METHOD FOR RECOMMENDING ADVERTISING KEYWORD BY INPUTTING URL AND SYSTEM THEREOF

START

RECEIVE URL OF ADVERTISED SITE FROM ADVERTISER $S310$

EXTRACT KEYWORD BY SEARCHING THROUGH ADVERTISED SITE OF URL $S320$

ANALYZE EXTRACTED KEYWORD $S330$

DISPLAY RECOMMENDATION ADVERTISEMENT KEYWORD FOR ADVERTISER BASED ON RESULT OF ANALYSIS $S340$

END

Abstract: A method of recommending an advertisement keyword, including: receiving from an advertiser a Universal Resource Locator (URL) of an advertised site; extracting a keyword by searching through the advertised site of the URL; analyzing the extracted keyword; and displaying a recommendation advertisement keyword for the advertiser based on the result of the analysis is provided.
METHOD FOR RECOMMENDING ADVERTISING KEYWORD BY INPUTTING URL AND SYSTEM THEREOF

Technical Field

The present invention relates to a method and system for recommending an advertisement keyword using an input of a Universal Resource Locator (URL), and more particularly, to a method and system for recommending an advertisement keyword that can analyze an advertised site and recommend an advertisement keyword appropriate for the site when a URL of the advertised site is received from an advertiser.

Background Art

In a conventional advertising method using an advertisement keyword, an advertiser purchases an advertisement keyword associated with a site or a product that the advertiser desires to advertise. When the purchased advertisement keyword is retrieved, the advertiser can advertise the site or the product in association with search results. For example, when the advertiser desires to advertise product 'aaa' and the product 'aaa' is a portable device, the advertiser purchases the advertisement keyword 'portable device'. When the advertisement keyword 'portable device' is retrieved, the advertiser provides an advertisement of the product 'aaa' for a user who enters the advertisement keyword as a search keyword in association with search results of the advertisement keyword 'portable device'.

The conventional advertising method using a search keyword uses a keyword associated with a site or a product that the advertiser desires to advertise, or a keyword that is suggested at an advertised site. For example, when the advertiser advertises a site 'bbb', the conventional advertising method using the search keyword may display an advertisement only for a user who knows the site 'bbb'. Specifically, the advertising method may advertise the advertisement only when the user selects the site 'bbb' as an advertisement keyword. Generally, a great advertising effect may be obtained when the site 'bbb' is exposed for users who do not know the site 'bbb'. Specifically, the conventional advertisement method may not provide an appropriate advertisement service when a user selects a wrong advertisement keyword.
Disclosure of Invention

Technical Goals

An aspect of the present invention provides a method and system for recommending an advertisement keyword which can extract keywords from an advertised site that an advertiser desires to advertise, analyze the extracted keywords, and recommend an appropriate advertisement keyword for the advertiser based on the result of the analysis.

Another aspect of the present invention also provides a method and system for recommending an advertisement keyword which can extract keywords from an advertised site of a Universal Resource Locator (URL) when the URL of the advertised site that an advertiser desires to advertise is received, analyze the extracted keywords, and recommend an optimal advertisement keyword for the advertiser based on the result of the analysis.

Technical solutions

According to an aspect of the present invention, there is provided a method of recommending an advertisement keyword, the method including: receiving from an advertiser a Universal Resource Locator (URL) of an advertised site; extracting a keyword by searching through the advertised site of the URL; analyzing the extracted keyword; and displaying a recommendation advertisement keyword for the advertiser based on the result of the analysis.

According to another aspect of the present invention, there is provided a system for recommending an advertisement keyword, the system including: an input module configured to receive from an advertiser a URL of an advertised site; an extractor configured to extract a keyword by searching through the advertised site of the URL; an analyzer configured to analyze the extracted keyword; and a display module configured to display a recommendation advertisement keyword for the advertiser based on the result of the analysis.

