Abstract:

Title: METHOD AND SYSTEM FOR ENABLING A RAPID BROWSING OF A PLURALITY OF WEBPAGES

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METHOD AND SYSTEM FOR ENABLING A RAPID BROWSING OF A PLURALITY OF WEBPAGES

FIELD OF INVENTION

Embodiments of the present invention relate to the field of web browsing, and more particularly, to a system and a method for instant display of website pages, to facilitate high-speed, intuitive, focused and relevant browsing.

BACKGROUND OF INVENTION

In today's scenario, there is huge amount of information on the World Wide Web. The size of numerous websites is increasing on a daily basis to meet the needs of users across the globe. However, the large amount of information and the large number of pages on the websites sometimes makes it difficult for a person not familiar with the website to find relevant information on the website. Moreover, websites generally have a "menu" that lists only few levels of pages in the website. Furthermore, the user doesn't get knowledge as to what each page of the website contains. To know more about each page of the website, the user has to "click" and "download" each page of the website to view it. Particularly, in one or more situations if the contents of the page of the website are not relevant, the user has to go "back" to the previous page, or select another page from the menu, which again, may or may not be relevant. Consequently, the overall process to find the relevant page of the website is a tedious task for the user. Subsequently, it leads to lose of overall insight of the user and the ability to skim lightly through the topic of interest.

In other situations, even if the user opens multiple "tabs" within the web browser to simultaneously view multiple pages of the website, the overall process is still slow and time consuming, since the available bandwidth is distributed across the multiple tabs. Consequently, each tab is downloaded even more slowly than normal. Subsequently, there remains a need in the art for a system which overcomes the deficiencies of browsing multiple pages of the website in less time.

Many a times, the "menu" of the website may not display deeper-level pages that may in fact be of interest to the user. Consequently, the user has no way of knowing
about the pages of interest of the website, unless the user actually downloads and views each page of the website. Subsequently, the overall time required to view the pages of interest of the website by the user increases many folds.

Current technologies in this domain include a "sitemap" feature that lists all the pages in the website, like a detailed index of a book. However, the user has to "click" on each entry in the sitemap, and download each page to view its contents. Consequently, the overall time required to view the pages of interest of the website by the user is not reduced and is inconvenient to the user.

Therefore, there exists a need in the art for a method and system enabling instantaneous browsing of a plurality of webpages, without having to click and download each page of the website.

SUMMARY OF INVENTION

Embodiments of the present invention relates to a method for enabling instantaneous browsing of a plurality of webpages on at least one client device, said method comprising following steps: determining whether a set of instructions from a software module of a first electronic data of a first processor of at least one server are stored in a second software module of said at least one client device; retrieving said set of instructions from said software module of said first electronic data of said first processor of said at least one server to said at least one client device; executing said set of instructions to retrieve an electronic and a structural content from at least one webpage of said plurality of webpages from a content database of said first electronic data of said first processor of said at least one server to said at least one client device; storing said retrieved electronic and structural content from said at least one webpage of said plurality of webpages stored in said content database of said first electronic data of said first processor of said at least one server to a storage module; and displaying said electronic and structural content stored in said storage module onto said at least one client device via at least one graphical user interface.

Alternate embodiments of the present invention further relates to a method for enabling instantaneous browsing of a plurality of webpages on at least one client
device, said method comprising following steps determining whether a set of instructions from a software module of a first electronic data of a first processor of at least one server are stored in a second software module of said at least one client device; retrieving said set of instructions from said second software module of a second electronic data of a second processor of said at least one client device; executing said set of instructions to retrieve an electronic and a structural content from at least one webpage of said plurality of webpages from a content database of a first electronic data of a first processor of said at least one server to said at least one client device; storing said retrieved electronic and structural content from said at least one webpage of said plurality of webpages stored in said content database of said first electronic data of said first processor of said at least one server to a storage module; and displaying said electronic and structural content stored in said storage module onto said at least one client device via at least one graphical user interface.

Embodiments of the present invention further relates to a system for enabling instantaneous browsing of a plurality of webpages, said system including at least one server comprising a first processor, said at least one server being configured for hosting a first electronic data, at least one client device comprising a second processor, said at least one client device being configured for hosting a second electronic data and executing said first electronic data of said at least one server, at least one communication network for coupling said at least one server and said at least one client device; and at least one graphical user interface to display, organize and facilitate said rapid browsing of said plurality of webpages on said at least one client device.

While the invention is described herein by way of example using several embodiments and illustrative drawings, those skilled in the art will recognize that the invention is not limited to the embodiments of drawing or drawings described, and are not intended to represent the scale of the various components. Further, some components that may form a part of the invention may not be illustrated in certain figures, for ease of illustration, and such omissions do not limit the embodiments outlined in any way. It should be understood that the drawings and detailed description thereto are not intended to limit the invention to the particular form disclosed, but on the
contrary, the invention is to cover all modification, equivalents and alternatives falling within the spirit and scope of the present invention as defined by the appended claims. The headings used herein are for organizational purposes only and are not meant to be used to limit the scope of the description or the claims. As used throughout this application, the word "may" is used in a permissive sense (i.e., meaning having the potential to), rather than the mandatory sense (i.e., meaning must). Similarly, the words "include," "including," and "includes" mean including, but not limited to. Further, the words "a" or "an" mean "at least one" and the word "plurality" means one or more, unless otherwise mentioned.

