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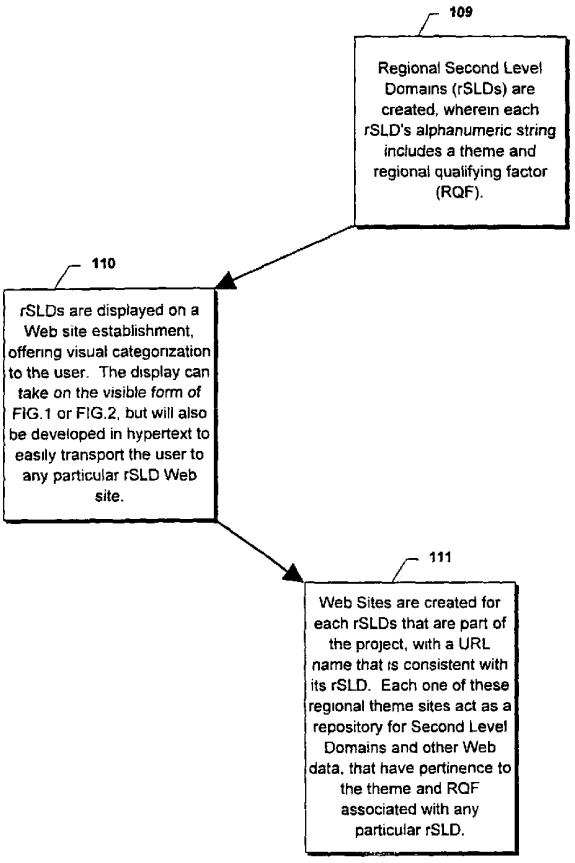
[Continued on next page]

(54) Title: A METHOD AND APPARATUS FOR CATEGORIZING AND STORING DOMAINS AND OTHER WEB DATA



(57) Abstract: The present invention is directed to online computer systems, as it pertains to the Internet, and principally that section referred to as the World Wide Web. Specifically, the present invention relates to a novel method and apparatus system (fig. 3), for categorizing and storing Second Level Domains (SLD's) as well as Web related data in general, into themes and geographical groupings through use of Regional Second Level Domains (rSLDs) (110) that are displayed on a Web site establishment. Moreover, the invention also makes use of the rSLDs as functional Web site establishments that could be called regional theme sites, having them serve as a repository of pertinent information, that is in keeping with their theme and topical related Regional name (111).

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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

TITLE OF INVENTION

A method and apparatus for categorizing and storing Domains and other Web data.

CROSS-REFERENCE TO RELATED APPLICATIONS

Not Applicable

STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT

Not Applicable

REFERENCE TO A MICROFICHE APPENDIX

Not Applicable

BACKGROUND OF THE INVENTION

The Internet and World Wide Web (WWW *or just* Web), is comprised of a vast number of computer networks. Connection between two or more users on the Internet and WWW is accomplished by specifying and then activating an address that is unique to a particular location. Universal Resource Locators (URLs) are used by the World Wide Web to locate and identify Web documents and other resources. URLs represent a standardized naming or addressing system, for documents and media accessible over the Internet. Effectively URLs contain a string of characters that makes up an Internet address.

Hypertext Transfer Protocol or "http" is the language Web clients and servers use to communicate with each other, and although there are other protocols besides HTTP, the address will start with "http" if you wish to communicate on the WWW. After the "http", there is almost always a "://" (a colon with two slashes). Next is the designation www, which shows that the computer is acting as the Web server. After this designation is a period, and then the Domain, which specifies the name of the Web site. A Web site can be considered a collection of related Web files that includes a beginning file called a home page. Each site is owned and managed either by an individual(s), company, or organization, who usually provide users the address of their home page either directly or through third parties.

The string "doctors.com" is an example of a Domain. By convention, Domains can be stored with arbitrary case, and comparisons for all present Domain functions are done in a case-insensitive manner. This means that you are free to create or access a Domain using uppercase or lowercase characters, and when comparing Domains, uppercase or lowercase is immaterial. The system does not distinguish one as being different from the other. Therefore the strings "doctors.com", "Doctors.com", or even "DOCTORS.com" are one and the same transparent Internet address. That is, names with the same exact spelling, different case, yet either version will take you to the same exact Web site location.

