(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
8 August 2013 (08.08.2013)

WIPO | PCT

(10) International Publication Number
WO 2013/114399 A2

(51) International Patent Classification: Not classified

(21) International Application Number:
PCT/IN2013/000039

(22) International Filing Date:
21 January 2013 (21.01.2013)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
247/MUM/2012 24 January 2012 (24.01.2012) IN

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(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

— *as to the identity of the inventor (Rule 4.17(i))*

— *of inventorship (Rule 4.17(iv))*

Published:

— *without international search report and to be republished upon receipt of that report (Rule 48.2(g))*

(54) **Title**: USER INITIATED CLICK BASED CONTEXTUAL ADVERTISING AND SEARCH SYSTEM

(57) **Abstract**: The present disclosure envisages a method for facilitating contextual advertising and listing of search results in terms of information/content/applications discovered on network enabled user device. The method includes the steps of identifying and extracting the keywords in response to the user action of clicking/touching/focusing/highlighting/navigating the text displayed on user display screen without modifying software application; using said keywords to pull at least one of advertisement/content/information/application/search results from an advertisement server; receiving from the advertisement server, the from an advertisement server; receiving from the advertisement server, the attributes corresponding to advertisements/contents/information/applications/search results and displaying said advertisements/ contents/ information/ applications/ search results according to said attributes on the main or separate screen of the user device, advertisements/contents/information/applications/search results and displaying said advertisements/ contents/ information/ applications/ search results according to said attributes on the main or separate screen of the user device.

WO 2013/114399 A2

USER INITIATED CLICK BASED CONTEXTUAL ADVERTISING AND SEARCH SYSTEM

FIELD OF THE DISCLOSURE

The present disclosure relates to the field of user initiated (by way of click or touch on data on display screen) contextual digital advertising and search and more particularly to a system and related method(s) for displaying digital advertising and search results on network enabled devices based on user initiation and actions which are identified on the keywords, text, image, video, audio content shown on the screen in different applications on device,

BACKGROUND

Traditionally, commercial advertisements have been in the form of television commercials, radio commercials, and printed advertisements in magazines, newspapers and search by way of manually entering search query in search box. Most recently, as people began spending more and more time using personal mobile computers, advertising and search has expanded to the internet.

Further, as network enabled devices become increasingly popular, delivering advertisements and search results to users of such devices is likely to become increasingly popular. Such devices include, for example, mobile telephones, portable media players, small form factor PCs or any other network enabled device with display, touch screen, motion/IR/gesture and keyboard and audio function. Many of these devices include features such as image capturing, text messaging capability, electronic mail capability, video playback capability, audio playback capability, image display capability, wired or wireless connectivity, data storage and the like. Accordingly such devices are capable of displaying audiovisual/or text advertisements.

Mobile or wireless electronic advertising, in which advertisers connect with consumers through cellular telephones, personal digital assistants [PDA] and other mobile devices such as different form factor PCs, has evolved as an effective

advertising technique in recent years. For example, an advertiser may encourage cellular telephone users to participate in trivia contests on internet, thereby initiating a marketing campaign which enables the advertisers to send those users coupons and/or promotional offers. Similarly for search user can enter a search query in search box on any search engine website. Though this kind of advertising and search has evolved in recent years, use of mobile search or digital advertising and its many advantages have not been completely exploited. Accordingly, many more innovative and effective mode of advertising and search and web discovery may yet be implemented.

OBJECTS

In view of the foregoing background, it is an object of the present disclosure to provide a system, apparatus, and associated method/s for user initiated click or touch based contextual digital advertising and search listings.

It is an object of the present disclosure to overcome or at least mitigate certain limitations of the prior art systems and methods.

SUMMARY

According to the first aspect of the disclosure there is provided a method of real time advertising, search and information/content/application discovery based on user actions including but not restricted to single or multiple clicking/touching/highlighting/dragging one or more keywords in textual/image/video content in applications shown on the screen of the device wherein the advertisement/information/content/applications/search are relevant to those keywords clicked/touched/highlighted/focused/selected by the user via but not limited to stylus/finger/mouse/remote control/IR/Motion sensor/Gesture sensor/keypad/and the like, without modifying or interfacing the application from which the text is recognized on click, on network enabled devices with display, mouse, touch screen, motion, IR, gesture sensors, storage, wired or wireless ports, sensors, camera, keyboard and audio input and/or output function.

The user might optionally click on image/video/sound/buttons/etc or a UI option from an advertisement server; receiving from the advertisement server the attributes corresponding to advertisements/contents/information/applications/search results and displaying said advertisements/ contents/ information/ applications/ search results according to said attributes on the main or separate screen of the user device. "Ad"/"Advertising"/Advertisement"/"Commerce"/"Campaign" similar in nature to receive advertisements/information/content/applications/etc in real time relevant or non relevant to content on which user clicks.

According to the second aspect of the present disclosure, the method further includes the steps of optionally storing said Keywords in volatile and non volatile memory module of user device, optionally forming meaningful text and randomizing it, sending those keywords and text to server, pulling the advertisement/information/content/applications from the server based on received keywords/actions of user and optionally storing the pulled advertisements/information/content/applications in memory module on the user device, receiving attributes for advertisements to be displayed on user device and displaying said advertisement/information/content/applications according to said attributes on the main and/ or separate/split screen of network enabled user device at a particular location and in a particular form .

According to the third aspect of the disclosure there is provided a system for digital advertising, the system comprising a network operable to support user device/s. The user device comprises a software module integrated at application level or middleware level or kernel layer of an operating system and adapted to extract the keywords from clicked/touched/highlighted/focused locations on device screen by user by way of fingers or resistive stylus or keypad or scroll wheel or track pad or any other input device along with extraction of location on screen for the click/highlight/focus/touch point/span of a user, and also extracting the user action on UI buttons/image/video/sound content and optionally storing said characters in the memory module. Further said module is adapted to optionally randomize them in any sequence.

According to the fourth aspect of the present disclosure, the system further includes a server operable to communicate via the network of user device/s, the server further comprising a discovery module for matching and pulling the advertisement/content/information/applications/search results from the server based on said keywords as a result of user action on device. The server is further adapted to store the keywords on a server database against each user, the server still further adapted to send the relevant advertisements/content/information/ applications/discounts/coupons/deals/e-vouchers/marketing promotions and the like to the user device along with attributes for advertisements/ information/ contents/applications to be displayed on the user device from the server and displaying said advertisement/information/contents/applications according to the said attributes, on the main or separate screen of network enabled user device.

As explained earlier, the user device is network enabled device. The network enabled device is selected from the group consisting of at least mobile phone, PDA [Personal Digital Assistant], Smart phone, Feature Phone, Smart book, Tablet PC, PC [Personal Computer], Notebook, Laptop, Net book, digital picture frame, portable media player, music player, video player, digital TV, IPTV, analog TV, set top box, car infotainment device or navigation device, remote control of a electronic appliance and any other device which has one more display screens and one or more audio speaker or headphone connector port, one or more keys or keypads, multifunction peripherals and Input output ports, and with at least one application specific processor/chipset. The network mentioned herein above comprises an internet or intranet or private or public close group peer to peer or broadcast network or wireless network.

According to the third and fourth aspects of the present disclosure, means are provided to extract the contents, identify alphanumeric characters from the extracted contents and store said keywords in the memory module, for forming meaningful text from the keywords stored in the memory module of the user device, randomizing the said keywords, and match and pull the advertisements/content/information/ applications/etc based on said keywords from the remote server onto the networked

enabled device and handing over said advertisements/content/information/applications to display application for display or playback.