BRIEF DESCRIPTION OF THE DRAWINGS

So that the manner in which the above recited features of the present invention can be understood in detail, a more particular description of the invention, briefly summarized above, may be had by reference to embodiments, some of which are illustrated in the appended drawings. It is to be noted, however, that the appended drawings illustrate only typical embodiments of this invention and are therefore not to be considered limiting of its scope, for the invention may admit to other equally effective embodiments.

These and other features, benefits and advantages of the present invention will become apparent by reference to the following text figures, with like reference numbers referring to like structures across the views, wherein:

FIG.1, illustrates a block diagram of a system for enabling a rapid browsing of a plurality of webpages on at least one client device, according to one embodiment of the present invention;

FIG.2, illustrates a block diagram of a graphical user interface, according to one embodiment of the present invention; and

FIG.3, illustrates a flowchart of a method for enabling a rapid browsing of a plurality of webpages on at least one client device, according to one embodiment of the present invention.
DETAILED DESCRIPTION OF THE INVENTION

FIG. 1 illustrates a block diagram of a system 100 for enabling a rapid browsing of a plurality of webpages on one or more client devices 150i, 1502, . . . 150n and, FIG. 2, illustrates a block diagram of a graphical user interface 205 according to one embodiment of the present invention. These figures only portray one variation of the myriad of possible system configurations. The present invention may function in a variety of computing environments, such as, for example, but not limited to, a distributed computer system, a centralized computer system, a stand-alone computer system, or the like. One skilled in the art will appreciate that the system 100 may or may not contain all the components listed below.

The system 100 includes one or more client devices 150i, 1502, . . . 150n, at least one communication network 140, and at least one server 105. The at least one server 105 is coupled to the communication network 140. The at least one server 105 includes a first processor 110. Particularly, the server 105 is configured for hosting a first electronic data. The one or more client devices 150i, 1502, . . . 150n include a second processor 155. Particularly, the one or more client devices 150i, 1502, . . . 150n are configured for hosting a second electronic data. The one or more client devices 150i, 1502, . . . 150n are coupled to the communication network 140 to execute the first electronic data of the server 105. At least one graphical user interface 205 of the one or more client devices 150i, 1502, . . . 150n displays, organizes and facilitates the rapid browsing of the multiple webpages on the one or more client devices 150i, 1502, . . . 150n. The communication link between the communication network 140 and the at least one server 105, the client devices 150i, 1502, . . . 150n may be a physical link, a wireless link, a combination there of, and the like. The server 105, and the client devices 150i, 1502, . . . 150n may be another computer system, a stand-alone device, a wireless device, or the like. The client devices 150i, 1502, . . . 150n may be coupled to the server 105. The client devices 150i, 1502, . . . 150n may be remotely located from the server 105.

The first electronic data of the first processor 110 of the server 105 includes a content database 115 and a software module 120. The content database 115 stores an
electronic and structural content from one or more webpages of the multiple webpages. Particularly, the software module 120 includes a set of instructions for executing retrieval and display of the electronic and structural content from the one or more webpages of the multiple webpages from the content database 115 to the one or more client devices 150i, 150_2 \ldots 150_n.

In one embodiment of the present invention, the second electronic data of the second processor 155 of the client devices 150i, 150_2 \ldots 150_n is generally shown and described as having a retrieving module 160 which is configured to retrieve the set of instructions from the software module 120 of the first electronic data of the first processor 110 of the server 105. An executing module 165 is configured to execute the set of instructions retrieved by the retrieving module 160. However, the set of instructions retrieved by the retrieving module 160 executes retrieval of the electronic and structural content from the one or more webpages of the multiple webpages from the content database 115 to the one or more client devices client devices 150i, 150_2 \ldots 150_n. In one embodiment of the present invention, a storage module 170 is configured for storing the retrieved electronic and structural content from the one or more webpages of the multiple webpages stored in the content database 115 of the first processor 110 of the server 105. The electronic and structural content from the one or more webpages of the multiple webpages stored in the content database 115 of the first processor 110 of the server 105 is executed by the executing module 165. Further, a display module 175 is configured for displaying the electronic and structural content stored in the storage module 170 onto the one or more client devices 150_1, 150_2 \ldots 150_n.

In one embodiment of the present invention, the one or more client devices 150_1, 150_2 \ldots 150_n and the at least server 105 is a desktop or laptop computer, a network-enabled cellular telephone, or other client, machine or device capable of executing machine readable code. Further, the one or more client devices 150_1, 150_2 \ldots 150_n are capable of interacting with and displaying a user interface to the user.

The one or more client devices 150_1, 150_2 \ldots 150_n may include at least one central processing unit (CPU) 190, support circuits 188, and memory. The CPU 190
may include one or more conventionally available microprocessors or microcontrollers. The microprocessor may be an application specific integrated circuit (ASIC). The support circuits 188 are well known circuits used to promote functionality of the CPU 190. Such circuits include, but are not limited to, a cache, power supplies, clock circuits, input/output (I/O) circuits and the like.

The memory contained within the client devices 150i, 150_{2} \ldots 150_{n} may include random access memory, read only memory, removable disk memory, flash memory, and various combinations of these types of memory. The memory may store a determination module 180, the retrieving module 160, the executing module 165, the storage module 170, the display module 175 and a second software module. In another embodiment of the present invention, the second electronic data of the second processor 155 of the one or more client devices 150 further includes the determination module 180 which is configured to determine whether the set of instructions from the software module 120 of the first electronic data of the first processor 110 of the server 105 are stored in the second software module 185 of the one or more client devices 150_{1}, 150_{2} \ldots 150_{n}. Particularly, the second software module 185 is configured to provide the set of instructions to the executing module 165.