Domains are made up of alphanumeric strings, which allow users to identify Internet hosts. They map to unique Internet Protocol (IP) numbers (e.g. 96.28.784.20) that serve as routing addresses on the Internet. The Domain Name System (DNS) translates Internet names into the IP numbers needed for transmission of information across the network. However, it is important to note that while Domain Names are converted into IP addresses by the Domain Name System (DNS), the DNS is organized by the actual Domain "Name" rather than by the host "IP address" it creates, or any other resource type. Moreover, the importance and significance of the Domain "Name", rather than the host address "number", is easily evidenced and made clear, by the great monetary compensation that has been exchanged for the ownership of select Domains. This has most recently been demonstrated in the sale of "Business.com" for $7.5 Million. Clearly the name rather than the number dictates value, and the IP number that is created is indeed an inconsequential and transparent back-room operation/matter to the user.

In the DNS, there is also a hierarchy of names. There are a set of what are called "Top Level Domains" (TLD's). Originally they were composed of three-letter generic TLDs (COM, NET, ORG, EDU, INT, GOV, and MIL) that are code-named to reflect the purpose of the organization or entity, and then the two letter country codes from ISO-3166 (e.g., US for United States, JP for Japan, UK for United Kingdom, etc.), that are used on a country specific basis. Of these generic TLD's (created for a general and broad category of organizations - - hence the term generic), five are international or world wide (W/W) in nature in terms of use (COM, NET, ORG, EDU, INT), and two are restricted to use by entities in the United States (GOV and MIL). In mid-November 2000 several additional TLDs were approved for future use including INFO, BIZ, NAME, PRO, MUSEUM, COOP, and AERO.

The "Second Level" domain (structure) is created when you precede a Top Level Domain (TLD), with an alphanumeric string (without any blank spaces) followed by a "." (period). The string "Doctors.com" is an example of a "World Wide Second Level Domain" (w/wSLD). The hierarchy can be further affected to Third Level, Fourth Level, and so on, at the discretion of the w/wSLD owner. This change in growth is a vertical development, which represents the only direction that w/wSLDs can advance under the present DNS convention.

Many of the problems that Internet users encounter on the WWW relate to the lack of order, categorization, and specificity or descriptiveness. Country specific TLDs clearly provide an inherent sophisticated level of descriptiveness that was built into the naming convention when developed by the Internet Assigned Numbers Authority (IANA). However, on the other extreme w/wSLDs are non-specific, in that its name (unless specifically part of the Domain string) offers absolutely no assistance in understanding the area of topographical focus or regional specificity of a particular Web based business or address. The problem lies in the fact that many individuals who interact on the Web using w/wSLDs, are not truly world wide in terms of their scope of operation, and could be described as regional rather than world wide operations. As a result, a large percentage of these w/wSLD operations only conduct business in a certain local or region, yet the user or observer searching the Web has no knowledge or advanced indication that this is the situation when locating a domain. Oftentimes a user will have to spend several minutes within a newly visited Web site, before they determine if the Web site is able to support their specific regional needs, and if it cannot serve their regional needs, the search for another Web site begins over again.

The problem is further exacerbated by the fact that the WWW (at the time of this writing) has passed the landmark number of one billion web pages. Moreover, the study that provided this monumental milestone also indicated that "COM" TLDs represents 55% of the Web, and "NET" and "ORG" are responsible for another 12% of DNS usage. Because of the sheer magnitude involved, coupled with the lack of specificity of w/wSLDs, a needless number of Web searches are required/conducted by millions of Web users on a daily basis before they are able to find a w/wSLD that meets their particular geographic criteria. The implication of the statistical data needs to be clearly understood, that a minimum 67% of Web users throughout the world utilize a w/wSLD (with just the use of COM, NET, and ORG), creating an undesirable situation where topographical clarity for the most part is absent. Stated another way, a minimum of 670 million web pages are on the Internet, with names that offer no assistance as to their topographical nature or area of involvement. It becomes obvious that

what the system lacks, is a means of regionally displaying or categorizing those w/wSLDs (or Web data in general), on a level that is more definitive and self-descriptive than what the present system affords. In essence, the Web community would benefit immensely from an apparatus that would provide them clear direction early on in their Web searching, prior to entering a web site, indicating the topographical nature of the data and SLDs that they contain and represent.

Portal or Portals are relatively new terms, generally synonymous with the term "gateway". Moreover, Web sites that either consider themselves or aspire to be Portals propose to be a major starting site or launch pad for users to get connected to the Web, or that users tend to visit as an anchor site. Portals in essence provide users easy access to the Web, such that new, easier, creative, and more powerful Web access (through their gateway) are always being sought and developed by Portals. There are general portals and specialized or niche portals. Some major general portals include Alta Vista, Lycos, Info Seek, Look Smart, About, Excite, Yahoo, MSN, AOL, Amazon, CNET, and Netscape. Examples of niche portals include iVillage (for women), Garden.com (for gardeners), Fool.com (for investors), and SearchNT.com (for Windows NT administrators).