The step of extraction of keywords as a result of user action on screen of a device further comprises the step of sending a notification by way of mutex/signaling of start and end location on screen where the keywords exist and where the user has touched/clicked/highlighted the text with or without those keywords, to the software module integrated in application/ middleware/ kernel of an operating system as per third aspect of this disclosure. In case, keywords are absent in this notification, then this software module will extract/pull the keywords from respective module/arrays/buffers/etc in an operating system which is responsible to storing the keywords at the location where user has clicked/focused/touched/highlighted the text on device screen. Alternatively keywords can be extracted/pushed from the operating system middleware functions and views/buffers/windows responsible to hold text shown on screen based on the locations received as a touch/click/highlight event where the keywords exist and then optionally getting offset of exact keyword in that view/buffer holding text of screen of the device wherein this offset is calculated based on the start and/or end location of keyword on screen. Alternatively keywords can be extracted from clipboard of an operating system if textual/imaging/video content is stored in the clipboard as a result of click/touch/copy/highlight/span/select actions performed by the user on the display screen.

The keywords extracted from said content can be digits, numbers, text, words, and strings and these keywords are stored in another buffer in volatile or non-volatile memory optionally in random fashion rather than in same sequence or order of recording/extraction to safeguard user privacy. The attributes received from the server for display of an advertisement on the screen of user device is in the form of user profile, advertisement repetition count, time, form, position and size and other relevant data.

Further, the method of advertising and information/content/application preview material and playback on device can be in the form of text, audio, picture, video, 2D,

3D graphics, image, animation, moving picture, banner, web links, hyperlinks, file attachment, flash, SMS, mms, email, etc.

According to the fifth aspect of the present disclosure, a separate display screen is provided in addition to the main screen, the location of which can be on top of or at the bottom of keypad. The separate display screen could be located in a candy bar or clamshell or slider type device and facilitate viewing of the pulled advertisements and may also include an application adapted to display advertisements and also other data formats including SMS, email, message, video, and image as a part of multitasking. The display screen of the user device according to the present disclosure can be one of LCD (Liquid Crystal Display), LED (Light Emitting Diode Display), EInk (Electronic Ink Display), OLED (Organic Light Emitting Diode Display), PLED (Polymer Light Emitting Diode Display), AMOLED (active matrix organic light emitting diode display), FED (Field Emission Display), IMOD (interferometric modulator display), Plasma.

According to the sixth aspect of the present disclosure, there is provided a method by which a keyword preset in textual and imaging content can be marked as clickable before rendering on the display screen by way of tag or mark in the program responsible for rendering the textual and imaging data. The clickable tags or marks can be used by an application or middleware or kernel pluggable system as mentioned in third and fourth aspect of the disclosure to identify keywords when user clicks/highlights/focus on them.

According to the seventh aspect of the invention, there is a method of providing a search icon permanently by default in OS for every application at OS level or application level at predefined location on screen of device, wherein if this search icon is clicked/touched/invoked by some other input, by user, it will pick up/grab one or multiple keywords clicked/highlighted/focused by user and/or all keywords present on display screen at that point of time by picking up alphanumeric keywords from central text rendering functions and/or buffers/views holding text of OS or application responsible for text rendering, and provide search results like web information/ blogs/

audio/ video/ images/ deals/ discounts/ coupons/ e-books/ apps/ maps/ documents/ messages/ social networking posts/ contacts/ dictionary/ and the like in a separate navigation screen or split screen or pop up overlay window for all these grabbed keywords against each keyword.

According to eight aspect of the invention, when user clicks/touch/highlights/focused one or multiple times for e.g. double click on keywords on screen, will initiated a display of an overlap pop up near that keyword which is clicked/touched/focused with options to edit the keyword which was clicked/touched, and show relevant search/content/applications/web/image/video/music/advertisement/social feed/message/notification/and the like_along with different categories of search and information to navigate to and view extended web results. Alternatively a banner window can also open up on top or bottom or side of the screen to show relevant search/web/content/applications/advertisement/etc results.

The preceding explanation is a simplified summary of the invention to provide an understanding of certain aspects of the invention. This summary is neither an extensive nor exhaustive overview of the invention and its various embodiments. It is intended neither to identify key or critical elements of the invention nor to delineate the scope of the invention but to present selected concepts of the invention in a simplified form as an introduction to the more detailed description presented below.

BRIEF DESCRIPTION OF THE ACCOMPANYING DRAWINGS

The present invention is described in accordance with the appended figures.

FIGURE 1 shows an illustrative representation of a network enabled user device along with the display screen that may be used for displaying an advertisement, in accordance with the present disclosure;

FIGURE 2 shows a block diagram of the relevant portions of the network enabled user device of **FIGURE 1** in accordance with the present disclosure;

FIGURE 3 shows a block diagram of a system according to the present disclosure, in which a network enabled device of **FIGURE 1**, may operate;

FIGURE 4 and FIGURE 5 show a flow chart of a process of displaying advertisements on a network enabled user device, in accordance with the present disclosure; and

FIGURE 6 illustrates an exemplary embodiment of the present disclosure.

In the figures, similar components and/or features may have the same reference label. Further, various components of the same type may be distinguished by following the reference label by a letter that distinguishes among the similar components. If only the first reference label is used in the specification, the description is applicable to any one of the similar components having the same first reference label irrespective of the second reference label.

DETAILED DESCRIPTION OF THE ACCOMPANYING DRAWINGS

As used throughout this patent document, the terms "include" and "comprise," as well as derivatives thereof, mean inclusion without limitation; the term "or" is inclusive, meaning and/or; the phrases "associated with" and "associated therewith," as well as derivatives thereof, may mean to include, be included within, interconnect with, contain, be contained within, connect to or with, couple to or with, be communicable with, cooperate with, interleave, juxtapose, be proximate to, be bound to or with, have, have a property of, or the like. Definitions for certain words and phrases are provided throughout this document. Those of ordinary skill in the art should understand that in many, if not most instances, such definitions apply to prior as well as future uses of such defined words and phrases.

For the purpose of illustration, the invention will be described primarily in the context of displaying advertisements on a network enabled user device that may include a mobile device/ mobile telephone. However it will be appreciated that the disclosure is not intended to be limited to the context of a mobile device / mobile telephone and may relate to any type of an appropriate electronic device, examples of which include Feature Phone, Smartphone, Smart book, Tablet PC , Notebook ,Laptop, Net book, digital picture frame, portable media player, music player, video player, digital TV, IP TV, analog TV, set top box, digital clock, car infotainment device, VOIP (Voice over Internet Protocol) phones, IP (Internet Protocol) phones, remote control of a TV and navigation device.

Refereeing to **figure 1,** a user device **101** is shown. The user device **101** includes an advertisement module **207.** More details and an operation of advertisement module **207** will be described in detail below. The advertisement module may be incarnated in the form of executable code that is stored in and executed by the user device **101.** The advertisement module may be a standalone software application or form part of the software that carries out additional tasks related to user device **101.** Additionally, the advertisement module **207** can also be in the form of a software program, stored in a computer or a computer readable medium.

The user device **101** includes a display screen **210**. The display screen **210** displays information to a user including but not restricted to telephone number, contact information, and various navigational menus, contents retrieved from a memory module **213** [Figure 2] of the user device **101.** The user device may have one or more display screens **211,** along with an additional key pad **212** to display the aforementioned information.