Brief Description of Drawings

FIG. 1 is a diagram illustrating an interoperating relation between an advertiser terminal and an advertisement keyword recommendation system according to an
exemplary embodiment of the present invention;

FIG. 2 is a block diagram illustrating a configuration of an advertisement keyword recommendation system according to an exemplary embodiment of the present invention;

FIG. 3 is a flowchart illustrating a method of recommending an advertisement keyword according to an exemplary embodiment of the present invention; and

FIG. 4 is a flowchart illustrating an example of an operation of displaying a recommendation advertisement keyword shown in FIG. 3.

Best Mode for Carrying Out the Invention

Reference will now be made in detail to embodiments of the present invention, examples of which are illustrated in the accompanying drawings, wherein like reference numerals refer to the like elements throughout. The embodiments are described below in order to explain the present invention by referring to the figures.

FIG. 1 is a diagram illustrating an interoperating relation between an advertiser terminal 110 and an advertisement keyword recommendation system 130 according to an exemplary embodiment of the present invention.

Referring to FIG. 1, when an advertiser desires an advertisement keyword appropriate for an advertised site that the advertiser desires to advertise, the advertiser terminal 110 receives from the advertiser a request for access to the advertisement keyword recommendation system 130. In response to the access request from the advertiser, the advertiser terminal 110 accesses the advertisement keyword recommendation system 130 via a communication network 120.

The communication network 120 may be either a wired communication network or a wireless communication network that transmits data between the advertiser terminal 110 and the advertisement keyword recommendation system 130.

When the advertiser terminal 110 is in an accessed state to the advertisement keyword recommendation system 130 and in this state, receives a Universal Resource Locator (URL) of an advertised site that the advertiser desires to advertise, the advertiser terminal 110 transmits the URL to the advertisement keyword recommendation system 130 via the communication network 120.

The URL denotes a standard that indicates a location of each of various types of
information in the Internet. Generally, a web browser simultaneously supports various types of services in the Internet. For example, the web browser can simultaneously support services such as Hypertext Transfer Protocol (HTTP), File Transfer Protocol (FTP), Usenet news, e-mail, Gopher, a telecommunication network, and the like. A location indication system is needed to obtain necessary information from a large number of servers that provide various types of services. For the above operation, the URL is used. The URL is used to indicate a location of each file included in each server, and includes a service type to be accessed, a server location, that is, a domain name, and a file location. A general URL syntax includes "protocolV/computer name including information/directory name/file name". As an example of the URL, "http://www.ebook.com/Main/default.aspx" may be used.

The advertisement keyword recommendation system 130 receives from the accessed advertiser terminal 110 the URL of the advertised site that is entered by the advertiser, via the communication network 120.

The advertisement keyword recommendation system 130 searches for the advertised site corresponding to the received URL and analyzes a keyword included on a web page of the searched advertised site. Specifically, the advertisement keyword recommendation system 130 classifies a main keyword based on a total number of times that a particular keyword appears in the entire document set on a web page of the advertised site and a number of documents that include the particular keyword in the entire document set.

The advertisement keyword recommendation system 130 extracts a main keyword or an advertisement keyword based on the result of the analysis. Specifically, the advertisement keyword recommendation system 130 extracts as the main keyword or the advertisement keyword a term that is frequency used for searching based on the result of the analysis.

The advertisement keyword recommendation system 130 may search through the advertised site of the URL and extracts a biz-keyword from the advertised site. In this instance, the biz-keyword denotes a keyword that has been sold as the advertisement keyword or exposed for a keyword advertisement service at least once. The advertisement keyword denotes a search keyword that has been sold to the advertiser at least once, and thereby has been selected as a keyword when the advertiser
advertisers the advertised site, or is generally used by a user that searches through the advertised site. Therefore, the advertisement keyword is stored and maintained in a database. Also, the advertisement keyword is selected from keywords that are registered by analyzing morphemes of keywords of a text on the web page of the advertised site and using the average of the analyzed morphemes.

