Title: DYNAMIC POINT OF INTEREST SUGGESTION

Abstract: A system, method and device for recommending a Point of Interest POI via a navigation device that includes receiving a recommendation of a POI from a third party at a server and determining information related to the POI. The determined information is correlated with data related to navigation devices associated with the server. Navigation devices are selected to receive the third party recommended POI based on results of the correlation of the determined information with the data related to the navigation devices and the recommended POI is forwarded from the server to a targeted navigation device based on results of the correlation of the determined information with the data related to the navigation devices.
as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))

with international search report (Art. 21(3))
**Dynamic Point of Interest Suggestion**

**Field**

[0001] This disclosure relates to navigation devices and to methods for determining a route of travel from a first location to a second location, such as a portable navigation device (PND); in particular PNDs that include Global Positioning System (GPS) signal reception and processing functionality. More specifically, this disclosure relates to dynamic points of interest and the suggestion and receipt thereof.

**Background**

[0002] Navigation devices that include GPS signal reception and processing functionality are well known and are widely employed as in-car or other vehicle navigation systems. These devices provide a user with directions and map information to direct the user from one location to another location. These devices can also provide information pertaining to a waypoint or Point of Interest (POI). A waypoint or POI is a specific point location that a person may find useful or interesting. For example, a POI may be a gas station, hospital, bank, restaurant, tourist attraction, or the like. Known navigation devices store POIs in a memory for display on a map of a travel route.

**Summary**

[0003] According to an example embodiment of the present disclosure, an interactive dynamic POI system may include a server configured to receive and transmit information from at least one first navigation device, and to forward the information via a network connection to at least one second navigation device connected to the server, wherein the at least one first navigation device is connected to the server via the network connection, the at least one first navigation device being configured to upload a user recommended Point of Interest (POI) to the server via the network connection; and the at least one second navigation device connected to the server via the network connection, the at least one second navigation device being configured to download the user recommended POI to the at least one second navigation device via the network connection.
According to an example embodiment of the present disclosure, a method for providing/receiving a recommended POI via a navigation device, may include selecting a POI for recommendation, associating a recommended POI with at least one of an individual navigation device and a selected group of navigation devices; transmitting the recommended POI from the first navigation device to a server; forwarding the recommended POI from the server to the at least one individual navigation device and the selected group of navigation devices; and receiving the recommended POI at the at least one individual navigation device and the selected group of navigation devices.

According to an example embodiment of the present disclosure, a navigation device of the system and method may include a memory resource configured to store identifying information related to navigation devices; a processor configured to associate a first recommended POI with at least one of an individual navigation device and a selected group of navigation devices; an input/output device configured to transmit the first recommended POI from the navigation device to a server and to receive a second recommended POI from the server.

According to an example embodiment of the present disclosure, a method for recommending a Point of Interest via a navigation device, may include receiving a recommendation of a Point of Interest (POI) from a third party at a server; determining information related to the POI; correlating the determined information related to the POI with data related to navigation devices associated with the server; selecting a targeted navigation device based on results of the correlation of the determined information with the data related to the navigation devices for recommendation of the POI; and forwarding the recommended POI from the server to a targeted navigation device based on results of the correlation of the determined information with the data related to the navigation devices.

According to an example embodiment of the present disclosure, a navigation device for executing the method may include a memory resource configured to store at least one of identifying information of the navigation device and user preferences set on the navigation device; an input/output device configured to receive a recommended Point of Interest from a server based on the at least one of identifying information and user set preferences; a processor configured to associate a recommended Point of Interest (POI) with
the navigation device, wherein the memory is further configured to store the recommended POL

[0008] Advantages of these embodiments are set out hereafter, and further details and features of each of these embodiments are defined in the accompanying dependent claims and elsewhere in the following detailed description.

**Brief Description of the Drawings**

[0009] Various aspects of the teachings of the present disclosure, and arrangements embodying those teachings, will hereafter be described by way of illustrative example with reference to the accompanying drawings, in which:

[0010] Fig. 1 is a schematic illustration of a Global Positioning System (GPS);

[0011] Fig. 2 is a schematic illustration of electronic components arranged to provide a navigation device;

[0012] Fig. 3 is a schematic illustration of the manner in which a navigation device may receive information over a wireless communication channel;

[0013] Figs. 4A and 4B are illustrative perspective views of a navigation device;

[0014] Figs. 5a to 5i are illustrative screenshots from a navigation device for a destination input process;

[0015] Fig. 6 is an illustrative screenshot from a navigation device depicting a start location for an illustrative calculated route;

[0016] Fig. 7 is a schematic illustration of a dynamic recommendation Point of Interest system;

[0017] Fig. 8 is an illustrative flow diagram depicting steps of an example embodiment of a method of recommending a Point of Interest;

[0018] Figs. 9a and 9b are exemplary screen shots of a navigation device depicting selection of a Point of Interest;

[0019] Figs. 10a and 10b are exemplary screen shots of a navigation device depicting entry of a rating and comment of a Point of Interest;

[0020] Figs. 11a and 11b are exemplary screen shots of a navigation device depicting notification of receipt of a recommended Point of Interest; and

[0021] Fig. 12 is an illustrative flow diagram depicting steps of an example embodiment of a method of recommending a Point of Interest.
Detailed Description of Example Embodiments

[0022] Example embodiments of the present disclosure will now be described with particular reference to a navigation device. It should be remembered, however, that the teachings of the present disclosure are not limited to navigation devices but are instead universally applicable to any type of processing device that is configured to execute navigation software so as to provide route planning and navigation functionality. It follows therefore that in the context of the present application, a navigation device is intended to include (without limitation) any type of route planning and navigation device, irrespective of whether that device is embodied as a navigation device, personal navigation device, a navigation device built into a vehicle, or indeed a computing resource (such as a desktop or portable personal computer (PC), mobile telephone or portable digital assistant (PDA)) executing route planning and navigation software.

[0023] It will also be apparent from the following that the teachings of the present disclosure even have utility in circumstances where a user is not seeking instructions on how to navigate from one point to another, but merely wishes to be provided with a view of a given location. In such circumstances the "destination" location selected by the user need not have a corresponding start location from which the user wishes to start navigating, and as a consequence references herein to the "destination" location or indeed to a "destination" view should not be interpreted to mean that the generation of a route is essential, that travelling to the "destination" must occur, or indeed that the presence of a destination requires the designation of a corresponding start location.