Portals provide two major functions, one is their use as a "Search Site", and secondly they provide categorical assistance in shopping, services, and other matters. Whether a General or Niche Portal, the method used by these activities for "Web searches" will either rely on software "spiders" dispatched by search engines to crawl the Web, computer created indexes, Hybrid search sites, or human-generated directories (which was the case for Yahoo, AOL, MSN, Netscape, and Lycos as of December 1999). Regarding their use to provide "categorical assistance" for shopping, services, and other matters, Portals will often rely on standalone internal databases to store and then locate the information. Regardless for what use and method, none of the Portals today utilize a system that is based off Domains as described in the proposed invention.

Because Portals are extremely popular and considered lucrative growth/investment opportunities, hundreds of these sites that perform this function emerge on the Web on a daily basis. Moreover, the proposed invention would be highly desirable for Portal and Anchor Web site owners and operators, primarily because Web users have a strong need for an alternative system that provides a theme and topographical categorization. Furthermore, no Portal or Web

site presently exists to the Inventors knowledge, that utilize the embodiment of this proposed invention.

Reference material useful to the background of the invention include:

1. P. Mockapetris, Domain Names – Implementation and Specification, Network Working Group – RFC 1035, November 1987.
2. P. Mockapetris, Domain Names – Concepts and Facilities, Network Working Group – RFC 1034, November 1987.
3. J. Postel, Domain Name System Structure and Delegation, Network Working Group – RFC 1591, March 1994.
4. O. Vaughan, A Legal Basis for Domain Name Allocation, Network Working Group – RFC 2240, November 1997
5. Chuck Semeria, Understanding IP Addressing: Everything You Ever Wanted To Know, http://www.3com.com/nsc/501302.html
6. HTTP Protocol Overview, http://www.freesoft.org/CIE/Topics/102.htm
7. Hypertext, http://www.freesoft.org/CIE/Topics/12.htm
8. Internet History, http://www.freesoft.org/CIE/Topics/57.htm
9. Internic – Frequently Asked Questions, http://www.internic.net/faq.html
10. Monte Paulsen, Raiders of the Last Ark, http://www.newhavenadvocate.com/articles/raiders.html
11. Naming, http://www.fresoft.org/CIE/Topics/22.htm
12. The Green Paper, http://www.nsiregistry.com/history/green_paper.html
13. Uniform Resource Locators, http://www.freesoft.org/CIE/Topics/103.htm
14. Web Surpasses One Billion Documents, http://www.inktomi.com/new/press/billion.html

BRIEF SUMMARY OF THE INVENTION

While the Web is clearly an immense entity whose problems are not going to be solved by any single invention, the proposed method and apparatus provides a positive contribution in helping to solve some of the present difficulties. Part of the present invention, relies on a clever and unique Domain Name setup or convention, referred to as "Regional Second Level Domains" (rSLDs). This new technique provides an alternative for domestic and international Web users, fortifying and facilitating their online Web portal search experience. The present invention provides Web Portals and/or Anchor sites the ability and flexibility to categorize information utilizing self-descriptive rSLDs. The benefits that this unique method offers the user (time, resources, and monetary savings) will propel rSLDs to become one of the preferred methods to categorize and store Domains and other Web documents.

In its true embodiment, the proposed invention utilizes the novel "horizontal" growth feature that is intrinsic with rSLDs. Moreover, an ever increasing percentage of Internet users reside outside of the United States, and these individuals want to see horizontal improvements

(as opposed to vertical) that will provide them greater convenience as well as representation, visibility, and sense of community on the WWW. All of these attributes are fundamental to the present invention, and will make this invention extremely desirable and popular for these and all other individuals.

In its basic level of understanding, the proposed invention could be described as starting with a theme related string, and then adding a "Regional Qualifying Factor" (RQF), to form the basis for a new type of SLD. Referring back to Doctors.com, the string Doctors represents a theme. Moreover, themes often provide clues regarding the content found on such Web site. Furthermore, using this theme string "Doctors", we could add the RQF "In America", resulting in a string "DoctorsInAmerica". Uniting a theme with an RQF, and then combining it with a "COM" TLD, would result in a rSLD that would read "DoctorsInAmerica.com". More importantly, adding this regional qualifying factor to a theme effectively transforms a "World/Wide" SLD (such as Doctors.com), into a "Regional" SLD (rSLD), by horizontally growing the w/wSLD called "Doctors.com". Moreover, this horizontal growth (of an SLD) on a Regional basis can be extended to include additional regions, wherein "DoctorsInEurope.com", "DoctorsInAsia.com", "DoctorsInMidEast.com", and "DoctorsInAfrica.com" are clear examples of how RQFs can grow SLDs horizontally. Furthermore, all of these examples just mentioned can be substituted with any other presently identified and approved W/W TLD (NET, ORG, EDU, INT, INFO, BIZ, NAME, PRO, MUSEUM, COOP, and AERO), or future TLD that may be approved and incorporated at a later date. Additionally, the Theme and Regional Qualifying Factors just mentioned are only examples, and can be substituted with other themes and topographical descriptions.