In another embodiment of the present invention, the executing module 165 is configured to execute the set of instructions stored in the second software module 185. The set of instructions executes retrieval of the electronic and structural content from the one or more webpages of the multiple webpages from the content database 115 to the one or more client devices 150i, 150_{2} \ldots 150_{n}.

The server 105 may include a central processing unit (CPU) 125, support circuits 130, and a memory. The CPU 125 may include one or more conventionally available microprocessors or microcontrollers. The CPU 125 may be an application specific integrated circuit (ASIC). The support circuits 130 are well known circuits used to promote functionality of the CPU 125. Such circuits include, but are not limited to, a cache, power supplies, clock circuits, input/output (I/O) circuits and the like. The memory contained within the server 105 may include random access memory, read only memory, removable disk memory, flash memory, and various combinations of these.
types of memory. The memory includes the content database 115 and the software module 130.

In one embodiment of the present invention, the executing module 165 of the second processor 155 of the one or more client devices 150i, 1502 . . . 150n retrieves the electronic and structural content from the one or more webpages of the multiple webpages stored in the content database 115 of the first processor 110 of the server 105 in a pre-determined order, and/or in real time in a random order or a hierarchical order, or in accordance with any intelligent pre-fetching logic, or in accordance with the set of instructions stored in the software module 120 of the first processor 110 of the server 105 or in the second software module 185 of the second processor 155 of the one or more client devices 150i, 1502 . . . 150n.

In one embodiment of the present invention, the pre-fetching logic is executed according to one or more user interactions with the one or more client devices 150 or according to one or more relationships between the multiple webpages, or in accordance with the set of instructions stored in the software module 120 of the first processor 110 of the server 105 or in the second software module 185 of the second processor 155 of the one or more client devices 150i, 1502 . . . 150n.

In one embodiment of the present invention, the one or more relationships between the multiple webpages are a child-parent relationship.

In one embodiment of the present invention, the retrieved electronic and structural content from the one or more webpages of the multiple webpages stored in the content database 115 of the first processor 110 of the server 105 includes text, vector graphics, videos, sound, animation, multimedia, 2D/3D visuals, or a combination thereof. Further, the retrieved electronic content from the one or more webpages of the multiple webpages stored in the content database 115 of the first processor 110 of the server 105 includes any type of human interpretable data such as text, vector graphics, raster graphics, videos, sound, animation, 2D visuals, 3D visuals and/or a combination thereof, that is included in one or more website pages, panes, sub-panes, and/or any other structural component of the website. Moreover, the electronic content is remotely or locally updated or modified, either manually or semi-automatically using a content
management system, or fully automatically based on pre-determined parameters and data resources.

In one embodiment of the present invention, the structural content includes a listing or indexing of the electronic content to be displayed to the user. Moreover, the structural content provides the user to quickly locate and access the website content of interest. Furthermore, the structural content is generated automatically based on relationships between pages of the website, or in accordance to the set of instructions. The structural content is remotely or locally updated or modified, either manually or semi-automatically using the content management system, or automatically, based on pre-determined parameters and data resources. In one embodiment of the present invention, the structural content is hierarchical, random, alphabetical, category-wise, or based on user action, such as greater visibility to pages of interest and lower visibility to pages already viewed or in any other manner that best enables the user to understand and navigate through the site.

In another embodiment of the present invention, the structural content area 215 is presented as a conventional list, a diagrammatic scheme, a 3D arrangement, or any other presentation means most appropriate to the contents and layout of the website.

In yet another embodiment of the present invention, the structural content area 215 displays either the entire list of the retrieved electronic content or a partial list based on pre-determined criteria, which is configured to expand in response to explicit or implicit user interaction, or automatically based on the set of instructions of the second electronic data of the second processor 155 of the client devices 150₁, 150₂ . . . 150ₙ or based on other calculable or pre-determined parameters.

In one embodiment of the present invention, the structural content is changed based on explicit or implicit user action, such as mouse-over, or automatically based on pre-defined instructions or pre-determined parameters, such as periodic, time-based change, in accordance with the set of instructions of the second electronic data of the second processor 155 of the client devices 150₁, 150₂ . . . 150ₙ.

In another embodiment of the present invention, the structural content is changed dynamically either in response to explicit or implicit user interaction, or automatically
based on predefined instructions, or based on calculable or pre-defined parameters such as sorting or filtering, in accordance with the set of instructions of the second electronic data of the second processor 155 of the client devices 150i, 1502 . . . 15On.

In one embodiment of the present invention, the structural content is hidden from view at any time, by explicit or implied user action such as the user closing the list, or moving the pointer away from the list area, or even automatically, based on pre-defined instruction, or based on calculable or pre-defined parameters, such as amount of time elapsed without the structural content area 215 being accessed, in accordance with the set of instructions of the second electronic data of the second processor 155 of the client devices 150i, 1502 . . . 15On.

In one embodiment of the present invention, the structural content includes additional information about the website content they represent, in the form of text, graphics or audio-video content, such as Subject Category, Number of Sub-pages, or Metadata. Further, the structural content included dynamic features such as indication of downloading status of pages, which is displayed per entry.

In one embodiment of the present invention, the structural content is static or animated. Further, the structural content is interactive, based on explicit or implicit user action, such as a 3D arrangement wherein the user interactively moves the 3D components representing each entry, or the order of entries changing based on user interaction.

