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(54) **Title:** METHOD AND SYSTEM FOR IN-APPLICATION DIGITAL CONTENT SEARCH AND DISCOVERY

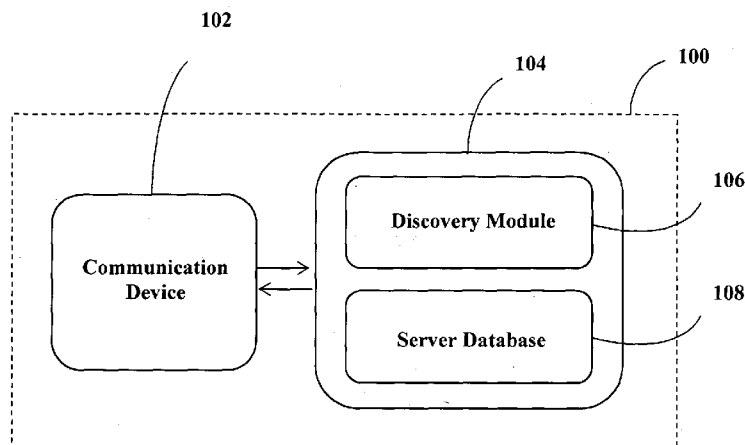


Figure 1

(57) **Abstract:** A method and system for in-application digital content search and discovery. Particularly, the invention provides a method and system for in-application digital content search and discovery, using a discovery circle head as overlap on top of an application running on a user's network enabled communication device, enabling the user to search and discover digital content on current application context without exiting the application, matching and pulling the digital content based on application context and subsequently displaying the searched and discovered digital content on top of said application.



METHOD AND SYSTEM FOR IN-APPLICATION DIGITAL CONTENT SEARCH AND DISCOVERY

FIELD OF THE INVENTION

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[001] The present invention generally relates to the field of information search and discovery. Particularly, the invention provides a method and system for in-application digital content search and discovery.

10 **BACKGROUND OF THE INVENTION**

[002] In recent times, information technology has transformed every dimension of human life. With the advent of information technology based network enabled communication systems and devices, consequent information dissemination has been
15 proved to be one of the dependable means for knowledge sharing among wider audience. Moreover, searching and discovery of digital information using modern communication systems and devices is considered as one of the critical components of whole information consumption value chain.

20 [003] Traditionally, digital content or information is searched and discovered by way of manually entering corresponding search query in search field, wherein a website or an application may be utilized for digital content searching and discovery. In general, user defined contextual searching or discovering while using any such application on network enabled communication device, would essentially require a user to exit the current
25 application and use another application to initiate searching and discovering of contextual digital information. In recent times, as users have started using multiple applications parallel using network enabled communication devices, the existing method of manual searching and discovering digital information on web or other application outside the current application has proven to be limited in nature. Moreover, it does not help search

and discovery of relevant digital information quickly in any application immersively without asking users to exit current application.

[004] The solutions provided by generally available prior arts fail to disclose a method and system that enables users for in-application digital content searching and discovering without exiting the current application which is being used. Thus, in the light of the above mentioned background art, it is evident that, there is a need for a method and system for in-application digital content search and discovery.

OBJECTIVES OF THE INVENTION

[005] In accordance with the present invention, the primary objective is to provide a method and system for in-application digital content search and discovery.

[006] Another objective of the present invention is to provide a method and system for in-application digital content search and discovery while eliminating need of exiting currently running application.

[007] Another objective of the present invention is to provide a method and system for in-application digital content search and discovery by matching and pulling the digital content based on application context

[008] Another objective of the present invention is to provide a method and system for in-application digital content search and discovery and displaying the searched and discovered digital content on top of said application.

SUMMARY OF THE INVENTION

[009] Before the present methods, systems, and hardware enablement are described, it is to be understood that this invention is not limited to the particular systems, and methodologies described, as there can be multiple possible embodiments of the present

invention which are not expressly illustrated in the present disclosure. It is also to be understood that the terminology used in the description is for the purpose of describing the particular versions or embodiments only, and is not intended to limit the scope of the present invention.