[0024] With the above provisos in mind, Fig. 1 illustrates an example view of Global Positioning System (GPS), usable by navigation devices. Such systems are known and are used for a variety of purposes. In general, GPS is a satellite-radio based navigation system capable of determining continuous position, velocity, time, and in some instances direction information for an unlimited number of users. Formerly known as NAVSTAR, the GPS incorporates a plurality of satellites which orbit the earth in extremely precise orbits. Based on these precise orbits, GPS satellites can relay their location to any number of receiving units.
The GPS system is implemented when a device, specially equipped to receive GPS data, begins scanning radio frequencies for GPS satellite signals. Upon receiving a radio signal from a GPS satellite, the device determines the precise location of that satellite via one of a plurality of different conventional methods. The device will continue scanning, in most instances, for signals until it has acquired at least three different satellite signals (noting that position is not normally, but can be determined, with only two signals using other triangulation techniques). Implementing geometric triangulation, the receiver utilizes the three known positions to determine its own two-dimensional position relative to the satellites. This can be done in a known manner. Additionally, acquiring a fourth satellite signal will allow the receiving device to calculate its three dimensional position by the same geometrical calculation in a known manner. The position and velocity data can be updated in real time on a continuous basis by an unlimited number of users.

As shown in Figure 1, the GPS system is denoted generally by reference numeral 100. A plurality of satellites 120 are in orbit about the earth 124. The orbit of each satellite 120 is not necessarily synchronous with the orbits of other satellites 120 and, in fact, is likely asynchronous. A GPS receiver 140 is shown receiving spread spectrum GPS satellite signals 160 from the various satellites 120.

The spread spectrum signals 160, continuously transmitted from each satellite 120, utilize a highly accurate frequency standard accomplished with an extremely accurate atomic clock. Each satellite 120, as part of its data signal transmission 160, transmits a data stream indicative of that particular satellite 120. It is appreciated by those skilled in the relevant art that the GPS receiver device 140 generally acquires spread spectrum GPS satellite signals 160 from at least three satellites 120 for the GPS receiver device 140 to calculate its two-dimensional position by triangulation. Acquisition of an additional signal, resulting in signals 160 from a total of four satellites 120, permits the GPS receiver device 140 to calculate its three-dimensional position in a known manner.

Figure 2 is an illustrative representation of electronic components of a navigation device 200 according to an example embodiment of the present disclosure, in block component format. It should be noted that the block
diagram of the navigation device 200 is not inclusive of all components of the navigation device, but is only representative of many example components.

[0029] The navigation device 200 is located within a housing (not shown). The housing includes a processor 210 connected to an input device 220 and a display screen 240. The input device 220 can include a keyboard device, voice input device, touch panel and/or any other known input device utilised to input information; and the display screen 240 can include any type of display screen such as an LCD display, for example. In an example arrangement, the input device 220 and display screen 240 are integrated into an integrated input and display device, including a touchpad or touch screen input so that a user need only touch a portion of the display screen 240 to select one of a plurality of display choices or to activate one of a plurality of virtual buttons.

[0030] The navigation device may include an output device 260, for example an audible output device (e.g. a loudspeaker). As output device 260 can produce audible information for a user of the navigation device 200, it is should equally be understood that input device 220 can include a microphone and software for receiving input voice commands as well.

[0031] In the navigation device 200, processor 210 is operatively connected to and set to receive input information from input device 220 via a connection 225, and operatively connected to at least one of display screen 240 and output device 260, via output connections 245, to output information thereto. Further, the processor 210 is operably coupled to a memory resource 230 via connection 235 and is further adapted to receive/send information from/to input/output (I/O) ports 270 via connection 275, wherein the I/O port 270 is connectible to an I/O device 280 external to the navigation device 200. The memory resource 230 comprises, for example, a volatile memory, such as a Random Access Memory (RAM) and a non-volatile memory, for example a digital memory, such as a flash memory. The external I/O device 280 may include, but is not limited to an external listening device such as an earpiece for example. The connection to I/O device 280 can further be a wired or wireless connection to any other external device such as a car stereo unit for hands-free operation and/or for voice activated operation for example, for connection to an ear piece or head phones, and/or for connection to a mobile phone for example, wherein the mobile phone connection may be used to establish a data connection between the navigation device 200 and the internet or any other network for example,
and/or to establish a connection to a server via the internet or some other network for example.

[0032] Fig. 2 further illustrates an operative connection between the processor 210 and an antenna/receiver 250 via connection 255, wherein the antenna/receiver 250 can be a GPS antenna/receiver for example. It will be understood that the antenna and receiver designated by reference numeral 250 are combined schematically for illustration, but that the antenna and receiver may be separately located components, and that the antenna may be a GPS patch antenna or helical antenna for example.

[0033] Further, it will be understood by one of ordinary skill in the art that the electronic components shown in Fig. 2 are powered by power sources (not shown) in a conventional manner. As will be understood by one of ordinary skill in the art, different configurations of the components shown in Fig. 2 are considered to be within the scope of the present application. For example, the components shown in Fig. 2 may be in communication with one another via wired and/or wireless connections and the like. Thus, the scope of the navigation device 200 of the present application includes a portable or handheld navigation device 200.

[0034] In addition, the portable or handheld navigation device 200 of Fig. 2 can be connected or "docked" in a known manner to a vehicle such as a bicycle, a motorbike, a car or a boat for example. Such a navigation device 200 is then removable from the docked location for portable or handheld navigation use.

[0035] Referring now to Fig. 3, the navigation device 200 may establish a "mobile" or telecommunications network connection with a server 302 via a mobile device (not shown) (such as a mobile phone, PDA, and/or any device with mobile phone technology) establishing a digital connection (such as a digital connection via known Bluetooth technology for example). Thereafter, through its network service provider, the mobile device can establish a network connection (through the internet for example) with a server 302. As such, a "mobile" network connection is established between the navigation device 200 (which can be, and often times is mobile as it travels alone and/or in a vehicle) and the server 302 to provide a "real-time" or at least very "up to date" gateway for information.

[0036] The establishing of the network connection between the mobile device (via a service provider) and another device such as the server 302, using an
internet (such as the World Wide Web) for example, can be done in a known manner. This can include use of TCP/IP layered protocol for example. The mobile device can utilize any number of communication standards such as CDMA, GSM, WAN, etc.

[0037] As such, an internet connection may be utilised which is achieved via data connection, via a mobile phone or mobile phone technology within the navigation device 200 for example. For this connection, an internet connection between the server 302 and the navigation device 200 is established. This can be done, for example, through a mobile phone or other mobile device and a GPRS (General Packet Radio Service)-connection (GPRS connection is a high-speed data connection for mobile devices provided by telecom operators; GPRS is a method to connect to the internet).

[0038] The navigation device 200 can further complete a data connection with the mobile device, and eventually with the internet and server 302, via existing Bluetooth technology for example, in a known manner, wherein the data protocol can utilize any number of standards, such as the GSRM, the Data Protocol Standard for the GSM standard, for example.