A keypad **209** provides a variety of user input operations. For example key pad **212** typically includes alphanumeric keys for allowing entry of alphanumeric information such as telephone numbers, contact information, notes etc. Special function keys **102**

may include menu navigation and to facilitate navigating through a menu displayed on the main display or additional display screen **211** of the user device **101.**

The user device **101** includes call circuitry that enables the device **101** to establish a call or exchange signals with called / calling device including but not restricted to mobile device, internet web server, content providing server such as advertisement server. The call can be in any form including but not restricted to voice over Internet Protocol [VOIP], video enabled call, call over GSM, GPRS, CDMA, and 3G call over an alternative packet switched network such as WiFi, and WiMax. The user device **101** may be configured and adopted to transmit, receive, process data such as text messages, email messages, instant messages, multimedia messages, image files and so forth. Processing such data may include storing the data in the memory module **213** executing applications to allow user interaction with the data and so forth.

Referring to **figure 2** a functional block diagram of user device **101** is shown. The user device **101** includes a control circuit **205** that is configured to carry out overall control of the functions and operations of the user device **101**. The control circuit **205** may include processing device **206** such as CPU [Central Processing Unit] and other standard equipments such as, microcontroller. The processing device executes code stored in memory built into the control circuit **205** or in a separate memory module **213** in order to carry out the operations of the user device. The memory module may be one or more of a buffer, flash drive, hard drive, volatile and non-volatile memory. The processing device **206** executes the code that controls the functionalities of the advertisement module **207**. Details as to specific programming code have been left out for the sake of brevity. Further, said functionality of advertisement module could also be carried out by separate and dedicated hardware, software, or combinations thereof without departing from the scope of the disclosure.

The user device **101** further includes an antenna **218** coupled to a radio circuit **201**. The radio circuit **201** includes conventional transmitters and receivers. The radio circuit **201** may be configured to operate mobile communication system and may be

used to send and receive data and audio and/or visual content. Receiver types for interaction with a mobile radio network and broadcasting network include but are not limited to GSM, CDMA, WCDMA, GPRS, 3G, WiFi, Wi MAX, and so forth as well as advanced version of these standards.

The display **210** or an additional display **211** of the user device **101** may be coupled to the control circuit **205** by a video processing circuit **208** that converts video data to a video signal used to drive the display **210** or an additional display **211**. There are other devices parts present in the user device **101** such as one or more I/O interface **215** and power supply unit (PSU) **216,** camera **214** , and local wireless interface **217** such as Bluetooth interface for establishing connection with an accessory or other mobile devices.

In accordance with the present disclosure, the advertisement module **207** is adapted to:

- extract on-screen coordinates corresponding to the text selected/highlighted/focused/touched by a user, wherein the text is a part of at least one of a textual content/audio content/video content or image content displayed on the display screen **210** of the user device **101**;
- extract keywords corresponding to the text selected/highlighted/focused/spanned/clicked by said user based on the on-screen coordinates;
- mark at least a part of the text present in the textual content/video content/image content clickable/touchable by marking/tagging said textual content/video content/image content prior to rendering said content;
- optionally store extracted keywords in the memory module **213** of the user device **101**;
- optionally form meaningful set of words based on said extracted keywords and optionally randomize said keywords to protect privacy of said user;

- transmit at least said keywords to the advertisement server **302** and extract from said advertisement server **302**, at least one of said advertisements, search results, information, content, applications, discounts, deals, coupons, vouchers and marketing promotions based on at least said keywords;

- optionally store at least one of extracted advertisements, search results, information, content, applications, discounts, deals, coupons, vouchers and marketing promotions in the memory module **213** of the user device **101**; and

- receive from the advertisement server **302**, the attributes corresponding to at least one of the extracted advertisements, search results, information, content, applications, discounts, deals, coupons, vouchers and marketing promotions and displaying on said user device at least one of extracted advertisements, search results, information, content, applications, discounts, deals, coupons, vouchers and marketing promotions.

In accordance with the present disclosure, the advertisement module **207** is adapted to extract the keywords in response to user action of clicking/touching/focusing/selecting/spanning user interface options including at least one of user interface buttons, user interface check boxes, user interface lists and user interface menu items.

In accordance with the present disclosure, the advertisement module **207** is further adapted to determine by the way of event/semaphore/mutex/signaling, the on screen starting coordinates and end coordinates of the text selected/touched/highlighted/focused/spanned by the user.

In accordance with the present disclosure, the advertisement module **207** is further adapted to:

- generate a notification comprising said on screen starting coordinates and end coordinates and transmit said notification to a software module (not shown in figures) integrated in application/ middleware/ kernel of operating

system associated with the user device and responsible for displaying the text at the location on screen clicked/focused/touched/highlighted by said user; and

- extract the keywords corresponding to the text highlighted/selected/touched by user based on said onscreen starting coordinates and end coordinates from said software module.

In accordance with the present disclosure, the advertisement module **207** is further adapted to extract the keywords from functions/arrays/buffers responsible for storing and rendering the textual content/audio content/video content or image content.

Now referring to **figure 3** the user device **101** is configured to operate as a part of the communication system **300**. The system includes a communication network 300 having an advertisement server(s) **302** for carrying out various support functions inter-alia management of calls. The server **302** communicates with the user device **101** via a transmission channel. The transmission channel is any appropriate device or assembly including but not limited to a cell tower, another mobile device, a satellite etc. As may be appreciated, server(s) **302** may be configured to store and execute advertising functionalities that interact with the advertisement module **207** of the user device **101**. Details of the interaction between advertisement server **302** and the advertisement module **207** of the user device **101** are illustrated in FIGURES 4 and 5.

Figures 4 and 5 illustrate an exemplary method of displaying advertisement on the user device. The exemplary method can be thought of as an array of steps corresponding to a method carried out by the user device 101. At **step 401**, in response to the user action on user device screen, that is, in response to the user selecting/highlighting/focusing/touching particular text displayed on the display screen of user device, on-screen coordinates corresponding to the text clicked/spanned/highlighted/focused by the user are extracted. The user can select/highlight/focus/touch upon any text by using input devices including remote

control, mouse, keypad, finger touch, stylus, IR, motion sensor, without modifying or interfacing the application from which the text is recognized on click.

At step **403,** the keywords corresponding to the text highlighted/selected/focused/spanned/clicked by the user will be extracted based on the on-screen coordinates or any off-sets corresponding to the coordinates identified in step **401.** The extracted keywords can be alphabets or alpha-numeric characters. The extracted keywords may include text, words and strings apart from alphabets.

At step **405,** the extracted keywords are optionally stored in the memory module of the user device **101**.At step **407**, the extracted keywords are optionally randomized and meaningful keywords are formed out of the randomized keywords. At step **405**, the extracted keywords are stored in the memory of user device **101** in random fashion optionally rather than in same sequence or order of recording and extraction.

At step **409** at least a part of the text present in the textual content/video content/image content is made clickable/touchable by marking/tagging said textual content/video content/image content prior to rendering the content.

At step **411**, the extracted keywords are transmitted over the network **301** to an advertisement server **302.** The network **301** includes but is not restricted to internet, intranet, private or public close group peer to peer/broadcast network, wireless network, analog network and digital network.

At step **413**, at least one of advertisements, search results, information, content, applications, discounts, deals, coupons, vouchers, marketing promotions are extracted from said advertisement server based on the extracted keywords. Further, at step **413**, the extracted advertisements, search results, information, content, applications, discounts, deals, coupons, vouchers, marketing promotions are optionally stored in the memory module of the user device.