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[0010] The present invention provides a method and system for in-application digital content search and discovery.

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[0011] In an embodiment of the invention a method is provided for in-application digital content search and discovery, using a discovery circle head as overlap on top of an application running on a user's network enabled communication device (102), operable to communicate with a server (104), enabling the user to search and discover digital content on current application context without exiting the application running on the user's network enabled communication device (102); matching and pulling the digital content using a discovery module (106) of the server (104) based on application context stored in a server database (108) of the server (104) on the network enabled communication device (102); and subsequently displaying the searched and discovered digital content on top of said application.

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[0012] In another embodiment of the invention a system is provided for in-application digital content search and discovery; said system comprise of a network enabled communication device (102) adapted for running the application thereon, using a discovery circle head as overlap on top of said application for in-application digital content search and discovery, enabling the user to search and discover digital content on current application context without exiting the application and subsequently displaying the searched and discovered digital content on top of said application; and a server (104), operable to communicate via the network of the network enabled communication device (102). The server (104) further comprises of a discovery module (106) adapted for matching and pulling the digital content from the server (104) based on application context on the network enabled communication device (102); and a server database (108)

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adapted for storing a plurality of keywords and context of the application against each of the user.

[0013] The above said method and system is provided for in-application digital content search and discovery but also can be used for many other applications.

BRIEF DESCRIPTION OF THE DRAWINGS

[0014] The foregoing summary, as well as the following detailed description of preferred embodiments including aspects and features of the invention, are better understood when read in conjunction with the appended drawings. The drawing is not necessarily to scale, emphasis instead generally being placed upon illustrating the principles of the invention. For the purpose of illustrating the invention, there is shown in the drawings exemplary constructions of the invention; however, the invention is not limited to the specific methods and system disclosed. In the drawings:

[0015] Figure 1: shows a block diagram of the system for in-application digital content search and discovery.

DETAILED DESCRIPTION OF THE INVENTION

[0016] Some embodiments of this invention, illustrating all its features, will now be discussed in detail.

[0017] The words "comprising," "having," "containing," and "including," and other forms thereof, are intended to be equivalent in meaning and be open ended in that an item or items following any one of these words is not meant to be an exhaustive listing of such item or items, or meant to be limited to only the listed item or items.

[0018] It must also be noted that as used herein, the singular forms "a," "an," and "the" include plural references unless the context clearly dictates otherwise. Although any systems and methods similar or equivalent to those described herein can be used in the practice or testing of embodiments of the present invention, the preferred, systems and methods are now described.

[0019] The disclosed embodiments are merely exemplary of the invention, which may be embodied in various forms.

[0020] The present invention enables a method and system for in-application digital content search and discovery.

[0021] Referring to Figure 1 is a block diagram of the system for in-application digital content search and discovery.

[0022] In an embodiment of the present invention, a system (100) for in-application digital content search and discovery is provided. The system (100) comprises of a network enabled communication device (102), a server (104). The server (104) further comprises of a discovery module (106) and a server database (108).

[0023] In another embodiment of the present invention, the system is provided for in-application digital content search and discovery using a discovery circle head as overlap on top of an application running on the user's network enabled communication device (102). The discovery circle head overlaying on top of said application may be clicked, which further enables user to search and discover digital content on current application context including location, text on screen, and likewise or user desired query and context in the form of text query or speech, right on top of the current application as overlay window, without asking user to leave the application in use. The in-application digital content search and discovery is not limited to context of the application or user desired query and/or context.

[0024] In another embodiment of the present invention, the discovery circle head is enabled by double tapping on any text on screen displayed by the foreground application, and related discovery results of digital content are displayed in graphic view as overlay
5 on any application in foreground on device. Thereby eliminating need of any modification of the application on top of which the digital content are displayed and any software interface, application programming interface [API], software development kit (SDK) with the current application. Further, enabling the discovery circle head to work across any application on the network enabled communication device (102) even if
10 applications are downloaded by user from any third party site or store after enabling discovery circle head. The discovery circle and related digital content results view works on top of any application automatically, providing users a unified experience.