[0039] The navigation device 200 may include its own mobile phone technology within the navigation device 200 itself (including an antenna for example, or optionally using the internal antenna of the navigation device 200). The mobile phone technology within the navigation device 200 can include internal components as specified above, and/ or can include an insertable card (e.g. Subscriber Identity Module or SIM card), complete with necessary mobile phone technology and/or an antenna for example. As such, mobile phone technology within the navigation device 200 can similarly establish a network connection between the navigation device 200 and the server 302, via the internet for example, in a manner similar to that of any mobile device.

[0040] For GRPS phone settings, a Bluetooth enabled navigation device may be used to correctly work with the ever changing spectrum of mobile phone models, manufacturers, etc.; model/manufacturer specific settings may be stored on the navigation device 200 for example. The data stored for this information can be updated.

[0041] In Fig. 3 the navigation device 200 is depicted as being in communication with the server 302 via a generic communications channel 318 that can be implemented by any of a number of different arrangements. The
server 302 and a navigation device 200 can communicate when a connection via communications channel 318 is established between the server 302 and the navigation device 200 (noting that such a connection can be a data connection via mobile device, a direct connection via personal computer via the internet, etc.).

[0042] The server 302 includes, in addition to other components which may not be illustrated, a processor 304 operatively connected to a memory 306 and further operatively connected, via a wired or wireless connection 314, to a mass data storage device 312. The processor 304 is further operatively connected to transmitter 308 and receiver 310, to transmit and send information to and from navigation device 200 via communications channel 318. The signals sent and received may include data, communication, and/or other propagated signals. The transmitter 308 and receiver 310 may be selected or designed according to the communications requirement and communication technology used in the communication design for the navigation system 200. Further, it should be noted that the functions of transmitter 308 and receiver 310 may be combined into a signal transceiver.

[0043] Server 302 is further connected to (or includes) the mass storage device 312, noting that the mass storage device 312 may be coupled to the server 302 via the communication link 314. The mass storage device 312 contains a store of navigation data and map information, and can again be a separate device from the server 302 or can be incorporated into the server 302.

[0044] The navigation device 200 is adapted to communicate with the server 302 through communications channel 318, and includes processor, memory, etc. as previously described with regard to Fig. 2, as well as transmitter 320 and receiver 322 to send and receive signals and/or data through the communications channel 318, noting that these devices can further be used to communicate with devices other than server 302. Further, the transmitter 320 and receiver 322 are selected or designed according to communication requirements and communication technology used in the communication design for the navigation device 200 and the functions of the transmitter 320 and receiver 322 may be combined into a single transceiver.

[0045] Software stored in server memory 306 provides instructions for the processor 304 and allows the server 302 to provide services to the navigation device 200. One service provided by the server 302 involves processing
requests from the navigation device 200 and transmitting navigation data from the mass data storage 312 to the navigation device 200. Another service provided by the server 302 includes processing the navigation data using various algorithms for a desired application and sending the results of these calculations to the navigation device 200.

[0046] The communication channel 318 generically represents the propagating medium or path that connects the navigation device 200 and the server 302. Both the server 302 and navigation device 200 include a transmitter for transmitting data through the communication channel and a receiver for receiving data that has been transmitted through the communication channel.

[0047] The communication channel 318 is not limited to a particular communication technology. Additionally, the communication channel 318 is not limited to a single communication technology; that is, the channel 318 may include several communication links that use a variety of technology. For example, the communication channel 318 can be adapted to provide a path for electrical, optical, and/or electromagnetic communications, etc. As such, the communication channel 318 includes, but is not limited to, one or a combination of the following: electric circuits, electrical conductors such as wires and coaxial cables, fibre optic cables, converters, radio-frequency (RF) waves, the atmosphere, empty space, etc. Furthermore, the communication channel 318 can include intermediate devices such as routers, repeaters, buffers, transmitters, and receivers, for example.

[0048] In one illustrative arrangement, the communication channel 318 includes telephone and computer networks. Furthermore, the communication channel 318 may be capable of accommodating wireless communication such as radio frequency, microwave frequency, infrared communication, etc. Additionally, the communication channel 318 can accommodate satellite communication.

[0049] The communication signals transmitted through the communication channel 318 include, but are not limited to, signals as may be required or desired for given communication technology. For example, the signals may be adapted to be used in cellular communication technology such as Time Division Multiple Access (TDMA), Frequency Division Multiple Access (FDMA), Code Division Multiple Access (CDMA), Global System for Mobile Communications
(GSM), etc. Both digital and analogue signals can be transmitted through the communication channel 318. These signals may be modulated, encrypted and/ or compressed signals as may be desirable for the communication technology.

[0050] The server 302 includes a remote server accessible by the navigation device 200 via a wireless channel. The server 302 may include a network server located on a local area network (LAN), wide area network (WAN), virtual private network (VPN), etc.

[0051] The server 302 may include a personal computer such as a desktop or laptop computer, and the communication channel 318 may be a cable connected between the personal computer and the navigation device 200. Alternatively, a personal computer may be connected between the navigation device 200 and the server 302 to establish an internet connection between the server 302 and the navigation device 200. Alternatively, a mobile telephone or other handheld device may establish a wireless connection to the internet, for connecting the navigation device 200 to the server 302 via the internet.

[0052] The navigation device 200 may be provided with information from the server 302 via information downloads which may be periodically updated automatically or upon a user connecting navigation device 200 to the server 302 and/ or may be more dynamic upon a more constant or frequent connection being made between the server 302 and navigation device 200 via a wireless mobile connection device and TCP/IP connection for example. For many dynamic calculations, the processor 304 in the server 302 may be used to handle the bulk of the processing needs; however, processor 210 of navigation device 200 can also handle much processing and calculation, oftentimes independent of a connection to a server 302.

[0053] As indicated above in Fig. 2, the navigation device 200 includes a processor 210, an input device 220, and a display screen 240. The input device 220 and display screen 240 may be integrated into an integrated input and display device to enable both input of information (via direct input, menu selection, etc.) and display of information through a touch panel screen, for example. Such a screen may be a touch input LCD screen, for example, as is well known to those of ordinary skill in the art. Further, the navigation device 200 can also include any additional input device 220 and/or any additional output device 260, such as audio input/output devices for example.
Figs 4A and 4B are perspective views of a navigation device 200. As shown in Fig. 4A, the navigation device 200 may be a unit that includes an integrated input and display device 290 (a touch panel screen for example) and the other components of Fig. 2 (including but not limited to internal GPS receiver 250, microprocessor 210, a power supply, memory systems 230, etc.).

The navigation device 200 may sit on an arm 292, which itself may be secured to a vehicle dashboard/ window/etc. using a suction cup 294. This arm 292 is one example of a docking station to which the navigation device 200 can be docked.

As shown in Fig. 4B, the navigation device 200 can be docked or otherwise connected to an arm 292 of the docking station by snap connecting the navigation device 292 to the arm 292 for example. The navigation device 200 may then be rotatable on the arm 292, as shown by the arrow of Fig. 4B. To release the connection between the navigation device 200 and the docking station, a button on the navigation device 200 may be pressed, for example. Other equally suitable arrangements for coupling and decoupling the navigation device to a docking station are well known to persons of ordinary skill in the art.

