communications; and the like. For instance, the user may frequently access home furnishings websites, selecting hyperlinks to furniture. This information may be stored as wireless provider data, and may be an indication that the user is shopping for furniture. This information may better enable the matching of the user's interest in furniture, to sponsored content associated with furniture, and in home furnishings in general. In embodiments, wireless provider data associated with access statistics 4112 may enable improved targeting of sponsored content 4128 to users.

In embodiments, the wireless provider data may be based 4102 at least in part [00743] on usage statistics 4112, which may be associated with frequency of mobile communication facility 102 use; frequency of usage of various types of communications, such as phone calls, text messaging, web browsing, searching, navigation use, and the like; duration of usage of various types of communications, such as how long a user talks on the phone, searches the web, and the like; how long the user is in communications with another user; a user's on-line purchasing patterns, a user's location-use patterns, and the like. For instance, a user may frequently access fashion websites on their commute from work in New York City to their home in the suburbs, where the access made from a commuter train. This information may be stored as wireless provider data 4102, and may be used to better target fashion advertisements to the user. Further, since it is known that the user is regularly accessing fashion sites while commuting home on the train out of New York City, the user may be effectively targeted during the day for clothing sales in New York City. In that way, the user may decide to go shopping after work, and take a later train home in order to take advantage of the ongoing sale. In embodiments, wireless provider data 4102 associated with usage statistics 4112 may enable improved targeting of sponsored content 4128 to users.

[00744] In embodiments, the wireless provider data 4102 may relate to a stage in an online buying process, based at least in part on a mobile content type that is being accessed, such as what sites a user initiates buying, how much time a user takes in selecting items for purchase, how many items are placed in their shopping cart, the method of payment, shipping preferences,

and the like. In embodiments, the wireless provider data 4102 may be based at least on a user's interaction with a website following a conversion of a content item, such as the user's tendency for clicking on presented advertisements, how often the conversion results in further related action, and the like. In embodiments, the user's purchasing patterns may be captured in wireless provider data 4102 and may be utilized in the targeting of advertisements to the user.

[00745] In embodiments, the wireless provider data 4102 may be based at least in part on a navigation request 4120 received from the mobile communication facility 102, such as a search query, a domain name entry, an web browser action, a menu selection, a folder selection, is implicit, is an implicit navigation request 4120 based on the location of the mobile communication facility 102, is a transaction, is an advertisement conversion, is an advertisement conversion that may result from clicking on an advertisement, and the like.

[00746] In embodiments, social network activity 4108 may be identified within the wireless provider data 4102 that helps to assess a level of influence 4134 of a social network 4108 user, where the individual that has been assessed to have a high level of influence 4134 may be targeted for sponsored content 4128 based at least in part on their level of influence 4134. For instance, a first user may have a large number of interactions with a large social network 4108 of individuals, where the first user also has a usage history that indicates they have a statistical tendency for forwarding information from their mobile communications facility 102 to many others within their social network 4108. This knowledge may be utilized to more effectively spread an advertisement, such that the advertisement only needing to be originally sent to the first user, and the first user then distributes the advertisement amongst the social network 4108. In this way, the sponsoring facility 162 may be able to minimize the number of advertisements that have to be sent out, where the user with a high level of influence 4134 then supplies the remaining distribution, which may be because the user has a statistical tendency to do so.

[00747] In embodiments, the level of influence 4134 may also relate to how many outgoing messages may be sent within the social network 4108, how many incoming messages are received from the social network 4108, the type of messages sent within the social network 4108, the frequency of social network 4108 usage, contextual information associated with a website visited by the user, a user transaction, a usage history, and the like. In embodiments the level of influence 4134 may be based on mobile subscriber characteristics selected from a group

including age, sex, race, religion, area code, zip code, home address, work address, billing address, credit information, family information, income information, birth date, birthplace, employer, job title, length of employment, and the like. In embodiments, the level of influence 4134 may relate to location, where the location may be determined according to location coordinates of a particular mobile communication facility 102, location coordinates determined through GPS, locations that may be a plurality of geographic regions, locations that may be a plurality of geographic regions including one or more states, locations that may be a plurality of geographic regions including one or more states including one or more cities, a location determined according to a distance from a specified location, a location associated with mobile content, and the like. In embodiments, the sponsored content 4128 may be an advertisement.

[00748] In embodiments, the sponsored content 4128 may be an advertisement, such as for a commercial product, entertainment, an event, for travel, and the like, and delivered as targeted in association with wireless provider data 4102.

[00749] In embodiments, sponsors may be able to bid for the exclusive right to have their content associated with a keyword, location, or some other data

[00750] Referring to Fig. 42, in an embodiment, a user of a mobile communication facility may access a content 4200, such as a webpage, for viewing within the display of the mobile communication facility. In an example, the content 4200 may exceed the capacity of the display to present the entire content 4200 within the display, forcing the user of the mobile communication facility to first view a content portion 1 4202 and then navigate to view a content portion 2 4204. The content portion 1 4202 may be associated with a contextual datum 1 4210. The content portion 2 4204 may be associated with a contextual datum 2 4212. Contextual datum 1 4210 and contextual datum 2 4212 may be stored in a contextual database 4208. An association facility 4214 may be used to select from a sponsored content database 4222 a sponsored content 1 4218 that is associated with the contextual datum 1 4210, and a sponsored content 2 4220 that is associated with the contextual datum 2 4212. The association between the contextual data (4210, 4212) and the sponsored content (4218, 4220) may be used to further associate the content portion 1 4202 with the sponsored content 1 4218, and the content portion 2 4204 with the sponsored content 2 4220. During a display of content portion 1 4224, the content portion 1 4202 and its associated sponsored content 1 4218 may be displayed on the mobile communication facility simultaneously, in temporal proximity to one another, in a staged

manner, in a sequential presentation, or in some other manner of display in which the content portion 1 4202 and the sponsored content 1 4218 are associated. During a display of content portion 2 4204, the content portion 2 4204 and its associated sponsored content 2 4220 may be displayed on the mobile communication facility simultaneously, in temporal proximity to one another, in a staged manner, in a sequential presentation, or in some other manner of display in which the content portion 2 4204 and the sponsored content 2 4220 are associated. In embodiments, upon navigating to a content portion, an indication of a stage change may be transmitted to a server associated with the mobile communication facility. The stage change may indicate a redirection to the portion. Once the redirection is registered, it may be possible to glean a contextual datum that is associated with the portion. The process may be asynchronous in that the contextual data may be transmitted from the server in the background so that there is minimal interference with the function of the content portion viewed.

[00751] In embodiments, an asynchronous process used for transmitting contextual data may be Asynchronous JavaScript and XML (AJAX), or a similar process. AJAX refers to a cross-platform technique that may be usable on different operating systems, computer architectures, and web browsers as it is based on open standards such as JavaScript and the DOM. The AJAX system is asynchronous; in that extra data may be requested from a server and loaded in the background without interfering with the display and behavior of an existing page. JavaScript is a scripting language that may be used to make AJAX function calls. Data may be retrieved using the "XMLHttpRequest" object that may be available to scripting languages run in browsers, or alternatively remote scripting in browsers that do not support "XMLHttpRequest." In embodiments, asynchronous content may be formatted in formats other than XML. AJAX, and related techniques, may exchange small amounts of data with a server as a background functionality so that entire web pages do not have to be reloaded each time there is a need to retrieve data from a server. This may increase a webpage's interactivity, speed, functionality, and usability.

[00752] In embodiments, a content portion (e.g. 4202 and 4204) may be displayed on a display on a mobile communication facility. The mobile communication facility may receive the entire content and then only display portions thereof as appropriate given the user's actions. For example, the user may direct local software (e.g. a browser) on the mobile communication facility to connect to a specific webpage and the software may then retrieve the entire webpage

or significant portion of the webpage. The mobile communication facility may then present a portion of the webpage to the display. For example, the top of the webpage may be presented on the display and the software on the mobile communication facility may wait for indications from the user that the user wants to view another portion of the content. The indication may come as a zoom, pan, shift or other request from the user. The software on the mobile communication facility may monitor what portion is currently being displayed, how long the portion is displayed or other parameters relating to the portion being displayed. The software on the mobile communication facility may then transmit this information to a server in real time such that other content related to the content portion being currently displayed can be transmitted to the mobile communication facility. The server side software may select appropriate content (e.g. sponsored content, related content, etc.) based on the content portion, contextual information related to the content portion, behavioral information based on how the user of the mobile communication facility interacts with the content portion, or other such information. Once selected, the server side software may communicate the content to the mobile communication facility. The mobile communication facility may be configured to accept such information or optionally configured to not accept such content. When the mobile communication facility receives the new content that relates to the currently displayed content portion, the mobile communication facility may store the content for later presentation (e.g. such as when the mobile communication facility gets brought to a certain location, based on a time of day, or based on some other later trigger event or implicit search). In other embodiments, the mobile communication facility may present the newly selected content when it is received. The new content may be presented in coordination with the currently displayed content portion. For example, the new content may be displayed within the same display section (e.g. within the same window), or it may be displayed separately (e.g. in a separate window). AJAX may be one technology used to gain an understanding from the mobile communication facility as to which portion is currently being displayed. One skilled in the art would appreciate that no one software or protocol would be required to discover what content portion is currently being displayed or for communicating related information to the server based application. While many embodiments herein describe sending information to the server in real time relating to what content portions are being displayed, it should be understood that such information may be collected and sent in batches at later points in time.

[00753] In other embodiments, only a portion of the complete content may be communicated to the mobile communication facility and other content portions may be communicated to the mobile communication facility as requested. So, in contrast to the example above where the majority of the content was delivered to the mobile communication facility and then a portion of the content was selected for presentation on the mobile communication display. in this embodiment, only a portion of the content is delivered to the mobile communication facility. Then other portions of the content can be later delivered. The other content portions may be later delivered in response to a user request (e.g. such as through a pan or zoom request) or through anticipation of what the user is going to want to view (e.g. downloading other content portions through AJAX protocols). In this embodiment, the sever program in charge of monitoring what portions are displayed on the mobile communication display may infer that certain portions are or have been displayed on the mobile communication facility because they have been delivered to the mobile communication facility. The server may track delivery of content portions based on type of request. For example, a user explicit request may be tracked separately from an inference type request that is intended to anticipate what content the user may want to view. Related content selections may be based on any or all types of such content portion requests.

[00754] In embodiments, content may be a text, an image, an audio, an audio-visual, a webpage, a section of a webpage, a section of a screen, a sponsored content, an advertisement, a portion of an advertisement, an interactive feature, a subscription content, a tagged content, a dynamic content, or some other form of content.

[00755] In embodiments, contextual data may be a link structure, a link, an outbound link, an inbound link, a keyword, metadata, or some other form of contextual data.

[00756] In an example, a user of a mobile communication facility may access a content 4200 on the New York Times website. The home page of the New York Times website may contain more content than may be simultaneously presented to the display of the user's mobile communication facility. This may force the user to sequentially view portions of the website's content. In this example, once the New York Times is first loaded to the mobile communication facility's display, a content portion 1 4202 may be presented that consists of the main news headline of the day: "Fourth Quarter Foreclosures up 18%." This article, including its headline and associated article text, may be associated with a contextual datum 1 4210 that is stored in a

contextual database 4208. For example, within the article there may be a reference to Fannie Mae in which the text "Fannie Mae" is an outbound link to Fannie Mae's website. In another example of contextual data that may be associated with the article, a keyword or key word string, such as "housing," "housing starts," "mortgage," etc. may be included in the article, and these keywords may be stored as contextual data in the contextual database 4208. The information regarding the contextual data associated with the viewed New York Times article (portion 1) may be used by an association facility 4214 to select a sponsored content 1 4218 from a sponsored content database 4222 that is associated with the article on display. Because the article concerns housing and housing finance, an associated sponsored content 1 4218 may be an advertisement for a mortgage refinance company, a debt management company, a REIT investment opportunity, and so forth. The associated sponsored content 1 4218 may then be displayed in conjunction with the New York Times portion 1 4202. The presentation of the portion 1 4202 and sponsored content 1 4218 may be simultaneous, in temporal proximity to one another, staged, in a sequential presentation, or in some other manner of display in which the content portion 2 4204 and the sponsored content 2 4220 are associated.

[00757] Continuing the New York Times example, after reading the article "Fourth Quarter Foreclosures up 18%," the user of the mobile communication facility may wish to view a portion 2 4204 of the same New York Times webpage presenting a sports article. To navigate to the sports article, the user may scroll, zoom, or use some other navigational action to direct he sports article to display on the mobile communication facility. Upon navigating to the sports article, an indication of a stage change may be transmitted to a server associated with the mobile communication facility. The stage change may indicate a redirection to the portion 2 4204 of the New York Times. Once the redirection to portion 2 4204 is registered, it may be possible to glean a contextual datum 2 4212 that is associated with the portion 2 4204. In this example, the New York Times sports article may lead off with an item about a hockey team. The association facility 4214 may select from a sponsored content database 4222 a sponsored content 2 4220 that is associated with contextual data related to the hockey item, such as keywords "skates," "rink," and/or outbound links to specific NHL team webpages. For example, a sponsored content 2 4220 may be an advertisement for an NHL team's apparel, NHL ticket resellers, and the like. The sponsored content 2 4220 may also be further associated with any of the other data associated with the mobile communication facility and/or its user, as described herein, such as

location. This may enable the sponsored content 2 4220 to be further targeted to the mobile communication facility user, such as an advertisement for available skating rink times within a 5 mile vicinity of the billing address associated with the mobile communication facility, or within 5 miles of the mobile communication facility's current location when viewing the sponsored content 2 4220, and so forth.

[00758] Referring to Fig. 43, in an embodiment a user of a mobile communication facility may access a content 4300, such as a webpage, for viewing within the display of the mobile communication facility. In an example, the content 4300 may exceed the capacity of the display to present the entire content 4300 within the display, forcing the user of the mobile communication facility to first view a content portion 1 4302 and then navigate to view a content portion 2 4304. The content portion 1 4302 may be associated with a behavioral datum 1 4310. The content portion 2 4304 may be associated with a behavioral datum 2 4312. Behavioral datum 1 4310 and behavioral datum 2 4312 may be stored in a behavioral database 4308. An association facility 4314 may be used to select from a sponsored content database 4222 a sponsored content 1 4318 that is associated with the behavioral datum 1 4310, and a sponsored content 2 4320 that is associated with the behavioral datum 2 4312. The association between the behavioral data (4310, 4312) and the sponsored content (4318, 4320) may be used to further associate the content portion 1 4302 with the sponsored content 1 4318, and the content portion 2 4304 with the sponsored content 2 4320. During a display of content portion 1 4324, the content portion 1 4302 and its associated sponsored content 1 4318 may be displayed on the mobile communication facility simultaneously, in temporal proximity to one another, in a staged manner, in a sequential presentation, or in some other manner of display in which the content portion 1 4302 and the sponsored content 1 4318 are associated. During a display of content portion 2 4328, the content portion 2 4304 and its associated sponsored content 2 4320 may be displayed on the mobile communication facility simultaneously, in temporal proximity to one another, in a staged manner, in a sequential presentation, or in some other manner of display in which the content portion 2 4304 and the sponsored content 2 4320 are associated.

[00759] In embodiments, behavioral data may be panning, zooming, navigating, scrolling, positioning, a page view, a text view, an image view, streaming audio content, streaming video content, a download, an upload, a transaction, an advertisement conversion, receiving a text message, sending a text message, receiving an email, sending an email, entering

a search query, calling directory information, or some other type of behavioral data. Behavioral data may be communicated to a server that is associated with the mobile communication facility in order to associate the behavioral data with the content that is delivered to the mobile communication facility in response to the receipt of the behavior. The content that is delivered to the mobile communication facility (e.g., the page view) may be used to calculate on the server which portion of a content a user is currently viewing.

[00760] Referring to Fig. 44, in embodiments, data relating to a portion of a content (4400, 4402), such as behavioral data (4408, 4410) that is stored in a behavioral database 4404 (and/or contextual data that is stored in a contextual database 4208), may be used to create or augment existing data about a mobile communication facility or its user. For example, behavioral and contextual data relating to portions of content viewed on a mobile communication facility may be added to a usage history 190, a device characteristics database 180, a location database 188, a mobile subscriber characteristics database 112, a user transaction history database 184, or a general contextual information database 182.

[00761] In embodiments, a mobile content, such as a sponsored content, may be presented to a mobile communication facility based at least in part on contextual data relating to a portion of a mobile content.

[00762] In embodiments, a first sponsored content may be associated with a first contextual datum relating to a first portion of a mobile content. A second sponsored content may be associated with a second contextual datum relating to a second portion of the content. The first sponsored content may be presented to a display of a mobile communication facility upon the presentation of the first portion of the mobile content to the mobile communication facility. The second sponsored content may be presented to the display of the mobile communication facility upon the presentation of the second portion of the mobile content to the mobile communication facility. In embodiments, the association may be based at least in part on a relevance.

[00763] In embodiments, the first portion of the mobile content may be a section of a text, section of a video, section of an audio, section of an image, or a section of come other content type. A section of a text may be a news article.

[00764] In embodiments, the second portion of the mobile content may be a section of a text, section of a video, section of an audio, section of an image, or a section of come other content type. A section of a text may be a news article.

[00765] In embodiments, contextual information may be a link structure, an inbound link, an outbound link, a link, a text, a keyword, a meta data, or some other type of contextual information.

[00766] In embodiments, contextual information may be gathered from a plurality of portions of a primary electronically displayable content, wherein an association between each piece of contextual information and each of the plurality of portions may be maintained such that the context of each portion is identifiable. Information pertaining to an electronic display of at least one portion of the content may be received within a display screen on a mobile communication facility, and secondary content may be presented to the display based at least in part on the contextual information relating to the at least one portion of the content within the display screen. In embodiments, the primary content may be a webpage. In embodiments, the secondary content may be sponsored content. Sponsored content may be an advertisement. An advertisement may contain an actionable feature.

[00767] In embodiments, information may be received relating to a portion of a primary content that is being displayed on a mobile communication facility, wherein the primary content has at least one other portion that is not being displayed. A context may be determined that is related to the information; and a secondary content may be delivered to the mobile communication facility based on a relation of the secondary content to the context.

[00768] In embodiments, content context information may be received relating to a panned display position from a mobile communication facility, and content may be delivered to the mobile communication facility based on the content context information.

[00769] In embodiments, content context information may be received that is related to a zoomed display position from a mobile communication facility, and content may be delivered to the mobile communication facility based on the content context information.

[00770] In embodiments, content context information may be received that is related to a positioned display position from a mobile communication facility, and content may be delivered to the mobile communication facility based on the content context information.

[00771] In embodiments, a mobile content, such as a sponsored content, may be presented to a mobile communication facility based at least in part on behavioral data relating to a portion of a mobile content.

[00772] In embodiments, a user interaction may be registered with a portion of a mobile content using a mobile communication facility. A datum may be associated with the user interaction. The datum may be transmitted to a server. A sponsored content associated with the datum may be selected, wherein the association is based at least in part on a relevance between the portion of the mobile content and the sponsored content, and the sponsored content may be presented to the mobile communication facility.

[00773] In embodiments, a user interaction may be a page view, a text view, streaming audio content, streaming video content, a download, an upload, receiving a text message, sending a text message, or some other user interaction type.

[00774] In embodiments, the portion of the mobile content may be a section of a text, section of a video, section of an audio, section of an image, or a section of come other content type. A section of a text may be a news article.

[00775] In embodiments, content display information may be received that identifies which portion of a primary content is presently being presented to a display screen of a mobile communication facility, wherein the primary content contains at least one other portion that is not presently being displayed, and a user profile may be generated based on the content display information.

[00776] In embodiments, content display information may be received that identifies what portion of a primary content has been presented to a display screen of a mobile communication facility, and a user profile may be generated based on the content display information.

[00777] In embodiments, content display information may be received that identifies what portion of a primary content has been presented to a display screen of a mobile communication facility, and a popularity ranking may be generated for the presented portion.

[00778] In embodiments, content display information may be received that identifies what portion of a primary content has been presented to a display screen of a first mobile communication facility. Content display information may be received that identifies what

portion of the primary content has been presented to a display screen of a second mobile communication facility, and popularity rankings may be generated for the presented portions.

[00779] In embodiments, content display information may be received that identifies how long a portion of a primary content is presently being presented to a display screen of a mobile communication facility, wherein the primary content contains at least one other portion that is not presently being displayed, and a user profile may be generated based on the content display information.

[00780] In embodiments, content display information may be received that identifies how long a portion of a primary content has been presented to a display screen of a mobile communication facility, and a user profile may be generated based on the content display information.

[00781] In embodiments, content display information may be received that identifies how long a portion of a primary content has been presented to a display screen of a mobile communication facility, and a popularity ranking may be generated for the presented portion.

[00782] In embodiments, content display information may be received that identifies how long a portion of a primary content has been presented to a display screen of a first mobile communication facility. Content display information may be received that identifies how long a portion of the primary content has been presented to a display screen of a second mobile communication facility, and a popularity ranking may be generated for the presented portions.

[00783] In embodiments, content portion display information may be received from a mobile communication facility. Mobile subscriber characteristic information relating to the mobile communication facility may be received, and sponsored content may be delivered to the mobile communication facility based in part on the content portion display information and in part based on the mobile subscriber characteristic information.

[00784] In embodiments, content portion display information may be received from a mobile communication facility, and the content portion display information may be added to a mobile subscriber characteristic database relating to the mobile communication facility.

[00785] In embodiments, content portion display information may be received from a mobile communication facility. Mobile subscriber characteristic information relating to the mobile communication facility may be received, and a user profile may be generated based at

least in part on the content portion display information and in part based on the mobile subscriber characteristic information.

[00786] Referring to Figs. 45 and 46, in embodiments, a monetization platform, as described herein, may enable a unified, multi-screen ad server capable of handling a plurality of mobile advertising formats, including but not limited to banners, text, audio, video, graphics, multimedia, or some other advertising format, from a plurality of ad networks and/or systems. As depicted in Fig. 47, a monetization platform may be associated with a profile management platform (PMP). In embodiments, a monetization platform may be enabled to select and target advertising content that is available from across a plurality of advertising inventories. The selection and targeting of advertising content within the monetization platform may be based at least in part on a rules engine within the monetization platform. The selection and targeting of advertising content may be based at least in part on demographic data, contextual data, behavioral data, or some other data type associated with a mobile user and/or carrier.