In one embodiment of the present invention, the at least one graphical user interface 205 includes one or more content areas 210 and one or more structural areas 215. Particularly, the one or more content areas 210 are configured to display the retrieved electronic content from the one or more webpages of the multiple webpages stored in the content database 115 of the first processor 110 of the server 105. However, the retrieved electronic content from the one or more webpages of the multiple webpages stored in the content database 115 of the first processor 110 of the server 105 are stored in the storage module 170 of the second electronic data of the second processor 155 of the client devices 150i, 1502 . . . 15On and displayed via the display module 175.
of the second electronic data of the second processor 155 of the client devices 150, 150i, 1502 ... 150n.

In one embodiment of the present invention, the one or more structural areas 215 are configured to display the retrieved structural content from the one or more webpages of the multiple webpages stored in the content database 115 of the first processor 110 of the server 105. Particularly, the retrieved structural content from the one or more webpages of the multiple webpages stored in the content database 115 of the first processor 110 of the server 105 is stored in the storage module 170 of the second electronic data of the second processor 155 of the client devices 150i, 1502 ... 150n, and displayed via the display module 175 of the second electronic data of the second processor 155 of the client devices 150i, 1502 ... 150n.

In one embodiment of the present invention, the one or more content areas 210 are configured to display instantaneously the retrieved electronic content from the one or more webpages of the multiple webpages stored in the content database 115 of the first processor 110 of the server 105 via the display module 175 of the second electronic data of the second processor 155 of the client devices 150i, 1502 ... 150n stored in the storage module 170 of the second electronic data of the second processor 155 of the client devices 150i, 1502 ... 150n, in response to one or more first user interactions with the one or more structural areas 215, or in response to one or more second user interactions with the one or more content areas 210, or in accordance with the set of instructions stored in the software module 120 of the first processor 110 of the server 105 which is retrieved by the retrieving module 160 of the second electronic data of the second processor 155 of the client devices 150i, 1502 ... 150n, or in accordance with the set of instructions stored in the second software module 185 of the second processor 155 of the one or more client devices 150i, 1502 ... 150n. Consequently, the user is able to rapidly skim through all the contents of the websites instantly. Subsequently, the user is able to locate subject of interest by viewing the same either by explicit means such as "clicking" on the corresponding entry in the structural area 215 or pressing "enter" on the keyboard, or by implicit means such as simply moving the pointer away from the structural area 215 and into the content area 210 whereupon the
user has fully functional website content to view, interact with, utilize and act upon. In one embodiment of the present invention, the one or more structural areas 215 of the one or more graphical user interfaces 205 are displayed automatically and/or in response to interactive action of the one or more users, or in accordance with the set of instructions stored in the software module 120 of the first processor 110 of the server 105 which is retrieved by the retrieving module 160 of the second electronic data of the second processor 155 of the client devices 150i, 1502 . . . 150n, or in accordance with the set of instructions stored in the second software module 185 of the second processor 155 of the one or more client devices 150i, 1502 . . . 150n.

In one embodiment of the present invention, the structural content area 215 is located in any area of the graphical user interface 205, depending on the layout of the website, or be interactively shifted by the user to suit his / her convenience.

In another embodiment of the present invention, the structural content area 215 either overlaps on the content area 210 being previewed, or may be located in a separate section.

In yet another embodiment of the present invention, the structural content area 215 is configured to collapse or completely or partially hidden from view, in response to explicit or implicit user interaction, such as when the user moves the pointer away from its area or automatically based on pre-defined instructions or based on pre-determined parameters; to allow an unobstructed, full-page view of the content area 210.

In yet another embodiment of the present invention, the structural content area 215 is translucent, to indicate the contents of the section of the content area 210 located below it.

In one embodiment of the present invention, the content area 210 displays preview of the electronic content in either full-page or smaller, depending on parameters such as layout of website, size and location of the list of web-pages, nature and complexity of the web pages. The sizes of the structural and/or content are modified interactively by the user, to suit the convenience.
In yet another embodiment of the present invention, data in the structural content and all associated visual and auditory representations is updated in real-time, based on database updates, such as new forum posts.

In yet another embodiment of the present invention, the required electronic content has not been retrieved at the time of user request, then a notification or generic place-holder is displayed, informing the user that the requested electronic content will be available shortly.

In yet another embodiment of the present invention, one or more feedbacks is provided to the user, to either delay time until the requested electronic content is available for instant preview, or to redirect the user to another related or similar content. Further, the requested electronic content is partially displayed as it loads for example, streaming.

In yet another embodiment of the present invention, one or more transitions are provided between successive displays of electronic content, such as fades, dissolves, wipes, 3D page curls and the like.

In yet another embodiment of the present invention, there is animated entry and exit of elements of successive electronic content, automatically based on predefined instructions or pre-determined parameters, or interactively, based on user interaction such as mouse cursor position, in accordance to the set of instructions stored in the second processor 155 of the client devices 150, 150, ..., 150.

In yet another embodiment of the present invention, audio effect is provided when any entry in the structural content is selected for display, which may be either related or unrelated to the electronic content displayed in the content area 210. Similarly, the text, graphic, and / or video content of the entries may change when the entry is selected such as by highlighting, disappearance, addition, animation or alteration of content.