Referring now to Figs. 5a to 5i there is depicted a series of screenshots from a navigation device 200. This navigation device 200 has a touch screen interface for displaying information to a user and for accepting input to the device from the user. The screenshots show an illustrative example embodiment of a destination location input process for a user whose home location has been set to the offices in The Hague of the European Patent Office, and who wishes to navigate to a street address in Amsterdam, The Netherlands for which they know the street name and building number.

When the user switches on the navigation device 200, the device acquires a GPS fix and calculates (in a known manner) the current location of the navigation device 200. The user is then presented, as shown in Fig. 5a, with a display 340 showing in pseudo three-dimensions the local environment 342 in which the navigation device 200 is determined to be located, and in a region 344 of the display 340 below the local environment a series of control and status messages.

By touching the display of the local environment 342, the navigation device 200 switches to display (as shown in Fig. 5b) a series of virtual buttons
346 by means of which a user can, inter alia, input a destination that they wish to navigate to.

[0060] By touching the "navigate to" virtual button 348, the navigation device 200 switches to display (as shown in Fig. 5c) a plurality of virtual buttons that are each associated with a different category of selectable destinations. In this instance, the display shows a "home" button that if pressed would set the destination to the stored home location. However, in this instance as the user is already at their home location (namely the EPO's offices in the Hague) selecting this option would not cause a route to be generated. The "favourite" button, if pressed, reveals a list of destinations that the user has previously stored in the navigation device 200 and if one of these destinations is then selected the destination for the route to be calculated is set to the selected previously stored destination. The "recent destination" button, if pressed, reveals a list of selectable destinations held in the memory 230 of the navigation device 200 and to which the user has recently navigated. Selection of one of the destinations populating this list would set the destination location for this route to the selected (previously visited) location. The "point of interest" button, if pressed, reveals a number of options by which a user can opt to navigate to any of a plurality of locations, such as cash machines, petrol stations or tourist attractions for example, that have been pre-stored in the device as locations that a user of the device might want to navigate to. The "arrow" shaped virtual button opens a new menu of additional options, and the "address" button 350 commences a process by which the user can input the street address of the destination that they wish to navigate.

[0061] Since the user, in this example, knows the street address of the destination that they wish to navigate to, it is assumed that this "address" button is operated (by touching the button displayed on the touch screen), whereupon (as shown in Fig. 5d) the user is presented with a series of address input options - in particular for address input by "city centre", by "postcode", by "crossing or intersection" (for example a junction of two roads) and by "street and house number".

[0062] In this example the user knows the street address and house number of the destination and hence selects the "street and house number" virtual button 352 whereupon the user is then presented, as shown in Fig. 5e, a prompt 354 to enter the name of the city that they wish to navigate to, a flag
button 356 by which the user can select the country in which the desired city is located, and a virtual keyboard 358 that may be operated by the user, if necessary, to input the name of the destination city. In this instance the user has previously navigated to locations in Rijswijk and Amsterdam, and the PND therefore additionally provides the user with a list 360 of selectable cites.

[0063] The user in this instance wishes to navigate to Amsterdam, and on selection of Amsterdam from the list 360 the navigation device 200 displays, as shown in Fig. 5f, a virtual keyboard 362 by means of which a user can input street names, a prompt 364 for entry of a street name 364 and, in this instance, as the user has previously navigated to a street in Amsterdam, a list 366 of selectable streets in Amsterdam.

[0064] In this example the user wishes to return to the street, Rembrandtplein, that the user have previously visited and so selects Rembrandtplein from the displayed list 366.

[0065] Once a street has been selected, the navigation device 200 then displays a smaller virtual keypad 368 and prompts the user, via prompt 370, to enter the number of the house in the selected street and city that they wish to navigate to. If the user has previously navigated to a house number in this street, then that number (as shown in Fig. 5g) is initially shown. If, as in this instance, the user wishes to navigate to No. 35, Rembrandtplein once again, then the user need only touch a "done" virtual button 372 displayed at the bottom right hand corner of the display. If the user should wish to navigate to a different house number in Rembrandtplein, then all they need do is operate the keypad 368 to input the appropriate house number.

[0066] Once the house number has been input, the user is asked in Fig. 5h, whether they wish to arrive at a particular time. If the user should push the "yes" button, then functionality is invoked that estimates the time required to travel to the destination and advises the user when they should leave (or if they are running late, should have left) their current location in order to arrive at their destination on time. In this instance the user is not concerned about arriving at a particular time and hence selects the "no" virtual button.

[0067] Selecting the "no" button 374 causes the navigation device 200 to calculate a route between the current location and the selected destination and to display that route 376, as shown in Fig. 5i, on a relatively low magnification map that shows the entire route. The user provided with a "done" virtual
button 378 which they can press to indicate that they are happy with the calculated route, a "find alternative" button 380 that the user can press to cause the navigation device 200 to calculate another route to the selected destination, and a "details" button 382 that a user can press to reveal selectable options for the display of more detailed information concerning the currently displayed route 376.

[0068] In this instance it is assumed that the user is happy with the displayed route, and once the "done" button 378 has been pressed the user is presented, as shown in Fig. 6, with a pseudo three-dimensional view of the current, start, location for the navigation device 200. The display depicted in Fig. 6 is similar to that shown in Fig. 5a except that the displayed local environment 342 now includes a start location flag 384 and a waypoint indicator 386 indicating the next manoeuvre (in this instance, a left hand turn). The lower part of the display has also changed and now displays the name of the street in which the navigation device 200 is currently located, an icon 388 indicating the distance to and type of the next manoeuvre (from the current location of the navigation device 200), and a dynamic display 390 of the distance and time to the selected destination.

[0069] The user then commences their journey and the navigation device 200 guides the user, in a known manner, by updating the map in accordance with determined changes in navigation device 200 location, and by providing the user with visual and, optionally, audible navigation instructions.