The advertisement keyword recommendation system 130 determines an importance of a particular keyword based on a value that is obtained by multiplying a term frequency tf by an inverse document frequency idf. The term frequency tf denotes a total number of times that the particular keyword appears in the entire document set and an inverse document frequency idf denotes an inverse number to a document frequency df that denotes a number of documents that include the particular keyword in the entire document set. The main keyword is determined based on the total number of times that the particular keyword appears in the entire document set, the number of documents that include the particular keyword in the entire document, and a weight of each keyword. Also, the main keyword may be a keyword that is most frequently used as a search keyword among the extracted keywords from the entire document on the web page of the advertised site.

[Equation 1]
Main keyword = tfidf + inter-word relevance

As described above, the term frequency tf denotes the total number of times that the particular keyword appears in the entire document set, the document frequency df denotes the number of documents that include the particular keyword in the entire document st, the inverse document frequency idf denotes the inverse number of the document frequency df, and an inter-word relevance denotes a weight of a keyword that has a relevance with another word.

For example, when keywords 'search' and 'directory' are included in the text, the advertisement keyword recommendation system 130 may determine the relevance between the keywords 'search' and 'directory' is relatively high and assign a weight to a representative keyword 'search'.

The advertisement keyword recommendation system 130 determines main keywords and extracts the advertisement keyword from the selected main keywords. Specifically, the advertisement keyword recommendation system 130 analyzes
morphemes of main keywords included in the text and selects a keyword that is registered as the advertisement keyword.

The advertisement keyword recommendation system 130 analyzes the extracted advertisement keyword, and displays a recommendation advertisement keyword on the advertiser terminal 110 via the communication network 120 based on the result of the analysis. Specifically, the advertisement keyword recommendation system 130 classifies the main keyword and the advertisement keyword based on the result of the analysis, obtains the average of the main keyword and the advertisement keyword, determines the recommendation advertisement keyword based on the obtained average, and displays the determined recommendation advertisement keyword for the advertiser.

As described above, according to the present invention, the advertisement keyword recommendation system 130 may receive the URL of the advertised site that the advertiser desires to advertise, analyze keywords of the advertised site corresponding to the URL, retrieve an advertisement keyword appropriate for the advertised site, and recommend the advertisement keyword for the advertiser.

Also, according to the present invention, the advertisement keyword recommendation system 130 may extract keywords from the advertised site that the advertiser desires to advertise, analyze the keywords, and recommend an appropriate advertisement keyword for the advertiser based on the result of the analysis.

Thus, according to the present invention, since a recommendation advertisement keyword is provided based on a result of analyzing keywords of an advertised site, an advertiser may more easily select an advertisement keyword capable of effectively advertising the advertised site.

FIG. 2 is a block diagram illustrating a configuration of an advertisement keyword recommendation system 130 according to an exemplary embodiment of the present invention.

Referring to FIGS. 1 and 2, the advertisement keyword recommendation system 130 includes an input module 210, an extractor 220, an analyzer 230, a display module 240, and a database 250.

The input module 210 receives from an advertiser a URL of an advertised site that the advertiser desires to advertise. As an example, when the advertised site of the advertiser is an Internet bookstore site, and a URL of the Internet bookstore site is
"http://www.ebook.com/Main/default.aspx" will be described.

When the advertiser desires to receive from the advertisement keyword recommendation system 130 an advertisement keyword appropriate for advertising an e-book site, the advertiser may directly enter into the input module 210 of the advertisement keyword recommendation system 130 "http://www.ebook.com/Main/default.aspx" that is the URL of the Internet bookstore site. As described above, according to an aspect of the present invention, the advertisement keyword recommendation system 130 may directly receive URL information of the advertised site from the advertiser using the input module 210.

Also, the input module 210 may receive from the advertiser terminal 110 the URL of the advertised site entered by the advertiser, via the communication network 120. When the advertiser receives from the advertisement keyword recommendation system 130 the advertisement keyword appropriate for advertising the Internet bookstore site using the advertiser terminal 110, the advertiser may access the advertisement keyword recommendation system 130 via the communication network 120, using the advertiser terminal 110. In this instance, when the advertisement keyword recommendation system 130 requests the advertiser to enter the URL of the advertised site, the advertiser may enter the URL of the Internet bookstore site, that is, "http://www.ebook.com/Main/default.aspx" using the advertiser terminal 110. The advertiser terminal 110 transmits to the advertisement keyword recommendation system 130 URL information of the Internet bookstore site entered by the advertiser, via the communication network 120. According to another aspect of the present invention, the advertisement keyword recommendation system 130 may receive URL information of the advertised site from the advertiser terminal 110 via the communication network 120.