[00787] Referring to Fig. 48, in embodiments, a monetization platform may be used to employ contextual and behavioral targeting techniques. In an embodiment, the contextual and behavioral targeting techniques may be used to decipher the context of a page a user browses in order to display a targeted ad. In another embodiment, the contextual and behavioral targeting techniques may be used to enhance a user profile. This may enable the building of robust user profiles. The search algorithms may enable crawling, entity extraction, query categorization or any other enrichment process in order to provide a contextual understanding of the page and to offer a precise page content understanding. In embodiments, query stream analysis may be used in combination with term categorization to understand user interests over time as well as in precise moments in time to build behavioral profiles. The creation of behavioral profiles may increase the relevancy of mobile advertising.

[00788] In embodiments, the monetization platform may serve as a centralized mobile advertising hub by partnering with mobile operators to balance mobile operator, user, and advertiser needs to deliver the mobile advertising while building traffic. The monetization platform may integrate multiple ad networks and servers via a single integration. A cross-inventory selection process may dynamically select a relevant and profitable advertisement to display from the mobile advertising network and other integrated advertising networks.

[00789] In embodiments, the monetization platform may integrate multiple ad networks and servers. A primary ad server may serve as the booking and delivery system for premium inventory to operator portal, publisher web sites, client applications or any other application. This may provide for direct sales of the operator's or publisher's high-value inventory. Multiple ad networks may be integrated into the monetization platform and may be used to supplement direct sales activities. In embodiments, the monetization platform may integrate with multiple local ad providers in multiple markets. In some embodiments, operator/publisher remnant or run-of-site inventory may also be made available to ad networks. In other embodiments, a paid search system may be integrated with the monetization platform for searching and browsing inventory. The monetization platform's ad provider Application Programming Interface (API) may allow for easy integration of new ad providers without code releases.

[00790] In embodiments, the optimization engine of the monetization platform may choose an appropriate ad for a given ad spot. The criteria that may be used for choosing the appropriate ad may be the type of ad and the ad provider targeted to the ad spot, or some other criteria. The criteria may include business rules applied to the ad spot. The business rules may include setting a priority of ad providers, keyword/domain blacklists, adult ad filtering, weighting ad providers, setting a default ad provider in case no ad is returned or any other business rule. The weighting of ad providers is done so that the ads are served in a designated allocation. In embodiments, the monetization platform may use past user behavior and profile information to determine the ad provider and the ad that is valuable to serve.

[00791] In embodiments, a yield optimization algorithm, as described herein, may determine which ad is relevant and revenue generating based on context (WAP page), consumer behavior, expected ad revenue, or some other characteristic.

[00792] In embodiments, the profile management platform may place users who are anonymously tracked into one or more segments based on browsing, search, ad interaction, purchase behavior or any some other user behavior. Profiles may also be enhanced with demographic information that may get loaded into a behavioral database. In embodiments, operators or publishers may pass segment or other profile information at ad request time. The segment or profile information may be passed to the ad provider who may use it to serve a targeted ad.

[00793] In embodiments, the monetization platform may be enabled to change ad behavior without changing ad tags. This may be done by using ad spots. Ad spots may be locations set up by the operator or publisher into which ads may be returned. Each ad spot setup may include the ad types and the ad providers that may be targeted to the given ad spot. Ad providers may be targeted to the given ad spot. The ad spot may also include business rules which may determine how ads are selected for the ad spot. Ad types, ad providers and business rules may be changed in the monetization platform without modifying the publisher's ad request for an ad spot. This may ensure that operators and publishers may make changes to their ad spots without making changes to their site. The changes may be made through an administrative console and may take effect in real time.

[00794] In embodiments, the monetization platform may provide operator and publisher access to the monetization platform. The monetization platform API may provide a programmatic interface for operators and publishers to retrieve multiple ad types. In embodiments, the programmatic interface may report ad activity back to the monetization platform. Operators and publishers may need to integrate the ad tags once and may access the existing ad providers and new ad providers as they come online.

[00795] In embodiments, the monetization platform may have an architecture including the monetization platform API, monetization platform application servers, an optimization engine, a profile management platform, a user interface and a publisher/operator application server.

[00796] In embodiments, the monetization platform API may allow publishers and mobile operators to request and retrieve ads as well as report ad activity back to the monetization platform. The monetization platform application servers may receive API requests, pull the appropriate ads from various providers and return the results. The optimization engine may make the determination based on the most appropriate targeting and the available inventory. The determination may yield as to which ad providers to query and which ads to select for a given request. The profile management platform may collect search activity, browsing behavior, ad interaction and any explicitly stated demographic or profile information. This data may be passed with an ad request or enhanced by proprietary data sources. The monetization platform user interface may be an administrative interface for setting up business rules and weighting, creating ad spots, setting up new ad provider integrations, profile administration and reporting.

[00797] In embodiments, the monetization platform may retrieve ads from various sources and select the appropriate ad(s) to return based on business rules, behavior, targeting, or some other criteria. The sources may include banner ad servers, paid search ad systems, ad networks and other third party ad providers. The integration of an ad provider with the monetization platform may shield operators and publishers from having to integrate with multiple ad providers.

[00798] In embodiments, the publisher/operator application server may request ads specific to its implementation. The publisher/operator application server may place the ads on a mobile web page or in the client application. The placed ad may be viewed by a mobile subscriber.

[00799] In embodiments, the monetization platform may leverage the profile management platform (PMP) to access user specific targeting information. The PMP may provide a robust and scalable architecture for the creation, management, and distribution of user profiles and behavioral based segmentation. The platform may integrate data from a large number of disparate data sources, both internal and external to the PMP and/or the operator itself. The PMP may include a series of enrichment modules that may leverage the monetization platform's unique understanding of mobile search and browse based behavior. This may allow the platform to extract meaning from search patterns and to categorize search and browse data at scale. The modules may process raw search and browse data and allow the monetization platform to enhance user profiles with additional information that may provide higher-quality and granular user segmentation. The additional information may include relevant keywords.

[00800] In embodiments, a user profile creation in the PMP may include data collection, normalization, enrichment, warehousing and analysis.

[00801] In embodiments, data collection may include accepting data into the system in both real-time and batch. An example of data may be search data. The profile management platform may be able to integrate profiling data from any source. The sources may include search streams, ad interactions, browse activity, operator CRM data and other third party data. In embodiments, a search stream may include queries performed by a particular user, a query timestamp, and post query activity. The search stream data may provide insight into general user interest over time and illuminate immediate and evolving user needs. The search stream data may identify longer term and real time interests which may provide time-sensitive

targeting opportunities. The search data may be collected by the profile management platform via search deployments may be imported from external sources and may be deduced from gateway activity to capture off-portal search activity. An example of base data collected, analyzed and enriched by the profile management platform may be as follows: A User ID may be collected which may be a Common Unique identifier. A Source may be collected which may be "where the search was executed". Examples of locations where search may be executed are a portal, a storefront and the like. A query may be collected which may be the keyword entered by the user. A URL may be collected which may be a URL clicked on a search result page. A location may be collected which may be a geographic location where the query was executed.

[00802] In embodiments, an ad interaction as a source may include the profile management platform collecting data about a given user's interaction with both search and display advertising. The ad interaction data may allow the system to expand the knowledge of a user to include consideration for the type of advertising they are most likely to respond to. The information may be analyzed and provided as an element within the summarized user profile. An example of a base set of data collected by the profile management platform for ad interactions may be as follows: A User ID may be collected which may be a Common Unique identifier. A provider may be collected which may be an advertisement source. Examples of an advertisement source may be a primary ad server. A context may be "where the ad was displayed". Examples of context may be a sports portal, a third party site and the like. An ad type may be details of the ad. Examples of ad details may be text, static graphic, interactive and the like. A timestamp may be the time the ad was displayed. A trigger may be "What the ad was served in response to". Examples of a trigger may be search, context, behavior, demographics and the like. An ad interaction may describe the ad success. Examples of an ad success may be click, conversion and the like.

[00803] In embodiments, browse activity as a source may include integrating both on-portal and off-portal browse data into the user profile. On-portal brose behavior may be integrated via ad tags on the operator portal. Off-portal browse behavior may be accessed via an integration with the operator gateway. The off-portal browse behavior may be a unique operator asset that the PMP may analyze to improve the relevancy of the operator search experience and the yield of operator managed advertising. A key capability of the PMP may be its ability to

analyze browse traffic to understand the content and nature of pages being visited. This may be done via an enrichment process.

[00804] In embodiments, the operator CRM data and other third party data may include the PMP integrating operator specific CRM data (e.g., demographics) as well as existing segmentation data. The operator may pass explicit targeting information such as gender or age which may be used for targeting and also for enhancing the user profile. Integrating operator specific data may be supported by the base platform, but may require professional services work for the actual integration as the nature and source of the imported data may be specific to each operator. When the monetization platform provides the search and/or advertising solutions to the operator, this data may be included in the profile process and no additional integration may be required. When the search and/or advertising solution is not provided or in cases where additional operator specific data may be included (e.g., gateway browse data, demographics), the PMP may provide both a real-time web services API for data collection as well as a feed based batch process. The monetization platform may work with external data providers to determine the best method for data collection based on the quantity, value, and time-sensitivity of the data to be collected.

[00805] In embodiments, the PMP may include a number of modules to normalize the data collected from disparate data sources. In embodiments, the PMP may rely on a common user ID to combine user data from different sources. In an example, a common and reliable user ID may already exist. In some examples a hashed/encrypted user ID may be available from some sources. The user ID normalization process may integrate an algorithm or algorithmic key for decoding user IDs and accessing the base user ID for compilation with other data sources. In embodiments, the PMP may rely on having data time-stamped in a known format and time-zone. The timestamp normalization process may convert all inputs into an expected format and perform any time-zone conversions based on knowledge of the data source. In some embodiments, not all data from a given source may be provided to the PMP. In an example, a sample of the gateway access data (off-portal browse activity) may be provided. This knowledge (e.g., 50% of random activity is provided) may be incorporated into the raw data from the given source and may be used by the PMP analysis algorithms to improve the data weighting and the quality of the segmentation.

[00806] In embodiments, enrichment may include performing value-added processing of the collected data. The enrichment modules within the PMP may incorporate unique mobile user and mobile content understanding to improve the quality of the information included in the user profiles. Examples of the enrichment modules may include: URL Categorization, Entity Extraction, Query Clustering, Query Categorization, Query Differentiation, Blacklisting, User Opt-Out and Contextual Targeting Support, or some other enrichment module.

[00807] In embodiments, URL categorization may include the PMP leveraging the crawl, search, and categorization technology to understand the nature of the content being accessed by users. The PMP may maintain a database of URL classifications and an external service may enable new URLs entry into the database when an unknown site/URL is provided as an input. This service may leverage the editorially constructed training sets and learning algorithms to automatically classify unknown URLs. The categorization metadata may then be included in the raw user behavior data and may be leveraged by the profile analysis algorithms to improve the user segmentation quality.

[00808] In embodiments, entity extraction may include the PMP search algorithms analyzing accessed URLs content to determine the common entities (e.g., names, places) in the page text. This information may be distilled and included in the raw user behavior data for analysis. This process may be extended to include sentiment analysis to determine the nature of the content related to the entity. In an example, the user may frequently access information about certain kind of automobiles, but a majority of the content may be negative about the automobiles. The entity extraction process may also be a valuable input into the keywords that are associated with a user profile.

[00809] In embodiments, query clustering may include processing and summarizing of a user's query stream for analysis and inclusion into the user profile. The PMP may leverage the monetization platform's search experience and technology to provide advanced query analytics. The query clustering component may be responsible for grouping similar queries to allow for eventual categorization. The clustering component may rely on proven search tools to group similar terms and concepts based on historical analysis of millions of user searches. Spell correction technology may be used to correct queries prior to categorization.

[00810] In embodiments, query categorization may include summarizing user searches into a set of defined query categories. The PMP may use advanced search technology to assign user queries to a defined set of categories. This process may use both an editorially defined training set for associating popular keywords to categories as well as a search based process that relies on URL categorization capabilities and access to a large scale web index. The two step process may take queries that are not editorially categorized and execute a search for them against a web index. The returned URLs may then be weighted and categorized to provide a category for the given query.

[00811] In embodiments, query differentiation may include seeking to identify distinguishing terms from common and non-distinguishing terms. Many queries may provide neither segmentation nor targeting value, while other queries may provide insights in user behavior or a change in user behavior that presents a strong targeting opportunity. This knowledge may allow non-distinguishing queries to be removed (or down-weighted) from a user profile and allow more distinguishing queries to be weighted higher in the profile analysis.

[00812] In embodiments, blacklisting may include an operator defining classes of content for which user behavior is not tracked. For example, an operator may request that neither access to secure sites (i.e., https) nor access to adult sites be tracked and used in user profile creation. By default, the monetization platform may exclude adult search terms and site access from profile creation.

[00813] In embodiments, a user opt-out may include the PMP supporting user level opt-out from profiling. The PMP may accept, in batch format, a list of user IDs associated with users who may have opted out of behavioral targeting. In an embodiment, based on the implementation and the specific market and/or operator requirements, the monetization platform may implement opt-out requests to preclude all data associated to the given user ID from collection and storage in the data. In another embodiment, the monetization platform may implement opt-out request to allow data associated with the user ID to be collected and processed, but not allow summarized user profiles to be created and distributed for the given user ID.

[00814] In embodiments, contextual targeting support may include leveraging the data collected by the PMP by the contextual targeting engine within the monetization platform. The query clustering and query categorization data compiled by the PMP may be exported for

use within the contextual analysis and yield optimization engine. Access to this data may allow the monetization platform to include keyword optimization as part of the yield algorithm for contextually targeted ads. For example, if the contextual analysis engine determines that 'stock tips' is the topic of a given page, the keyword clustering and categorization data may be used to expand keywords considered by the yield optimization algorithm to include related keywords such as 'investment advice' and 'trading strategies'. This technology may allow the monetization platform contextual targeting process to select the highest yielding ad possible.

[00815] In embodiments, warehousing includes the PMP leveraging a robust data warehouse built to provide real-time, on-demand access. The platform may be built on the latest data warehousing technology. The platform may be a core component in the architecture, providing both visibility and scalability. The data warehouse may be accessed by the user profile analyzer to create the summarized user profiles that are eventually made available to the monetization platform as well as other third party platforms. The data warehouse may enable summary level reports that provide insight into the archived data quality. An example of the metrics included in the reports may be Total Users: Total number of users with data in the warehouse, Profiled Users: Total number of users with enough data to be placed in a segment, Recency: Histogram of profile recency (i.e., when user data was last updated) and Profile Depth: Histogram of profile features (e.g., segments, keywords).

[00816] In embodiments, analysis may include leveraging normalized, cleansed, and enriched raw data from the previous steps to create a consumable user profile. The analysis portion of the PMP may include two general components. The first component may allow segments to be defined within the PMP and the second component may be the actual analysis module which performs the computational steps required to generate the user profile. The segment component may allow for definition of N number of top-level user segments (e.g., Music, Sports) and N number of secondary level segments (e.g., Pop, Football).

[00817] A segment definition may consist high-level components, including but not limited to:

Name and Description: The segment name may be exposed to services that consume the profile, as well as a segment marketing description.

Action weightings: Action weightings may be configurations that may define the relative importance of different user behaviors (e.g., click, browse, search) in determining if a given user should be associated with the segment.

Category relationships: Category relationships may define the affinity level between the browse (URL) and search (query) categories and the given segment.

Time Sensitivity: Time sensitivity may define the general decay curve for how quickly historic raw user data may be discounted when determining scoring for the given segment. The ability may exist to create a window of time for which the raw user data may be given an inflated weighting in the overall segment scoring. This may allow the PMP to define segments which may be extremely sensitive to changes in user behavior and may be quickly associated with a given user, in order to take advantage of limited duration changes in user behavior (e.g., vacation shopper).

Confidence Minimum: Confidence minimum may be the minimum correlation level with user behavior that is achieved in order to associate the segment with a given user.

[00818] In embodiments, the PMP may support a large number of segments. A balance between segmentation and reach may be maintained. The monetization platform may work with the operator to achieve the proper balance between segment granularity (targeting), segment reach (traffic), and available advertisers (coverage). The PMP's dual-level segmentation capabilities may allow for more granular segments to be experimented with while the top-level segmentation remains intact for targeting and ad delivery.

[00819] In embodiments, the PMP profile creation may be responsible for analyzing the user level raw data and performing the following tasks: Segment Assignment, Keyword Assignment and Metadata Assignment.

[00820] In embodiments, segment assignment may be based on the segment definitions, the analysis module scoring users may be based on segment definitions and associates users to zero or more segments, along with a confidence score. The segment assignment process may be configured to run at a periodic basis, as required by the operator and/or the change rate of the underlying raw data. The segment assignment process may be configurable to analyze different users' behavior on a different schedule than other users (e.g., the segment analysis for more active users can be done more frequently).

[00821] In embodiments, a keyword assignment process may include analyzing the user level raw data to associate a configurable number of keywords/keyphrases to specific user profiles, along with a confidence score. The keyword assignment may be based on the analysis done during the enrichment portion of the data collection process, and the final analysis and rollup may be done during the keyword assignment phase. The keyword assignment process may be configured to run at a periodic basis, as required by the operator and/or the change rate of the underlying raw data. The keyword assignment process may be configurable to analyze different users' behavior on a different schedule than other users (e.g., the segment analysis for more active users may be done more frequently).

[00822] In embodiments, metadata assignment may include the analysis and rollup of data not associated with a segment or keyword. The profile features considered may include location, operator or third party provided demographics, and user specific ad interaction rates across data sources.

[00823] In embodiments, the PMP user profile definition may result in discrete user profiles that may be accessed. The user profile characteristics may include User ID: Encrypted version, only passed with batch profile delivery, Top-Level Segment(s): The 0 to many top-level segments associated with a profile, Secondary Segment(s): The 0 to many secondary segments associated with a profile, Segment Strength: A numeric score that may represent the correlation to the segment, Keyword(s): The 0 to many keywords/key phrases associated with the profile, Keyword Strength: A numeric score that may represent the correlation to the keyword, Emergent Segment: A segment not currently associated with the user, but that recent behavior may have suggested may be assigned in the near future, Ad Interaction: Summarized interaction rates for text, display, and interactive, Demographics: Operator or third party provided demographics (e.g., age, gender), Estimated Demographics: Demographic data derived by the PMP based on analysis of the user behavior, Billing Location: Operator provided billing location and Predominant Location: 'Home' location based on analysis of user location when interacting with the external systems (e.g., search).

[00824] In embodiments, the PMP may provide a comprehensive security layer and multiple access methods for sharing user profiles with the monetization platform and operator designated third parties.

[00825] In embodiments, the PMP may support two levels of access restrictions. The API access restrictions may include exposing user profiles via a real-time web services API as well as a batch orientated and feed based scheduler mechanism. Access to these services may be restricted based on IP restrictions and authorization key. In embodiments, a pre-defined list of allowed IPs may access the PMP user profile service. The list of IPs may be provided prior to system use. A valid authorization key may be passed as part of the profile request. Authorization keys may be unique, based on the requesting IP, and may be updated on a frequent interval. An authorization key may be used to map the request to an account to determine profile level restrictions.

[00826] In embodiments, for a given account, the PMP may support the notion of profile level restrictions. Profile level restrictions may define the set of user profile features that a given account may access. For example, an account may be created that may provide access to top-level segments and keywords while other accounts may be created that may allow full access to features included in the user profile. This may allow the PMP to share user profile data at the level required by the requesting party and provide a mechanism for the operator to offer differing levels of service/targeting to third party consumers of the profiles.

as well as a file based batch delivery mechanism. The web services API may require that a valid user ID and authorization key be passed to the system. Once the authorization key is validated, based on the requesting IP, the PMP may look up the user profile for the given user ID. The corresponding user profile may then be retrieved and the allowed profile features for the given account may be returned. The PMP may support batch based delivery of a large number of user profiles. This service may require additional professional services work to ensure that only encrypted user IDs are made available to the third party accessing the user profiles and that the third party has a valid mechanism and secure process for managing user IDs within their environment. In addition, operator approval may be required before any batch delivery of user profiles is done.

[00828] In embodiments, to allow for forecasting and targeting by segment, the monetization platform may pass the subscriber segment information to the ad providers that accept it. When an ad request comes in from an operator, the segment information may be automatically passed to the appropriate ad providers. This may allow for campaigns targeted to

those segments to be retrieved as well as allow for forecasting by segment for the ad providers who support it.

[00829] In embodiments, the process for passing segments from the PMP to the MP is as follows:

Ad server: The monetization platform may passes the subscriber segment using the keyname/value functionality in an ad server along with an ad request. Ads targeted to the segment(s) that may be passed in are then returned. If there are no ads targeted to the segment(s) passed in, untargeted ads may be returned. The same holds true for demographic data passed in with the ad request. An ad server may use the data in the keyname/value pair to build an inventory forecast for each segment. Forecasts may also be run for combinations of segments or combinations of segments with demographic or other operator-supplied information.

Paid Search: A keyword associated with the subscriber segment or the page context may be passed to a paid search system. If there are any ads targeted to the keyword, they may be returned. For ads displayed with results triggered by a user search, the specific search keyword may be passed to paid search and matching ads may be returned.

Other ad providers: For other ad providers who may support targeting, the monetization platform may pass segment or other subscriber information as parameters to an ad request if the ad provider supports this functionality. This may be set up during the implementation of a new ad provider.

[00830] In embodiments, targeting of advertising content may include integrating the targeting capabilities of the monetization platform with leading ad providers. Targeting campaigns to segments or other subscriber information may be dependent on the capabilities of the ad provider.

Ad server: If segment and/or subscriber information targeting is desired for a particular campaign, this may be done by using the search term wizard within an ad server. The search term wizard may allow the campaign manager to create an expression to target a particular campaign to a combination of segments and subscriber information.