In yet another embodiment of the present invention, the electronic content is multi-media content such as animations, audios, videos, and the like. The multi-media content is displayed as streaming. When the user commits to view particular content, by any of the means disclosed above, then the display could either continue as started, or
may replay itself from the start. Alternatively, a selected portion of the multimedia
content could be played at the time of the instant preview, while the actual multi-media
content is displayed in the normal fashion, when the user commits to viewing that
particular electronic content, through any of the means disclosed above.

In one embodiment of the present invention, the retrieving module 160 of the second electronic
data of the second processor 155 of the client devices 150i, 1502 . . . 150n retrieves one
or more partial areas of the electronic content to be displayed in the content area 210,
which is fully functional, and in the same data format at the complete content. However,
the remaining portion of the electronic content is retrieved by the retrieving module 160
of the second electronic data of the second processor 155 of the client devices 150i,
1502 . . . 150n when the user confirms or implied interest in viewing the remaining
portion of the electronic content. Since, the electronic content requested is already
available in the storage module 170 the content is instantly retrieved and displayed to
the user, which is a unique approach to website browsing.

In one embodiment of the present invention, the retrieving module 160 of the
second electronic data of the second processor 155 of the client devices 150i, 1502 . . .
150n retrieves the electronic content from the server 105 to the client devices 1501, 1502
. . . 150n when the user expresses or implies interest in the electronic and/or structural
content from the one or more web pages of the multiple webpages stored in the content
database 115 of the first processor 110 of the server 105. This enables the set of
instructions to be executed instantaneously.

In another embodiment of the present invention, the retrieving module 160 of the
second electronic data of the second processor 155 of the client devices 150i, 1502 . . .
150n retrieves the electronic content from the one or more web pages of the multiple
webpages stored in the content database 115 of the first processor 110 of the server
105 to the client devices 150i, 1502 . . . 150n automatically by the second processor 155
of the client devices 150i, 1502 . . . 150n without user interaction or request.

In yet another embodiment of the present invention, the stored electronic and/or
structural content stored in the storage module 170 of the second electronic data of the
second processor 155 of the client devices 1501, 1502 . . . 150n is utilized by other
components of the second electronic data of the second processor 155 of the client devices 150i, 15O_2 . . . 15O_n. For example, when the user navigates through the website, using the existing navigational means such as hyperlinks or menus, the stored electronic and/or structural content stored in the storage module 170 of the second electronic data of the second processor 155 of the client devices 150i, 15O_2 . . . 15O_n is displayed instantly. Further, the stored electronic and/or structural content stored in the storage module 170 of the second electronic data of the second processor 155 of the client devices 150i, 15O_2 . . . 15O_n is available to the user across sessions for minutes, hours or even weeks after initial retrieval based on the feasibility of storing such data, and lifetime of the data, as controlled by the user and/or the second processor 155 of the client devices 15O_1, 15O_2 . . . 15O_n.

In one embodiment of the present invention, scrolling or any other suitable navigation facility is provided to the user, if the size of the content area 210 and/or the structural area 215 exceeds the area available for displaying it.

However, the present invention has been explained in terms of instant website browsing, but the present invention is also utilised to navigate through any system of organized data, either locally or remotely coupled to the client device, such as browsing a library, using a computer system installed within it, containing embodiments of the present invention, that enable users to rapidly skim through any page of any book, by accessing book data or images stored within the network coupled to one or more storage devices. FIG. 3, it illustrates a flowchart of a method 300 enabling a rapid browsing of a plurality of webpages on at least one client devices 150i, 15O_2 . . . 15O_n, according to one embodiment of the present invention. The method 300 begins at step 305 and proceeds to step 310. At step 310, a determination is made as to whether a set of instructions from a software module 120 (of Fig.1) of a first electronic data of a first processor 110 (of Fig.1) of a server 105 (of Fig.1) are stored in a second software module 185 (of Fig.1) of the one or more client devices 150i, 15O_2 . . . 15O_n (of Fig.1).

In one embodiment of the present invention, if the set of instructions from the software module 120 of the first electronic data of the first processor 110 (of Fig.1) of the server 105 (of Fig.1) are not stored in the second software module 185 (of Fig.1) of
the one or more client devices $15O_1, 15O_2 \ldots 15O_n$ option "NO", the method 300 proceeds to step 315. At step 315, the set of instructions are retrieved by the retrieving module 160 (of Fig.1) of the one or more client devices $15O_i, 15O_2 \ldots 15O_n$ from the software module 120 of the first electronic data of the first processor 110 of the server 105. At step 320, the set of instructions are executed to retrieve an electronic and a structural content from one or more webpages from the content database 115 (of Fig.1) of the first electronic data of the first processor 110 (of Fig.1) of the server 105 to the one or more client devices $15O_i, 15O_2 \ldots 15O_n$. Particularly, the execution is performed by the executing module 165 (of Fig.1) of the second processor 155 (of Fig.1) of the one or more client devices $15O_1, 15O_2 \ldots 15O_n$. The executing module 165 retrieves the electronic and structural content from the one or more webpages of the multiple webpages stored in the content database 115 of the first processor 110 of the server 105 in a pre-determined order, and/or in real time in a random order or a hierarchical order, or in accordance with any intelligent pre-fetching logic, or in accordance with the set of instructions stored in the software module 120 of the first processor 110 of the server 105.

In one embodiment of the present invention, the pre-fetching logic is executed according to one or more user interactions with the one or more client devices $15O_1, 15O_2 \ldots 15O_n$ or according to one or more relationships between the multiple webpages, or in accordance with the set of instructions stored in the software module 120 of the first processor 110 of the server 105.