[0070] If during a journey a user desires to visit a POI, the user may press the "Point of Interest" button as shown for example at Fig. 5c. The "Point of Interest" button shown at Fig. 5c if pressed, reveals a number of options by which the user may opt to navigate to any of a plurality of locations, such as cash machines, petrol stations or tourist attractions for example, that have been pre-stored in the device as locations that a user of the device might want to navigate. In an example embodiment, a driver may also create a new POI. For example, if a driver is in proximity to a location of interest on the route (e.g., while driving) the driver may store the location as a POI in a memory of the navigation device by a very simple action, such as a rapid double tap a pre-defined zone on the screen, or selecting a predefined button, which stores a marker in a database of waypoints (e.g., the co-ordinates of the location of interest). The waypoint can be marked on the map itself with a POI icon.
[0071] The user may also wish to make other users of navigation devices, such as one or more friends aware of this, or another, POI by recommending the POI. In an example embodiment of the present disclosure, the user may forward a recommended POI to one or more second users to be received on their respective navigation device via an interactive dynamic POI system. For example, as shown in Fig. 7, an interactive dynamic POI system may include, a server 302 configured to receive and transmit information from at least one first navigation device 200 via a network connection 318 to at least one second navigation device 202a-n connected to the server 302, wherein the at least one first navigation device 200 is connected to the server via the network connection 318, the at least one first navigation device 200 being configured to upload a user recommended Point of Interest (POI) to the server 302 via the network connection 318; and the at least one second navigation device 202a-n connected to the server 302 via the network connection 318, the at least one second navigation device 202a-n being configured to download the user recommended POI to the at least one second navigation device 202a-n via the network connection 318.

[0072] The interactive dynamic POI system 300 may include a server 302 having, in addition to other components which may not be illustrated, a processor 304 operatively connected to a memory 306 and further operatively connected, via a wired or wireless connection 314, to a mass data storage device 312, as shown in Fig. 3. The processor 304 is further operatively connected to transmitter 308 and receiver 310, to transmit and send information, such as a recommended POI to and from navigation devices 200, 202a-n via communications channel 318, as shown in Fig. 3 and discussed herein above.

User Recommendations

[0073] As shown in Fig. 7, the dynamic POI system allows a user of the navigation device 200 to select a POI for forwarding to a friend, user group/ Buddylist or other navigation device(s) (i.e., a recommended POI). The recommended POI may be forwarded, along with additional information, such as a rating of the POI, a message or text, information on previously selected/ignored recommended POIs, and the user's information and account identification related to the navigation device 200. The recommended POI
and/or additional information may also include "actual information" associated with the POI (for example, location, hours of operation, related fees and events associated with the POI).

[0074] The recommended POI and/or additional information is forward via the network connection 318 to the server 302 where it may be stored in the server 302 at a memory 306 and/or forwarded to one or more recipient navigation devices 202a-n.

[0075] In use, the dynamic POI system may provide a method for sending/receiving a recommended POI via a navigation device that may include selecting a Point of Interest (POI) for recommendation; associating a recommended POI with at least one of an individual navigation device and a selected group of navigation devices; transmitting the recommended POI from the first navigation device 200 to a server 302; forwarding the recommended POI from the server 302 to the at least one individual navigation device and the selected group of navigation devices 202a-n; and receiving the recommended POI at the at least one individual navigation device and the selected group of navigation devices 202a-n.

[0076] As shown in the example embodiment of Fig. 8, the method may include a step S2 of selecting a POI for recommendation to one or more recipient navigation devices 202a-n. For example, the user may select a POI from a stored group of POIs by selecting from a listing of POIs stored in an memory 230 of the navigation device 200. In an example embodiment, a user may activating a "Manage POI" button, "POI Recommend" button, My POIs" button, or the like to choose a POI. Selection of a POI may activate a display screen showing a location of the POI on a map. For example, the method may include selecting a POI from a displayed POI on a display screen 240 of the user's navigation device 200 by, for example, tapping a pre-defined zone on the screen which may activate display of a display screen such as those shown at Figs. 9a, 9b. Although tapping the screen is identified as a method of activating the example screens 9a, 9b, the method of activating such screens is not limited to tapping but may include other methods of screen selection and/or activation such as selecting an appropriately defined button of the navigation device. As shown for example at Figs. 9a, 9b, a user of the navigation device 200 has selected a POI representing an amusement park. The user may select
the POI for recommendation to other navigation devices by pressing the "Suggest" button.

[0077] Upon completion of step S2, the process proceeds to step S4 whereby the user of the navigation device 200 may associate the recommended POI with one or more recipient navigation devices 202a-n that the user intends to receive the recommended POI. In an example embodiment, after the recommended POI is selected the user may associate the recommended POI with an intended recipient navigation device 202a-n by a telephone number, as shown in Fig. 9a, or by other identifying information associated with a recipient navigation device. For example, the navigation device 200 may prompt the user to enter identifying information related to recipient navigation devices intended to receive the recommended POI and/ or any additional information as shown at Fig. 9b. The user of the navigation device may also select from a list of navigation devices stored in the navigation device 200 such as a telephone list, user group, etc. or stored in the server 302. The intended recipients may include one or more navigation devices 202a-n. It should be noted that the user has an option to add additional information to the recommended POI.

[0078] In an example embodiment, the user may also wish to include additional information with the recommended POI such as, for example, including a rating of the POI based on how the user judges the POI and/ or how the user perceives the intended recipients of the POI may like the POI. In an example embodiment of the present disclosure as shown in Figs. 10a, 10b, the user may enter a rating via the display screen 240 of the navigation device 200 by adding or deleting stars using "+" and "-" buttons on the display device 240. The user may also include additional information by providing a written text message and/ or a voice message associated with the recommended POI by selecting the appropriate buttons such as by selecting a "Write Comment" or "Voice Comment" button on the display device 240, as shown in Figs. 10a, 10b by inputting information via the input device 220. The written and/or voice message may include a rating or a suggested meeting at the POI, for example. Although the above example embodiment relates to the use of the described rating and message system, the subject matter of the present disclosure is not limited to these examples but may be implemented by other rating and message systems and methodologies.
The recommended POI, as well as any additional information, may then be transmitted to the server 302 via the network connection 318 as described at step S6. After associating the recommended POI and/or any additional information with intended recipient navigation devices, the process proceeds to step S6 whereby the navigation device 200 transmits the recommended POI, and/or additional information to the server 302 where the recommended POI and/or any additional information may be stored in an memory 306 of the server 302 until such time as the recipient navigation device or devices 202a-n are activated (i.e., linked to the server 302). When an intended recipient navigation device 202a-n is linked to the server 302, the recommended POI and/or any additional information may be forwarded to the recipient navigation device 202a-n. Alternatively, if a recipient device is active at the time the recommended POI and/or any additional information is forwarded to the server, the recommended POI and/or any additional information may be forwarded to the navigation device 202a-n without being stored in the server. When a user desires to share a recommended POI with one or more other users/navigation devices 202a-n, the user must establish a connection between the user's navigation device 200 and the server 302. The establishment of a network connection 318 between the server 302 and the navigation device 200 is to enable sending information from the navigation device 200 for receipt to the server 302.