At step **415**, the attributes corresponding to at least one of the extracted advertisements, search results, information, content, applications, discounts, deals, coupons, vouchers, marketing promotions are extracted from the advertisement server.

At step **417**, at least one of the extracted advertisements, search results, information, content, applications, discounts, deals, coupons, vouchers, marketing promotions are displayed based on the attributes on the main or separate screen of the user device. The extracted advertisements, search results, information, content, applications, discounts, deals, coupons, vouchers, marketing promotions can also be displayed via an overlay window next to clicked keyword/text and/or on an independent banner screen on top/bottom/side portion of the screen with multiple search options and search categories along with edit option for the originally selected text.

In accordance with the present disclosure, the method further includes the step of extracting the keywords from functions/arrays/buffers responsible for storing and rendering the textual content/audio content/video content or image content.

In accordance with the present disclosure, the step of displaying further includes the step of displaying at least one of said advertisements, search results, information, content, applications, discounts, deals, coupons, vouchers, and marketing promotions at a pre determined location on the main /separate screen or in a new window on main screen next to the corresponding keyword.

In accordance with the present disclosure, the user device is a network enabled device and said network may include an internet or intranet or private or public close group peer to peer or broadcast network or wireless, and analog or digital network. Further said network enabled device may include one or more of mobile phone/ mobile device, PDA [Personal Digital Assistant], Smart phone, Feature Phone, Smart book, Tablet PC [Personal Computer], PC [Personal Computer], Notebook, Laptop, Net book, digital picture frame, portable media player, music player, video player, digital TV, IP TV, analog TV, set top box, kitchen appliance a digital clock, car infotainment device, VOIP phones, IP phones, remote control of a TV or any electronic appliance and a navigation device.

In accordance with the present disclosure, the attributes received from the advertisement server are in the form of time, form, position, and size. Further, the displayed advertisements, search results, information, content, applications, discounts,

deals, coupons, vouchers, marketing promotions may include one of text, audio, picture, video, 2D, 3D graphics, image, animation, moving picture, banner, web links, and hyperlinks, file attachment, flash, SMS, mms, email.

In accordance with the present disclosure, the separate screen can be a split display screen provided on the main screen of the user device or a secondary display screen on the device in addition to main screen which enables users to read SMS [Short Message Service], email, message, social networking message posts, advertisements, news, or any other digital content on this second screen, on their arrival to the device from network or after stored on the device, without mixing or changing the content of main screen. Said display screen on the user device is located on top or below of alphanumeric keypad, and the main screen and said separate screen may include one of the shape of a candy bar, clamshell and slider type device.

The display screen of the user device **101** may include LCD (Liquid Crystal Display), LED (Light Emitting Diode Display), EInk (Electronic Ink Display), OLED (Organic Light Emitting Diode Display), PLED (Polymer Light Emitting Diode Display), AMOLED (active matrix organic light emitting diode display), FED (Field Emission Display), IMOD (interferometric modulator display), Plasma monitor.

Another embodiment of the present disclosure contemplates a technique of revenue share wherein whenever a user clicks on advertisement, or allows advertisement to be posted, or watches the advertisement for a particular duration, or spend time in watching and listening to advertisements, or reply or get engaged in the advertisement on an interactive basis, or fill up market survey and market feedback forms, or any other form of brand owners, on device which has some form of display screen and is network enabled, then the user gets paid on a revenue share model between publisher, advertisement content brand owner and end user. The payment can be of the form of depositing money in the user bank account, or gifts, or rewards, or discounts, or vouchers or cards which can be exercised with different brand owners.

Figure 6 illustrates an exemplary embodiment of the present disclosure wherein a user using a user device **101**, highlights/clicks/spans/selects the text "I LIKE COFFEE"

being displayed on the display screen **210**. Either the fingers or stylus or the track pad/keypad of the user device could be utilized by the user to highlight the aforementioned text. Subsequent to user, selecting the aforementioned text, at least one of the advertisements, search results, information, content, applications, discounts, deals, coupons, vouchers, marketing promotions related to the text highlighted/selected/clicked/spanned by the user will be displayed on the screen **210** of user device.

The embodiments herein and the various features and advantageous details thereof are explained with reference to the non-limiting embodiments in the following description. Descriptions of well-known components and processing techniques are omitted so as to not unnecessarily obscure the embodiments herein. The examples used herein are intended merely to facilitate an understanding of ways in which the embodiments herein may be practiced and to further enable those of skill in the art to practice the embodiments herein. Accordingly, the examples should not be construed as limiting the scope of the embodiments herein.

Throughout this specification the word "comprise", or variations such as "comprises" or "comprising", will be understood to imply the inclusion of a stated element, integer or step, or group of elements, integers or steps, but not the exclusion of any other element, integer or step, or group of elements, integers or steps.

The use of the expression "at least" or "at least one" suggests the use of one or more elements or ingredients or quantities, as the use may be in the embodiment of the disclosure to achieve one or more of the desired objects or results.

Any discussion of documents, acts, materials, devices, articles or the like that has been included in this specification is solely for the purpose of providing a context for the disclosure. It is not to be taken as an admission that any or all of these matters form part of the prior art base or were common general knowledge in the field relevant to the disclosure as it existed anywhere before the priority date of this application.

The foregoing description of the specific embodiments will so fully reveal the general nature of the embodiments herein that others can, by applying current knowledge, readily modify and/or adapt for various applications such specific embodiments without departing from the generic concept, and, therefore, such adaptations and modifications should and are intended to be comprehended within the meaning and range of equivalents of the disclosed embodiments. It is to be understood that the phraseology or terminology employed herein is for the purpose of description and not of limitation. Therefore, while the embodiments herein have been described in terms of preferred embodiments, those skilled in the art will recognize that the embodiments herein can be practiced with modification within the spirit and scope of the embodiments as described herein.

While considerable emphasis has been placed herein on the particular features of this disclosure, it will be appreciated that various modifications can be made, and that many changes can be made in the preferred embodiment without departing from the principles of the disclosure. These and other modifications in the nature of the disclosure or the preferred embodiments will be apparent to those skilled in the art from the disclosure herein, whereby it is to be distinctly understood that the foregoing descriptive matter is to be interpreted merely as illustrative of the disclosure and not as a limitation.

CLAIMS:

1. A method for providing cross application click /touch on text based search on a user device, said method comprising the following steps:

- extracting on-screen coordinates from middleware of operating system, said on screen coordinates corresponding to the text selected/clicked/highlighted/focused/touched on display screen of a device by a user through input devices including remote control, mouse, keypad, finger touch, stylus, IR, motion sensor, without modifying or interfacing the application from which the text is recognized on click, wherein said text is a part of at least one of a textual content/ video content/ image content displayed on display screen of said user device;
- extracting keywords corresponding to the text selected/highlighted/focused/spanned/clicked by said user based on said extracted on-screen coordinates or any offset calculated using said co-ordinates, and determining exact keyword(s) in text buffers/views holding that text at middleware of operating system;
- marking at least a part of the text present in said textual content/video content/image content clickable/touchable by marking/tagging said textual content/video content/image content prior to rendering said content;
- optionally highlighting the keywords on screen and storing extracted keywords in a memory module of said user device;
- optionally randomizing said extracted keywords and optionally forming meaningful text out of said extracted keywords;
- transmitting said extracted keywords, meaningful text and corresponding user actions to an advertisement server over a network;
- extracting at least one of advertisement, search results, information, content, applications, discounts, deals, coupons, vouchers, marketing promotions

from said advertisement server based on said extracted keywords and optionally storing extracted advertisements, search results, information, content, applications, discounts, deals, coupons, vouchers, marketing promotions in memory module of the user device;

- receiving attributes corresponding to at least one of extracted advertisements, search results, information, content, applications, discounts, deals, coupons, vouchers, marketing promotions from said advertisement server; and

- displaying at least one of advertisements, search results, information, content, applications, discounts, deals, coupons, vouchers and marketing promotions according to said attributes on the main_screen via overlay window next to clicked keyword/text and/or on an independent banner screen on top/bottom/side portion of the screen with multiple search options and search categories along with edit option for the originally selected text.