[00831] In embodiments, the monetization platform may utilize all levels of targeting exposed via an ad server API. This may include use of the keyname and keyvalue pairs to create campaigns targeted to segments and/or demographics, ability to pass a keyword to the ad server for targeting. The monetization platform may be configured to pass either the actual

user query segment names, segment level keywords (as defined by the PMP), or profile level keywords (as defined by the PMP) as part of the ad request. Targeting may include the ability to pass a zip code to the ad server. The monetization platform may be configured to pass either the user's current physical location (based on a location based services integration), the actual user input value (if/when available), or a known location from the user profile.

[00832] In embodiments, the monetization platform may leverage location targeting capabilities for the delivery of location specific pay per call ads. This may include the ability to pass a location to the ad server for targeting. The monetization platform may be configured to pass either the user's current physical location (e.g., based on location based services integration), the actual user input value or a known location from the user profile, or some other location information.

[00833] In embodiments, the monetization platform may be able to integrate to a third party ad provider for the delivery of targeted advertising. The degree of targeting may be limited by the third party API and/or ad serving capabilities. An optimized integration may be provided that leverages the full capabilities of the third party ad delivery system.

[00834] In embodiments, the monetization platform may support the following ad types: sponsored links, banner ads, rich media (audio/video), promotions or any other ad type. The monetization platform may support linking directly to an advertiser mobile web site or to a client application hosted landing page. The supported landing pages for sponsored links and promotions may be: phone call launch, SMS landing page, marketing message, email capture, local listing and the like.

[00835] In embodiments, sponsored links may be ads placed on search result pages as a result of a user search query. The user intent may be derived directly from the query and location targeting information included on the ad search request as well as past user behavior. In embodiments, advertisers may create and target ads and bid on relevant keywords so that their ads may appear in response to requests for sponsored links.

[00836] In embodiments, banners may be displayed during a mobile subscriber's browsing experience on a publisher site. Banners may be graphical, graphics + text, text only advertisements or similar kind of advertisements. Banners may not have as much context as sponsored links with which to derive user intent. Data such as landing page context, placement on the page and past user behavior may be taken into account when selecting an ad to serve.

[00837] In embodiments, promotions may be mobile-operator-specific keyword triggered ads that may be separate from the sponsored links auction and do not have a bid associated with them.

[00838] In embodiments, video and audio advertisements may be delivered by giving a reference to the resource file location. Tracking of interaction with video/audio ads may be provided via a 1x1 pixel that may be accessed upon impression and/or interaction with the advertisement. An ad spot and ad request for video and audio ads may include, but is not limited to, the following parameters: Bit rate, duration, format, click-through URL, dimensions (video only), and placement (video only and includes values such as pre-roll or post-roll).

[00839] In embodiments, landing pages may be displayed. A phone call launch may include presenting a message and optional image to the user along with a phone number which they can click-to-call. An SMS landing page may present a message and SMS short code along with any subscription/pricing information. If there is an integration with the carrier SMS, the subscriber may have an option to trigger an SMS from the landing page. A message with instructions for sending the SMS may be displayed.

[00840] In embodiments, a marketing message may include a title, description and optional image displayed to the user.

[00841] In embodiments, an email capture may include a title, description and optional image displayed to the user along with an edit box where they enter their e-mail address for follow-up by the advertiser. A confirmation page may be displayed after the e-mail address is collected.

[00842] In embodiments, the local listing landing page may represent a phone book style listing, typically for a business. This may contain ad text, an image, a phone number, a street address, a city, a state, a zip and distance from the user's location.

[00843] In embodiments, a coupon landing page may be added as a supported type. A coupon landing page may allow an advertiser to create an offer, targeted based on existing monetization platform capabilities, and then subsequently track interactions with, and redemption, of the offer.

[00844] In embodiments, the monetization platform setup and management may be executed as part of the operator/publisher implementation process. Operators or publishers may not have direct access to the monetization platform administration console.

[00845] In embodiments, the monetization platform setup may include an ad spot setup. Users may create new ad spots or modify existing ad spots within the monetization platform. Each ad spot may contain a unique set of ad types, ad providers and business rules that may determine what kinds of ads may be eligible to be displayed in a particular ad spot and which ad providers may be called to retrieve ads for that particular advertisement spot.

[00846] In embodiments, an advertisement spot setup screen may include fields/parameters such as Name, Description, Description, Default ad provider, Offline, Adult content, Listing Type, Ad Limit or some other feature. Name may be name of the ad spot that is exposed externally via the monetization platform API. It might not contain spaces. Description may include a description of a particular ad spot. This may be for internal use only. A default ad provider may be applicable if ads are returned for this spot. This may be the ad provider of last resort if no other ads are returned. If the Offline field is unchecked it may mean that the activity reporting (impressions and click-throughs) for this ad spot are handled by the monetization platform and the ad provider at the time the impression or click-through occurs. If the Offline field is checked it may mean that the publisher is responsible for reporting back impression and click-through data to the monetization platform using the API. This may be applicable to ads displayed in client applications which may not be online at the time an ad is displayed. The field adult content may include one of 'Allowed,' 'NotAllowed,' or 'Only.' 'Allowed' may indicate that adult ads may be returned with the ad response in addition to non-adult ads. 'NotAllowed' may indicate that adult ads may not be returned with the ad response. 'Only' may indicate only return adult ads with the ad response. 'Listing Type' may include 'promotion', 'bid' or 'mixed'. Typically, this may be set to Bid. Promotion or Mixed listings may be only used when paid search promotional ads are to be returned to a particular ad spot. 'Ad Limit' may indicate the maximum number of ads to return in the ad response.

[00847] In embodiments, as part of the integration with ad providers, various parameters may be set up and may be passed with each request. Some parameters may be constant across all ad spots for a given ad provider and some may be modified for each ad spot. The monetization platform may display the parameters for the selected ad provider and the user may add parameters and their associated values or edit existing parameters and values. Parameters may be ad provider specific and the values for ad spots may be managed by the campaign management team.

- [00848] In embodiments, integration with new ad providers may be handled by the integration team. The mapping of ad types and ad providers may be handled within the monetization platform. New ad providers may be added to an ad spot or ad spots.
- [00849] A monetization platform, as described herein, may enable defining and cataloging advertisement inventories as a tiered network of networks/sites. In embodiments, an advertisement inventory may be defined by sites, site groups, a section, a page, a position, or some other characteristic.
- [00850] The monetization platform may enable defining frequency capping span and sequencing rules configurable at network and site definition level. In embodiments, the frequency capping may be defined per session. The creatives may be given a sequence to be shown to the users.
- [00851] The monetization platform may enable supporting directory services as a site inventory within the network hierarchy. In embodiments, the monetization platform may make calls to multiple sources of inventory. The multiple sources of inventory may be included in the site inventory.
- [00852] The monetization platform may update the ad network, sites and inventory. In embodiments, sites, site groups, sections, pages and positions can be modified within an ad server interface. Ad spots may be added and configured to retrieve different ad types from multiple ad providers within the monetization platform.
- [00853] In an embodiment, the monetization platform may have the changes taking effect immediately. In another embodiment, the changes may be designated date-effective. In embodiments, additions to sites, site groups, sections, pages and positions may be reflected immediately in the interface. Campaign updates may be reflected within a few minutes of making an update and may be set up to be effective on a specific date.
- [00854] The monetization platform may package ad targeting parameters (e.g., geographic, demographic, etc.) inherent in the system in a way that is easy for sales to use. In an example, geographic targeting may be packaged into a company's divisions.
- [00855] The monetization platform, as described herein, may enable packaging advertisement trafficking parameters inherent in the system. Examples of advertisement trafficking parameters may include national, local, daypart, queuing, frequency, or other type of parameters. The packaging may be done in a way that is easy for sales to use. For example, the

packaging of group daypart may be done as morning, afternoon, primetime, or in any other way. In embodiments, forecasts may be generated for any key/value pair. Standard forecasts may include sites, site groups, sections, pages and positions. For any other parameters, key/value pairs may be passed to be included in an inventory report.

[00856] The monetization platform, as described herein, may enable setting up user profile criteria. Embodiments of user profile criteria may include user identity, declared and/or inferred demographics, preferences, sites visited, content consumed, or any other type of criteria as described herein. In embodiments, the profiles themselves and the criteria and thresholds for inclusion may be configurable. In embodiments, some custom development may be required based on network requirements, ingestion of profile criteria from the network, interfaces with other systems, or any other basis.

[00857] The monetization platform, as described herein, may enable maintaining and updating user profile criteria. In embodiments, user profile criteria may be updated automatically. In embodiments, the automatic updating may be online, for example by search streams browse activity, ad interactions, enriched data passed in with the ad request, or any other online methodology. In embodiments, automatic updating may be offline. Examples of offline updating may involve loading profile data into a profile management platform in an offline manner.

[00858] The monetization platform, as described herein, may enable entering advertisement serving criteria. In embodiments, advertisement serving criteria may be passed in with the advertisement request and the criteria for delivering a particular campaign is set up within the ad server.

[00859] The monetization platform, as described herein, may enable packaging advertisement serving criteria. In embodiments, arbitrary expressions for campaign targeting may be set up within the campaign using combinations of key/value pairs.

[00860] The monetization platform, as described herein, may enable entering pricing criteria. In embodiments, the pricing criteria may be in accordance with IAB, NAB, MMA, CAB, standards such as CPC, CPM, or any other standard, or network pricing requirements, among other requirements. In embodiments, CPM, CPC, CPA and flat rate (sponsorship) models may be supported for primary ad serving.

- [00861] The monetization platform, as described herein, may enable packaging pricing criteria in accordance with IAB, NAB, MMA, CAB, standards such as CPC, CPM, or any other standards, or network pricing requirements, among other requirements. In embodiments, the pricing models described above may be combined within a campaign or multiple campaigns may be set up to accommodate widely varying pricing criteria.
- [00862] The monetization platform, as described herein, may enable storing campaign data for recall on future campaigns. In embodiments, campaign data may be accessed via the reporting system.
- [00863] The monetization platform, as described herein, may enable storing hard coded advertisements for recall on future campaigns. In embodiments, existing campaigns and creatives may be copied and used for future campaigns.
- [00864] The monetization platform, as described herein, may enable reserving inventory for a siloed campaign prior to entry of an insertion order. In embodiments, campaigns in An ad server may be set to 'reserved' status in order to reserve inventory prior to IO entry.
- [00865] The monetization platform, as described herein, may enable reserving inventory for multiple screen campaigns prior to entry of an insertion order. In embodiments, inventory may be reserved for campaigns targeted to multiple sites or site groups.
- [00866] The monetization platform, as described herein, may enable preempting previously reserved inventory. In embodiments, preempting may be performed on the basis of priority, advertiser, or any other criteria.
- [00867] The monetization platform, as described herein, may enable forecasting revenue in aggregate. In embodiments, the forecasting may be performed by campaigns based on criteria like ratings, CPM, CPA, click-to-call, reach and frequency, duration of run, or some other type of criteria. In embodiments, campaign groups may allow for revenue forecasting based on campaign selection criteria.
- [00868] The monetization platform, as described herein, may enable forecasting revenue in aggregate across/within silos. The forecasting may be based on criteria like ratings, CPM, CPA, click-to-call, reach and frequency, duration of run, or some other type of criteria. In embodiments, campaign groups may allow for revenue forecasting based on campaign selection criteria in aggregate or within site-targeted silos.

[00869] The monetization platform, as described herein, may enable forecasting inventory aggregated across or within silos of the tiered network for RFP response. These may include type of advertisements, flighting, location (site selection), packages, size of advertisements, or some other criteria. In embodiments, campaign groups may allow for revenue forecasting based on campaign selection criteria in aggregate or within site-targeted silos.

[00870] The monetization platform, as described herein, may enable identifying available audience characteristics for marketing, proposals and RFP response. Embodiments of audience characteristics may include specific demographics (including age, sex, income, profession, or any other demographic information), channel, interest group, relevance, product purchase behavior, product usage, media usage, or some other type of audience characteristic. In embodiments, these criteria may be passed in as key/value pairs.

[00871] The monetization platform, as described herein, may enable supporting sales credit. In embodiments, campaigns may be grouped by salesperson via the campaign groups feature.

[00872] The monetization platform, as described herein, may enable supporting sales commissioning. In embodiments, a sales rep and commission percentage may be entered for each campaign.

[00873] The monetization platform, as described herein, may enable providing a dashboard view across all screens. In embodiments, the summary/dashboard view may be provided across sites, site groups and sections allowing for an overview of performance across all screens.

[00874] The monetization platform, as described herein, may enable alerting sales through email, dashboard, or some other type of medium, when campaign is not meeting objectives. In embodiments, notifications may be sent for a campaign. These notifications may include: beginning of campaign, end-of-campaign, daily over-delivery, daily under-delivery, lifetime over-delivery, weekly & monthly campaign reports, end of campaign reports, or some other type of notification.

[00875] The monetization platform, as described herein, may enable integrating with a CRM system to manage life cycle account sales. In embodiments, a flexible API may be used to integrate with CRM systems for sales management.

[00876] The monetization platform, as described herein, may enable adding new targeting criteria to the system. In embodiments, targeting parameters may be added at any time and passed in to a monetization platform. These parameters may be passed to and processed by the profile management platform and the passed to the advertisement server. Because of the flexible nature of the key name or value targeting, new criteria may be passed in or added to the profile and when campaigns are targeted to the new key name/value pairs, the appropriate ad may be returned. These new criteria may also be added to inventory forecasts.

[00877] The monetization platform, as described herein, may enable targeting on publisher defined targeting criteria. In embodiments, key name/value pairs may be passed in by the publisher and campaigns targeted to those key name/values may be returned when they match.

[00878] The monetization platform, as described herein, may enable interfacing with other advertisement serving vendors on additional platforms.

[00879] The monetization platform, as described herein, may enable targeting using extensive day-part parameters. Embodiments of day-part parameters that may be targeted may include time of day, day of week, hour of day, or some other parameter.

[00880] The monetization platform, as described herein, may enable targeting using extensive demographic profiles. Examples of demographic profile may include age, gender, income, or some other type of parameter as described herein. In embodiments, these criteria may be combined with each other or other targeting criteria and ranges of values may be targeted.

[00881] The monetization platform, as described herein, may enable targeting using extensive psychographic profiles. Examples of psychographic profiles may include PRISM. In embodiments, psychographic targeting may be performed using search, browsing, context, ad interaction data, or some other type of technique.

[00882] The monetization platform, as described herein, may enable targeting using extensive geographic profiles. Examples of geographic profiles may include continent, country, state, city, zip, triangulation, DMA, zone, telephone code or some other type of geographic parameter. In embodiments, geographic targeting may depend on the advertisement provider.

[00883] The monetization platform, as described herein, may enable targeting using extensive techno-graphic parameters. Examples of techno-graphic parameters may include IP address, browser, device type, or some other type of parameters. In embodiments, the monetization platform may be detect and classify the device. In embodiments, handset make, model, and handset capabilities may be determined. The appropriate advertisement format may be selected based on handset capabilities. In addition, handset make, model and specific handset capabilities may be targeted. In embodiments, IP address, browser, OS, domain, bandwidth, or some other type of network parameter may be targeted for online advertisement serving.

[00884] The monetization platform, as described herein, may enable targeting using advanced keyword search or keyword-value pair algorithms. In embodiments, the monetization platform may pass keyword or key value pairs to any advertisement provider. These keyword or key value targeting mechanisms may be publisher initiated (included in the ad request) or internal to the monetization platform. In embodiments, for any keyword passed in to the paid search system, the set of relevant ads based on the keyword, match type and targeting criteria may be returned. In embodiments, arbitrary keyword or key name/value targeting may be available for campaigns. Expressions may be used to combine key name/value pairs for complex targeting.

[00885] The monetization platform, as described herein, may enable targeting using advanced contextual relevance algorithms. In embodiments, entity extraction may be performed on pages crawled and visited to be able to classify pages and allow for contextual targeting.

[00886] The monetization platform, as described herein, may enable targeting using advanced behavioral relevance algorithms. In embodiments, the profile management platform may use a combination of search behavior, browsing behavior, advertisement activity and user data to create a behavioral profile. A user may be classified into appropriate segments and keywords may be stored within profiles.

[00887] The monetization platform, as described herein, may enable targeting an advertisement to a channel or program based on defined content. In embodiments, the monetization platform advertisement spots may be set up to correspond to a particular channel or program. This information may then be passed to the appropriate advertisement provider. In

embodiments, a channel or program may be targeted by making it a page within the system or by passing the appropriate targeting parameters.

[00888] The monetization platform, as described herein, may enable targeting based on location of user (LBS), using either TODA based technology or GPS based technology. In embodiments, location parameters may be passed in to the monetization platform which may pass them on to an advertisement provider for geographic targeting.

[00889] The monetization platform, as described herein, may enable supporting full inventory of mobile device targeting and creative abstraction or translation. In embodiments, appropriate targeting parameters may be passed in to the advertisement server to select the right creative size. In addition, information pertaining to handset make and model may be passed as targeting parameters to allow for handset make and model forecasting and targeting.

[00890] The monetization platform, as described herein, may enable interfacing with an external relevance engine to facilitate advertisement targeting.

[00891] The monetization platform, as described herein, may enable interfacing with third party targeting systems.

[00892] The monetization platform, as described herein, may enable supporting personalization and targeted advertising based on subscriber preferences. Examples of such preferences may include preferences volunteered by the user in the process of registering or requesting information, or any other type of preferences. In embodiments, subscriber preferences may be stored with the user profile in the Profile Management Platform. This information may be added to the rules used to generate user segments, or may be used for targeting.

[00893] The monetization platform, as described herein, may enable accepting interest scores as user attributes and as advertisement attributes, and deliver advertisements based on matches on those attributes. Examples of interests may include interest in sports, interest in a music genre, or some other type of interest. In embodiments, the interest scores may be implemented as key value pairs which may be used to generate forecasts and target campaigns. New attributes may be added by adding the appropriate key value pair.

**[00894]** Referring to Fig. 49, the monetization platform, as described herein, may enable masking a subscriber to external parties using randomly generated identifiers or 'matched key pairs' with defined lifecycle, correlation, tracking, and reporting capabilities. In embodiments, the monetization platform may pass a hashed version of a user id to advertisement

providers for targeting. In addition, targeting may be achieved by passing the targeting parameters as name value pairs.

[00895] The monetization platform may create an insertion order, update insertion orders, create orders from templates and from an existing campaign order. An ad server contract management module may provide for insertion order creation and workflow.

[00896] The monetization platform may schedule ads/campaigns supporting all industry ad sales practices. Campaigns may be created with CPM, CPC, CPA, fixed price or a combination.

[00897] The monetization platform may weight campaign delivery by objective, across network/sites, in fixed or percent allocations. Campaign weight and priority may be set per campaign and adjusted to meet campaign goals.

[00898] The monetization platform may support frequency capping span, sequencing rules configurable at campaign level. Frequency capping may be set for impressions or clicks for the following time periods: session, hourly, daily, weekly, monthly, lifetime. Ad sequencing may be set up per creative to determine the order that ads appear to a given user.

[00899] The monetization platform may interface with various Customer Relationship Management, Advertiser Buy Side, and third Party Sales systems to facilitate ad sales and automate campaign insertion order ingestion. Third party systems may integrate with the an ad server API to set up campaigns and creatives and for IO ingestion.

[00900] The monetization platform may integrate with one or more content management (CMS) and / or digital asset management (DAM) systems to automate ad creative workflow - ingestion, through trafficking and publishing. Third party systems may integrate with the an ad server API to set up campaigns and creatives and for IO ingestion.

[00901] The monetization platform may upload ad content via the ACM user interface, or the content management system user interface. Ad content/creative may be uploaded via the an ad server interface.

[00902] The monetization platform may auto detect the ad parameters under manual or bulk ingestion. Bulk ingestion may be available via the an ad server API.

[00903] The monetization platform may auto create metadata (for ad size, format, etc.) under manual or bulk ingestion. Bulk ingestion may be available via the an ad server API.

- [00904] The monetization platform may bulk upload ad content via FTP. Bulk ingestion may be available via the an ad server API.
- [00905] The monetization platform may encode and transcode digital video ad content. Digital video encoding and transcoding may be provided as a professional service.
- [00906] The monetization platform may stage and publish ad content to ad servers. When campaigns are set to run live, they may be automatically staged and published.
- [00907] The monetization platform may preview ad content in context. Ad/creative previews may be available within an ad server.
- [00908] The monetization platform may test ad content in context. The paid search system may allow advertisers to see previews of their ads. For an ad server, a preview of an ad may be seen, but it may not be in a mobile context.
- [00909] The monetization platform may stage and publish digital video ad content to the Content Delivery Network (CDN). An ad server may push content to CDN as a built-in function. For streaming content may be hosted and/or pushed to CDN, an additional CPM bandwidth charge may be applied.
- [00910] The monetization platform may update in real time the catalog of available inventory including type of ads, audience, flighting, location (web site selection), packages and size of ad. Sites, site groups, sections, pages and positions may be modified in the ad server UI in real time or uploaded via an Excel template.
- [00911] The monetization platform may update projected inventory based on history, seasonality and the like. Ad server forecasts may project inventory based on history and choice of forecasting algorithm and seasonal multipliers.
- [00912] The monetization platform may project inventory forecasts out one year.

  An ad server may offer inventory forecasts for up to one year.
- [00913] The monetization platform may adjust in-flight campaigns based on new/revised inventory forecasts to improve yield. Campaign priority or targeting may be modified to account for revised inventory forecasts.
- [00914] The monetization platform may allocate inventory for different buy types. Inventory may be allocated by site, site group, section, page and location. These entities may be used for national/local/promotion buy types.