The extractor 220 extracts a keyword by searching through the web page of the advertised site corresponding to the entered URL. The result of the keyword extraction may include a keyword of an html page of the advertised site of the URL, a site title of the advertised site, an explanation, a search keyword, and the like. Specifically, the extractor 220 may search through the web page of the advertised site of the entered URL, analyze a text included in the searched web page, and extract a keyword based on the result of the text analysis by referring to the database 250. The
database 250 may store and maintain keyword dictionary data for extracting the keyword.

For example, the extractor 220 may search through the web page of the Internet bookstore site corresponding to the entered URL, analyze the text in the searched web page, and extract various keywords such as local, overseas, books, bestsellers, million sellers, authors, purchase, payment, cash, card, and the like.

As another example, the extractor 220 may search through an advertised site of the entered URL, and extract from the advertised site a biz-keyword that has been sold as the advertisement keyword or exposed for a keyword advertisement service at least once, by referring to keyword sales information that is stored in the database 250.

The analyzer 230 analyzes the extracted keyword. Also, the analyzer 230 may classify the extracted keyword into a main keyword and an advertisement keyword.

The main keyword is based on a total number of times that a particular keyword appears in the entire document set on a web page of the advertised site, a number of documents that include the particular keyword in the entire document set, and a weight of each keyword. Also, the main keyword may be a keyword that is most frequently used as a search keyword among the extracted keywords from the entire document on the web page of the advertised site.

The analyzer 230 may analyze the total number of times that the particular keyword appears in the entire document set and the number of documents that include the particular keyword in the entire document set, and select the main keyword based on the result of the analysis.

The analyzer 230 may analyze morphemes of keywords included in the text of the web page of the advertised site, and select an advertisement keyword using the average of the analyzed morphemes. Also, the advertisement keyword denotes a search keyword that has been sold to the advertiser at least once, and thereby has been selected as a keyword when the advertiser advertises the advertised site, or is generally used by a user that searches through the advertised site. Therefore, the advertisement keyword may be stored and maintained in the database 250.

The analyzer 230 assigns a weight to a keyword that has an inter-word relevance on the result of the analysis. Specifically, the analyzer 230 may classify as a representative keyword a keyword of which the inter-word relevance is greater than or
equal to a predetermined reference value based on the analyzed inter-word relevance and assign the weight.

For example, when keywords 'search' and 'directory' are included in the text of the web page of the advertised site, the analyzer 230 may determine the relevance between the keywords 'search' and 'directory' is relatively high, and assign the weight to the representative keyword 'search'.

Also, the analyzer 230 may analyze morphemes of keywords included in the entire document set of the advertised site of the URL and select a keyword that is registered as the advertisement keyword.

The display module 240 may display the recommendation advertisement keyword for the advertiser based on the result of the analysis. Specifically, when the main keyword and the advertisement keyword are selected based on the result of the analysis, and the recommendation advertisement keyword is determined based on the average of the selected main keyword and the advertisement keyword, the display module 240 may display the determined recommendation advertisement keyword for the advertiser.

When the average of the main keyword and the advertisement keyword is greater than a predetermined reference value, the display module 240 may determine a corresponding keyword as the recommendation advertisement keyword. Specifically, when more than a predetermined number of recommendation advertisement keywords are displayed for the advertiser, the advertiser may take great pains to determine which advertisement keyword to select. Therefore, the display module 240 may display only a predetermined number of recommendation advertisement keywords in order to prevent the above problem and improve the advertising effect.