The method 300 proceeds to step 325. At step 325, the retrieved electronic and structural content from the one or more webpages of the multiple webpages stored in the content database 115 of the first electronic data of the first processor 110 of the server 105 is stored to the storage module 170 (of Fig.1) of the second processor 155 of the one or more client devices $15O_1, 15O_2 \ldots 15O_n$. At step 330, the electronic and structural content stored in the storage module 170 is displayed onto the one or more client devices $15O_1, 15O_2 \ldots 15O_n$ via the one or more graphical user interfaces 205. The one or more graphical user interfaces 205 include the one or more content areas 210 and the one or more structural areas 215.
In one embodiment of the present invention, the one or more content areas 210 are configured to display the retrieved electronic content from the one or more webpages of the multiple webpages stored in the content database 115 of the first processor 110 of the server 105. The retrieved electronic content from the one or more webpages of the multiple webpages stored in the content database 115 of the first processor 110 of the server 105 is stored in the storage module 170 of the second electronic data of the second processor 155 of the one or more client devices 150i, 1502 ... 150n, and displayed via the display module 175 of the second electronic data of the second processor 155 of the one or more client devices 150i, 1502 ... 150n. The one or more structural areas are configured to display the retrieved structural content from the one or more web pages of the multiple webpages stored in the content database 115 of the first processor 110 of the server 105 and further stored in the storage module 170 of the second electronic data of the second processor 155 of the one or more client devices 1501, 1502 ... 150n, via the display module 175 of the second electronic data of the second processor 155 of the one or more client devices 150i, 1502 ... 150n.

In one embodiment of the present invention, the one or more content areas 210 are configured to display instantaneously the retrieved electronic content from the one or more webpages of the multiple webpages stored in the content database 115 of the first processor 110 of the server 105 via the display module 175 of the second electronic data of the second processor 155 of the one or more client devices 150i, 1502 ... 150n stored in the storage module 170 of the second electronic data of the second processor 155 of the one or more client devices 150i, 1502 ... 150n, in response to one or more first user interactions with the one or more configured structural area 215, or in response to one or more second user interactions with the one or more content areas 210, or in accordance with the set of instructions stored in the software module 120 of the first processor 110 of the server 105 which is retrieved by the retrieving module 160 of the second electronic data of the second processor 155 of the one or more client devices 1501, 1502 ... 150n.

In one embodiment of the present invention, the one or more structural areas 215 of the one or more graphical user interfaces 205 is displayed automatically and/or in
response to interactive action of the one or more users, or in accordance with the set of instructions stored in the software module 120 of the first processor 110 of the server 105 which is retrieved by the retrieving module 160 of the second electronic data of the second processor 155 of the one or more client devices 150i, 1502 . . . 150n. The method 300 proceeds to step 345.

In another embodiment of the present invention, if the set of instructions from the software module 120 of the first electronic data of the first processor 110 of the server 105 are stored in the second software module 185 of the one or more client devices 150i, 1502 . . . 150n option "YES", the method 300 proceeds to step 340. At step 340, the set of instructions are retrieved by the retrieving module 160 of the one or more client devices 150i, 1502 . . . 150n from the second software module 185 of the second electronic data of the second processor 155 of the one or more client devices 1501, 1502 . . . 150n. The method 300 proceeds to step 320. At step 345, the method 300 ends.

Therefore, as can be seen, embodiments of the present invention provide a method and system for enabling a rapid browsing of a plurality of webpages on at least one client device. Since, the electronic content requested is already available in the storage module the content is instantly retrieved and displayed to the user, which is a unique approach to website browsing. Further, it enables users to rapidly skim through all the pages of the website, without having to click and wait for each page to download. Furthermore, the present invention improves navigation through the website, by displaying the website structure, i.e. a listing of the website content providing the user a complete overview of the website content. The present invention displays the website structure in a variety of different ways, such as hierarchical, random, alphabetical, category-wise, or based on user action, such as greater visibility to pages of interest and lower visibility to pages already viewed. The present invention enables website owners to highlight and promote important website content, by accordingly highlighting and promoting the corresponding entry in the website structure displayed to the user, thus attracting the user to the important website content.
In the foregoing specification, specific embodiments of the present invention have been described. However, one of ordinary skill in the art will appreciate that various modifications and changes can be made without departing from the spirit and scope of the present invention as set forth in the various embodiments discussed above and the claims that follow. Accordingly, the specification and figures are to be regarded in an illustrative rather than a restrictive sense, and all such modifications are intended to be included within the scope of present invention. The benefits, advantages, solutions to problems, and any element(s) that may cause any benefit, advantage, or solution to occur or become more pronounced are not to be construed as a critical, required, or essential features or elements as described herein.
CLAIMS:

I claim,

1. A method for enabling instantaneous browsing of a plurality of webpages on at least one client device, said method comprising following steps:
   determining whether a set of instructions from a software module of a first electronic data of a first processor of at least one server are stored in a second software module of said at least one client device;
   retrieving said set of instructions from said software module of said first electronic data of said first processor of said at least one server to said at least one client device;
   executing said set of instructions to retrieve an electronic and a structural content from at least one webpage of said plurality of webpages from a content database of said first electronic data of said first processor of said at least one server to said at least one client device;
   storing said retrieved electronic and structural content from said at least one webpage of said plurality of webpages stored in said content database of said first electronic data of said first processor of said at least one server to a storage module; and
   displaying said electronic and structural content stored in said storage module onto said at least one client device via at least one graphical user interface.