- [00915] The monetization platform may set priorities during the reservation stage. In embodiments, the monetization platform may set priorities during the actual booking stage.
- [00916] The monetization platform may identify when inventory is oversubscribed (based on publisher defined thresholds). This may be done by detailing inventory reports booked versus available inventory.
- [00917] The monetization platform may use AD- ID (Advertising Digital Identification to standardize asset identification). An ad server may allow for client-defined AD-ID.
- [00918] The monetization platform may receive ad calls from any service delivery platforms client-side or server-side. Typical implementation for mobile may be a server-side delivery.
- [00919] The monetization platform may serve optimal ad calls to any service delivery platforms client-side or server-side. The monetization platform may retrieve the best ad from the right ad provider based on the ad request, user profile, business rules and other optimization parameters. The monetization platform may retrieve the best ad from the right ad provider based on the ad request, user profile, business rules and other optimization parameters.
- [00920] The monetization platform may determine optimal ad to deliver in real-time based on targeting. The combination of targeting criteria and campaign priority may ensure that the best ad is being returned for any given ad request. If multiple campaigns may return an ad for the same ad request, but one has a higher CPM, campaign priority may return the higher priority ad.
- [00921] The monetization platform may determine optimal ad to deliver in real-time based on revenue. Within an ad server, campaigns may be prioritized based on CPM or CPM and the optimal ad can be returned for a given request. The monetization platform may have the ability to optimize across ad providers, but need ad providers to supply the appropriate meta-data.
- [00922] The monetization platform may determine an optimal ad to deliver in real-time based on fulfillment status. The monetization platform may have a fallback business rule that may allow for calling additional ad providers if the first ad provider does not return an ad.

- [00923] The monetization platform may have ad serving decision rules support frequency capping. Frequency capping may be defined per session, hour, day, week, month, lifetime. Creatives may be given a sequence to be shown to users.
- [00924] The monetization platform may have ad serving decision rules support ad sequencing. Within a campaign, creatives may be given a sequence to be shown to users.
- [00925] The monetization platform may receive/respond to ad calls from html, JavaScript, LFrame, AJAX, flash and the like. The monetization platform may be agnostic to the source of an ad request and can return responses to any platform that is capable of sending an ad request and receiving a response.
- [00926] The monetization platform may recognize that a user has opted-in or opted-out for advertisements before serving a targeted ad. The profile management platform may store the user's opt-out/opt-in status and the monetization platform may not return an ad for opted out users.
- [00927] The monetization platform may enable accurate, reliable logging of ads served as response to ad calls from service delivery platform. Both the monetization platform and an ad server may log ad calls.
- [00928] The monetization platform may log the delivery of the ad (upon receipt of successful delivery notification from the service delivery platform). The monetization platform may log the delivery of text ads and offline ads.
- [00929] The monetization platform may serve keyword search ads mobile. The paid search engine, which is tightly integrated with the monetization platform may support an advertiser self-service interface, a multi-currency, multi-language platform and a set of keyword/domain blacklist tools for carriers/publishers.
- [00930] The monetization platform may serve interactive ads such as polling, voting, quiz, contest, sweepstakes ads (applications) mobile.
- [00931] The monetization platform may serve long form video ads to the platforms mobile. The ads may be served ads on mobile that a user clicks to from a landing page. It may support the ability to pass a reference to a video asset which may be used as a standalone, pre-, post- or mid-roll ad.

[00932] The monetization platform may serve classified ads across all platforms. Text ads may be hosted in an ad server or by a specialty ad provider and the monetization platform may serve the classified ads.

[00933] The monetization platform may serve rich media (e.g., Eyeblaster) ads to the platforms – mobile. The monetization platform may support rich media ad capabilities such as JavaScript or Flash.

[00934] The monetization platform may serve an "advergame" (application) – mobile. The monetization platform may provide contracted custom sponsored games. The monetization platform may also be able to serve ads into games where the game provider makes the appropriate ad request.

[00935] The monetization platform may serve banner ads (graphics) – mobile.

[00936] The monetization platform may serve bookend ads for streaming video – mobile.

[00937] The monetization platform may serve in-stream video ads for streaming video – mobile.

[00938] The monetization platform may serve Podcast Ads – mobile.

[00939] The monetization platform may serve interstitial ads - mobile, viral ads - mobile, email direct marketing campaigns - mobile, blogs and/or social networks - mobile, sponsorships - mobile and the like. It may serve mobile ads based on ad requests. Additional viral functionality would need to be implemented by a third party. Serving an ad into a blog or a social network on mobile is executed the same way that serving a banner into a mobile web page is executed. Sponsorships for a web site, section or page may be supported.

[00940] The monetization platform may integrate with one or more external ad store or content deliver network systems. Creatives may be pulled from external ad servers or ad stores - a reference to an external creative may be placed in the creative definition.

[00941] The monetization platform may provide internal ad store or content delivery component. Images and other component files (e.g. XHTML) may be uploaded and stored by an ad server.

[00942] The monetization platform may interface with various mobile or delivery infrastructures to facilitate ad delivery.

- [00943] The monetization platform may receive ad triggers and issue ad calls from any service delivery platforms client-side or server-side.
- [00944] The monetization platform may track partially viewed ads. The monetization platform API may include a server-to-server API service that may allow for the notification of ad activity and duration.
- [00945] The monetization platform may track fully viewed ads. For images, an ad server tracks the delivery of the image. For other ad types (video, audio), the monetization platform supports a server-to-server API call that signals when an ad impression is complete.
- [00946] The monetization platform may track conversions and direct response actions.
- [00947] The monetization platform may deliver rich user profile to the ad server (e.g., user ID, declared demographics, preferences, sites visited, content consumed, etc.).
- [00948] The monetization platform may deliver universal rich user profile to the ad server (e.g., user ID, declared demographics, preferences, sites visited, content consumed, etc.).
- [00949] The monetization platform may federate a single identify/profile across all screens. If the same ID is passed to the monetization platform across screens, all profile information may be federated.
- [00950] The monetization platform may issue ad call to ad server for all types of portal ads (e.g., interactive, long form video, Podcast, rich media, instant messaging, etc.). The monetization platform may make calls to the ad server for supported ads.
- [00951] The monetization platform may retrieve ad assets from within the service delivery network and external to the service delivery network.
- [00952] The monetization platform may issue an ad call when a user interacts with streaming video content (e.g., start/stop/rewinds/forwards/pauses skip avoidance). Dependent on functionality being available in streaming video content platform.
- [00953] The monetization platform may collect behavioral relevance and pass in the ad call, may collect contextual relevance and pass in the ad call, may facilitate direct response transaction and log initiation/completion. Behavioral relevance may be pulled from the profile management platform by the monetization platform and passed in keyname/value pairs to an ad server and other ad providers. Contextual data stored by the profile management platform may be passed in the ad call as a keyname/value pair.

- [00954] The monetization platform may pass keyword search query results in an ad call. Keyword search ads may be pulled from the paid search engine by the monetization platform. The response may include appropriately targeted paid search text ads. A keyword may also be passed to the ad server or ad network in order to return keyword-targeted banner or other ads.
- [00955] The monetization platform may pass location/GIS info in ad call. A location parameter may be included in the monetization platform API and is passed onto ad providers for targeting.
- [00956] The monetization platform may serve click-to-call ads. It may support a click-to-call landing page.
- [00957] The monetization platform may serve click-to-buy ads. Users may be sent to an on- or off-portal product detail page from which they may make a purchase.
- [00958] The monetization platform may serve click-to-applications ads where users are sent to a purchase or download page for an application.
- [00959] The monetization platform may integrate with one or more external ad delivery systems or ad campaign management systems. The monetization platform may connect to multiple ad platforms.
- [00960] The monetization platform may add extended ad metadata fields via data driven interfaces. Within an ad server, rich media ad templates may be used to provide arbitrary markup for an ad.
- [00961] The monetization platform may return a list of the last pages viewed by a particular user, with timestamps on each page view. The monetization platform may log ad requests and user ID along with other request information. Implementing a user interface to retrieve this information may be custom work.
- [00962] The monetization platform may serve instant messaging, SMS, MMS ads to the Mobile platform.
- [00963] The monetization platform may serve a system wide ad on the wireless portal start page to the mobile platform.
- [00964] The monetization platform may serve ads optimizing campaign objectives, across sponsorships, CPM, CPC, CPA, blends of above. Within an ad server ads are served

based on their targeting criteria and prioritization. The yield manager can be used to optimize for eCPM. An ad server may select the best ad for a request given its targeting and priority.

[00965] The monetization platform may serve optimizing campaign revenue, across sponsorships, CPM, CPC, CPA, blends of above. The monetization platform may look at the eCPM across ad providers and select the best ad provider for the given request.

[00966] The monetization platform may monitor campaign status (e.g., expiring campaigns, behind schedule campaigns, etc.). An ad server may have the ability to delivery campaign notifications for campaign start, end and for daily or lifetime over/under delivery.

[00967] The monetization platform may optimize campaign performance attainment by reallocation of campaign objectives (e.g., scheduling, flighting, objectives, weighting, etc.) across multiple screens, taking effect in real-time. The monetization platform may optimize revenue attainment by reallocation of campaign objectives (e.g., scheduling, flighting, objectives, weighting, etc.). Campaign priority may be used for revenue optimization, based at least in part by assigning priority levels to various CPM ranges, higher revenue generating ads will receive priority.

[00968] The monetization platform may adjust campaign based on changing inventory forecasts. The number of impressions, clicks, targeting or flight dates of a campaign can easily be changed to handle changed inventory forecasts.

[00969] The monetization platform may adjust campaign based on changing campaign funnel. Campaign information may be changed at any time during its run.

[00970] The monetization platform may adjust in-flight campaigns based on new/revised inventory. The number of impressions, clicks, targeting or flight dates of a campaign can easily be changed to handle changed inventory forecasts.

[00971] The monetization platform may reconcile ad delivery to contracted terms. Campaign reporting may verify that ad delivery matched contracted terms.

[00972] The monetization platform may generate invoices per contracted terms.

[00973] The monetization platform may generate integrated invoices per contracted terms. The invoice report may be based on the contracted terms entered for the associated campaign(s).

[00974] The monetization platform may generate periodic invoices (e.g., end of the month) by type as well as final invoices for a campaign. Invoice reports may be generated for a defined date range.

[00975] The monetization platform may generate periodic integrated invoices (e.g., end of the month) by type as well as final invoices for a campaign.

[00976] The monetization platform may bill premium charges based on conversions.

[00977] The monetization platform may send paper invoices to advertisers, agencies, or third party billing agencies. An invoice report may be printed out and delivered to third parties.

[00978] The monetization platform may send electronic invoices to advertisers, agencies, or third party billing agencies. An exported invoice report may be delivered electronically.

[00979] The monetization platform may issue make-goods/credits for under delivery or bonuses for over delivery of a campaign. Additional make-good impressions or clicks can be added to a campaign during its run.

[00980] The monetization platform may select make-goods credits appear or not on invoice.

[00981] The monetization platform may select bonuses to appear or not on invoice.

[00982] The monetization platform may interface to financial management systems to book revenue. This may be available via an ad server reporting API.

[00983] The monetization platform may interface to financial management systems to manage accounts receivable. This may be available via an ad server reporting API.

[00984] The monetization platform may generate reports in industry standard formats. Reports may be generated in XML, Excel and delimited formats.

[00985] The monetization platform may generate booked/unbooked inventory reports (revenue, utilization). An ad server inventory reports include booked and unbooked inventory.

[00986] The monetization platform may store historical campaign reports and analysis. Historical reports may be available within an ad server for the previous 24 months.

[00987] The monetization platform may make accessible historical campaign reports and analysis. Reports may be made available to external users and granular access may be given so that users only have access to the appropriate data.

[00988] The monetization platform may generate revenue and yield performance analytics (business intelligence), by campaign, customer, roll-up. Revenue reports by account, advertiser, agency, campaign, site, site group, section, page and position may be available.

[00989] The monetization platform may create custom reports. Custom reports can be defined to include specific campaign data and ordering and that include a user-defined time period roll up. In addition, there are hundreds of available standard delivery, revenue and forecasting reports with most conceivable combinations of data and grouping.

**[00990]** The monetization platform may create ad hoc reports. Users may log-in to run ad-hoc reports for accounts, advertisers, agencies, campaigns, campaign groups, sites, site groups, sections, pages, keywords. Access control may be granted so that users only have access to the appropriate reports.

[00991] The monetization platform may schedule reports. An ad server may have the ability to deliver campaign reports weekly, monthly, at campaign start, end and for daily or lifetime over/under delivery.

[00992] The monetization platform may deliver reports via email, FTP. Reports can be delivered via e-mail. Other report delivery may be custom.

[00993] The monetization platform may generate alerts when campaign is not meeting objectives or have oversell issues. An ad server may have the ability to delivery campaign alerts for campaign start, end and for daily or lifetime over/under delivery.

[00994] The monetization platform may deliver alerts (e.g., via email, dashboard, etc.) if a campaign is not meeting objectives or have oversell issues. An ad server may have the ability to delivery campaign alerts for campaign start, end and for daily or lifetime over/under delivery.

[00995] The monetization platform may provide data logs to third parties for auditing of ad delivery.

[00996] The monetization platform may evaluate actual campaign performance against projections. An ad server may provide reports that show scheduled impressions & clicks versus actuals.

[00997] The monetization platform may track and report on raw click stream data for all ads served (i.e. click through rates, etc.). The monetization platform may log ad requests and responses and this information can be delivered periodically via a data feed if required.

[00998] The monetization platform may generate real time hierarchical campaign performance reports (over/under delivery and trend extrapolation), by customer, screen, roll-up. Campaign reports by site, site group, section, page and position may be generated.

[00999] The monetization platform may adhere to PII compliance regulations (disclosure of collected data, use, opt-out, etc.). It may store a hashed version of the user ID so no PII is stored with a user profile. In addition, opt-out preferences are stored with the user profile.

[001000] The monetization platform may provide a latency of less than 10 ms while processing each request or response.

[001001] The monetization platform may provide an ASP version of the application, may provide a full functional Enterprise version.

[001002] The monetization platform may support custom data attributes for trafficking, custom key value pairs for trafficking, custom attributes for targeting, custom key value pairs for targeting, custom attributes for user profile. The profile management platform supports custom attributes. The monetization platform in conjunction with the profile management platform can be configured to store and pass custom key value pairs. These are added to the ad request.

[001003] The monetization platform may provide hardware installation documentation if applicable, provide application software documentation and any required third party software documentation, provide complete installation, configuration, and setup documentation, may supply a list of all vendor-supplied software that is part of their solution, may supply a list of all third party software necessary for the operation of the system, may provide a list of recommended hardware platforms, operating systems, and versions required for the system.

[001004] The monetization platform may provide a list of all documentation that is included free of charge to support system installation, maintenance, support, training, system and technical manuals, and instruction procedures, provide a hard copy and CD-ROM documentation for the system at no additional charge, provide a document for all single points of failure within

the system, may provide documentation of the software and hardware upgrade procedures, may handle temporary interruptions to the services infrastructure – for example, loss of network or database connectivity, may run across multiple servers, may indicate how the system processes the ability to operate with reduced functionality when parts of the infrastructure are not present when a server fails.

[001005] The monetization platform may operate with reduced functionality when parts of the infrastructure are not present, may provide notification of an interruption to the respective endpoint, may have ability for the system to return to normal operation after infrastructure interruptions have completed, may have ability for the system to handle database connectivity interruptions (if applicable).

[001006] The monetization platform may provide the following minimal set of documentation covering platform operations in Word or PDF format: User Guide, System Administration Manual, Developer's Guide (if applicable), Release notes, Upgrade instructions, Javadocs (if applicable).

[001007] The monetization platform may provide documentation for the system real-time statistics and counters related to metrics for the following (as applicable): Network throughput, User response times and Sessions processed.

[001008] The monetization platform may provide training for installation and maintenance of the system, user training for administration of the system, user training for the end users of the system and training for the application development extensions, if applicable. Administrator training may be provided for profile definition, system setup, forecasting, campaign management, and reporting. User training may be provided for forecasting, campaign management and reporting. Training for Monetization Platform API integration and any other integration identified may be provided.

[001009] In embodiments, the monetization platform may support a database, including but not limited to MySQL. In embodiments, the monetization platform may be further associated with third party software, including but not limited to Apache, Tomcat, MySQL, or some other third party software product, module, or code (including binary or source code).

[001010] In embodiments, user actions may be digested by the profile platform.

User events may be fed into the system real-time (as they occur), or in batch depending on the requirements and the type of events that are being generated. Out of the box, digestions of

search events (queries and clicks on results), ad events (impressions and clicks), purchase events, and browsing events may be supported. As these events come in, they may be analyzed and tagged with meta information, such as the category. The events may be then digested by the Analytics application, where it may be aggregated and made available to the profile generator. The profile generator may be responsible for looking at the aggregated information, and updating the users profile accordingly.

[001011] In embodiments, the profile system may have two core integration points. The first may be to feed events into the system, and the second may be to request profiles. To feed events into the Profile system, there may be two interfaces. The first may be a web service interface (based on REST). This interface may allow communication of events as they happen. The second may be a batch process using file transfer (files may be deposited to the system using SCP, or may retrieve files from a defined location HTTPS/SCP). To retrieve profiles or ads, a web service interface may be available.

[001012] In embodiments, the monetization platform may be integrated with several ad networks. There may be two or more mechanisms to integrate with an ad network. One mechanism may be an API integration in which the monetization platform invokes a web service hosted by the ad network. Alternately, the market place may be synchronized out of the ad network and into the monetization platform.

[001013] In embodiments, an ad server may provide an API that may be used for ad content ingestion, metadata management, content cataloguing and creative management.

[001014] In embodiments, an ad server may push data to a CDN as a built-in function.

[001015] In embodiments, the monetization platform may be integrated with a relevance engine. In embodiments, a custom integration may consist of defining data that is passed from the relevance engine and the rules that should be applied for segmentation. Targeting and ad serving may also need to be defined. To the extent that data from the CRM system may be used to generate profiles, a data format for the data to be supplied to the monetization platform may need to be defined. For the ad server, integration with many of these systems may use of an ad server API which may be used to set up entities within the system including campaigns and creatives. It may also be used to retrieve campaign delivery and billing information to be integrated with billing systems. Integration with external ad stores may be

accomplished by placing a reference to the hosted creative within an ad server or through the built in ability to push data to a content delivery network.

In embodiments, an ad server may allow clients to implement their natural taxonomy as the basis for the metadata used for ad management (including targeting and reporting). The required metadata for each ad request may include, but is not limited to:Ad site - a virtual label applied by client, commonly used to describe the content. It may be more specific or more general - i.e. Section, Channel, Network, Sub-section, Page, Widget, Newsletter, etc. It may be included or excluded from any campaign target; and Position List – May Request up to 126 "Positions", commonly used to indicate Ad Zone, Placement, Length, Size and/or Type. Campaigns & Ads are assigned to Position(s) in an ad server UI. The optional metadata for each ad request may include, but is not limited to: (1) custom keywords, which may pass up client-defined name-value pairs with each ad request. As depicted in Fig. 50, these custom keywords may be included, excluded, or used to build Boolean targeting expressions for each ad campaign; and (2) cookies, namely, cookies in the client's domain that may be targetable via Boolean expressions. An ad server may also has access to standard HTTP headers such as Date and User-Agent and these are available for targeting inclusion/exclusion in each campaign. Reporting may be available on metadata as well.

[001016] In embodiments, profile management and ad targeting may be based on profiles comprised of data including, but not limited to, 1) demographic information provided by the operator, 2) behavioral indicators provided by the operator, 3) processing raw data from the operator (e.g., click history, search history, SMS/call data), 4) on-portal search services provided to the operator (where such queries may be normalized, enriched, and categorized), 5) on-portal click history (determined via ad tags), 6) off-portal behavior (determined via relationship directly with publishers, which may include behavioral profile information provided by the publisher or determined based on search history or browsing revealed via ad tags), 7) previous and current location based information, or some other profile data. Data may be provided, captured, and used in batch or real-time. In embodiments, a user's clicks may be correlated with the contextual information of a page (e.g., webpage) based at least in part on search algorithms (e.g., word frequency, link analysis).

[001017] As shown in Fig. 51, a monetization platform may be associated with a user login screen.

[001018] In embodiments, advertising for non-web mobile traffic (e.g., SMS, MMS, in-game, in-application, video, TV, voice [e.g., during directory assistance call or a call to vote in a television or radio program]), or some other type of content based at least in part on contextual and behavioral data, as described herein.

[001019] In embodiments, contextual targeting of pay-per-click ads may be based on the content of an SMS, MMS, in-game data, in-application data, video, TV, voice, or some other type of content..

[001020] In embodiments, a behavioral profile may be used for syndication of content, including advertisement content. In an example, a third party publisher (e.g., a party other than an operator), or a third party ad network may request behavioral profile information to facilitate the delivery of a targeted ad for a third party publisher other than the operator. A behavioral profile may be returned that is developed in conjunction with an operator. In embodiments, this application may describe access rights to components of the behavioral profile. The application may also include obfuscation, hashing, a time-limited ID, or some other method of limiting the permitted access to the profile data.

[001021] In embodiments, an operator may receive revenue for profile data in the form of a flat fee, revenue share, or some other revenue metric against the advertising.

[001022] In embodiments, the importance of information within a profile may be weighted (e.g., demographic vs. behavioral data).

[001023] In embodiments, a behavioral profile may be aggregated. In an example, a publisher may request an ad, the monetization platform may determine which operator the user is requesting the content from, and may pull the behavioral profile for the associated network, and return the associated behavioral profile information.

[001024] In embodiments, multiple ad inventories may be managed for the monetization of mobile traffic. In an example, a publisher and/or operator may select an event that they wish to monetize. They may request an ad from the monetization platform, which then determines from which inventory an ad should come. The distribution of ad inventory may occur across multiple ad networks and or ad servers. The determination of which inventory from which to select an ad may include weighting (i.e., percentage allocation), backfill (i.e., try A, then B, then C), blending (i.e., sort multiple ads for delivery in one event based on bid price, relevance, yield, or other), yield (i.e., MP can query an ad provider / server for an ad, compare

the pricing to ads from other servers, and deteminer expected yield based on correlating the ad with the behavioral profile), or some other method. Such rules may be targeted to a single ad spot or applied across multiple ad spots. As depicted in Figs. 52, 53 and 54, the creation and management of a ad spots, ad types, and ad providers may be associated with a user interface of the monetization platform. The system may also re-balance after a change is made to reserve inventory for a particular campaign.

[001025] In embodiments, personalization and/or content recommendation technologies may be enable in order to access behavioral profiles for the purposes of content delivery.