The recommended POI and/or additional information received at the server 302 are forwarded from the server 302 to the selected recipient navigation device(s) 202a-n at step S8. In an embodiment, when a recipient navigation device 202a-n is linked to the server 302, the recipient navigation device 202a-n may receive a message or prompt indicating that a recommended POI and/or additional information is awaiting downloading to the recipient navigation device. In an example embodiment, the prompt may include an audible or visual alert of a recommended POI. When the user of the navigation device 202a-n provides an input to the navigation device to view the message, the navigation device can display the recommended POI and/or additional information on a display 240 of the navigation device 202a-n. The user can save the recommended POI as a new POI entry in a memory 230 associated with the navigation device 202a-n or decline the recommended POI. In an example embodiment, when the recipient navigation device is connected to the
server, the recommended POI and/or additional information may be directly saved to memory 230 of the recipient navigation device.

[0081] The process proceeds to step S10 where the selected navigation devices 202a-n receive the recommended POI and/or additional information. The received recommended POI and/or additional information may be stored in a memory 230 of the recipient navigation device. Upon receipt of notification of actual receipt of the POI at step S10, the user may receive an audible or visual alert of such receipt. The user may recall the POI entry and/or additional information and navigate to the recommended POI on the location included with the POI.

[0082] In an example embodiment of the present disclosure, as shown in Figs. 11a, 11b, receipt of a recommended POI may be indicated by on the display screen 240 as a "Suggestions" icon or other icon. The icon may be highlighted or otherwise flagged to notify the user that there is a new recommended POI available. The highlighted icon may serve as a visual alert to the user and/or be associated with an audible alert. In example embodiments, the icon may be shown on one or more of a screen displaying categories of POIs, as shown in Fig. 11a or on a "Frequent Destinations" screen as shown in Fig. 11b. In an example embodiment, activation or selection of the "Suggestions" icon may activate a map screen showing the location of the recommended (suggested) POI as shown for example at Figs. 11a, 11b.

[0083] Although the above example embodiment relates to the use of the described icons and display screens, the subject matter of the present disclosure is not limited to these examples but may be implemented by other systems and methodologies of notifying a user of a recommended POI.

[0084] The above described interactive dynamic POI system and method may be executed for example on a navigation device that may include, for example, a memory resource 230 configured to store identifying information related to navigation devices; a processor 210 configured to associate a first recommended Point of Interest (POI) with at least one of an individual navigation device 200 and a selected group of navigation devices 202a-n; an input/output device 270 configured to transmit the first recommended POI from the navigation device 200 to a server 302 and to receive a second recommended POI from the server 302. The memory resource 230 may store the second recommended POI.
[0085] For example, a navigation device 200 may send a first recommended POI to one or more other navigation devices 202a-n via the server 302. The other navigation devices may include those associated with a friend, group of friends, Buddylist or user group, or other navigation devices. The navigation device 200 may also receive a recommended POI from other navigation devices 202a-n via the server 302 and store a received POI in a memory resource 230.

[0086] In an example embodiment, the processor 210 of the navigation device 200 may provide notification to a user of the navigation device 200 of receipt of the second recommended POI via a display device 240, and/or an output device 260 of the navigation device 200. The second recommended POI being a POI from another navigation device 202a-n. The navigation device 200 may also include an input device 220. The processor 210 is configured to receive input of at least one of a rating and a written message pertaining to the first recommended POI from the input device 220 and to display the at least one of the rating and the written message pertaining to the first recommended POI via the display device 240.

[0087] In an example embodiment, the navigation device 200 may include an output device, such as a loudspeaker, to provide at least one of a rating and an audible message pertaining to the recommended POI via the output device 260. As discussed above, a navigation device may receive a recommended POI at start-up of the navigation device. In an example embodiment of the navigation device, the processor 210 may be configured to receive the second recommended POI at start-up of the navigation device 200. For example, when the navigation device connects to the server 200, the processor 210 may process any incoming information including recommended POIs. The processor 210 may also be configured to display an icon on the display device 240 representing at least one recommended POI. For example, as shown in the screen shots at Figs. 11a, 11b, the display 240 may display an icon providing notification of a recommended or suggested POI.

Third Party Recommendations
[0088] In an example embodiment of the present disclosure, third parties, such as retailers, commercial vendors, tourist attractions, and the like, may wish to make users of navigation devices aware of their related businesses/attractions and/or special events occurring at such places. In an
example embodiment of the present disclosure, the locations of retailers, commercial vendors, tourist attractions, and the like, may be forwarded to a user of a navigation device as a recommended POL. The recommended POI may optionally be forwarded to a navigation device along with associated additional information, such as hours of operation, fees, special rates, special events, etc. An example embodiment of providing a dynamic system for recommending third party POIs and additional information may be achieved by an interactive dynamic POI system such as is shown in the example at Fig. 7.

[0089] As shown in Fig. 7, an interactive dynamic POI system 300 may include a server (302) configured to receive and transmit a recommended Point of Interest (POI) from a third party provider (400), and forward the recommended POI via a network connection (318) to at least one navigation device (200, 202a-n) connected to the server (302) via the network connection 318, wherein the recommended POI is selected to be distributed to the at least one navigation device 200, 202a-n at the server 302 based on statistical data stored in the server 302 and related to the navigation device (200, 202a-n).

[0090] The server 302 may include, in addition to other components which may not be illustrated, a processor 304 operatively connected to a memory 306 and further operatively connected, via a wired or wireless connection 314, to a mass data storage device 312 as shown in Fig. 3. The processor 304 is further operatively connected to transmitter 308 and receiver 310, to transmit and send information, such as a recommended POI to and from navigation devices 200, 202a-n via communications channel 318 as shown in Fig. 3 and discussed herein above.

[0091] The server 302 may also be configured to receive and store information pertaining to targeted third party recommended POIs from such retailers, commercial vendors, tourist attractions, and the like, that desire to have a POI recommended to a user of a navigation device. The server 302 may be further connected to one or more navigation devices 200, 202a-n via the network connection 318. Upon identifying a target navigation device, the server 302 may forward the received third party POI and/or related information over the network connection 318 to at least one navigation device 200, 202a-n connected to the server 302.

[0092] The recommended POI and/or additional information may include "actual information" associated with the POI including, for example, location,
hours of operation, related fees and events associated with the POI. The recommended POI and additional information is forward via the network connection 318 to the server 302 where it is stored in the server 302 and/or forwarded to recipient navigation devices 200, 202a-n.

[0093] In use, the interactive dynamic POI system may provide a method for recommending and sending a POI via a navigation device that may include receiving a recommendation of a Point of Interest (POI) from a third party 400 at a server (302), determining information related to the POI, correlating the determined information related to the POI with data related to navigation devices 200, 202a-n associated with the server; selecting a targeted navigation device 200, 202a-n based on results of the correlation of the determined information with the data related to the navigation devices 200, 202a-n for recommendation of the POI; and forwarding the recommended POI from the server 302 to a targeted navigation device 200, 202a-n based on results of the correlation of the determined information with the data related to the navigation devices 200, 202a-n.