2. The method as claimed in claim 1, wherein the method further includes the step of extracting the keywords in response to user action of clicking/touching/focusing/selecting user interface options including at least one of user interface buttons, user interface check boxes, user interface lists and user interface menu items.

3. The method as claimed in claim 1, wherein the method further includes the step of extracting the keywords from functions/arrays/buffers responsible for storing and rendering the textual content/audio content/video content or image content.

4. The method as claimed in claim 1, wherein the step of extracting on screen coordinates corresponding to the text selected/highlighted/ focused/touched/spanned/clicked by said user further includes the step of determining by the way of event/semaphore/mutex/signaling, the on screen starting coordinates and end coordinates of said text.

5. The method as claimed in claim 1, wherein the step of extracting keywords corresponding to the text selected/highlighted/focused/spanned/clicked by said user based on said on-screen coordinates further includes the following steps:

   - generating a notification comprising said on screen starting coordinates and end coordinates and transmitting said notification to a software module integrated in application/ middleware/ kernel of operating system associated with said user device and responsible for displaying the text at the location on screen clicked/focused/touched/highlighted/spanned by said user; and

   - extracting the keywords corresponding to the text highlighted/selected/touched by user based on said onscreen starting coordinates and end coordinates from said software module.

6. The method as claimed in claim 1, wherein said method further includes the step of extracting the keywords from the data stored on volatile and/or nonvolatile storage of said user device.

7. The method as claimed in claim 1 wherein said keywords include at least one of digits, text, words, and strings.

8. The method as claim 1 wherein said attributes received from the advertisement server for display of at least one of advertisements, search results, information, content, applications, discounts, deals, coupons, vouchers, marketing promotions are in the form of time, format, position, and font size.

9. The method as claimed in claim 1 wherein the form of displaying advertising comprises one of text, audio, picture, video, 2D, 3D graphics, image, animation, moving picture, banner, web links, hyperlinks, file attachment, flash, SMS, mms, email.

10. The method as claimed in claim 1, wherein the step of displaying further includes the step of displaying at least one of said advertisements, search results, information, content, applications, discounts, deals, coupons, vouchers, and

marketing promotions at a pre determined location on the main /separate screen or in a new window on main screen next to the corresponding keyword.

11. A system for advertising on a user device, said system comprising:

- an advertisement server adapted to store at least one of advertisements, search results, information, content, applications, discounts, deals, coupons, vouchers and marketing promotions;
- an advertisement module located on said user device, said advertisement module communicably coupled to said advertisement server via a network, said advertisement module adapted to:
  - extract on-screen coordinates corresponding to the text selected/highlighted/focused/touched by a user, wherein said text is a part of at least one of a textual content/audio content/video content or image content displayed on display screen of said user device;
  - extract keywords corresponding to the text selected/highlighted/focused/spanned/clicked by said user based on said on-screen coordinates;
  - mark at least a part of the text present in said textual content/video content/image content clickable/touchable by marking/tagging said textual content/video content/image content prior to rendering said content;
  - optionally store extracted keywords in the memory module of said user device;
  - form meaningful set of words based on said extracted keywords and optionally randomize said keywords to protect privacy of said user;

- transmit said keywords, meaningful set of words to said advertisement server and extract from said advertisement server, at least one of said advertisements, search results, information, content, applications, discounts, deals, coupons, vouchers and marketing promotions based on said keywords and meaningful set of words;
- optionally store at least one of extracted advertisements, search results, information, content, applications, discounts, deals, coupons, vouchers and marketing promotions in the memory module of said user device; and
- receive attributes corresponding to said extracted advertisements, search results, information, content, applications, discounts, deals, coupons, vouchers and marketing promotions and displaying on the main screen /separate screen of user device at least one of said extracted advertisements, search results, information, content, applications, discounts, deals, coupons, vouchers and marketing promotions.

12. The system as claimed in claim 10, wherein said advertisement module is adapted to extract the keywords in response to user action of clicking/touching/focusing/selecting/spanning user interface options including at least one of user interface buttons, user interface check boxes, user interface lists and user interface menu items.

13. The system as claimed in claim 10, wherein said advertisement module is further adapted to extract the keywords from functions/arrays/buffers responsible for storing and rendering the textual content/audio content/video content or image content.

14. The system as claimed in claim 10, wherein said advertisement module is further adapted to determine by the way of event/semaphore/mutex/signaling, the on

screen starting coordinates and end coordinates of the text selected/touched/highlighted/focused/spanned by said user.

15. The system as claimed in claim 10, wherein said advertisement module is further adapted to:

- generate notification comprising said on screen starting coordinates and end coordinates and transmit said notification to a software module integrated in application/ middleware/ kernel of operating system associated with said user device and responsible for displaying the text at the location on screen clicked/focused/touched/highlighted by said user; and
- extract the keywords corresponding to the text highlighted/selected/touched by user based on said onscreen starting coordinates and end coordinates from said software module.

16. The system as claimed in claim 10, wherein the user device is network enabled device selected from the group consisting of at least mobile phone, PDA, Smart phone, Feature Phone, Smart book, Tablet PC Personal Computer, Notebook, Laptop, Net book or digital picture frame, or portable media player, or music player, or video player, digital TV, IP TV, analog TV, set top box, kitchen appliance a digital clock, car infotainment device, and a navigation device.