2. The method as recited in Claim 1, wherein said execution is performed by a executing module of a second processor of said at least one client device, further said executing module retrieves said electronic and structural content from said at least one webpage of said plurality of webpages stored in said content database of said first processor of said at least one server in a pre-determined order, and/or in real time in a random order or a hierarchical order, or in accordance with any intelligent pre-fetching logic, or in accordance with said set of instructions stored in said software module of said first processor of said at least one server.
3. The method as recited in Claim 2, wherein said pre-fetching logic is executed according to at least one user interaction with said at least one client device or according to at least one relationship between said plurality of webpages, or in accordance with said set of instructions stored in said software module of said first processor of said at least one server.

4. The method as recited in Claim 1, wherein said at least one graphical user interface comprises at least one content area and at least one structural area, wherein said at least one content area is configured to display said retrieved electronic content from said at least one webpage of said plurality of webpages stored in said content database of said first processor of said at least one server, and further stored in said storage module of said second electronic data of said second processor of said at least one client device, via a display module of said second electronic data of said second processor of said at least one client device; and said at least one structural area is configured to display said retrieved structural content from said at least one web page of said plurality of webpages stored in said content database of said first processor of said at least one server, and further stored in said storage module of said second electronic data of said second processor of said at least one client device, via said display module of said second electronic data of said second processor of said at least one client device.

5. The method as recited in Claim 4, wherein said at least one content area is configured to display instantaneously said retrieved electronic content from said at least one webpage of said plurality of webpages stored in said content database of said first processor of said at least one server via said display module of said second electronic data of said second processor of said at least one client device stored in said storage module of said second electronic data of said second processor of said at least one client device, in response to at least one first user interaction with said at least one configured structural area, or in response to at least one second user interaction with said at least one content area, or in accordance with said set of instructions stored in
said software module of said first processor of said at least one server which is retrieved by said retrieving module of said second electronic data of said second processor of said at least one client device.

6. The method as recited in Claim 4, wherein said at least one structural area of said at least one graphical user interface is displayed automatically and/or in response to interactive action of said at least one user, or in accordance with said set of instructions stored in said software module of said first processor of said at least one server which is retrieved by said retrieving module of said second electronic data of said second processor of said at least one client device.

7. The method for enabling instantaneous browsing of a plurality of webpages on at least one client device, said method comprising following steps:

   (a) determining whether a set of instructions from a software module of a first electronic data of a first processor of at least one server are stored in a second software module of said at least one client device;
   (b) retrieving said set of instructions from said second software module of a second electronic data of a second processor of said at least one client device;
   (c) executing said set of instructions to retrieve an electronic and a structural content from at least one webpage of said plurality of webpages from a content database of a first electronic data of a first processor of said at least one server to said at least one client device;
   (d) storing said retrieved electronic and structural content from said at least one webpage of said plurality of webpages stored in said content database of said first electronic data of said first processor of said at least one server to a storage module; and
   (e) displaying said electronic and structural content stored in said storage module onto said at least one client device via at least one graphical user interface.
8. The method as recited in Claim 7, wherein said execution is performed by a 
executing module of said second processor of said at least one client device, further 
said executing module retrieves said electronic and structural content from said at least 
one webpage of said plurality of webpages stored in said content database of said first 
processor of said at least one server in a pre-determined order, and/or in real time in a 
random order or a hierarchical order, or in accordance with any intelligent pre-fetching 
logic, or in accordance with said set of instructions stored in said second software 
module of said second processor of said at least one client device.

9. The method as recited in Claim 8, wherein said pre-fetching logic is executed 
according to at least one user interaction with said at least one client device or 
according to at least one relationship between said plurality of webpages, or in 
accordance with said set of instructions stored in said second software module of said 
second processor of said at least one client device.

10. The method as recited in Claim 7, wherein said at least one graphical user 
interface comprises at least one content area and at least one structural area, wherein 
said at least one content area is configured to display said retrieved electronic content 
from said at least one webpage of said plurality of webpages stored in said content 
database of said first processor of said at least one server, and further stored in said 
storage module of said second electronic data of said second processor of said at least 
one client device, via a display module of said second electronic data of said second 
processor of said at least one client device; and said at least one structural area is 
configured to display said retrieved structural content from said at least one web page of 
said plurality of webpages stored in said content database of said first processor of said 
at least one server, and further stored in said storage module of said second electronic 
data of said second processor of said at least one client device, via said display module 
of said second electronic data of said second processor of said at least one client device.
11. The method as recited in Claim 10, wherein said at least one content area is configured to display instantaneously said retrieved electronic content from said at least one webpage of said plurality of webpages stored in said content database of said first processor of said at least one server via said display module of said second electronic data of said second processor of said at least one client device stored in said storage module of said second electronic data of said second processor of said at least one client device, in response to at least one first user interaction with said at least one configured structural area, or in response to at least one second user interaction with said at least one content area, or in accordance with said set of instructions stored in said second software module of said second processor of said at least one client device.

12. The method as recited in Claim 10, wherein said at least one structural area of said at least one graphical user interface is displayed automatically and/or in response to interactive action of said at least one user, or in accordance with said set of instructions stored in said second software module of said second processor of said at least one client device.