[0094] As shown in the example embodiment of Fig. 12, the method may include a step S2 of receiving a recommendation of a Point of Interest (POI) from a third party (400) at a server (302). For example, a third party such as a retailer, commercial vendor, tourist attraction, or the like, may desire to have their business/attraction brought to the attention of certain navigation device users via a POI to promote their business/attraction and/or make the user of the navigation device aware of certain special events, fees, etc available at the POI. The third party recommended POI may be transmitted to the server 302 by the third party 400 and stored in a memory 306 of the server 302.

[0095] Upon completion of step S2, the process proceeds to step S4 whereby information related to the POI is determined. Determination of the related information may include for example, analyzing a location of the POI, hours of operation, associated fees if any, type of business/attraction, customer demographics, and the like. The related information may be stored in the memory 306 of the server 302.

[0096] In an example embodiment, the server 302 may include additional information with the recommended POI such as, for example, including a rating of the POI based on how the server 302 judges the POI and/or how the server perceives the intended recipients of the POI may like the POI. The server 302
may also include additional information by providing a written text message and/or a voice message associated with the recommended POL. The written and/or voice message may include a rating of the POL, for example. In an example embodiment, a processor 304 of the server 302 may analyze the recommended POL, related information and perform any rating or messaging to be attached to the POL.

After determining the related information at step S4, the process proceeds to step S6 whereby the server 302, via the processor 304, correlates the POL and/or related additional information with a database of navigation devices associated with the server. The database of associated navigation devices may be stored on the memory device 306 of the server 302. In an example embodiment, correlating may include comparing statistical information of navigation devices associated with the server 302 with the POL and/or related information. For example, the memory 306 of the server 302 may include statistical information based on a present location of the associated navigation devices, a current time of day at the present location of the associated navigation devices, a country of a home location of the associated navigation devices, the gender of the users of the associated navigation devices, user set preferences, such as a user interface language set on the associated navigation devices, a record of previous recommended POIs accepted and/or declined by a user of a navigation device, etc.

By performing the correlating at step S6, targeted navigation device 200, 202a-n can be selected at step S8. For example, those navigation devices determined by the server 302 likely to be good candidates to receive the third party recommended POI may be selected to receive the POL. Because the selection process is based on comparing data related to the navigation devices to the information related to the third party recommended POI, a likelihood of an interest in the POL by the user of the selected navigation device is established.

At step S10, the recommended POL is forwarded to the selected navigation devices 200, 202a-n and a notification may be provided at the selected navigation device. In an embodiment, when a selected navigation device 200, 202a-n is linked to the server 302, the selected navigation device may receive a message or prompt indicating that a recommended POL and/or related additional information is awaiting downloading to the user's navigation
device. In an example embodiment, the prompt may include an audible or visual alert of a recommended POL. When the user of the navigation device provides an input to the navigation device 202a-n to view the message, the navigation device can display the recommended POI and/ or additional information on a display 240 of the navigation device 202a-n. The user can save the recommended POI as a new POI entry in memory 230 associated with the navigation device 200 or decline the recommended POI. In an example embodiment, when the recipient navigation device is connected to the server 302, the recommended POI and/ or additional information may be directly saved to memory 230 of the recipient navigation device.

[0100] If accepted, the received recommended POI and/ or additional information may be stored in a memory 230 of the navigation device 200, 202a-n. Upon receipt of notification at step S10, the user may receive an audible or visual alert of a recommended POI. The user can recall the POI entry and navigate to the recommended POI on the location included with the POI. In an example embodiment, a signal indicating the acceptance or refusal of a recommended POI is received in the server 302 and stored in the memory 306 for use in the statistical information.

[0101] In an example embodiment of the present disclosure, as shown in Figs. 11a, 11b receipt of a recommended POI may be indicated on the display screen 240 as a "Suggestions" or other icon. The icon may be highlighted or otherwise flagged to notify the user that there is a new recommended POI available. The highlighted icon may serve as a visual alert to the user. In example an embodiment, the icon may be shown on one or more of a screen displaying categories of POIs, as shown in Fig. 11a or on a "Frequent Destinations" screen as shown in Fig. 11b. In an example embodiment, activation or selection of the "Suggestions" icon may activate a map screen showing the location of the recommended (suggested) POI as shown for example at Figs. 11a, 11b.

[0102] Although the above example embodiment relates to the use of the described icons and display screens, the subject matter of the present disclosure is not limited to these examples but may be implemented by other systems and methodologies of notifying a user of a recommended POI.

[0103] The above described interactive dynamic POI system and method may be executed for example on a navigation device that may include, for example, a
memory resource 230 configured to store at least one of identifying information of the navigation device and user preferences set on the navigation device; an input/output device 270 configured to receive a recommended Point of Interest from a server 302 based on the at least one of identifying information and user set preferences; a processor 210 configured to associate a recommended Point of Interest (POI) with the navigation device 200, wherein the memory 230 is further configured to store the recommended POI. The navigation device 200 may also include a display device 240 and/or an output device 260. The processor 210 controls operation of the display device 240 and/or the output device 260 to provide notification to a user of the navigation device 200 of the receipt of the recommended POI.

The navigation device 200 may also have an input device 220 controlled by the processor 210 to provide at least one of a rating and a written message pertaining to the recommended POI via the input device 220. The input device 260 may also be used to provide at least one of a rating and an audible message pertaining to the recommended POI via the input device (220).

In an example embodiment, the processor 210 also received a recommended POI at start-up of the navigation device 200 to display an icon representing at least one recommended POI on the display device 240 of the navigation device.

Alternative embodiments of the present disclosure can be implemented as a computer program product for use with a computer system, the computer program product being, for example, a series of computer instructions or program segments stored on a tangible data recording medium (computer readable medium), such as a diskette, CD-ROM, ROM, or fixed disk, or embodied in a computer data signal, the signal being transmitted over a tangible medium or a wireless medium, for example, microwave or infrared. The series of computer instructions or program segments can constitute all or part of the functionality of the method of embodiments described above, and can also be stored in any memory device, volatile or non-volatile, such as semiconductor, magnetic, optical or other memory device.

It will also be appreciated that whilst various aspects and embodiments of the present disclosure have hereetofore been described, the scope of the present disclosure is not limited to the particular arrangements set out herein and instead extends to encompass all arrangements, and
modifications and alterations thereto, which fall within the scope of the appended claims.

[0108] For example, whilst embodiments described in the foregoing detailed description refer to GPS, it should be noted that the navigation device 200 may utilise any kind of position sensing technology as an alternative to (or indeed in addition to) GPS. For example the navigation device may utilise using other global navigation satellite systems such as the European Galileo system. Equally, it is not limited to satellite based but could readily function using ground based beacons or any other kind of system that enables the device to determine its geographic location.