[001026] In embodiments, a monetization platform may include handset management across multiple ad networks and servers when managing multiple ad inventories for the monetization of mobile traffic. In an example, a centralized handset database with makes, models, and capabilities may be used. When an ad is requested, the handset and capabilities may be provided to the ad networks and servers for targeting purposes and for selection of the right ad (e.g., small, medium, or large). In embodiments, the monetization platform may provide exception management where one carrier / publisher can change the ad type/size data provided to ad networks/servers for a particular handset, which may be different than all other carriers are using. The make and model of a handset may be determined based on the webpage request (e.g., user agent string in the WAP header), a client application that can query the handset directly, the carrier user / handset database, or some other criterion. This system may allow for mobile enabling of non-mobile ad serving technologies (e.g., for publishers wanting to continue using the same campaign management and reporting tools).

[001027] In embodiments, mobile behavioral data may be used within a monetization platform for targeting ads on non-mobile media (e.g., computer, TV, settop box, etc.). In embodiments, methods and systems of the monetization platform, as described herein, may be used to identify the mobile user on other, non-mobile media, for example, including but not limited to phone detection from the TV set-top box and categorizing the viewed content, dropping a cookie to continue tracking the computer when it's accessing the Internet away from the home, or some other method.

[001028] In embodiments, in the monetization platform, advertisers may be allowed to bid in a mobile pay-per-click marketplace based at least in part on behavioral profile data.

[001029] In embodiments, the monetization platform may use contextual targeting of an ad, including using search algorithms (e.g., word frequency, link analysis, and other methods) to contextually target display advertising. In embodiments, this information may be combined with other information relating to a mobile communication facility and/or its user, as described herein.

[001030] In embodiments, ad targeting may be based on a categorized location. Categorized locations may include home, work, in-market, out-of-market, and may be based at least in part on location history data that is associated with a mobile communication facility. Categorized locations may be provided based at least in part by logs of calls, SMS, or other activites that include a cellphone tower ID, or some other location detection technology, that may be correlated with a geographic region.

[001031] In embodiments, gateway data or other operator data (e.g., click history through a transcoder) may be use to modify a link authority algorithm. In embodiments, the historical usage of links within a network may be able to improve link analysis and quality detection.

[001032] In embodiments, search from a mobile communication facility may be based at least in part on a contextual search (e.g., where a user is searching form) and contextual suggestions (e.g., from SMS, browser, contact list, etc.)

[001033] In embodiments, search may be based on a categorized location. Categorized locations may include home, work, in-market, out-of-market, or some other category of location. Home and work locations may be determined without demographic data being provided based, for example, on historical location information provided by the network. Categorized locations may be provided based at least in part by logs of calls, SMS, or other activities that include a cell phone tower ID, or some other location detection technology, that may be correlated with a geographic region.

[001034] While the invention has been disclosed in connection with the preferred embodiments shown and described in detail, each of the technologies described herein may be incorporated, associated with, combined, and the like with each of the use scenarios described herein, and each of the applications described herein, including market applications.

[001035] The elements depicted in flow charts and block diagrams throughout the figures imply logical boundaries between the elements. However, according to software or hardware

engineering practices, the depicted elements and the functions thereof may be implemented as parts of a monolithic software structure, as standalone software modules, or as modules that employ external routines, code, services, and so forth, or any combination of these, and all such implementations are within the scope of the present disclosure. Thus, while the foregoing drawings and description set forth functional aspects of the disclosed systems, no particular arrangement of software for implementing these functional aspects should be inferred from these descriptions unless explicitly stated or otherwise clear from the context.

[001036] Similarly, it will be appreciated that the various steps identified and described above may be varied, and that the order of steps may be adapted to particular applications of the techniques disclosed herein. All such variations and modifications are intended to fall within the scope of this disclosure. As such, the depiction and/or description of an order for various steps should not be understood to require a particular order of execution for those steps, unless required by a particular application, or explicitly stated or otherwise clear from the context.

[001037] The methods or processes described above, and steps thereof, may be realized in hardware, software, or any combination of these suitable for a particular application. The hardware may include a general-purpose computer and/or dedicated computing device. The processes may be realized in one or more microprocessors, microcontrollers, embedded microcontrollers, programmable digital signal processors or other programmable device, along with internal and/or external memory. The processes may also, or instead, be embodied in an application specific integrated circuit, a programmable gate array, programmable array logic, or any other device or combination of devices that may be configured to process electronic signals. It will further be appreciated that one or more of the processes may be realized as computer executable code created using a structured programming language such as C, an object oriented programming language such as C++, or any other high-level or low-level programming language (including assembly languages, hardware description languages, and database programming languages and technologies) that may be stored, compiled or interpreted to run on one of the above devices, as well as heterogeneous combinations of processors, processor architectures, or combinations of different hardware and software.

[001038] Thus, in one aspect, each method described above and combinations thereof may be embodied in computer executable code that, when executing on one or more computing devices, performs the steps thereof. In another aspect, the methods may be embodied in systems

that perform the steps thereof, and may be distributed across devices in a number of ways, or all of the functionality may be integrated into a dedicated, standalone device or other hardware. In another aspect, means for performing the steps associated with the processes described above may include any of the hardware and/or software described above. All such permutations and combinations are intended to fall within the scope of the present disclosure.

[001039] While the invention has been disclosed in connection with the preferred embodiments shown and described in detail, various modifications and improvements thereon will become readily apparent to those skilled in the art. Accordingly, the spirit and scope of the present invention is not to be limited by the foregoing examples, but is to be understood in the broadest sense allowable by law.

[001040] All documents referenced herein are hereby incorporated by reference.

#### **CLAIMS**

What is claimed is:

## 1. A method comprising:

associating a first sponsored content with a first contextual datum relating to a first portion of a mobile content;

associating a second sponsored content with a second contextual datum relating to a second portion of the content;

presenting the first sponsored content to a display of a mobile communication facility upon the presentation of the first portion of the mobile content to the mobile communication facility; and

presenting the second sponsored content to the display of the mobile communication facility upon the presentation of the second portion of the mobile content to the mobile communication facility.

- 2. The method of claim 1, wherein the association is based at least in part on a relevance.
- 3. The method of claim 1, wherein the first portion of the mobile content is a section of a text.
- 4. The method of claim 3, wherein the text is a news article.
- 5. The method of claim 1, wherein the first portion of the mobile content is a section of a video.
- 6. The method of claim 1, wherein the first portion of the mobile content is a section of an audio.
- 7. The method of claim 1, wherein the first portion of the mobile content is a section of an image.
- 8. The method of claim 1, wherein the second portion of the mobile content is a section of a text.

- 9. The method of claim 8, wherein the text is a news article.
- 10. The method of claim 1, wherein the second portion of the mobile content is a section of a video.
- 11. The method of claim 1, wherein the second portion of the mobile content is a section of an audio.
- 12. The method of claim 1, wherein the second portion of the mobile content is a section of an image.
- 13. The method of claim 1, wherein the contextual information is a link structure.
- 14. The method of claim 1, wherein the contextual information is a inbound link.
- 15. The method of claim 1, wherein the contextual information is a outbound link.
- 16. The method of claim 1, wherein the contextual information is a link.
- 17. The method of claim 1, wherein the contextual information is a text.
- 18. The method of claim 1, wherein the contextual information is a keyword.
- 19. The method of claim 1, wherein the contextual information is a meta data.
- 20. A method comprising:

gathering contextual information from a plurality of portions of a primary electronically displayable content, wherein an association between each piece of contextual information and each of the plurality of portions is maintained such that the context of each portion is identifiable;

receiving information pertaining to an electronic display of at least one portion of the content within a display screen on a mobile communication facility; and

presenting secondary content to the display based at least in part on the contextual information relating to the at least one portion of the content within the display screen.

- 21. The method of claim 20, wherein the primary content is a webpage.
- 22. The method of claim 20, wherein the secondary content is sponsored content.
- 23. The method of claim 22, wherein the sponsored content is an advertisement.
- 24. The method of claim 23, wherein the advertisement contains an actionable feature.

# 25. A method, comprising:

receiving information relating to a portion of a primary content that is being displayed on a mobile communication facility, wherein the primary content has at least one other portion that is not being displayed;

determining a context related to the information; and

delivering secondary content to the mobile communication facility based on a relation of the secondary content to the context.

# 26. A method, comprising:

receiving content context information relating to a panned display position from a mobile communication facility; and

delivering content to the mobile communication facility based on the content context information.

## 27. A method, comprising:

receiving content context information relating to a zoomed display position from a mobile communication facility; and

delivering content to the mobile communication facility based on the content context information.

#### 28. A method, comprising:

receiving content context information relating to a positioned display position from a mobile communication facility; and

delivering content to the mobile communication facility based on the content context information.

### 29. A method comprising:

registering a user interaction with a portion of a mobile content using a mobile communication facility;

associating a datum with the user interaction;

transmitting the datum to a server;

selecting a sponsored content associated with the datum, wherein the association is based at least in part on a relevance between the portion of the mobile content and the sponsored content; and

presenting the sponsored content to the mobile communication facility.

- 30. The method of claim 29, wherein the user interaction is a page view.
- 31. The method of claim 29, wherein the user interaction is a text view.
- 32. The method of claim 29, wherein the user interaction is streaming audio content.
- 33. The method of claim 29, wherein the user interaction is streaming video content.
- 34. The method of claim 29, wherein the user interaction is a download.
- 35. The method of claim 29, wherein the user interaction is an upload.

- 36. The method of claim 29, wherein the user interaction is receiving a text message.
- 37. The method of claim 29, wherein the user interaction is sending a text message.
- 38. The method of claim 29, wherein the portion of the mobile content is a section of a text.
- 39. The method of claim 38, wherein the text is a news article.
- 40. The method of claim 29, wherein the portion of the mobile content is a section of a video.
- 41. The method of claim 29, wherein the portion of the mobile content is a section of an audio.
- 42. The method of claim 29, wherein the portion of the mobile content is a section of an image.

### 43. A method, comprising:

receiving content display information identifying which portion of a primary content is presently being presented to a display screen of a mobile communication facility, wherein the primary content contains at least one other portion that is not presently being displayed; and generating a user profile based on the content display information.

#### 44. A method, comprising:

receiving content display information identifying what portion of a primary content has been presented to a display screen of a mobile communication facility; and generating a user profile based on the content display information.

### 45. A method, comprising:

receiving content display information identifying what portion of a primary content has been presented to a display screen of a mobile communication facility; and generating a popularity ranking for the presented portion.

### 46. A method, comprising:

receiving content display information identifying what portion of a primary content has been presented to a display screen of a first mobile communication facility;

receiving content display information identifying what portion of the primary content has been presented to a display screen of a second mobile communication facility; and generating a popularity rankings for the presented portions.

### 47. A method, comprising:

receiving content display information identifying how long a portion of a primary content is presently being presented to a display screen of a mobile communication facility, wherein the primary content contains at least one other portion that is not presently being displayed; and generating a user profile based on the content display information.

### 48. A method, comprising:

receiving content display information identifying how long a portion of a primary content has been presented to a display screen of a mobile communication facility; and generating a user profile based on the content display information.

# 49. A method, comprising:

receiving content display information identifying how long a portion of a primary content has been presented to a display screen of a mobile communication facility; and generating a popularity ranking for the presented portion.

#### 50. A method, comprising:

receiving content display information identifying how long a portion of a primary content has been presented to a display screen of a first mobile communication facility;

receiving content display information identifying how long a portion of the primary content has been presented to a display screen of a second mobile communication facility; and generating a popularity ranking for the presented portions.

#### 51. A method, comprising:

receiving content portion display information from a mobile communication facility;

receiving mobile subscriber characteristic information relating to the mobile communication facility; and

delivering sponsored content to the mobile communication facility based in part on the content portion display information and in part based on the mobile subscriber characteristic information.

# 52. A method, comprising:

receiving content portion display information from a mobile communication facility; and adding the content portion display information to a mobile subscriber characteristic database relating to the mobile communication facility.

# 53. A method, comprising:

receiving content portion display information from a mobile communication facility; receiving mobile subscriber characteristic information relating to the mobile communication facility; and

generating a user profile based at least in part on the content portion display information and in part based on the mobile subscriber characteristic information.

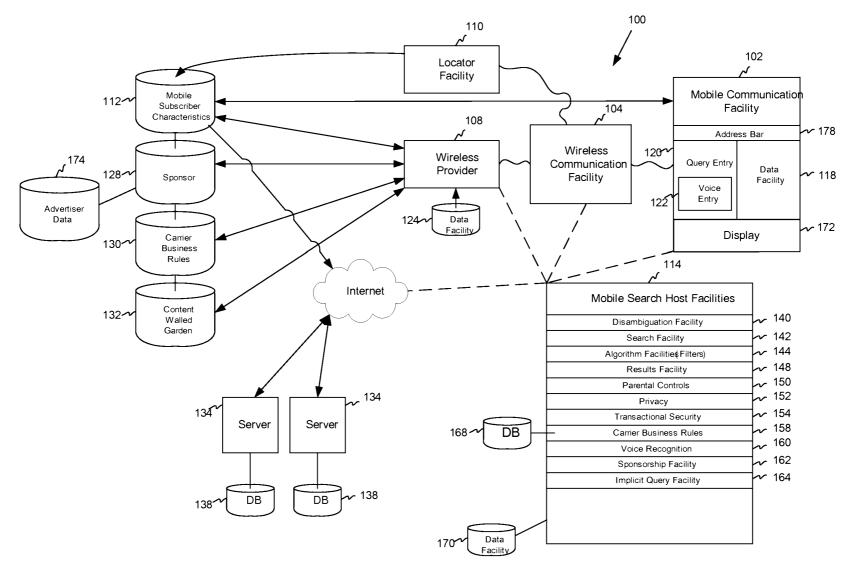
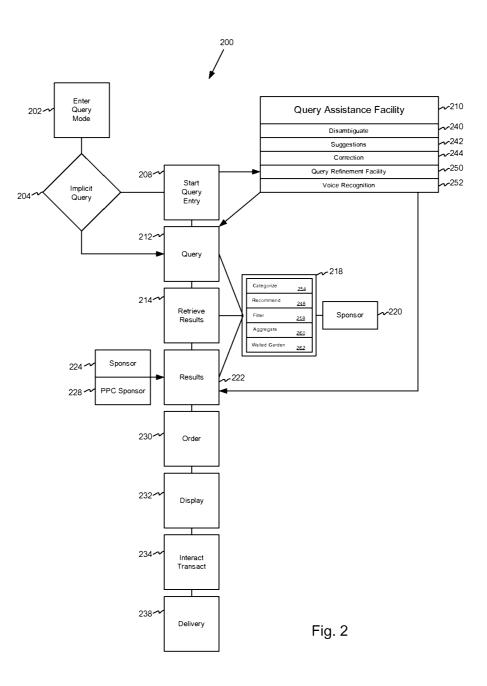


Fig. 1



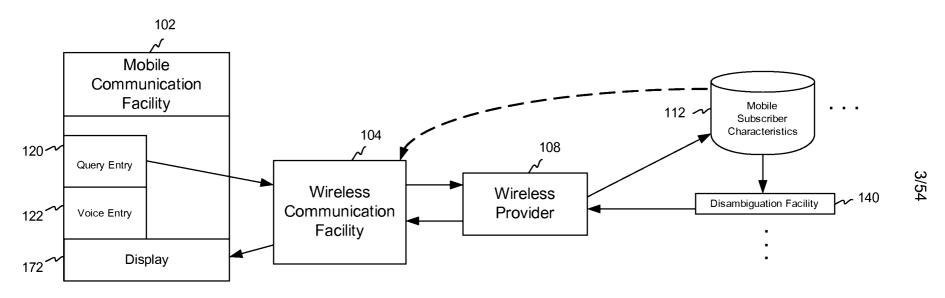
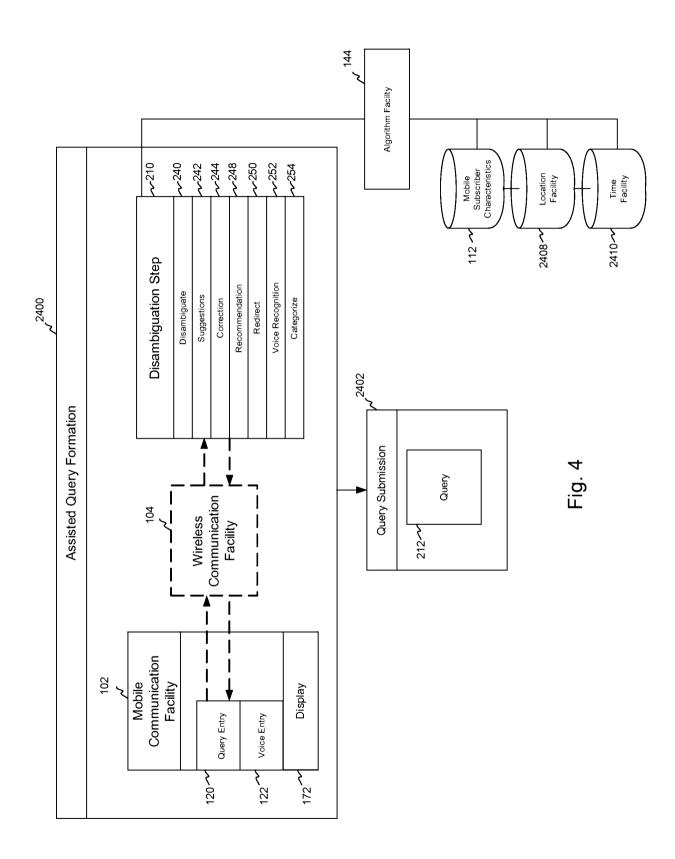
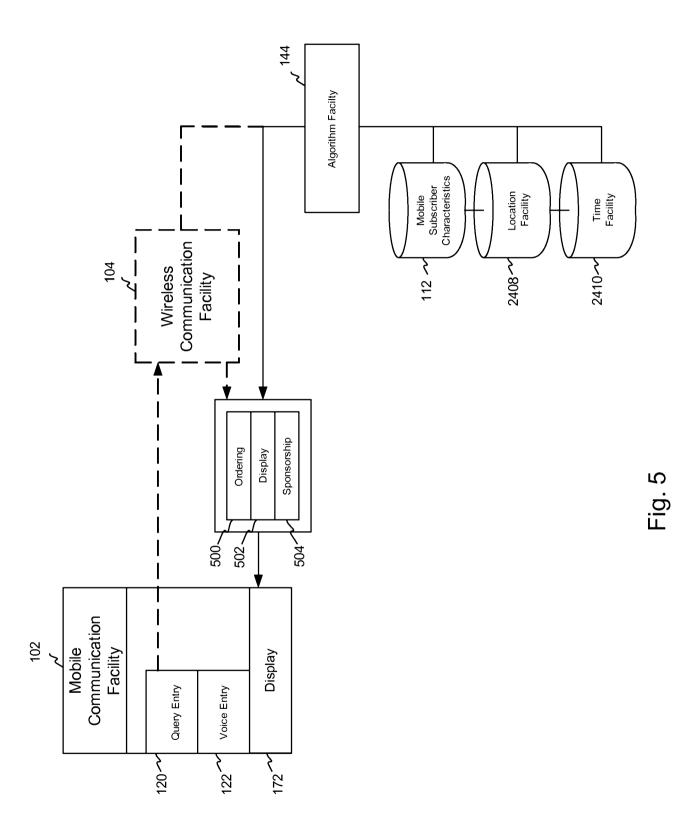
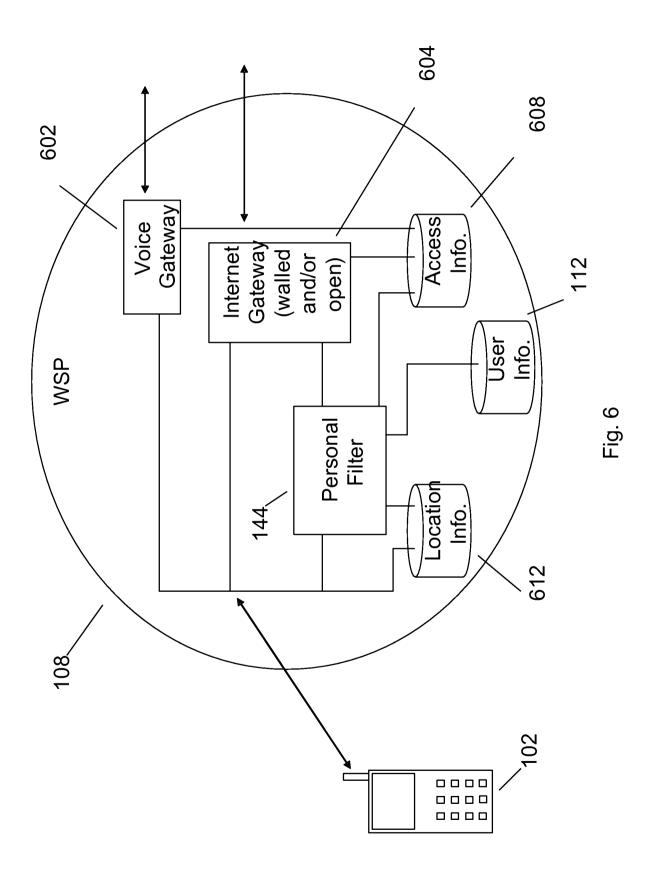
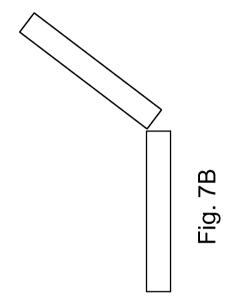