For example, when the reference value is '50' and the average of the main keyword or the advertisement keyword is '60', the display module 240 may determine as the recommendation advertisement keyword either the main keyword or the advertisement keyword.

As described above, according to the present invention, the advertisement keyword recommendation system 130 may select only a keyword greater than a predetermined reference value and determine the selected keyword as the recommendation advertisement keyword, instead of using both the main keyword and
the advertisement keyword.

Therefore, according to the present invention, when the advertiser enters the URL of the advertised site, the advertisement keyword recommendation system 130 may analyze the advertised site of the URL, extract keywords, analyze the extracted keywords, and recommend an optimal advertisement keyword for the advertiser.

Also, according to the present invention, an optimal recommendation advertisement keyword may be provided by analyzing keywords included in an advertised site of an advertiser. Therefore, the advertiser may more easily select an advertisement keyword capable of effectively advertising the advertised site.

FIG. 3 is a flowchart illustrating a method of recommending an advertisement keyword according to an exemplary embodiment of the present invention.

Referring to FIGS. 1 and 3, in operation S310, the advertisement keyword recommendation system 130 receives a URL of an advertised site from the advertiser.

Hereinafter, with assumption that the advertised site of the advertiser is an Internet bookstore site and the URL of the Internet bookstore site is "http://www.ebook.com/Main/default.aspx", the present exemplary embodiment will be described.

When the advertiser desires to receive from the advertisement keyword recommendation system 130 an advertisement keyword appropriate for advertising the Internet bookstore site, the advertiser may directly enter the URL of the Internet bookstore site, "http://www.ebook.com/Main/default.aspx" using the advertisement keyword recommendation system 130. For example, in operation S310, the advertisement keyword recommendation system 130 may directly receive URL information of the advertised site from the advertiser.

Also, in operation S310, the advertisement keyword recommendation system 130 may receive from the advertiser terminal 110 the URL of the advertised site entered by the advertiser, via the communication network 120. When the advertiser desires to receive from the advertisement keyword recommendation system 130 an advertisement keyword appropriate for advertising the Internet bookstore site, using the advertiser terminal 110, the advertiser may access the advertisement keyword recommendation system 130 via the communication network 120, using the advertiser terminal 110. When the advertisement keyword recommendation system 130 requests the advertiser
to enter the URL of the advertised site, the advertiser may enter the URL of the Internet bookstore site, for example, "http://www.ebook.com/Main/default.aspx", using the advertiser terminal 110. In this case, the advertiser terminal 110 transmits the entered URL information to the advertisement keyword recommendation system 130 via the communication network 120. Accordingly, in operation S310, the advertisement keyword recommendation system may receive the URL information from the advertiser terminal 110 via the communication network 120.

In operation S320, the advertisement keyword recommendation system 130 extracts a keyword by searching through the advertised site of the URL. Specifically, in operation S320, the advertisement keyword recommendation system 130 may search through a web page of the advertised site corresponding to the entered URL, analyze a text in the searched web page, and extract keywords based on the result of the analysis, by referring to a database.

For example, in operation S320, the advertisement keyword recommendation system 130 may search through the advertised site of the entered URL and extract from the searched advertised site keywords of an html page, a site title, an explanation, a search keyword, and the like.

Also, in operation S320, the advertisement keyword recommendation system 130 may search through the advertised site of the entered URL, for example, a web page of the Internet bookstore site, analyze the text in the searched web page, and extract various keywords such as 'local, overseas, books, bestsellers, million sellers, authors, purchase, payment, cash, card' and the like.

Also, in operation S320, the advertisement keyword recommendation system 130 may search through the advertised site of the entered URL, and extract a biz-keyword by referring to advertisement keyword sales information stored in the database. The biz-keyword denotes a keyword that has been sold as the advertisement keyword or exposed for a keyword advertisement service at least once.

In operation S330, the advertisement keyword recommendation system 130 analyzes the extracted keyword. In operation S330, the advertisement keyword recommendation system 130 may classify the extracted keyword into a main keyword and the advertisement keyword.