The full embodiment of the proposed invention has a "full array" of self-descriptive themes and Regional SLDs available on a Web portal, offering a multitude of topics "by region" to select from, for the benefit and enjoyment of the Internet user. While a full array of is recommended for a full and complete effect, there are no minimum rSLD number requirements as part of the inventions full deployment. Moreover, an embodiment of this invention does not require usage of icons, yet a preferred embodiment of the invention that is more artistically appealing would probably utilize icons on a Web site establishment display to represent the various rSLDs. Each rSLD listed on the portal that is portrayed as an icon would provide clear indication of the theme and topographical subject matter located on such rSLD Web site. As a result, clicking on any said (rSLD) icon would transport you through hyperlink

to said rSLD Web site. Wherein relevant SLDs would be listed, as well as Web data, and information that have pertinence to the Theme and Regional Qualifying Factor selected.

What all this effectively creates is a dynamic and highly desirable Portal apparatus, previously unseen or thought of in the present method. The Domains would provide categorization and repository capabilities on a theme and topographical basis. Use of the RgSLD Web site in this fashion assists users in locating a particular theme on a topographical basis, and provides visual clarity and regional confirmation prior to delving into any Web related database (which is absent in the present system).

In trying to identify a specific Class and Sub-Class for the Original Assignment for Examination, the inventors have determined that 707/10 would probably be the primary subject matter for the claimed invention, yet 345/349 would certainly be considered relevant to the field of search.

BRIEF DESCRIPTION OF THE TABLES

The present invention is illustrated by way of example in the appending tables. Understanding that these tables depict only a typical embodiment of the invention, and are not therefore to be considered limiting of its scope is essential. The entire invention and the presently understood best mode thereof will be described and explained with additional specificity and detail, through the use of the accompanying drawings in which:

FIG. 1 illustrates a way of visually displaying a variety of Regional Second Level Domains (that contain and utilize Themes and Regional Qualifying Factors), in a Web site establishment.

FIG. 2 illustrates an alternative modified form of construction, that provides a more aesthetic and preferred way of visually displaying a variety of Regional Second Level Domains (that contain and utilize Themes and Regional Qualifying Factors), in a Web site establishment.

FIG. 3 illustrates by way of an overview flow, the major elements of the proposed invention.

DETAILED DESCRIPTION OF THE INVENTION

The proposed invention requires the planning and creation of SLDs, that have theme related names and Regional Qualifying Factors as part of their address string. Domains that meet this criteria are recognized as rSLDs. What is shown in FIG. 1 is a suggested depiction of how these rSLDs could appear, and not necessarily how they have to appear on a Web site establishment. Said Web site establishments that would find this feature most desirable are Portal and Anchor Web sites.

Using this particular depiction in FIG. 1, what the user would be able to do (as an example) is move their cursor to one of the rSLD's that are shown (1-36), and then click on any of these hyperlinked Domains through the use of their "mouse" control. A hyperlink of 14 as an example would transport the user to another Web site, named "DoctorsInEurope.com", where the user would find a Web site devoted and used as a categorical repository for anything and everything that is related to the theme and topographic name it represents. In this case (as an example), what they would find in the "DoctorsInEurope.com" Web site could be a complete listing of Doctors located in Europe.

Shown on FIG. 2, is an alternative modified form of construction, that provides a more aesthetic and desirable approach to presenting the information on a Web site establishment, while still maintaining and duplicating the full embodiment of the invention as presented in FIG. 1. Moreover FIG. 2 is perhaps indicative of the approach that will be most successful and used on a Web site establishment. As an example, activating the metaphoric icon object 63 provides the same precise hyperlink results as activating 14. It should be noted that FIG. 1 and FIG. 2 are just two ways presently being suggested how the method can be displayed on a "Web site establishment". Moreover, other ways of displaying the method will be thought of, improved upon, refined, and ultimately used in the future by the inventors, as part of the invention's natural evolution, yet still derived from the full embodiment of this invention as defined herein.

At present, FIG. 2 perhaps best illustrates or embraces how the invention could best appear when in use on a Web site establishment (preferably a Portal or Anchor Web site). It should be mentioned that FIG. 2 could also be utilized with less RQF divisions than are shown (maintaining "In America", "In Europe" and "In Asia" classifications only – as an example), yet still provide the full embodiment of the invention. Because modifications and changes will

be made to these embodiments without departing from the broader spirit and scope of the invention as set forth in the Claims, the drawings and specifications should be regarded as illustrative rather than restrictive. As a result, specific regions could be added or deleted depending on the desired effect.