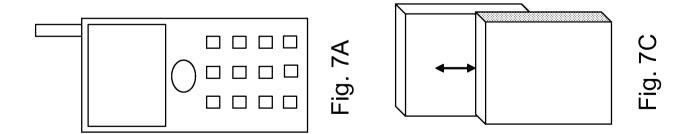
Fig. 3

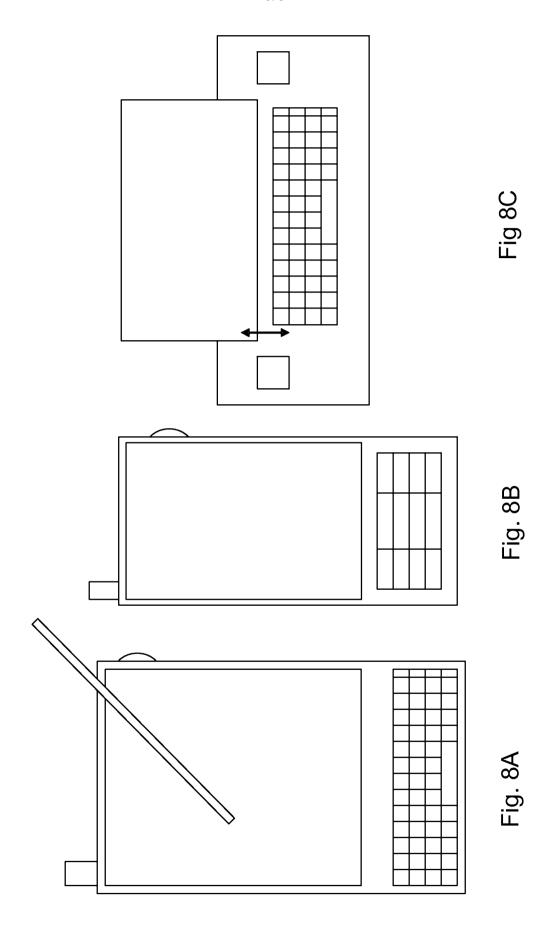


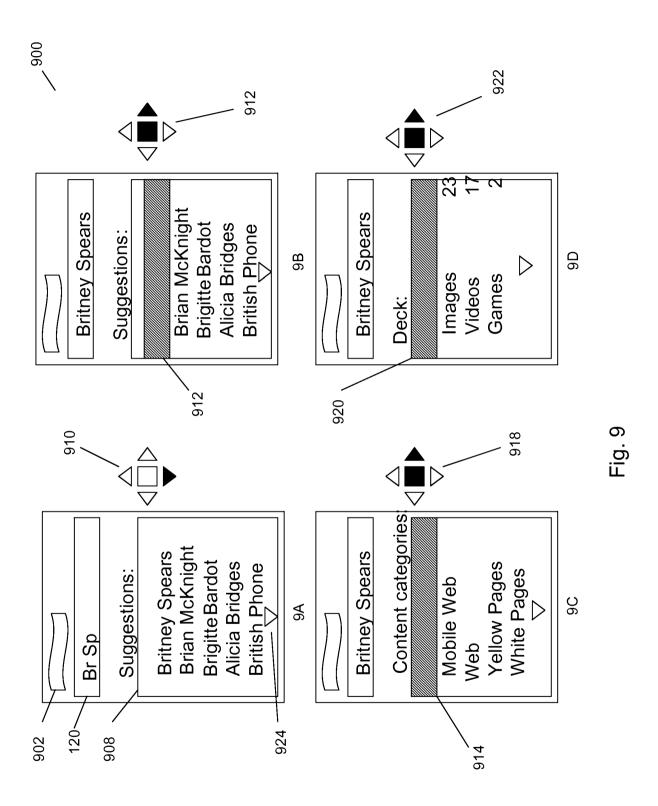


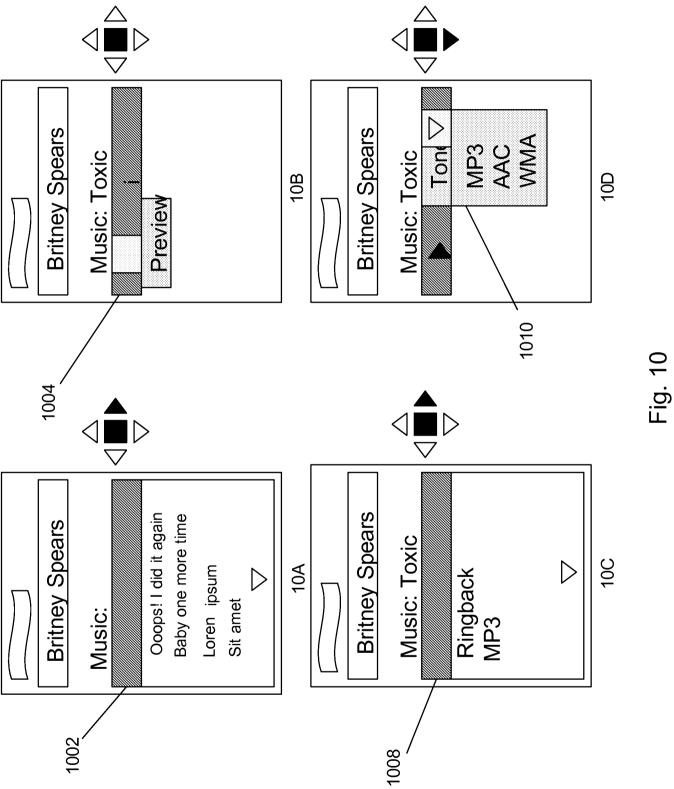


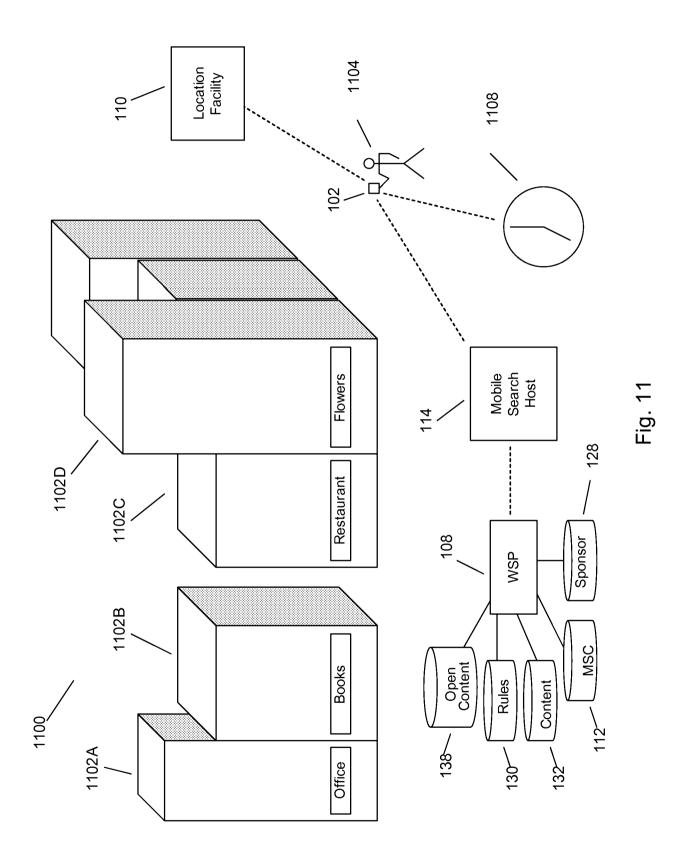


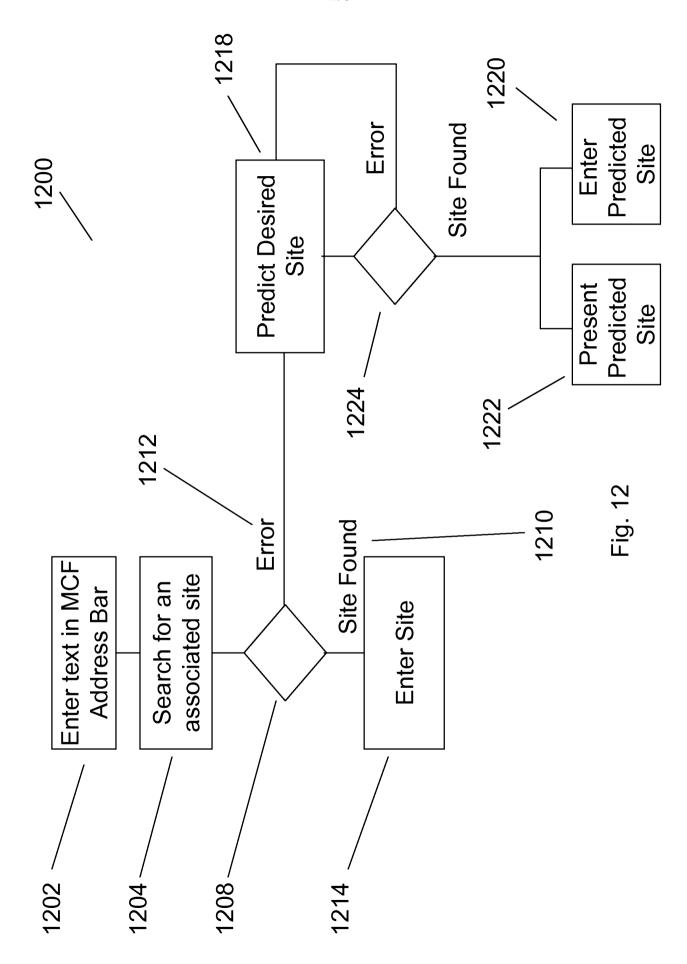












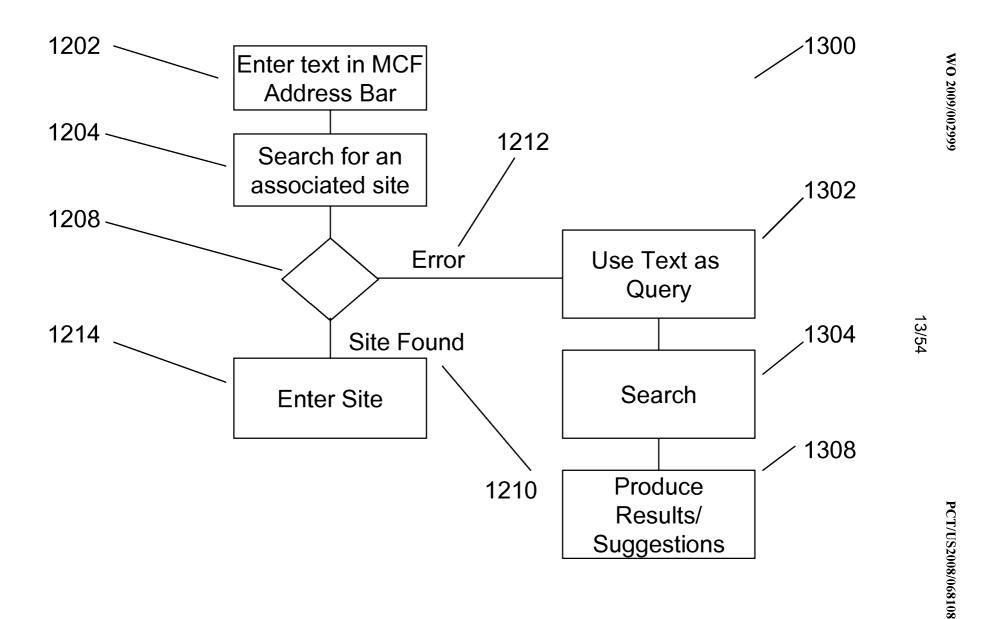
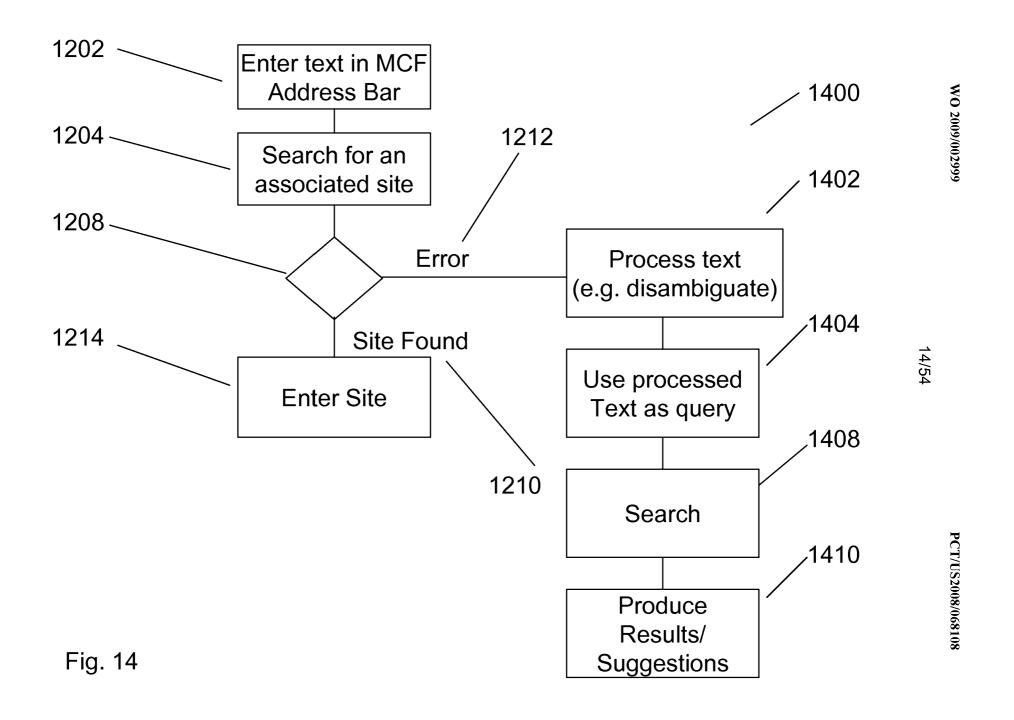


Fig. 13



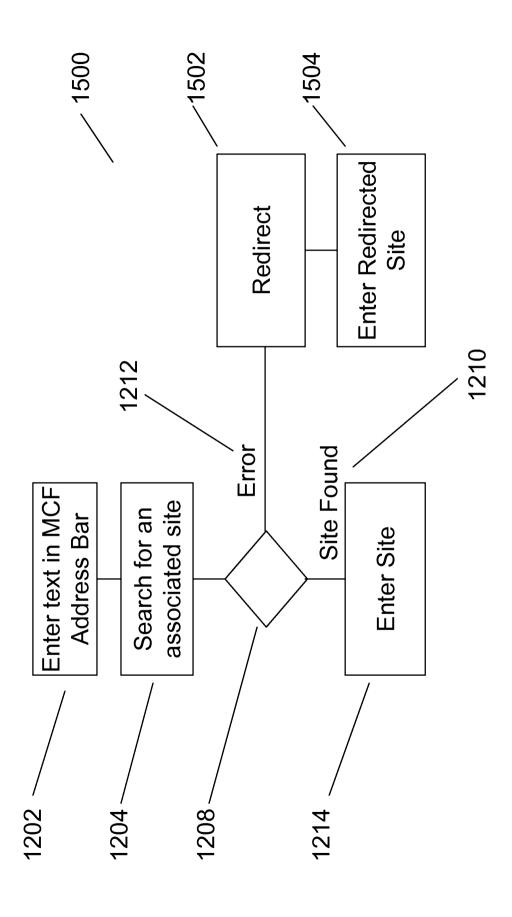


Fig. 15

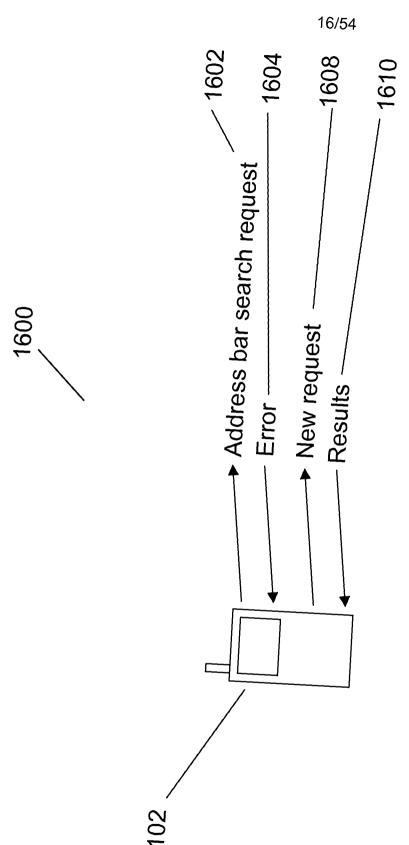


Fig. 1

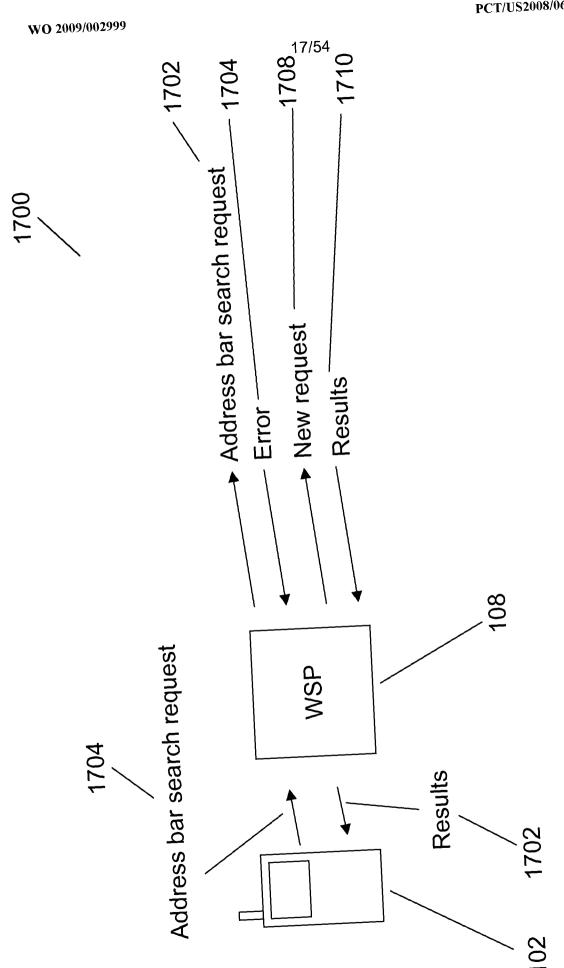


Fig. 17

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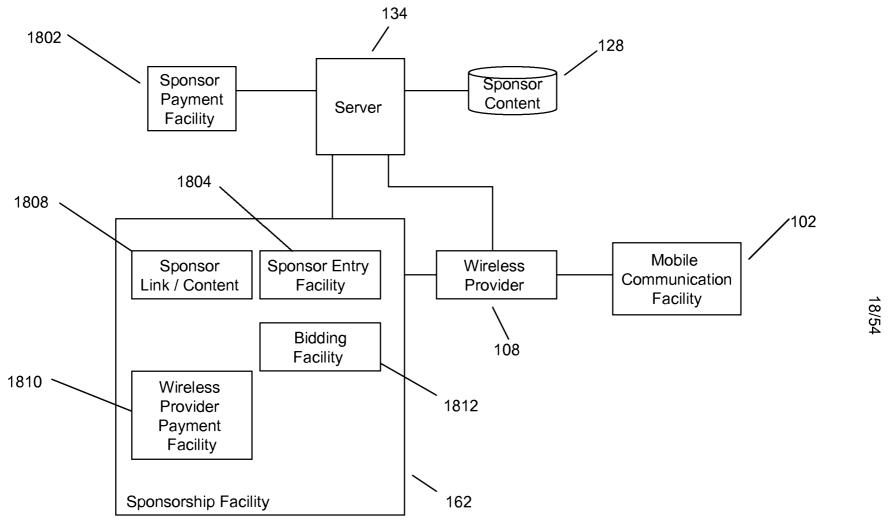