The main keyword is based on a total number of times that a particular keyword
appears in the entire document set on a web page of the advertised site, a number of
documents that include the particular keyword in the entire document set, and a weight
of each keyword. Also, the main keyword may be a keyword that is relatively more
frequently used as a search keyword among the extracted keywords.

The advertisement keyword is selected from keywords by analyzing
morphemes of keywords that are included in the entire document set on the web page of
the advertised site and registering the keywords using the average of the analyzed
morphemes. Also, the advertisement keyword denotes a search keyword that has been
sold to the advertiser at least once, and thereby has been selected as a keyword when the
advertiser advertises the advertised site, or is generally used by a user that searches the
advertised site. Therefore, the advertisement keyword may be stored and maintained
in a database.

In operation S330, the advertisement keyword recommendation system 130
may select the main keyword by analyzing the total number of times that the particular
keyword appears in the entire document set on the web page of the advertised site and
the number of documents that include the particular keyword in the entire document set.

Also, in operation S330, the advertisement keyword recommendation system 130
may analyze the extracted keyword and assign a weight to a keyword that has an
inter-word relevance. Also, in operation S330, the advertisement keyword
recommendation system 130 may classify into a representative keyword a keyword of
which the inter-word relevance is greater than a predetermined reference value, based
on the analyzed inter-word relevance. For example, when keywords 'search' and
'directory' appear in the web page text of the advertised site, the advertisement keyword
recommendation system 130 may determine the relevance between the keywords
'search' and 'directory' is relatively high and assign the weigh to the representative
keyword 'search'.

In operation S330, the advertisement keyword recommendation system 130
may analyze morphemes of keywords that are included in the entire document text of
the web page of the advertised site and select a keyword that is registered as the
advertisement keyword.

In operation S340, the advertisement keyword recommendation system 130
displays the recommendation advertisement keyword for the advertiser based on the
result of the analysis. Hereinafter, operation S340 will be further described in detail with reference to FIG. 4.

FIG. 4 is a flowchart illustrating an example of operation S340 of FIG. 3 in detail.

Referring to FIGS. 1 through 4, in operation S410, the advertisement keyword recommendation system 130 selects the main keyword and the advertisement keyword based on the result of the analysis. Specifically, in operation S410, the advertisement keyword recommendation system 130 may analyze a total number of times that a particular keyword appears in the entire document set on a web page of the advertised site and a number of documents that include the particular keyword in the entire document set, and select the main keyword based on the result of the analysis.

In operation S420, the advertisement keyword recommendation system 130 computes an average of the selected main keyword and the advertisement keyword.

In operation S430, the advertisement keyword recommendation system 130 determines the recommendation advertisement keyword based on the average. Specifically, in operation S430, when the average of the main keyword and the advertisement keyword is greater than the reference value, the advertisement keyword recommendation system 130 may determine a corresponding keyword as the recommendation advertisement keyword.

In operation S430, when the advertisement keyword recommendation system 130 provides the advertiser with more than a predetermined number of recommendation advertisement keywords, the advertiser may take great pains to determine which advertisement keyword to select. Therefore, only a predetermined number of recommendation advertisement keywords are provided in order to prevent the above problem and improve the advertising effect.

For example, when the reference value is '50' and the average of the main keyword or the advertisement keyword is '60', the advertisement keyword recommendation system 130 may determine as the recommendation advertisement keyword either the main keyword or the advertisement keyword.

As described above, the according to the present invention, the method of recommending the advertisement keyword may select only a keyword greater than a predetermined reference value and determine the selected keyword as the
recommendation advertisement keyword, instead of using both the main keyword and the advertisement keyword.

In operation S440, the advertisement keyword recommendation system 130 may display the determined recommendation system for the advertiser.

For example, when the advertiser directly enters the URL of the advertised site using the input module 210 of FIG. 2, the advertisement keyword recommendation system 130 may directly display the determined recommendation advertisement keyword for the advertiser using the display module 240.