13. A system for enabling instantaneous browsing of a plurality of webpages, said system comprising:

   at least one server comprising a first processor, said at least one server being configured for hosting a first electronic data;

   at least one client device comprising a second processor, said at least one client device being configured for hosting a second electronic data and executing said first electronic data of said at least one server;

   at least one communication network for coupling said at least one server and said at least one client device; and

   at least one graphical user interface to display, organize and facilitate said rapid browsing of said plurality of webpages on said at least one client device.
14. The system as recited in Claim 13, wherein said first electronic data of said first processor of said at least one server comprises:
   a content database for storing an electronic and structural content from at least one webpage of said plurality of webpages; and
   a software module comprising a set of instructions for executing retrieval and display of said electronic and structural content from said at least one webpage of said plurality of webpages from said content database to said at least one client device.

15. The system as recited in Claim 13, wherein said second electronic data of said second processor of said at least one client device comprises:
   a retrieving module configured to retrieve said set of instructions from said software module of said first electronic data of said first processor of said at least one server;
   an executing module configured to execute said set of instructions retrieved by said retrieving module, further said set of instructions retrieved by said retrieving module executes retrieval of said electronic and structural content from said at least one webpage of said plurality of webpages from said content database to said at least one client device;
   a storage module configured for storing said retrieved electronic and structural content from said at least one webpage of said plurality of webpages stored in said content database of said first processor of said at least one server executed by said executing module; and
   a display module configured for displaying said electronic and structural content stored in said storage module onto said at least one client device.

16. The system as recited in Claim 13, wherein said second electronic data of said second processor of said at least one client device further comprises:
a determination module configured to determine whether said set of instructions from said software module of said first electronic data of said first processor of said at least one server are stored in a second software module of said at least one client device, said second software module configured to provide said set of instructions to said executing module; and

said executing module further configured to execute said set of instructions stored in said second software module, further said set of instructions executes retrieval of said electronic and structural content from said at least one webpage of said plurality of webpages from said content database to said at least one client device.

17. The system as recited in Claim 15, wherein said executing module of said second processor of said at least one client device retrieves said electronic and structural content from said at least one webpage of said plurality of webpages stored in said content database of said first processor of said at least one server in a pre-determined order, and/or in real time in a random order or a hierarchical order, or in accordance with any intelligent pre-fetching logic, or in accordance with said set of instructions stored in said software module of said first processor of said at least one server or in said second software module of said second processor of said at least one client device.

18. The system as recited in Claim 17, wherein said pre-fetching logic is executed according to at least one user interaction with said at least one client device or according to at least one relationship between said plurality of webpages, said at least one relationship between said plurality of webpages is a child-parent relationship, or in accordance with said set of instructions stored in said software module of said first processor of said at least one server or in said second software module of said second processor of said at least one client device.
19. The system as recited in Claim 15, wherein said retrieved electronic and structural content from said at least one webpage of said plurality of webpages stored in said content database of said first processor of said at least one server comprises text, vector graphics, raster graphics, videos, sound, animation, multimedia, 2D/3D visuals, or a combination thereof.

20. The system as recited in Claim 13, wherein said at least one graphical user interface comprises at least one content area and at least one structural area, wherein said at least one content area is configured to display said retrieved electronic content from said at least one webpage of said plurality of webpages stored in said content database of said first processor of said at least one server, and further stored in said storage module of said second electronic data of said second processor of said client device, via said display module of said second electronic data of said second processor of said client device, and said at least one structural area is configured to display said retrieved structural content from said at least one webpage of said plurality of webpages stored in said content database of said first processor of said at least one server, and further stored in said storage module of said second electronic data of said second processor of said client device, via said display module of said second electronic data of said second processor of said client device.

21. The system as recited in Claim 20, wherein said at least one content area is configured to display instantaneously said retrieved electronic content from said at least one webpage of said plurality of webpages stored in said content database of said first processor of said at least one server via said display module of said second electronic data of said second processor of said client device stored in said storage module of said second electronic data of said second processor of said client device, in response to at least one first user interaction with said at least one configured structural area, or in response to at least one second user interaction with said at least one content area, or in accordance with said set of instructions stored in said software module of said first processor of said at least one server which is retrieved by said retrieving module of
said second electronic data of said second processor of said client device, or in accordance with said set of instructions stored in said second software module of said second processor of said at least one client device.

22. The system as recited in Claim 20, wherein said at least one structural area of said at least one graphical user interface is displayed automatically and/or in response to interactive action of said at least one user, or in accordance with said set of instructions stored in said software module of said first processor of said at least one server which is retrieved by said retrieving module of said second electronic data of said second processor of said client device, or in accordance with said set of instructions stored in said second software module of said second processor of said at least one client device.
START

305

310

Determine Set of Instructions Stored in Second Software module

YES

Retrieve Set of Instructions from Second Software module

NO

340

Retrieve Set of Instructions from A Software Module

315

Execute Set of Instructions to Retrieve An Electronic and A Structural Content

320

Store the Retrieved Content In A Storage Module

325

Display the Stored Content to Client device via Graphical User Interface in Response to User Interaction

330

STOP

345

FIG. 3
A. CLASSIFICATION OF SUBJECT MATTER

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

B. FIELDS SEARCHED

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

Electronic database consulted during the international search (name of database and where practical, search terms used):

EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

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Further documents are listed in the continuation of Box C

See patent family annex

Date of the actual completion of the international search: 22 September 2010

Date of mailing of the international search report: 29/09/2010

Name and mailing address of the ISA:
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Authorized officer: Nazzaro, Antonio
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