Fig. 18

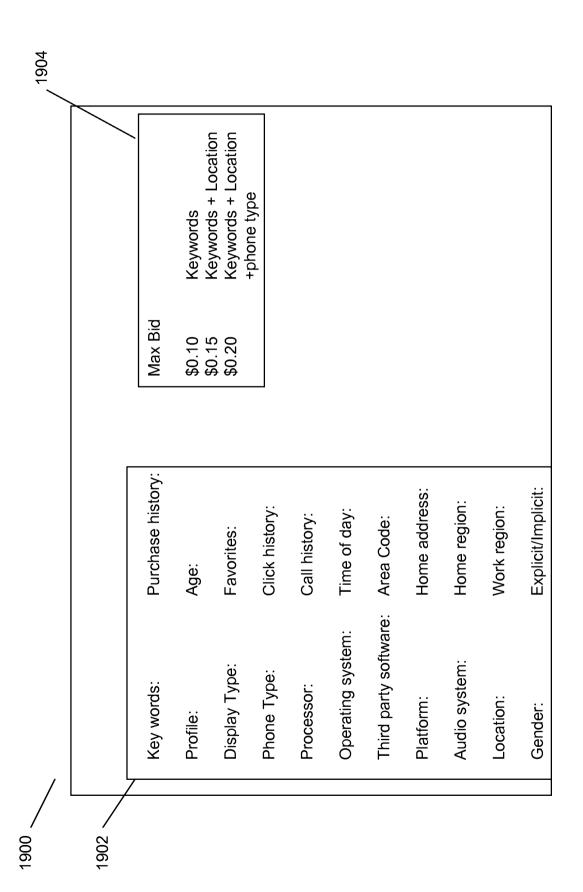


Fig. 15

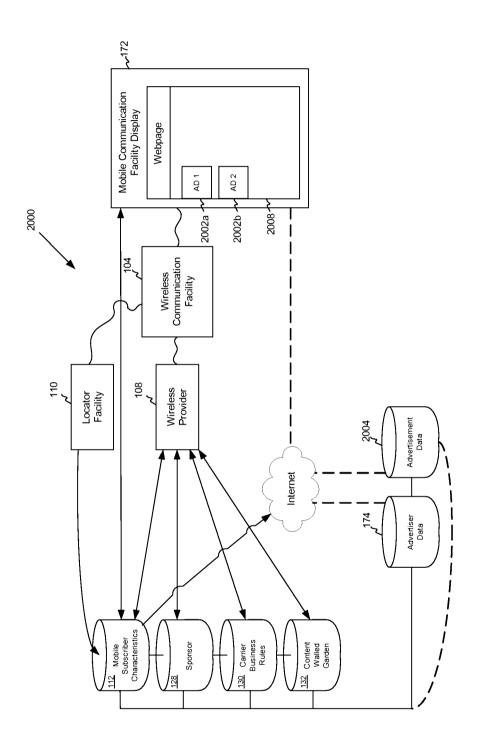
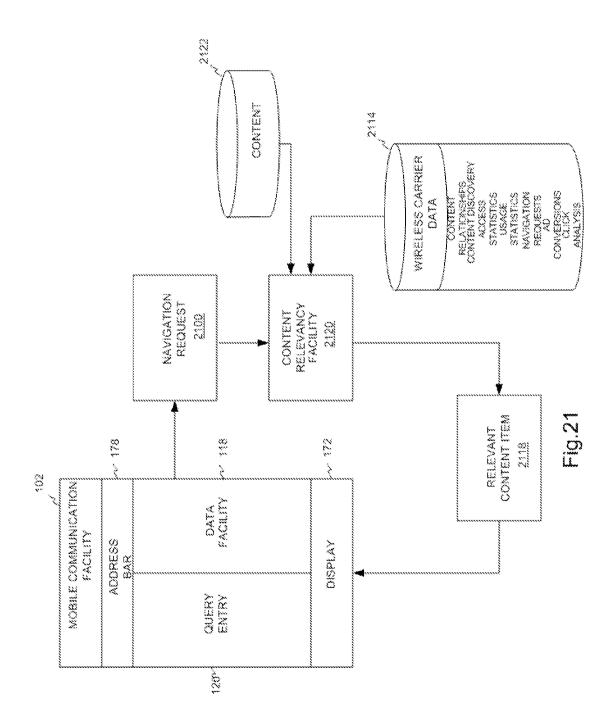
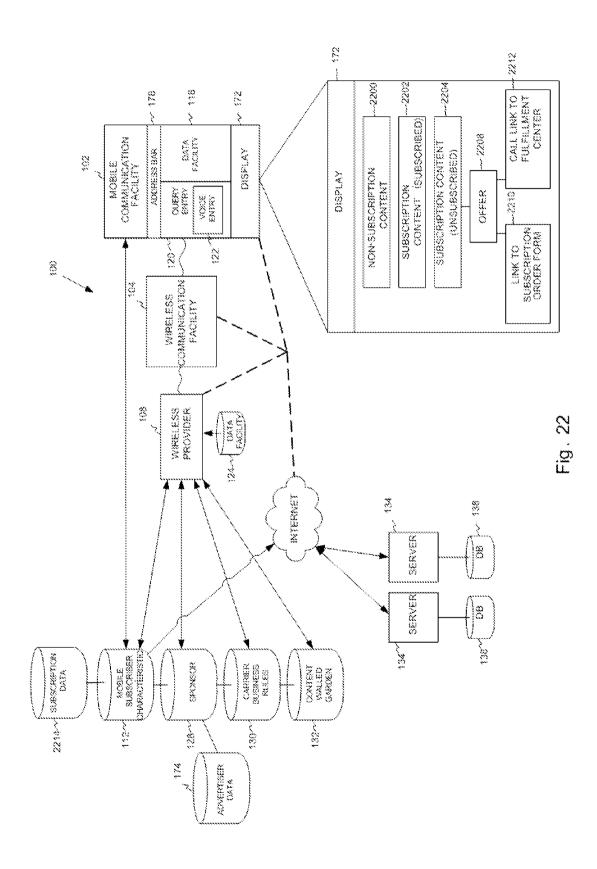


Fig. 20





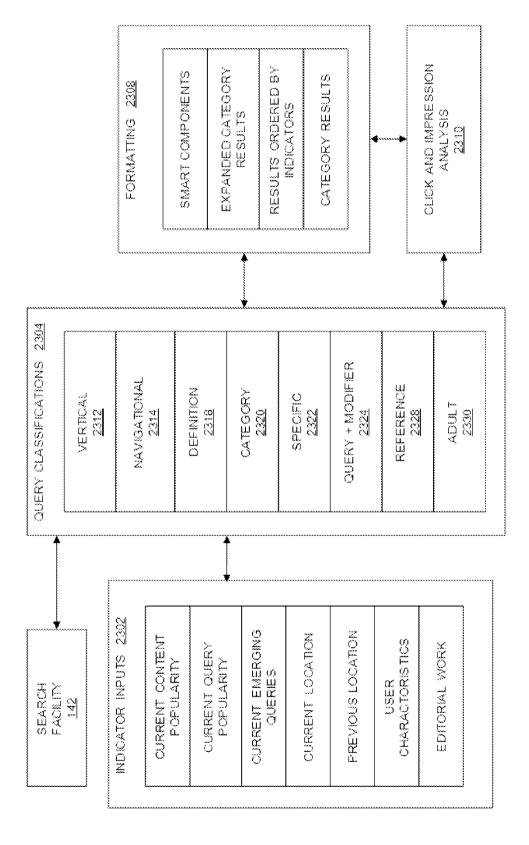
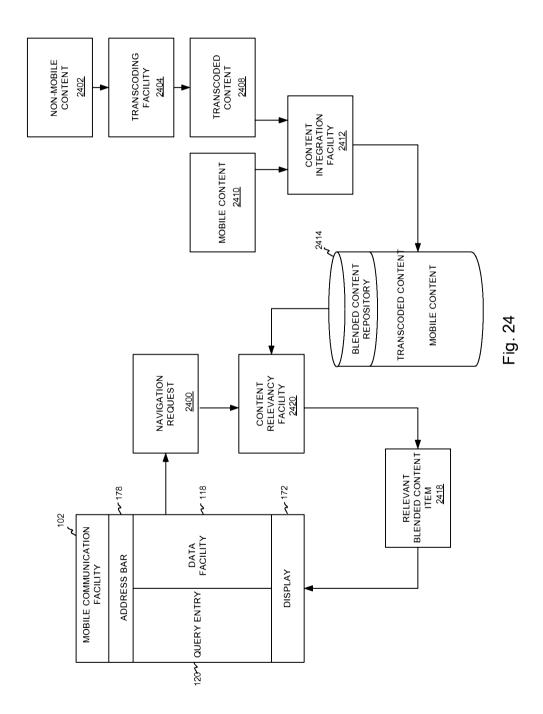


Fig.23



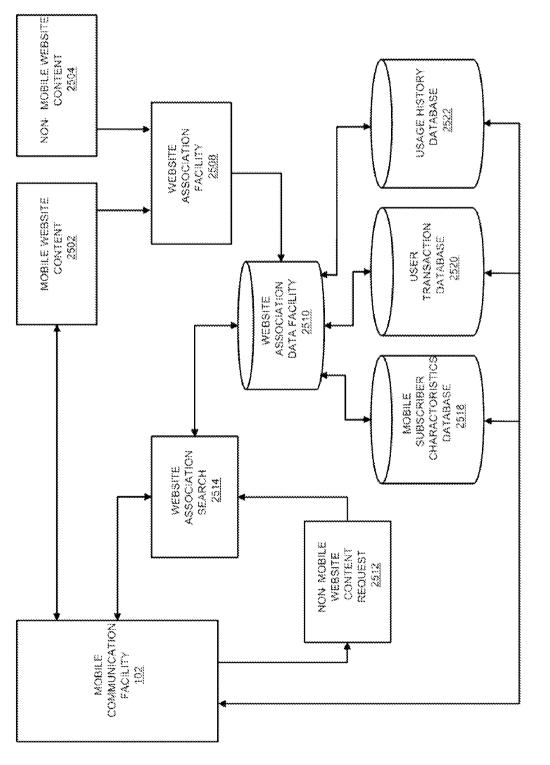
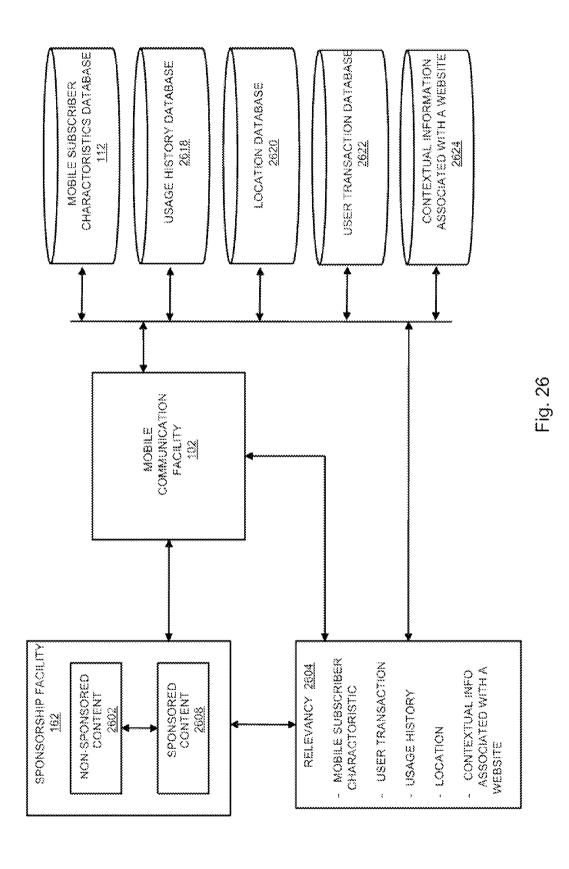
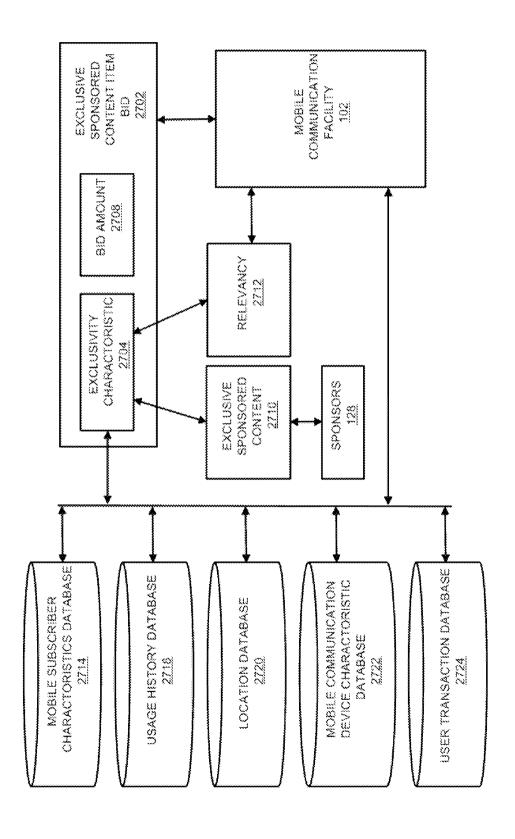
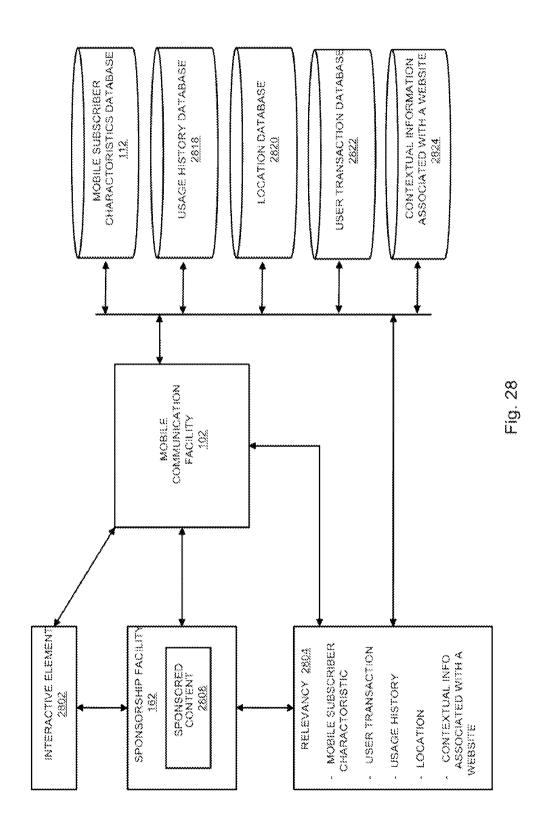


Fig. 25





T.G. 2



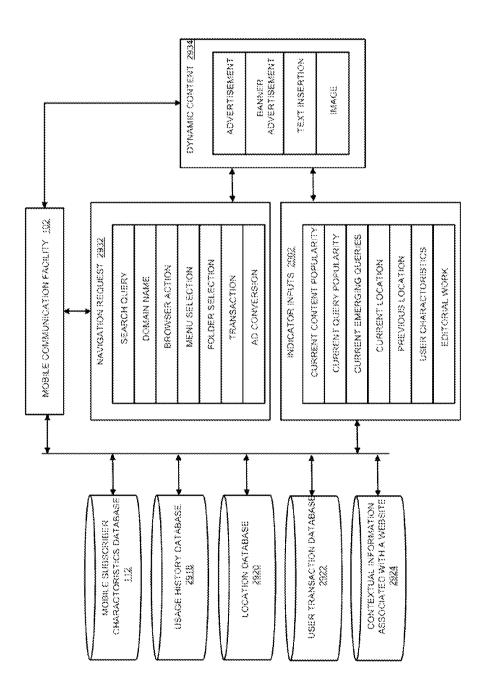
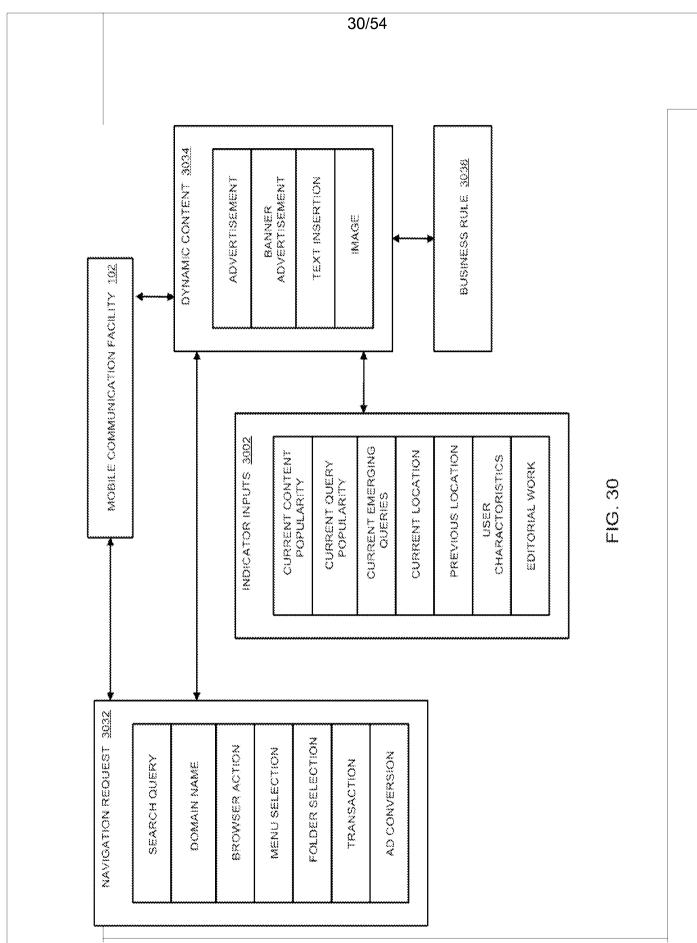
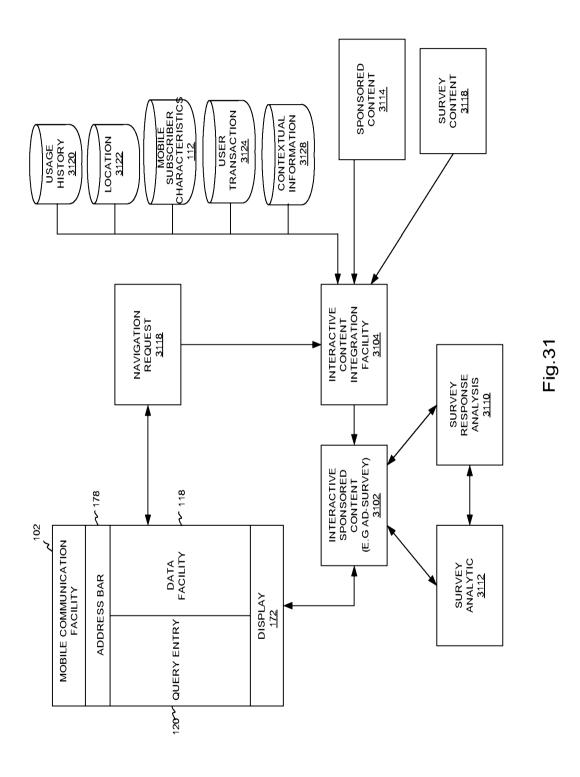


Fig. 29

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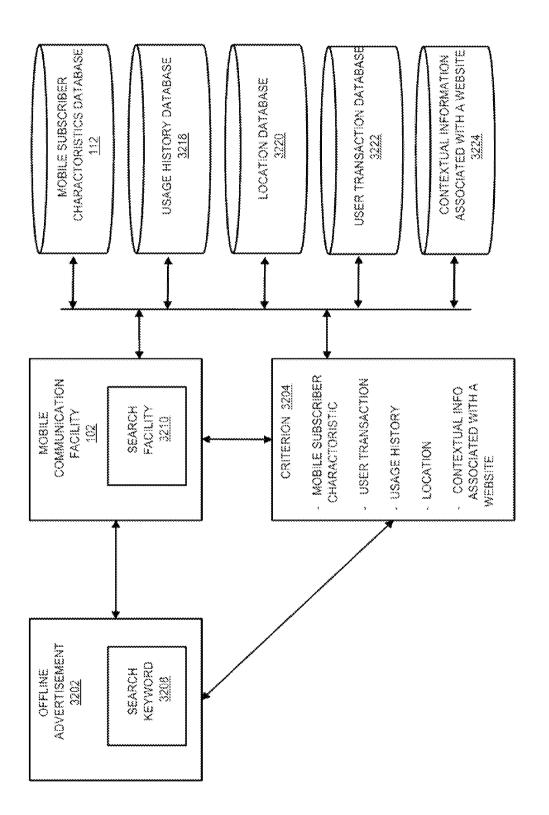
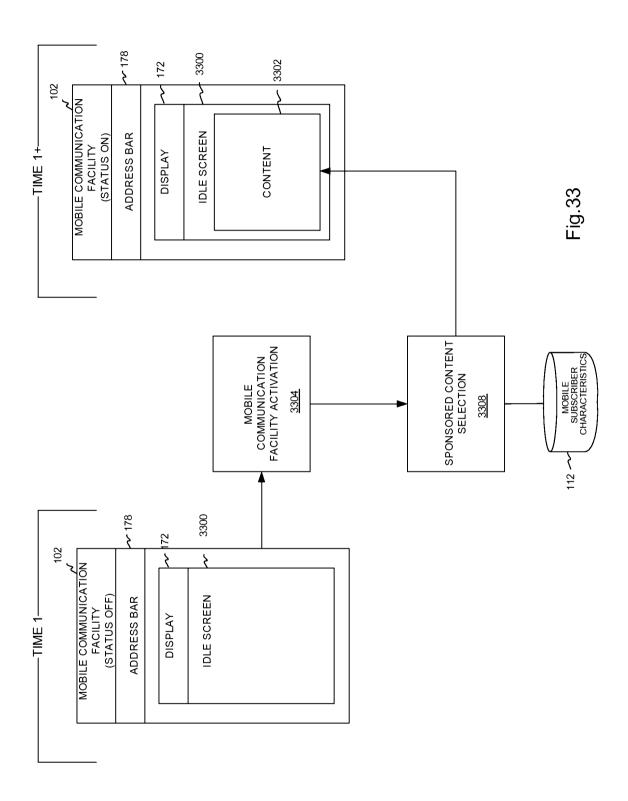
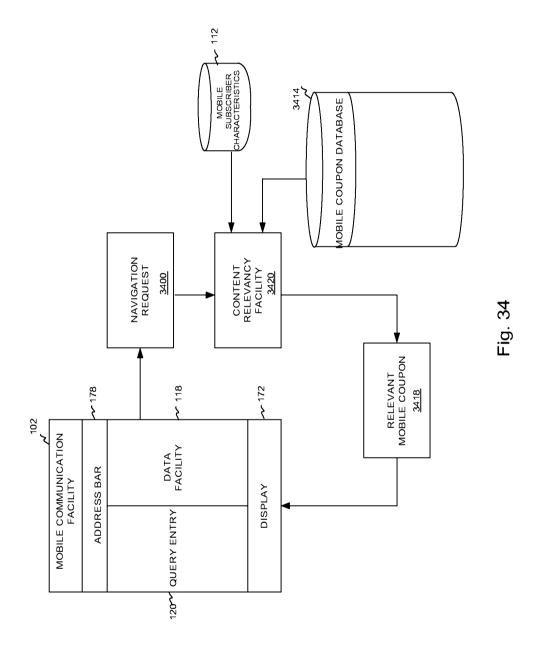
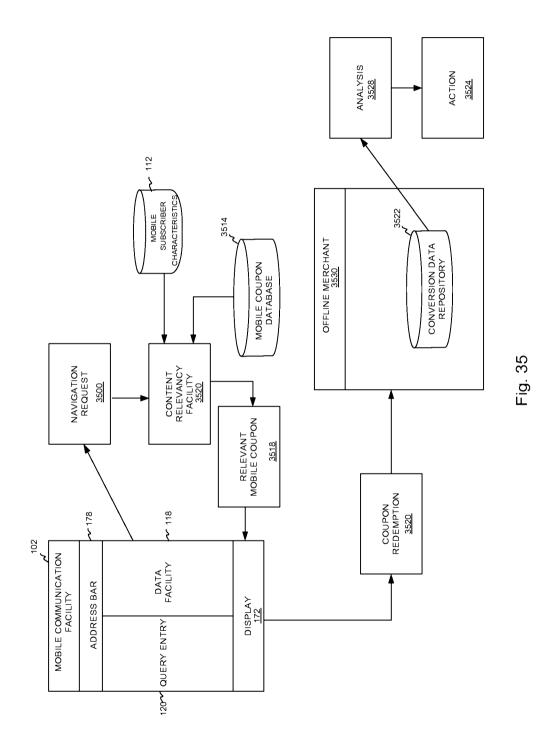
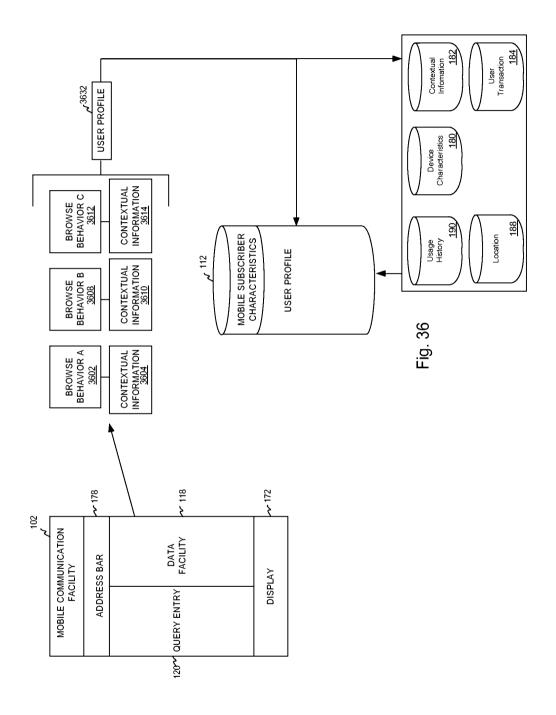