Also, when the URL of the advertised site entered by the advertiser is received using the advertiser terminal 110 of FIG. 1, that is, when the advertisement keyword recommendation system 130 transmits the determined recommendation advertisement keyword to the advertiser terminal 110 via the communication network 120 in operation S440, the advertiser terminal 110 may receive the recommendation advertisement keyword to display for the advertiser.

As described above, according to the present invention, the method of recommending the advertisement keyword may extract keywords from an advertised site that an advertiser desires to advertise, analyze the extracted keywords, and recommend an appropriate advertisement keyword for the advertiser based on the result of the analysis.

Also, according to the present invention, when the URL of the advertised site that an advertiser desires to advertise is received, the method of recommending the advertisement keyword may extract keywords from an advertised site of a URL, analyze the extracted keywords, and recommend an optimal advertisement keyword for the advertiser based on the result of the analysis.

Also, according to the present invention, a recommendation advertisement keyword is provided based on the result of analysis with respect to keywords of an advertised site. Therefore, the advertiser may easily select an advertisement keyword capable of more effectively advertising the advertised site.

The exemplary embodiments of the present invention include computer-readable media including program instructions to implement various operations embodied by a computer. The media may also include, alone or in combination with the program instructions, data files, data structures, tables, and the like. The media and program
instructions may be those specially designed and constructed for the purposes of the present invention, or they may be of the kind well known and available to those having skill in the computer software arts. Examples of computer-readable media include magnetic media such as hard disks, floppy disks, and magnetic tape; optical media such as CD ROM disks; magneto-optical media such as floptical disks; and hardware devices that are specially configured to store and perform program instructions, such as read-only memory devices (ROM) and random access memory (RAM). Examples of program instructions include both machine code, such as produced by a compiler, and files containing higher level code that may be executed by the computer using an interpreter.

According to the present invention, there may be provided a method and system for recommending an advertisement keyword which can extract keywords from an advertised site that an advertiser desires to advertise, analyze the extracted keywords, and recommend an appropriate advertisement keyword for the advertiser based on the result of the analysis.

Also, according to the present invention, there may be provided a method and system for recommending an advertisement keyword which can extract keywords from an advertised site of a URL when the URL of the advertised site that an advertiser desires to advertise is received, analyze the extracted keywords, and recommend an optimal advertisement keyword for the advertiser based on the result of the analysis.

Although a few embodiments of the present invention have been shown and described, the present invention is not limited to the described embodiments. Instead, it would be appreciated by those skilled in the art that changes may be made to these embodiments without departing from the principles and spirit of the invention, the scope of which is defined by the claims and their equivalents.
CLAIMS

1. A method of recommending an advertisement keyword, the method comprising:
   receiving from an advertiser a Universal Resource Locator (URL) of an advertised site;
   extracting a keyword by searching through the advertised site of the URL;
   analyzing the extracted keyword; and
   displaying a recommendation advertisement keyword for the advertiser based on the result of the analysis.

2. The method of claim 1, wherein the extracting searches for the advertised site of the URL and extracts a biz-keyword from the advertised site, and the biz-keyword has been sold as the advertisement keyword or exposed for a keyword advertisement service at least once.

3. The method of claim 1, wherein the analyzing classifies the extracted keyword into a main keyword and the advertisement keyword.

4. The method of claim 1, wherein the analyzing analyzes a total number of times that a particular keyword appears in the entire document set on a web page of the advertised site and a number of documents that include the particular keyword in the entire document set, and selects a main keyword based on the result of the analysis.

5. The method of claim 4, wherein the analyzing further comprises:
   analyzing the extracted keyword and assigning a weight to a keyword that has an inter-word relevance, based on the result of the analysis.

6. The method of claim 5, wherein the analyzing and the assigning classifies as a representative keyword a keyword of which the inter-word relevance is greater than a reference value based on the analyzed inter-word relevance, and assigns a weight to the classified keyword.

7. The method of claim 6, further comprising:
analyzing morphemes of keywords that are included in the entire document text on the web page of the advertised site and selecting a keyword that is registered as the advertisement keyword, based on the result of the analysis.