We should refer to FIG. 3 to gain an illustrative understanding, by way of an overview process flow, of the major elements that comprise the proposed invention. Item 109 portrays the creation of Regional Second Level Domains (rSLDs), wherein each rSLD's alphanumeric string includes a theme and regional qualifying factor (RQF). Implementation of 110 represents the next major element in the proposed invention, when rSLDs are displayed on a Web site establishment, offering visual categorization to the user. The display can take on the visible form of FIG. 1 or FIG. 2, but will also be developed in hypertext to easily transport the user to any particular rSLD Web site. The construction of 111 is where the "regional theme sites" are created and in use for each rSLDs that are part of the project, with a URL name that is consistent with its rSLD. Each one of these sites act as a repository for Second Level Domains and other Web data, that have pertinence to the theme and RQF associated with any particular rSLD.

The invention's role and reliance of Domains, coalesce upon the deployment of the entire invention, at which time each attribute can be clearly understood. First, as a display on a Web site establishment (as depicted by FIG. 1 if so desired), the rSLDs serve as a categorical function, providing divisions and classifications based upon themes and RQFs for the user to select from. Second, when a user activates (or hyperlinks) a particular rSLD, as it resides on a Web site establishment, the rSLD then functions as a search tool to locate and transport the user to a catalog or collection of information. Third, once transported to any of the rSLD Web sites (regional theme sites), the rSLD then functions as a repository for SLDs and any/all Web related data that is pertinent to its descriptive rSLD name. In essence Domains are a key distinguishing feature of the proposed invention, wherein each rSLD's unique utility (categorical, search tool, and repository functions) provides distinguishing features that those skilled in the art will easily recognize.

Another distinguishing factor associated with the proposed invention is that the categorical searching that takes place does not extend beyond the rSLDs that are devoted to the arrangement. Hence, the proposed system never searches themes and regions from the open Internet, but only from a closed selection of rSLDs and their regional theme sites that are

secured just for this purpose. An additional distinguishing feature of the invention is the fact that the proposed method and apparatus that is described as the invention, with the exception of the use of hypertext, can be totally accomplished without the use of any software. The transfer from the 110 Web site establishment where the rSLD's will be displayed (as in FIG. 1 and/or FIG. 2), to the actual 111 rSLD regional theme site, can occur through use of "point and click" methods. While "point and click" are sufficient, adequate, and all that is necessary as a navigational method, actual utilization of the invention may include search engine capabilities as a preferential alternative for users to select from. All previous and seemingly similar inventions that have asked for Patent protection, invariably deal with searches as it affects the vast expanse of the entire Internet, versus the closed loop interconnection with rSLDs that are part of this invention. Or they accomplish these actions through the exclusive use of sophisticated software/search-engines, versus the simplistic point and click method that is inherent (and all that is necessary) with the proposed invention.

It is important to point out that the present invention represents a significant advancement over the present system, which offers no similar categorization assistance and concurrent horizontal improvement to SLDs. Moreover, another unparalleled benefit associated with the invention (that is non-existent in the present mode of conducting business) is the fact that the use of rSLDs as 111 repositories of information provides a "bottom-up" approach of increasing interest and business in a 110 Web site establishment. In essence traffic and interest to a particular 110 (Portal or Anchor) web site establishment will be created from two sources. The first being the interest in the Web site establishment itself, acting as a 110 Portal or Anchor site from its home page, that has always been there in the present art. The second (which is new), or "bottom-up" approach, comes from the traffic that migrates from the 111 rSLD Web sites (regional theme site), to the home page of the 110 Web site establishment. Effectively, this dual combination of "top-down" and "bottom-up" approach to growing a particular 110 "Web site establishment", is unprecedented and non-existent under the present method of operation, and clearly represents a distinguishing and highly desirable feature of the invention.

One skilled in the art will understand that various modifications and alterations may be made in the preferred embodiment disclosed herein without departing from the scope of the invention. Accordingly, the scope of the invention, offering simplicity yet sophistication and sizeable benefits to the client and user, should not be limited to the particular embodiments

discussed above. It is the spirit of the invention that needs to be protected and patented, where it can only be shaped, and defined, by the claims set forth below and equivalents thereof.