[0109] It will also be well understood by persons of ordinary skill in the art that whilst the example embodiment implements certain functionality by means of software, that functionality could equally be implemented solely in hardware (for example by way of one or more ASICs (application specific integrated circuit)) or indeed by a mix of hardware and software. As such, the scope of the present disclosure should not be interpreted as being limited only to being implemented in software.

[0110] Lastly, it should also be noted that whilst the accompanying claims set out particular combinations of features described herein, the scope of the present disclosure is not limited to the particular combinations hereafter claimed, but instead extends to encompass any combination of features or embodiments herein disclosed irrespective of whether or not that particular combination has been specifically enumerated in the accompanying claims at this time.
CLAIMS

1. A method for recommending a Point of Interest via a navigation device, comprising:
   receiving a recommendation of a Point of Interest (POI) from a third party (400) at a server (302);
   determining information related to the POI;
   correlating the determined information related to the POI with data related to navigation devices (200, 202a-n) associated with the server;
   selecting a targeted navigation device (200, 202a-n) based on results of the correlation of the determined information with the data related to the navigation devices (200, 202a-n) for recommendation of the POI; and
   forwarding the recommended POI from the server (302) to a targeted navigation device (200, 202a-n) based on results of the correlation of the determined information with the data related to the navigation devices (200, 202a-n).

2. The method of claim 1, wherein receiving the recommendation of the POI from the third party (400) includes receiving information pertaining to a commercial establishment as the POI.

3. The method of any of claims 1 or 2, wherein receiving the recommendation of the POI from the third party (400) includes receiving at least one of a location and hours of operation of the POI.

4. The method of any of claims 1-3, wherein correlating the determined information with the data related to the navigation devices (200, 202a-n) associated with the server (302) includes determining at least one of a location and time of day of the navigation device (200, 202a-n).

5. The method of any of claims 1-4 wherein correlating the determined information with the data related to the navigation devices (200, 202a-n) associated with the server (302) includes determining at least one of a country of a home location of the navigation device and a user interface language set on the navigation device (200, 202a-n).
6. The method of any of claims 1-5, further comprising gathering statistical information of navigation devices (200, 202a-n) associated with the server (302) based on at least one of: a present location of the navigation devices, a time of day at the present location of the navigation devices, a country of a home location of the navigation devices, the gender of the users of the navigation devices, and a user interface language set on the navigation devices (200, 202).

7. The method of claim 6, further comprising:
   selecting groups of navigation devices (200, 202a-n) associated with the server (302) to receive the recommended POI based on the statistical information; and
   forwarding the recommended POI to the selected groups of navigation devices based on a comparison of the statistical information and the information related to the POI.

8. The method of claim 6, further comprising storing the statistical information in a memory (306) of the server (302).

9. The method of any of claims 1-8 further comprising, storing the recommended POI in a memory (230) of the selected navigation devices (200, 202a-n) receiving the POI.

10. The method of any of claims 1-9 further comprising, identifying the recommended POI as a suggested POI on the selected navigation devices (200, 202a-n).

11. The method of any of claims 1-10 further comprising, providing notification to the selected navigation devices (200, 202a-n) of the recommended POI.

12. The method of claim 11, wherein providing the notification includes at least one of: an audible alert and a visual alert.
13. The method of any of claims 1-12 further comprising, including a rating to the recommended POL

14. The method of any of claims 1-13, further comprising adding a message to the recommended POL

15. The method of claim 14, wherein adding the message includes at least one of a voice comment and a written comment.

16. A computer readable medium including program segments for, when executed on a processor (210) of a navigation device (200, 202a-n), causing the navigation device (200, 202a-n) to implement the method of any of claims 1 to 15.

17. A navigation device (200), comprising:
   a memory resource (230) configured to store at least one of identifying information of the navigation device and user preferences set on the navigation device;
   an input/output device (270) configured to receive a recommended Point of Interest (POI) from a server (302) based on the at least one of identifying information and user set preferences;
   a processor (210) configured to associate the recommended POI with the navigation device (200), wherein the memory (230) is further configured to store the recommended POI.

18. The navigation device (200) of claim 17, further comprising at least one of a display device (240) and an output device (260), wherein the processor (210) is further configured to provide notification to a user of the navigation device (200) of the receipt of the recommended POI.

19. The navigation device (200) of claim 18, further comprising an input device (220), wherein the processor (210) is further configured to provide at least one of a rating and a written message pertaining to the recommended POI via the input device (220).
20. The navigation device (200) of claim 19, wherein the processor (210) is further configured to provide at least one of a rating and an audible message pertaining to the recommended POI via the input device (220).

21. The navigation device (200) of claim 20, wherein the processor (210) is further configured to receive the recommended POI at start-up of the navigation device (200).

22. The navigation device (200) of any of claims 17-21, wherein the processor (210) is further configured to display an icon representing at least one recommended POI on the display device (240).

23. An interactive dynamic Point of Interest system, comprising:
   a server (302) configured to receive and transmit a recommended Point of Interest (POI) from a third party provider of (400) to at least one navigation device (200, 202a-n) connected to the server (302) via a network connection 3 18, wherein
   the recommended POI is selected to be distributed to the at least one navigation device (200, 202a-n) at the server (302) based on data and related to the navigation device (200, 202a-n) and stored in the server (302).
START

S2 → Selecting a POI for Recommendation

S4 → Associating POI with Navigation Device(s)

S6 → Transmitting POI to Server

S8 → Forwarding POI to Navigation Device(s)

S10 → Receiving POI at Navigation Device(s)

END

FIG. 8
FIG. 9a

FIG. 9b
FIG. 10a

FIG. 10b

"I think this is a great amusement part, for children and adults."

Voice message recorded successfully

Europalaan - Helkant
Kaatsheuvel

Back

Done
START

S2  →  Receiving a Recommended POI from Third Party

S4  →  Determining Info Related to the POI

S6  →  Correlating the Info of POI w/ Nav. Device Info

S8  →  Selecting Targeted Navigation Device(s)

S10 →  Forwarding POI to Navigation Device(s)

END

FIG. 12
INTERNATIONAL SEARCH REPORT

International application No
PCT/EP2009/067455

A. CLASSIFICATION OF SUBJECT MATTER

G01C 21/36 G08G 1/0968

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
G01C G08G G06Q

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)
EPO-Internal , WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

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* Special categories of cited documents:
A document defining the general state of the art which is not considered to be of particular relevance
E earlier document but published on or after the international filing date
L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
O document referring to an oral disclosure, use, exhibition or other means
P document published prior to the international filing date but later than the priority date claimed

Further documents are listed in the continuation of Box C.

See patent family annex.

Date of the actual completion of the international search
3 September 2010

Date of mailing of the international search report
15/09/2010

Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk Tel: (+31-70) 340-2040, Fax: (+31-70) 340-3016

Authorized officer
Bruinsma, Maarten
**INTERNATIONAL SEARCH REPORT**

international application No
PCT/EP2009/067455

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