[0025] In another embodiment of the present invention, the system is provided for in-
15 application digital content search and discovery, wherein the digital content is selected from a group comprising of but not limited to web, commerce, applications, advertisements and similar digital information.

[0026] In another embodiment of the present invention, the network enabled
20 communication device (102), wherein the network is selected from a group comprising of but not limited to an internet, intranet, private close group, public close group, peer to peer, broadcast network, and wireless network.

[0027] In another embodiment of the present invention, the network enabled
25 communication device (102) is selected from a group comprising of but not limited to a mobile phone, a PDA, a smart phone, a feature phone, a smart book, a tablet PC, a PC, a notebook, a laptop, a net book, a digital picture frame, a portable media player, a music player, a video player, a smart TV, a digital TV, a IPTV, an analog TV, a set top box, a kitchen appliance, a digital clock, a car infotainment device, a GPS navigation device,
30 and a gaming console.

[0028] In another embodiment of the present invention, the network enabled communication device (102) is further having one or more display screens, one or more audio speaker, headphone connector port, one or more keys or keypads, one or more storage, one or more wired or wireless ports, multifunction peripherals and input output ports, having one more application specific processors or chipsets.

[0029] In another embodiment of the present invention, the digital content is searched and discovered automatically, without a manual search in real or non-real time from web with our without crawling the web augmented with discovery from a separate digital content, information, applications, commerce, web, advertisement web application server, and across network enabled devices .

[0030] In another embodiment of the present invention, the discovery circle head is displayed in the form of an image or a graphic as an overlay graphic on top of any application in foreground on the network enabled communication device (102) wherein the discovery circle head stays irrespective of any application in foreground and may be itself in the form of another application capable of appearing itself on top of any application in the form of a small graphic icon as overlay.

[0031] In another embodiment of the present invention, the user is allowed to enable a discovery and search screen by clicking on the discovery circle head or by double tapping any static text including keyword or multiple keywords, on screen displayed by application, wherein user may see default results from digital content on pre-defined set of inputs or user past context and behavior data or set of keywords double tapped by user on screen and at the same time allows user to edit the input for the discovery results by editing the text box made for such input supported by speech function.

[0032] In another embodiment of the present invention, the digital content is displayed in a plurality of categories and enabling users to view the resultant digital content in desired

category. The resultant digital content view may overlay on top of current application without asking user to leave current application in use. The resultant digital content view is presented in the form selected from a group comprising but not limited to a banner, a split screen, a popup, a box, and a circle.

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[0033] In another embodiment of the present invention, the digital content is displayed in user defined digital content category such as sports, health etc. to be pulled and display relevant to the selected categories only on to the screen on different network enabled communication device (102) user is logged into.

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[0034] In another embodiment of the present invention, the digital content is displayed on the network enabled communication device (102) in the form selected from a group comprising but not limited to text, audio, picture, video, 2D, 3D graphics, image, animation, html, document, moving picture, banner, web links, hyperlinks, file attachment, flash, SMS, mms, and email.

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[0035] In another embodiment of the present invention, the digital content is optionally displayed on primary, secondary or split display screen on the network enabled communication device (102) as a part of multitasking application or service without disturbing the main operating system screen and the operation on the main operating system screen.

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[0036] In another embodiment of the present invention, the discovery circle head display on the network enabled communication device (102) may be enabled or disabled at any point of time remotely on the server (104) by set of configurations available on the server (104) or by user in settings option of the application enabling discovery circle head.

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[0037] In another embodiment of the present invention, the discovery circle may be removed temporarily by allowing user to drag it to bottom of the screen of the network enabled communication device (102) and push to remove carousel.