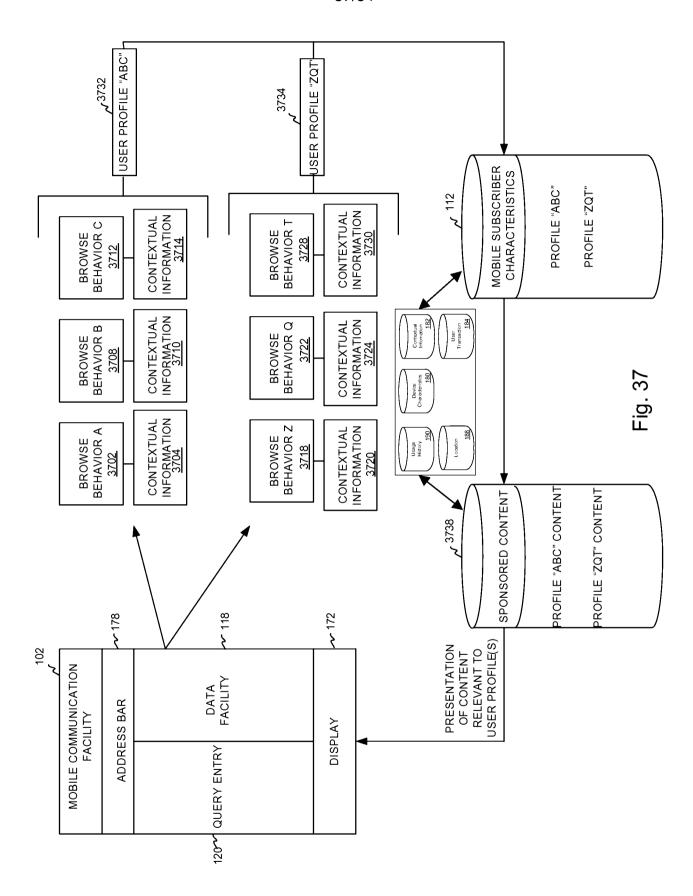
Fig. 32











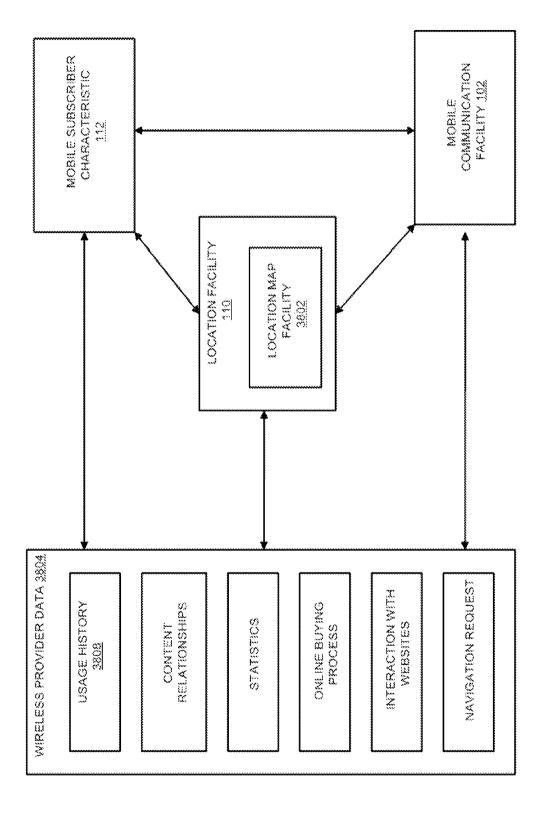


Fig. 38

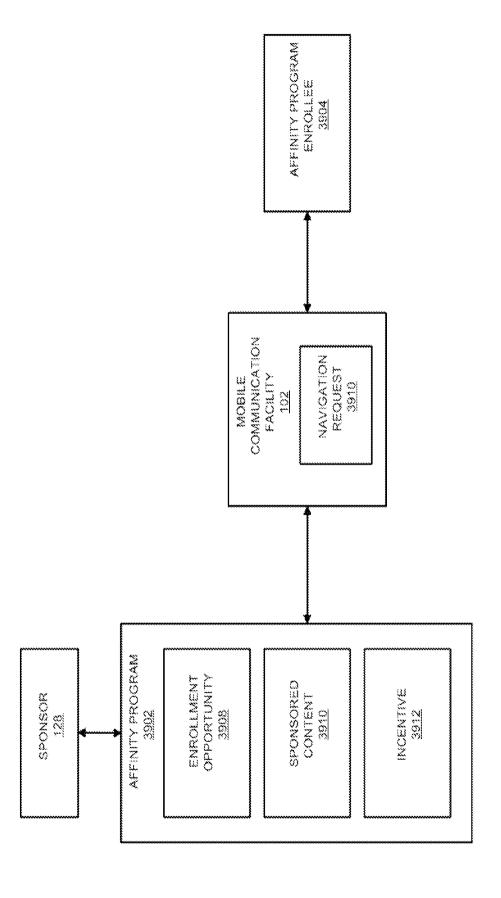
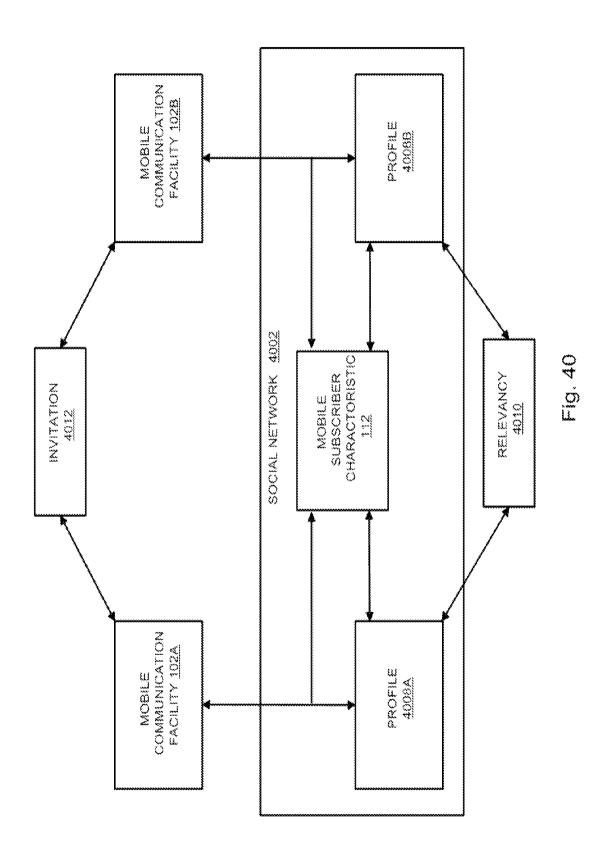
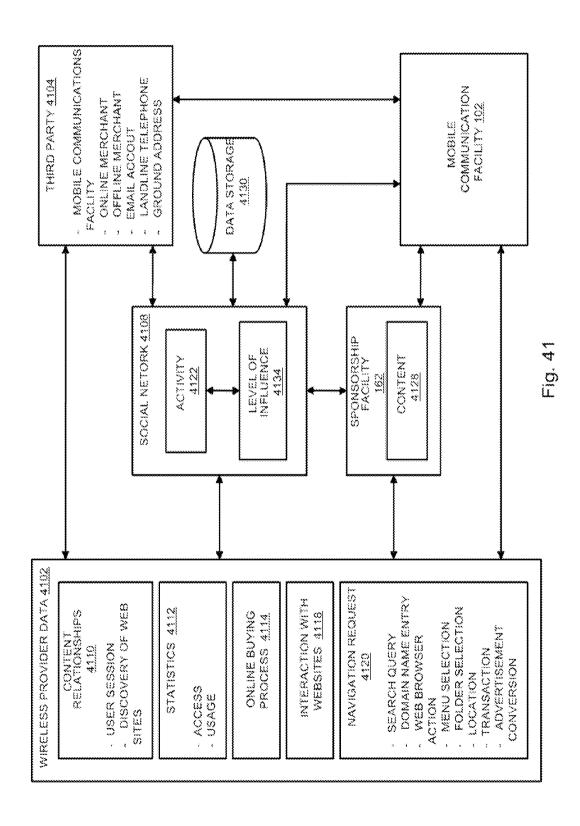
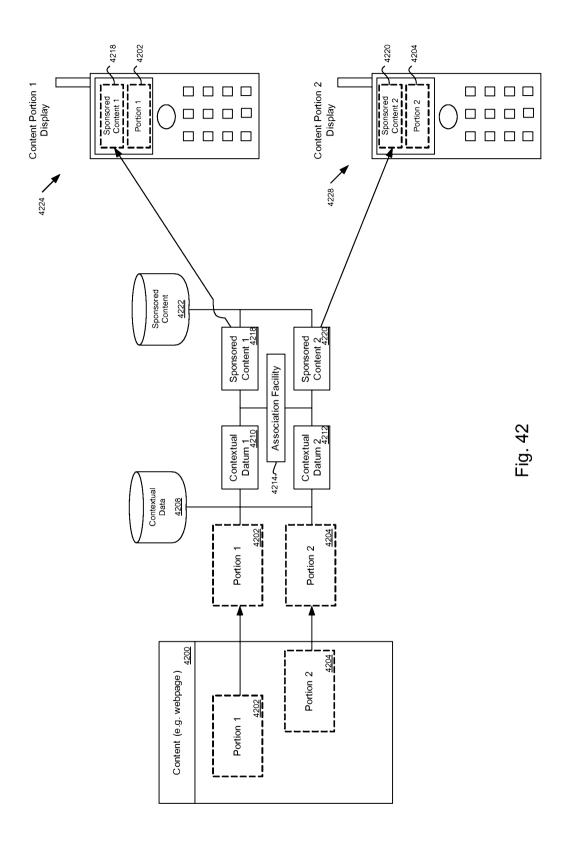
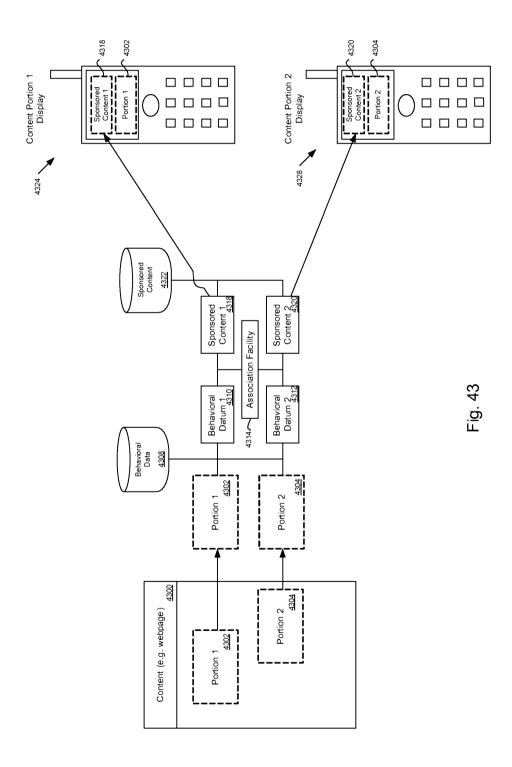


Fig. 39









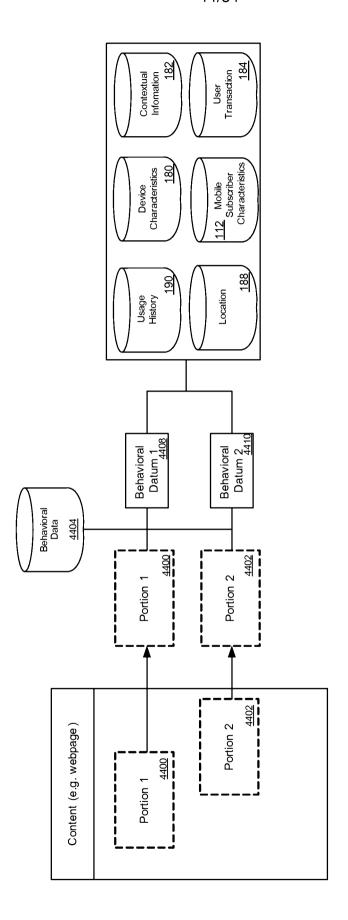
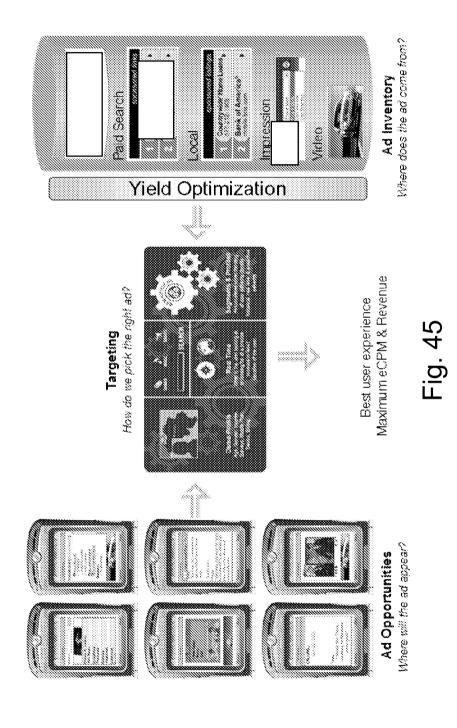


Fig. 44



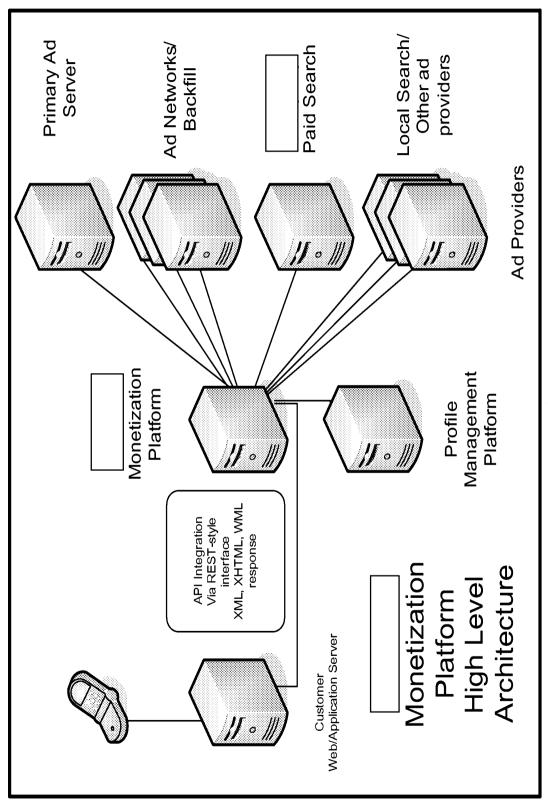
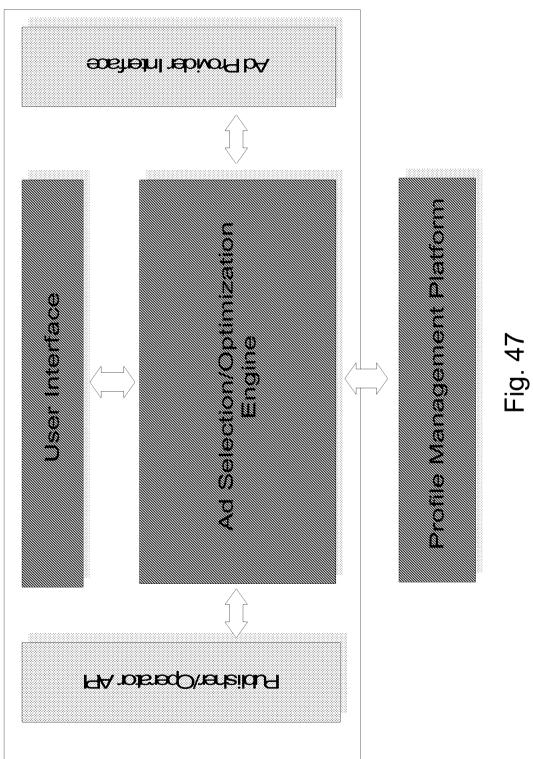
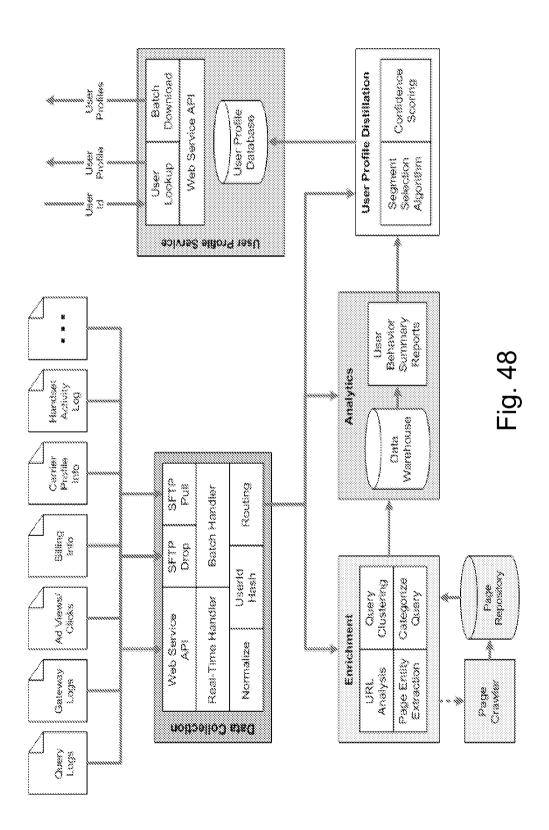
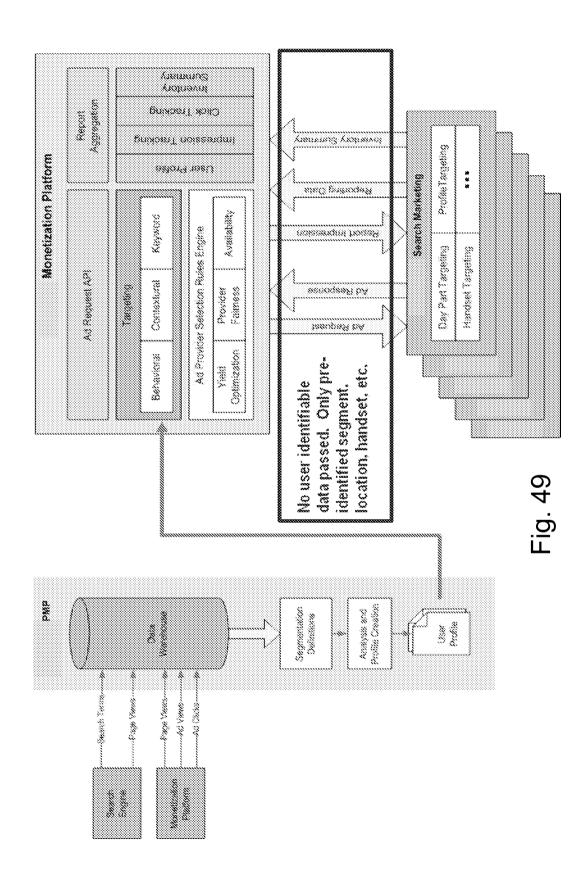


Fig. 46







	### ##################################
	(Segment=traveler) AND (Sender=male)
To build the expression, sek	To build the expression, select the relationship between Keyname and Keyvalue
Asterist() relationship does	s not require keyvalue.

Fig. 50

	ffor to start you	
	Press enter your coer name and password then press the login button to start your sessoun.  Usermame:  Rassword:  Sign in	Fig. 51

Ad Spot  Addition  Ad Spot  Addition  Additi
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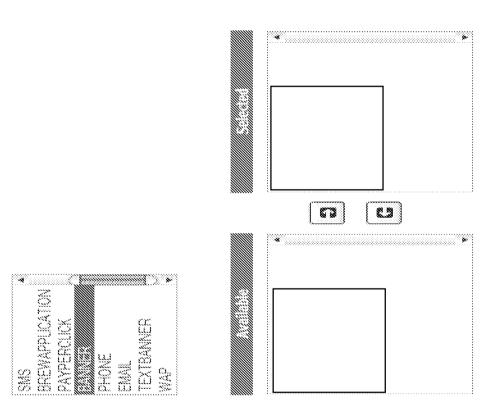


Fig. 53

ad types

Ad providers

# # # # # # # 0 0 0 0 0 0 0 0 0 0 0 0

Parameters
WKONA
d Provider
160

Certain ad providers expose parameters that should be configured for each ad sport. You can use the control below to add bensmeters and delete them from the table.

The fable shows currently selected ad provider's parameters. Gray thes indicate peremeters that will not be submitted, as their ad provider is not selected. Peremeters with language: "" are mandatory and cannot be deleted if their ad provider is selected.

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nature accordes conventing energetical and proposed a patricemite, ones minds anachemit	amaters that will not be submitted, as their ad provider is not selected. Parameters with	guaga """ are mendatory and camot be deleted if their ad provider is selected.			
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Showing 1 to 6 of 6						
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These are Ad Spots common parameters. You may add and dates them at will. It is important that you till the "Subnit" button when you are finished to update or create the ad

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Language	÷	8	te Checked
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Submit

Fig. 54