CLAIMS

What we claim as our invention includes:

1) A method and apparatus, utilizing Second Level Domains in conjunction with Top Level Domains for visual display, categorization functionality, mechanization and repository purposes, through:

   a) The creation and usage of Second Level Domains that are conceived with a theme and a Regional Qualifying Factor as part of their name, producing in effect Regional Second Level Domains.

   b) A visual arrangement and display of said Regional generic Second Level Domains on a Web site establishment.

   c) Usage of hyperlinks, that will transport users from said Regional Second Level Domains displayed on said Web site establishment, to the actual Web site as defined by the activated Regional Second Level Domain.

   d) The creation and usage of said Regional Second Level Domain Web sites (often referred to as regional theme sites), for repository and further categorical purposes that is pertinent to the theme name and Regional Qualifying Factor that it represents.

2) The system of Claim 1 wherein said "Web site establishment" is a Portal Web site.

3) The system of Claim 1 wherein said "Web site establishment" are all those remaining Web sites that are not covered by Claim 2.

4) The system of Claim 1 wherein said theme represents any alphanumeric string.

5) The system of Claim 1 wherein said Regional Qualifying Factor includes "In America", "In Europe", "In Asia", "In Mid East", "In Middle East" and "In Africa"

6) The system of Claim 1 wherein said Regional Qualifying Factor is described by usage of continent name.

7) The system of Claim 1 wherein said Regional Qualifying Factor is described by usage of country name.

8) The system of Claim 1 wherein said Regional Qualifying Factor is described by usage of state name.

9) The system of Claim 1 wherein said Regional Qualifying Factor is described by usage of province name.

10) The system of Claim 1 wherein said Regional Qualifying Factor is described by usage of territory name.

11) The system of Claim 1 wherein said Regional Qualifying Factor is described by usage of city name.

12) The system of Claim 1 wherein said Regional Qualifying Factor is described by usage of points of interest.

13) The system of Claim 1 wherein metaphoric icon objects are used on the Web site establishment, in place of a visual display of the Regional Second Level Domain string.

FIG-1

1
ReligionInAmerica.com
2
ReligionInEurope.com
3
ReligionInAsia.com
4
TeensInAmerica.com
5
TeensInEurope.com
6
TeensInAsia.com
7
GovernmentInAmerica.com
8
GovernmentInEurope.com
9
GovernmentInAsia.com
10
MedicalCareInAmerica.com
11
MedicalCareInEurope.com
12
MedicalCareInAsia.com
13
DoctorsInAmerica.com
14
DoctorsInEurope.com
15
DoctorsInAsia.com
16
MoneyInAmerica.com
17
MoneyInEurope.com
18
MoneyInAsia.com
19
LawyersInAmerica.com
20
LawyersInEurope.com
21
LawyersInAsia.com
22
Auto-SalesInAmerica.com
23
Auto-SalesInEurope.com
24
Auto-SalesInAsia.com
25
WorkingInAmerica.com
26
WorkingInEurope.com
27
WorkingInAsia.com
28
CorporationsInAmerica.com
29
CorporationsInEurope.com
30
CorporationsInAsia.com
31
PropertyInAmerica.com
32
PropertyInEurope.com
33
PropertyInAsia.com
34
HousingInAmerica.com
35
HousingInEurope.com
36
HousingInAsia.com