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[0038] In another embodiment of the present invention, the server (104) is operable to communicate via the network of the network enabled communication device (102). The server (104) further comprises of the discovery module (106) adapted for matching and pulling the digital content from the server (104) based on said context and/or keywords as a result of user action on the network enabled communication device (102). The server (104) further comprises of the server database (108) adapted for storing a plurality of keywords and context on against each user. The server (104) is further adapted to send the relevant digital content including advertisements, applications, discounts, coupons, deals, e-vouchers, marketing promotions and the like to the network enabled communication device (102) along with attributes for advertisements, information, contents, applications to be displayed on the network enabled communication device (102) from the server (104) and displaying said advertisement, information, contents, applications according to the said attributes, on the main or separate screen of network enabled user device (102) showing discovery circle head enabled results view.

1. A method for in-application digital content search and discovery, using a discovery circle head as overlap on top of an application running on a user's network enabled communication device (102), operable to communicate with a server (104), enabling the user to search and discover digital content on current application context without exiting the application running on the user's network enabled communication device (102); matching and pulling the digital content using a discovery module (106) of the server (104) based on application context stored in a server database (108) of the server (104) on the network enabled communication device (102); and subsequently displaying the searched and discovered digital content on top of said application.
2. The method as claimed in claim 1, wherein the discovery circle head is displayed in the form of an image or a graphic as an overlay graphic on top of said application running in foreground on the network enabled communication device (102).
3. The method as claimed in claim 1, further comprises of enabling a search and discovery screen by clicking on said discovery circle head or by double tapping static text on screen displayed by said application, wherein said static text includes one or more keywords.
4. The method as claimed in claim 3, wherein the searched and discovered digital content on the search and discovery screen is displayed on pre-defined set of inputs, user's past context and behavior data, set of keywords double tapped by the user.
5. The method as claimed in claim 4, wherein the search and discovery screen enables the user to edit the input for the search and discovery results by editing text box made for said input supported by a speech function.

6. The method as claimed in claim 1, wherein the digital content is selected from a group comprising of web, commerce, applications, advertisements, discounts, coupons, deals, e-vouchers, and marketing promotions.

7. The method as claimed in claim 1, wherein the current application context is selected from a group comprising of location, text on screen, user desired query and user desired context.

8. The method as claimed in claim 1, wherein the searched and discovered digital content is displayed in graphic view as overlay according to user defined digital content category on said application running in foreground on the network enabled communication device (102).

9. The method as claimed in claim 1, wherein the searched and discovered digital content is displayed on the network enabled communication device (102) in the form selected from a group comprising of text, audio, picture, video, 2D, 3D graphics, image, animation, html, document, moving picture, banner, popup, box, circle, web links, hyperlinks, file attachment, flash, SMS, mms, and email.

10. The method as claimed in claim 1, wherein the searched and discovered digital content is displayed on primary, secondary or split display screen on the network enabled communication device (102).

11. The method as claimed in claim 1, further comprises of optionally enabling or disabling the discovery circle head displayed on the network enabled communication device (102) remotely using the server (104) by set of configurations available on the server (104) or by user in settings option of the application enabling said discovery circle head.

12. The method as claimed in claim 1, further comprises of optionally removing the discovery circle head temporarily by allowing user to drag the discovery circle head to bottom of screen of the network enabled communication device (102) and push to remove carousel.

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13. A system (100) for in-application digital content search and discovery; said system comprise of:

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a. a network enabled communication device (102) adapted for running the application thereon, using a discovery circle head as overlap on top of said application for in-application digital content search and discovery, enabling the user to search and discover digital content on current application context without exiting the application and subsequently displaying the searched and discovered digital content on top of said application; and

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b. a server (104), operable to communicate via the network of the network enabled communication device (102).

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14. The system (100) as claimed in claim 13, wherein the server (104) further comprises of:

a. a discovery module (106) adapted for matching and pulling the digital content from the server (104) based on application context on the network enabled communication device (102); and

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b. a server database (108) adapted for storing a plurality of keywords and context of the application against each of the user.