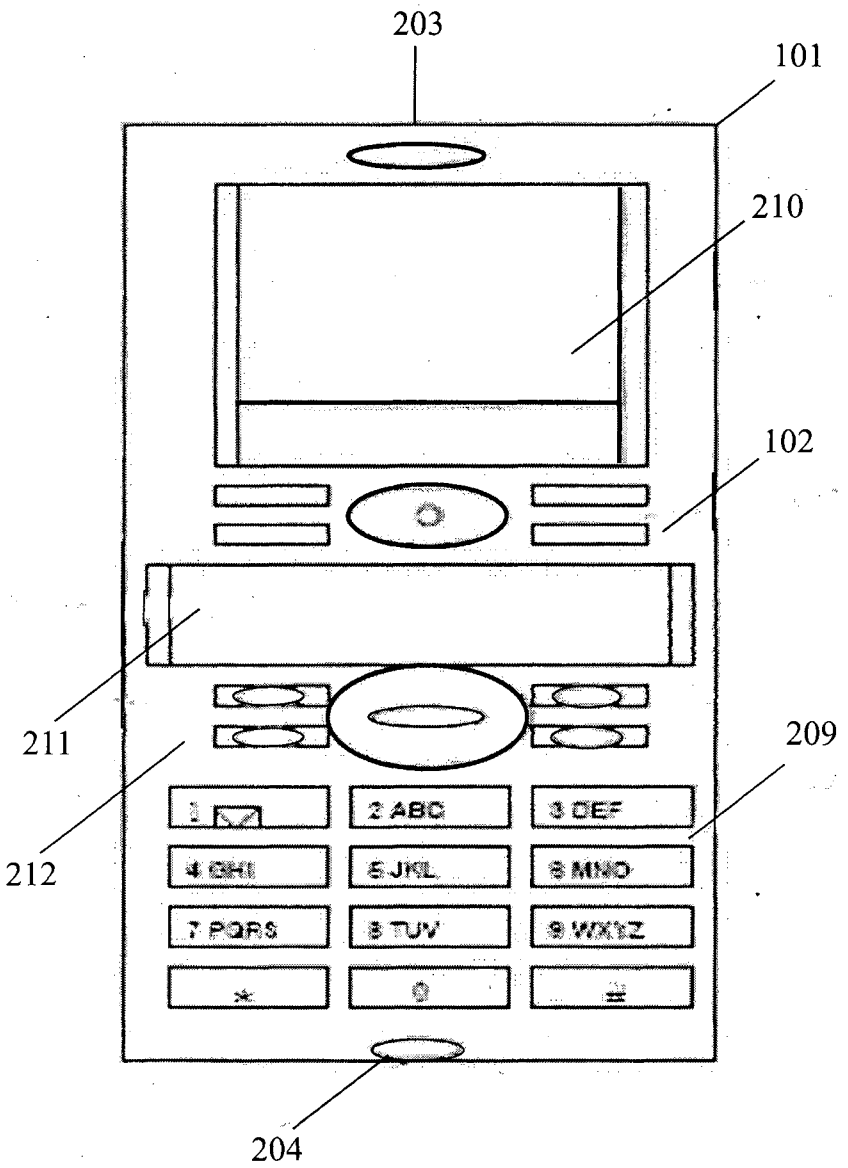

FIGURE 1

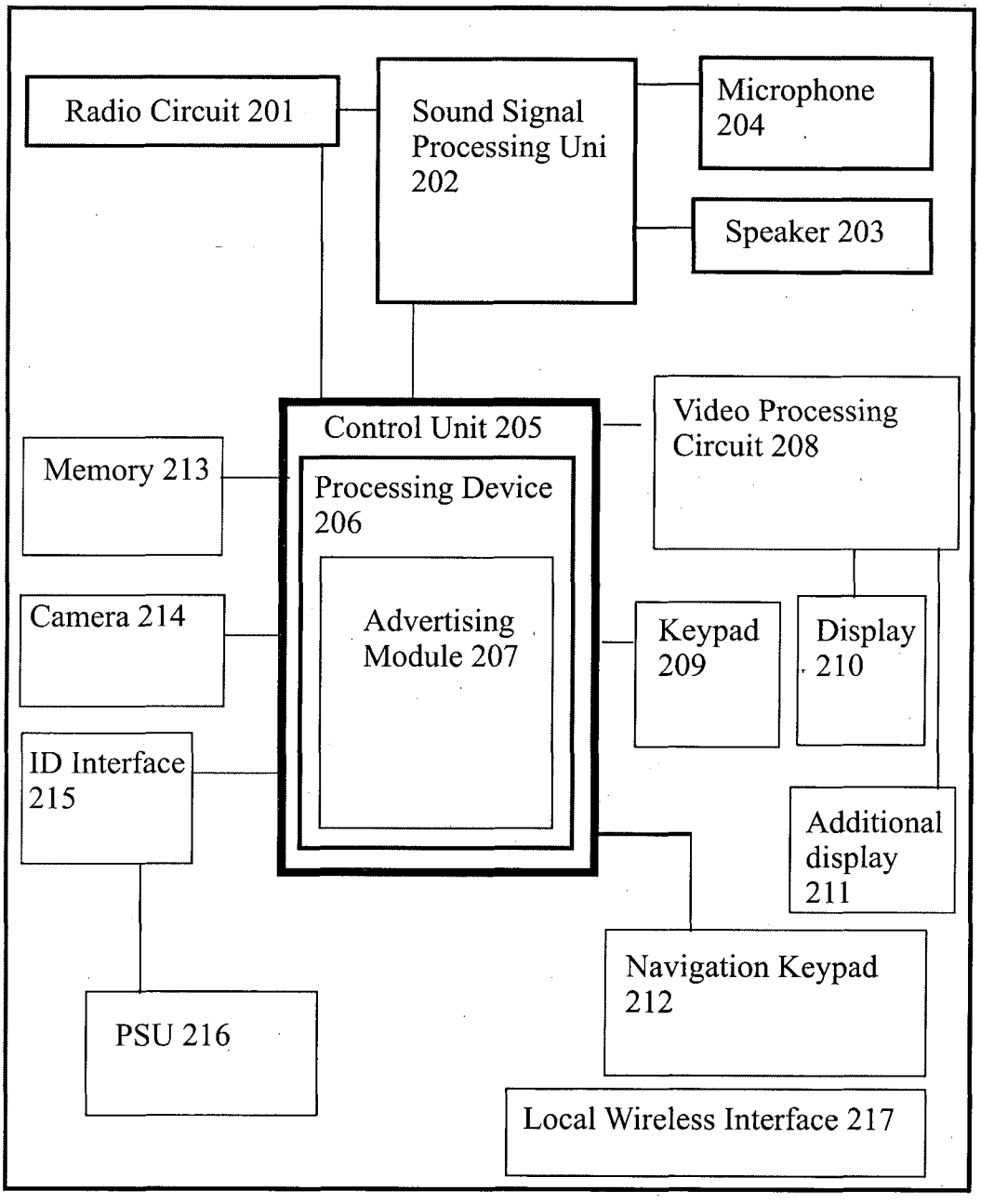
Radio Circuit 201
Sound Signal Processing Uni 202
Microphone 204
Speaker 203
Control Unit 205
Video Processing Circuit 208
Memory 213
Processing Device 206
Camera 214
Advertising Module 207
Keypad 209
Display 210
ID Interface 215
Additional display 211
Navigation Keypad 212
PSU 216
Local Wireless Interface 217