8. The method of claim 7, wherein the displaying comprises:
   selecting the main keyword and the advertisement keyword based on the result of the analysis;
   computing an average of the selected main keyword and the advertisement keyword;
   determining the recommendation advertisement keyword based on the average;
   and
   displaying the determined recommendation advertisement keyword for the advertiser.

9. A computer-readable recording medium storing a program for implementing the method according to any one of claims 1 through 8.

10. A system for recommending an advertisement keyword, the system comprising:
    an input module configured to receive from an advertiser a URL of an advertised site;
    an extractor configured to extract a keyword by searching through the advertised site of the URL;
    an analyzer configured to analyze the extracted keyword; and
    a display module configured to display a recommendation advertisement keyword for the advertiser based on the result of the analysis.

11. The system of claim 10, wherein the extractor searches for the advertised site of the URL and extracts a biz-keyword from the advertised site, and the biz-keyword has been sold as the advertisement keyword or exposed for a keyword advertisement service at least once.

12. The system of claim 10, wherein the analyzer classifies the extracted keyword
into a main keyword and the advertisement keyword.

13. The system of claim 10, wherein the analyzer analyzes a total number of times that a particular keyword appears in the entire document set on a web page of the advertised site and a number of documents that include the particular keyword in the entire document set.

14. The system of claim 10, wherein the analyzer analyzes the extracted keyword and assigning a weight to a keyword that has an inter-word relevance, based on the result of the analysis.

15. The system of claim 14, wherein the analyzer classifies as a representative keyword a keyword of which the inter-word relevance is greater than a reference value based on the analyzed inter-word relevance, and assigns a weight to the classified keyword.

16. The system of claim 15, wherein the analyzer analyzes morphemes of keywords that are included in the entire document text on the web page of the advertised site and selects a keyword that is registered as the advertisement keyword, based on the result of the analysis.

17. The system of claim 16, wherein the display module selects the main keyword and the advertisement keyword based on the result of the analysis, and displays the determined recommendation advertisement keyword for the advertiser when the recommendation advertisement keyword is determined based on a computed average of the selected main keyword and the advertisement keyword.
FIG. 2

INPUT MODULE  210  EXTRACTOR  220  ANALYZER  230  DISPLAY MODULE  240

DB

250
FIG. 3

START

RECEIVE URL OF ADVERTISED SITE FROM ADVERTISER

EXIT KEYWORD BY SEARCHING THROUGH ADVERTISED SITE OF URL

ANALYZE EXTRACTED KEYWORD

DISPLAY RECOMMENDATION ADVERTISEMENT KEYWORD FOR ADVERTISER BASED ON RESULT OF ANALYSIS

END
FIG. 4

START

S340

SELECT MAIN KEYWORD & ADVERTISEMENT KEYWORD BASED ON RESULT OF ANALYSIS

S410

COMPUTE AVERAGE OF MAIN KEYWORD & ADVERTISEMENT KEYWORD

S420

DETERMINE RECOMMENDATION ADVERTISEMENT KEYWORD BASED ON AVERAGE

S430

DISPLAY DETERMINED RECOMMENDATION ADVERTISEMENT KEYWORD FOR ADVERTISER

S440

END
INTERNATIONAL SEARCH REPORT

PCT/KR2007/005567

A. CLASSIFICATION OF SUBJECT MATTER

G06Q 30/00(2006.01)i

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)

IPC 8 G06Q 30/00

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

Korean utility models and applications for utility models since 1975

Japanese utility models and applications for utility models since 1975

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

e-KIPASS(KIPO internal) "advertisement, recommend, keyword, search"

C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
<thead>
<tr>
<th>Category</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No</th>
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<td>A</td>
<td></td>
<td>4-8, 13-17</td>
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<td>Y</td>
<td>KR 10-2006-0103034 A (DAUM COMMUNICATION CORP ) 28 September 2006 See abstract, figures 1-12, claims 1-40</td>
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Date of the actual completion of the international search
11 FEBRUARY 2008 (11.02.2008)

Date of mailing of the international search report
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