15. The system (100) as claimed in claim 13, wherein the server (104) is adapted for optionally enabling or disabling the discovery circle head displayed on the

network enabled communication device (102) remotely by set of configurations available on the server (104).

5 16. The system (100) as claimed in claim 13, wherein the network of the network enabled communication device (102) is selected from a group comprising of internet, intranet, private close group, public close group, peer to peer, broadcast network, and wireless network.

10 17. The system (100) as claimed in claim 13, wherein the network enabled communication device (102) is selected from a group comprising of a mobile phone, a PDA, a smart phone, a feature phone, a smart book, a tablet PC, a PC, a notebook, a laptop, a net book, a digital picture frame, a portable media player, a music player, a video player, a smart TV, a digital TV, a IPTV, an analog TV, a set top box, a kitchen appliance, a digital clock, a car infotainment device, a GPS
15 navigation device, and a gaming console.

20 18. The system (100) as claimed in claim 13, wherein the network enabled communication device (102) is further having one or more display screens, one or more audio speaker, headphone connector port, one or more keys or keypads, one or more storage, one or more wired or wireless ports, multifunction peripherals and input output ports, having one more application specific processors or
25 chipsets.

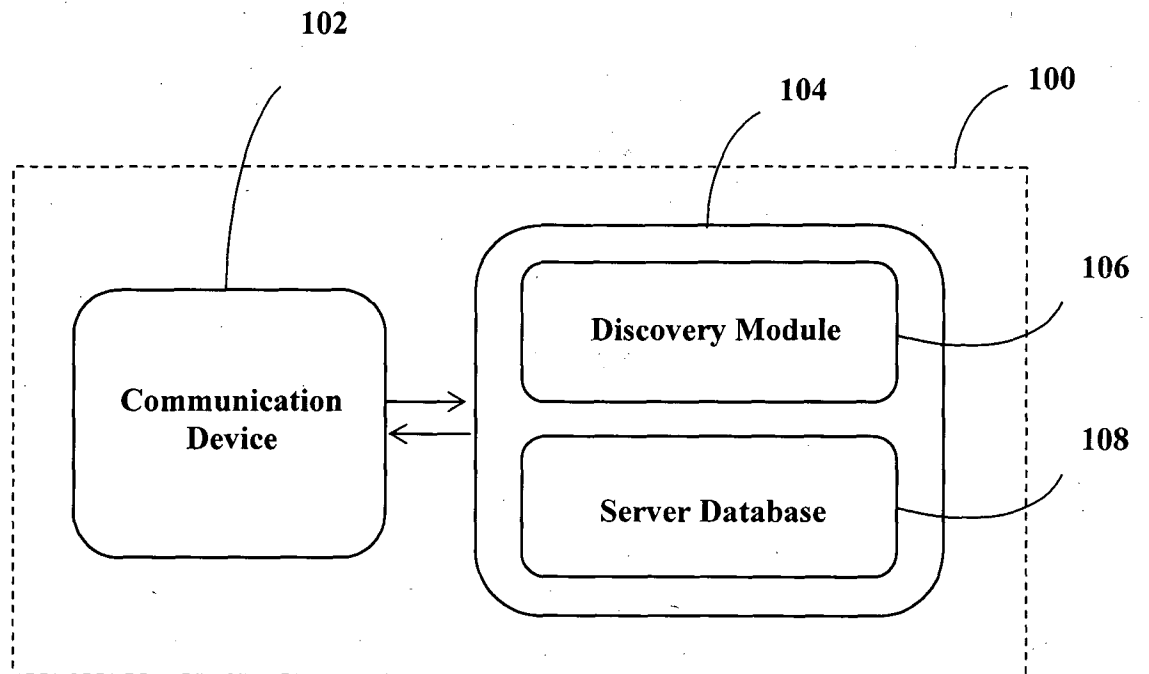


Figure 1