FIGURE 2

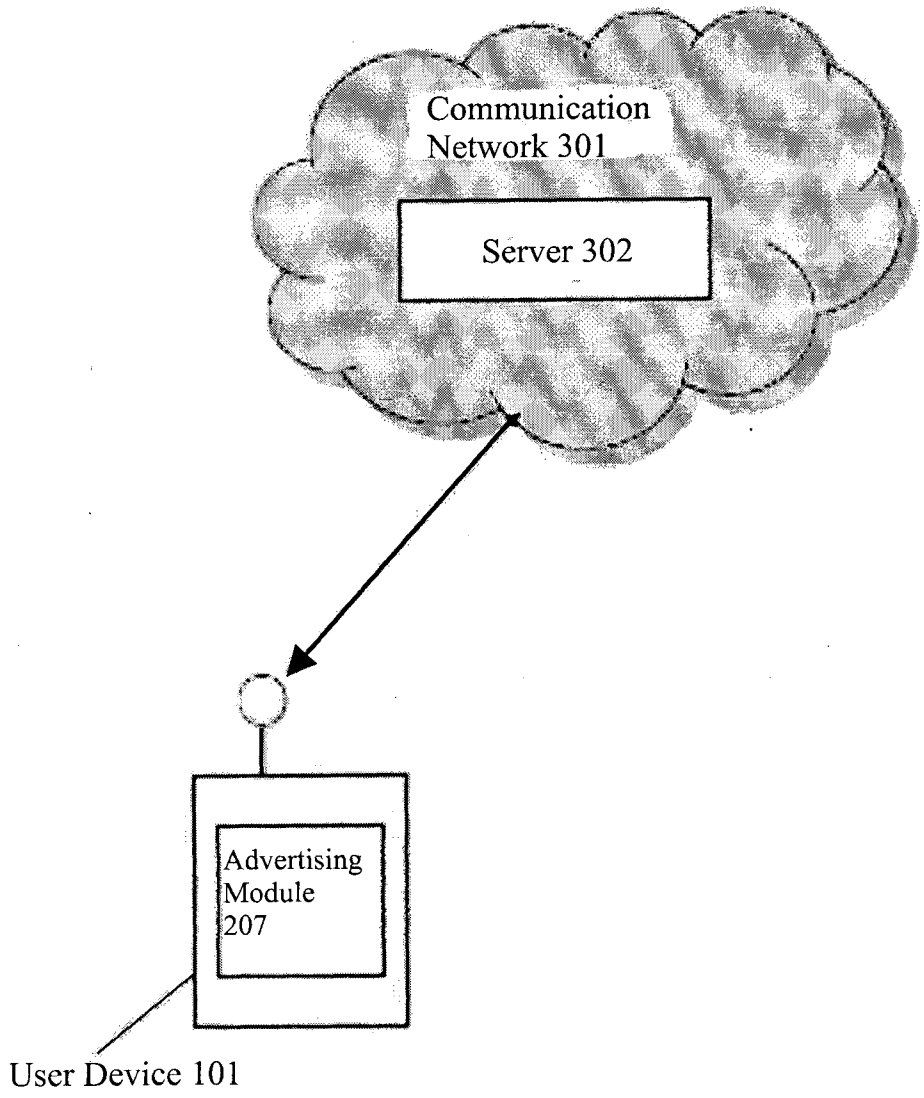
Communication Network 301
Server 302
Advertising Module 207
User Device 101

FIGURE 3

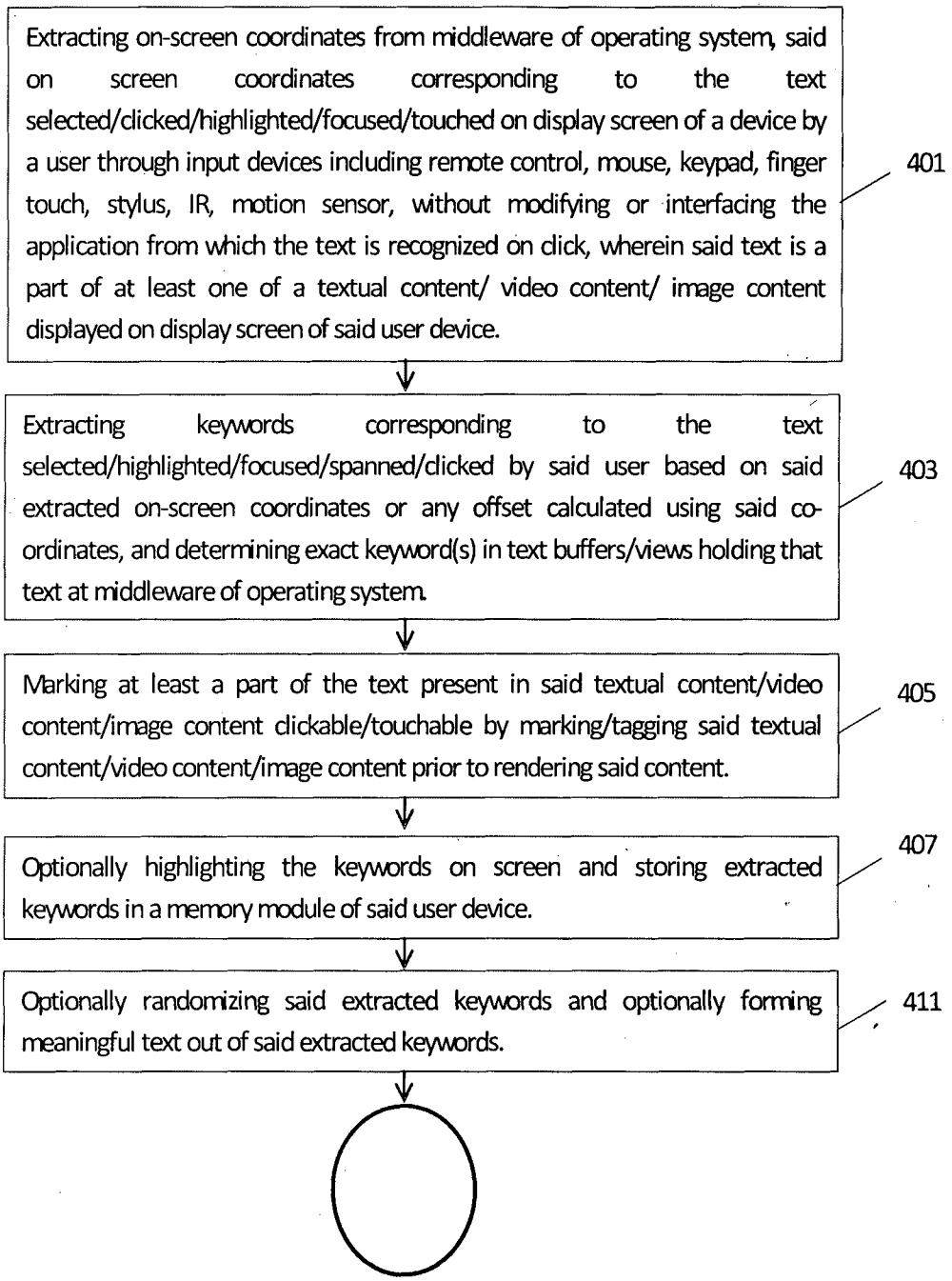
Extracting on-screen coordinates from middleware of operating system, said on screen coordinates corresponding to the text selected/clicked/highlighted/focused/touched on display screen of a device by a user through input devices including remote control, mouse, keypad, finger touch, stylus, IR, motion sensor, without modifying or interfacing the application from which the text is recognized on click, wherein said text is a part of at least one of a textual content/ video content/ image content displayed on display screen of said user device.
401
Extracting keywords corresponding to the text selected/highlighted/focused/spanned/clicked by said user based on said extracted on-screen coordinates or any offset calculated using said co-ordinates, and determining exact keyword(s) in text buffers/views holding that text at middleware of operating system.
403
Marking at least a part of the text present in said textual content/video content/image content clickable/touchable by marking/tagging said textual content/video content/image content prior to rendering said content.
405
Optionally highlighting the keywords on screen and storing extracted keywords in a memory module of said user device.
407
Optionally randomizing said extracted keywords and optionally forming meaningful text out of said extracted keywords.
411