FIG-2

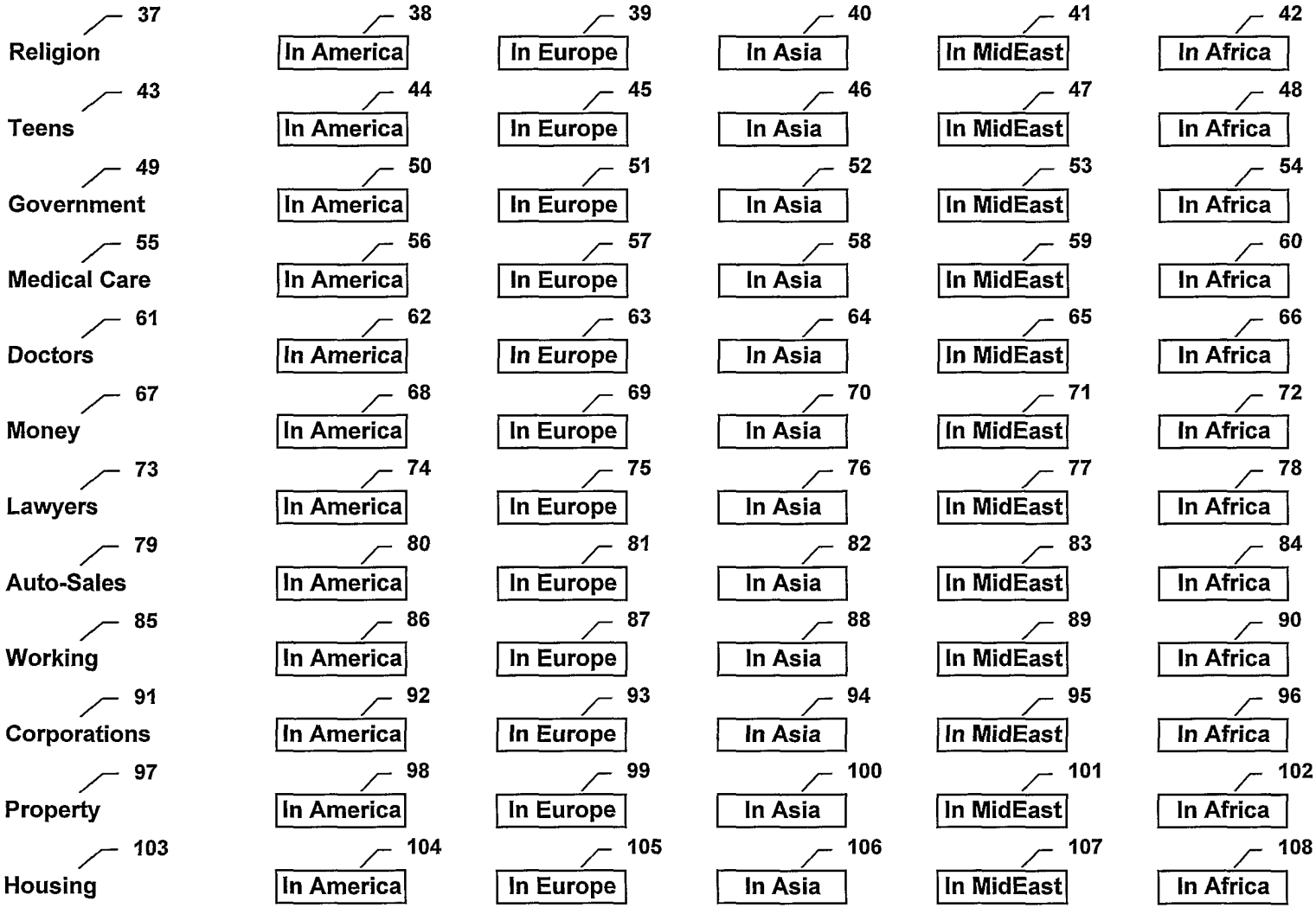
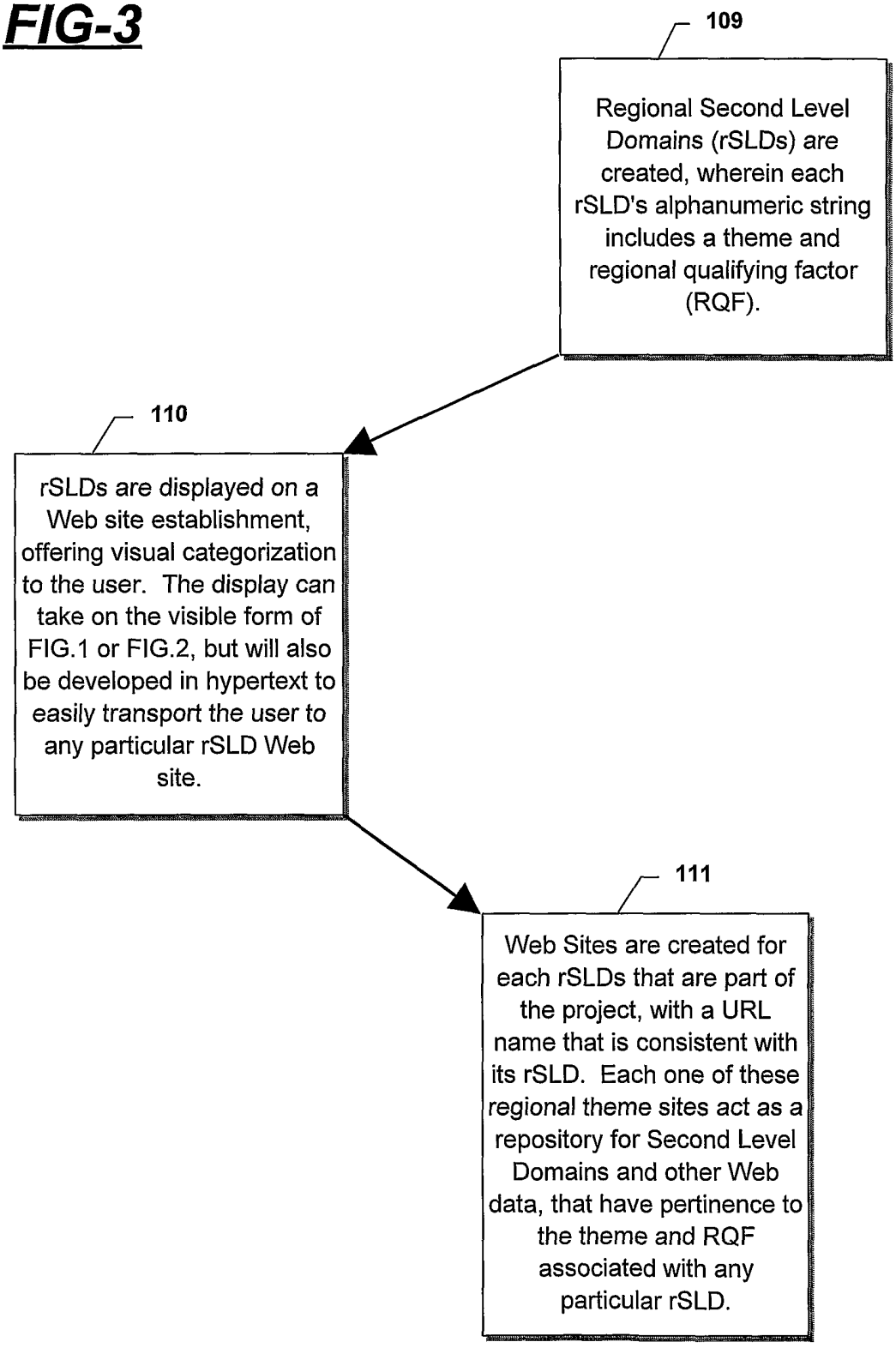