FIGURE 4

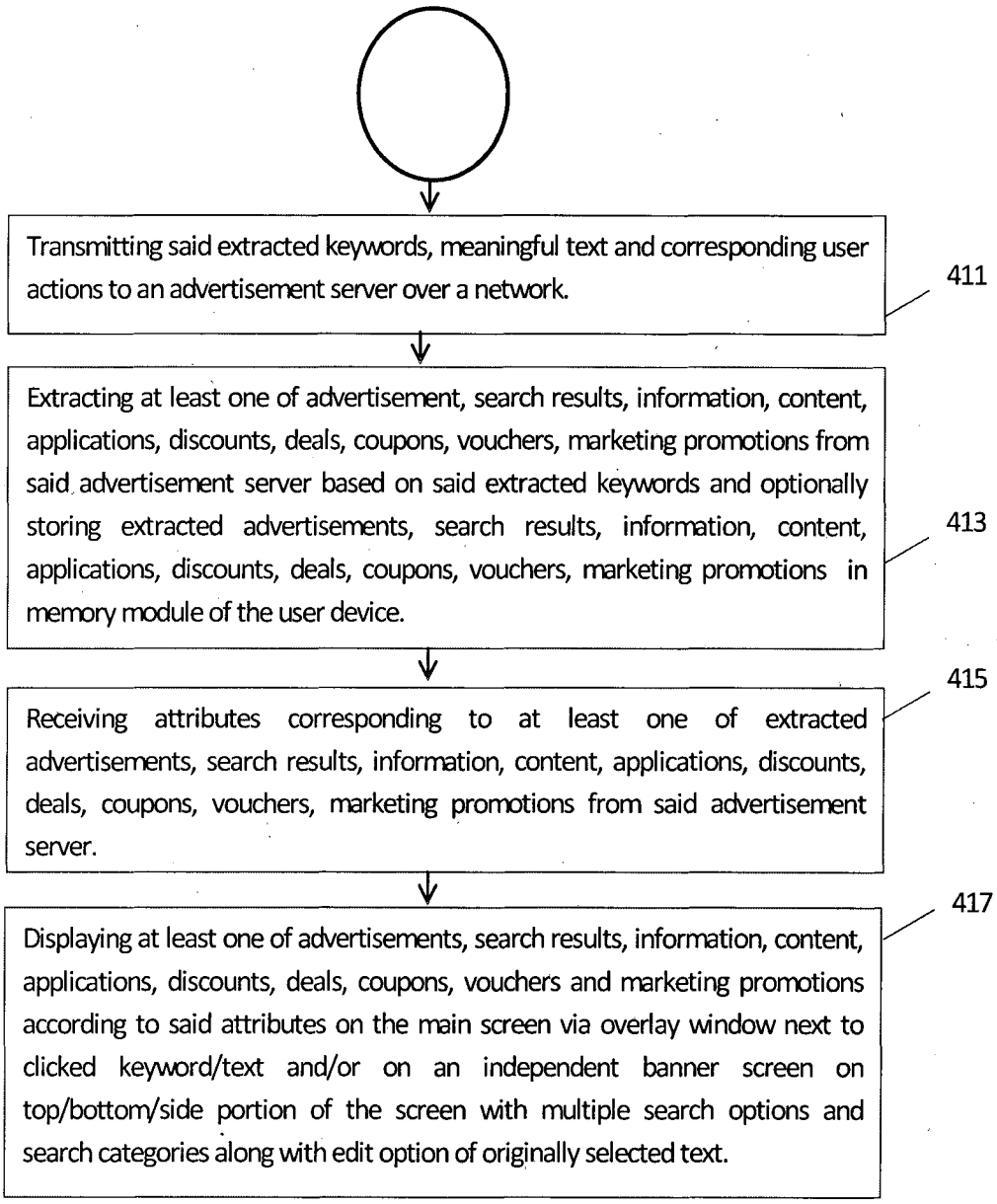
Transmitting said extracted keywords, meaningful text and corresponding user actions to an advertisement server over a network.
411
Extracting at least one of advertisement, search results, information, content, applications, discounts, deals, coupons, vouchers, marketing promotions from said advertisement server based on said extracted keywords and optionally storing extracted advertisements, search results, information, content, applications, discounts, deals, coupons, vouchers, marketing promotions in memory module of the user device.
413
Receiving attributes corresponding to at least one of extracted advertisements, search results, information, content, applications, discounts, deals, coupons, vouchers, marketing promotions from said advertisement server.
415
Displaying at least one of advertisements, search results, information, content, applications, discounts, deals, coupons, vouchers and marketing promotions according to said attributes on the main screen via overlay window next to clicked keyword/text and/or on an independent banner screen on top/bottom/side portion of the screen with multiple search options and search categories along with edit option of originally selected text.
417

FIGURE 5

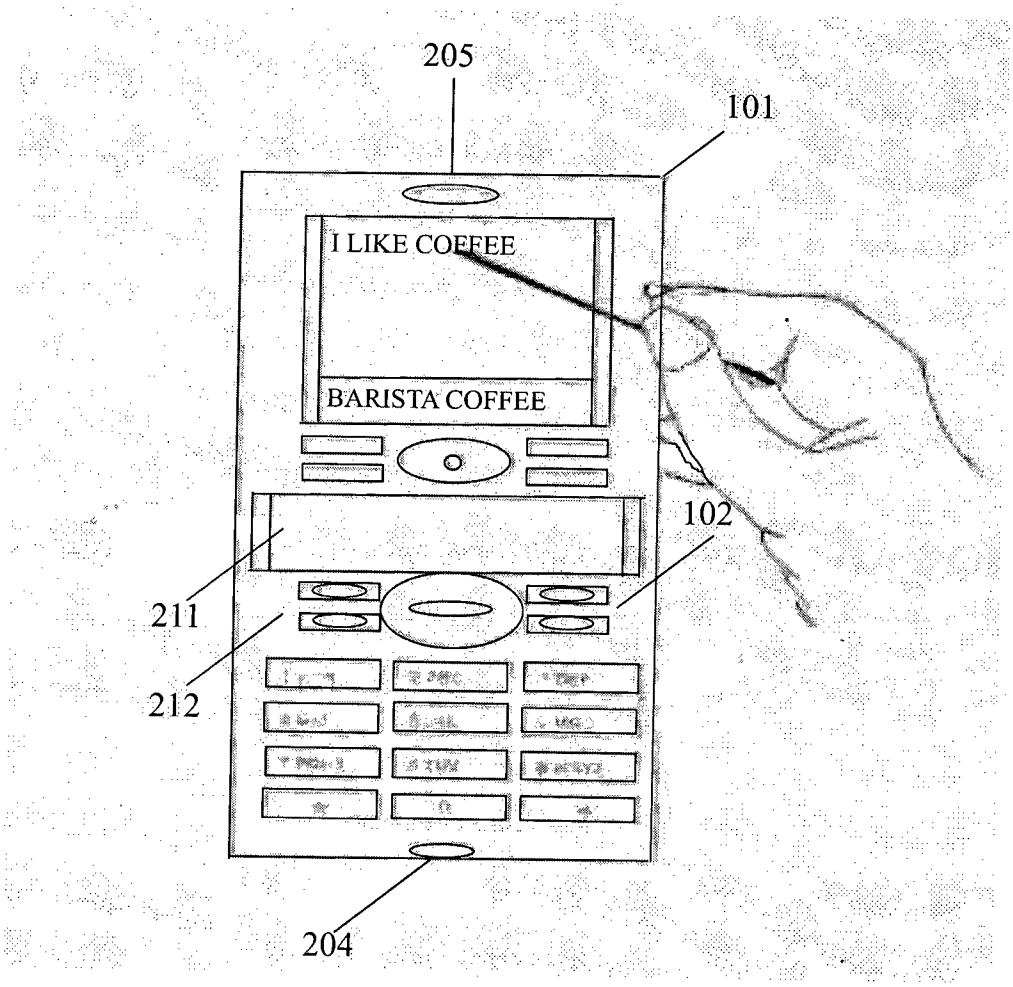

FIGURE 6