37
Religion
38
In America
39
In Europe
40
In Asia
41
In MidEast
42
In Africa
43
Teens
44
In America
45
In Europe
46
In Asia
47
In MidEast
48
In Africa
49
Government
50
In America
51
In Europe
52
In Asia
53
In MidEast
54
In Africa
55
Medical Care
56
In America
57
In Europe
58
In Asia
59
In MidEast
60
In Africa
61
Doctors
62
In America
63
In Europe
64
In Asia
65
In MidEast
66
In Africa
67
Money
68
In America
69
In Europe
70
In Asia
71
In MidEast
72
In Africa
73
Lawyers
74
In America
75
In Europe
76
In Asia
77
In MidEast
78
In Africa
79
Auto-Sales
80
In America
81
In Europe
82
In Asia
83
In MidEast
84
In Africa
85
Working
86
In America
87
In Europe
88
In Asia
89
In MidEast
90
In Africa
91
Corporations
92
In America
93
In Europe
94
In Asia
95
In MidEast
96
In Africa
97
Property
98
In America
99
In Europe
100
In Asia
101
In MidEast
102
In Africa
103
Housing
104
In America
105
In Europe
106
In Asia
107
In MidEast
108
In Africa

FIG-3


109
Regional Second Level Domains (rSLDs) are created, wherein each rSLD's alphanumeric string includes a theme and regional qualifying factor (RQF).
110
rSLDs are displayed on a Web site establishment, offering visual categorization to the user. The display can take on the visible form of FIG.1 or FIG.2, but will also be developed in hypertext to easily transport the user to any particular rSLD Web site.
111
Web Sites are created for each rSLDs that are part of the project, with a URL name that is consistent with its rSLD. Each one of these regional theme sites act as a repository for Second Level Domains and other Web data, that have pertinence to the theme and RQF associated with any particular rSLD.

INTERNATIONAL SEARCH REPORT

In...ional application No.
PCT/US01/03820

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) :G06F 17/00, 17/30, 15/16
US CL :707/3, 10, 501
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)

U.S. : 707/3, 10, 501

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

NONE

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

WEST

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5,778,367 A (WESINGER, Jr. et al.) 07 July 1998, the entire paper is relevant	1-13
Y	US 5,890,172 A (BORMAN et al.) 30 March 1999, the entire paper is relevant	1-13
Y	US 5,933,827 A (COLE et al.) 03 August 1999, the entire paper is relevant	1-13
Y	US 5,940,821 A (WICAL) 17 August 1999, the entire paper is relevant	1-13

☐ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

*	*Special categories of cited documents:*	"T"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A"	document defining the general state of the art which is not considered to be of particular relevance	"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E"	earlier document published on or after the international filing date	"Y"	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"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)	"&"	document member of the same patent family
"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		

Date of the actual completion of the international search	Date of mailing of the international search report
20 MARCH 2001	13 APR 2001
Name and mailing address of the ISA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231 Facsimile No. (703) 305-3230	Authorized officer THOMAS BLACK James R. Matthews Telephone No. (703) 305-9707

Form PCT/ISA/210 (second sheet) (July 1998)★